

SOUTH DAKOTA GAME, FISH AND PARKS COMMISSION MEETING AGENDA

SEPTEMBER 4-5, 2025 | RAPID CITY, SD OUTDOOR CAMPUS - WEST

MEETING INFO

This agenda is subject to change without prior notice.

Date and Time: September 4, 2025, from 1-5 pm MT | September 5, 2025, from 8 am-12 pm MT **Meeting Location:** Outdoor Campus – West, 4130 Adventure Trail, Rapid City, SD 57702

Webinar Info: We will be using Zoom Webinar® for this meeting. As a participant, you will not have audio or video capabilities by default. During the open forum and public hearing, if you'd like to testify, please 'Raise Your Hand' using the button at the bottom of the screen, or by pressing *9 on your phone. To lower your hand via phone, press *9 again. When it's your turn to speak, the meeting host will unmute you, allowing you to have audio but no video. If your phone is muted when called upon, press *6 to unmute.

- *9 to 'Raise Your Hand' or 'Lower Your Hand.'
- *6 to Unmute or Mute

Please inform Gail Buus at gail.buus@state.sd.us by 1 pm MT if you plan to speak during the meeting. This helps us to accurately identify and call on speakers during the session. Thank you for your cooperation!

Zoom Webinar: Click here to join the meeting
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Meeting ID: 912 6417 6710 Passcode: 970458
Video Conference ID: 91264176710@zoomcrc.com

AGENDA

Call Meeting to Order (1 pm MT / 2 pm CST)

Division of Administration

Action Items

- Conflict of Interest Disclosure
- 2. Approval of Previous Meeting Minutes available at https://gfp.sd.gov/commission/archives
- 3. Additional Commissioner Salary Days

Informational Items

- 4. Staff Introductions
- 5. McCook Lake Cleanup

Public Hearing (2 pm MT / 3 pm CST)

The portion of the meeting is designated for public comment finalizations.

Open Forum – following the conclusion of the Public Hearing

The portion of the meeting is designated for public comment on petitions, proposals, and other items of interest not on the agenda.

Petitions

6. Petition #245 - Resident Bison Tags

Finalizations

- 7. AIS Species List and Exemptions
- 8. Mountain Lion Hunting Season



SOUTH DAKOTA GAME, FISH AND PARKS COMMISSION MEETING AGENDA

SEPTEMBER 4-5, 2025 | RAPID CITY, SD OUTDOOR CAMPUS - WEST

Division of Parks and Recreation

Action Items

9. Spring Creek Restaurant Lease

Informational Items

- 10. CSP Resort Concession Agreement Update
- 11. Dock 44 Concession Lease Update
- 12. Black Hills Playhouse Facility Assessment
- 13. Recreational Trails Program 2025 Project Selections
- 14. Fall Capital Development Projects in the West Region
- 15. Rally Update, Mickelson Trail Trek, and 60th Annual Buffalo Roundup Schedule
- 16. Upcoming Fall Park Events
- 17. July and August Camping Unit and Revenue Report

Division of Wildlife

Action Items

18. Elk Contingency Licenses

Informational Items

- 19. GPA Auction Results
- 20. Pete Lien and Sons Shooting Sports Complex Update
- 21. Lakeshore Toolkit: Resources, Tips, and Permits
- 22. Upland Game Bird Outlook
- 23. License Sales Update

Solicitation of Agenda Items

Now is the time to submit agenda items for the Commission to consider at a following commission meeting.

Adiourn

The next Regular Commission Meeting will be held on October 9, 2025, starting at 1 pm MT at the Beeler Community Center, 203 Main Avenue, Lemmon, SD.



South Dakota Game, Fish and Parks

523 E Capitol Avenue | Pierre, South Dakota 57501

July 10-11, 2025 | NFAA Easton Yankton Archery Center, Yankton, SD

REGULAR COMMISSION MEETING

Call Meeting to Order

Chair Rissler called the meeting to order at 1 pm CST at the NFAA Easton Yankton Archery Center on July 10, 2025. Commissioners Stephanie Rissler, Bruce Cull, Jon Locken, and Travis Theel, Jim White, Julie Bartling, and Travis Bies were present. With seven commission members present or online, a quorum was established. The public and staff could listen via SDPB Livestream and participate via conference or in person, with approximately 110 total participants attending via Zoom or in person.

1. Conflict of Interest Disclosure

[Action Item]

Chair Rissler requested the disclosure of any potential conflicts of interest, but none were brought forward.

2. Approval of Previous Meeting Minutes

[Action Item]

Chair Rissler called for any additions or corrections to the regular minutes of the March 2025 meeting. Minutes are available at https://gfp.sd.gov/commission/archives/.

MOTIONED BY CULL, SECONDED BY BARTLING TO APPROVE THE JUNE 2025 REGULAR COMMISSION MEETING MINUTES. The motion carried unanimously.

3. Additional Salary Days

[Action Item]

Chair Rissler called for additional salary days from the Commissioners. Additional days were submitted for approval for Commissioner Theel for one day, Commissioner Bies for two days, and Commissioner Cull for one day.

MOTIONED BY LOCKEN, SECONDED BY WHITE TO APPROVE THE ADDITIONAL COMMISSIONER SALARY DAYS. The motion carried unanimously.

4. New Staff Introductions

[Info Item]

Jeff VanMeeteren, Director of Parks & Recreation, introduced one new employee, John Sclare, the new Conservation Foreman for Oahe Downstream.

Tom Kirschenmann, Director of Wildlife, introduced three new employees: New employees included: Gary English, Shooting Range Manager, Rapid City; Hilary Morey, Outdoor Recreation Engagement Specialist, Pierre; and Jacob Knutsen, Conservation Technician, Ft. Pierre. Kirschenmann also shared an award the agency received, specifically the hatchery system and staff for efforts of implementing RAS. This is the Excellence in Conservation presented by the Midwest Association of Fish and Wildlife Agencies.

Public Hearing

Senior Staff Attorney Nick Michels opened the floor at 2:12 pm CST for discussion from those in attendance in matters of importance to them that are listed on the agenda as finalization. No testimony was provided by the public, so the Public Hearing was closed at 2:49 pm CST.

Agenda Item #5: Custer State Park Antelope Season

No testimony provided.

Agenda Item #6: Shooting Sports Complex Fee Schedule

2:04 pm: Nancy Hilding of Black Hawk, SD representing Prairie Hills Audubon Society testified virtually in support of the shooting sports complex fees.

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Senior Staff Attorney Michels closed the public hearing closed at 2:08 pm.

Open Forum

Senior Staff Attorney Nick Michels opened the floor at 2:08 pm CST for discussion from those in attendance in matters of importance to them that are listed on the agenda, not as a finalization or may not be on the agenda.

2:09 pm: Josh Flynn, representing the Rocky Mountain Elk Foundation announced the winners of the 2025 Special Elk Tags.

2:12 pm: Scott Glanzer of Bridgewater, SD, representing S&S Sales testified in support of live crawfish sales.

2:15 pm: Tim Goodwin of Rapid City, SD, representing the Lion Hunt Group, testified in person supporting the Mountain Lion Season and voiced wanting to continue trying to cooperate with local houndsmen on hunting mountain lions. He also testified in support of Bounty Hunting.

2:18 pm: Kay Swihart, Yankton, SD representing the Southeast Prairie Burn Association, promoting controlling the invasion of cedar trees, International Dark Sky and the Sierra Club testified in person requesting 30 minutes to present on light pollution and the impact of health for humans, plants, pollinators, and wildlife and how it would benefit state parks and tourism. She brought attention to the National Geographic photographer who would possibly be coming to South Dakota in September to speak about 20,000 species that are endangered and threatened he photographs.

2:23 pm: Nancy Hilding of Black Hawk, SD representing Prairie Hills Audubon Society testified virtually in support of the Black Hills Beaver Action Plan but also stated having two concerns about the plan. She also testified about the Otter Action Plan and failure to have West River reintroduction.

2:26 pm: Chase Larsen, representing the Black Hills Mountain Lion Foundation, testified virtually in opposition of increasing the use of hounds for hunting Mountain Lions.

2:30 pm: Jeremy Wells of Sturgis, SD landowner in the fire protection district in the Black Hills testified in person in support of mountain lion hound hunting and Petition #243.

Senior Staff Attorney Michels closed the open forum at 2:34 pm CST.

5. Petition #243 – Use of Hounds to Harvest Mountain Lions During Bobcat Season [Action Item: Petition]

Director Kirschenmann addressed the commission on the department recommendation of denying the petition submitted the SD Houndsmen Association to modify the mountain hunting season. The department recommendation to deny was based on the fact that the agency was also bringing forward a recommendation to modify the season, which would provide more opportunity for both those hunters using dogs and for boot hunters. The recommendation focuses on expanding the geographic area that would find a balance between boot hunters and an attempt to address concerns shared by landowners and sports from the southern end of the hills desiring to see more lion harvest. The commission denied the petition.

MOTIONED BY CULL, SECONDED BY LOCKEN TO DENY PETITION #243. Motion carried unanimously.

MOTIONED BY BIES, SECONDED BY LOCKEN TO ADOPT RESOLUTION 25-10 DENYING PETITION #243. Motion carried unanimously.

South Dakota Game, Fish and Parks

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RESOLUTION 25-10

WHEREAS, South Dakota Houndsmen Association of Rapid City, South Dakota, submitted a Petition to the Game, Fish and Parks Commission (Commission) dated July 2, 2025, requesting that the Game, Fish and Parks Commission amend ARSD § 41:06:61:06 (Application requirements - License and season restrictions - Special conditions - Carcass check-in procedures) – to open the use of dogs to harvest mountain lions in the Black Hills Fire Protection District for the reasons more fully set out in the petition (hereinafter referred to as "the Petition"); and

WHEREAS, all members of the Commission have been furnished with and have reviewed a copy of the Petition; and

WHEREAS, the Commission has been advised that a copy of the Petition has been served on all members of the Interim Rules Review Committee and Director of the Legislative Research Council as required by SDCL § 1-26-13; and

WHEREAS, the Commission has been advised that SDCL § 1-26-13 requires that within thirty (30) days of submission of a Petition, the Commission shall either "deny the petition in writing (stating its reasons for the denials) or shall initiate rule-making proceedings in accordance with SDCL 1-26-4."; and

WHEREAS, the Commission has been advised and is of the opinion that a hearing on the Petition is neither statutorily required nor necessary; and

WHEREAS, the Commission has reviewed and carefully considered the requirements and procedures set out in SDCL §1-26-13 and the contents of the Petition, including the reasons advanced by Petitioner in support to open the use of dogs to harvest mountain lions in the Black Hills Fire Protection District; and

WHEREAS, the department currently has a recommendation for the Commission's consideration to expand the use of hunting mountain lions with dogs in the Black Hills to a larger geographic unit than the current unit encompassing Custer State Park that will allow the harvest of up to 15 mountain lions and adjust interval length from two to three weeks per interval; and

WHEREAS, the recommendation of 15 access permits and expanding the geographic area for the use of dogs does not only provide additional opportunity but also attempts to address concerns expressed by the pubic and landowners to harvest additional mountain lions in an area where boot harvest has been minimal; and

WHEREAS, the department recommendation also includes the removal of the requirement of an access permit to hunt during intervals within Custer State Park for boot hunting, which will increase opportunity.

NOW, THEREFORE, BE IT RESOLVED, that the Commission does hereby deny the Petition for the reasons hereinabove stated in this Resolution, which said Resolution as adopted by the Commission shall constitute the Commission's written denial of the Petition and its reasons therefore.

BE IT FURTHER RESOLVED that the Petition, a record of the Commission's discussions concerning same, and this Resolution be made a part of the Minutes of the Commission meeting at which this Resolution is adopted, and further, that the Department be and it is hereby authorized and directed in compliance with SDCL §1-26-13 to serve a copy of an extract of that portion of the Commission minutes which pertain to the Commission's discussion of the Petition and its adoption of this Resolution, including a copy of the Resolution, on all members of the Interim Rules Review Committee and Director of the Legislative Research Council with copies also to be provided to the Petitioner, South Dakota Houndsmen Association of Rapid City, South Dakota.

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6. Custer State Park Antelope Season

The commission took action to finalize administrative rule change to open the Custer State Park Antelope Hunting Season presented by John Kanta, Terrestrial Section Chief, and took administrative action to approve five buck only antelope licenses for the season.

MOTIONED BY BIES, SECONDED BY THEEL TO APPROVE THE FINALIZATION OF THE CSP ANTELOPE SEASON. The motion carried unanimously.

MOTIONED BY THEEL, SECONDED BY BIES TO APPROVE THE FINALIZATION OF THE CSP ANTELOPE LICENCES. The motion carried unanimously.

7. Shooting Sports Complex Fee Schedule

[Action Item: Finalization]

[Action Item: Proposal]

[Action Item: Proposal]

[Action Item: Wildlife]

[Action Item: Finalization]

The commission took action to finalize the proposed fee structure for the Pete Lien & Sons Shooting Sports Complex, presented by John Kanta, Terrestrial Section Chief.

MOTIONED BY LOCKEN, SECONDED BY BARTLING TO APPROVE THE SHOOTING SPORTS COMPLEX FEE SCHEDULE. Motion carried unanimously.

8. AIS Species List

Jake Davis, Fisheries Program Administrator, brought for the Department proposals from the Wildlife Division. These included recommended changes to the Aquatic Invasive Species chapter of Administrative Rules. Specifically, they include adding Prussian carp to the current list of Aquatic Invasive Species. Additionally, adding an exemption that Red Swamp Crayfish may be imported, possessed and transported alive if solely for human consumption, but can't be possessed alive at a location that sells bait. The final recommendation was that the "European rudd" was modified to "rudd" to reflect changes in common names and the snakehead species were grouped in the genus Channa.

MOTIONED BY BIES, SECONDED BY BARTLING TO APPROVE THE PROPOSAL OF THE AIS SPECIES LIST. The motion carried unanimously.

9. Mountain Lion Hunting Season

The commission took action to propose a change to the Mountain Lion Hunting Season in the Black Hills Fire Protection District (BHFPD). The proposal, presented by Andrew Norton, Wildlife Program Administrator and John Kanta, Terrestrial Section Chief, will expand season dates and increase the unit size where hunting with dogs is allowed within the BHFPD, and no longer require access permits to hunt mountain lions in Custer State Park without the use of dogs.

MOTIONED BY BIES, SECONDED BY WHITE TO APPROVE THE MOUNTAIN LION HUNTING SEASON PROPOSAL. Motion carried unanimously.

10. Black Hills Beaver Action Plan

Andrew Norton, Wildlife Program Administrator, presented information on the Black Hills Beaver Action Plan. The commission took action to adopt the plan.

MOTIONED BY, SECONDED BY CULL TO APPROVE THE BLACK HILLS BEVER ACTION PLAN TO BE FINALIZED IN SEPTEMBER. The motion carried unanimously.

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[Action Item: Wildlife]

[Info Item: Wildlife]

[Info Item: Wildlife]

[Info Item: Wildlife]

11. State Wildlife Action Plan

Andrew Norton, Wildlife Program Administrator, presented information on the State Wildlife Action Plan. The commission took action to adopt the plan.

MOTIONED BY THEEL, SECONDED BY LOCKEN TO APPROVE THE BLACK HILLS BEVER ACTION PLAN TO BE FINALIZED IN SEPTEMBER. The motion carried unanimously.

12. Midwest Walleye Challenge Summary

Brian Blackwell, Program Lead, Fisheries Research and Survey, provided an update on the Midwest Walleye Challenge (MWC). The MWC is an online fishing event where anglers participate in citizen science. Anglers provide information about the walleyes they catch and are eligible to win prizes. The 2025 South Dakota MWC occurred from April 1 – June 29. A total of 104 South Dakota anglers signed up for the 2025 MWC. Participating anglers fished a combined total of 1,926 hours and caught 1,822 walleyes from 54 South Dakota waters. The average size of the walleyes caught was 16.1 inches, with the largest reported walleye measuring 29.3 inches. The South Dakota Department of Game, Fish and Parks (SDGFP) will use information from the MWC to gain information about walleye populations that are not annually sampled and to compare angler catches with SDGFP sampling data. The angler-reported walleye lengths may indicate the presence of young walleyes, indicating stocking success (if stocked) or natural reproduction. Angler data can also be compared across in-state populations and populations in other states participating in the MWC. The angler location information will also show which waterbodies anglers are fishing. Heavy use of a lake could result in increased fisheries management efforts or a possible need for access improvements. The 2025 MWC assisted with angler engagement in South Dakota fishing while providing walleye population data to SDGFP.

13. Bounty Program Summary

Jacquie Ermer, Northeast Regional Wildlife Supervisor, provided a summary of the 2025 Nest Predator Bounty Program. This year the program saw just over 1,800 participants; 37% of all participants were youth under the age of 18. The youth age group submitted the most nest predators than any other age group. Raccoons were again the most common nest predator to be submitted, followed by opossum and striped skunk. The program ended on June 6th after reaching the maximum payout of \$500,000. The National Trappers Association Trapping Handbook was provided to all participating youth. Sixteen youth were drawn for the weekly Benton Howe Youth Trap Giveaway.

14. Fate Dam Habitat Addition and Assessment

Dylan Gravenhof, Fisheries Biologist, Fort Pierre, presented an update on an aquatic habitat research project occurring at Fate Dam, near Presho, SD. Improving aquatic habitat and access continues to be a priority for GFP. One tool to accomplish this has been to deploy both artificial and natural fish structures as supplemental habitat. The goal of this project is to evaluate how and when fish utilize these structures. In the spring of 2024, GFP staff tagged fish with acoustic transmitters to track baseline movements prior to habitat improvements. In the spring of 2025, GFP staff led efforts to deploy 182 artificial Mossback structures and 182 cedar trees in Fate Dam. Additional fish were tagged in spring 2025 and will be again in spring 2026 to track fish use of these structures. At the conclusion of the project, results will provide guidance to future habitat projects pertaining to if we continue using these structures, what type of structures to use, and areas where these habitat structures should be used.



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[Info Item: Wildlife]

[Action Item: Parks]

[Info Item: Parks]

[Info Item: Parks]

[Info Item: Parks]

15. License Sales Update and Deer Season Drawing Results

Director Kirschenmann provided a short report on license sales for the month of June. Kirschenmann indicated that there was not much change from last month's report, however sales remain strong for the year. The report also included some stats from the recent combined deer draw and dates for upcoming application periods and deadlines.

16. City of Pierre – Waterfront Lease Amendment

Sean Blanchette, Parks and Recreation Business Administrator presented an amendment document to extend the GFP's current lease to the City of Fort Pierre for the waterfront property. Blanchette discussed the history of property ownership and current lease and provided maps and supporting information on recent construction of a new marina and pedestrian bridge to reconnect the recreational trail over the marina inlet. The lease term extension was requested by the City to secure grant funds to cover the costs of the bridge. Blanchette explained that the Department intends to continue to lease the property to the City on a long-term basis and is supportive of the extension. Blanchette requested Commission approval of the Amendment document as well as authorization for Director VanMeeteren to sign it on the Department's behalf.

17. CSP Resort Concession Agreement Update

Sean Blanchette, Parks and Recreation Business Administrator provided an update from the June report of exploring the option to extend the concession lease at Custer State Park. Blanchette stated that after evaluation of the extension option, the Department concluded that it was in its best interest to develop an RFP for a new concession agreement. The Department will retain its consultant, CHM Government Services, to provide expertise in an upcoming facilities condition assessment, and appraisals of the personal property and possessory interest assets. All information yielded from these tasks will be utilized towards underwriting the RFP and draft Concession Lease to be advertised. Blanchette shared the target date of Concession Agreement RFP of February 1, 2026, with periodic progress updates to the Commission over the next several months.

18. ADA Remodeling Project Goal Progress

Al Nedved, Parks and Recreation Deputy Director gave an update on several Americans With Disabilities Act (ADA) projects that the Division of Parks and Recreation is working on for 2025. They include several ADA compliant campsites to be expanded across several parks, including an accessibility project of the Custer State Park Visitor Center amphitheater. Al also covered some of the process that the Department uses to assess and prioritize ADA compliance projects through a self-led inspection process.

19. Disc Golf Courses in SD State Parks

Shane Bertsch, District Park Supervisor of Lewis and Clark Recreation Area provided information on disc golf in South Dakota State Parks. The first disc courses were installed in state parks in the late 1990's. Disc golf continues to grow in popularity. Currently there are 14 parks with disc golf courses. Palisades state park will be adding one soon. South Dakota state parks have been partnering with kidsinparks.com. This is a national network of disc golf courses designed for families in mind. Through the partnership with Kids in Parks Track Trail program, kids can earn prizes when they play disc golf in the parks. The program also funds a portion of the signage and score cards for the courses. Discs are available for checkout at the visitor's center or offices of the parks that have courses. Several courses have tournaments and leagues during the summer.



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[Info Item: Parks]

[Info Item: Parks]

[Info Item: Parks]

[Info Item: Parks]

20. Reservation Customer Service Review Process

Derek Dorr, SE Regional Park Supervisor, discussed the history of our customer review format, the past systems, as well as what the Division is using with our current platform. The presentation went over why these reviews are important to GFP and what we gain from our user's perspective to help appropriately manage park areas and provide additional amenities in correct areas.

21. Southeast Region Park Projects

Derek Dorr, SE Regional Park Supervisor, presented information about the importance of the capital development budget to park operations. Derek touched on some of the "headliner" projects park staff are working on now and in the future in the SE. A majority of time was spent discussing the smaller staff lead projects and how important they are to our users. Derek highlighted the talented staff that complete these projects, above and beyond their normal responsibilities.

22. Upcoming Park Events for the Summer

April Larson, Marketing Coordinator, presented an update on summer events happening across the state park system. Highlights included the Butterfly Festival at Oahe Downstream on July 19, Lantern Tours at Fort Sisseton on July 26, and the Good Earth Concert Series continuing through the end of the month. She also previewed major August events such as the Sioux River Folk Festival at Newton Hills, Halloween at the Ranch at Pierson Ranch, and the Adams Homestead Celebration. Ongoing programs such as naturalist-led activities, the Make a Splash activity, and the tagged fish promotion continue to encourage visitor participation throughout the season.

23. June Camping Unit and Revenue Report

Jeff VanMeeteren, Director of Parks & Recreation, presented the June monthly and year-to-date report numbers for the Division of Parks & Recreation related to camping units and revenue. The last half of June's weather was very favorable for the Divisions camping units and a lot of ground was made up since the May report. YTD the Divisions camping units are down 4% from last year, however, July is off to a strong start with the 4th of July week. The Parks Division revenue is up 22% for the month of June with both PEL and camping services revenue being very strong for the month and exceeding the goal of 20%. YTD, the Divisions revenue is up 16% overall with daily entrance license sales being particularly strong at 33%. Various graphs and charts were shared with the Commission to depict how park revenue comes in on a monthly basis throughout the year as well as the impact of the new non-resident park entrance license fees as compared to other entrance fees.

24. Adjourn [Action Item]

A Regular Commission Meeting will be held on September 4-5, 2025, at the Outdoor Campus West in Rapid City, SD starting at 1 pm MST.

MOTIONED BY THEEL, SECONDED BY LOCKEN TO ADJOURN THE MEETING AT 8:57 AM CST ON July 11, 2025. Motion carried unanimously.

Submitted respectfully,

Kevin Robling, Department Secretary

South Dakota - Game, Fish, and Parks

Petition for Rule Change

A new form was just submitted from the http://gfp.sd.gov/ website with the following information:

ID: 245

Petitioner

kyle couchey

Name:

Address:

148 N SUNSET DR

MINA, SD 57451

Email: sdcouchey@gmail.com

Phone: 605-216-0533

Rule

41:06:60:02 and 41:06:42:02

Decribe Change:

Identification:

Make the tags available to residents only draw pool at 60% of the tags available. Make 40% of the tags available to non-resident and resident draw pool. Currently the draw is Trophy Bison 2 resident only pool 8 combined pool Non-Trophy Bison 7 resident only pool 13 combined pool

Reason for

Change:

Currently more non residents than residents have received bison trophy and non-trophy tags in the current draw allocation. The animals of the state are to be managed by the state for their residents. I do not want to exclude non residents, but non-residents should not receive the majority of tags. This has occurred in all of the previous draws according to the draw statistics data available. These tags are sold at the same price to residents and non-residents alike.

GAME, FISH AND PARKS COMMISSION ACTION **FINALIZATION**

AQUATIC INVASIVE SPECIES

Chapter 41:10:04

Commission Meeting Dates: Proposal July 10,2025 **Yankton**

> Rapid City **Public Hearing** Sept. 4,2025 **Rapid City Finalization** Sept. 4-5,2025

DEPARTMENT RECOMMENDATION

Proposed changes:

- 1. Add Prussian carp to the current list of Aquatic Invasive Species.
- 2. Create an exemption for red swamp crayfish to be possessed alive in certain circumstances.
- 3. Modify current listing for European rudd and snakehead species.

Department recommended changes to proposal:

None

SUPPORTIVE INFORMATION

- 1. Prussian carp have established self-sustaining populations in North America, including Canada. Prussian carp can resemble goldfish and cause harm to existing baitfish populations if established.
- 2. Red swamp crayfish are primarily imported for human consumption rather than use as bait.
- 3. The common name of "European rudd" was modified to "rudd" in the most recent American Fisheries Society publication.
- 4. Placing all Snakehead species into one grouping would simplify the rule and prevent the need for changes if additional snakehead species are introduced into North America or scientific species names are later changed.

DRAFT ADMINISTRATIVE RULE CHANGES

The following are proposed draft changes that are intended to incorporate the changes recommended for Commission proposal.

- 41:10:04:01. List of aquatic invasive species. Species classified as aquatic invasive species in the state are as follows:
 - (1) Fish:
 - (a) Black carp, Mylopharyngodon piceus;
 - (b) Common carp, Cyprinus carpio;
 - (c) Grass carp, Ctenopharyngodon idella;
 - (d) Bighead carp, Hypophthalmichthys nobilis;
 - (e) Silver carp, Hypophthalmichthys molitrix;
 - (f) European-Rudd, Scardinius erythrophthalmus;
 - (g) Giant s Snakehead, (Channa micropeltes spp.); (h) Northern snakehead, Channa argus;

APPROVE	MODIFY	REJECT	NO ACTION

- (i) Bullseve snakehead, Channa marulius;
- (i) Blotched snakehead, Channa maculata;
- (k)(h) Western mosquitofish, Gambusia affinis;
- (I)(i) Round goby, Neogobius melanostomus; and
- (m)(j) White perch, Morone americana; and
- (k) Prussian carp, Carassisus gibelio:

(2) Plants:

- (a) Brittle naiad, Najas minor;
- (b) Curly pondweed, Potamogeton crispus;
- (c) Didymo, Didymosphenia geminata;
- (d) Eurasian water-milfoil, Myriophyllum spicatum;
- (e) Purple loosestrife, Lythrum salicaria;
- (f) Flowering rush, Butomus umbellatus;
- (g) Common reed, Phragmites australis; and
- (h) Starry stonewort, Nitellopsis obtusa;

(3) Invertebrates:

- (a) New Zealand mudsnail, Potamopyrgus antipodarum;
- (b) Rusty crayfish, Orconectes rusticus;
- (c) Zebra mussel, Dreissena polymorpha;
- (d) Quagga mussel, Dreissena rostriformis bugensis;
- (e) Asian clam, Corbicula fluminea;
- (f) Red rimmed melania, Melanoides tuberculata;
- (g) Red swap crayfish, Procambarus clarkii; and
- (h) Spiny waterflea, Bythotrephes longimanus.

41:10:04:02. Aquatic invasive species exemptions. The following persons are exempt from SDCL 41-13A-2:

- (1) A person possessing a scientific collectors permit issued by the department;
- (2) A person authorized by the department to stock triploid grass carp for pond management purposes:
- (3) A person contracted by the department to conduct commercial fishing operations as authorized in SDCL 41-13-7;
- (4) A person in the process of removing an aquatic invasive species from a conveyance, as defined in SDCL 41-13A-1;
- (5) An owner or agent of the owner of a conveyance in the process of transporting the conveyance for decontamination of dreissenid mussels using a department approved department approved procedure;
- (6) An employee of a business approved by the department to transport and possess conveyances for the purpose of decontamination of dreissenid mussels;
- (7) A commercial plant harvester operating within the requirements of a department approved work plan or a lakeshore property owner operating within the requirements of a department approved permit; and
- (8) A lakeshore property owner in the process of transporting aquatic invasive species, for disposal, in a manner that minimizes possible introduction to new waters:
- (9) A person importing, transporting, or possessing live red swamp crayfish solely for the purpose of human consumption, provided the possession is not at a location licensed to sell bait; and (10) Except as provided in subsections (2) and (9), a person transporting or possessing any
- (10) Except as provided in subsections (2) and (9), a person transporting or possessing any aquatic invasive fish or crayfish species, provided that it is dead.

In the case of fish and crayfish, only dead fish and crayfish may be transported or possessed.

RESIDENT/NONRESIDENT CRITERIA

- 1. The Issue NA
- 2. Historical Considerations NA

APPROVE	MODIFY	REJECT	NO ACTION

- 3. Biological Considerations Efforts to slow the spread of new Aquatic Invasive Species into South Dakota.
- 4. Social Considerations NA
- 5. Financial considerations NA

RECRUITMENT, RETENTION, REACTIVATION (R3) CRITERIA

- 1. Does the regulation or fee inhibit a user's ability to participate? NA
- 2. Does the regulation increase the opportunity for new and existing users? NA
- 3. How does the regulation impact the next generation of hunters, anglers, trappers and outdoor recreationists? NA
- 4. Does the regulation enhance the quality of life for current and future generations by getting families outdoors? NA

FISCAL IMPACT

NA

GAME, FISH, AND PARKS COMMISSION ACTION FINALIZATION

Mountain Lion Hunting Season Chapter 41:06:02 and 41:06:61

Commission Meeting Dates: Proposal July 10-11, 2025 Yankton

Public Hearing September 4, 2025 Rapid City Finalization September 4-5, 2025 Rapid City

PROPOSED CHANGES

Duration: 2025-2026 and 2026-2027 hunting seasons

Season Dates: Black Hills Fire Protection District (BHFPD):

December 26, 2025 – April 30, 2026 December 26, 2026 – April 30, 2027

- * Temporary access permit intervals that allow the use of dogs for hunting in the designated unit within the BHFPD during the 2025-2026 season:
 - i. 3 permits: Dec. 26, 2025 Jan. 15, 2026.
 - ii. 3 permits: Jan. 16 Feb. 5, 2026.
 - iii. 3 permits: Feb. 6 Feb. 26, 2026.
 - iv. 3 permits: Feb. 27 Mar. 19, 2026.
 - v. 3 permits: Mar. 20 Apr. 9, 2026.
- * 2026-2027 season:
 - i. 3 permits: Dec. 26, 2026 Jan. 15, 2027.
 - ii. 3 permits: Jan. 16 Feb. 5, 2027.
 - iii. 3 permits: Feb. 6 Feb. 26, 2027.
 - iv. 3 permits: Feb. 27 Mar. 19, 2027.
 - v. 3 permits: Mar. 20 Apr. 9, 2027.

Outside Black Hills Fire Protection District: December 26, 2025 - Dec. 25, 2026 December 26, 2026 - Dec.25, 2027

Open unit: Statewide

<u>Licenses</u>: Unlimited (1 license per individual), residents only

Harvest Limit: BHFPD: 60 mountain lions or 40 female mountain lions

Includes harvest using temporary access permits that allow the use of dogs

Requirements and Restrictions:

- 1. No person may harvest more than one (1) mountain lion in a season.
- 2. No person may hunt mountain lions with the aid of traps or bait.
- 3. Shooting hours are ½ hour before sunrise to ½ hour after sunset.
- 4. No mountain lion with a spotted coat (kitten) and no mountain lion accompanying another mountain lion may be harvested.
- 5. A person may use an electronic call to hunt mountain lions.

^{*} Change to intervals and temporary access unit boundaries

- 6. All firearms, muzzleloaders, and archery equipment must meet the same minimum requirements as established in administrative rule for deer hunting.
- 7. The Game, Fish and Parks Commission, by resolution, may authorize the mountain lion season to extend beyond April 30.
- 8. The use of dogs to hunt mountain lions is allowed:
 - a. Year-round outside of the BHFPD, and;
 - b. From December 26 to April 30 within the designated area of the BHFPD for a person with an access permit that will be issued by a random drawing.
- 9. A person using dogs in the designated access permit area within the Black Hills Fire Protection District shall attempt to harvest the first legal mountain lion they have a reasonable opportunity to harvest, except under the condition where the lion pursued shows obvious signs of lactation.
- 10. Licensed hunters must accompany the dog handler when the dogs are released and must continuously participate in the hunt thereafter until the hunt is completed.
- 11. All mountain lions harvested within the Black Hills must be presented to a department representative at the Rapid City Regional Office within 24 hours of harvest for inspection. Any person who harvests a mountain lion outside of the Black Hills region must present the mountain lion to a department representative within 24 hours of harvest.

Proposed changes from last year:

1. Modify § 41:06:61 to expand season dates and increase the unit size where hunting with dogs is allowed within the BHFPD (Figure 1), and no longer require access permits to hunt mountain lions in Custer State Park without the use of dogs. Hunting mountain lions in the designated area with the use of dogs will be allowed for a total of fifteen individuals with access permits, provided the harvest limit has not been met. Three access permits will be issued in each of five 21-day intervals, starting December 26, provided the harvest limit has not been met.

SUPPORTIVE INFORMATION

Three-year averaged population estimates using the Lincoln-Petersen (LP) method suggest the mountain lion population has remained within the population objective of 200-300 individuals since 2019 (Figure 2). While the most recent LP estimate suggests a population above objective, the 3-year average is a more reliable estimate because it mitigates potentially misleading inference resulting from sampling variation, especially when sample sizes are low as indicated by large confidence intervals in some years (e.g., 2017/18, 2024/25). The overall trend under the current management structure in the Black Hills and since 2009 suggests a stable population.

Dogs were used to aid the harvest of about one-quarter of the statewide mountain lion harvest. Success among the fifteen access permits in Custer State Park which allowed the use of dogs averaged 47%, while harvest without the use of dogs in the Black Hills averaged 4% (Table 1). The recommended change to expand the area and time in which hunting with dogs may occur in the Black Hills is intended to promote additional mountain lion harvest in an area of the Black Hills that traditionally has relatively low mountain lion harvest (Figure 3). In addition, expanding the area and interval length an individual can hunt with dogs is expected to increase harvest success rates.

While the population has remained relatively stable in the Black Hills, harvest has increased the past two hunting seasons, and this recommendation is expected to further increase harvest. Consistent harvest at the current rate may reduce the population. Department staff will continue to monitor mountain lion harvest and population trends to assess impacts of potentially increased harvest.

Table 1: Mountain lion harvest for the Black Hills Fire Protection District, Custer State Park, and Prairie with and without the use of dogs. Success rates are included in parentheses. In the Black Hills success is based on active hunters and in CSP success is based on 15 permits available.

Year Black Hills		Custer State Park		Prairie		Statewide		
I Gai	No Dogs	No Dogs	w/ Dogs	No Dogs	w/ Dogs	No Dogs	w/ Dogs	Total
2020/21	39 (3.6%)	0	9 (60%)	4	6	43	15	58
2021/22	34 (3.3%)	1	7 (47%)	2	8	37	15	52
2022/23	37 (3.4%)	0	7 (47%)	4	10	41	17	58
2023/24	42 (3.8%)	0	5 (33%)	2	6	44	11	55
2024/25	45 (3.9%)	0	7 (47%)	7	7	52	14	66
Average	39 (3.6%)	0.2	7 (47%)	4	7	43	14	58

Figure 1. Black Hills Fire Protection District boundary with recommended new unit where access permits will be available to harvest mountain lions with the use of dogs (black diagonal hashed lines).

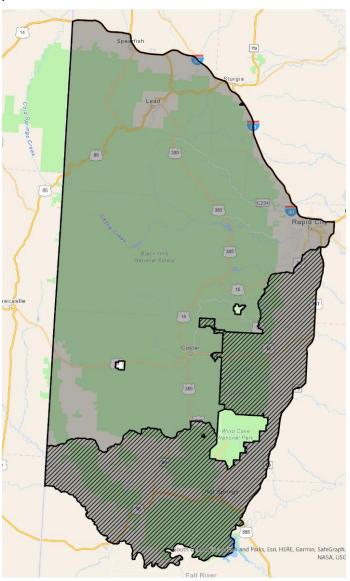


Figure 2. Mountain lion population objective (200-300), population estimates (dashed line), and inverse-variance weighted 3-year average trend line (solid line) for the Black Hills of South Dakota.

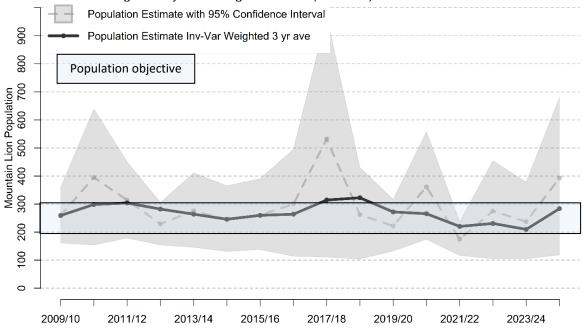
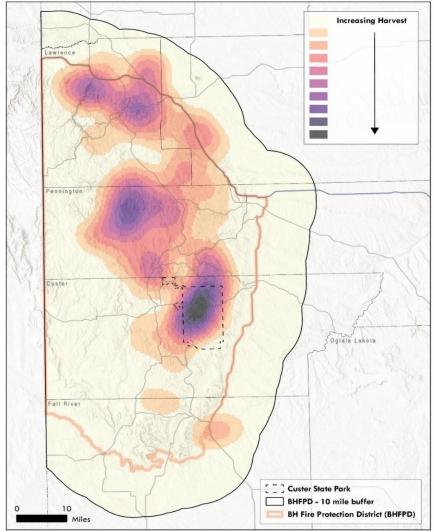


Figure 3. Harvest of mountain lions shaded by harvest intensity from 2020 to 2025.



DRAFT ADMINISTRATIVE RULE CHANGES

- 41:06:61:02. Black Hills Fire Protection District -- Harvest limit -- Season dates --- Season closure. The season harvest limit for the area within the Black Hills Fire Protection District is -60 sixty mountain lions or -40 forty female mountain lions. The mountain lion hunting season in the Black Hills Fire Protection District is open December -26 twenty-sixth through April -30 thirtieth, provided that the department Department of Game, Fish and Parks shall close the mountain lion hunting season in the Black Hills Fire Protection District if the harvest limit for that area is reached prior to April -30 thirtieth. Custer State Park is closed to mountain lion hunting, except for 75 persons who possess a mountain lion license and a temporary access permit structured to include:
- (1) Four hunting intervals, each having 15 access permits in which hunting with dogs is not allowed; and
- (2) Five hunting intervals, each having three access permits in which hunting with dogs is allowed:

Hunting in Custer State Park must begin with an interval that allows the use of dogs and must rotate every 14 days with an interval that does not allow the use of dogs, until the mountain lion season closes in the Black Hills Fire Protection District. The temporary access permits are issued free of charge and may be issued by a random drawing.

Temporary access permits allowing an individual to hunt with the use of dogs in the Black Hills Fire Protection District must be issued by a random drawing. An individual must possess a temporary access permit to hunt with dogs in those portions of the Black Hills Fire Protection District within an area bounded as follows: beginning at the junction of State Highway 79 and U.S. Highway 16/East Catron Boulevard in Rapid City, then westerly along U.S. Highway 16 to its junction with the Black Hills National Forest boundary, then southerly along the Black Hills National Forest boundary to its junction with South Rockerville Road, then southerly along South Rockerville Road to its junction with State Highway 40, then easterly along State Highway 40 to its junction with Pennington County Road 330 (Playhouse Road), then southerly to its junction with U.S. Highway 16A, then southerly along U.S. Highway 16A to its junction with the north boundary of Custer State Park, then westerly along the Custer State Park Boundary to its junction with the northwest corner of Custer State Park, then southerly along the west Custer State Park boundary and Wind Cave National Park boundary to U.S. Highway 385, then northerly along U.S. Highway 385 to its junction with State Highway 89, then southerly along State Highway 89 to its junction with 18 Mile Road (Forest Service 316), then westerly along 18 Mile Road to its junction with Pleasant Valley Road (Forest Service 715), then westerly along Pleasant Valley Road to its junction with Pilger Mountain Road/Dewey Road (Forest Service 769), then westerly along Pilger Mountain Road/Dewey Road to the South Dakota-Wyoming state line, then southerly along the state line to its junction with the Cheyenne River, then easterly along the Black Hills Fire Protection District southern boundary to the southeast corner of the Black Hills Fire Protection District, then northerly along the Black Hills Fire Protection District eastern boundary to the point of the beginning.

Three temporary access permits must be available in each of five consecutive twenty-one-day intervals, beginning on December twenty-sixth.

- **41:06:61:06.** Application requirements -- License and season restrictions -- Special conditions -- Carcass check-in procedures. Only a resident may apply for a mountain lion hunting license. The following requirements, restrictions, special conditions, and procedures apply to all licenses issued under this chapter:
 - (1) No person may harvest more than one mountain lion in a season;
- (2) No person may harvest or attempt to harvest a mountain lion with a spotted coat or any mountain lion accompanying another mountain lion;
 - (3) No person may hunt mountain lions with the aid of traps or bait;
- (4) The use of dogs to hunt mountain lions is allowed in the Black Hills Fire Protection District only during those-specified hunting intervals in Custer State Park that allow the use of dogs and in the area specified in § 41:06:61:02; and year-round outside of the Black Hills Fire Protection District;
- (5) No person may release dogs on tracks indicating multiple mountain lions traveling together;
- (6) In Custer State Park the Black Hills Fire Protection District, a person using dogs shall attempt to harvest the first legal mountain lion the person has a reasonable opportunity to harvest, except under the condition in which where the lion pursued shows obvious signs of lactation;

- (7) Licensed hunters must accompany the dog handler when the dogs are released and must continuously participate in the hunt until the hunt is completed;
- (8) A person may use any firearm, muzzleloader, or bow and arrow, established by statute or administrative rule as legal implements for the taking of deer; and
- (9) All mountain lions harvested must be presented to a department representative within twenty-four hours of harvest for inspection.

RESIDENT/NONRESIDENT CRITERIA

None.

RECRUITMENT, RETENTION, REACTIVATION (R3) CRITERIA

- 1. Does the regulation or fee inhibit a user's ability to participate? No.
- 2. Does the regulation increase the opportunity for new and existing users? Yes, hunting opportunity with the use of dogs will be expanded.
- 3. How does the regulation impact the next generation of hunters, anglers, trappers and outdoor recreationists? NA.
- 4. Does the regulation enhance the quality of life for current and future generations by getting families outdoors? NA.

None.

APPROVE	MODIFY	REJECT	NO ACTION
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CONCESSION AGREEMENT SPRING CREEK RESTAURANT

This Concession Agreement is made and entered into on ______("Effective Date") by and between the South Dakota Department of Game, Fish and Parks ("Department") 523 East Capitol, Pierre South Dakota 57501, and <u>Dock Side LLC</u>, ("Concessionaire") 34160 181st Street, Highmore, SD 57345. This Agreement is authorized by the South Dakota Game, Fish and Parks Commission and is subject to and governed by the requirements of ARSD Article 41:13 subtitled Park Concession Leases effective October 17, 2005, (the "Rules") a copy of which has been provided to Concessionaire.

WITNESSETH

Whereas, Spring Creek Recreation Area is administered by the Department for providing park and related services, tourism, and resource management; and

Whereas, the Department desires for a limited and prescribed portion of Spring Creek Recreation Area to be operated by a Concessionaire as a restaurant open to the general public; and

Whereas, the Commission has promulgated the Rules relating to concession leases under which certain powers and authority to enter into concession leases and agreements have been delegated to the Department; and

Whereas, Concessionaire desires to enter into a concession agreement with the Department to operate a restaurant concession in a portion of Spring Creek Recreation Area as a Concessionaire as defined in the Rules.

Now therefore, for the purposes of carrying out concession operations pursuant to the terms and conditions of this Agreement, the parties agree as follows:

Section 1. Term of Agreement

(a) This Agreement shall be for a term of five (5) years, commencing on October 1, 2025 and ending on November 30, 2030.

Section 2. Definitions

- (a) "Agreement" means this Concession Agreement, and all its amendments, addendums, exhibits, attachments, and all documents executed for the purpose of ensuring Concessionaire's performance of this Concession Agreement.
- (b) "Commission" means the South Dakota Game, Fish and Parks Commission.
- (c) "Concessionaire" means as defined under ARSD 41:13:01.
- (d) "Concessionaire Facilities" means as defined under ARSD 41:13:01.
- (e) "Department" means the South Dakota Department of Game, Fish and Parks.
- (f) "Division" means the Division of Parks and Recreation, a division of the Department of Game, Fish and Parks responsible for the administration of the state park system, including Spring Creek Recreation Area.
- (g) "Director" means the Director of the Division of Parks and Recreation, acting on behalf of the Secretary of the Department of Game, Fish and Parks, and his or her duly authorized representatives.
- (h) "Government Facilities" means as defined under ARSD 41:13:01
- (i) "Park" means the property within the boundaries of Spring Creek Recreation Area.
- "Gross Receipts" means all revenue received, to be received, or realized by Concessionaire from all sales for cash or credit, of services, accommodations, materials and other merchandise made pursuant to the rights granted under this Agreement. Concessionaire shall report all of its revenues to the Department without allowances, exclusions or deductions of any kind. For purposes of calculating franchise fees, hunting and fishing license (not including agent fees), and park entrance license sales will be excluded from Gross Receipts.
- (k) "Personal Property" means as defined in ARSD 41:13:01.
- (I) "Restaurant" means those areas within the main Resort building not occupied by the Department which including the upstairs dining and kitchen area of the lodge building.
- (m) "Park Supervisor" means the management of Spring Creek

Recreation Area or his or her duly authorized representatives.

Section 3. Services

- (a) Concessionaire shall provide the following services within the restaurant:
 - 1. Restaurant food service Full time restaurant service from May 1 to September 15 with minimum hours of 11:00am to 9:00pm. Weekly days and hours of operation are to be established by May 1 of each calendar year and are subject to approval of the Department.
 - 2. Convenience Store Full time Convenience Store operation from May 1 to September 15 with minimum hours of 7:00am to 7:00pm. Sales shall include park entrance license, fishing, and hunting licenses.
 - 3. Restaurant and Convenience Store operational dates and hours may only be adjusted upon receipt of prior written agreement of the Department and Concessionaire.
- (b) The Department authorizes the Concessionaire to provide only the following additional services within the restaurant. The Department retains the right to approve these or any other additional services contemplated by the Concessionaire in advance.

Additional Authorized Accommodations, Facilities and Services:

- 1. Licensed on- sale liquor and malt beverage sales.
- 2. Licensed off-sale malt beverage sales
- 3. The Lessee shall not permit gambling on the premises, except for video lottery machines of the type authorized by SDCL Ch. 42-7A.

Section 4. Facilities

- (a) The Department hereby assigns for use by Concessionaire, the portion of the Resort building and the equipment described in Exhibit A attached to this Agreement.
- (b) Concessionaire may not make modifications to Government Facilities without the prior written approval from the Department.
- (c) Concessionaire has inspected the restaurant and equipment and is thoroughly acquainted with their condition and accepts them in an "as is" condition.

(d) Both parties understand that the State of South Dakota may selfinsure Government Facilities. Therefore, if a Government Facility is destroyed or damaged to an extent that in the sole discretion of the Department it is impractical to repair or replace, the Department makes no assurance that the Government Facility shall be repaired, improved or replaced.

If Government Facilities are damaged by the acts or conduct of Concessionaire, its agents, employees or customers, which damage in the sole discretion of the Department is practical to repair or replace, it shall be the responsibility of Concessionaire to make the necessary repairs/replacements at its own expense to a condition satisfactory to the Department in an amount not to exceed\$25,000 per occurrence. If Government Facilities are damaged by the acts or conduct of Concessionaire, its agents, employees or customers, which damage in the sole discretion of the Department amounts to a total loss or is impractical to repair or replace, Concessionaire shall pay Department an amount not to exceed \$25,000 per occurrence to compensate Department for the loss.

(e) The Department shall have the right to enter the Restaurant, for the proper administration of the terms of this Agreement.

Section 5. Operations and Maintenance

- (a) Concessionaire shall operate the Restaurant in compliance with the terms and conditions of this Agreement.
- (b) Concessionaire shall be responsible for all maintenance, which for the purpose of this Agreement shall include, but not be limited, to all routine, preventative and cyclical maintenance of facilities, cleaning and maintenance of equipment, kitchen appliances & cookers, grease trap, and of cleaning of public restrooms necessary for the quality operation and appearance of the Restaurant. Concessionaire shall provide to the Department copies of service records and invoices for all service and repairs to Government Facilities.
- (c) Major replacement, maintenance or repair of the facilities or restaurant equipment not due to the Concessionaire's misuse, waste, or neglect or that of the Concessionaire's employee, family, agent, or visitor, will be the responsibility of the Department.
- (d) The Concessionaire shall be responsible for all litter pickup and disposal of trash in the Restaurant Area to the provided container. The Concessionaire shall be responsible for costs of regular waste hauling from its designated container.

- (d) At the expiration or termination of this Agreement, Concessionaire shall return to the Department the Government Facilities in the same condition or better condition than existed at the initiation of this Agreement, reasonable wear and tear excepted.
- (e) Concessionaire shall not use or knowingly permit any part of the restaurant to be used for any unlawful purpose and shall not conduct or allow to be conducted any activity that shall constitute a nuisance.
- (f) Concessionaire acknowledges and agrees that the State makes available for purchase and use by Concessionaire within the restaurant the alcoholic beverage license currently held by the Department for \$1.00. At the expiration or termination of this agreement said license shall be transferred back to the Department for \$1.00 in a prompt manner.
- (g) Any names, logos, trademarks, or copyrights (the "Intellectual Property") developed during or pursuant to this Agreement that in any way associates with, identifies, implicates, or infers an affiliation with the State of South Dakota, the Department, The State Park System, Spring Creek Recreation Area, and/or the restaurant must receive prior approval from the Department. The State of South Dakota shall have the sole right to bring any action for infringement and to recover and retain any and all damages.

Section 6. Utilities

The Department shall pay all invoices for water, sewer, and electricity.

Section 7. Fees

Concessionaire shall pay to the Department a franchise fee which shall be a sum of money equal to four percent (4%) of all Gross Receipts during each year of the Agreement term. Payment shall be made no later than November 30th for the current calendar year and shall be accompanied by accounting records as described in Section 8. Payments to the Department by Concessionaire not received on or before the due date shall be considered to be in arrears and subject to an interest payment equivalent to one and one-half percent (1.5%) per month of the unpaid amount.

Section 8. Accounting Records and Other Reports

(a) Concessionaire shall prepare and maintain accounting records of the restaurant segregated by profit center under generally accepted accounting principles that are customary for restaurant

- operating businesses. The records shall be made available for inspection by the Department on reasonable notice during normal working hours.
- (b) Concessionaire shall submit to the Department annual accounting records and reports separated for the operation of the restaurant to include Gross Receipts broken down by profit center by April 30 of each year.

Section 9. Remedies, Termination or Expiration of the Agreement

- (a) Upon termination or expiration of this Agreement for any reason, and, in the event that Concessionaire is not to continue the operations authorized under this Agreement after its expiration, Concessionaire shall remove all inventory, personal property and restore the facility to the same condition or better condition than existed at the initiation of this Agreement within thirty (30) days.
- (b) The Department may elect any and all remedies available to the Department under applicable law, including but not limited to the termination of this Agreement upon written notice in whole or in part at any time for default, and may terminate this Agreement upon written notice in whole or in part when necessary for the protection of visitors or area resources. Termination for default may be utilized in circumstances where the Concessionaire has materially breached any requirements of this Agreement, including but not limited to failure to maintain and operate the minimum required services and has failed to cure the breachas set forth in this Subsection. If Concessionaire materially defaults on any of the terms or conditions of this Agreement, and does not cure or remedy such default within ten (10) days of receipt of written notice from the Department, or Concessionaire is not diligently proceeding to cure such default if the curing of such default cannot be reasonably effected within such ten (10) day period, the Department may terminate this Agreement without further notice.
- (c) In the event of termination of this Agreement for default, the provisions of this Section apply.
- (d) If any legal proceedings are brought by either party to this Agreement against the other in connection with the interpretation, application or performance of the terms and conditions of this Agreement, each party shall be required to pay its own attorney's fees and costs in connection with such proceedings.
- (e) In addition to the rights and remedies provided for herein, the Department and Concessionaire shall each have all remedies at lawor in equity, all remedies being cumulative.

Section 10. Indemnification, Waiver of Claims and Insurance

- (a) Concessionaire agrees to defend, hold harmless and indemnify the State of South Dakota, its officers, agents and employees, from and against any and all actions, suits, damages, liabilities and expenses, including but not limited to attorneys' fees, in connection with the loss of life, personal injury and/or damages to property of third persons that may arise from or out of the occupancy, use or maintenance of the restaurant, and as a result of performing services hereunder. This section does not require Concessionaire to be responsible for or defend against claims or damages arising solely from errors or omissions of the State, its officers, agents or employees. This indemnification shall survive the termination or expiration of this Agreement.
- (b) Concessionaire agrees that during the term of this Agreement Concessionaire shall maintain at least the following amounts of insurance:
 - (i) <u>Commercial General Liability Insurance</u>: Concessionaire shall maintain occurrence based commercial general liability insurance or equivalent form. If such insurance contains a general aggregate limit it shall apply separately to this Agreement or be no less than two times the occurrence limit.
 - (ii) <u>Liquor Liability Insurance</u>: If the Concessionaire wishes to purchase the liquor license and sell liquor, the Concessionaire shall maintain adequate liquor liability insurance.
- (c) Concessionaire, prior to engaging in and/or providing the services described herein, shall furnish satisfactory proof of such insurance by filing with the Department a Certificate of Insurance from the Insurance Company verifying and certifying to the existence and limits of the required insurance. Such Certificate shall provide therein that no cancellation of said insurance shall be made or become effective without at least thirty (30) days' written notice being provided to the Department. Concessionaire is required to provide to the Department a current certificate of insurance at all times
- (d) Concessionaire agrees to report to the Park Supervisor any event encountered in the course of performance of this Agreement which results in injury or loss to any person or property, or which may otherwise subject Concessionaire, the State of South Dakota and/or their respective officers, agents or employees to liability, or any pending or actual litigation. Concessionaire shall report any such event to the Park Supervisor immediately upon discovery.

Concessionaire's obligation under this section shall only be to report the occurrence of any event to the Park Supervisor and to make any other report provided for by Concessionaire's duties or applicable law. Concessionaire's obligation to report shall not require disclosure of any information subject to privilege or confidentiality under law (e.g., attorney-client communications). Reporting to the Park Supervisor under this section shall not excuse or satisfy any obligation of Concessionaire to report any event to law enforcement or other authorities under the requirements of any applicable law.

- (e) The Department has no obligation to and is not responsible for payment of any money to Concessionaire that results from disruption of services.
- (f) Neither the Department nor Concessionaire shall be liable to the other for any loss or damage to any building, structure or other tangible property owned by the other, including but not limited to lost rents, income and profits, even through such loss or damage might have been occasioned by the negligence of such party, its employees, agents, contractors or invitees.

Section 11. Inspections

(a) Maintenance Inspections

Representatives from the Department and the restaurant shall conduct preventative maintenance and inspections of the restaurant facilities. The purpose of the inspection is to identify the current conditions and maintenance requirements of the facilities and Personal Property therein. At minimum, at least one inspection will be held in the spring prior to Memorial Day weekend and in the fall no later than October 31.

- b) Health, Safety, and Fire Inspections
 - (i) There may be other inspections as required by law or insurance policies pertaining to but not limited to health, safety, fire, and environmental rules and regulations that are the responsibility of other agencies or authorities. The Concessionaire must notify the Department in advance of any such inspection and allow Department staff to accompany the inspection.
 - (ii) Copies of the inspection or report must be provided to the Department upon request. Any failures, substandard or otherwise unsatisfactory scores, inspections or individual components of an inspection must be reported to the

Department immediately.

Section 12. Operations

(a) Advertising

- (i) In addition to the provisions under 41:13:02:08, use of the State seal, Department or other logos affiliated with the Division of Parks and Recreation, is expressly prohibited without prior written approval of the Department.
- (ii) Promotional material distributed within the Park is restricted to services and facilities within the Park and region and is subject to approval by the Park Supervisor.

(b) Special Events

- (i) Special events planned or promoted by the Concessionaire must be proposed in writing and receive prior written approval of the Department. Written proposals shall be made at least 15 days in advance of the planned special event.
- (ii) Special events are those activities which materially deviate from the minimum required and authorized Restaurant services and disrupts normal public access. In addition to the written approval of the Department, special events permits may be necessary. Conformance to all Department regulations related to special events shall be required.

(c) Signs

- (i) No signs, permanent or temporary, may be erected or placed outside of the restaurant, on Department property without the prior written approval of the Park Supervisor.
- (ii) All signs shall be of a professional quality appearance.
- (iii) Signs or other paraphernalia visible to the general public associated with political candidates or issues is expressly prohibited.

(d) Complaints

- (i) The Concessionaire shall document and attempt to resolve any and all such complaints, including forwarding a copy of any written communications regarding the same to the Department and the Park Supervisor.
- (ii) Any complaints regarding the restaurant received by the Department shall be documented and forwarded to the

Concessionaire for resolution.

(e) Safety

(i) The Concessionaire must maintain and test all life and property safety equipment, devices and systems according to established and applicable laws, rules, regulations, and codes. Such equipment, devices, and systems may include but are not limited to smoke detectors, fire extinguishers, fire suppression systems, alarms, escape routes and egress openings. Any malfunctions of safety equipment, devices and systems must be reported to the Park Supervisor immediately.

(f) Snow Removal

- The Concessionaire will be responsible for snow removal of the sidewalks and parking lots for restaurant staff and customer parking.
- (ii) The Department will be responsible for snow removal necessary to maintain access to key public and administrative areas located within the Recreation Area. Snow removal will be performed on weekdays (Monday Friday) during regular park employee work hours (8:00 a.m. 5:00 p.m.). During these periods, the Department is not obligated to perform snow removal until snowfall, blowing and drifting have ceased. The Department cannot guarantee snow removal for the access road outside of regular park employee work hours, but agrees to cooperate if staff is reasonably available to perform such duties.

Section 13. General Provisions

- (a) Reference to the Department in this Agreement shall include the Secretary, Director, Park Supervisor and his/her authorized representative.
- (b) Concessionaire shall comply with all federal, state and local laws, regulations, ordinances, guidelines, permits and requirements applicable to operating the restaurant and providing services pursuant to this Agreement, and shall be solely responsible for obtaining current information on such requirements.
- (c) This Agreement shall be governed by and construed in accordance with the laws of the State of South Dakota. Any lawsuit pertaining to or affecting this Agreement shall be venued in Circuit Court, Sixth Judicial Circuit, Hughes County, South Dakota.
- (d) All other prior discussions, communications and representations

concerning the subject matter of this Agreement are superseded by the terms of this Agreement, and except as specifically provided herein, this Agreement constitutes the entire agreement with respect to the subject matter hereof.

- (e) This Agreement and any operations and services authorized thereunder may not be assigned, sublet, extended, renewed or amended in any respect, except when agreed to in writing by the Department and Concessionaire.
- (f) Concessionaire may not use SubConcessionaires, subcontractors or sublessees to perform the services described herein.
- (g) Concessionaire agrees and Department acknowledges that all records required under this Agreement shall be maintained in the name of and provided by______on behalf of Concessionaire.
- (h) Any contractual agreement to provide services to the public must be consistent with the terms of the concession agreement and are subject to Department approval.
- (i) In the event that the applicable court of competent jurisdiction shall hold any provision of this Agreement unenforceable or invalid, such holding shall not invalidate or render unenforceable any other provision hereof.
- (j) Concessionaire acknowledges and supports the Department's effort to collect park entrance fees to provide for the continued maintenance of the South Dakota state park system.
- (k) In each instance where the consent, approval or acceptance of the Department is required under the terms of this Agreement, such consent, approval or acceptance shall not be unreasonably withheld by the Department.
- (I) Concessionaire agrees that in performance of this Agreement it is acting as an "independent contractor" and not as an employee of the Department.
- (m) Any notice or other communication required under this Agreement shall be in writing and sent or delivered to the address set forth below. Notices shall be given by and to the Director on behalf of the Department, and by and to the below listed contact on behalf of Concessionaire, or such authorized designees as either party may from time to time designate in writing.

Department
Director
Division of Parks & Recreation
523 East Capitol

Concessionaire

Dock Side LLC. 34160 181st Street

Notices or communications to or between the parties shall be deemed to have been delivered when mailed by first class mail, provided that notice of default or termination shall be sent by registered or certified mail or, if personally delivered, when received by such party. Copies of all correspondence from Concessionaire to the Department or Director shall be sent simultaneously to the Park Supervisor.

(n) No amendment or modification of this Agreement shall be effective for any purpose unless the same be in writing and signed by authorized representatives of the parties.

Section 14. Discrimination.

Concessionaire shall not discriminate against any person based upon race, color, national origin, religion, sex and disability in the operation and maintenance of the restaurant and shall fully comply with Title VI of the 1964 Civil Rights Act, and applicable federal and state laws and regulations.

Discrimination on the Basis of Residence. Discrimination on the basis of residence, including preferential reservation, membership or annual permit systems is prohibited except to the extent that reasonable differences in admission and other fees may be maintained on the basis of residence.

Concessionaire shall not discriminate on the basis of disability, and is subject to Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, and applicable federal and state laws and regulations.

Section 15. Security Deposit

The Concessionaire shall provide to the Department a Security Deposit of \$5,000.00 conditioning the Concessionaire's faithful fulfillment and performance of the terms and conditions of this Agreement. The Security Deposit shall be refunded to the Concessionaire upon termination or expiration of the lease after all Franchise Fees and facilities have been returned to the Department in a condition consistent with the commencement of this Agreement less any amounts owed to the Department or costs of damages caused by Concessionaire.

Section 16. Housing

The Department will make motel unit #13D located within Spring Creek Recreation Area available for Concessionaire occupation. Said unit shall not be

sub-let to any party for any reason. The unit will be occupied by Concessionaire's on-site cook-manager. No long term roommates will be allowed. Concessionaire shall be responsible for all maintenance, which for the purpose of this Agreement shall include but not be limited to all cleaning, and routine, preventative, and cyclical maintenance.

Initial rental rate for Unit #13D shall be as follows:

\$600.00 per month for the months of May through August \$300.00 per month for the months of October through April

Rental rates are subject to review annually.

END OF AGREEMENT TEXT

Game, Fish and Park	oing CONCESSION AC (s Commission on vision of Parks and Rec ssion.		_, authorizing
Dated at	_, South Dakota, this	day of	2025 .
SOUTH DAKOTA DE	EPARTMENT OF GAMI	E, FISH AND F	PARKS
,	Meeteren, Director rks and Recreation		
CONCESSIONAIRE			
BY:			

EXHIBIT A

List of Buildings and Structures Constituting Government Facilities and List of Equipment/Intellectual Property Constituting Government Property Assigned to the Concessionaire

BUILDINGS AND STRUCTURES CONSTITUTING GOVERNMENT FACILITIES						
Co	Concessionaire: Effective Date:					
	Buildings an	nd Structures				
Fac. ID No.	Description					
T do. 15 No.	Restaurant and C-Store oper building as follows: Entire Up floor – restrooms and dedicat lower exterior deck, storage a	Restaurant and C-Store operating space in the Spring Creek Restaurant building as follows: Entire Upper Floor including the upper exterior deck; Main floor – restrooms and dedicated ofwice space; Entire lower floor including lower exterior deck, storage areas and Walk-in cooler.				
	Equipment	/Intellectual				
	Prop	perty				
	Duke Thurmaduke Serial #01					
	Cayenne Vollrath Serial #175	502 (Soup Warmer)				
	Computer Till					
	Glass Tender Sink, Ice Chest, Glass and Liquor holder					
	True Cooler Serial #7331213					
	Atosa Kegerator and Cooler Serial #C4009					
	Superior Beer Cooler Serial # 4408753					
	Supremetal Sink, Ice chest, Liquor Holder					
	Cookrite Warming Table Seri					
	True Refrigerator Table Serial #7103653					
	Ascend Freezer Serial # VF21-1009-0277					
	Federal Steak Maker Model 4					
	Atosa Ice Maker 01021111500C40879					
	Artic Air Commercial Freezer Serial #H7164881					
	Arctic Air Commercial Freezer Serial # 231617					
	Walk-In Cooler Serial # 54120-FN-1					
	Ecolab Dish Washer (Rented from Sysco)					
	Sentinel Microwave					
	Alto Shaam HA1D Heat Seria					
	CookRite Griddle with table 4	PUU3935				
	Grill Top	- AODON I 100000044005000 40000				
		AGR69AUS200321100500C40023				
	Dean Fryer Serial #1003MA1096					
	CookRite Fryer ATFS40AUS	200320072000C40050				

Likilatada Mandal 40
Utilatub Model 19
Ansul Fire Suppressor Serial # 104250
Danby Mini Fridge
Vizio TVs (7 units)
Various cooking utensils, dining utensils, bar and dining glassware, serving
trays, storage, tables and chairs, pots & pans, bar stools, patio furniture.
Captive Air Hood
Upright Freezer
2'x2.5' Stainless Steel Table
Dishwashing Station
3 Basin Sink Station
Atosta Refrigerator Prep Table MFS8306GRAUS1T0321022500C40022
6'x2.5' Stainless Steel Table
PrepPal Meat Slicer PPSC12HD
Atosta Beverage Refrigerator
Beverage Refrigerator (unknown brand)
Lincoln Impinger Pizza Oven
Insinkerator Garbage Disposal
Hatco Water Heater BoosterInsinkerator Garbage Disposal
Hatco Glo-Ray Food Warmer (2)Hatco Water Heater Booster
Galaxy Glass CoolerHatco Glo-Ray Food Warmer (2)
Galaxy Glass Cooler

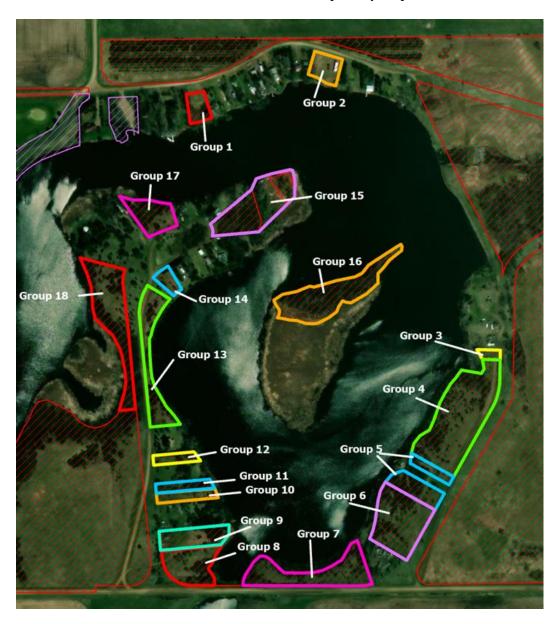
South Dakota Game, Fish & Parks - Wildlife Division GPA Auction Results Report September 2025

Informational Items:

This report provides the results of GPA parcels sold following the public auction held on June 7th, 2025. The table below shows the appraised value, the sale price at auction, and the net proceeds once closing fees, title insurance, and realtor commission has been removed. There were 37 bidders present in person and another 27 that were online. There were 11 individuals that purchased parcels with some buying several groups of lots at Lake Faulkton. Only 5 of the parcel groups sold for appraised value with the remainder selling above or well above appraised value. Closing on all properties with the buyers wrapped up in early August finalizing the sales.

Lake Faulkton (Faulk Co)							
Group	App	raised Value	S	Sale Price		t Proceeds	Acres
1	\$	16,000	\$	25,000	\$	23,732.60	0.37
2	\$	22,500	\$	55,000	\$	52,769.28	0.46
3	\$	2,500	\$	9,500	\$	8,825.05	0.13
4	\$	32,000	\$	46,000	\$	44,168.83	3.12
5	\$	9,000	\$	35,000	\$	33,518.57	0.93
6	\$	18,000	\$	23,000	\$	21,803.86	1.80
7	\$	17,000	\$	17,000	\$	16,102.50	1.71
8	\$	11,000	\$	11,000	\$	10,284.99	1.14
9	\$	5,000	\$	9,000	\$	8,343.47	0.82
10	\$	3,000	\$	9,000	\$	8,341.23	3.57
11	\$	2,500	\$	8,000	\$	7,371.14	0.34
12	\$	3,000	\$	10,000	\$	9,310.78	0.27
13	\$	12,000	\$	18,000	\$	17,067.91	1.18
14	\$	5,000	\$	12,000	\$	11,114.49	0.26
15	\$	9,000	\$	9,000	\$	8,241.84	1.77
16	\$	3,000	\$	9,000	\$	8,348.30	2.01
17	\$	12,000	\$	25,000	\$	23,734.56	0.81
18	\$	28,000	\$	28,000	\$	26,644.86	2.22
Twin Lakes Diversion (Spink Co)							
Two Parcels	\$	4,500	\$	4,500	\$	4,146.93	3.34
Total	\$	215,000	\$	363,000	\$3	343,871.19	26.26

Lake Faulkton - Faulk County Property Sold



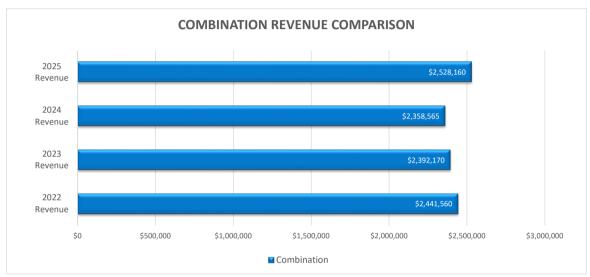
Twin Lakes - Spink County Property Sold



Action Items: None

COMBINATION LICENSES

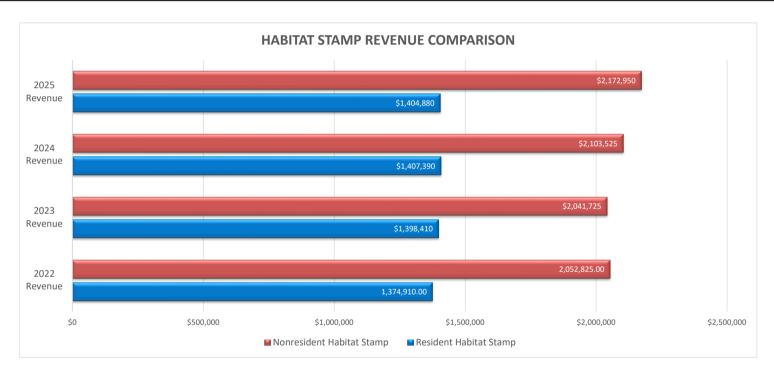
							+/- Licenses		+/- Revenue		_
											% Change from
License Type	2022	2023	2024	3-yr Avg	2025	2025 Revenue	2024 vs 2025	3 Yr. Avg vs 2025	2024 vs 2025	3 Yr. Avg vs 2025	3 Yr. Avg
Combination	44,392	43,494	42,883	43,590	42,136	\$2,528,160	(747)	(1,454)	\$169,595	\$130,728	-3%
Senior Combination	10,788	10,959	11,426	11,058	12,064	\$518,752	638	1,006	\$61,712	\$76,445	9%
Combination License Totals	55,180	54,453	54,309	54,647	54,200	\$3,046,912	(109)	(447)	\$231,307	\$207,174	-1%





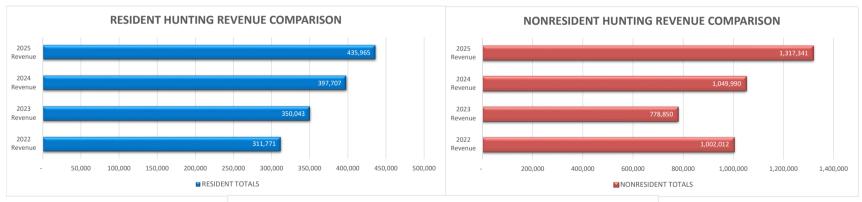
HABITAT STAMP

							+/- Licenses		+/- Revenue		
						•					% Change from 3
License Type	2022	2023	2024	3-yr Avg	2025	2025 Revenue	2024 vs 2025	3 Yr. Avg vs 2025	2024 vs 2025	3 Yr. Avg vs 2025	Yr. Avg
Resident Habitat Stamp	137,491	139,841	140,739	139,357	140,488	\$1,404,880	(251)	1,131	(\$13,805)	\$62,205	1%
Nonresident Habitat Stamp	82,113	81,669	84,141	82,641	86,918	\$2,172,950	2,777	4,277	\$111,080	\$171,080	5%
Habitat Stamp Totals	219,604	221,510	224,880	221,998	227,406	\$3,577,830	2,526	5,408	\$97,275	\$233,285	2%



SMALL GAME LICENSES

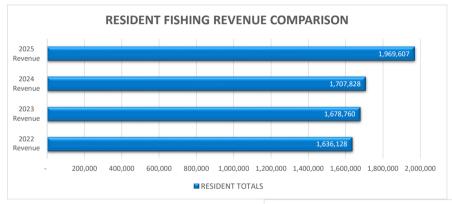
							+/- Licenses		+/-	+/- Revenue	
License Type	2022	2023	2024	3-yr Avg	2025	2025 Revenue	2024 vs 2025	3 Yr. Avg vs 2025	2024 vs 2025	3 Yr. Avg vs 2025	from 3 Yr. Avg
Small Game	3,960	5,784	7,047	5,597	7,462	\$268,632	415	1,865	\$36,081	\$83,931	33%
1-Day Small Game	168	103	213	161	206	\$3,090	(7)	45	\$534	\$1,154	28%
Youth Small Game	2,217	2,047	2,266	2,177	2,093	\$10,465	(173)	(84)	(\$865)	(\$1,004)	-4%
Furbearer	3,217	2,949	3,144	3,103	3,253	\$100,843	109	150	\$6,523	\$7,743	5%
Predator/Varmint	1,727	1,593	1,388	1,569	1,165	\$6,990	(223)	(404)	\$50	(\$857)	-26%
Migratory Bird Certificate: 3-Duck	511	718	572	600	377	\$1,885	(195)	(223)	(\$975)	(\$1,117)	-37%
Migratory Bird Certificate: Traditional	12,058	9,535	9,430	10,341	8,812	\$44,060	(618)	(1,529)	(\$3,090)	(\$7,645)	-15%
RESIDENT TOTALS	23,858	22,729	24,060	23,549	23,368	\$435,965	-692	42	\$38,258	\$82,206	0.18%
Small Game	5,898	4,250	6,351	5,500	6,716	\$953,672	365	1,216	\$185,201	\$288,212	22%
Youth Small Game	380	260	409	350	416	\$4,160	7	66	\$70	\$663	19%
Shooting Preserve 1-Day Nonresident	232	111	183	175	221	\$11,050	38	46	\$2,632	\$2,985	26%
Shooting Preserve 5-Day Nonresident	1,495	994	1,100	1,196	1,336	\$128,256	236	140	\$44,656	\$37,335	12%
Shooting Preserve Annual Nonresident	112	75	71	86	69	\$10,074	(2)	(17)	\$1,483	(\$332)	-20%
Furbearer	3	2	5	3	1	\$325	(4)	(2)	(\$1,050)	(\$592)	-70%
Predator/Varmint	3,479	3,691	3,717	3,629	4,084	\$187,864	367	455	\$39,184	\$42,704	13%
Migratory Bird Certificate: 3-Duck	48	179	162	130	147	\$735	(15)	17	(\$75)	\$87	13%
Migratory Bird Certificate: Traditional	1,297	4,638	5,191	3,709	4,241	\$21,205	(950)	532	(\$4,750)	\$2,662	14%
NONRESIDENT TOTALS	12,944	14,200	17,189	14,778	17,231	\$1,317,341	42	2,453	\$267,351	\$373,724	16.60%
COMBINED TOTALS	36,802	36,929	41,249	38,327	40,599	\$1,753,306	(650)	2,272	\$305,609	\$455,929	5.93%

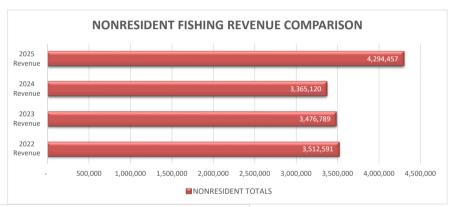


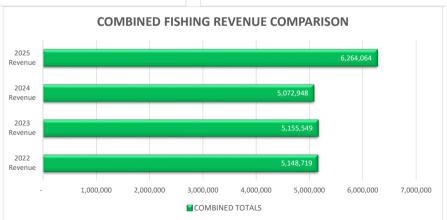


FISHING LICENSES

							+/- Licenses		+/- Revenue		% Change
License Type	2022	2023	2024	3-yr Avg	2025	2025 Revenue	2024 vs 2025	3 Yr. Avg vs 2025	2024 vs 2025	3 Yr. Avg vs 2025	from 3 Yr. Avg
1-Day Fishing	5,055	5,742	6,255	5,684	6,043	\$60,430	(212)	359	\$10,390	\$14,958	6%
Annual Fishing	51,375	52,514	53,280	52,390	54,142	\$1,678,402	862	1,752	\$186,562	\$211,491	3%
Senior Fishing	13,099	13,536	13,829	13,488	13,575	\$230,775	(254)	87	\$64,827	\$68,919	1%
RESIDENT TOTALS	69,529	71,792	73,364	71,562	73,760	\$1,969,607	396	2,198	\$261,779	\$295,368	3.07%
1-Day Fishing	30,470	30,057	29,873	30,133	22,147	\$575,822	(7,726)	(7,986)	\$97,854	\$93,689	-27%
3-Day Fishing	15,550	15,804	15,196	15,517	17,751	\$798,795	2,555	2,234	\$236,543	\$224,678	14%
Annual Fishing	36,563	35,987	34,700	35,750	36,498	\$2,919,840	1,798	748	\$594,940	\$524,590	2%
NONRESIDENT TOTALS	82,583	81,848	79,769	81,400	76,396	\$4,294,457	(3,373)	(5,004)	\$929,337	\$842,957	-6.15%
COMBINED TOTALS	152,112	153,640	153,133	152,962	150,156	\$6,264,064	(2,977)	(2,806)	\$1,191,116	\$1,138,325	-1.83%

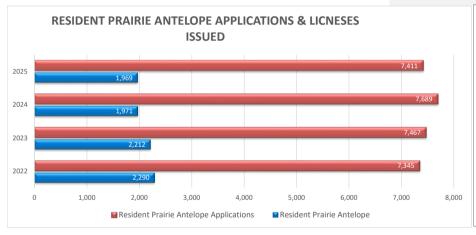


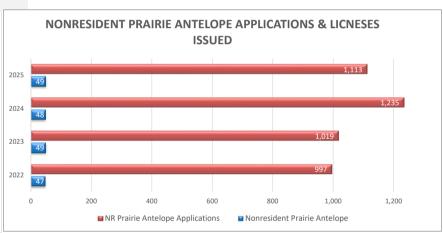




2025 BIG GAME LICENSES

							+/- Licenses		+/- Revenue		% Change
License Type	2022	2023	2024	3-yr Avg	2025	2025 Revenue	2024 vs 2025	3 Yr. Avg vs 2025	2024 vs 2025	3 Yr. Avg vs 2025	from 3 Yr. Avg
Resident Tundra Swan	410	302	402	371	533	\$11,193	131	162	\$3,957	\$4,509	44%
Nonresident Tundra Swan	200	200	200	200	200	\$8,000	0	0	\$3,000	\$3,000	0%
Resident Prairie Antelope	2,290	2,212	1,971	2,158	1,969	\$88,605	(2)	(189)	\$9,765	\$2,298	-9%
Nonresident Prairie Antelope	47	49	48	48	49	\$18,375	1	1	\$4,647	\$4,647	2%
Resident Mentored Deer	2,336	2,666	2,594	2,532	934	\$4,670	(1660)	(1598)	(\$8,300)	(\$7,990)	-63%
Nonredident Mentored Deer	66	83	97	82	78	\$780	(19)	(4)	(\$190)	(\$40)	-5%
Resident Archery Deer	18,219	18,470	18,136	18,275	16,023	\$670,466	(2113)	(2252)	\$3,526	(\$354)	-12%
Resident Archery Antelope	1,579	1,915	1,940	1,811	1,976	\$88,920	36	165	\$11,320	\$16,467	9%
Nonresident Archery Deer Private Only	1,051	984	1,014	1,016	860	\$322,500	(154)	(156)	\$32,496	\$31,829	-15%
Nonresident Archey Antelope Private Only	n/a	333	347	n/a	367	\$137,625	20	n/a	\$38,383	n/a	n/a
1st Draw Applications Submitted											
Resident Tundra Swan Applications	410	302	402	371	533		131	162			44%
Nonresident Tundra Swan Applications	225	225	212	221	240		28	19			9%
Resident Prairie Antelope Applications	7,345	7,467	7,689	7,500	7,411		(278)	(89)			-1%
NR Prairie Antelope Applications	997	1,019	1,235	1,084	1,113		(122)	29			3%





Public Comments

Eliminate Closed Area on Lake Francis Case

James Thompson

Madison SD

Position: support

Comment:

No comment text provided.

Mike Kluth

Mount Vernon SD Position: oppose

Comment:

You need to put more restrictions on the reservoir before it's fished out.

Michael Maggied

Tempe AZ

Position: support

Comment:

No comment text provided.

Manuela Cappellini

Piombino AA

Position: oppose

Comment:

No comment text provided.

Furbearer Hunting and Trapping Seasons

Kelly Koistinen

Spearfish SD

Position: oppose

Comment:

Against use of dogs in the BH for mountain Lion hunting! Deer and elk need the protection of no seasons during winter range survival. They shouldn't be disturbed during winter, with dogs running and barking through the Hills. Totally against use of dogs for any cat during winter!

Alyx Lawson Vernal UT

Position: support

Comment:

I'm a in support of the use of big game hounds in the process of pursing mountain lions. I believe it is most effective way to manage the predators in the American tradition.

Keith Hardin

Belle Fourche SD Position: support

Comment:

Please allow the use of hounds and expand the hound season for mt lion and bobcat

Curtis Pidwill

Rapid City (Rap) SD

Position: support

Comment:

No comment text provided.

Andrew Ferris

Wall SD

Position: oppose

Comment:

Leave as is and educate trappers on selective harvest

Kristin Boggs

Bozeman MT

Position: oppose

Comment:

No comment text provided.

Curtis Pudwill

Rapid City (Rap) SD

Position: support

Comment:

No comment text provided.

Mountain Lion Season

Cody Knight

Washoe Valley NV

Position: support

Comment:

Allow the lion hunt.

Mark Scott

Vernal UT

Position: support

Comment:

I would like you to allow hounds as a tool to hunt mountain lions. Hound hunting is the best method, to be very selective, meeting harvest objectives.

Heath Weavill

Hill City SD

Position: oppose

Comment:

We respectfully urge the South Dakota Game, Fish and Parks Commission to prohibit the use of hounds for hunting mountain lions within the Black Hills Fire Protection District. While mountain lion hunting is a recognized wildlife management tool, the use of hounds raises serious ethical, ecological, and access-related concerns. According to the most recent Mountain Lion Status Report (2023) published by GFP, population estimates for mountain lions in the Black Hills have declined since the 2017–2018 survey period.

This decline further supports the need for a more cautious, conservation-focused approach to hunting regulations—particularly those that allow for aggressive or high-yield methods such as hound use. The 2023 GFP Mountain Lion Status Report also documents a steady decline in mountain lion depredation removals since the 2018–2019 season.

This indicates fewer confirmed conflicts with livestock or pets and further undermines the argument that aggressive lion management is needed through hound use.

A 2023 peer-reviewed national study found 88.2% of the public disapprove of hunting mountain lions with hounds, further underscoring the limited social acceptance of this method.

Brian Peotter

Spearfish SD

Position: oppose

Comment:

I am 100% opposed to expanding the mountain lion hunting season to allow dogs for the hunt. How is there sport in letting a pack of dogs chase down a mountain lion until it is so tired and stressed to where it climbs into a tree for the dogs to bark and scare it further. Then the 'hunter' comes up and shoots the cat out of tree. Ridiculous!!! THIS IS NOT HUNTING. For years I have hunted cats with boots on the ground, trying to track and call a cat. I still have not gotten one, and that is fine and the way it should be. Hunting, is not sending out dogs to stress a cat into a tree. This is not humane no matter what the dog hunters say. Please do not allow for the expansion of dogs for hunting in the Black Hills.

Leisa Bailey

Vermillion SD

Position: oppose

Comment:

This is not a real "hunting sport", but a cruel and unethical event. To train a dog to chase down a wild animal, alone is a disgrace to the term hunting. Please do not allow this to happen; find better ethical means to reducing the population of mountain lions.

Melissa Jerred

Tea SD

Position: oppose

Comment:

"Hunting " with dogs is NOT hunting.

Christian Hagen

Rapid City SD

Position: support

Comment:

I support the use of hounds for hunting Mountain Lion within the Black Hills Fire Protection District.

Payton Reynolds

Watertown SD

Position: oppose

Comment:

I dont wish to see the use of hounds within the BHFPD. It would only benefit 3% of the lion hunters and take away from most of us boot hunter opportunities!

Steve M

Rapid City SD

Position: oppose

Comment:

NO DOG HUNTING

Mason Carleton

Bryant SD

Position: support

Comment:

No comment text provided.

Tyler Richatdson

Rapid Coty SD

Position: support

Comment:

The use of hounds in Pennington, Custer, Fall River as well as the rest of the black hills would allow better management of the resource as well as open opportunities for new hunting experiences for all outdoorsman in South Dakota.

Dylan Beachem

Rapid City SD

Position: oppose

Comment:

Using hounds to hunt mountain lions is widely considered unethical and contrary to the principles of fair chase for several reasons, and it also diminishes the opportunities for "boot hunters" (those who hunt on foot without dogs). Here's why:

1. Imbalance in the Hunt:

Hounds give hunters an unfair advantage by locating and chasing down the mountain lion, often cornering or treeing it. This deprives the lion of its ability to evade and survive based on its own natural instincts. A mountain lion, being a solitary and elusive predator, relies on stealth and its ability to escape when threatened. The use of dogs to track and chase down a lion not only compromises the animal's natural defenses but also severely limits its options for escape.

Unlike fair chase hunting, where the hunter must rely on skill, patience, and strategy to track and engage the animal, using hounds removes much of this challenge. The hunt becomes more about the ability to control and direct a pack of dogs than it does about engaging with the animal on equal terms.

2. Lack of Sport and Challenge:

Fair chase hunting is founded on the principle that the hunted animal has a reasonable chance to evade capture or death, based on its natural instincts and abilities. Hounds alter this dynamic significantly, transforming the chase into a pursuit where the hunter is essentially a bystander, waiting for the dogs to corner or tree the lion. The lion's freedom to move and choose its path is compromised by the dogs, removing much of the skill and effort involved for the hunter. The hunt, therefore, becomes less about skillfully tracking and engaging the animal and more about coordinating a group of hounds.

3. Ethical Concerns:

The ethics of fair chase hunting emphasize respect for wildlife and the pursuit of an animal in a manner that gives it a reasonable chance to escape. Using hounds often leads to a scenario where the lion is forced to run for long distances with little ability to rest or recover, which can result in undue stress, exhaustion, and injury. The lion's chances of survival after being chased are diminished, and in some cases, the animals may be killed while they are cornered or exhausted, which detracts from the concept of a dignified and honorable kill.

4. Impact on Boot Hunters:

For "boot hunters," who rely solely on their own tracking and stalking abilities without the assistance of dogs, the use of hounds creates an uneven playing field. When hounds are employed, it reduces the opportunities for these more traditional hunters, as the dogs quickly find and track the lion, often before the hunter has a chance

to locate it using traditional methods. This not only frustrates the efforts of hunters who prefer a more personal and challenging approach but also limits the overall experience of those who seek the true essence of fair chase hunting. The proliferation of hound hunting can push boot hunters into more crowded or less ideal areas, making the pursuit more difficult and less rewarding.

5. Conservation and Sustainability Concerns:

The use of hounds can also affect mountain lion populations in ways that undermine conservation efforts. Constant pursuit by dogs, especially when done excessively, can stress the animals and impact their health, reproductive success, and ability to maintain healthy populations. The goal of responsible wildlife management should be to ensure that animals are given the chance to thrive and maintain balanced ecosystems, and relying on hounds for hunting may inadvertently undermine these efforts.

In conclusion, hunting mountain lions with hounds contradicts the core values of fair chase hunting and presents a variety of ethical, ecological, and practical challenges. It not only takes away from the lion's natural ability to evade capture but also diminishes the experience of those who hunt on foot, relying on their own skills and knowledge of the terrain.

Richard Burton

Rapid City SD

Position: oppose

Comment:

We do not need more houndsmen running dogs through the field terrorizing anything that runs, all through the heart of winter. SD winters are hard enough as is.

Patrick O'Connell

Valley Spgs SD

Position: support

Comment:

I think this will be beneficial to keep the lion populations in check. Think it was a long time coming to use hounds in the hills

Jordan Schneider

Rapid City SD

Position: support

Comment:

Mountain lion numbers are too high in the black hills. So are coyote numbers. The deer population is trending down. Why else would would the state reduce the number of deer tags in the hills by cutting out archery and muzzleloader antlerless tags in the hills and reducing rifle tags all together while making it buck only. Depredation is a major problem in the black hills and it's caused by both lions and coyotes. Anyone that says lion numbers are down are lying to themselves or they aren't an avid black hills deer hunter. I for one didn't fill my hills rifle tag last year and I hunted my butt off. I put on miles and miles of hiking and hardly saw any deer including does. Did I have opportunities at deer? Sure I did, but I chose to let a couple get bigger for next year. I archery hunt the hills a lot and this year was the worst I have ever seen in regards to the number of deer I typically see. Let's expand hound hunting opportunities and let's promote more coyote hunting!

Ben Ries

Watertown SD

Position: oppose

Comment:

I oppose the hound season in the 3 counties listed.

Kenley Ulmer

Custer SD

Position: support

Comment:

If you want a healthier population, allow the use of dogs. I don't own dogs,I do hunt. Professional, full time taxidermist for 20 years. SD lion population is all over the place. Dog use will help with age class and male female ratio. Lots of small male cats. Give the houndsmen March and let them discriminate on what cat lives and dies.

Kenley Ulmer

Custer SD

Position: support

Comment:

If you want a healthier population, allow the use of dogs. I don't own dogs,I do hunt. Professional, full time taxidermist for 20 years. SD lion population is all over the place. Dog use will help with age class and male female ratio. Lots of small male cats. Give the houndsmen March and let them discriminate on what cat lives and dies.

Joshua Petersen

Rapid City SD

Position: oppose

Comment:

Dogs do not know land boundaries. they will enter private property without hesitation. I have lived in states where this is a constant problem. hard for landowners and their livestock.

Nicole Trego

Rapid City SD

Position: oppose

Comment:

No comment text provided.

Logan Sanford

Rapid City SD

Position: support

Comment:

I support the use of hound hunting in the Black Hills of South Dakota

Joel Trego

Rapid City SD

Position: oppose

Comment:

I own about 10 acres outside of rapid that is surrounded by nearly 400 private acres and borders the BHNF. Hound hunting in the black hills would negatively effect not only my season but the rest of the "regular" lion hunters season's as well.

Also worth mentioning, I am not willing to remove myself or my own dog from an area on MY LAND in order to let the hounds do their job. Ours and many others animals are not friendly to random dogs running through and I will not be held responsible for anything.

Kurt Krietlow

Pierre SD

Position: oppose

Comment:

I personally am against the proposal to allow dog hunting for mountain lions in the black hills in areas that are currently closed. Hunting mountain lions using tactics without hounds is probably the toughest and most rewarding hunting experiences you could imagine. There are many great hunters that love the challenge and I believe that hounds would impact the quality of this amazing hunt. Interactions could be negative and I think the boot hunters would feel defeated and some might even give up this hunt that is already as tough as it gets.

James Thompson

Madison SD

Position: support

Comment:

I completely support the use of hounds for hunting mountain lions in the Black Hills. The cats that are treed can be identified as male or female, young or old and can be released if not wanted. Catch and release hunting. Seems like the best conservation practice.

Seth Anderson

Mitchell Area SD

Position: support

Comment:

Save the deer save the elk

James Smith

Black Hawk SD

Position: oppose

Comment:

No comment text provided.

Matt David

Harrisburg SD

Position: oppose

Comment:

Strongly oppose any type of hounds outside of Custer State park. As a boot hunter I would like preserve this way of hunting. With homes being built, atv's and recreation expanding, it is hard enough to enjoy the grassroots of boot hunting. Hounds just adds another layer of the deterioration of boot hunting.

Chris Gukeisen

Pierre SD

Position: support

Comment:

I support the expanded use of hounds for mountain lion hunting.

Jason Piebenga

Rapid City SD

Position: oppose

Comment:

I feel allowing more hounds has nothing to do with harvesting more females. I don't understand where this even came about. If anything I feel hounds would help selective harvest of what you want to harvest. The issue i thought has always been all the private land mixed into the public and having the hounds cross onto everyone's property as they are chasing a lion and potentially hunters crossing into private land. I personally have not harvested a lion and have hunted a few years for them and I like the fact we are one of the few states that has to pursue them on foot. I also would like to add I am opposed to any guided opportunities in the state of south dakota as it is just turning hunting into a money sport. I grew up with it being a family tradition and support public lands and public opportunities keep the paid hunting and fishing out of this state! I feel this is all about hiring houndsmen and making the extra dollar let's not forget our roots and keep hunting for the average Joe's in this state don't monopolize it.

Dan Henderson

Rapid City SD

Position: support

Comment:

I support the use of hounds in Custer, Pennington, and Fall River counties

Travis Haan Rapid City SD

Position: support

Comment:

No comment text provided.

Trevor Pitsor Piedmont SD Position: oppose

Comment:

I oppose this proposal for hound use during Mtn Lion season in the Black Hills. The Black hills are not big enough to have hounds running lions everywhere. This will also lead to upset land owners as these hounds will cross private property. Hunting is supposed to be a challenge, let's keep it that way by making the hunter do the work, not the dogs. I will no longer purchase a lion tag year after year if we have hounds running the lions everywhere. Keep hound Hunting for CSP and boot hunting for the remainder of the Black Hills.

Clint Barber

Castlewood SD Position: support

Comment:

Being able to hunt lions with dogs is a passage to American hunting rights. All predators need management as bad as regular game does.

Brett Johnson Rapid City SD Position: oppose

Comment:

I oppose the use of hounds for lion hunting in the BHNF.

Justin Wills
Rapid City SD

Position: support

Comment:

Release the hounds!!

Brett Bowser

St Francis SD

Position: support

Comment:

I fully support expanding the opportunity to hound hunt mountain lions with hounds.

Joshua Weilbacher

Rapid City SD

Position: oppose

Comment:

Dogs take the sport out of the pursuit of Mountain lion hunting.

Paul Haiar

Mitchell SD

Position: oppose

Comment:

No comment text provided.

Dan Chmela

Sioux Falls SD

Position: oppose

Comment:

Should not be allowed for such a small interest group. Data shows it is not needed

Kenny Danielson

Rapid City Sd SD

Position: oppose

Comment:

I oppose the proposal to change and allow hound hunting in the hills outside custer state park. Lion numbers have declined and this would further drive that number down. It would also be an unfair advantage to a small group of hunters.

Kenny Danielson

Rapid City Sd SD

Position: oppose

Comment:

I oppose the proposal to change and allow hound hunting in the hills outside custer state park. Lion numbers have declined and this would further drive that number down. It would also be an unfair advantage to a small

group of hunters.

Blake Olson

Rapid City SD

Position: support

Comment:

Expand proposed mountain loin hunting with dogs. I do not hunting with or own any hound dogs just want to see everyone have there opportunities they want in the outdoors. Those who are against hunting big game with dog think is easy. I struggle keeping one bird dog feed and in peek hunting form, I couldn't image that upkeep with a pack.

Kyle Schulz

Philip SD

Position: oppose

Comment:

Allowing hound hunting will just be commercializing another sector of South Dakota hunting

Boot hunters are doing an adequate job of harvesting cats, why change it?

Clay Bernstein

Hill City SD

Position: oppose

Comment:

I believe allowing the use of hounds will take opportunity away from the majority of mountain lion hunters in the state. I believe the season works just fine the way it's set up currently. Allowing hounds and raising the success rate of hunters, will greatly reduce opportunity for the average hunter to go out and harvest a lion.

Ed Pulse

Custer SD

Position: oppose

Comment:

Please keep dogs out of black hills national forest you will sell less tags, boots on the ground gives any body the chance to hunt not only the ones with hounds, nothing against hounds, but they already have rest of the state, boot hunters have been getting close to the quota

Kellen Barden

Forestburg SD

Position: other

Comment:

To whom it may concern,

I find myself having mixed emotions about lion season. I understand how helpful dogs can truly be in hunting mature cats. My problem is with the potential problem that may arise with creating a monopoly with houndsmen. Doing that could potentially take away from the average hunter that may not be able to afford dogs. Forcing less hunters to hunt lions on foot. We have seen this monopoly happen in some western states already. One example is Wyoming, the outfitters there have a lot of control on what happens and I, as hunter and a tax payer would hate to see any opportunity taken away from any hunter.

Thank you for your time

Mitchell Gregg

Sundance WY

Position: support

Comment:

To let more hound hunters harvest lions on the black hills would be a good thing more lions could be taken sustainably and less females and month old kittens would get shot. I am originally from South dakota and have taken multiple lions there but boot hunting is not the best way to take lions nor manage the population unless you want it reduced due to female mortality.

Greg Heier

Rapid City SD

Position: oppose

Comment:

All this proposal will result in is more paid hunting and force out the ethical boot hunter. Hunting with a dog is not hunting. Just creating a shooting gallery, taking trophies vs. conserving and managing the number of cats. That and having dogs pushing cats on/thru private lands is not a good look.

Frank Moser

New Underwood SD

Position: support

Comment:

I would support a hound hunting of Mt Lions in South Dakota.

Howard Smith

Winner SD

Position: oppose

Comment:

No comment text provided.

Greg Heier

Rapid City SD

Position: oppose

Comment:

I am strongly opposed to the proposed change in Mt. Lion hunting. There are basically two reasons that I am opposed. Using dogs will lead to paid hunting as hunters will pay outfitters to chase trophy animals. This pushes out the day to day boot hunters. This is not true ethical hunting and gives the "anti hunter" groups in our and surrounding States ammunition to try and stop hunting all together. Secondly, the Black Hills is to small of an area to run dogs. With many patches of private land scattered through out the Hills, there is no way to guarentee dogs will not run/chase cats onto or across those lands. Leave the lion hunting to the boot hunters. We have kept the lion population in check over the years.

Toby Aberle

Sturgis SD

Position: support

Comment:

I have had huge increase of mountain lions on my trail cameras in Lawrence County I believe the population has gone up I find mountain lion kills all the time. It's time to allow hound hunting in all of the Black Hills and raise the quota to 100 mountain lions a year.

Justin Hammer

Rapid City SD

Position: oppose

Comment:

I oppose the expansion of hound hunting in the Black Hills. Hunters have continually overwhelmingly opposed the expansion.

Cody Schultz

Tulare SD

Position: other

Comment:

I support the expansion of the area further than Custer state park. I hunted the second season in the park this year and it literally was the second to last day before I was able to harvest my lion with hounds. Long days 10+ miles every day (hounds ran 35+). Would it have helped if the area was bigger absolutely. I was nervous a permit that took me 13 years to get was not going to get filled. After talking to the biologist that checked in my cat it doesn't sound like Custer is the problem area. I support adding another permit outside of Custer area with a quota as well. Best management tool we have to learn more and study these animals is hounds! Shooting a mt lion jumping off a cliff running away is not a way to judge a lion. The goat, elk, and deer herds are suffering from the lack of young and mt lions could be the culprits.

Andrew Ferris

Wall SD

Position: oppose

Comment:

I oppose any change to the mtn lion season and oppose the use of dogs in black hills

Brody Weavill

Hill City SD

Position: oppose

Comment:

No comment text provided.

Ethan Escue

Rapid City SD

Position: oppose

Comment:

I oppose the expansion of dog hunting mountain lions in SD. I myself am an avid "boot hunter" and feel the system as is works great.

Jon Olson

Madison SD

Position: support

Comment:

I am all for this.

I'm sick and tired of boothunters constant whining about houndsman will take all the quota. I've said all along that the quota hasn't been met in 10 years. And the area we deer/ elk hunt in, fall river and southern Custer County is overrun with predators. I assume because thers is so little snow.

The ungulate population is crashing. I say, kill these things by whatever means necessary!

Jon Olson

Madison SD

Position: support

Comment:

I am all for this.

I'm sick and tired of boothunters constant whining about houndsman will take all the quota. I've said all along that the quota hasn't been met in 10 years. And the area we deer/ elk hunt in, fall river and southern Custer County is overrun with predators. I assume because there is so little snow.

The ungulate population is crashing. I say, kill these things by whatever means necessary!

Les Tiltrum

Hermosa SD

Position: support

Comment:

Support the use of hounds and would be very beneficial for the deer and elk numbers.

Barry Smith

Groton SD

Position: oppose

Comment:

I don't think we need to allow hound hunting in South Dakota it's not fair for the rest of us that have purchased licenses before we seem to be managing the number of them good enough the way it's set up

Starla Graves

Whitewood SD

Position: oppose

Comment:

I am not supporting a few men that own hounds to take over our mountain hunting in the black hills. This would be a huge disadvantage to the foot hunters we have. These houndsmen already use their hounds for helping people hunt in Custer that get hound tags.

Tim Keyser

Sioux Falls SD

Position: oppose

Comment:

I oppose the use of hounds for hunting mountain lions in the Black Hills. I believe, as a seasoned hunter, that this practice is unethical and certainly not needed to control the lion population. It serves to benefit only a handful of professional guides and does not serve the interest of other hunters and wildlife enthusiasts in SD.

Jeremy Nedved

Plankinton SD

Position: support

Comment:

I support the new mt lion plan of more area for houndsmen of South Dakota.

Steve Wiege

Rapid City SD

Position: support

Comment:

I support the mountain lion proposal for the upcoming season.

Darren Hingleman

Rapid City SD

Position: oppose

Comment:

Stop catering to the vocal minority. Hunters enjoy hunting mountain lions and if you open it up to houndsmen it will only benefit a few people. Many years ago GFP promised that hound hunting would only be allowed in CSP and now they are going back on their word. Keep hounds in CSP only and do not ruin a great experience for everyone else!

Rocky Ruzicka

Belle Fourche SD

Position: support

Comment:

Believe it would be an added tool for the entirety of the BHNF for the taking of mature cats. While also assisting biologists with better data on our current lion population and health.

Braidyn Buchholz

Hermosa SD

Position: oppose

Comment:

There is not enough room or cats to justify using dogs in the black hill fire district. How are you going to keep hounds off private land? Will the land owner have the right to dispatch hounds if they are on his land attacking a lion, bobcat, dog, or house cat? Just something to consider. These houndsman are just trying to make money off getting people cats in the hills and that is not needed. We have a very fun unique season as it is and let's keep it that way.

Allyson Frankenhoff

Summit SD

Position: oppose

Comment:

"Only 3% of hunters (houndsmen) would benefit, yet they already take 35% of harvested lions each year. This Proposal expands their advantage while reducing opportunity for the rest of us."

This would be detrimental to boot hunters as this may be one of the truest hunts out there currently.

Travis Chilson

Lemmon SD

Position: support

Comment:

I support hound hunting in South Dakota

I would also like to see a regulated and limited take on incidental catches of mature toms for trappers across the state.

I have trapped lions in 2 diffrent states T.X. and N.M. under state and federal agencys. I have seen what happens when social pressure a d things outside of biological science sway wildlife managenent sadly it happens all the time with simular results. A large lion population a decreaseing ungulate and bobcat population and its sportsmen who fund the state agencys that pay the price. We moved here because we seen what happens when the north american model tales second place to social pressure and i would hate to see that happen here. I will give you a few examples of the results of that have affected New Mexico. In 2021 a public lands trapping ban narrowly passed the legislature. Sb32 aka roxys law. The pronghorn in the state began to decline rapidly not due to winter(warm winters) but via drought and increasesed predation in the first 30 days of birth bye coyotes 70% bobcats 10 percent and even lions. This was also affected by drought and a huge decline of the rabbit population due to R.H.D

This made predation even heavier on pronghorn and mule deer fawns.

The population dropped 70% as aerial abd harvest report data shows

Simular with bighorn sheep reintroduction efforts lions killed over half of the first released sheep in 6 months. This was after regulations inposed on hunters snd trappers due to social pressure

Most the losses of bighorn sheep pronghorn and nule deer are on public land New Mexico is 40% public land.

Please allow more opportunuty for hound hunters in South Dakota the science shows it is sustainable and houndsnen are just more selective then boot hunters. It will help in lots of ways

Jacob Terry

Elk Point SD

Position: support

Comment:

No comment text provided.

Chase Hopkins

Pukwana SD

Position: support

Comment:

No comment text provided.

David Koch

Warner SD

Position: oppose

Comment:

The small group of for-profit hound hunters has been told we do not want hound hunting in the Black Hills district time and time again. They continue to push their agenda, despite the clear messages given by the

majority of other hunters. Please do not allow hound hunting in the Black Hills district for any type of hunting or training.

Raymond Tibbs

Ft. Pierre SD

Position: support

Comment:

I support the use of hounds to manage the Mt. Lion population in the black hills.

Terrance J Weickum

Sturgis SD

Position: oppose

Comment:

To allow dogs to hunt in all of the black hills is ridiculous. Not all of the Forrest area has the animal populations like Custer does. There are not only more cats but they are bigger in Custer due to the amount of food they have. Ive hunted the hills for a long time without dogs and know a lot of others who hunt without dogs. They are not needed. If people want to let their dogs hunt for them that's fine but please lets keep it contained. Some of us still love to hunt. If people want to shoot at a treed target maybe they should work with the new shooting range for a special event. If its about money then maybe consider allowing a certain number of out of state people hunt at a higher cost. I can guarantee if im out hunting/ tracking and see dogs come running up on me with no owners in sight, I will shoot them all. And to be clear im not a dog hater, I love them. I don't love a pack running up on me or on a single animal though. Keep the dogs managed where they are.

John Moses

Rapid City SD

Position: oppose

Comment:

100 percent against this once again. South dakota game and fish is going in the wrong direction mountain lion populating is dropping so let's shoot more cats they finally stopped shooting the doors in the hills that was only 10 years to late

Dale Feldmam

Humboldt SD

Position: support

Comment:

Hunting with dogs is a must for mountain lions. Do a quota. Have people apply for preference points. Have a list of outfitters with dogs. Thank you.

Andrew Bressler

Lead SD

Position: oppose

Comment:

I oppose the use of hounds in the hills for many reasons, here are a few;

-fish in a barrel. I've successfully harvested a lion in the hills on boots 8 out of the last 9 years. The roads and the access in the hills would make it unfair for the lion. Our lion population is healthy, dogs would wipe them out.

- the number of people that benefit for the use of hounds is a small fraction of all the hunters that would be affected. With allowing dogs you chase away all the boot hunters that are not local to the hills. Why would you come to the hills to hunt lions on boots when you know there's hounds out there that are running them down and can blow right by you in a track or blow through your calling set? I have tons of people that come and hunt with me throughout the year for east river and most of them have said they'll stop coming if they let dogs run. It's hard enough as it is much less having to compete with hounds. Allowing hounds will chase more people out of the wooods then it will bring people in. Plenty of other states don't allow hounds. Washington, Oregon both have very successful lion populations and neither use dogs. We are not the Rocky Mountains where the lions grow to 170+ and are much harder to hunt off boot due to the terrain.

Theres to many roads and highways throughout the hills, many hounds are going to get hit by cars and that's also putting peoples lives in danger as well.

Please a handful of hounds man or the thousands of people that buy tags every year, come stay in the hills, and bring money to local businesses. Especially in the winter months when it's the slow season some businesses literally survive off lion hunters. Loosing your boot hunters will lose their businesses

Joseph Hawthorne

Hill City SD

Position: oppose

Comment:

With the demographic of South Dakota changing so drastically not for the better in my opinion, hunting mountain lions with hounds is only going to get it banned by the public voting want to and not by actual biologist, and the management will be completely left up to the state. I don't want to see that, the Black Hills is one of the best opportunities for someone who is a boot hunter to take a mountain lion anywhere in the United States.

Grant Anderson

Box Elder SD

Position: support

Comment:

Hunting mountain lions with hounds is completely ethical and makes it far easier for the hunter to correctly identify the sex of the animal before he takes the shot.

Ryon Berry Philip SD

Position: oppose

Comment:

I strongly oppose expanding the use of hounds for hunting mountain lions in the BHFD. South Dakota has a very unique hunting experience with the existing regulations. Expanding hound use will decrease the amount of recreational value generated by the existing resource. Landowner relations with mountain lion hunters are currently overwhelmingly positive. Hound hunting will likely lead to less positive relations which the hunters without access to the use of hounds and landowners will bear the greatest burden of the decreased hunter/landowner relationship and benefit only a very limited select few individuals.

Mike Kluth

Mount Vernon SD Position: support

Comment:

We should allow hound hunters in them counties. Nobody with a hound is gonna kill a loin that is not mature!

Dillon Grose

Hunter ND

Position: support

Comment:

Expanding hound hunting to better and more effectively manage population is in the best interest of the people of South Dakota

Colton Benson

Montrose SD

Position: support

Comment:

I support the use of hounds in pursuit of mountain lions

Austin Yenglin

Sturgis SD

Position: support

Comment:

I support hunting lions with hounds

Thomas Undliin

Faulkton SD

Position: oppose

Comment:

Dogs ruin my lion hunting for all of us fair chase hunters. Open the season at the start of deer season if you want more shot

Gene Palmer

Sioux Falls SD

Position: oppose

Comment:

Beautiful animals. Almost never seen. I have never seen one. If you sickos keep killing them I never will. What gives you the right to rob that from us.

I hunt pheasant. They are plentiful.

This is disgusting. My anger swells.

Trevor Christiansen

Parker SD

Position: oppose

Comment:

Do not expand the area that hunters with dogs would be allowed to hunt. Hunting without a dog is challenging already. Not everyone that hunts can afford a dog(s). Please do not expand the area that dogs are permitted to be used.

Kathryn Ferrigno

Rapid City SD

Position: oppose

Comment:

Hunting with dogs is not sporting. If you can't track the cat yourself you shouldn't be hunting.

Dutch Deick

Pierre SD

Position: support

Comment:

Allow hound hunting. Best method of cat population control.

Kyle Meier

Pierre SD

Position: support

Comment:

Allow the use of dogs to hunt mountain lion. Restrict them to take 20 of 60 quota or only allow dogs on leash to aid hunter in following a track a little quicker. Promoting dog use with a leash would get more people involved as it's easier to buy and care for one dog vs 5. I track wounded deer for hunters and it's really fun working a track with a dog.

Mike Verchio

Hill City SD

Position: support

Comment:

I have no interest in hunting lions but do believe dogs make it much easier to determine the sex and age of the lion .

Daniel Cichosz

Whitewood SD

Position: support

Comment:

Dogs should be allowed to hunt lions inside the Black Hills Fire District Area. The focus should not be on how the Hunter uses the means and methods of harvesting the lions, rather focus on the number of lions harvested. We live here, and we all know the number of lions that are harvested is not near enough. Most all hunters have a limited amount of time to hunt each season. The use of dogs should be allowed during the hunting of lions. Please consider allowing dogs for hunting lions so we all can continue to use, support and take care of the Black Hills.

Darin Cooper

Spearfish SD

Position: other

Comment:

I'm 100 percent against allowing hound hunting in the Black Hills National forest. The only pro to allowing hounds is, maybe kittens and lactating females might not get shot. Allowing hounds is filled with nothing cons. The Black Hills is a tiny area as compared to other national forested areas that allow hunting and the Black Hills is littered with way more private land than all other national forest and there will be nothing but issues with hounds on private land, guaranteed!! Because the area is so small with so many hunters, there will be conflicts with hounds hunters and boot hunters, guaranteed!! Hounds hunters are going to make the lions even more elusive and harder for boot hunters to find. Why cater to a few people and take away from the majority? If the problem is the shooting of kittens by boot hunters, sorry, but that is still going to happen. Maybe have more education or even make hunters pass a educational class on identity legal lions. If the problem is not meeting the quota, then make the season longer, start it November 1st. If you pass this, I'm done hunting lions in South Dakota. I will take my money to other states that have way more national forest and can get away from hounds.

David Vahndijk

Sturgis SD

Position: support

Comment:

I don't hunt Mt Lion but am emphatically in favor of those who do being allowed to use all means to achieve a successful hunt. As a parent of small children and landowner I prefer the lion population to be rigidly controlled. I know that in a state where I used to live the lion population exploded to the severe detriment of other game species and livestock, as well as public safety, when that state outlawed tracking dogs all together. I do not want SD to ever go that rout.

Thank you for your consideration.

David VahnDijk

Leslie Soring Whitewood SD Position: support

Comment:

I support the use of hounds to hunt lions in the fire protection district of the Black Hills. Hunting with hounds allows the hunter to fully evaluate the lion and make more ethical decisions on if it's an appropriate cat to harvest. It also allows for a cleaner kill preventing the animal from suffering non fatal wounds. My sister lost an expensive 3 week old colt to a mountain lion in Whitewood a few years back after it had killed another pony a few weeks prior. I think that the management of mountain lions in this area needs major improvements. Allowing houndsman to aid in reaching the quota will prevent further loss of livestock/pets and improve safety for the ever growing population. It also improves the health of the mountain lions, if we are able to better manage the numbers. I think what they are asking for is reasonable and fair considering the quota has not been met for several years.

Gregory Briggs

Dupree SD

Position: oppose

Comment:

No comment text provided.

Dylan Stein

Belle Fourche SD

Position: oppose

Comment:

No comment text provided.

Robb Nelson

Deadwood SD

Position: support

Comment:

please allow Hounds for Mountain Lion hunting. This is an ethical means of take and promotes more sound means of scrutiny before harvesting the wrong animal. This is a NO BRAINER!!!

Jan Wood

Belle Fourche SD Position: support

Comment:

Hound hunting is a great way to selectively harvest for age and gender of mountain lions.

Gavin Turbak

Rapid City SD

Position: support

Comment:

No comment text provided.

Carli Wagner

Mankato MN

Position: oppose

Comment:

The area where dogs may be used to hunt mount lion should not be expanded. The incredible success rate of the hunting practice is concerning for the small lion population. Stalking methods should be the primary method of hunting for this species in the area, it is far more in the spirit of hunting and is less disruptive.

James Weyh Jr

Watertown SD

Position: oppose

Comment:

I oppose the use of dogs to be used to hunt in the Mountain Lion management hunting areas by any licensed hunters in South Dakota.

Stuart Jacobsen

Canova SD

Position: oppose

Comment:

I don't believe hound hunting is not needed since we already have them pretty much under control, unless a

particular	anımal	IS	causing	an	issue.

Dylan Herr

Dell Rapids SD

Position: support

Comment:

Good idea to allow dogs

Dustin Poor

Aberdeen SD

Position: oppose

Comment:

I am not in support of the use of hounds. If the success rates of hunters has risen and the population of lions has been properly managed as is why give advantage to those with hounds to reach the quota sooner? I am aware that even with hounds hunting lions is still very much a challenge, however it gives an advantage nonetheless. And funny you mention the elk hunter advantage, it's almost like landowners have a pretty solid advantage when it comes to drawing bull tags. I understand landowners preference should be considered, because they lose feed to elk herds etc. But at the cost of a good portion of folks only getting maybe 1 tag in their life vs a landowner getting one every other year or 2 kinda thing? Seems like a very big unfair advantage. Something needs to adjust a bit there I'd say

Abram Herman

Rapid City SD

Position: support

Comment:

No comment text provided.

Joe Arbach

Hoven SD

Position: oppose

Comment:

Please don't allow hound hunting out side of Custer State park yet. I want to try and get one with out dogs.

Donavon Schoon Rapid City SD

Position: support

Comment:

As many of us were growing up, deer and elk were a big part of our families diet. Not only is the meat awesome the hunts brought family and friends together. And thought many lessons to the new generations. Then Mountain Lion's came into the picture. We have all seen them diminish the numbers of deer and elk. I do not feel that the current system is managing the population of the cats. Hound hunting might be unfair to some peoples thinking. Does that mean guns are an unfair advantage also? This state needs to control the number of cats better than it has. Just because dogs can be used does not mean boot hunting is not allowed.

Jay Jahnig Spearfish SD

Position: oppose

Comment:

I oppose the use of any canine to hunt Mountain Lions. The use of dogs not only makes hunters lazy, but also sloppy. It tips the successful hunting balance way too far toward the hunter. Further, it takes away from hunters that have refined their skill-set to include getting a Lion the old fashioned way. Up to now, bagging a lion was a true Badge of Honor. If dogs are used it would degrade that honor to the equivalence of successfully obtaining a license.

Greg Moselle

Spearfish SD

Position: oppose

Comment:

Please stop this practice. The people do not support it.

Andrew Ferris

Wall SD

Position: oppose

Comment:

Do not support hounds in the hills when population is in decline and stated by gfp staff

Mark Weber

Spearfish SD

Position: oppose

Comment:

I certainly oppose mountain Lion hunting with dogs in the Black Hills. They have the whole entire state in Custer State Park that they can hunt dogs with this is one area that the hunters boot hunters can hunt without competition of the dogs. I see nothing but problems with hunting mountain lions with dogs, trespassing or if somebody's on a lion and the dog trees it who's lion is it? This is not a good idea and should not happen. The mountain lion population is decreasing and we should probably try and evaluate the numbers to be less so we have a good healthy population of mountain lions but hunting mountain lions with dogs in the Black Hills is

nothing but trouble and will be trouble. Thank you for allow me to voice my concern

Jason Fisher

Lead SD

Position: oppose

Comment:

I oppose the proposed use of hounds anywhere outside of the Custer State park.

The houndmen argue that boot hunters kill too many cubs. Yes, a few are taken each season and personally, I think those hunters should be fined for killing a cub.

But, this is no reason to allow hounds, which would ruin it for the remaining 95% of boot hunters who do follow the rules and do not shoot cubs.

Hunting lions w/ dogs is pretty unfair in my opinion.

Cody Knight

Washoe Valley NV

Position: support

Comment:

Supporting the use of hounds with the mountain lion season.

Scott Bakker

Sioux Falls SD

Position: oppose

Comment:

I am a resident of South Dakota and against hunting mountain lions and using dogs for hunting them.

Ruthie Lindeman

Black Hawk SD

Position: oppose

Comment:

hound hunting of mountain lions is barbaric and shameful. I'm a dog lover and think we should leave wildlife alone.

Terri Pepper Harrisburg SD

Position: oppose

Comment:

I am a SD resident and strongly oppose this cruel behavior.

Alexey Egorov Brookings SD Position: oppose

Comment:

Leave wild animals alone. I am strictly against hound hunting mountain lions, especially in the newly proposed Black Hills Fire Protection District areas. Uses dogs to hunt lions is inhumane. It is not honor. It is It's not a fair contest — one wild animal against a pack of dogs and hunters driven by hatred for wildlife. Do you really find it amusing, or something to be proud of, when a group of people brings down a single animal? That's not a victory. There is no glory in it, and it's certainly not sporting. Taking pleasure in tormenting animals who cannot fight back, wearing them down until they collapse, is a mental sickness and reveals a shameful cruelty encouraged by the GFP.

Wild animals are not the private property of hunters, landowners, or the GFP. They belong to all South Dakota residents.

The current GFP Commission repeatedly ignores the will of South Dakotans to serve the interests of a select few. All six current members must resign — they are a disgrace to our state.

Penelope Honniball

Woodinville WA

Position: oppose

Comment:

No comment text provided.

Eva Scott

Rapid City SD

Position: oppose

Comment:

Please submit a written comment against the proposed amendment to the mountain lion season, to allow hound hunting in certain areas of the Black Hills Fire Protection District. Special interest groups & landowners are responsible for this latest attack on mountain lions. Written comments are the most effective way to let the SDGFP Commission know how the majority of the public feels about this current proposal.

?????? ???? ??????????????:

- 1. Go to gfp.sd.gov/forms/positions and enter your information.
- 2. Under "Position Comment," select "Mountain Lion Season"
- 3. Choose "??????????"
- 4. In the comments, let them know that:

South Dakota resident here...I am profoundly against hound hunting mountain lions, especially in the newly

proposed Black Hills Fire Protection District areas. Using dogs to hunt lions is extremely inhumane. Residents like myself are tired of being ignored by this Commission with its consistent decisions to cater to special interest groups!

Cristian Sardina

Deadwood SD

Position: support

Comment:

Thank you so much for taking the brunt of the modern movements trying to seperate us from nature under the guise of animal welfare, please keep fighting for our right to take part in Gods creation. God bless you be strong.

Ann Weaver

Rapid City SD

Position: oppose

Comment:

I am against mountain lions being hunted by hounds. It's unethical to favor special interests .

Colin Croft

Gering NE

Position: oppose

Comment:

Western Nebraska's mountain lions populations are declining, particularly in the Wildcat Hills where 21 cats have been killed in the last 18 months. While this may seem tiny by SD standards, our own agency estimated that population to only be 18 as late as January 2025. This proposal further reduces SD's lion population, further reducing the number of lions dispersing into Nebraska, at a time that when that is very important.

Victoria Greenlee

Spearfish SD

Position: oppose

Comment:

Please do not allow expanded hunting of mountain lions and the use of hounds. They would feel such terror being chased by the dogs, such torture. It's inhumane and totally unacceptable.

Jennifer Cary

Sioux Falls SD

Position: other

Comment:

As a South Dakota resident, I urge the Game, Fish and Parks Department to reject the proposal to expand hounding areas for mountain lion hunting. Expanding these areas will harm the mountain lion population and disrupt their family groups, which can indirectly lead to increased tension with local communities and farm animals. Please protect our mountain lions."

Anissa Goehring

Crooks SD

Position: oppose

Comment:

As a South Dakota resident, I urge the Game, Fish and Parks Department to reject the proposal to expand hounding areas for mountain lion hunting. Expanding these areas will harm the mountain lion population and disrupt their family groups, which can indirectly lead to increased tension with local communities and farm animals. Please protect our mountain lions.

Vernon Hehn

Sturgis SD

Position: oppose

Comment:

using dogs is increasing cruelty.

Minh-Dung Nguyen

Aberdeen SD

Position: oppose

Comment:

Based on Humane Society, "as a South Dakota resident, I urge the Game, Fish and Parks Department to reject the proposal to expand hounding areas for mountain lion hunting. Expanding these areas will harm the mountain lion population and disrupt their family groups, which can indirectly lead to increased tension with local communities and farm animals. Please protect our mountain lions."

Personnally, I think the Lord has created lions to live in peace with human beings. It is unethical to kill a lion when the lion does not kill / the lion normally wanders around for daily living.

Mitchell Fee

Burbank SD

Position: oppose

Comment:

My being very familiar with wildlife, hunting and habitat conservation for wildlife and South Dakotas history with it. I do understand that occasionally mountain lion hunting is needed to control the population at times. However, this giving in to the pressure of the hound hunting foundation people is absolutely rediculous. This is

grossly unfair to the cats and similar to "shooting fish in a barrel".

The average hunter full well knows that a cat doesn't have a chance against a pack of hounds on a fresh trail, treeing it and shooting it is no sport at all. It's a travesty against nature and disgrace to mankind. My having lived and worked in Custer Park over forty years ago full well know the issues in a small area like the Black Hills when it comes to living with the wildlife. I have raised hounds as well and love them very much. It's exciting to train them and watch their natural God given instincts at work. It's a beautiful thing, but not at the expense of habitat and game animals life.

If there's a problem lion that's going into town or killing prohibited things, then that's one thing. However, using hounds is not fair game hunting. If a hunter cannot track and kill a mountain lion with a bow or a gun on his own?

Then, that person is not a true traditional hunter. In addition, someone please take the "Opossum" off the former governors predator list. I have been communicating this to the SDGFP for years now. The pheasant population is doing better than ever mostly due to farmers cooperating with the pheasant preservation incentives, wetlands conservation, etc.

Those in the know, do understand that the Opossum do much more good for the environment than harm and are virtually no threat to pheasants.

Possums eat thousands of "Ticks" every year which can carry "lime disease" and pass it onto humans, pets, in venison, other wild game animals and is also suspected of contributing to "chronic waste disease" in deer. So, let's give the possum population a chance to bounce back, so they can get back to eating thousands of ticks every year.

Lord knows, that S.D. doesn't have a shortage on ticks. Plus, possum are virtually immune to rabies and other infectious diseases.

Please take all of this factual information and consider it seriously for health of South Dakotas unique and precious wildlife.

Thank you kindly.

Barbara Wright-Pigman

Rapid City SD

Position: oppose

Comment:

There is no reason to increase the number of mountain lions killed for sport. There are already too many killed. We have encroached on their environment so why should they be killed for that.

Gloria Pratt Rapid City SD

Position: oppose

Comment:

No comment text provided.

Paulette Keller Sioux Falls SD

Position: oppose

Comment:

No comment text provided.

Louise Mcgannon

Mitchell SD

Position: oppose

Comment:

You can say: "As a South Dakota resident, I urge the Game, Fish and Parks Department to reject the proposal to expand hounding areas for mountain lion hunting. Expanding these areas will harm the mountain lion population and disrupt their family groups, which can indirectly lead to increased tension with local communities and farm animals. Please protect our mountain lions."

In the 2024-2025 hunting season, trophy hunters killed 66 mountain lions—far more than the previous five seasons. There is no reason to expand the areas where hounding is allowed in the Black Hills Fire Protection District. Hounding is cruel, unsporting and disturbs both recreational users of public lands and other wildlife, like deer. Any increase in hunting could further destabilize the mountain lion population, breaking up family groups, which can lead to more conflicts with farm animals and communities.

Andreea Picioroaga

Vermillion SD

Position: oppose

Comment:

Please do not extend the area of hunting these precious souls, the mountain lions! South Dakota is nature at its best and we should be stewards of the land and animals on it, not exploiters, hunters, and abusers. Please protect all animals, ban hunting and trapping and switch to humane ways of animal protection and conservation!

Josephine Chang

Singapore AA

Position: other

Comment:

I am here to sign a Petition to end mountain lions hunting for good.

For God sake, please stop all wildlife killing, it will harm our earth environment. Please stop

C M

Brookings SD

Position: support

Comment:

What is wrong with people hunting with hounds that isn't a fair way of hunting and specially our Mountain lions. How would you like to be hunted by hounds or without them. Don't hunt at all until the animal increases in population.

Jeremy Wells

Sturgis SD

Position: support

Comment:

I strongly support the proposal by gfp to expand the Custer state park hound season but I do recommend that this season be a quota or harvest limit instead of a lottery.

Jeremy Nedved

Plankinton SD

Position: support

Comment:

I support the expanded area for mt lion season. I do however think it should be a 15 lion quota and not 15 tags.

Gena Parkhurst

Hot Springs SD

Position: oppose

Comment:

Please stop hound hunting of mountain lions in Fall River County because it is cruel and unnecessary.

Mike Jarding

Hot Springs SD

Position: support

Comment:

I fully support the mt lion finalization on the new mt lion unit to allow dogs.

Gary Placco

Custer SD

Position: oppose

Comment:

This new proposal is insane, and only is helpful to a small group of people. This isn't hunting, its extinguishing a species.

Rosalie Placco

Custer SD

Position: oppose

Comment:

The present law allowing hounds is too stupid now, and doesn't need to be increased. If these men were real hunters, they wouldn't need to use hounds. The Lion population is small enough. We've removed Bears and Wolves here already. Are we trying to remove all predators from South Dakota?

Melissa Jerred

Tea SD

Position: oppose

Comment:

It's barbaric and not a "sport" or "hunting" if domesticated dogs are the ones trapping the lion. It's disgusting and it's time it ends.

Stacie Bechtold

Sioux Falls SD

Position: oppose

Comment:

I strongly oppose this!!!!!!

Sue Hayes

Deadwood SD

Position: oppose

Comment:

Strongly disapprove of using dogs for mountain lion hunting.

Amber Reed

Sioux Falls SD

Position: oppose

Comment:

No comment text provided.

Cynthia Cole

Rapid City SD

Position: oppose

Comment:

I oppose hound hunting as a cruel and evil sport... I oppose all hunting where you dont eat what you hunt and no one eats lions so I oppose hunting them at all but using hounds is cruel and unnecessary. We are better then this...

Margaret Lindner Sioux Falls SD

Position: oppose

Comment:

I am opposed to using hounds to hunt mountain lions and to any expansion on mountain lion hunting in South

Steven Andrews

Sioux Falls SD

Position: oppose

Comment:

Strongly oppose. It's not hunting fair. They literally chase them to exhaustion and maul the family as well. It's just an attempt to bring in more out of state people to hunt in a cruel and inhumane way that nobody should support. If you want to hunt them, man up and do it yourself.

Paula Radel

Mitchell SD

Position: oppose

Comment:

not good sportsmanship

Chris Blindert

Mitchell SD

Position: oppose

Comment:

No comment text provided.

M. Sean Roberts

Pierre SD

Position: oppose

Comment:

To the Commissioners of the South Dakota Game, Fish & Parks,

My name is Sean Roberts, and I am a resident of Sioux Falls. I am submitting this comment in strong opposition to the proposed rule change that would expand hound hunting within the Black Hills Fire Protection District (BHFPD).

My primary objection is that this proposal directly contradicts the commission's own Mountain Lion Action Plan, adopted in October 2024. Objective 2(b) of that plan creates a clear management distinction between the BHFPD (for "boot hunting") and Custer State Park (for "hunters with dogs"). To violate the core structure of your own plan—a structure deliberately retained from prior management plans—so soon after its adoption undermines the integrity of the public process and suggests this decision is being driven by special interests, not sound policy.

This proposal is not only a procedural failure but a scientific one. Credible research has shown that aggressive predator hunting can destabilize social structures and lead to an increase in human-wildlife conflict. Furthermore, while a 2024 public opinion survey was conducted, its results showed significant regional divides. I demand that any decision of this magnitude be supported by ongoing, comprehensive social science data and polling that represents all South Dakotans, not just limited surveys and the anecdotal testimony of a few stakeholders.

From an economic standpoint, this proposal is fiscally irresponsible. The minimal revenue generated from a handful of new hound hunting permits is dwarfed by the immense economic value of a healthy predator population. This includes a thriving, multi-hundred-million-dollar wildlife tourism industry in the Black Hills and the direct public safety benefit of fewer deer-vehicle collisions, which studies estimate saves our state millions of dollars annually. Prioritizing a low-value activity that harms a high-value state asset is poor economic stewardship.

Finally, instead of risking our vital "source" population of lions, the commission should focus its resources on promoting proven, non-lethal deterrents like livestock guardian dogs, secure fencing, and fladry that support both wildlife and responsible agriculture. That is the modern, science-based path forward for conflict mitigation.

This proposal is a violation of your own plan, it is scientifically and sociologically unsupported, it is economically shortsighted, and it is fundamentally unfair. I urge you to represent the interests of all South Dakotans and the long-term health of our natural heritage.

Vote NO on this expansion.

Sincerely,

Sean Roberts Sioux Falls, SD

Cody Johnson

Belle Fourche SD

Position: support

Comment:

I support expanding the use of hounds in the black hills.

Sarah Johnson

Belle Fourche SD

Position: support

Comment:

Hound hunters should have more hunting opportunities in the black hills.

Tate Wells

Fort Pierre SD

Position: support

Comment:

I am in support of the Expansion to the CSP Mt.Lion. season. Thank you for the opportunity and the privilege to hunt in South Dakota with hounds. I look forward to working with the commission and game fishing parks in the future to expand the use of hounds in the Black Hills, South Dakota.

Bobbi Wells
Fort Pierre SD
Position: support
Comment:
I support.
Casey Koch
Box Elder SD
Position: support
Comment:
No comment text provided.
Jeff Ulvestad
Black Hawk SD
Position: support
Comment:
No comment text provided.
Justin Sherwood
Piedmont SD
Position: support
Comment:
I strongly support the proposed expansion of Custer State park for the use of dogs in pursuit of mountain lions. I also believe a change from a 15 mountain lion tag allocation to a 15 mountain lion quota would further allow for more opportunity for hound hunters and also drastically aide in the selected harvest of mature mountain lions.
Mike Rogers
Spearfish SD
Position: support
Comment:
No comment text provided.
G Grider
Sioux Falls SD
Position: oppose
Comment:

No comment text provided.

Barbara Thurman

Aberdeen SD

Position: oppose

Comment:

No comment text provided.

Bret Robertson

Box Elder SD

Position: support

Comment:

I strongly support the expansion of the CSP season would rather see a 15 quota rather than 15 tags

Corey Jonas

Rapid City SD

Position: support

Comment:

I support GFP's

Proposal on the mountain lion season.

However I would like to see an instead of tags. As it would open up more opportunities for everyone.

Tiffany Carlson

Spearfish SD

Position: oppose

Comment:

Not fair or safe....how are multiple dogs hunting down one scared mountain lion fair. Not to mention the dogs are put in unsafe positions during these pursuits. If you are not skilled enough as a hunter to not shoot a treed terrified animal, you do not deserve the bounty.

Alexey Egorov

Brookings SD

Position: oppose

Comment:

Stop this disgusting practice, leave wild animals alone! Current GFP commission consistently makes antipeople decisions in favor of the minority since 2019. GPF commission is the greatest a disgrace of South Dakota. Resign from your position. Leave this place to professionals.

Alexandra Robertson

Box Elder SD

Position: support

Comment:

Support the expansion of CSP season! Would like to see a 15 cat quota rather than 15 tags

Tana Gajeski Box Elder SD

Position: support

Comment:

Support the expansion of CSP season! Would like to see a 15 cat quota rather than 15 tags

Jess Gajeski

Box Elder SD

Position: support

Comment:

Support the expansion of CSP season! Would like to see a 15 cat quota rather than 15 tags

Tate Halverson

Hermosa SD

Position: support

Comment:

Support the expansion of CSP season! Would like to see a 15 cat quota rather than 15 tags

Taylor Halverson

Hermosa SD

Position: support

Comment:

Support the expansion of CSP season! Would like to see a 15 cat quota rather than 15 tags

Adam Robertson

Rapid City SD

Position: support

Comment:

Support the expansion of CSP season! Would like to see a 15 cat quota rather than 15 tags

Marlin Maude

Hermosa SD

Position: support

Comment:

Support the expansion of CSP season! Would like to see a 15 cat quota rather than 15 tags

Tammy Hoefert

Watertown SD

Position: oppose

Comment:

Mountain lion hunting with dogs is cruel and inhumane.

Maggie Adams

Rapid City SD

Position: oppose

Comment:

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. Stop this now!!!!

Renee Lefthand

Freeman SD

Position: oppose

Comment:

This is dangerous for everyone involved

Encouraging more dog breeding

Unnessary Cruelty to the lion that is not needed.

If they want to hunt get up and walk and do it yourself at the least.

Darlene Genzler

Redfield Sd 57469 SD

Position: oppose

Comment:

i think it is unethical and unnecessary and pay for play is always wrong!

Alma Romo

Vacaville CA

Position: oppose

Comment:

I oppose the proposed expansion of hound-assisted mountain lion hunting in the Black Hills and Custer State Park.

Mountain lions are already being managed within the state's established population objectives, and increasing hunting efficiency through the use of dogs is unnecessary. Expanding hound hunting risks higher mortality for breeding females, which could destabilize the population over time.

This proposal also raises concerns of ethics and fairness. Hound hunting places extreme stress on animals, exhausting and cornering them before the kill, and it disproportionately benefits hunters with access to trained dogs and guides. This undermines the principles of fair chase and respect for wildlife.

Mountain lions play an essential role in maintaining healthy ecosystems, and they hold value to South Dakotans who appreciate their presence even without direct encounters. Historically, mountain lions were nearly eliminated from the state; we should not repeat that mistake by implementing policies that could again drive down their numbers.

I respectfully urge the Commission to reject this proposal and maintain current hunting regulations that balance population management with conservation and public values.

Thank you for your consideration.

Janice Lefthand

Freeman SD

Position: oppose

Comment:

Very cruel and not what I call hunting dogs chasing a cat untill its exhausted and shooting it at close range is cruel

Loren English

Gold Coast, Queensland Australia

SD

Position: other

Comment:

I'm from Queensland, Gold Coast, Australia...so can I still put a vote in for Supporting the preservation of Mountain Lions in ALL US STATES?

I have followed the Mountain lion conservation and will continue to do so... PLEASE KEEP MOUNTAIN LIONS FREE FROM HUNTERS!! ????????

Jessica Laughlin

Sundance WY

Position: oppose

Comment:

Would like to say some facts

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan.

?? Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

?? Unfair Handout: This plan benefits a tiny minority—less than 1% of license holders—who are responsible for up to 20% of the lion harvest in the Black Hills.

After you've submitted your official comment, go back to our reel and leave a single ?? emoji in the comments.

It's a quiet signal to our community that you've taken a stand. Once our system sees your ??, I'll automatically DM you the private link to Part 2 of the video as a thank you!

Elena Murphy

Deadwood SD

Position: oppose

Comment:

Hound hunting is a cruel & unsporting practice where packs dogs chase an animal until it's too exhausted to run, allowing a hunter to shoot it at close range. When dogs catch them before a hunter arrives, lions can be mauled, kittens killed & dogs seriously injured. It is inhumane & not considered "fair chase" by most hunters. I oppose hound hunting, and strongly object to any expansion of hound hunting in our state. Expanding these practices makes survival even harder for South Dakota's already vulnerable wildlife. The vast majority of South Dakotans do not support hound hunting, and we're tired of being ignored!

Beal-Murphy Families

Rapid City SD

Position: oppose

Comment:

Hound hunting is a barbaric, unfair, unethical hunting. Dogs chase an animal until it's too exhausted to run, allowing a hunter to shoot it at close range. It's like shooting fish in a barrel that is not hunting. Anyone who does that should be ashamed to even use the word Hunter to describe themselves.

When dogs catch them before a hunter arrives, lions can be mauled, kittens killed & dogs seriously injured. It is inhumane & not considered "fair chase" by honorable hunters.

We STRONGLY oppose hound hunting, and strongly object to any expansion of hound hunting in our state. Expanding these practices makes survival even harder for OUR already vulnerable wildlife. The vast majority of South Dakotans do not support hound hunting, and we're tired of being ignored AND ONLY A SMALL PERCENTAGE OF THE POPULATION BEING LISTENED TO.

David Bereson

Flagstaff AZ

Position: oppose

Comment:

No comment text provided.

Darlene Blades Port Moody BC

Position: oppose

Comment:

It is 2025. When is hunting for fun going to mean a prison sentence? All those dogs, disgusting, and 1 cougar.o People.that would participate in such a terrible sport belong in jail.

Jace Horak

Littleton CO

Position: support

Comment:

Mountain lions need to be managed just like every animal species. Hunting with dogs has a rich heritage that needs to be maintained and is one of the most effective ways to manage mountain lions. Appreciate your consideration.

Thad Dickinson

Berkley MI

Position: oppose

Comment:

Dear SDGFP,

I understand that my comments will have less meaning to you, but I hope you will nonetheless take them into consideration. My opposition to the proposed mountain lion hunting season expansion stems in part from the fact that it is a clear violation of the public trust. The first principle of the North American Model of Wildlife Conservation is that wildlife is conserved and held in trust by the government for ALL citizens. This plan benefits a tiny minority - less than 1% of license holders - who are responsible for up to 20% of the lions harvested in the Black Hills. To the extent that any species is owned by another, all residents of South Dakota own the state's mountain lion population, and violating your own recently adopted Mountain Lion Action plan to appease a tiny minority of hunters is a betrayal of the public trust. I ask that you reject expaning the use of dogs to hunt mountain lions in the Black Hills National Forest region. Thank you for your time.

Sincerely, Thad Dickinson

Lorretta Seggie

Grandforks BC

Position: oppose

Comment:

It's cruel and unfair and just not right and inhumane

Michael Simone

Watsonville CA

Position: oppose

Comment:

Hunting is really sick in the first place but hunting with dogs is truly mentally ill!

James Andriani

Old Bridge NJ

Position: oppose

Comment:

These Hound Dog Murderers do not need a longer Mtn Lion Season and To go into areas that they never had before. Thank for your consideration on this matter.

Nikki Nafziger

Seattle WA

Position: oppose

Comment:

This violent brutal unsportsmanlike behavior is felony animal abuse for the dogs involved, as well as the mountain lions. This is the antithesis of a civilized society. Folks who torture and kill non human animals for fun (like this) have the same psychological profile as serial killers. From a Spiritual perspective, what they do is pure devil worship! God Commanded us to be Guardians of All of His Creations! This is sadistic Satanic sociopathic torture murder! Unacceptable, immoral, cruel and EVIL!

Kristina Chavez

Aguila AZ

Position: oppose

Comment:

The ecological role of apex predators:

Mountain lions are considered keystone species, meaning their presence is critical for maintaining the health and stability of their ecosystems.

The disruption of social structure:

Mountain lion populations, when left undisturbed, are largely self-regulating. Hunting, however, can damage the intricate social dynamics of these animals.

Ethical concerns and flawed justification:

Opponents view the killing of mountain lions for sport as an unnecessary and unethical practice.

Prioritizing coexistence:

Finally, opponents of mountain lion hunting propose a shift in perspective toward proactive, non-lethal strategies that promote coexistence.

Matthew Tompkins

Pella IA

Position: support

Comment:

Hound hunting is an effective way for hunters to get close to game and tell if they are sure it is the sex and size that they want to harvest and if it is not what they are looking for it can be safely released

Kim Mcnamara

Rapid City SD

Position: oppose

Comment:

I own property in SD and spend 5 months a year here. I care very much about preserving wildlife in our state and do not need to eliminate any mountain lion for a trophy hunter. Please oppose this and vote with your conscience.

Glenda Meyer

Carlsbad SD

Position: oppose

Comment:

No comment text provided.

Kenny Danielson

Piedmont SD

Position: oppose

Comment:

The mountain lion population has decreases. A more effective way of harvest would almost certainly dwindle their numbers to far less than the target of a healthy population.

Kenny Danielson

Piedmont SD

Position: oppose

Comment:

The mountain lion population has decreased. A more effective way of harvest would almost certainly dwindle their numbers to far less than the target of a healthy population.

Beth Bish

Ft Walton Bch FL Position: oppose

Comment:

Allowing dog hunting to corral ,inflict pain is unexceptionable.

Jean Rammer Sheboygan SD

Position: oppose

Comment:

Using dogs to tree a mountain lion is cruel on cats & the dogs. Stop it now

Nathaniel Alexander

Hermosa SD

Position: support

Comment:

I support hound hunting and I support any expansion to properly manig montin lions

Michelle Berry Hesperia CA

Position: oppose

Comment:

I am strongly opposed to the hunting of mountain lions. This practice is both cruel and unnecessary, especially given the vital role these animals play in maintaining ecological balance. It is deeply troubling that humans assume the authority to determine whether such intelligent and essential creatures deserve to live or die. We must ask ourselves: on what grounds do we justify this imbalance, and what right do we have to disrupt their existence for sport or convenience?

Stephen Berkson

La Jolla CA

Position: oppose

Comment:

Outdated, cruel practice that in this day and age should be banned.

Jay Haurat Pierre SD

Position: oppose

Comment:

No comment text provided.

Mary Tarallo

Demotte IN

Position: oppose

Comment:

No comment text provided.

Judy Brown

St Paul MN

Position: oppose

Comment:

No comment text provided.

Adriana Lehi

Mancos CO

Position: oppose

Comment:

Hunting mountain lions at all is cruel. Especially using dogs.

April West

Santa Rosa CA

Position: oppose

Comment:

I strongly oppose hound hunting and the entire new proposal based upon the following:

- -Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan.
- -Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that

their own population data can be "misleading."

-Unfair Handout: This plan benefits a tiny minority—less than 1% of license holders—who are responsible for up to 20% of the lion harvest in the Black Hills.

Allison Tice

Red Bank NJ

Position: oppose

Comment:

Hunting this way is disgusting - it is cruel and unsporting.

David Bambico

Bedford TX

Position: oppose

Comment:

Please let's ends this season. Using dogs to chase animals for hunting purposes- unfair practices

Arturo Gonzalez

Gleenwood CO

Position: oppose

Comment:

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan

?? Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

?? Unfair Handout: This plan benefits a tiny minority—less than 1% of license holders—who are responsible for up to 20% of the lion harvest in the Black Hills.

Emily Beattie

Harleton TX

Position: oppose

Comment:

Mountain lions are a keystone species, and a more than critically needed one at that. Habitat destruction, car collisions, and being demonized by the agricultural industry (where disease, primarily respiratory infections, are leaps and bounds the leading causes of death in livestock) are making these much needed apex predators disappear.

Now, I am from Texas, but I feel like I have a pretty good insight on what a loss of predators can do. We seldom now see mountain lions where I live, and even less frequently do we see bears, which the area I live in is literally named for (Bear Bottom). Last three were shot. Texas has an extensive invasive hog problem because

we lack the predators to do anything about it. Hunters have no limit on them and I promise they're shooting them as quick as they come, but they don't. stop. We killed off our biggest supports in their removal and now we don the title of the state with one of the highest hog populations. This issue also affects your deer and your farms, as well as your communities' safety. We NEED large predators. YOU need large predators. Coming from a rural community, I love hounds and I have loads of respect (as well as an educated insight on) for hunters. But I also respect our environment as a country and understand how much we need predators like mountain lions.

Please reconsider your stance on giving licenses out for their killing.

I leave with you with your own stats. Thank you for reading:

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

?? Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

Sherrie Stone

Grants Pass OR

Position: oppose

Comment:

Why use a use a herd of dogs to trap a petrified mountain lion in a tree fearing for its life before you shoot it. Has mankind become so deranged?

Megan Kearney

Ventuea CA

Position: oppose

Comment:

I oppose hound hunting, and strongly object to any expansion of hound hunting in our state. Expanding these practices makes survival even harder for South Dakota's already vulnerable wildlife

Amelie Bluestone

Fairfax CA

Position: oppose

Comment:

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan.

?? Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

?? Unfair Handout: This plan benefits a tiny minority—less than 1% of license holders—who are responsible for up to 20% of the lion harvest in the Black Hills.

Vanessa Conte

Wexford PA

Position: oppose

Comment:

Hound hunting is a cruel & unsporting practice where packs dogs chase an animal until it's too exhausted to run, allowing a hunter to shoot it at close range. When dogs catch them before a hunter arrives, lions can be mauled, kittens killed & dogs seriously injured. It is inhumane & not considered "fair chase" by most hunters.

I oppose hound hunting, and strongly object to any expansion of hound hunting in our state. Expanding these practices makes survival even harder for South Dakota's already vulnerable wildlife. The vast majority of South Dakotans ???? ??????? ????????? hound hunting, and we're tired of being ignored!

Opposition to the Mountain Lion Hunting Season proposal modifications.

the media & the public that the majority of South Dakotans care about preserving wildlife in our state. Public lands belong to ALL of us, not just a small group of special interest

Rita Gatto

Irvine SD

Position: oppose

Comment:

This is barbaric and cruel, and needs to not pass!

Elizabeth Hernandez

Mcallen TX

Position: oppose

Comment:

In a sport both sides know theyre in a competition. Hunting is NOT a sport. Its animal cruelty. Its killingg a living creature just because. Stop hurting innocent animals and start protecting our animals that are in need of our help to help survive in our only God given planet.

Tiffany Jones

Sioux Falls SD

Position: oppose

Comment:

Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

Linda Hendrix

New Richmond WI

Position: oppose

Comment:

Please do not expand hounding on mountain lions! Hounding is a barbaric practice. This practice should be banned for the animal cruelty that it is.

Howard Smith

Winner SD

Position: oppose

Comment:

No comment text provided.

Nathan Scherer

Custer SD

Position: support

Comment:

The only way to properly manage mountain lions is to allow hounds. Hound hunting would lead to more males being harvestes as well as older lions being harvested. It would also virtually eliminate the harvesting of females with kittens which in turn would lead to less orphaned kittens ending up people's back yards and in towns.

John Ziegler

Park City UT

Position: oppose

Comment:

Please respect the 2024 Mountain Lion Management Plan. No expansion of hound hunting.

Darin Cooper

Spearfish SD

Position: oppose

Comment:

I oppose anymore use of hounds for hunting mountain lions hunting. There are several reasons that hound hunting in South Dakota is a bad idea. South Dakota, especially the Black Hills are overpopulated with private property, compared to our western neighbors that allow hound hunting and it will create so many trespass problems.

The hound hunters will harvest a great majority of the lions and the boot hunters will not have any chances to harvest.

The chasing of lions with hounds will make the lions more elusive, making even harder for the boot hunters. You will have major conflicts in the field, between hound hunters and boot hunters.

South Dakota use to be one of the greatest states for hunters, but over the last 30 years, it has become harder and harder to enjoy the opportunities that South Dakota once had. Elk tags have become a once in a lifetime tag, deer tags now take 3-5+ years to get, the pheasant population is incredibly low, all the antelope live on private property once season starts. The only thing left to hunt year to year is turkeys, archery deer and

mountain lions, and now you want to destroy the lion hunting for the average person.

Another thing to consider is the amount of lawsuits and harassment from out of state animals rights activists. They are hammering on states that allow baiting and hound use for hunting. Right now, those groups don't pay much attention to South Dakota, but I can guarantee if you allow more hound hunting, South Dakota will be in their focus and they won't stop at trying to eliminate hound hunting, they go for a total ban on lion hunting. Just look at California, Colorado and many other states that have banned lion and bear hunting.

Olivia Ziegler

Park City UT

Position: oppose

Comment:

Respect the 2024 Mountain Lion Management Plan. No expansion of hound hunting.

William Wills

Rapid City SD

Position: support

Comment:

Release the hounds so we can accurately manage the population and meet the quota for once!

Steven Collison

Rapid City SD

Position: oppose

Comment:

I'm opposed to expanding the use of hounds in the black hills beyond what is currently allowed. Thank you

Taylor Custis

Spearfish SD

Position: support

Comment:

I strongly support the allowing of hounds. This is something that should have been done years ago, in order to make a true impact on the overpopulation of cat's. For the ones in the back who will judge my opinion, no I am not a hound hunter and I put miles upon miles on my boots every year hunting both SD and Wyoming for multiple species. Cat hunting with hounds has been allowed for years in Wyoming and as a sportsman who hunts across that border, I can tell you that there is no ill effect on other game or people. I find it interesting that from the groups that oppose this, their favorite thing is, "let's protect conservation and equal opportunity for all hunters and outdoor enthusiasts alike." Well, every statement they have made and are making is directed only at keeping them happy, not "protecting" everyone's equal opportunity.

Kristin Boggs Bozeman MT

Position: oppose

Comment:

No comment text provided.

Miranda Walters

Cedar Falls IA

Position: support

Comment:

No comment text provided.

Jake Strouf

Minneapolis MN

Position: oppose

Comment:

Respect the 2024 Mountain Lion Management Plan. No expansion of hound hunting

Natalie Difrancesco

Port Jefferson Station NY

Position: oppose

Comment:

This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

This plan benefits a tiny minority—less than 1% of license holders—who, with a 50%+ success rate, are responsible for up to 20% of the lion harvest in the Black Hills.

Dustin Kolbo

Sturgis SD

Position: oppose

Comment:

Hunting lions with dogs should only be allowed the last month of the season or not at all.

Carson Smith

Winner SD

Position: support

Comment:

I wholeheartedly support the use of hounds for hunting lions in the Black Hills region. This traditional and effective method allows hunters to track and harvest lions in a challenging and rewarding way.

The Black Hills offer a unique and suitable habitat for mountain lions, and hunting with hounds can be an important tool for managing lion populations and maintaining a healthy balance between lions and other wildlife.

Hunting with hounds requires skill, patience, and a deep understanding of the terrain and wildlife. It is a time-honored tradition that promotes a connection with nature and a respect for the animals being hunted.

I believe that hunting lions with hounds in the Black Hills can be a valuable experience for hunters, while also contributing to the overall health and sustainability of the ecosystem.

Jacob Podoll

Deadwood SD

Position: oppose

Comment:

Oppose the use of hounds

Rod Davis

Lincoln NE

Position: oppose

Comment:

Dogs should not be used in the "hunting" of mountain lions.

Eric Hamilton

Brandon SD

Position: support

Comment:

I strongly support the proposed expansion of Custer state park but I also think we need to include in there that we would rather see just a 15 cat quota versus 15 tags. That way more people have the opportunity to harvest

Mason Miller

Lemmon SD

Position: oppose

Comment:

Keep mountain lion hunting in the black hills fair chase. Use of dogs in this area would give an unfair advantage to those who have the ability to use them and kill the already low success rate of your average mountain lion hunter.

David Koch

Warner SD

Position: oppose

Comment:

Please do not allow hound hunters into the Black Hills fire district. The individuals that continue to push this agenda are few in comparison to the many that oppose.

Robert Eddy

Spearfish SD

Position: oppose

Comment:

Although I support an increased Mountain Lion harvest, I do not support an increase in hound-chase allotment. If it is legal to use on private lands now and in CSP, I do not wish to support the outfitter and guiding service that has already taken so much away from the resident hunters now.

Tyler Haddix

Rapid City SD

Position: oppose

Comment:

Hounds already have access to CSP. I dont need to see outfitters chasing cats out where i hunt. let alone let outfitters and guiding happen now within the national forest. Also not a great look when you put an action plan out last year and completely throw it out the door the next.

Ryan Myott

Harrisburg SD

Position: oppose

Comment:

No hounds in the hills!!!

Ryan Hills

Spearfish SD

Position: support

Comment:

I support the proposed action plan for managing and surveying the mountain lion population in South Dakota.

Notably, I would support hound hunting in all areas of the Black Hills as an effective management tool.

Connor Brockhouse

Keystone SD

Position: oppose

Comment:

I feel that allowing houndsman to come in would take opportunity away from us boot hunters. I also feel that we do a well enough job managing the lion population in the black hills.

Shea Millan

Winchester CA

Position: oppose

Comment:

This political handout to hound hunters is a death sentence for up to 25% of the Black Hills mountain lions. By moving forward with this proposal, SDGFP is violating its own 2024 Mountain Lion Action Plan.

This commission should manage our wildlife with science, not political handouts.

Although I don't live in South Dakota, most of my paternal family still live in Deadwood and Sturgis so this topic is personal to me.

Thank you for your time and consideration of these mountain lions.

Chad Kiel

Pierre SD

Position: oppose

Comment:

Only 3% of hunters (houndsmen) would benefit, yet they already take 35% of harvested lions each year. This Proposal expands their advantage while reducing opportunity for the rest of us.

Depredation isn't increasing. There's no management need driving this Proposal—just a preference by a small group of hunters.

If there is depredation instance on live stock these should be addressed by SDGFP wildlife damage specialists.

Jon Olson

Sturgis SD

Position: support

Comment:

As someone who has hunted lions both with and without hounds i can tell you that from a management

standpoint using hounds allows much more control to judge the cats and determine if its a mature cat or cat with cubs. Secondly hounds can reach areas that people simple wont go due to rough topography. Hunting behind hounds doesn't make harvesting a cat any easer! The whole point here is true conservation and proper management of the cat population. Why would we not use all the tools and resources available to insure that can happen!

Leland Brokaw

Pierre SD

Position: oppose

Comment:

I oppose the expanded use of hounds in the Black Hills and also the proposed changes to the CSP unit, which I have been fortunate enough to hunt in the past. As proposed, this will only decrease opportunity for the majority and create additional crowding in CSP during the season.

A longer season would increase opportunity for everyone.

Roger Mattson

Aberdeen SD

Position: oppose

Comment:

I do not condone to hunting lions with hounds as I believe this takes the "fair chase" out of hunting. If the lion stays within the prescribed hound hunt area it is practically a guarantee, not hunting but shooting, big difference.

Victoria Hall

Hamilton MT

Position: other

Comment:

Respect 2024 Mountain Lion Management plan no expansion of hound hunting.

Rene Hersey

Toluca Lake CA

Position: oppose

Comment:

Re: Opposition to Cougar Hound Hunting Season

Dear Commissioners,

I am writing to strongly oppose the establishment of an expanding where hound hunters can hunt cougars in South Dakota. Such a proposal would cause serious and unnecessary harm to the long-term survival of this species in our state.

Hound hunting is not selective. It disproportionately targets adult females and mature males, both of which are critical to maintaining cougar populations. Removing breeding females directly undermines reproduction, while killing dominant males destabilizes family groups and territories. This disruption increases the likelihood of orphaned kittens and can lead to more human-wildlife conflicts as younger, inexperienced cougars are forced

into risky areas in search of new territory.

South Dakota's cougar population is already under significant pressure from existing management practices and habitat loss. Introducing hound hunting was cruel & unsporting to start & expanding hunting opportunities would further tip the balance against this umbrella species. Cougars play an essential ecological role by helping regulate prey species, maintaining healthy ecosystems, and supporting biodiversity across the Black Hills and beyond.

In addition, allowing dogs to pursue cougars raises serious concerns about animal cruelty, ethical hunting practices, and public safety. Fair chase principles—central to South Dakota's hunting traditions—are compromised when animals are relentlessly pursued by packs of hounds.

South Dakotans and visitors alike value healthy wildlife populations and the chance to see cougars as part of our natural heritage. I urge the Commission to reject this harmful proposal and instead prioritize science-based, ethical management strategies that ensure cougars remain a vital part of South Dakota's landscape for generations to come.

Thank you for considering my comments. I respectfully ask you to stand for conservation and oppose the hound hunting expansion season for cougars.

Rene Hersey

Toluca Lake CA

Position: oppose

Comment:

Re: Opposition to Cougar Extended Hound Hunting Season

Dear Commissioners,

I am writing to strongly oppose the establishment of extending hound hunting season for cougars in South Dakota. Such a proposal would cause serious and unnecessary harm to the long-term survival of this species in South Dakota.

Hound hunting is not selective. It disproportionately targets adult females and mature males, both of which are critical to maintaining cougar populations. Removing breeding females directly undermines reproduction, while killing dominant males destabilizes family groups and territories. This disruption increases the likelihood of orphaned kittens and can lead to more human-wildlife conflicts as younger, inexperienced cougars are forced into risky areas in search of new territory.

South Dakota's cougar population is already under significant pressure from existing management practices and habitat loss. Introducing extended hound hunting season would further tip the balance against this keystone carnivore. Cougars play an essential ecological role by helping regulate prey species, maintaining healthy ecosystems, and supporting biodiversity across the Black Hills and beyond.

In addition, allowing dogs to pursue cougars raises serious concerns about animal cruelty, ethical hunting practices, and public safety. Fair chase principles—central to South Dakota's hunting traditions—are compromised when animals are relentlessly pursued by packs of hounds.

South Dakotans and visitors alike value healthy wildlife populations and the chance to see cougars as part of our natural heritage. I urge the Commission to reject this harmful proposal and instead prioritize science-based, ethical management strategies that ensure cougars remain a vital part of South Dakota's landscape for generations to come.

These umbrella species are not target practice, they are on this Earth to do their part. They have tightly regulated social practices and territories for a reason. Shooting/trapping/hounding disrupts their social hierarchy-you should understand that.

Why would you want to expand hound hunting?

Thank you for considering my comments. I respectfully ask you to stand for conservation and oppose the

extension of hound hunting season for cougars.

Patricia Jenkins

Brandon SD

Position: oppose

Comment:

No comment text provided.

Alex Braun

Warner SD

Position: oppose

Comment:

It would be extremely disappointing to see the state open up the areas stated for hounds. The hounds already take up 35 percent of the quota! It would be awesome to see the lion numbers to keep increasing and the quota not met every year. I'm 22 years old and I look forward to go every year and hike and try to cut tracks. I'm a hunting guide and mountain lion hunting is by far the most primitive way of hunting just because of the tracking aspect. It's not always about the money and I hope the state recognizes that. Keep it the way it is and let the people of our state enjoy our black hills/Custer area.

Joseph Hawthorne

Hill City SD

Position: oppose

Comment:

Too many logging roads and the Black Hills is a unique place for boot hunters to actually have a chance to get a cat if anything have a week or a 10 day hound season after the boot season if you need to manage the cats.

Ryan Gruber

Brandon SD

Position: oppose

Comment:

No more hound tags!! The population is fine.

Judy Carroll

Rapid City SD

Position: oppose

Comment:

I feel that having hounds running on the black hills protection fire district is going to cause a lot of trespassing issues as they cannot control there hounds once they are let loose. If they had shock collars on and can actually control them like a bird dog then it would be different. They are trying to stir the pot among landowners and trying to make money for taking hunters out using there hounds. It's not fair to us boot hunters. we've been doing really well at harvesting cats without hounds and it should always stay that way. Your going to harass the elk herds pushing them after they've been bred and cause stress on them plus stressing out any mule deer that hang up there. We already have problems with our mule deer population and your just causing more stress running hounds. It just needs to stay were it is. If they would open cat hunting earlier like in November when the trails are open. It would help us boot hunters alot. Your not making it fair to open cat season when all the trails are closed to even access areas where the cats hang out. There is alot of us that are older with health problems that can't take the 15 miles of walking. Just let that sink in.

Stephanie Bell

Kyle SD

Position: oppose

Comment:

Mountain Lions are relatives and are part of the creation. We need more respect and tolerance of all the animals of our shared ecosystems. Let them be free to live their lives the way the Creator intended.

Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

Seth Anderson

Mitchell SD

Position: support

Comment:

Support the use of hounds. God bless

John Lee

Florence MT

Position: oppose

Comment:

Dear SD Game Fish and Parks officials:

Please acknowledge that we are no longer living in the 1800s on the wild frontier where Mountain Lions were considered a scourge on our livestock and threatened our very way of life. We must preserve what little natural wilderness we have left on earth and the wildlife dependant on this wilderness for our very existence as the human species. Please do NOT expand hound hunting of this keystone species.

John Bailor

Carlisle PA

Position: oppose

Comment:

This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

Bayden Schneider

Baltic SD

Position: oppose

Comment:

I oppose opening units of the Black Hills for hound hunting as it will drastically reduce mountain lion populations to a dangerously low amount and take opportunities away from non-hound hunters.

Lewton David

Rapid City SD

Position: support

Comment:

I support expanding the use of hounds! Hound hunting is more ethical and science based conservation way of lion management

David Williams

Rapid City SD

Position: support

Comment:

I think the expansion of the use of dogs in South Dakota on mountain lions is essential and a step in the right direction for properly managing their population.

Gigi Perkins

Sioux Falls SD

Position: oppose

Comment:

First. It's just strait wrong to kill any wild animal for sport in this day and age.

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

?? Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

Aaron Kelly

Superior SD

Position: support

Comment:

The only proven and effective way to manage lion numbers is via utilizing hound dogs to trail and potentially harvest a lion in a tree or on the ground.

Reilly Winant

Spokane WA

Position: oppose

Comment:

I oppose the hound hunting of Mount lions, they are endangered and need to be protected. Protect them under the endangered species

Cody Skoog

Hermosa SD

Position: support

Comment:

I think it's a good thing, it takes too long with out dogs for the average Joe to get a lion. I think there should be a clause that doesn't allow people to commercialize off of it by doing guided hunts per say.

David Stanton

Cook MN

Position: oppose

Comment:

Get civilized.... no hound hunting of Mountain Lion in South Dakota. You have enough room for people and wildlife in your state. Killing apex predators such as the Mountain Lion is not cool, it's cowardly.

Sarah Reimnitz

Armour SD

Position: support

Comment:

No comment text provided.

Gene Parrow

Britton SD

Position: support

Comment:

I support the use of hounds to selectively harvest Mountain Lions.

Paula Roskens

Lead SD

Position: oppose

Comment:

This is so inhumane. These poor animals are just trying to survive and live. Mountain lions are part of this ecosystem native to the Black Hills. It's been over a 150 yrs since a lion has attacked a human in SD. This is so cruel, unethical. Trophy hunting is slaughter, We wonder what happened to the buffalo how that was allowed, here we go again, this is wrong. Game fishing parks as we have around 277 mountain lions in South Dakota and yet they are giving out 60 tags to slaughter them. When you slaughter the female, the Cubs have no one to teach and train them and they live with their mother for up to 2 years. Then we wonder why they come in and attack smaller domestic wildlife. They're starving. They run dogs to run the poor animal to exhaustion and then they come up and shoot them as to not damage their coats so they can stuff them and have a dead animal in their house. This is so unconscionable shame on us. They are part part of what is left of the wild the pure wild.

Julie Anderson

Rapid City SD

Position: oppose

Comment:

I strongly oppose the amendment to allow hound hunting in the Black Hills Fire Protection District. Since SD GFP Commissioners allowed hound hunting of mountain lions, SD Hound Hunters have also been given access to:

365 day Access to killing mountain lions on the prairie;

killing mountain lions in Custer State Park;

killing mountain lions on public and private land; and now

a current proposal for killing lions on Federal Land (Black Hills National Forest) in the Southern Black Hills.

This is blatant catering to a special interest group, namely SD Hound Hunters. The majority of the public does not support killing animals for trophies, "recreational family opportunities" or for the love of working with their dogs to chase an animal to it's death.

The consequences of killing mountain lions can result in juveniles without sufficient hunting skills who will seek out easy prey such as pets and livestock. Also, since hound hunting is much more successful in killing mountain lions than boot hunters, commercialization of outfitters hiring hound hunters is likely to follow.

I have participated in this comment process since this commission allowed hound hunting in 2005. You have been given comments from wildlife biologists and many other SD residents who are also against hound hunting and we are ignored time and time again.

Please listen to your constituents and vote against this newest amendment to give SD Hound Hunters access to the BHFPD.

Please listen to the wildlife enthusiasts who do not want animals killed for fun.

Instead, please work on securing corridors for mountain lions so that they have areas where they can live without conflict. With habitat quickly shrinking due to development, it is critical that this is done now, not securing yet another area where they can be killed.

Colton Benson

Montrose SD

Position: other

Comment:

Hopefully someday you will pull your head out of your ass and be like Wyoming

Ed Klingensmith

Lester IA

Position: support

Comment:

Allow nonresident hunting along with hound hunting!

Susan Jordan

Golden Valley MN

Position: oppose

Comment:

Respect the 2024 Mountain Lion Management Plan. No hound hunting of mountain lions.

Lisette Kennedy

Los Angeles CA

Position: oppose

Comment:

A top predator keeps a healthy eco system, and no mountain lion should be chased by hounds on His Native habitat. Please protect the few mountain lions we have left.

Faith Warner

Wellington FL

Position: oppose

Comment:

No comment text provided.

Ryan Larson

Belle Fourche SD

Position: oppose

Comment:

The use of hounds for lion season in Custer, Fall River, and Pennington is the result of opening the door to hounds in CSP. They will keep pushing until hounds are allowed everywhere in the hills essentially taking the non-hounds man out of the picture. In the end only a few hunters will pay for an outfitter with hounds and you license sales will decrease. Strongly opposed to taking away hunting opportunities to a majority of hunters.

Chris Gukeisen

Pierre SD

Position: support

Comment:

100% support the use of hounds in the Black Hills.

Julie Henry

Rapid City SD

Position: oppose

Comment:

I am a wildlife biologist. I have been studying a monitoring predator impacts on ecological health for a decade. This proposal fails to take into account sound science of keystone species cascade effects on local biomes.

Nicke Mecaskey Hetzel

Plano TX

Position: oppose

Comment:

Mountain Lions are essential to our ecosystem. Hunting them, especially with hounds, is wrong and simply cruel. Science does not support your position to increase the numbers to be killed.

Mason Byrne

Crooks SD

Position: oppose

Comment:

Allowing the use of hounds in the majority of the black hills will only accomplish two things. 1. Decrees the number of mounting lions for the general public to pursue. 2. Line the pockets of guide services and land owners who will now charge to hunt. Over all, it will limit the opportunities for the average hunter.

Devin Fraleigh

Sioux Falls SD

Position: oppose

Comment:

I very strongly oppose the expansion of hound hunting for mountain lions.

Stuart Morton

Lake Geneva WI

Position: oppose

Comment:

Good day. These key stone apex predators are absolutely needed in our country & community. Mountain lions are not aggressive to man, they are unique silent cleaners of the natural word removing old or less prime animals. They are curious and stellar. Champions of nature. They are not to be slaughtered by frivolous humans wanting a pelt! They are being killed as trophy's not used as a sustenance. Please protect them! Please, Remove them from being slaughtered.

Tracy Boyer

Bend OR

Position: oppose

Comment:

Stop killing Mountain Lions!!

Katie Mccolm

Temecula CA

Position: oppose

Comment:

This is Willful Ignorance. The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

Kathy Kendell

Burnsville MN

Position: oppose

Comment:

Hunting these beautiful animals is sinful. They deserve every right to live, roam and thrive. Hunting should be banned for mountain lions. I fully support wildlife conservation, especially for our magnificent wildlife that are a part of our country.

Amanda Slattery Wynnewood SD

Position: oppose

Comment:

:

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

?? Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

Mason Hamm

Rapid City SD

Position: support

Comment:

South Dakota should support hounds man. And the activity of harvesting more mature lions.

Brooke Johnson

Belle Fourche SD

Position: support

Comment:

I support more mountain lion hunting with hounds in the bhfpd. The killing of females and kittens by boot hunters needs to stop!! It is sickening what the boot hunters are doing to our lion population. Hound hunting is the only way to ensure a healthy lion population!

Mason Neumiller

Rapid City SD

Position: oppose

Comment:

Expanding hound hunting for mountain lions in South Dakota is unnecessary and harmful to both the species and the state's natural balance. Mountain lions are already managed through a regulated hunting season, and increasing hound hunting risks overharvest and disruption of the population. Using hounds can also create ethical concerns, as it often results in prolonged chases that exhaust the animal before the kill, diminishing the principle of fair chase. Rather than expanding hound hunting, South Dakota should focus on balanced management practices that protect the health of the ecosystem while respecting wildlife.

Fawn Logan

Boise ID

Position: oppose

Comment:

You all need to stop killing all these animals you assholes stop. They belong here more than you do.!!!!!

Edward Manzano

Rapid City SD

Position: oppose

Comment:

I oppose use of hounds. Shooting a majestic animal like a Mt lion when it's sitting in a tree is NOT hunting, in my opinion.

Sandi Kaskie

Lead SD

Position: oppose

Comment:

When an individual hunts for an animal it should not be at a disadvantage to the animal. That is not hunting. Hunting is when an animal has a fair chance.

In order to preserve and protect a species from illnesses/disease, they need to be monitored by wild life managers and biologists. If an area is over populated, understandably some of them must be moved or eliminated.

Using one animal to hunt another animal for the sport of it is wrong. That is murder! Not hunting! It is not up to a group of individual commissioners to determine the fate of mountain lions or any other animal. They are there to protect our parks and wildlife. They are there to represent the Black Hills.

More and more people are moving in the Hills because of its beauty and types of wildlife. Mountain Lions are part of that beauty! Humans are moving in and taking up more and more of the wildlife's habitat. Humans are causing the problem. It's time to educate the humans about the lions. Teach them how to live with the lions. Not fear them! Killing mountain lions at an unfair advantage is not the answer! Commissioners, you are there to be the voice of those who cannot speak in their own defense! You are not there to allow the unfair practice of removing mountain lions for additional financial gain. Do not allow the hunting of mountain lions using dogs. That is not hunting!

Kasey Clark

Temecula CA

Position: oppose

Comment:

?? Unfair Handout: This plan benefits a tiny minority—less than 1% of license holders—who, with a 50%+ success rate, are responsible for up to 20% of the lion harvest in the Black Hills. I vehemently oppose the expansion of hound hunting in South Dakota. It will crash the mountain lion population and and completely screw up the natural ecosystem. Stop attempting to destroy natural settings and wildlife populations that concerned Americans care about.

Jonathan Weber

Salem OR

Position: oppose

Comment:

All predators are essential parts of a system. They protect the trees, seedlings, by encouraging fear grazing behavior in deer etc. We are not gonna get humans out far enough and often enough to do this job. Mountain Lions, all predators, need to be protected everywhere.

Mary Ann Kiger

Anza CA

Position: oppose

Comment:

No comment text provided.

Domanic Heim

Rapid City SD

Position: support

Comment:

No comment text provided.

Amy Kirby

Greensboro GA

Position: oppose

Comment:

I oppose any hunt on mountain lions!

Mira Billotte

Los Angeles CA

Position: oppose

Comment:

I oppose the expansion of hound hunting or any hunting of Mountain Lions.

Mountain Lions are an apex predator that maintains and is vital to the ecosystem of S. Dakota and the Black Hills.

Please do not make it easy for a small elite with an unfair advantage to commit this offense.

Thank you.

Coralie Boivert

Fallbrook CA

Position: oppose

Comment:

Mountain lions are a necessary apex predator that regulates the food chain and naturally controls the wildlife population. We are constantly developing their land and actively destroying their ecosystems leaving them little to no land to roam and hunt. Their population is already on a decline so why allow hunters to continue decimate them? Instead let's learn to live with them like the Native Americans did.

Ruth J Kary

Detroit Lakes MN

Position: oppose

Comment:

Our Country's mountain lions are just barely able to sustain an existence. Please follow the science. Respect the 2024 Mountain Lion Management Plan. No expansion of hound hunting.

Gavin Turbak

Rapid City SD

Position: support

Comment:

No comment text provided.

Judy Love

Custer SD

Position: oppose

Comment:

I do not want to see any increase in the number of lions to be taken this season, and I am opposed altogether to the use of hounds in hunting lions.

Kody Lostroh

Ault CO

Position: support

Comment:

I support expanding the use of hounds for pursuing and hunting mountain lions. Using hounds is the ONLY way to reliably identify male vs female in the field when it comes to mountain lions. Keeping a healthy sustainable population relies heavily on positive identification of the animal to be harvested so that the majority of the animals taken are male.

Thanks for your time

Del Dewall

Castlewood SD Position: oppose

Comment:

Take by hound hunters is already 35% of total.

Lisa Howard

Berkeley CA

Position: oppose

Comment:

This plan benefits a tiny minority—less than 1% of license holders—who, with a 50%+ success rate, are responsible for up to 20% of the lion harvest in the Black Hills.

Cathy Drook

Big Sky MT

Position: oppose

Comment:

This is not hunting! Do not allow dogs to be used to trap mountain lions.

David Love

Custer Sd SD

Position: oppose

Comment:

Stop kissing the asses of the hound hunters and trophy hunters. And stop treating the lions as boogey men. Grow a set.

Claudia Hein

Concord CA

Position: oppose

Comment:

?? Procedural Failure: This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

?? Willful Ignorance: The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

Becky Kring

Reedsport OR

Position: oppose

Comment:

Do not expand hound hunting.

This very proposal violates the SDGFP's own recently adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

The SDGFP's proposal admits their that their own population data can be misleading.

Larry Claunch

Mccleary WA

Position: support

Comment:

Mountain lion hunting with hounds is an important wildlife management tool in South Dakota that supports conservation goals, promotes public safety, and preserves hunting heritage. When used responsibly and ethically, hound hunting allows for selective harvest, meaning hunters can more accurately assess the age, sex, and health of a mountain lion before deciding whether to pursue it. This results in better outcomes for maintaining a healthy and sustainable population.

Additionally, using hounds can help minimize human-wildlife conflicts, especially in areas where mountain lions come into closer contact with livestock or residential areas. South Dakota Game, Fish and Parks regulates the practice strictly to ensure it aligns with scientific population monitoring and management strategies.

For many hunters, hound hunting is also a cultural tradition passed down through generations. It emphasizes teamwork between humans and dogs and deepens the connection to the outdoors. When managed properly, it reflects a deep respect for wildlife and a commitment to ethical hunting practices.

Ultimately, regulated hound hunting contributes to South Dakota's broader wildlife management efforts, balancing ecological health, safety, and tradition.

Sarah Mitchell

Hermosa SD

Position: oppose

Comment:

Dear Commissioners,

My name is Sarah Mitchell, and my family has ranched in Custer County for four generations. I'm writing about the proposed hound hunting expansion because those of us who actually live and work this land don't support it.

Last spring, I watched a mountain lion cross our upper pasture at dawn. My husband and I stood at the kitchen window as she moved through the tall grass like smoke. We've lost some chickens over the years. That's part of ranching in lion country, and we accept it.

What I cannot accept is giving even more advantage to the small group of hound hunters who already take far more than their share of lions. Their success rate with dogs is many times higher than regular hunters on foot.

I'm not anti-hunting. My freezer has venison every fall. But there's a difference between fair chase hunting and using packs of dogs with GPS collars to run an animal to exhaustion.

Your own 2024 Mountain Lion Action Plan warns this expansion could harm the population. Why ignore your own science to benefit such a tiny group of hunters?

Those of us who live here year-round understand the balance between people, livestock, and wildlife. Please listen to us, not just the loudest voices who show up at meetings.

Respectfully, Sarah Mitchell Custer County, SD

Katrina Kunstmann

Los Angeles CA

Position: oppose

Comment:

This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading."

I sincerely hope you will not allow this to pass and further decline the population of mountain lions which are a keystone species.

Katrina E Kunstmann

Los Angeles CA

Position: oppose

Comment:

This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. The commission should not ignore its own policies.

The SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population

data can be "misleading."

I sincerely hope you will not allow this to pass and further decline the population of mountain lions which are a keystone species.

Ethan Woods

Hot Springs SD

Position: oppose

Comment:

Dear Commissioners,

My name is Ethan Woods, and I'm 28 years old. I grew up in Hot Springs and came back after college to help run my family's outfit near Wind Cave.

I'm writing because this hound hunting expansion is wrong, and my generation of ranchers knows it.

I've been around mountain lions my whole life. Lost a dog to one when I was twelve. Had one kill three sheep behind our barn two years ago. That's life out here. We fixed our fencing, got better guard dogs, and moved on.

What I can't understand is why we're catering to a handful of hunters who already have every advantage. They've got GPS collars, trained dog packs, and success rates way higher than any boot hunter. Now they want even more territory?

Most young ranchers I know care more about keeping healthy predator populations than making things easier for trophy hunters. We've seen what happens in states where predators get wiped out - the whole ecosystem goes sideways.

Your own 2024 plan says this could hurt lion populations. The science is right there. Why ignore it for a tiny group that already takes more than their fair share?

I'm not some environmentalist from California. I'm from here. I'll die here. And I'm telling you this expansion is bad for South Dakota.

Listen to the people who actually live with these animals, not just the guys who want an easier kill.

Ethan Woods Hot Springs, SD

Jennifer Bordeaux

Box Elder SD

Position: oppose

Comment:

Dear Commissioners,

My name is Jennifer Bordeaux, and I'm Lakota from Pine Ridge. My husband works construction in Rapid City, and we live in Box Elder with our three kids.

I'm writing about the mountain lion hunting expansion because these animals are sacred to us. We call them igmu tanka. They're not just animals to manage - they're relatives.

My grandfather taught me that the lion teaches us about leadership and walking alone with courage. When you

let dogs chase them to exhaustion, you dishonor not just the animal but everything it represents.

I understand ranchers lose livestock sometimes. My uncle runs cattle near Scenic. But he says the same thing I'm telling you - using packs of dogs isn't hunting, it's something else. Something wrong.

The hunters who use dogs already take more lions than anyone else. Why do they need more territory? Why do they need more advantages? Your own studies say this could hurt the population.

My children should be able to grow up in a South Dakota where mountain lions still walk free, not one where we made it so easy to kill them that they disappeared.

Please think about what kind of state we want to leave for the next seven generations. That's how my people make decisions. Not just for today, but for those not yet born.

Respect the science. Respect the land. Respect the lions.

Jennifer Bordeaux Box Elder. SD

Lisa Fourmyle

Charlotte NC

Position: oppose

Comment:

This proposal violates the SDGFP's own recently-adopted 2024 Mountain Lion Action Plan. Furthermore, the SDGFP's own proposal admits their harvest plan "may reduce the population" and that their own population data can be "misleading." Finally, this plan benefits a tiny minority—less than 1% of license holders—who are responsible for up to 20% of the lion harvest in the Black Hills.

Dave Peterson

Saint Paul MN

Position: oppose

Comment:

I hunt South Dakota every other year from Minnesota. Saint Paul.

Hound hunting ruins it for the rest of us. I pay \$3,000+ each trip between tags, lodging, guides. Seven days of actual hunting. Usually go home with nothing. That's fine by me.

These hound guys are already taking too many lions. You expand their territory, I'm done coming to South Dakota. Montana doesn't allow hounds. I'll go there.

Your choice - keep taking money from hunters like me who play fair, or cater to your local boys with dog packs.

Dave Peterson Saint Paul, MN

Denise Osmon

Berthoud SD

Position: oppose

Comment:

I oppose mountain lion hunting because current science does not support increased harvest as an effective

management tool. Research shows that indiscriminate removal of apex predators like mountain lions can destabilize their social structure, leading to higher rates of juvenile survival and potentially more human-lion conflicts—not fewer. Studies have found that when adult males are killed, younger males move in, often causing greater livestock depredation and risk to public safety. Furthermore, Colorado Parks and Wildlife's own data indicates that mountain lion populations are already under pressure from habitat loss and human development. Without robust, peer-reviewed research demonstrating ecological necessity, expanding hunting quotas ignores the principles of sound wildlife management. Public trust in science-driven decision-making is critical, and disregarding these facts undermines both conservation goals and ethical stewardship of wildlife.

Russell Torr

Deadwood SD

Position: oppose

Comment:

I oppose hound hunting in South Dakota because research shows that mountain lions (Puma concolor) play a crucial ecological role as apex predators. Studies demonstrate that hounding disrupts their social structure, leading to increased juvenile dispersal, higher conflict with humans, and destabilization of natural prey populations. According to peer-reviewed studies, indiscriminate or excessive harvest of large carnivores often results in compensatory reproduction (younger females breeding sooner) and increased immigration of dispersing males, which can raise depredation incidents rather than reduce them. Additionally, hound hunting is associated with elevated physiological stress and injury for both lions and dogs, documented in wildlife stress hormone studies. There is no compelling scientific evidence that hound hunting improves ecosystem health or reduces conflict compared to non-lethal management and regulated harvest methods. Best available science emphasizes adaptive management rooted in population modeling and public trust, not traditional trophy or recreational practices.

Paul Svenkeson

Hot Springs SD

Position: support

Comment:

Scant snowfall makes lion control very difficult in the Southern blackhills without the use of dogs to increase the chance of success. We've lost a least one calf to lions and possible one a year. We need help getting them under control.

Jessika Hard

Livingston MT

Position: oppose

Comment:

South Dakota is very much like Montana, an ecosystem made more balanced thanks to our predators. Mountain lions have a butterfly effect on the ecosystem and science has proven that hunting them is only detrimental. Please stop this constant attack on your cats - leave them be and let them thrive. Thank you.

Colton Benson

Montrose SD

Position: support

Comment:

I support The use of hounds in the fire district as long as there are strict no guide or outfitter laws

Allyson Miller Salem OR

Position: oppose

Comment:

ML are keystone regulators of healthy ecologies supportive of diverse landscapes and wildlife. Ecologies void of ML are poor regulators of human well-being. ML mitigates Lyme disease and sterilizes ecosystems from diseases such as CWD. Cougars, if taken young enough from the wild, can be immediately domesticated and sold on the black market, for which Hound hunters are not innocent.

Clinton Cox

Near Lake Pactola SD

Position: oppose

Comment:

Please do not allow hound hunting of mountain lions in the Black Hills. Hound hunting provides humans an unfair advantage and for the benefit of a small minority of people will devastate the local populations. Pumas are amazing creatures and are an important part of the natural ecosystem here in the Black Hills. Hound hunting involves using technology and dogs to locate the big cats and force them up a tree where they are then shot. This is actually a shameful and unfair way to "hunt" such a majestic and beautiful cat. As a resident of the Black Hills living near Pactola Lake and working in Rapid City and Keystone, I am strongly opposed to hound hunting of mountain lions and urge you to not approve this. If people want to hunt one of the top apex predators in the world, let's at least require them do it on a more even playing field, rather than using tablets, gps and hounds to find the animal for them only to chase it up a tree and shoot it. As the state's own plan shows, this hound hunt will reduce the currently stable population in the state. Let's don't do something that most citizens would not support just for less than 1 percent of the population who wants to hound hunt. Just like the process of hound hunting itself, that is just not fair to people like me who want to maintain the unique wildlife in the Black Hills. Please do the right thing for the mountain lions and for the residents like me of the Black Hills and do not approve hound hunting in this state.

Elynn Russell

Austin TX

Position: oppose

Comment:

I value wildlife because I do love it but more important, because we can't fully know what sudden reductions in the populations of specific species will do to the whole.

There are ways to deter mountain lions rather than just killing them wholesale.

Thank you for your consideration and allowing me to comment.

Sarah Stahelin

Bemidji MN

Position: oppose

Comment:

Do not expand hound hunting on Mountain Lions. Hound hunting is cruel to both the lion and the hounds. Respect the 2024 Mountain Lion Management Plan.

Patrick Weimer

Spearfish SD

Position: support

Comment:

I am writing in strong support of the proposal to allow the use of hounds for mountain lion hunting in South Dakota.

Hound hunting is one of the most effective and responsible methods of pursuing lions. It gives hunters the opportunity to carefully evaluate the animal once treed and make an informed decision before harvesting. This results in better identification of sex and age, fewer mistakes, and stronger adherence to management goals compared to calling or incidental encounters where decisions must be made in a split second.

The use of hounds is also deeply rooted in hunting tradition across the United States and provides a fair and ethical method that aligns with the principles of fair chase. Allowing hound hunting does not diminish opportunities for those who choose other methods. There is more than enough forest service land and habitat to support multiple hunting styles, and the overall harvest is still controlled by quota, ensuring sustainability and balance.

This proposal also creates more recreational opportunity, supports local economies, and gives hunters more tools to participate in sound wildlife management. Most importantly, houndsmen have a long history of respect for the resource and play an important role in selective harvest, ethical hunting, and conservation.

For these reasons, I fully support the use of hounds in mountain lion hunting and encourage the Commission to move this proposal forward.

Respectfully, Patrick Weimer

Angela Weimer

Spearfish SD

Position: support

Comment:

As a female houndsman, I strongly support the proposal to allow the use of hounds in mountain lion hunting in South Dakota.

Hunting with hounds gives me the ability to make careful, informed decisions in the field. When a lion is treed, I have the time to evaluate its size, sex, and maturity before ever considering taking a shot. This method greatly reduces mistakes and ensures harvest decisions align with conservation goals.

Hound hunting is not only ethical, it is a tradition I am proud to be part of. It requires dedication, countless hours training dogs, and respect for both the animals we pursue and the land we hunt on. Allowing hound hunting will not take opportunity away from others — there is more than enough ground for multiple hunting styles, and the quota system ensures sustainable management for everyone.

I encourage the Commission to recognize hound hunting for the selective, ethical, and deeply rooted tradition that it is by approving this proposal.

Shari Dalal

Lake Forest CA

Position: oppose

Comment:

I strongly oppose the proposed expansion of mountain lion hunting with hounds.

?? Procedural Failure: This proposal directly violates the SDGFP's own 2024 Mountain Lion Action Plan, which was developed with public input and adopted just last year. Approving this change would undermine public trust and set a dangerous precedent of ignoring established management policies.

?? Willful Ignorance: The Department's own proposal acknowledges that their population data can be "misleading" and even admits that the harvest plan "may reduce the population." Making policy decisions while admitting the science is uncertain is reckless and irresponsible.

Mountain lions are a keystone species, vital to the balance of South Dakota's ecosystems. Hounding is inhumane, disrupts family groups, and puts unnecessary stress on both lions and non-target wildlife. The commission should honor its own plan and the best available science by rejecting this proposal.

Maddex Pletcher

Spearfish SD

Position: support

Comment:

I support the use of hounds in South Dakota im 12 years old and I hunt with my own hound with my family in many places I have caught bears and lions in many other states I would like to be able to hunt in my own state and not travel so far from home.

Shari Dalal

Lake Forest CA

Position: oppose

Comment:

I strongly oppose the proposed expansion of mountain lion hunting with hounds.

?? Procedural Failure: This proposal directly violates the SDGFP's own 2024 Mountain Lion Action Plan, which was developed with public input and adopted just last year. Approving this change would undermine public trust and set a dangerous precedent of ignoring established management policies.

?? Willful Ignorance: The Department's own proposal acknowledges that their population data can be "misleading" and even admits that the harvest plan "may reduce the population." Making policy decisions while admitting the science is uncertain is reckless and irresponsible.

Mountain lions are a keystone species, vital to the balance of South Dakota's ecosystems. Hounding is inhumane, disrupts family groups, and puts unnecessary stress on both lions and non-target wildlife. The commission should honor its own plan and the best available science by rejecting this proposal.

Story Warren

Bend OR

Position: oppose

Comment:

Please see attached PDF.

Kelly Donbraska

Scottsbluff NE

Position: oppose

Comment:

It's not right Mountain Lions deserve to live like any other animal

Patrick Shay

Sioux Falls SD

Position: oppose

Comment:

No comment text provided.

Dale Houser

Kimball SD

Position: support

Comment:

I fully support expanding the area for use of dogs and a 15 cat quota. With the use of hounds they are also going to be selective on what they harvest for a cat eliminating the harvest of immature cats. Over the years of the use of dogs in CSP the elk survival rate has increased and would think the same thing would happen with the mule deer population in the proposed expansion area

Donna Watson

Lead SD

Position: oppose

Comment:

How sportsman like it is to tree an animal and shoot it. Must make you hunters so very proud. Inhumane is what it is!

Matt Matlick

Box Elder SD

Position: support

Comment:

I support the expansion but also think it should be a 15 lion quota rather than 15 tags

Debora Goebel

Omaha NE

Position: oppose

Comment:

I OPPOSE expansion of mountain lion hunting with hounding. Hounding is unethical and counter to "fair chase" principles championed by the North American Model of Conservation. Hounding terrorizes and harasses wildlife. Hounds may kill young kittens (<3 months old) in their dens unbeknownst to the hunters; how does this potential extra mortality of lions factor into hunting quota calculations then? Mountain lions deserve respect and protection, and I remind you that they belong to ALL Americans -including those in the NON-consumptive community - under The Public Trust Doctrine.

Allyson Flagg-Miller

Salem OR

Position: oppose

Comment:

Cougars belong to the People, not to unpolished and biased State Game programs that support the unethical killing of these American Lions. I am commenting from Oregon Cougar Action Team because cougars once populated all of the USA, and the environmental health cougars offer impacts all Americans and the ecologies we depend on for our well-being. Our rivers, soil and all ecosystems are linked across the nation, and so our cougars. SD cougar killing program is a failed program. Read why here: https://ir.library.oregonstate.edu/concern/graduate_projects/6h441114x

Sandra Garnett

Spearfish SD

Position: oppose

Comment:

I oppose using dogs to hunt mountain lions.

Mark Wetmore

Vermillion SD

Position: oppose

Comment:

I oppose expanding the area lions can be hunted with dogs. I oppose allowing dogs for hunting lions ANYWHERE in the state.

Andrew Bressler

Lead SD

Position: oppose

Comment:

Dogs are not needed, to much access in the hills to run dogs. Fish in a barrel the population is in check, they upped the elk and deer tags this year. That obviously means the deer and the elk numbers are doing well. The mis information that is being portrayed by hound hunters is disappointing. Telling people all the "bad" the boot hunters are doing yet they were all boot hunters once. Trying to sway the public that have been mis lead is disgraceful. Take the word from the people that have actually been involved in the state in buying deer, elk, and licenses because they actually know what is going on. And only from residents that live in this state.

Jan Leigh

Redding CA

Position: oppose

Comment:

I am a concerned US citizen who values wildlife and the balance of predator/prey. This affects us all!

?? Unfair Handout: This plan benefits a tiny minority—less than 1% of license holders—who, with a 50%+ success rate, are responsible for up to 20% of the lion harvest in the Black Hills.

Ryan Sullivan

Kinnelon SD

Position: oppose

Comment:

None

Ashley Eberbach

Los Angeles CA

Position: oppose

Comment:

I am a filmmaker and advocate for mountain lions currently building a massive collective to oppose what you are doing to mountain lions population in your state. You should be ashamed of yourself and your administration for this. Fortunately I have raised a considerable amount of money to shoot a documentary exposing the lack of care your state has for its mountain lions population and have several strong voices willing to be on camera for support against ur new bill. The other states are watching what you are doing and we will make sure that if your awful bill passes..the pressure and press won't go away. In a time where other states are protecting their natural habitats for predators you are looking to wipe them out completely. Times are different now so I suggest you do what's right. I personally won't be letting it go if this bill passes and I can assure you that your tourism will surely go down if you state publicly begins executing mountain lions with absurd expansion of hunting on an already vulnerable population. As a state that relies heavily on your national parks and tourism revenue- we will not stand down to expose this lopsided law change that your own biologists heavily oppose. And the great thing about documentaries is they expose everyone involved. Passing this bill is not only morally awful but it will have a lasting negative impact on your state for years to come. Do the right thing and leave these poor mountain lions alone!

Jeff Rohr

Rapid City SD

Position: oppose

Comment:

Hunting mountain lions with dogs.

Trevor Butcher Valley Glen CA Position: oppose

Comment:

The environmental repercussions of wiping out an apex predator will have catastrophic impacts on the native flora & fauna. This would immediately explode the populations of elk and deer in the area, which would then negatively impact new growth in forests and farms. Ecosystems risk total collapse when apex numbers drop to endangered levels. We need large cats just like we need wolves, bear, sharks, etc. We must not hunt cats with packs of dogs. We must not hunt wolves from helicopters. We must not hunt sharks with chum and nets. Vote against the destruction of our ecosystems like our lives depend on it, because it absolutely does.

Reed Vandervoort

Piedmont SD

Position: support

Comment:

As a fourth generation South Dakotan, rancher, and father, I support the proposed expansion of hounds in the aid of mountain lion hunting within the Black Hills Fire District. I encourage the commission to support this proposal as well. Much of the land within the new boundary is ranch land, allow the landowners to decide what type of hunting they allow on their property. Thanks for your consideration, your time and your service to the state of South Dakota.

Helen Mcginnis

Harman WV

Position: oppose

Comment:

No comment text provided.

Marjorie Lulay

Tehachapi CA

Position: oppose

Comment:

Only 3% of hunters (houndsmen) would benefit, yet they already take 35% of harvested lions each year. This Proposal expands their advantage while reducing opportunity for the rest of us.

Mountain lion populations have been trending downward since 2018. Even GFP admits this change is expected to reduce the population further.

Depredation isn't increasing. There's no management need driving this Proposal—just a preference by a small group of hunters.

Public opinion is clear: South Dakotans have repeatedly opposed hound hunting in the Black Hills. It is disgusting to allow hounds to be allowed to help further decimate the mountain lion population. The mountain lion should be left alone instead of "hounded" to death by hunters!

Samantha Beers

Mill Valley CA

Position: oppose

Comment:

I am a great lover of the Black Hills. Mountain Lions are a critical species within the ecology of this priceless national treasure. Expanding hound hunting violates science, the sacred, and the will of the people. Do not allow it!

Thank you, Samantha Beers

Dean Parker

Sioux Falls SD

Position: oppose

Comment:

I'm commenting to submit my opposition to Hound Hunting in South Dakota for the public record.

Hound hunting is an inhumane and dangerous practice. It not only results in the injury and death of the wild animal but can put the hunting dogs at serious risk. Mountain lions are run to the point of exhaustion and if they're unable to escape by climbing a tree, any of the animals involved can be mauled or killed. Hound hunting on the prairie is especially dangerous - with fewer trees and natural cover, mountain lions have nowhere to escape. This can lead to prolonged, violent encounters where the animal is cornered and attacked by dogs until the hunter arrives to shoot it.

Beyond the cruelty, this practice also raises serious public safety and private property concerns. Packs of dogs can chase animals for miles, often far beyond their handler's control. These dogs don't recognize property boundaries or "No Trespassing" signs, creating conflicts for landowners and threats to other animals.

I strongly oppose any expansion of Hounding Hunting opportunities in our state, including those scheduled to be finalized in the September meeting.

I urge you to reject this proposal and prioritize responsible, humane wildlife management practices. The vast majority of the South Dakota public is against the practice of hound hunting.

Mike Colton

Lake Elsinore CA

Position: oppose

Comment:

Dear South Dakota Game, Fish, and Parks Commission,

I am writing to express my strong opposition to mountain lion hunting and, in particular, to the use of hounds for pursuing these animals in South Dakota.

Current data show that South Dakota's mountain lion population is stable and well-managed, with recent surveys estimating approximately 277 lions residing in the Black Hills region. This number remains solidly within the state's established management goal of 200 to 300 animals and does not point to overpopulation or increased risk to people or livestock. Regulated hunting seasons, which already include clear annual harvest quotas, have been effective at maintaining these numbers without the need for more aggressive or controversial control methods.

There is no biological or ecological justification for further expanding hunting, especially with hounds, which is both controversial and largely unnecessary from a management perspective. The use of hounds has been restricted for good reason: it raises ethical concerns, can lead to unfair chase situations, and is not needed to control a population that is already sustainable. Further, public discussion has reflected strong concerns about animal welfare and sportsmanship in relation to hound hunting.

If hunters are truly interested in fair chase and the traditions of challenging, ethical hunting, there is simply no need to rely on hounds given the current healthy and well-regulated mountain lion population. If the intent is not food or real necessity but simply for recreation, I believe we should err on the side of conservation and humane practices.

For these reasons, I urge you to maintain restrictions on the use of hounds and to reconsider the necessity of continued mountain lion hunting in the state under present conditions.

Sincerely, Michael Colton

Kristen Ringham

Minneapolis MN

Position: oppose

Comment:

Cougars should not be hunted with dogs, ever. In fact, why not just do away with a mountain lion season. Apex predators keep grazing populations healthy and in check. As such, they are much more valuable alive than as some hunters trophy.

Tyler Adkison

San Diego CA

Position: oppose

Comment:

Im not sure if I chose the right topic but I wanted to oppose using hounds to hunt mountain lions or any mountain lion hunt in general. They are beautiful animals that regulate other wildlife. And they don't deserve to hunted like that.

Rebecca Caselli-Smith

Rapid City SD

Position: oppose

Comment:

Please do not allow dog hunting of mt lions.

Liberty Karch

Justin TX

Position: oppose

Comment:

I am from Texas, but have visited South Dakota before and I love and cherish it's wildlife. I love mountain lions dearly and they deserve our upmost protection and conservation efforts. They are a vital part of America's fragile ecosystem and we need to preserve the small numbers of big cats we have left. I oppose allowing mountain lion hunting in the Black hills as it's unnecessary and damages South Dakota's delicate ecosystem. Please protect our local mountain lions!

Courtenay Johnson

Ann Arbor MI

Position: oppose

Comment:

No comment text provided.

Sam Namminga

Nemo SD

Position: oppose

Comment:

The Black Hills does NOT have too many mountain lions, and the use of dogs to hunt them is unacceptable!

Trevor Umnus

Summerset SD

Position: oppose

Comment:

I do not see the need for additional hound hunting area in the Black Hills for mt lions. Deer and elk numbers are stable, and there are plenty of lions being taken each year. Lion hunting without hounds is a great challenge for hunters.

Sharon Rose

Rapid City SD

Position: oppose

Comment:

No comment text provided.

Sara Parker

Sioux Falls SD

Position: oppose

Comment:

As a lifelong South Dakotan, I am writing to express my strong opposition to hound hunting in our state, particularly on public lands.

Hound hunting is not only inhumane for the animals involved, but it also raises significant public safety concerns. Packs of dogs used in this practice can run far beyond the control of their handlers, crossing property lines without permission, threatening livestock and pets, and creating conflict with landowners. When these dogs spill onto public lands, they also put members of the public at risk of unintended encounters.

From a wildlife management perspective, hound hunting is particularly troubling. Mountain lions chased for miles to the point of exhaustion can face prolonged, violent encounters with packs of dogs. On the open prairie, where natural cover is limited, lions have no means of escape - leading to unnecessary suffering for the lion and ,at times, the dogs. This does not reflect responsible or ethical wildlife management.

The vast majority of South Dakotans do not support hound hunting. I urge the Commission to listen to the public, reject this proposal and instead adopt wildlife management practices that prioritize humane treatment, public safety and ecological balance.

Ron Pray

Deadwood SD

Position: oppose

Comment:

Oppose the use of hounds to hunt mountain lions.

Cynthia Redetzke

Rapid City SD

Position: oppose

Comment:

No comment text provided.

George (Les) Heiserman

Spearfish SD

Position: oppose

Comment:

I strongly oppose using dogs to hunt mountain lions. It's cruel and inhumane.

Brenda Larson

Keystone SD

Position: oppose

Comment:

Please stop the hunting with dogs. This is NOT a sport nor even logically right. It's simply killing for the purpose of killing not for a hunting skill

We have not see any Mountain Lion signs for several years.

Its just not the right way to manage our wildlife.

Jesse Cantrell

Rapid City SD

Position: oppose

Comment:

No comment text provided.

Lesleigh Owen

Rapid City SD

Position: oppose

Comment:

No comment text provided.

Nicole Preble

Rapid City SD

Position: oppose

Comment:

I oppose the practice of using dogs for hunting mountain lions.

Elisha Greenawalt

Rapid City SD

Position: oppose

Comment:

No to allowing more areas of hunting with dogs. No hunting with dogs should be allowed it is cruel and unfair.

Jeff Anderson

Rapid City SD

Position: oppose

Comment:

I am against the proposed hunting of Mountain Lion using dogs. Hunting with dogs is cruel to Lions and dogs.

Pursuing mountain lions with dogs is stressful to females, especially to mothers with young cubs. Cubs stay with their mothers for 18 months, using dogs may separate the mother from her cubs. This may lead to the death of the cubs. Hunting with dogs can create more trespassing on private land. Hunting with dogs will cause more stress to other wildlife, livestock, and humans. In summary hunting mountain lions should be kept as "boot hunting". Humans' vs Mountain lions, not a pack of dogs hunting mountain lions.

Janine Kopping

Petaluma CA

Position: oppose

Comment:

Please help to protect the Mountain Lion population. They are crucial to a healthy ecosystem. Their numbers do not necessitate this aggressive measure.

Paula Von Weller

Deadwood SD

Position: oppose

Comment:

I strongly oppose increased hound hunting of mountain lions in the Black Hills. Hound hunting is not fair chase and hound hunters have an unfair advantage over boot hunters, while only representing a very small fraction of hunters. Mountain lions regulate their own populations through territory and do not need to be managed - lion hunting is trophy hunting. Allowing an increase in hound hunting will likely continue to drive hound hunters to want to expand their hunting grounds in the Black Hills which is unsustainable and will lead to an imbalanced/unstable population. Lions are vital for a healthy ecosystem, keeping deer populations healthy and in check. Chronic wasting disease is increasing in areas of neighboring states as carnivores, including lions, continue to be persecuted and over harvested. As a biologist and resident of the Hills, I value the important role that lions play on the landscape and would like to see increased education on lion coexistence. Instead of catering to just a few and allowing the expansion of hound hunting, I ask that the wishes of concerned residents, including boot hunters, be taken into consideration and that you deny the proposed increase. Thank you.

Nancy Hilding Black Hawk SD

Position: oppose

Comment:

Nancy Hilding Prairie Hills Audubon Society P.O. Box 788 Black Hawk, SD

We provide attached comments

Starla Graves

Whitewood SD

Position: oppose

Comment:

I am against the expansion of hounds

Zachary Heller
Whitewood SD
Position: oppose

Comment:

I oppose the expansion of using hounds in the black hills.

North American River Otter Action Plan

Kenneth Halbritter

Sioux Falls SD

Position: support

Comment:

No comment text provided.

Other

Jim Lane

Yankton SD

Position: support

Comment:

We think this is an appropriate time to express our gratitude to the commission and wildlife managers that have supported the Nest Predator Bounty Program.

When the program started there was a lot of doubt about its effectiveness. Since then, it has shown great achievement of the stated goals. It makes the habitat we have more productive.

Last year's pheasant season being the best in over a decade isn't just proof of the bounty program's effectiveness, it's also some of the best publicity possible. For anyone to suggest the increase in pheasant numbers is somehow unrelated would be revealing a lack of perception.

Everyone talks about the 3Rs, but this program actually delivers. It has stimulated a great deal of mentorship and engagement.

The fact that the quota was reached early this year is an indication of the increasing proficiency of the participants.

Pheasants, ducks, and turkeys may be the most visible beneficiaries, but the program also increases survival of non-game species. The bounty program has an element of equity. We have great outdoor campuses at each end of the state, but those facilities aren't easily accessible to some of our more remote residents. The nest predator bounty is available to everyone everywhere equally. That's one of its keys to success. Much of this trapping takes place in locations not available to control professionals. Money spent on this program does not go to organizations based outside of the state in the conservation industrial complex. It goes to individuals, many in small disadvantaged communities where it turns over several times in the local economies. I could go on, but based on your support I'm sure you guys understand. This commission is like most of public service: opposition is vocal and agreement is often expressed by taking positive actions for granted. We

appreciate your good judgement and service.

Thanks again, we are grateful for the opportunities of the Nest Predator Bounty Program and hope the many benefits continue into the future.

Jim Lane & family & friends

Patrick Weimer

Spearfish SD

Position: support

Comment:

Petition #243 Mountain Lion Hunting with hounds.

To the South Dakota Game, Fish and Parks Commission,

I'd like to once again express strong support for the use of hounds to aid in hunting of mountain lions within our fire protection district. This method, roots deep with American tradition, is not only effective for population management but also promotes ethical, selective harvest. Hunting with hounds allows hunters to track and tree specific animals, providing an opportunity to assess age, sex, and condition before making a decision minimizing the chance of accidentally taking females with dependent young. What many people don't realize is that the use of hounds is really is rooted deeply in our nation's heritage. Suprisingly two of the most iconic figures displayed on Mount Rushmore George Washington and Theodore Roosevelt were avid houndsmen. Washington maintained a kennel of carefully bred hunting dogs, while Roosevelt passionately pursued big game with hounds and wrote extensively about their value in fair chase hunting. Their legacy lives on in responsible wildlife management practices like this. Yet using hounds isn't just about tradition it's about ensuring effective conservation, public safety, and respect for the animals we pursue.

I urge you to continue supporting this time-honored and highly regulated method. It provides an essential balance between preserving our natural ecosystems and managing predator populations that impact livestock, big game herds, and rural communities. Furthermore, hound hunting fosters a deep connection between hunters and their dogs built on years of training, stewardship, and respect for the land. It's not a reckless or indiscriminate approach as some may believe, but a precise, controlled, and humane tool that reflects both science based wildlife management and the spirit of American heritage.

Andrew Seymour

Rapid City SD

Position: support

Comment:

I support the proposal by South Dakota houndsmen to allocate 20% of mountain lion quota to hound hunters. We need their help to control predator populations!

Luke Peterson

Lamoure ND

Position: support

Comment:

The use of hounds in fire areas on mountain lions. The use of hounds on mountain lions is fair chase. There is no other type of hunting where the animal no it's going to be hunted the whole time. With the use of hounds it opens up a whole other opportunity for conversation. I ask you to please make this available for all the houndsmen out there.

Philip Daugherty

Gunnison CO

Position: support

Comment:

I am in full support for the use dogs to manage mountain lions in the fire protection district. Hounds are the most successful and accurate way to manage mountain lion populations.

Jim Hagen

Britton SD

Position: support

Comment:

Allow hound hunting for lion in black hills, in a limited fashion

Andy Carlisle

Potwin KS

Position: support

Comment:

I'm in support of the use of hounds for mountain lion management in South Dakota. It's 100% a very valuable and necessary tool in science based management for these big cats. Let not let it become a big issue before we try to spend big money to get it under control. (Like California). Let it be an asset to the state revenue and to the citizens of South Dakota. Please take this in consideration logically speaking. Not based on emotion and false narratives. Thank you for hearing me in this issue.

Nathaniel Alexander

Hermosa SD

Position: support

Comment:

I support the use of hounds inside the fire protection district of the black hills. It is the only way to properly manage mountain lion. Thanks

Dylan Meyer

St Marys PA

Position: support

Comment:

I am in support of South Dakota opening up a hound lion season. The use of hounds is great way to manage lion populations and make sure your taking the right lion. With hounds there's no mistaken kill you can identify if it's male, female, kitten, or a female with kittens.

George Lambert

Williamsville VA

Position: support

Comment:

Please consider a hound hunting season. Im a resident from Virginia but I'm an advocate for the use of hounds in lion or bear hunting in every state. A hound hunter, and the style we hunt can be the best way to manage and interact with wildlife that the typical human never even gets to see. We enjoy working with biologists and can provide another sorce of information that no other style of hunting has the ability to do.

Please consider the use of hounds. Thanks George Lambert

Dave Accashian

Pine CO

Position: support

Comment:

I urge you to support the Mountain Lion Proposal for the use of hounds during the bobcat season.

Dave Accashian

Pine CO

Position: support

Comment:

I urge you to support the Mountain Lion Proposal for the use of hounds during the bobcat season.

Ted Stacey Stacey

Aldrich MN

Position: support

Comment:

I support the fair chase use of dogs hunting lions within the black hills fire district. Are we really going to wait for a tragic accident and a call to arms, or can we follow the science based management programs implemented in CO, WY, MT, and others, and put our houndmen out in the woods.

Woodrow Smith

Pounding Mill VA

Position: support

Comment:

I support the use of hounds for hunting mountain lions during the hunting season for them. The use of hounds allows sportsmen the opportunity to assess the animal prior to harvest.

Jeffrey Krolikowski

Winner SD

Position: support

Comment:

I'm in support of the use of hounds to pursue Mt Lions in the black hills . The black hills houndsmen association has a good plan I believe .

Tate Wells

Fort Pierre SD

Position: support

Comment:

I support the mountain line proposal for the use of hounds in the Black Hills fire protection district

Bobbi Wells

Fort Pierre SD

Position: support

Comment:

I support the use of hounds in the fire protection district.

Jenna Wells

Fort Pierre SD

Position: support

Comment:

I support the use of hounds in the fire protection district

Tim Lohse

Buffalo WY

Position: support

Comment:

As an older hunter I support the use of hounds in the Black Hills fire protection area, as I can't follow hounds in higher elevations. This is one of the last places where I have the opportunity to get to hopefully harvest a lion.

Amanda Wells

Sturgis SD

Position: support

Comment:

I support the Houndsmens proposal. 12 tags in 6 weeks time when hounds are already in the Black Hills. Makes more sense than private ground and draws. Make it a quota or else landlocks will happen!

Jonathon Harmon

Sioux Falls SD

Position: support

Comment:

I believe allowing hounds for mountain lion in the black hills would be more added income to state and I know personally quite a few people who would love to be able to run hounds for them thank you

Jason Fisher

Lead SD

Position: oppose

Comment:

This comment is in regards to the proposed use of hounds for mountain lion hunting.

I strongly oppose the use of hounds used for mountain lion hunting.

Using hounds is unfair to lions. Houndsmen portray to be ethical, but shooting a cat out of a tree is not ethical, especially when chased by dogs.

I appreciate Game Fish and Parks entertaining any proposal, but the majority of people in SD, even non-hunters, oppose the use of hounds.

If anything, the boot season needs to be extended December 1 through April 31, or offer special boot tags during the deer seasons.

No dogs please!!

Thank you for taking the time to read,

Jason Fisher

Test Test

Test SD

Position: other

Comment:

test

Reed Withers

Aberdeen SD

Position: other

Comment:

Dear Commissioners.

The archery access permits were never advertised to the public. Never saw a facebook post and don't recall seeing any emails either. Today (july 22) I find out the deadline was July 1. Communication to the public was piss-poor at best and GFP needs to do a better job of making the public aware of these important deadlines.

Just look at the decline in the number of applicants for access permits and deer seasons, people aren't finding out about these. I ask the commission to have GFP do a better job as hunters deserve better. We all are paying more for licenses this year because of the license increase, the least you can do is communicate to the public about deadlines. Not a single facebook post on access permits!

Leslie Hladysz

Keystone SD

Position: other

Comment:

I believe it's high time that game fish and parks. Step up to the table when it comes to signage. At Custer state park.

It is appalling and the number of rescues. There is also appalling.

I hike Black Elk Peak every month and gave done so for the last 5 years.

Does your commission realize there is NO clear sign indicating where the peak at the intersection of what CSP refers to as the #9 South and the# 3(which should be renamed the #4

I found this sign on the #3, and it refers to the #9!

Notice on some maps the sign reads" Cathedral Spirs".

Every year we have rescues that could be avoided with the inclusion of CORRECT maps, of the trail, suggestions on LITERS of water to bring, signs indication moderate or strenuous, etc.

I am more than happy to present this information in person along with a proposal to help the continuous parking problem at Sylvan Lake (simply move the pay station to the intersection of 89/87)

Please this park is precious and it's overrun and some simple strategies could help our search and rescue teams, users experience, AND your bottom line.

Poor signs are a waste of everyone's resources and QR codes, easy to read informative signs saves lives, tax dollars, and manpower.

Please consider this urgent request.

Joseph Lander

Pierre SD

Position: other

Comment:

Went to the Medicine Knoll Creek GPA to scout for dove hunting and wanted to let all commissioners know that I could not find a single foodplot that was planted this year. What a disgrace! We advocated for the support of exchanges and land purchases in this area over the past 20 years and to see such mismanagement is truly a disservice to the sportsmen who funded these purchases. That's right, sportsmen paid for these areas and staff pissed our opportunity away. I hope commissioners get involved and get staff shaped up so this doesn't happen again. Someone fell asleep at the wheel and there is no excuse for this miss management. Someone with some athority better get involved and straighten managers out.

Desiree Eibel

North Canton OH

Position: oppose

Comment:

It's bad enough you let hunters kill innocent animals! Now you want dogs too! . You took their lands so they come closer to humans maybe kill your farm animals but its not their fault! You cannot let hunters take packs of

dogs & kill our wild animals! They are not yours to kill! I'm very opposed to this!

Ken Blair

St Paul MN

Position: support

Comment:

No comment text provided.

Jeff Laughlin

Lead SD

Position: oppose

Comment:

I strongly oppose hound hunting for mountain lions in the Black Hills.

I feel that this method of "hunting" is an unethical and antiquated practice that is best forgotten.

It almost smacks of the slaughter of the bison and market hunting.

It's not sport that anyone should take pride in or teach your children to involve themselves in.

It's basically send in the hounds ,kick back and wait for them to tree the victim, stroll up, kill the lion, take pictures of your "trophy" and pass yourself off as a sportsman .

GFP I'm sure is aware of the chaos this method of killing causes in the forest with the other forest inhabitants and has nothing to contribute to South Dakota's proud hunting heritage.

Thank you for the opportunity to comment.

Jeff Laughlin

Nancy Hilding

Black Hawk, SD

Position: other

Comment:

Nancy Hilding President Prairie Hills Audubon Society P.O. Box 788 Black Hawk, SD 57718 August 31st, 2025 About 9:39 MT

Dear staff processing these comments. This is to remind you of SDCL 1-26-4 (6) - It's provisions insure that when the rule-making hearing is held in a town that uses Mountain Time, the cut off time-of-day for public comment submission must be midnight MT not midnight CT.

We fear in the past that GFP has not always complied with this law and has not changed your clock , thus we will check to make sure you switch your clock from CT to MT when you engage the cut off the comments for the Sept 4th hearing.

Relevant statute is quoted below:

- "1-26-4. Permanent rule-making procedure--Notice, filings, service, and hearing--Extension--Waiver. The following notice, service, and public hearing procedure must be used to adopt, amend, or repeal a permanent rule:
- (6) If the authority promulgating the rule is a secretary, commissioner, or officer, the agency shall accept written comments regarding the proposed rule for a period of ten days after the public hearing. If the authority promulgating the rule is a board, commission, committee, or task force, each interested person shall submit written comments at least seventy-two hours before the public hearing. The seventy-two hours does not include the day of the public hearing. The written comments may be submitted by mail or email. The record of written comments may be closed at the conclusion of the public hearing. The hearing may be continued for the purpose of taking additional comments;"

River Otter Season

Kristin Boggs

Bozeman MT

Position: oppose

Comment:

No comment text provided.

Wildlife Action Plan

Payton Reynolds

Watertown SD

Position: oppose

Comment:

I oppose the use of hounds within the black hills fire protection district for mountain lion hunting! Period.

Cody King

Sturgis SD

Position: support

Comment:

I support hunting mountain lions with hounds in the fire district. Lets do our job and manage and conserve all game in a fashion that is best for everyone.

Nedved Jeremy

Plankinton SD

Position: support

Comment:

I support the use of hounds to harvest mt. lions and bobcats a like. The current plan of just boot hunters is not healthy for the population. Everyone else can coexist from archery hunters to rifle hunters, why cant boot and hound hunters.

Ashland Carden

Hayward WI

Position: support

Comment:

I support the plan to allow the use of hounds to hunt mountain lions in fire district of South Dakota

Cole Theobald

Mount Horeb SD

Position: support

Comment:

No comment text provided.

Eric Johnson

Albuquerque NM

Position: support

Comment:

Amphibian populations are declining worldwide, and amphibians are experiencing high extinction rates due to habitat loss, chytrid fungus, pollutants, pesticides, invasive species, and climate change. Amphibians are the most threatened class of vertebrates.

The South Dakota State Wildlife Action Plan identified two amphibian Species of Greatest Conservation Need (SGCN): Blanchard's Cricket Frog and Cope's Gray Treefrog. We appreciate the attention given to specific amphibians. Habitat protection and restoration measures should be implemented for SCGN amphibian species. On federal and state lands, protected areas for SGCN amphibians should be established, such as Research Natural Areas (RNAs) on US Forest Service land and protected areas on state land. Conservation agreements that protect SGCN amphibian habitat on private land should be developed with landowners. Long-term population monitoring of SGCN amphibians should be conducted.

South Dakota Game, Fish and Parks should work to obtain funding needed to implement the recommendations of the South Dakota State Wildlife Action Plan. With climate change and human impacts increasing, more measures are urgently needed to protect South Dakota's biodiversity.

Thank you for this opportunity to comment.

References:

Catenazzi, A. 2015. State of the World's Amphibians. Annual Review of Environment and Resources, 40: 91-119

Collins, J.P., and M.L. Crump. 2009. Extinction in Our Times: Global Amphibian Decline. New York, NY: Oxford University Press.

International Union for the Conservation of Nature. 2024. Amphibian Conservation Action Plan. Gland Switzerland: International Union for the Conservation of Nature.

Kolbert, E. 2014. The Sixth Extinction, an Unnatural History, Chapter 1. New York, NY: Bloomsbury.

Luedtke et al. 2023. Ongoing Declines for the World's Amphibians in the Face of Emerging Threats. Nature, Volume 622, 12 October 2023, 308-314.

McCallum, M.L. 2007. Amphibian Decline or Extinction? Current Declines Dwarf Background Extinction Rate. Journal of Herpetology, Volume 41, Number 3, pp. 483-491.

Vince Logue

Oelrichs'S SD

Position: oppose

Comment:

I am the President of the WSDFHA and as an organization we oppose Beaver Action Plan proposed by the SDGFP. There was no limits placed on non-resident fur harvesting within the Black Hills Fire Protection District, no acknowledgment of loss due to predatory increases, very limited acknowledgment of the naturally limited food sources within the Blavk Hills, no mention of the possibility of beaver relocating due to pressure from increased human or predator contact, drought or decrease in food sources. Just the typical scapegoat, fur harvesting. It really seems the GFP Commission has a hidden agenda while supporting the Audubon Society's agenda!

Chad Koopal

Platte SD

Position: support

Comment:

Something needs to be done for the deer population in the hills...it's not coyotes hurting the population

Ryan Hills

Spearfish SD

Position: support

Comment:

I support the wildlife action plan. It seems well rounded providing opportunities while also taking action to improve the landscape and protect endangered/threatened species. Particular emphasis should be placed to improve relations between the National Forest Service and private landowners to ensure the follow-through of this objective. My concerns lie with recent federal priority being placed on divesting the public of open opportunity on public lands in order to meet the bottom line. This imperative by the federal government seems to be a growing road block that would hinder these objectives.

Jake Wake

Waterville ME

Position: oppose

Comment:

The recent legislation allowing sniffing dogs to help aid in hunting the mountain lion (Puma concolor) is a gross misstep in the direction we need to take with an ecological protector such as this species. These oversteps have damaged population totals in the past and if allowed would repeat such historical flaws.

Nancy Hilding
President
Prairie Hills Audubon Society
P.O. Box 788
Black Hawk, SD 57718
605-787-6466
phas.wsd@rapidnet.com

SD Game, Fish and Parks Commission 523 East Capitol Ave Pierre, SD 57501

RE: Proposed Mountain Lion Hunting Season - Chapter 41:06:02 and 41:06:61

PHAS OBJECTS TO HOUND HUNTING OF LIONS ANYWHERE IN SD

As we have testified many times, we object to hound hunting anywhere in SD.

Southern Hills Topography

We are especially concerned about the expansion to the southern and south-eastern edge of the Black Hills Fire Protection District (BHFPD).

We are concerned about the topography and that this area has more stretches of large grassland areas without trees or bluffs. We object more to hound hunting of lions on prairie landscapes than in forests or areas of canyons/bluffs.

Dogs are designed to run for long times and chase prey, mountain lions are designed for short bursts of speed. The chased lions are exhausted – they run out of energy and climb up a tree. We are fearful for them and the dogs when there are not trees or ledges for them to use to escape dogs. We fear conflicts between dogs and lions. We also fear for any kittens with their mothers. We have petitioned for rule change to address this animal welfare issue in 2023 and been refused.

Our General Opposition to Hound Hunting of Cougars – Reasons to object to hound hunting of cougars

- ~ Mountain lion pursuit with hounds is cruelty to lions and dogs
- ~ Mountain lion pursuit with hounds will result in more trespassing
- ~ Mountain lion pursuit with hounds will create disturbance to people, livestock and wildlife (including mule deer). Disturbance of wildlife can stress them.
- ~ Mountain lion pursuit with hounds will stress lions, especially in heavy snow or extreme heat, which will be especially hard for mothers with young.
- ~ Mountain lion kittens stay with moms for 18 months and moms can give birth any time of the year. Hound hunters may separate moms from kittens. They are not supposed to kill treed lions showing proof of lactation or follow tracks of two or more lions, but some mothers will still be separated from their young for a while by the hounds or be killed, leaving their kittens unprotected or unfed. Mothers can be exhausted by the chase in deep snow. Video on moms/kittens: https://www.youtube.com/watch?v=OFITZD_IYNA
- ~ Mountain lion pursuit with hounds is not fair chase
- ~ Mountain lion hunting with hounds is more efficient than "boot hunting" and will result in less lions available for "boot hunters" (hunters not using dogs)

~ Mountain lion hunting by hounds will result in more commercialization of hunting, as some hound hunters will be hired as guides/outfitters. People with money to hire dogs, will thus be more likely to get a lion than those who can't afford such. SDGFP does not have authority to license hunting guides. HB 1215 failed in the SD Legislature in 2025 – https://mylrc.sdlegislature.gov/api/Documents/280197.pdf

We have posted a version of these objections to our web library at https://phas-wsd.org/wp-content/uploads/Hound-hunting-objections.pdf

RULE CHANGES WOULD VIOLATE 2024-2028 MOUNTAIN LION ACTION PLAN – 11 months after it was written.

Prairie Hills Audubon Society objects to the 2024-2028 Mountain Lion Action Plan and advocates for its' amendment or revocation – we advocate for ignoring or changing it. However, we doubt the Commission has that opinion - having adopted it about 11 months ago. You would be violating its' objectives 11 months after adopting them.

This proposal is not consistent with the Mountain Lion Action Plan that was adopted in Fall 2024 https://gfp.sd.gov/UserDocs/nav/Lion Action Plan 2024.pdf -

See Objective 2 (b) Our quote from the Action Plan Objective 2(b) is in italics:

"Modify and adopt hunting season structure as needed to <u>minimize regulation</u> complexity:

* In the Black Hills Fire Protection District (BHFPD), excluding Custer State Park (CSP): maximize hunting opportunity for unique hunters allowing unlimited boot hunting with harvest regulated primarily through restricted season lengths and harvest limits.

*In CSP: maximize hunting opportunity for hunters with dogs with harvest regulated primarily through limited permits and restricted season lengths.

* Outside BHFPD: emphasis to minimize potential human conflicts with mountain lions and maximize hunting opportunity for hunters with dogs allowing unlimited permits and a year-round season."

Emphasis added

COMPLEXITY

The new regulation section written to set off a large part of the Black Hills requires a super large geographical description, with complex lottery and 5 time slots. <u>This does not minimize regulation complexity</u>.

Prairie Hills Audubon Society petitions for rule change for goals of conservation of species or animal welfare. We sit in the audience after presenting petition and wait for Kirschenmann or others to explain that our petition makes hunting regulations more complex and thus should be tossed. Obviously rule changes that would make hunting rules complex to benefit other values,

seem OK with staff.. We see hypocrisy here. Complexity that serves the goals of staff is just fine, complexity not consistent with their goals – it is not allowed.

MAXIMIZING BOOT HUNTING IN BHFPD

While hound hunters at Custer State Park used to get more lions, in the last 5 years they averaged 7 lions. This past year the "harvest" in the Black Hills Fire Protection District was 52, of which 7 was from hound hunting at CSP. We assume that if allowed into the southern and southeastern BHFPD hound hunters will kill the extra 7 lions and get the BHFPD harvest very close to the "harvest" limit. These are 7 lions that the boot hunters can't kill. How is this MAXIMIZING the boot hunting on the BHFPD as required by the 2024-28 Mountain Lion Action Plan?

PUSHING THE BHFPD HOUND HUNTING SEASON TOWARDS HARVEST LIMIT

?FAIR SHARE OF KILLS?

We assume that if allowed into the southern and south-eastern BHFPD hound hunters will kill the extra 7 lions and move the BHFPD harvest very close to the "harvest" limit. In the last 5 years the hound hunters got 7 lions on the prairie unit, on average, as did the boot hunters. We may be looking at a future where 73 lions are killed cumulatively on the prairie and BHFPD, with 22 killed by hound hunters or 30% killed by hound hunters.

We are not sure of how many hound hunters and boot hunters there are. We remember seeing lion hunting licenses of about 4,600 in one year and about 2,200 in another year. SDGFP always insists not everyone who buys a license uses it. We don't know how many hunters own hounds and use them for hunting. I think I have heard a number like 100-200 for hound hunters in SD, but the Department probably has an estimate – please tell us. We wonder what is a fair share of the lion harvest can be allocated between the groups. They both pay the same license fee. Hound hunters have much greater success rates but don't pay larger fees. How is this allocation of lions of 30% to hound hunters fair to boot hunters?

WE OBJECT TO OBJECTIVES OF MAXIMIZING HUNTING AS PRIME OBJECTIVE

We find these statements in the 2024-28 Mt Lion Action Plan's page 9 to be offensive:

"Objective 2: <u>Manage mountain lion populations for both maximum and quality recreational hunting opportunities, considering all social and biological inputs."</u>

"* In the Black Hills Fire Protection District (BHFPD), excluding Custer State Park (CSP): maximize hunting opportunity for unique hunters allowing unlimited boot hunting"

"In CSP: maximize hunting opportunity for hunters with dogs"

"Outside BHFPD: emphasis to minimize potential human conflicts with mountain lions and maximize hunting opportunity for hunters with dogs"

We believe the objective should be something like -

Manage mountain lion populations for viability in all suitable habitats and places with confirmed breeding and resident mountain lions. Provide the ecosystem with the benefits of an apex

predator and keystone species while providing for use by wildlife watchers and hunters and other social inputs.

We believe that the very unfortunate Objective 2 in the Mountain Lion Action Plan, is providing very poor guidance to SDGFP. We look forward to a day when GFP is more devoted to conserving species, better assumes its' duty to watch out for animal welfare while providing hunting/fishing and factors in the wishes and needs of wildlife watchers- non-consumptive usersnot just hunters.

Link to the Plan - https://gfp.sd.gov/UserDocs/nav/Lion Action Plan 2024.pdf)

EMIGRATION=IMMIGRATION

Please consider the increased "harvest" rates in states to the west of us and whether your assumption that EMIGRATION=IMMIGRATION is still true. Wyoming is managing its' share of the Black Hills as a sink that sucks lions from SD. It admits this in its' reports

ENVIRONMENTAL JUSTICE

We always object to the management of the prairie unit. Oglala Sioux tribe has a breeding population, proven since 2015 and Rosebud Sioux tribe has a breeding population. Yankton Sioux Tribe back in 2015 thought it had breeding lions but no longer does. Chevenne River Sioux tribe thinks it has resident lions. Despite tribes having cougar populations they want to keep and a few having hunting seasons. GFP has MOU with many of the tribes. GFP doesn't manage for population viability on the Prairie. We are especially concerned in areas overlapping the reservation, where checker board ownership can occur due to the Allotment Acts.

We endlessly request that the Prairie Unit be broken up into sub-units where areas overlapping the reservations of OST, RST, CRST and YST are excised. GFP should and cooperate with tribes and manage for viability in these subunits, if the tribes want that. Lion management in these areas should be cooperative.

CUSTER GALLATIN NATIONAL FOREST

Back in the 1990s Forest Service staff on the Custer Gallatin National Forest, Slim Buttes say a mother cougar with cubs. Mortality data showed older adult males killed in or near these units. The area around the Custer Gallatin National Forest should be excised to a sub-unit on the Prairie and managed for viable populations.

INTRINSIC GROWTH RATE

The cougar "harvest" and other human caused mortality should not exceed 11-17% of the subadult/adult population. If it does the social structure is disturbed and young males replace older males. The older males are experienced and less prone to conflict with humans than the younger males. Overly aggressive hunting leads to human conflicts.

Sincerely

Sincerely

Nancy Hilding President Prairie Hills Audubon Society

Hi Brad and Team,
From the Black Hills Pioneer article July 11, 2025
Less than 2 in 5 people (39.6 percent according to you), support the hounding of mountain lions. That's a pretty low number, far from half, and yet you still push for expanding the hunting of these animals in such a way.
What number would that need to reach before you listened to the voice of the people and stopped? 30%? 20%?
You couldn't even get much more than 3 in 5 (61.5%) of your own hunting cohort to agree.
This is a pretty strong signal that what you're doing isn't supported by the public. Why do you persist? Is it because lions are scary to horses and cows like you say in other articles?
You should listen to the data you've collected and do what the people are asking.
Sincerely,
Greg Moselle



August 30, 2025

Stephanie Rissler, Commission Chair South Dakota Game, Fish and Parks 501 Bulow Street Vermillion, SD 57069

Tom Kirschenmann, Director of Wildlife South Dakota Game, Fish and Parks 523 East Capitol Ave Pierre, SD 57501

RE: Mountain Lion Season Proposal

Dear Chair Rissler, Director Kirschenmann and Members of the Commission:

On behalf of Humane World for Animals (formerly The Humane Society of the United States) and our supporters in South Dakota, I thank you for this opportunity to submit comments regarding mountain lion hunting. We strongly oppose the proposal to expand the area in which pursuit of mountain lions with hounds is allowed within Black Hills Fire Protection District.

We oppose the use of hounding to pursue mountain lions, the arbitrary population objective, and the year-round season outside of the Black Hills Fire Protection District (BHFPD). These practices harm the small mountain lion population in South Dakota and potentially increase conflicts with livestock. We urge you to reject the proposal to allow the pursuit of mountain lions in an expanded area within the BHFPD ("the proposal") so that hunting opportunity is not privileged to the detriment of conflict reduction and the ecological and social value of mountain lions.

Humane World for Animals is categorically opposed to the trophy hunting of mountain lions in South Dakota. This practice is not only cruel and unnecessary, but researchers have found that excessive hunting of mountain lions leads to increased conflicts with humans, pets and livestock. Furthermore, trophy hunting and predator control of mountain lions indirectly harms ungulates because predators target sick animals, including those with chronic wasting disease. Finally, a national survey conducted by the National Shooting Sports Foundation and Responsive Management show that only 29% of Americans approve of trophy hunting.

For these reasons, and those outlined in Appendix A of these comments, we request that SDGFP reject the proposal, end the use of hounds to pursue or hunt mountain lions, and protect mountain lions from trophy hunting now and in perpetuity.

If GFP is to continue allowing the trophy hunting of mountain lions, we request the agency limit the practice (detailed below) to protect South Dakota's iconic mountain lion population from excessive killing and to limit conflicts caused by indiscriminate hunting of these native cats. Specifically, we request the following changes:

1.) Lift the arbitrary population objective of 200-300 total mountain lions. The annual hunting limit should not exceed 14% of South Dakota's adult and subadult mountain lion population. This amounts to no more than 38 mountain lions based on GFP's recent – and quite imprecise – population count, as is



acknowledged by GFP itself in the 2023 Mountain Lion Status report.⁴ GFP currently allows 40 females or 60 total mountain lions to be killed; 66 total mountain lions were killed in the 2024-2025 mountain lion hunting season. GFP estimates that 275 adult and subadult lions live in South Dakota. GFP should count its lions using contemporary methods and not allow hunters to kill more than South Dakota's mountain lion population growth rate. Non-spatial population models overestimate mountain lion populations by an average of 63%, and many jurisdictions count dependent kittens in their estimates.⁵

Beausoliel et al. (2013) suggest that in the absence of population data, agencies should not set quotas that exceed 14% of the mountain lion population to avoid harm. Colorado Parks and Wildlife (CPW) recently adopted a cap of 14% on mountain lion hunting quotas as part of their new West Slope Mountain Lion Management Plan. Additionally, CPW has adopted a cap of 16% on total human-caused mortality to account for other sources of lion deaths. Washington state has also recently adopted a conservative more conservative mountain lion quota in order to maintain stable mountain lion social structures to minimize conflicts.

GFP's Mountain Lion Action Plan continues to authorize trophy hunting of mountain lions that exceed sustainable levels, threatening the stability of South Dakota's mountain lion population as well as their range expansion to their historic range where they had been extirpated. GFP's own Andy Lindbloom acknowledged of South Dakota's current hunting limit at the July 2023 Commission meeting, "If we met this every year, we would not be able to manage for our management objective of two- to three-hundred lions. We just don't have enough lions that could meet that every year." If current hunter kill rates continue, South Dakota's mountain lion population is projected to come dangerously close to falling below GFP's population objective. Any additional mortality of female mountain lions would likely lead to a disastrous decline below GFP's objectives. To quote directly from materials provided by GFP itself to the Commission at its July 2023 meeting:

If the four-year average of 26 females is harvested next year, the population is expected to decrease to just over 200 by December of 2024.... Alternatively, if the harvest limit is achieved and 40 females are harvested next year, the population is expected to decrease to under 200 mountain lions, and below the population objective of 200 to 300.¹⁰

As of August 14, 2024, 30 female mountain lions have been killed in South Dakota during the 2024 season, as well as 17 males. We therefore call on the agency to count South Dakota's mountain lions using contemporary spatial-model methods, implement a 14% cap on hunting mortality and a 16% cap on total human-caused mortality based on adult/subadult population estimates while doing away with the agency's arbitrary population objective of 200-300 total mountain lions.

2.) Implement a 20% sublimit on female hunting mortality as a proportion of total hunting mortality. Multiple studies across the western U.S. demonstrate that limiting female mortality to approximately 20% of total hunting mortality is necessary to ensure a stable population.¹¹ Based on the current adult/subadult population and an estimated sustainable hunting limit of 38 total mountain lions, GFP must limit the female hunting limit to no more than eight individuals.



As the biological bank account of the population, GFP must take steps to protect resident females and ensure hunting of females does not exceed sustainable levels. The current subquota of 40 female mountain lions out of a total hunting limit of 60 lions is far too high.

3.) Prohibit the hunting of mountain lions with hounds throughout South Dakota and reject any proposed rule that would expand hound hunting.

As detailed in Appendix A, using radio-collared hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane.¹² Hounds kill kittens, and mountain lions often injure or kill hounds.¹³ The practice is exceedingly stressful and energetically taxing to mountain lions.¹⁴ Furthermore, hound hunting is not considered "fair chase" hunting by most.¹⁵ Hounds also chase and stress non-target wildlife, from porcupines to deer,¹⁶ trespass onto private lands,¹⁷ and have adverse interactions with the public.¹⁸If GFP is to continue allowing the hunting of mountain lions, the agency must prohibit the use of hounds and reject hound hunting in the Black Hills Fire Protection District.

In conclusion, Humane World for Animals strongly urges GFP to reject the proposal to allow pursuit of mountain lions in an expanded area within the BHFPD as it seeks only to maximize trophy hunting opportunities, not conserve mountain lions. South Dakota's mountain lions are a vital component of our natural wild heritage and deserve reasoned management for long-term conservation. If GFP is to continue allowing hunting of mountain lions, the agency must limit the practice to no more than 14% of the adult/subadult population so that it does not exceed sustainable levels and implement a female sublimit of 20% of total hunting mortality. Additionally, total human-caused mortality must be limited to no more than 16% of the mountain lion population. Lastly, hound hunting of mountain lions must be prohibited, not expanded, throughout South Dakota. Thank you for your consideration.

Sincerely,

Story Warren Program Manager, Wildlife Protection Humane World for Animals swarren@humaneworld.org



Appendix A

1. Mountain lion trophy hunting is unsustainable, cruel and harmful to family groups

Trophy hunting is the greatest source of mortality for mountain lions throughout their range in the United States. ²⁰ The practice is harmful to more than just the wild cats who are killed. Conservation biologists have condemned this practice as unnecessary and wasteful. Batavia et al. (2018) write that compelling evidence shows that the animals hunted as trophies have sophisticated levels of "intelligence, emotion and sociality," which is "profoundly disrupted" by trophy hunting. ²¹ For these reasons, GFP must not allow trophy hunting of mountain lions in South Dakota.

A. Trophy hunting is unsustainable and cruel: Large-bodied carnivores are sparsely populated across vast areas, invest in few offspring, provide extended parental care to their young, have a tendency towards infanticide, females limit reproduction and social stability promotes their resiliency.²² Human persecution affects their social structure,²³ and harms their persistence.²⁴

Conservation biologists have shown that trophy hunting results in *additive mortality*, meaning that trophy hunting and even other human-caused mortality increases the total mortality to levels that far exceed what would occur in nature.²⁵ In fact, the effect of human persecution is "super additive," meaning that hunter kill rates on large carnivores has a multiplier effect on the ultimate increase in total mortality over what would occur in nature due to breeder loss, social disruption and its indirect effects including increased infanticide and decreased recruitment of their young.²⁶ When trophy hunters remove the stable adult mountain lions from a population, it encourages subadult males to immigrate, leading to greater aggression between cats and mortalities to adult females and subsequent infanticide.²⁷

Biologists Wolfe et al. (2015) recommend that states manage mountain lions at a metapopulation level rather than at the single population level—which is critical for South Dakota's tiny mountain lion population that is reliant on dispersers from Wyoming. They further add, "We recommend a conservative management approach be adopted to preclude potential over-harvest in future years." Instead, South Dakota's mountain lions experience additive levels of mortality. Extensive research shows that this additive mortality caused by high levels of hunting results in population sinks. High hunting mortality does not result in decreased numbers and densities of mountain lions because of compensatory emigration and immigration responses, typically by dispersing subadult males.

B. Trophy hunting is particularly harmful to kittens and their mothers: In heavily hunted populations, female mountain lions experience higher levels of intraspecific aggression (fights with other cats) resulting in predation on themselves and their kittens.³² Over-hunting harms a population's ability to recruit new members if too many adult females are removed.³³ A Utah study shows that trophy hunting



adult females orphans their kittens, leaving them to die of dehydration, malnutrition, and/or exposure.³⁴ Kittens are reliant upon their mothers beyond 12 months of age.³⁵

- C. Trophy hunting harms entire mountain lion communities: A recent study on mountain lions shows that mountain lions are quite social and live in "communities," with females sharing kills with other females, their kittens and even with the territorial males. In return for these meals, the adult males protect the females and their kittens from incoming males.³⁶ Disrupting these communities leads to deadly intraspecific strife, including infanticide and social chaos within the family groups.³⁷ Trophy hunting destabilizes mountain lion populations, which may cause increased conflicts with humans, pets and livestock.³⁸
- D. Trophy hunting is unnecessary, as mountain lions are a self-regulating species: Mountain lions occur at low densities relative to their primary prey, making them sensitive to bottom-up (prey declines) and top-down (human persecution) influences.³⁹ Their populations necessarily stay at a much smaller size relative to their prey's biomass or risk starvation.⁴⁰ They do this by regulating their own numbers.⁴¹ When prey populations decline, so do mountain lion populations.⁴² Mountain lion populations also require expansive habitat, with individual cats maintaining large home ranges that overlap with one another.⁴³
- E. Killing large numbers of mountain lions halts their ability to create trophic cascades in their ecosystems, which benefits a wide range of flora, fauna and people: Mountain lions serve important ecological roles, including providing a variety of ecosystem services. 44 As such, conserving these large cats on the landscape creates a socio-ecological benefit that far offsets any societal costs. 45 Their protection and conservation has ripple effects throughout their natural communities. Researchers have found that by modulating deer populations, mountain lions prevented overgrazing near fragile riparian systems, resulting in greater biodiversity. 46 Additionally, carrion left from mountain lion kills feeds scavengers, beetles, foxes, bears and other wildlife species, further enhancing biodiversity. 47
- F. Hound hunting is harmful to mountain lions, hounds and non-target wildlife: Using radio-collared trailing hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot them at close range is unsporting, unethical and inhumane. Hounds kill kittens, and mountain lions often injure or kill hounds. The practice is exceedingly stressful and energetically taxing to mountain lions. To

To escape from the hounds, mountain lions use evasive maneuvers such as running in figure eights, scrambling up trees or steep hillsides and using quick turns to evade the pursuing pack of barking hounds. As a result, mountain lions could exceed their aerobic budgets causing their muscles to go anaerobic—while hounds are capable of running a steady pace with little ill effect.⁵¹ For every one minute the hounds chased a mountain lion, it cost the cat approximately five times what would have been expended if the cat had been hunting. A 3.5-minute chase, according to Bryce et al. (2017), likely



equaled 18 minutes of energy the mountain lion would have expended on hunting activities necessary to find prey.⁵²

Hounding is not considered "fair chase" hunting by most.⁵³ Fair chase hunting is predicated upon giving the animal an equal opportunity to escape from the hunter.⁵⁴ The use of hounds provides an unfair advantage to trophy hunters who rely on hounds to do the bulk of the work in finding and baying a mountain lion. GFP Wildlife Program Administrator Andrew Norton stated to the Commission in 2023, "As you can imagine, success is much higher with hounds. We see on average about twenty times as high success when hounds are used compared to boot hunting in South Dakota."⁵⁵ In Custer State Park, hunters relying on hounds experience an astounding 63% success rate in killing mountain lions, compared to a success rate of 3.5% for boot hunters.⁵⁶ Hounds also chase and stress non-target wildlife, from porcupines to deer,⁵⁷ cause adverse interactions with bystanders, and trespass onto private lands.⁵⁸

Grignolio et al. (2011) found that hounding was highly costly to non-target deer. Hounding changed deer behaviors, including deer inside a protected refuge. While the hounds were chasing other species, they caused non-target deer, especially younger animals, to panic and huddle in an inferior habitat (in this case: a protected, high-elevation, snow-covered reserve during the wintertime hunting season when foraging was difficult). Hounds also significantly increased deer home range sizes—meaning deer had to expend extra energy to distance themselves from the hounds. Furthermore, Grignolio et al. (2011), citing several others, indicated that hounding highly disturbs deer, likely reducing individual fitness and reproductive success while harming deer populations on the whole. If GFP's conservation goals include conserving deer populations, then unleashing packs of loose dogs in their habitat to spook, harass, and chase wildlife during a sensitive time of the year is quite counter to that goal.

2. Hunting mountain lions does not boost prey populations

Research shows that ungulates are ultimately limited more by their food resources and other habitat factors ("bottom-up" limitations) than by their predators ("top down" regulators). However, when herds lose their predators, they suffer poorer health and body condition, as well as more degraded habitats. With a healthy assemblage of native carnivores, ecosystems enjoy the benefits from top-down regulation, which increases the health of ungulate herds with which they are integrally coevolved.

The best available science demonstrates that killing native carnivores to increase ungulate populations is unlikely to produce positive results. Numerous recent studies demonstrate that predator removal actions "generally had no effect" in the long term on ungulate populations. ⁶³ Because ecological systems are complex, heavily persecuting mountain lions will fail to address the underlying malnutrition problems that deer face. Research also shows that disruption by oil and gas drilling does, in fact, greatly harm mule deer populations. ⁶⁴ If South Dakota wants to grow its ungulate populations, then GFP must foster survival of adult female mule deer and elk to stem declines; and it must improve nutritional conditions for ungulates as these factors are the



most important for mule deer survival.⁶⁵ It must also eliminate hound hunting of mountains lions as it is an unnatural stressor on deer.⁶⁶

Persecuting mountain lions will not help bighorn sheep recruitment, either. It is clear from the literature that bighorn sheep populations are in decline in the U.S. because of unregulated market hunting, trophy hunting, disease from domestic sheep,⁶⁷ resource competition by livestock, and loss of habitat.⁶⁸ Sawyer and Lindzey (2002) surveyed more than 60 peer-reviewed articles concerning predator-prey relationships involving bighorn sheep and mountain lions, concluding that while predator control is often politically expedient, it often does not address underlying environmental issues including habitat loss, loss of migration corridors, and inadequate nutrition.⁶⁹ The best available science suggests that persecuting mountain lion populations is not a solution for enhancing bighorn sheep numbers. That is because mountain lion predation upon bighorn sheep is a learned behavior conducted by a few individuals who may not repeat their behavior.⁷⁰ Similar behavior has been documented on endangered mountain caribou in the southern Selkirk Mountains, where trophy hunting disrupted sensitive mountain lion communities, female lions took to higher altitudes to avoid incoming, infanticidal young males, and preyed upon mountain caribou there.⁷¹

South Dakota can better plan for bighorn sheep management by selecting relocation sites for bighorn sheep that have little stalking cover. Escape terrain that contains cliffs, rocks, and foliage makes excellent ambush cover for a mountain lion and should be avoided. The amount of mountain lion predation is also generally greater on small-sized bighorn sheep populations (those with fewer than 100 individuals) than on other larger bighorn sheep populations. A host of authors reviewed by McKinney et al. (2006) and Ruth and Murphy (2010) recommend only limited mountain lion removals to benefit bighorn sheep populations.

3. Mountain lions provide significant ecosystem benefits to their prey and other wildlife, as well as economic benefits to South Dakotans

Mountain lions help prevent deadly deer-vehicle strikes⁷⁶ that can result in numerous human mortalities and pose significant financial and ecological costs to society.⁷⁷ In fact, by reducing vehicle collisions with deer, mountain lions saved drivers \$1.1 million in collision costs annually in South Dakota.⁷⁸ Additionally, highways fragment wildlife habitats, which can lead to both genetic inbreeding problems and direct mortality from vehicle collisions.⁷⁹ The cost of vehicle-animal collisions can be mitigated with the construction of highway structures that are designed to draw specific species such as deer across them, not only preventing vehicle strikes but protecting species and people while saving millions of dollars annually.⁸⁰

Moreover, mountain lions help maintain the health and viability of ungulate populations by preying on sick individuals, reducing the spread of disease such as chronic wasting disease (CWD) and brucellosis. For example, during a study in Rocky Mountain National Park, researchers found mountain lions preyed on deer infected with CWD. The study concluded that adult deer preyed upon by mountain lions were more likely to have CWD than deer shot by hunters. According to the study, "The subtle behaviour changes in prion-infected deer may be better signals of vulnerability than body condition, and these cues may occur well before body condition noticeably declines." This demonstrates that mountain lions select for infected prey and may be



more effective at culling animals with CWD, including during the early stages of the disease when they are less infectious, than hunters who rely on more obvious signs of emaciation that occur in later stages of the disease, when they are more infectious. Moreover, the mountain lions consumed more than 85% of carcasses, thereby removing a significant amount of the disease from the environment.⁸⁴

This ecosystem benefit is increasingly important as CWD infection continues to grow in prevalence and distribution in South Dakota⁸⁵ and neighboring states. Hammering our state's mountain lion population through extremely high and irresponsible levels of trophy hunting relative to the estimated population, and the setting of an arbitrarily low population objective for mountain lions, undermine one of our best defenses against the spread of this deadly disease.

4. Trophy hunting increases human-mountain lion conflict and livestock losses

Trophy hunting and predator control of mountain lions results in increased conflicts because lions' social structure are destabilized. A review of predator-removal studies found that the practice is "typically an ineffective and costly approach to conflicts between humans and predators" and, as a long-term strategy, will result in failure. Instead, the authors concluded, non-lethal alternatives to predator removal, coupled with coexistence (husbandry techniques) may resolve conflicts.

A Washington state study shows that as mountain lion complaints increased, wildlife officials lengthened seasons and increased quotas to respond to what they believed was a growing lion population. However, the public's perception of an increasing population and greater number of livestock depredations was actually the result of a declining female and increasing male population. Heavy hunting of mountain lions skewed the ratio of young males in the population by causing compensatory immigration and emigration, even though it resulted in no net change in the population. Heavy hunting of mountain lions skewed the ratio of young males in the population by causing compensatory immigration and emigration, even though it resulted in no net change in the population.

Study authors found that the trophy hunting of mountain lions to reduce complaints and livestock losses had the opposite effect. Killing mountain lions disrupts their social structure and increases both complaints and livestock losses. Peebles et al. (2013) write:

... each additional cougar [i.e. mountain lion] on the landscape increased the odds of a complaint of livestock depredation by about 5%. However, contrary to expectations, each additional cougar killed on the landscape increased the odds by about 50%, or an order of magnitude higher. By far, hunting of cougars had the greatest effects, but not as expected. Very heavy hunting (100% removal of resident adults in 1 year) increased the odds of complaints and depredations in year 2 by 150% to 340%. 92

Similarly, a study published recently shows the very same result – lethal removal of mountain lions is associated with increased conflicts, especially on small hoofstock including sheep and goats. ⁹³ Dellinger et al. (2021) state:



Removals can thus create a negative-feedback loop that leads to increasing conflict and lethal removal, which could begin to negatively impact the mountain lion population via reduced gene flow and population viability (Hiller et al. 2015, Vickers et al. 2015, Benson et al. 2019). Thus, maintaining an older age structure by reducing lethal removal of resident adults could mitigate depredations (Logan 2019).⁹⁴

Hunting disrupts mountain lions' sex-age structure and tilts a population to one that is composed of younger males, who are more likely to engage in livestock predation than animals in stable, older populations. In 2019, the Humane Society of the United States published a report on livestock losses from mountain lions using the U.S. Department of Agriculture's data. For South Dakota's cattle and sheep ranchers, 2015 data show that most livestock losses came from illnesses, birthing problems, weather and theft, with far fewer losses coming from native carnivores and domestic dogs combined. In 2015, nearly 96% of unwanted cattle losses in South Dakota were from maladies with only 0.17% coming from mountain lions, according to the USDA. And USDA data show that in 2014, zero sheep were lost to mountain lions in South Dakota.

Rather than allowing mountain lion trophy hunting, GFP must make a concerted effort to utilize non-lethal methods (described below) when rare conflicts occur, prioritizing these tools above lethal removal of mountain lions. The current reliance on lethal removal of mountain lions that enter a human community is cruel, unsustainable, and not in line with best management practices for mountain lion conservation. A recent Utah study found that mountain lions selected for native prey even within urban-wildland interface habitat, with only 2% of 540 prey animals consisting of domestic animals. Techniques such as hazing and relocation are viable options that prevent unnecessary killing and are largely supported by the majority of South Dakotans, as detailed within the Plan. According to surveys of South Dakota residents in 2018, public education, relocation and hazing are by far the most widely supported methods for addressing human, pet and livestock conflicts with mountain lions. Petalogous Proposition of the proposition of the

Furthermore, GFP must work with livestock owners to ensure they are adequately and appropriately employing nonlethal predator deterrence techniques. Installing predator-proof enclosures, using livestock guardian animals, or utilizing frightening devices are all effective strategies to prevent conflicts with mountain lions and other carnivores. Other livestock husbandry practices are also essential at reducing conflicts with carnivores. Livestock operators should:

- Practice sanitary livestock carcass removal to avoid scavenging and habituation.
- Keep livestock, especially in maternity pastures, away from areas where wild cats have access to ambush cover. 104
- Keep livestock, especially the most vulnerable—young animals, mothers during birthing seasons and hobby-farm animals—behind barriers such as electric fencing and/or in barns or pens, or kennels with a top. ¹⁰⁵ The type of enclosure needs to be specific to the native carnivore to prevent climbing, digging or jumping. ¹⁰⁶



- Move calves from pastures with chronic predation problems and replace them with older, less vulnerable animals.¹⁰⁷
- Concentrate calving season (i.e., via artificial insemination) to synchronize births with wild ungulate birth periods. ¹⁰⁸
- In large landscapes, use human herders, range riders and/or guard animals.¹⁰⁹ Guard dogs work better when sheep and lambs are contained in a fenced enclosure rather than on open range lands where they can wander unrestrained.¹¹⁰
- Suspended human clothing, LED flashing lights (sold as "Foxlights") and radio alarm boxes set off to make alarm sounds/noises near pastures are some of the low-cost sound and/or visual equipment that deters wild cats.¹¹¹
- Studded leather collars can be very effective at protecting cattle from big cats. 112

According to USDA data from 2015, only an estimated 11.2% of cattle and calf operations in South Dakota used any nonlethal predator control methods. Expanding the use of suitable techniques that are landscape and animal specific is essential to reducing conflicts and preventing the death of livestock as well as wild carnivores. We urge GFP to focus resources on further educating the public on how to share the landscape with carnivores, rather than only attempting to maximize trophy hunting opportunity.

5. Trophy hunting of mountain lions is not economically sound or supported by the majority of Americans who want to see wildlife protected

Trophy hunting of mountain lions is not in the best interest of this iconic species, nor does it represent the interests of the public majority. The practice deprives citizens of their ability to see, view tracks of, or photograph wild mountain lions, and deprives them of the important ecosystem services mountain lions provide in our landscapes. Nonconsumptive users are a rapidly growing stakeholder group that provides immense economic contributions to the communities in which they visit. The U.S. Fish and Wildlife Service's 2016 survey on wildlife recreation indicates that wildlife watchers nationwide have increased 20 percent from 2011, numbering 86 million and spending \$75.9 billion, while all hunters declined by 16 percent, with the biggest decline in big game hunter numbers, from 11.6 million in 2011 to 9.2 million in 2016. Altogether, hunters spent \$25.6 billion in 2016, about one-third that spent by wildlife watchers (Fig. 2). 116

Figure 2: Wildlife recreation participation & expenditures, 2011 vs. 2016 data							
Numbers	2011	2016	Change				
Wildlife watchers	71.8M	86.0M	+14.2M (+20%)				
All hunters	13.7M	11.5M	-2.2M (-16%)				
Big game	11.6M	9.2M	-2.4M (-20%)				



Small game	4.5M	3.5M	-1M (-22%)
Migratory birds	2.6M	2.4M	-0.2M (-8%)
Other animals	2.2M	1.3M	-0.9M (-41%)
Expenditures	2011	2016	Change
Expenditures Wildlife watchers	2011 \$59.1B	2016 \$75.9B	Change +\$16.8B (+28%)

The public values mountain lions and views them as an indicator of healthy environments while posing little risk to people living near them. A new study indicates that Americans highly value wildlife, including top carnivores such as mountain lions, and are concerned about their welfare and conservation. The landmark America's Wildlife Values report found that the percentage of South Dakotans who fall into the traditionalist values system – those who view wildlife as a resource to be used for human benefit – decreased by four percent between 2004 and 2018, while the percent of mutualists – those who value living alongside wildlife – rose significantly, with an increase of 7.5% in the same time period. South Dakotans increasingly value their wildlife alive and thriving. Surveys also show that the majority of Americans do not support trophy hunting. An additional study showed that most believe mountain lions are the best representative of the Southern Rockies heritage and landscape. A continued trophy hunting and hounding season is not in the best interest of South Dakotans who prefer that these large cats remain on the landscape, without threat of persecution.

- Andelt, W. F. "Effectiveness of Livestock Guarding Dogs for Reducing Predation on Domestic Sheep." Wildlife Society Bulletin 20 (1992): 55-62.
- Andelt, W. F., and S. N. Hopper. "Livestock Guard Dogs Reduce Predation on Domestic Sheep in Colorado." *Journal of Range Management* (2000): 259-67.
- Andelt, William F. "Carnivores." In *Rangeland Wildlife*, edited by P. R. Krausman, 133-55. Denver: Society for Range Management, 1996.
- Anderson, C. R., and F. G. Lindzey. "Experimental Evaluation of Population Trend and Harvest Composition in a Wyoming Cougar Population." Wildlife Society Bulletin 33, no. 1 (Spr 2005): 179-88.
- Arizona Game & Fish Department. "Hunt Arizona, 2017 Edition: Survey, Harvest and Hunt Data for Big and Small Game." 153-54, 2017.
- Ausband, D. E., C. R. Stansbury, J. L. Stenglein, J. L. Struthers, and L. P. Waits. "Recruitment in a Social Carnivore before and after Harvest." [In English]. *Animal Conservation* 18, no. 5 (Oct 2015): 415-23.
- Beausoleil, R. A., G. M. Koehler, B.T. Maletzke, B.N. Kertson, and R.G. Wielgus. "Research to Regulation: Cougar Social Behavior as a Guide for Management." Wildlife Society Bulletin 37, no. 3 (2013): 680-88.
- Beschta, R., and W. Ripple. "Large Predators and Trophic Cascades in Terrestrial Ecosystems of the Western United States." *Biological Conservation* 42, no. 11 (2009): 2401-14.
- Bonier, F., H. Quigley, and S. N. Austad. "A Technique for Non-Invasively Detecting Stress Response in Cougars." Wildlife Society Bulletin 32, no. 3 (2004): 711-17.



- Brandell, Ellen E., Paul C. Cross, Douglas W. Smith, Will Rogers, Nathan L. Galloway, Daniel R. MacNulty, Daniel R. Stahler, John Treanor, and Peter J. Hudson. "Examination of the Interaction between Age-Specific Predation and Chronic Disease in the Greater Yellowstone Ecosystem." *Journal of Animal Ecology* (2022).
- Bryce, C. M., C. C. Wilmers, and T. M. Williams. "Energetics and Evasion Dynamics of Large Predators and Prey: Pumas Vs. Hounds." *PeerJ* e3701 (2017).
- Cooley, H. S., R. B. Wielgus, G. M. Koehler, H. S. Robinson, and B. T. Maletzke. "Does Hunting Regulate Cougar Populations? A Test of the Compensatory Mortality Hypothesis." *Ecology* 90, no. 10 (Oct 2009): 2913-21.
- Cooley, H. S., R. B. Wielgus, G. Koehler, and B. Maletzke. "Source Populations in Carnivore Management: Cougar Demography and Emigration in a Lightly Hunted Population." *Animal Conservation* 12, no. 4 (Aug 2009): 321-28.
- Cougar Management Guidelines. Cougar Management Guidelines. Bainbridge Island, WA: WildFutures, 2005.
- Creel, S., M. Becker, D. Christianson, E. Droge, N. Hammerschlag, M. W. Hayward, U. Karanth, *et al.* "Questionable Policy for Large Carnivore Hunting." *Science* 350, no. 6267 (Dec 2015): 1473-75.
- Creel, Scott, and Jay Rotella. "Meta-Analysis of Relationships between Human Offtake, Total Mortality and Population Dynamics of Gray Wolves (*Canis Lupus*)." *PLoS ONE* 5, no. 9 (2010).
- Darimont, C. T., S. M. Carlson, M. T. Kinnison, P. C. Paquet, T. E. Reimchen, and C. C. Wilmers. "Human Predators Outpace Other Agents of Trait Change in the Wild." *Proceedings of the National Academy of Sciences of the United States of America* 106, no. 3 (Jan 2009): 952-54.
- Darimont, Chris T., Caroline H. Fox, Heather M. Bryan, and Thomas E. Reimchen. "The Unique Ecology of Human Predators." *Science* 349, no. 6250 (2015): 858-60.
- Decision Research. "Southern Rockies Wildlife and Wilderness Survey Report." (2001).
- Dellinger, J. A., D. K. Macon, J. L. Rudd, D. L. Clifford, and S. G. Torres. "Temporal Trends and Drivers of Mountain Lion Depredation in California, USA". *Human–Wildlife Interactions* 15, no. 1 (2021).
- Downs, J., M. Horner, R. Loraamm, J. Anderson, H. Kim, and D. Onorato. "Strategically Locating Wildlife Crossing Structures for Florida Panthers Using Maximal Covering Approaches." [In English]. *Transactions in Gis* 18, no. 1 (Feb 2014): 46-65.
- Eberhardt, L. L., P. J. White, R. A. Garrott, and D. B. Houston. "A Seventy-Year History of Trends in Yellowstone's Northern Elk Herd." *Journal of Wildlife Management* 71, no. 2 (Apr 2007): 594-602.
- Eklund, A., J. V. Lopez-Bao, M. Tourani, G. Chapron, and J. Frank. "Limited Evidence on the Effectiveness of Interventions to Reduce Livestock Predation by Large Carnivores." *Scientific Reports* 7 (May 2017).
- Elbroch, L. M., B. D. Jansen, M. M. Grigione, R. J. Sarno, and H. U. Wittmer. "Trailing Hounds Vs Foot Snares: Comparing Injuries to Pumas Puma Concolor Captured in Chilean Patagonia." *Wildlife Biology* 19, no. 2 (Jun 2013): 210-16.
- Elbroch, L. M., C. O'Malley, M. Peziol, and H. B. Quigley. "Vertebrate Diversity Benefiting from Carrion Provided by Pumas and Other Subordinate Apex Felids." *Biological Conservation* 215 (2017): 123-31.
- Elbroch, L. M., and H. Quigley. "Observations of Wild Cougar (Puma Concolor) Kittens with Live Prey: Implications for Learning and Survival." *Canadian Field-Naturalist* 126, no. 4 (Oct-Dec 2012): 333-35.
- Elbroch, L. Mark, Jennifer Feltner, and H. B. Quigley. "Stage-Dependent Puma Predation on Dangerous Prey." *Journal of Zoology* 302 (07/01 2017).



- Elbroch, L. Mark, Patrick E. Lendrum, Maximilian L. Allen, and Heiko U. Wittmer. "Nowhere to Hide: Pumas, Black Bears, and Competition Refuges." [In English]. *Behavioral Ecology* 26, no. 1 (2015): 247-54.
- Elbroch, L. Mark, Michael Levy, Mark Lubell, Howard Quigley, and Anthony Caragiulo. "Adaptive Social Strategies in a Solitary Carnivore." *Science Advances* 3, no. 10 (2017).
- Elbroch, L. Mark, and Howard Quigley. "Social Interactions in a Solitary Carnivore." *Current Zoology* 63, no. 4 (2017): 357-62.
- Elbroch, L. Mark, and Heiko U. Wittmer. "Table Scraps: Inter-Trophic Food Provisioning by Pumas." [In English]. *Biology letters* 8, no. 5 (2012 Oct 23 2012): 776-79.
- Elbroch, M. L., L. Robertson, K. Combs, and J. Fitzgerald. "Contrasting Bobcat Values." *Biodiversity and Conservation* (2017).
- Estes, J. A., J. Terborgh, J. S. Brashares, M. E. Power, J. Berger, W. J. Bond, S. R. Carpenter, *et al.* "Trophic Downgrading of Planet Earth." *Science* 333, no. 6040 (Jul 2011): 301-06.
- Forrester, T. D., and H. U. Wittmer. "A Review of the Population Dynamics of Mule Deer and Black-Tailed Deer Odocoileus Hemionus in North America." *Mammal Review* 43, no. 4 (Oct 2013): 292-308.
- George, Kelly A., Kristina M. Slagle, Robyn S. Wilson, Steven J. Moeller, and Jeremy T. Bruskotter. "Changes in Attitudes toward Animals in the United States from 1978 to 2014." *Biological Conservation* 201 (9// 2016): 237-42.
- Gilbert, Sophie L., Kelly J. Sivy, Casey B. Pozzanghera, Adam DuBour, Kelly Overduijn, Matthew M. Smith, Jiake Zhou, Joseph M. Little, and Laura R. Prugh. "Socioeconomic Benefits of Large Carnivore Recolonization through Reduced Wildlife-Vehicle Collisions." Conservation Letters (2016): n/a-n/a.
- ——. "Socioeconomic Benefits of Large Carnivore Recolonization through Reduced Wildlife-Vehicle Collisions." *Conservation Letters* (2016).
- Grignolio, S., E. Merli, P. Bongi, S. Ciuti, and M. Apollonio. "Effects of Hunting with Hounds on a Non-Target Species Living on the Edge of a Protected Area." *Biological Conservation* 144, no. 1 (2011): 641-49.
- Hansen, K. Cougar: The American Lion. Flagstaff, AZ: Northland Publishing, 1992.
- Harlow, H. J., F. G. Lindzey, W. D. Van Sickle, and W. A. Gern. "Stress Response of Cougars to Nonlethal Pursuit by Hunters." *Canadian Journal of Zoology* 70, no. 1 (1992): 136-39.
- Hatton, I. A., K. S. McCann, J. M. Fryxell, T. J. Davies, M. Smerlak, A. R. E. Sinclair, and M. Loreau. "The Predator-Prey Power Law: Biomass Scaling across Terrestrial and Aquatic Biomes." *Science* 349, no. 6252 (2015): doi:http://0-dx.doi.org.libraries.colorado.edu/10.1126/science.aac6284.
- Hristienko, Hank, and Jr. McDonald, John E. "Going into the 21st Century: A Perspective on Trends and Controversies in the Management of the Black Bear". *Ursus* 18, no. 1 (2007): 72-88.
- Jacobson, Cynthia, John F. Organ, Daniel Decker, Gordon R. Batcheller, and Len Carpenter. "A Conservation Institution for the 21st Century: Implications for State Wildlife Agencies." *Journal of Wildlife Management* 74, no. 2 (2010): 203-09.
- Johnson, Heather E., Jessica R. Sushinsky, Andrew Holland, Eric J. Bergman, Trevor Balzer, James Garner, and Sarah E. Reed. "Increases in Residential and Energy Development Are Associated with Reductions in Recruitment for a Large Ungulate." Global Change Biology (2016).
- Katnik, D. D. "Predation and Habitat Ecology of Mountain Lions (Puma Concolor) in the Southern Selkirk Mountains [Dissertation]." Washington State University, 2002.
- Kitchener, A. . The Natural History of the Wild Cats. Ithaca, New York: Cornell University Press, 1991.



- Krumm, C. E., M. M. Conner, N. T. Hobbs, D. O. Hunter, and M. W. Miller. "Mountain Lions Prey Selectively on Prion-Infected Mule Deer." *Biology Letters* 6, no. 2 (2009): 209-11.
- Lambert, C. M. S., R.B. Wielgus, H.S. Robinson, D.D. Katnik, H.S. Cruickshank, R. Clarke, and J. Almack. "Cougar Population Dynamics and Viability in the Pacific Northwest." *Journal of Wildlife Management* 70 (2006): 246-54.
- Lance, N. J., S. W. Breck, C. Sime, P. Callahan, and J. A. Shivik. "Biological, Technical, and Social Aspects of Applying Electrified Fladry for Livestock Protection from Wolves (Canis Lupus)." [In English]. Wildlife Research 37, no. 8 (2010): 708-14.
- Lennox, R. J., A. J. Gallagher, S. Cooke, and E. G. Ritchie. "Evaluating the Efficacy of Predator Removal in a Conflict-Prone World." *Biological Conservation* 224 (2018): 277–89.
- Lindzey, F. G., W. D. Vansickle, S. P. Laing, and C. S. Mecham. "Cougar Population Response to Manipulation in Southern Utah." Wildlife Society Bulletin 20, no. 2 (Sum 1992): 224-27.
- Logan, Kenneth A., and Linda L. Sweanor. *Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore*. Washington, DC: Island Press, 2001.
- Lomax, Becky. "Tracking the Bighorns." Smithsonian 38, no. 12 (2008): 21-24.
- McCollister, M. F., and F. T. van Manen. "Effectiveness of Wildlife Underpasses and Fencing to Reduce Wildlife-Vehicle Collisions." *Journal of Wildlife Management* 74, no. 8 (Nov 2010): 1722-31.
- McKinney, Ted, James C. deVOS, Warren B. Ballard, and Sue R. Boe. "Mountain Lion Predation of Translocated Desert Bighorn Sheep in Arizona." Wildlife Society Bulletin 34, no. 5 (2006): 1255-63.
- McKinney, Ted, Thorry W. Smith, and James C. deVOS. "Evaluation of Factors Potentially Influencing a Desert Bighorn Sheep Population." Wildlife Monographs 164 (2006): 1-36.
- Miller, Sterling D., John W. Schoen, Jim Faro, and David R. Klein. "Trends in Intensive Management of Alaska's Grizzly Bears, 1980-2010." [In English]. *Journal of Wildlife Management* 75, no. 6 (Aug 2011 2011): 1243-52.
- Monteith, K. L., V. C. Bleich, T. R. Stephenson, B. M. Pierce, M. M. Conner, J. G. Kie, and R. T. Bowyer. "Life-History Characteristics of Mule Deer: Effects of Nutrition in a Variable Environment." Wildlife Monographs 186, no. 1 (Jul 2014): 1-62.
- Monteith, K. L., R. A. Long, V. C. Bleich, J. R. Heffelfinger, P. R. Krausman, and R. T. Bowyer. "Effects of Harvest, Culture, and Climate on Trends in Size of Horn-Like Structures in Trophy Ungulates." Wildlife Monographs 183, no. 1 (Feb 2013): 1-28.
- Mori, E. "Porcupines in the Landscape of Fear: Effect of Hunting with Dogs on the Behaviour of a Non-Target Species." *Mammal Research* 62, no. 3 (2017): 251-58.
- Murphy, Kerry, and Toni Ruth. "Diet and Prey Selection of a Perfect Predator." Chap. 9 In *Cougar: Ecology and Conservation*, edited by Maurice Hornocker and Sharon Negri, 118-37. Chicago and London: University of Chicago Press, 2010.
- Nelson, Michael P., J.A. Vucetich, P.C. Paquet, and JK Bump. "An Inadequate Construct? North American Model: What's Missing, What's Needed." *The Wildlife Professional*, no. Summer 2011 (2011): 58-60.
- O'Malley, Connor, L. Mark Elbroch, Patrick E. Lendrum, and Howard Quigley. "Motion-Triggered Video Cameras Reveal Spatial and Temporal Patterns of Red Fox Foraging on Carrion Provided by Mountain Lions." [In eng]. *PeerJ* 6 (2018): e5324-e24.



- O'Bryan, Christopher J., Alexander R. Braczkowski, Hawthorne L. Beyer, Neil H. Carter, James E. M. Watson, and Eve McDonald-Madden. "The Contribution of Predators and Scavengers to Human Well-Being." Nature Ecology & Evolution 2, no. 2 (2018/02/01 2018): 229-36.
- Parks, M., and T. Messmer. "Participant Perceptions of Range Rider Programs Operating to Mitigate Wolf-Livestock Conflicts in the Western United States." Wildlife Society Bulletin 40, no. 3 (Sep 2016): 514-24.
- Peebles, Kaylie A., Robert B. Wielgus, Benjamin T. Maletzke, and Mark E. Swanson. "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations." *Plos One* 8, no. 11 (Nov 19 2013).
- Polisar, J., I. Matix, D. Scognamillo, L. Farrell, M. E. Sunquist, and J. F. Eisenberg. "Jaguars, Pumas, Their Prey Base, and Cattle Ranching: Ecological Interpretations of a Management Problem." *Biol Conserv* 109 (2003).
- Posewitz, J. Beyond Fair Chase: The Ethic and Tradition of Hunting. Helena, Montana: Falcon Press, 1994. Raynor, Jennifer L., Corbett A. Grainger, and Dominic P. Parker. "Wolves Make Roadways Safer, Generating Large Economic Returns to Predator Conservation." Proceedings of the National Academy of Sciences 118, no. 22 (2021): e2023251118.
- Remington Research Group. "Trophy Hunting: U.S. National Survey." (2015).
- Riley, S. P. D., L. E. K. Serieys, J. P. Pollinger, J. A. Sikich, L. Dalbeck, R. K. Wayne, and H. B. Ernest. "Individual Behaviors Dominate the Dynamics of an Urban Mountain Lion Population Isolated by Roads." [In English]. *Current Biology* 24, no. 17 (Sep 2014): 1989-94.
- Ripple, W.J., and R.L. Beschta. "Linking a Cougar Decline, Trophic Cascade, and Catastrophic Regime Shift in Zion National Park." *Biological Conservation* 133 (2006): 397-408.
- Robinson, H. S., and R. Desimone. "The Garnet Range Mountain Lion Study: Characteristics of a Hunted Population in West-Central Montana: Final Report." Montana Fish, Wildlife & Parks (2011): 102pp.
- Robinson, H. S., R. Desimone, C. Hartway, J. A. Gude, M. J. Thompson, M. S. Mitchell, and M. Hebblewhite. "A Test of the Compensatory Mortality Hypothesis in Mountain Lions: A Management Experiment in West-Central Montana." *Journal of Wildlife Management* 78, no. 5 (Jul 2014): 791-807.
- Robinson, H. S., R. B. Wielgus, H. S. Cooley, and S. W. Cooley. "Sink Populations in Carnivore Management: Cougar Demography and Immigration in a Hunted Population." *Ecological Applications* 18, no. 4 (Jun 2008): 1028-37.
- Robinson, K. F., D. R. Diefenbach, A. K. Fuller, J. E. Hurst, and C. S. Rosenberry. "Can Managers Compensate for Coyote Predation of White-Tailed Deer?". *Journal of Wildlife Management* 78, no. 4 (May 2014): 571-79.
- Ruth, Toni, and Kerry Murphy. "Cougar-Prey Relationships." In Cougar: Ecology and Conservation, edited by Maurice Hornocker and Sharon Negri, 138-62. Chicago and London: University of Chicago Press, 2010.
- S. M. Murphy, D. T. Wilckens, B. C. Augustine, M. A. Peyton and G. C. Harper. "Improving Estimation of Puma (Puma Concolor) Population Density: Clustered Camera-Trapping, Telemetry Data, and Generalized Spatial Mark-Resight Models." Scientific Reports 9, no. 1 (2019): 4590.
- S. M. Murphy, R. A. Beausoleil, H. Stewart and J. J. Cox. "Review of Puma Density Estimates Reveals Sources of Bias and Variation, and the Need for Standardization." *Global Ecology and Conservation* 35 (2022).



- Sawyer, Hall, Nicole M. Korfanta, Ryan M. Nielson, Kevin L. Monteith, and Dale Strickland. "Mule Deer and Energy Development—Long-Term Trends of Habituation and Abundance." *Global Change Biology* (2017): n/a-n/a.
- Sawyer, Hall, and Frederick Lindzey. "Review of Predation on Bighorn Sheep (Ovis Canadensis)." Prepared for Wyoming Animal Damage Management Board, Wyoming Domestic Sheep and Bighorn Sheep Interaction Working Group, Wyoming Game and Fish Department. (2002).
- Shivik, J. A., A. Treves, and P. Callahan. "Nonlethal Techniques for Managing Predation: Primary and Secondary Repellents." [In English]. *Conservation Biology* 17, no. 6 (Dec 2003): 1531-37.
- South Dakota Game Fish and Parks. "South Dakota Mountain Lion Management Plan, 2019-2029, Draft." Pierre, South Dakota, 2019.
- Stone, S. A., S. W. Breck, J. Timberlake, P. M. Haswell, F. Najera, B. S. Bean, and D. J. Thornhill. "Adaptive Use of Nonlethal Strategies for Minimizing Wolf-Sheep Conflict in Idaho." *Journal of Mammalogy* 98, no. 1 (Feb 2017): 33-44.
- Stoner, D. C., M. L. Wolfe, C. Mecham, M. B. Mecham, S. L. Durham, and D. M. Choate. "Dispersal Behaviour of a Polygynous Carnivore: Do Cougars Puma Concolor Follow Source-Sink Predictions?". Wildlife Biology 19, no. 3 (Sep 2013): 289-301.
- Stoner, D., M., M.L. Wolfe, and D. Choate. "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics." *Journal of Wildlife Management* 70 (2006): 1588-600.
- Teel, T. L., R. S. Krannich, and R. H. Schmidt. "Utah Stakeholders' Attitudes toward Selected Cougar and Black Bear Management Practices." Wildlife Society Bulletin 30, no. 1 (Spr 2002): 2-15.
- Teichman, Kristine J., Bogdan Cristescu, and Chris T. Darimont. "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting." *BMC Ecology* 16, no. 1 (2016): 44.
- The Economist/YouGov. "Moral Acceptability of Various Behaviors Hunting Animals for Sport." edited by The Economist, 2018.
- The Humane Society of the United States. "Government Data Confirm That Cougars Have a Negligible Effect on U.S. Cattle & Sheep Industries." 2019.
- ——. "New Poll Reveals Majority of Americans Oppose Trophy Hunting Following Death of Cecil the Lion." news release, 2015, http://www.humanesociety.org/news/press_releases/2015/10/poll-americans-oppose-trophy-hunting-100715.html?referrer=https://www.google.com/.
- ——. "State of the Mountain Lion: A Call to End Trophy Hunting of America's Lion." Washington, DC, 2017.
- Treves, A., and K. U. Karanth. "Human-Carnivore Conflict and Perspectives on Carnivore Management Worldwide." *Conservation Biology* 17, no. 6 (Dec 2003): 1491-99.
- ——. "Special Section: Human-Carnivore Conflict: Local Solutions with Global Applications." *Conservation Biology* 17, no. 6 (Dec 2003): 1489-90.
- U.S. Department of Agriculture Animal and Plant Health Inspection Service. "Death Loss in U.S. Cattle and Calves Due to Predator and Nonpredator Causes, 2015." edited by National Animal Health Monitoring System. Fort Collins, CO, 2017.
- U.S. Department of Transportation. "Wildlife-Vehicle Reduction Study: Report to Congress." https://www.fhwa.dot.gov/publications/research/safety/08034/08034.pdf (2008).



- U.S. Fish and Wildlife Service. "2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation." edited by U.S. Department of the Interior, 2011.
- ——. "2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation." edited by U.S. Department of the Interior, 2016.
- ——. "2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: National Overview." edited by U.S. Fish and Wildlife Service, 2017.
- Vucetich, J. A., D. W. Smith, and D. R. Stahler. "Influence of Harvest, Climate and Wolf Predation on Yellowstone Elk, 1961-2004." *Oikos* 111, no. 2 (Nov 2005): 259-70.
- Wallach, A. D., I. Izhaki, J. D. Toms, W. J. Ripple, and U. Shanas. "What Is an Apex Predator?". Oikos 124, no. 11 (Nov 2015): 1453-61.
- Warren, Luis S. *The Hunter's Game: Poachers and Conservationists in Twentieth-Century America.* New Haven: Yale University Press, 1997.
- Weaver, J. L., P. C. Paquet, and L. F. Ruggiero. "Resilience and Conservation of Large Carnivores in the Rocky Mountains." *Conservation Biology* 10, no. 4 (Aug 1996): 964-76.
- Wielgus, R. B., D. E. Morrison, H. S. Cooley, and B. Maletzke. "Effects of Male Trophy Hunting on Female Carnivore Population Growth and Persistence." [In English]. *Biological Conservation* 167 (Nov 2013): 69-75.
- Wolfe, M. L., D.N. Koons, D. C. Stoner, P. Terletzky, E.M Gese, D. M. Choate, and L.M. Aubry. "Is Anthropogenic Cougar Mortality Compensated by Changes in Natural Mortality in Utah? Insight from Long-Term Studies." *Biological Conservation* 182 (2015): 187-96.
- Wright, G. J., R. O. Peterson, D. W. Smith, and T. O. Lemke. "Selection of Northern Yellowstone Elk by Gray Wolves and Hunters." *Journal of Wildlife Management* 70, no. 4 (Aug 2006): 1070-78.
- Zarco-Gonzalez, M. M., and O. Monroy-Vilchis. "Effectiveness of Low-Cost Deterrents in Decreasing Livestock Predation by Felids: A Case in Central Mexico." *Animal Conservation* 17, no. 4 (Aug 2014): 371-78.
- Zinn, Harry C., Michael J. Manfredo, Jim Jones, and Linda Sikorowski. "Societal Preferences for Mountain Lion Management Along Colorado's Front Range. Colorado State University, Human Dimensions in Natural Resources Unit." 5th Mountain Lion Workshop Proceedings (1996).

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¹ Elbroch et al, "Perspective: Why might removing carnivores maintain or increase risks for domestic animals?" Biological Conservation, Volume 283 (2023); J. A. Dellinger et al., "Temporal Trends and Drivers of Mountain Lion Depredation in California, USA" *Human–Wildlife Interactions* 15, no. 1 (2021); Kaylie A. Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations," *Plos One* 8, no. 11 (2013); Kristine J. Teichman, Bogdan Cristescu, and Chris T. Darimont, "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting," *BMC Ecology* 16, no. 1 (2016); H. S. Robinson and R. Desimone, "The Garnet Range Mountain Lion Study: Characteristics of a Hunted Population in West-Central Montana: Final Report," *Montana Fish, Wildlife & Parks* (2011).

² Ellen E. Brandell et al., "Examination of the Interaction between Age-Specific Predation and Chronic Disease in the Greater Yellowstone Ecosystem," *Journal of Animal Ecology* (2022); C. E. Krumm et al., "Mountain Lions Prey Selectively on Prion-Infected Mule Deer," *Biology Letters* 6, no. 2 (2009).; Escobar LE, Pritzkow S, Winter SN, Grear DA, Kirchgessner MS, Dominguez-Villegas E, Machado G, Townsend Peterson A, Soto C. The ecology of chronic wasting disease in wildlife. Biol Rev Camb Philos Soc. 2020 Apr;95(2):393-408. doi: 10.1111/brv.12568. Epub 2019 Nov 21. PMID: 31750623; PMCID: PMC7085120; Barrile, G. M., Cross, P. C., Stewart, C., Malmberg, J., Jakopak, R. P., Binfet, J., Monteith, K. L., Werner, B., Jennings-Gaines, J., & Merkle, J. A. (2024). Chronic



wasting disease alters the movement behavior and habitat use of mule deer during clinical stages of infection. *Ecology and Evolution*, 14, e11418. $\underline{\text{https://doi.org/10.1002/ece3.11418}}$

- ³ National Shooting Sports Foundation and Responsive Management. "Americans' Attitudes toward Hunting, Fishing, Sport Shooting and Trapping 2019." https://asafishing.org/wp-content/uploads/2019/04/Americans-Attitudes-Survey-Report-2019.pdf (2019).
- ⁴ Mountain Lion Population Status Update 2023 Biennial Report, South Dakota Department of Game, Fish, and Parks (July 2023). https://gfp.sd.gov/userdocs/docs/mountain_lion_status_report_2023.pdf
- ⁵ R. A. Beausoleil S. M. Murphy, H. Stewart and J. J. Cox, "Review of Puma Density Estimates Reveals Sources of Bias and Variation, and the Need for Standardization," *Global Ecology and Conservation* 35 (2022); D. T. Wilckens S. M. Murphy, B. C. Augustine, M. A. Peyton and G. C. Harper, "Improving Estimation of Puma (Puma Concolor) Population Density: Clustered Camera-Trapping, Telemetry Data, and Generalized Spatial Mark-Resight Models," *Scientific Reports* 9, no. 1 (2019).
- ⁶ R. A. Beausoleil et al., "Research to Regulation: Cougar Social Behavior as a Guide for Management," Wildlife Society Bulletin 37, no. 3 (2013).
- ⁷ Colorado Parks & Wildlife, "Colorado West Slope Mountain Lion (Puma Concolor) Management Plan: Northwest and Southwest Regions," ed. Colorado Department of Natural Resources (2020).
- ⁸Cougar Hunting Seasons 2024, Washington Department of Fish and Wildlife https://wdfw.wa.gov/about/regulations/adopted/2024/cougar-hunting-seasons
- ⁹ GAME, FISH, AND PARKS COMMISSION ACTION PROPOSAL, Mountain Lion Hunting Season Chapter 41:06:61, Commission Meeting July 20, 2023 Chamberlain, South Dakota. https://gfp.sd.gov/UserDocs/nav/PRO_2023_Mountain_Lion_BHdogs.pdf ¹⁰ Ibid.
- ¹¹ {Laundre, 2007 #1606}{Logan, 2015 #953}{Logan, 2021 #1603}C. R. Anderson and F. G. Lindzey, "Experimental Evaluation of Population Trend and Harvest Composition in a Wyoming Cougar Population," Wildlife Society Bulletin 33, no. 1 (2005).
- ¹² T. L. Teel, R. S. Krannich, and R. H. Schmidt, "Utah Stakeholders' Attitudes toward Selected Cougar and Black Bear Management Practices," Wildlife Society Bulletin 30, no. 1 (2002).
- ¹³ F. G. Lindzey et al., "Cougar Population Response to Manipulation in Southern Utah," ibid.20, no. 2 (1992); Kenneth A. Logan and Linda L. Sweanor, *Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore* (Washington, DC: Island Press, 2001); L. M. Elbroch et al., "Trailing Hounds Vs Foot Snares: Comparing Injuries to Pumas Puma Concolor Captured in Chilean Patagonia," *Wildlife Biology* 19, no. 2 (2013).
- ¹⁴ H. J. Harlow et al., "Stress Response of Cougars to Nonlethal Pursuit by Hunters," *Canadian Journal of Zoology* 70, no. 1 (1992); C. M. Bryce, C. C. Wilmers, and T. M. Williams, "Energetics and Evasion Dynamics of Large Predators and Prey: Pumas Vs. Hounds," *PeerJ* e3701 (2017); F. Bonier, H. Quigley, and S. N. Austad, "A Technique for Non-Invasively Detecting Stress Response in Cougars," *Wildlife Society Bulletin* 32, no. 3 (2004).
- ¹⁵ J. Posewitz, *Beyond Fair Chase: The Ethic and Tradition of Hunting* (Helena, Montana: Falcon Press, 1994); Teel, Krannich, and Schmidt, "Utah Stakeholders' Attitudes toward Selected Cougar and Black Bear Management Practices."; Cougar Management Guidelines, *Cougar Management Guidelines* (Bainbridge Island, WA: WildFutures, 2005).
- ¹⁶ S. Grignolio et al., "Effects of Hunting with Hounds on a Non-Target Species Living on the Edge of a Protected Area," *Biological Conservation* 144, no. 1 (2011); E. Mori, "Porcupines in the Landscape of Fear: Effect of Hunting with Dogs on the Behaviour of a Non-Target Species," *Mammal Research* 62, no. 3 (2017).
- ¹⁷ Hank Hristienko and Jr. McDonald, John E., "Going into the 21st Century: A Perspective on Trends and Controversies in the Management of the Black Bear " *Ursus* 18, no. 1 (2007).
- ¹⁸ Treves, Adrian, and Laura Menefee. "Adverse Effects of Hunting with Hounds on Participants and Bystanders." bioRxiv (2022).
- ¹⁹ Cynthia Jacobson et al., "A Conservation Institution for the 21st Century: Implications for State Wildlife Agencies," *Journal of Wildlife Management* 74, no. 2 (2010); Michael P. Nelson et al., "An Inadequate Construct? North American Model: What's Missing, What's Needed," *The Wildlife Professional*, no. Summer 2011 (2011).
- ²⁰ See e.g., The Humane Society of the United States, "State of the Mountain Lion: A Call to End Trophy Hunting of America's Lion," (Washington, DC2017); Cougar Management Guidelines, Cougar Management Guidelines.
- ²¹ Batavia et al. (2018) write: "...nonhuman animals are not only physically, socially, and emotionally disrupted [by trophy hunters], but also debased by the act of trophy hunting. Commoditized, killed, and dismembered, these individuals are relegated to the sphere of



mere things when they are turned into souvenirs, oddities, and collectibles. We argue this is morally indefensible. Nonhuman animals are not mere objects but living beings with interests of their own, to whom we owe at least some basic modicum of respect (Regan, 1983). To transform them into trophies of human conquest is a violation of duty and common decency; and to accept, affirm, and even institutionalize trophy hunting, as the international conservation community seems to have done, is to aid and abet an immoral practice." Authors then argue that trophy hunting cannot be "presumed [to be] integral to conservation success."

22 e.g., A. D. Wallach et al., "What Is an Apex Predator?," *Oikos* 124, no. 11 (2015); R. B. Wielgus et al., "Effects of Male Trophy Hunting on Female Carnivore Population Growth and Persistence," *Biological Conservation* 167 (2013); D. Stoner, M., M.L. Wolfe, and D.

on Female Carnivore Population Growth and Persistence," *Biological Conservation* 167 (2013); D. Stoner, M., M.L. Wolfe, and D. Choate, "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics," *Journal of Wildlife Management* 70 (2006); S. Creel et al., "Questionable Policy for Large Carnivore Hunting," *Science* 350, no. 6267 (2015); J. L. Weaver, P. C. Paquet, and L. F. Ruggiero, "Resilience and Conservation of Large Carnivores in the Rocky Mountains," *Conservation Biology* 10, no. 4 (1996).

²³ Benson, John F., et al. "The ecology of human-caused mortality for a protected large carnivore." Proceedings of the National Academy of Sciences 120.13 (2023): e2220030120; Stoner, Wolfe, and Choate, "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics."; Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations."; Wallach et al., "What Is an Apex Predator?."; C. T. Darimont et al., "Human Predators Outpace Other Agents of Trait Change in the Wild," *Proceedings of the National Academy of Sciences of the United States of America* 106, no. 3 (2009); Sterling D. Miller et al., "Trends in Intensive Management of Alaska's Grizzly Bears, 1980-2010," *Journal of Wildlife Management* 75, no. 6 (2011); L. Mark Elbroch et al., "Adaptive Social Strategies in a Solitary Carnivore," *Science Advances* 3, no. 10 (2017).

- ²⁴ Chris T. Darimont et al., "The Unique Ecology of Human Predators," Science 349, no. 6250 (2015).
- ²⁵ Benson, John F., et al. "The ecology of human-caused mortality for a protected large carnivore." Proceedings of the National Academy of Sciences 120.13 (2023): e2220030120; J. A. Vucetich, D. W. Smith, and D. R. Stahler, "Influence of Harvest, Climate and Wolf Predation on Yellowstone Elk, 1961-2004," *Oikos* 111, no. 2 (2005); G. J. Wright et al., "Selection of Northern Yellowstone Elk by Gray Wolves and Hunters," *Journal of Wildlife Management* 70, no. 4 (2006); L. L. Eberhardt et al., "A Seventy-Year History of Trends in Yellowstone's Northern Elk Herd," ibid.71, no. 2 (2007); Darimont et al., "The Unique Ecology of Human Predators."
- ²⁶ Scott Creel and Jay Rotella, "Meta-Analysis of Relationships between Human Offtake, Total Mortality and Population Dynamics of Gray Wolves (*Canis Lupus*)," *PLoS ONE* 5, no. 9 (2010); D. E. Ausband et al., "Recruitment in a Social Carnivore before and after Harvest," *Animal Conservation* 18, no. 5 (2015); Darimont et al., "The Unique Ecology of Human Predators."
- ²⁷ Robinson and Desimone, "The Garnet Range Mountain Lion Study: Characteristics of a Hunted Population in West-Central Montana: Final Report."; H. S. Robinson et al., "A Test of the Compensatory Mortality Hypothesis in Mountain Lions: A Management Experiment in West-Central Montana," *Journal of Wildlife Management* 78, no. 5 (2014); H. S. Cooley et al., "Does Hunting Regulate Cougar Populations? A Test of the Compensatory Mortality Hypothesis," *Ecology* 90, no. 10 (2009); Wielgus et al., "Effects of Male Trophy Hunting on Female Carnivore Population Growth and Persistence."; C. M. S. Lambert et al., "Cougar Population Dynamics and Viability in the Pacific Northwest," *Journal of Wildlife Management* 70 (2006); Teichman, Cristescu, and Darimont, "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting."
- ²⁸ M. L. Wolfe et al., "Is Anthropogenic Cougar Mortality Compensated by Changes in Natural Mortality in Utah? Insight from Long-Term Studies," *Biological Conservation* 182 (2015)., p. 195
- ²⁹ Ibid.; Robinson and Desimone, "The Garnet Range Mountain Lion Study: Characteristics of a Hunted Population in West-Central Montana: Final Report."; Robinson et al., "A Test of the Compensatory Mortality Hypothesis in Mountain Lions: A Management Experiment in West-Central Montana."; H. S. Robinson et al., "Sink Populations in Carnivore Management: Cougar Demography and Immigration in a Hunted Population," *Ecological Applications* 18, no. 4 (2008).
- ³⁰ Wolfe et al., "Is Anthropogenic Cougar Mortality Compensated by Changes in Natural Mortality in Utah? Insight from Long-Term Studies."; Robinson et al., "Sink Populations in Carnivore Management: Cougar Demography and Immigration in a Hunted Population."; H. S. Cooley et al., "Source Populations in Carnivore Management: Cougar Demography and Emigration in a Lightly Hunted Population," *Animal Conservation* 12, no. 4 (2009); Cooley et al., "Does Hunting Regulate Cougar Populations? A Test of the Compensatory Mortality Hypothesis."



- ³¹ Cooley et al., "Source Populations in Carnivore Management: Cougar Demography and Emigration in a Lightly Hunted Population."; Robinson et al., "Sink Populations in Carnivore Management: Cougar Demography and Immigration in a Hunted Population." ³² D. C. Stoner et al., "Dispersal Behaviour of a Polygynous Carnivore: Do Cougars Puma Concolor Follow Source-Sink Predictions?," Wildlife Biology 19, no. 3 (2013); Wielgus et al., "Effects of Male Trophy Hunting on Female Carnivore Population Growth and Persistence."; Stoner et al., "Dispersal Behaviour of a Polygynous Carnivore: Do Cougars Puma Concolor Follow Source-Sink Predictions?."
- ³³ Anderson and Lindzey, "Experimental Evaluation of Population Trend and Harvest Composition in a Wyoming Cougar Population."
 ³⁴ Stoner, Wolfe, and Choate, "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics."
- ³⁵ L. M. Elbroch and H. Quigley, "Observations of Wild Cougar (Puma Concolor) Kittens with Live Prey: Implications for Learning and Survival," *Canadian Field-Naturalist* 126, no. 4 (2012); Elbroch et al., "Adaptive Social Strategies in a Solitary Carnivore."; L. Mark Elbroch, Jennifer Feltner, and H. B. Quigley, "Stage-Dependent Puma Predation on Dangerous Prey," *Journal of Zoology* 302 (2017).

 ³⁶ Elbroch et al., "Adaptive Social Strategies in a Solitary Carnivore."
- ³⁷ Robinson and Desimone, "The Garnet Range Mountain Lion Study: Characteristics of a Hunted Population in West-Central Montana: Final Report."; Robinson et al., "A Test of the Compensatory Mortality Hypothesis in Mountain Lions: A Management Experiment in West-Central Montana."; Cooley et al., "Does Hunting Regulate Cougar Populations? A Test of the Compensatory Mortality Hypothesis."; Wielgus et al., "Effects of Male Trophy Hunting on Female Carnivore Population Growth and Persistence."; Lambert et al., "Cougar Population Dynamics and Viability in the Pacific Northwest."; Creel et al., "Questionable Policy for Large Carnivore Hunting."; Ausband et al., "Recruitment in a Social Carnivore before and after Harvest."; Darimont et al., "The Unique Ecology of Human Predators."
- ³⁸ Elbroch et al, "Perspective: Why might removing carnivores maintain or increase risks for domestic animals?" Biological Conservation, Volume 283 (2023); Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations."; Teichman, Cristescu, and Darimont, "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting."
- ³⁹ Stoner, Wolfe, and Choate, "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics."
- ⁴⁰ I. A. Hatton et al., "The Predator-Prey Power Law: Biomass Scaling across Terrestrial and Aquatic Biomes," *Science* 349, no. 6252 (2015).
- ⁴¹ Wallach et al., "What Is an Apex Predator?."
- ⁴² Stoner, Wolfe, and Choate, "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics."
- ⁴³ K. Hansen, *Cougar: The American Lion* (Flagstaff, AZ: Northland Publishing, 1992); A. Kitchener, *The Natural History of the Wild Cats* (Ithaca, New York: Cornell University Press, 1991).
- ⁴⁴ e.g., Weaver, Paquet, and Ruggiero, "Resilience and Conservation of Large Carnivores in the Rocky Mountains."; W.J. Ripple and R.L. Beschta, "Linking a Cougar Decline, Trophic Cascade, and Catastrophic Regime Shift in Zion National Park," *Biological Conservation* 133 (2006); J. A. Estes et al., "Trophic Downgrading of Planet Earth," *Science* 333, no. 6040 (2011); L. Mark Elbroch and Heiko U. Wittmer, "Table Scraps: Inter-Trophic Food Provisioning by Pumas," *Biology letters* 8, no. 5 (2012); L. Mark Elbroch et al., "Nowhere to Hide: Pumas, Black Bears, and Competition Refuges," *Behavioral Ecology* 26, no. 1 (2015); L. M. Elbroch et al., "Vertebrate Diversity Benefiting from Carrion Provided by Pumas and Other Subordinate Apex Felids," *Biological Conservation* 215 (2017); Christopher J. O'Bryan et al., "The Contribution of Predators and Scavengers to Human Well-Being," *Nature Ecology & Evolution* 2, no. 2 (2018).

 ⁴⁵ Sophie L. Gilbert et al., "Socioeconomic Benefits of Large Carnivore Recolonization through Reduced Wildlife-Vehicle Collisions."
- ⁴⁵ Sophie L. Gilbert et al., "Socioeconomic Benefits of Large Carnivore Recolonization through Reduced Wildlife-Vehicle Collisions," Conservation Letters (2016); O'Bryan et al., "The Contribution of Predators and Scavengers to Human Well-Being."
- ⁴⁶ Ripple and Beschta, "Linking a Cougar Decline, Trophic Cascade, and Catastrophic Regime Shift in Zion National Park."; Elbroch and Wittmer, "Table Scraps: Inter-Trophic Food Provisioning by Pumas."
- ⁴⁷ Elbroch et al., "Vertebrate Diversity Benefiting from Carrion Provided by Pumas and Other Subordinate Apex Felids." Connor O'Malley et al., "Motion-Triggered Video Cameras Reveal Spatial and Temporal Patterns of Red Fox Foraging on Carrion Provided by Mountain Lions," PeerJ 6 (2018); Elbroch and Wittmer, "Table Scraps: Inter-Trophic Food Provisioning by Pumas." Peziol, M., Elbroch,



L.M., Shipley, L.A. *et al.* Large carnivore foraging contributes to heterogeneity in nutrient cycling. *Landsc Ecol* **38**, 1497–1509 (2023). https://doi.org/10.1007/s10980-023-01630-0

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- ⁴⁸ Teel, Krannich, and Schmidt, "Utah Stakeholders' Attitudes toward Selected Cougar and Black Bear Management Practices."
- ⁴⁹ Lindzey et al., "Cougar Population Response to Manipulation in Southern Utah."; Logan and Sweanor, *Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore*; Elbroch et al., "Trailing Hounds Vs Foot Snares: Comparing Injuries to Pumas Puma Concolor Captured in Chilean Patagonia."
- ⁵⁰ Harlow et al., "Stress Response of Cougars to Nonlethal Pursuit by Hunters."; Bryce, Wilmers, and Williams, "Energetics and Evasion Dynamics of Large Predators and Prey: Pumas Vs. Hounds."; Bonier, Quigley, and Austad, "A Technique for Non-Invasively Detecting Stress Response in Cougars."
- ⁵¹ Bryce, Wilmers, and Williams, "Energetics and Evasion Dynamics of Large Predators and Prey: Pumas Vs. Hounds."
- 52 Ibid.
- ⁵³ Posewitz, *Beyond Fair Chase: The Ethic and Tradition of Hunting*, Teel, Krannich, and Schmidt, "Utah Stakeholders' Attitudes toward Selected Cougar and Black Bear Management Practices."; Cougar Management Guidelines, *Cougar Management Guidelines*.
 ⁵⁴ Posewitz, *Beyond Fair Chase: The Ethic and Tradition of Hunting*.
- 55 "GFP commission denies expanding mountain lion hunting for hound hunters," SDPB Radio, September 8, 2023
 https://www.sdpb.org/sports-rec/2023-09-08/gfp-commission-denies-expanding-mountain-lion-hunting-for-hound-hunters
 56 GAME, FISH, AND PARKS COMMISSION ACTION PROPOSAL, Mountain Lion Hunting Season Chapter 41:06:61, Commission Meeting July 20, 2023 Chamberlain, South Dakota. https://gfp.sd.gov/UserDocs/nav/PRO_2023_Mountain_Lion_BHdogs.pdf
 57 Grignolio et al., "Effects of Hunting with Hounds on a Non-Target Species Living on the Edge of a Protected Area."; Mori, "Porcupines in the Landscape of Fear: Effect of Hunting with Dogs on the Behaviour of a Non-Target Species."
- ⁵⁸ Treves, Adrian, and Laura Menefee. "Adverse Effects of Hunting with Hounds on Participants and Bystanders." bioRxiv (2022); Hristienko and McDonald, "Going into the 21st Century: A Perspective on Trends and Controversies in the Management of the Black Bear".
- ⁵⁹ Stefano Grignolio et al., "Effects of Hunting with Hounds on a Non-Target Species Living on the Edge of a Protected Area," Biological Conservation 144, no. 1 (2011), http://dx.doi.org/http://dx.doi.org/10.1016/j.biocon.2010.10.022.
- 60 R. J. Lennox et al., "Evaluating the Efficacy of Predator Removal in a Conflict-Prone World," Biological Conservation 224 (2018).
- ⁶¹ R. Beschta and W. Ripple, "Large Predators and Trophic Cascades in Terrestrial Ecosystems of the Western United States," ibid.42, no. 11 (2009); T. D. Forrester and H. U. Wittmer, "A Review of the Population Dynamics of Mule Deer and Black-Tailed Deer Odocoileus Hemionus in North America," *Mammal Review* 43, no. 4 (2013).
- 62 Beschta and Ripple, "Large Predators and Trophic Cascades in Terrestrial Ecosystems of the Western United States."
- ⁶³ Trump, T., K. Knopff, A. Morehouse, and M. Boyce. "Sustainable Elk Harvests in Alberta with Increasing Predator Populations." PLoS ONE 17, no. 10 (2022). https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0269407; Clark, T. J., and Mark Hebblewhite. "Predator Control May Not Increase Ungulate Populations in the Future: A Formal Meta-Analysis." Journal of Applied Ecology 58, no. 4 (2021): 812-24. https://doi.org/https://doi.org/https://doi.org/https://doi.org/10.1111/1365-2664.13810; Forrester and Wittmer, "A Review of the Population Dynamics of Mule Deer and Black-Tailed Deer Odocoileus Hemionus in North America.", p. 300, Lennox et al., "Evaluating the Efficacy of Predator Removal in a Conflict-Prone World."
- ⁶⁴ Hall Sawyer et al., "Mule Deer and Energy Development—Long-Term Trends of Habituation and Abundance," *Global Change Biology* (2017). Heather E. Johnson et al., "Increases in Residential and Energy Development Are Associated with Reductions in Recruitment for a Large Ungulate," ibid. (2016).
- ⁶⁵ e.g. K. L. Monteith et al., "Life-History Characteristics of Mule Deer: Effects of Nutrition in a Variable Environment," Wildlife Monographs 186, no. 1 (2014); Forrester and Wittmer, "A Review of the Population Dynamics of Mule Deer and Black-Tailed Deer Odocoileus Hemionus in North America."; K. F. Robinson et al., "Can Managers Compensate for Coyote Predation of White-Tailed Deer?," Journal of Wildlife Management 78, no. 4 (2014).
- 66 Stefano Grignolio et al., "Effects of Hunting with Hounds on a Non-Target Species Living on the Edge of a Protected Area," Biological Conservation 144, no. 1 (2011), http://dx.doi.org/10.1016/j.biocon.2010.10.022.



- ⁶⁷ "Severe pneumonia outbreak kills bighorn sheep: Lamb survival to be closely monitored for several years" http://www.avma.org/onlnews/javma/may10/100501c.asp
- ⁶⁸ Kerry Murphy and Toni Ruth, "Diet and Prey Selection of a Perfect Predator," in *Cougar: Ecology and Conservation*, ed. Maurice Hornocker and Sharon Negri (Chicago and London: University of Chicago Press, 2010); Logan and Sweanor, *Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore*, K. L. Monteith et al., "Effects of Harvest, Culture, and Climate on Trends in Size of Horn-Like Structures in Trophy Ungulates," *Wildlife Monographs* 183, no. 1 (2013); Becky Lomax, "Tracking the Bighorns," *Smithsonian* 38, no. 12 (2008); Luis S. Warren, *The Hunter's Game: Poachers and Conservationists in Twentieth-Century America* (New Haven: Yale University Press, 1997).
- ⁶⁹ Hall Sawyer and Frederick Lindzey, "Review of Predation on Bighorn Sheep (Ovis Canadensis)," Prepared for Wyoming Animal Damage Management Board, Wyoming Domestic Sheep and Bighorn Sheep Interaction Working Group, Wyoming Game and Fish Department. (2002).
- ⁷⁰ Logan and Sweanor, *Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore*, Ted McKinney, Thorry W. Smith, and James C. deVOS, "Evaluation of Factors Potentially Influencing a Desert Bighorn Sheep Population," *Wildlife Monographs* 164 (2006); Toni Ruth and Kerry Murphy, "Cougar-Prey Relationships," in *Cougar: Ecology and Conservation*, ed. Maurice Hornocker and Sharon Negri (Chicago and London: University of Chicago Press, 2010).
- ⁷¹ D. D. Katnik, "Predation and Habitat Ecology of Mountain Lions (Puma Concolor) in the Southern Selkirk Mountains [Dissertation]" (Washington State University, 2002).
- ⁷² Murphy and Ruth, "Diet and Prey Selection of a Perfect Predator."; McKinney, Smith, and deVOS, "Evaluation of Factors Potentially Influencing a Desert Bighorn Sheep Population.", Sawyer et al., "Mule Deer and Energy Development—Long-Term Trends of Habituation and Abundance."
- ⁷³ Ted McKinney et al., "Mountain Lion Predation of Translocated Desert Bighorn Sheep in Arizona," Wildlife Society Bulletin 34, no. 5 (2006).
- ⁷⁴ Sawyer and Lindzey, "Review of Predation on Bighorn Sheep (Ovis Canadensis)."; McKinney, Smith, and deVOS, "Evaluation of Factors Potentially Influencing a Desert Bighorn Sheep Population."; Ruth and Murphy, "Cougar-Prey Relationships."
- ⁷⁵ "Cougar-Prey Relationships.", McKinney, Smith, and deVOS, "Evaluation of Factors Potentially Influencing a Desert Bighorn Sheep Population."; McKinney et al., "Mountain Lion Predation of Translocated Desert Bighorn Sheep in Arizona."
- ⁷⁶ Jennifer L. Raynor, Corbett A. Grainger, and Dominic P. Parker, "Wolves Make Roadways Safer, Generating Large Economic Returns to Predator Conservation," *Proceedings of the National Academy of Sciences* 118, no. 22 (2021); Sophie L. Gilbert et al., "Socioeconomic Benefits of Large Carnivore Recolonization through Reduced Wildlife-Vehicle Collisions," *Conservation Letters* (2016).
- ⁷⁷ U.S. Department of Transportation, "Wildlife-Vehicle Reduction Study: Report to Congress,"
- https://www.fhwa.dot.gov/publications/research/safety/08034/08034.pdf (2008); M. F. McCollister and F. T. van Manen, "Effectiveness of Wildlife Underpasses and Fencing to Reduce Wildlife-Vehicle Collisions," Journal of Wildlife Management 74, no. 8 (2010).
- ⁷⁸ Gilbert et al., "Socioeconomic Benefits of Large Carnivore Recolonization through Reduced Wildlife-Vehicle Collisions."
- ⁷⁹ J. Downs et al., "Strategically Locating Wildlife Crossing Structures for Florida Panthers Using Maximal Covering Approaches," *Transactions in Gis* 18, no. 1 (2014); S. P. D. Riley et al., "Individual Behaviors Dominate the Dynamics of an Urban Mountain Lion Population Isolated by Roads," *Current Biology* 24, no. 17 (2014).
- 80 U.S. Department of Transportation, "Wildlife-Vehicle Reduction Study: Report to Congress."
- 81 Ellen E. Brandell et al., "Examination of the interaction between age-specific predation and chronic disease in the Greater Yellowstone Ecosystem," *Journal of Animal Ecology* (2022); Escobar LE, Pritzkow S, Winter SN, Grear DA, Kirchgessner MS, Dominguez-Villegas E, Machado G, Townsend Peterson A, Soto C. The ecology of chronic wasting disease in wildlife. Biol Rev Camb Philos Soc. 2020 Apr;95(2):393-408. doi: 10.1111/brv.12568. Epub 2019 Nov 21. PMID: 31750623; PMCID: PMC7085120; Barrile, G. M., Cross, P. C., Stewart, C., Malmberg, J., Jakopak, R. P., Binfet, J., Monteith, K. L., Werner, B., Jennings-Gaines, J., & Merkle, J. A. (2024). Chronic wasting disease alters the movement behavior and habitat use of mule deer during clinical stages of infection. *Ecology and Evolution*, 14, e11418. https://doi.org/10.1002/ece3.11418
- 82 Krumm et al., "Mountain Lions Prey Selectively on Prion-Infected Mule Deer."
- 83 Ibid., p. 210



- 84 Krumm et al.
- 85 Nebraska Game and Parks. 2017. Chronic Wasting Disease (CWD). Retrieved from http://outdoornebraska.gov/cwd/.
- ⁸⁶ Elbroch et al, "Perspective: Why might removing carnivores maintain or increase risks for domestic animals?" Biological Conservation, Volume 283 (2023); Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations."; Teichman, Cristescu, and Darimont, "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting."; L. Mark Elbroch and Howard Quigley, "Social Interactions in a Solitary Carnivore," *Current Zoology* 63, no. 4 (2017); Dellinger et al., "Temporal Trends and Drivers of Mountain Lion Depredation in California, USA".
- 87 Lennox et al., "Evaluating the Efficacy of Predator Removal in a Conflict-Prone World."
- 88 Lennox et al.
- ⁸⁹ Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations.", citing Lambert et al. 2006 and Robinson et al. 2008
- ⁹⁰ Teichman, Cristescu, and Darimont, "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting."
- ⁹¹ Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations."
- 92 Peebles et al., p.6
- ⁹³ Dellinger et al.
- 94 Dellinger et al.
- 95 Peebles et al.
- ⁹⁶ The Humane Society of the United States, "Government Data Confirm That Cougars Have a Negligible Effect on U.S. Cattle & Sheep Industries," (2019).
- 97 Ibid.
- 98 Ibid.
- 99 Ibid.
- ¹⁰⁰ Stoner, D.C., M.A. Ditmer, D.L. Mitchell, J.K. Young, and M.L. Wolfe. 2021. Conflict, coexistence, or both? Cougar habitat selection, prey composition, and mortality in a multiple-use landscape. California Fish and Wildlife 107(3):147-172, doi: 10.51492/cfwj.hwisi.2 ¹⁰¹ Stoner, D.C., M.A. Ditmer, D.L. Mitchell, J.K. Young, and M.L. Wolfe. 2021. Conflict, coexistence, or both? Cougar habitat selection, prey composition, and mortality in a multiple-use landscape. California Fish and Wildlife 107(3):147-172, doi: 10.51492/cfwj.hwisi.2 ¹⁰² South Dakota Game Fish and Parks, "South Dakota Mountain Lion Management Plan, 2019-2029, Draft," (Pierre, South Dakota 2019).
- 103 Ibid.
- ¹⁰⁴ J. Polisar et al., "Jaguars, Pumas, Their Prey Base, and Cattle Ranching: Ecological Interpretations of a Management Problem," *Biol Conserv* 109 (2003); J. A. Shivik, A. Treves, and P. Callahan, "Nonlethal Techniques for Managing Predation: Primary and Secondary Repellents," *Conservation Biology* 17, no. 6 (2003); A. Treves and K. U. Karanth, "Special Section: Human-Carnivore Conflict: Local Solutions with Global Applications," ibid.; "Human-Carnivore Conflict and Perspectives on Carnivore Management Worldwide," *Conservation Biology* 17, no. 6 (2003).
- ¹⁰⁵ S. A. Stone et al., "Adaptive Use of Nonlethal Strategies for Minimizing Wolf-Sheep Conflict in Idaho," *Journal of Mammalogy* 98, no. 1 (2017); Treves and Karanth, "Human-Carnivore Conflict and Perspectives on Carnivore Management Worldwide."; William F. Andelt, "Carnivores," in *Rangeland Wildlife*, ed. P. R. Krausman (Denver: Society for Range Management, 1996).
- ¹⁰⁶ A. Eklund et al., "Limited Evidence on the Effectiveness of Interventions to Reduce Livestock Predation by Large Carnivores," Scientific Reports 7 (2017).
- ¹⁰⁷ Polisar, J., I. Matix, D. Scognamillo, L. Farrell, M. E. Sunquist, and J. F. Eisenberg. 2003. Jaguars, pumas, their prey base, and cattle ranching: ecological interpretations of a management problem. Biol Conserv 109 ¹⁰⁸ Ibid.
- ¹⁰⁹ Treves and Karanth, "Special Section: Human-Carnivore Conflict: Local Solutions with Global Applications."; "Human-Carnivore Conflict and Perspectives on Carnivore Management Worldwide." Eklund et al., "Limited Evidence on the Effectiveness of Interventions to Reduce Livestock Predation by Large Carnivores." Stone et al., "Adaptive Use of Nonlethal Strategies for Minimizing Wolf-Sheep Conflict in Idaho." M. Parks and T. Messmer, "Participant Perceptions of Range Rider Programs Operating to Mitigate



Wolf-Livestock Conflicts in the Western United States," *Wildlife Society Bulletin* 40, no. 3 (2016); W. F. Andelt, "Effectiveness of Livestock Guarding Dogs for Reducing Predation on Domestic Sheep," ibid.20 (1992); W. F. Andelt and S. N. Hopper, "Livestock Guard Dogs Reduce Predation on Domestic Sheep in Colorado," *Journal of Range Management* (2000).

- ¹¹⁰ Eklund et al., "Limited Evidence on the Effectiveness of Interventions to Reduce Livestock Predation by Large Carnivores."
- ¹¹¹ M. M. Zarco-Gonzalez and O. Monroy-Vilchis, "Effectiveness of Low-Cost Deterrents in Decreasing Livestock Predation by Felids: A Case in Central Mexico," *Animal Conservation* 17, no. 4 (2014). Stone et al., "Adaptive Use of Nonlethal Strategies for Minimizing Wolf-Sheep Conflict in Idaho." N. J. Lance et al., "Biological, Technical, and Social Aspects of Applying Electrified Fladry for Livestock Protection from Wolves (Canis Lupus)," *Wildlife Research* 37, no. 8 (2010); Shivik, Treves, and Callahan, "Nonlethal Techniques for Managing Predation: Primary and Secondary Repellents."
- ¹¹² Khorozyan I, Ghoddousi S, Soufi M, Soofi M, Waltert M. Studded leather collars are very effective in protecting cattle from leopard (*Panthera pardus*) attacks. *Ecol Solut Evidence*. 2020; 00:e12013. https://doi.org/10.1002/eso3.12013
- ¹¹³ U.S. Department of Agriculture Animal and Plant Health Inspection Service, "Death Loss in U.S. Cattle and Calves Due to Predator and Nonpredator Causes, 2015," ed. National Animal Health Monitoring System (Fort Collins, CO2017).
- M. L. Elbroch et al., "Contrasting Bobcat Values," Biodiversity and Conservation (2017); U.S. Fish and Wildlife Service, "2016
 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: National Overview," ed. U.S. Fish and Wildlife Service (2017).
 "2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation," ed. U.S. Department of the Interior (2016); "2011
 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation," ed. U.S. Department of the Interior (2011).
 Ibid
- ¹¹⁷ Harry C. Zinn et al., "Societal Preferences for Mountain Lion Management Along Colorado's Front Range. Colorado State University, Human Dimensions in Natural Resources Unit," 5th Mountain Lion Workshop Proceedings (1996).
- ¹¹⁸ Kelly A. George et al., "Changes in Attitudes toward Animals in the United States from 1978 to 2014," *Biological Conservation* 201 (2016).
- ¹¹⁹ J. A. Dellinger et al., "Temporal Trends and Drivers of Mountain Lion Depredation in California, USA" Human–Wildlife Interactions 15, no. 1 (2021)
- ¹²⁰ Remington Research Group, "Trophy Hunting: U.S. National Survey," (2015); The Humane Society of the United States, "State of the Mountain Lion: A Call to End Trophy Hunting of America's Lion."; "New Poll Reveals Majority of Americans Oppose Trophy Hunting Following Death of Cecil the Lion," news release, 2015, http://www.humanesociety.org/news/press_releases/2015/10/poll-americans-oppose-trophy-hunting-100715.html?referrer=https://www.google.com/; The Economist/YouGov, "Moral Acceptability of Various Behaviors Hunting Animals for Sport," ed. The Economist (2018).
- ¹²¹ Decision Research, "Southern Rockies Wildlife and Wilderness Survey Report," (2001).

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The Cougar, The Tick, and Human Wellbeing:

The Social, Economic, and Ecological Valuations of Living with Cougars in Oregon

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DEDICATION

To Steven

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Abstract

In 2019 the Oregon State Legislature House Committee on Natural Resources announced that the state must develop tools for which to balance the social, economic, and ecological concerns of human's proximity with the cougar (*Puma concolor*). Prior to this statement, 150 years of Oregon's Euro-American land management, policy-making, and natural resource extractions had succeeded at extirpating two of Oregon's apex carnivores, the grizzly bear (*Ursus arctos horribilis*) and the gray wolf (*Canis lupus*), while also suppressing a third, the cougar. These three represent a predator guild that may be necessary for sustaining biodiverse landscapes. The loss of these species' ecosystem services has likely contributed to declining ecosystem health as well as a potential loss of social well-being and economic stability. However, these effects may be reversible.

Of the three apex carnivores, cougar appear to be the most resilient towards adapting to anthropocentric pressures of modern man. Areas of ecosystem-service restoration that lack the self-regulating ecoengineering of the cougar run the risk of a slower recovery progress, failure, or weakened natural capital return. For Oregon to find a balance between human populations and the cougar, the general public and resource management agencies need to deemphasize Euro-American perspectives of this large carnivore. This will require "reverse eco-engineering" over 150 years of anthropogenic perspectives, a reduction in native and domestic ungulate populations, and revised land use laws. The overarching objective of this paper is to identify how the three tiers of human well-being (i.e., economics, ecosystems, and social) are linked to healthy landscapes and a species-rich ecosystem mediated by healthy cougar populations. Does the cougar help mitigate Oregon's Lyme disease, chronic wasting disease (CWD), or elements of

climate change? Are there risk assessments of living with, or without them? What can apex predators do for Oregonians and what could our societies look like if we protected the cougar?

Objective

The goal of this paper is to raise awareness of possible benefits that co-existing with the cougar (*Puma concolor*) may offer, as well as potential problems that might be associated with these relationships. While the cougar is scientifically understood to represent a keystone and umbrella species, there has been little rigorous or interdisciplinary scientific inquiry evaluating the puma's provisioning influences for human well-being. This paper will also suggest several moral and ethical missing links, social benefits, and economic valuation connections between Oregon's cougar and human well-being. For the content of this paper, the word apex predator, cougar, puma, or American lion will be used to reference Oregon's cougar.

Identifying with Cougar

To understand someone, especially someone who hails from a very different background, it is necessary to withhold judgment, to stand in his or her shoes, and see the world through his or her eyes, to empathize – indeed, to almost become the other individual (Rivas et al., 2001, as cited in Bradshaw, 2017, p.1).

As far back as oral stories began, the value of words explained, interpreted, reasoned, and concluded what was happening. Oral, pictorial, and later written words helped individuals and communities understand ambiguous experiences. Words brought order and enhanced the critical thinking, observation skills, and insights of various individuals. For example, hidden in the meaning of "puma" may be a range of observations that relate to the well-being of communities that were mindful of living with this predator. It speaks volumes that across cultural differences, humans have proclaimed at least eighty-six names upon one complex species for which we have

shared the earth for thousands of years. No other animal known has received as many titles as the cougar. What could eighty-six names say about human relationships with the puma that may matter today? Out of the twenty-five North American names, the Chickasaws called cougar *Koe-Ishto*, Cat of God. South American native's *Cuguacuarana*, the most popular of their eighteen names for this species, was changed to cougar by French naturalist George Buffon. Not to be outdone, the English bestowed forty-three names upon this American lion we also call puma (Jackson, 1961).

Ancient Sedona Native American petrographs suggest that cougar co-habituated with humans for perhaps thousands of years before falling out of favor with the Euro-American culture (Figure 1). Five-hundred years of Western Euro-American words developed a culture of hierarchical systems that valued noncommunal wealth, and a spiritual status that demanded they conquer and overcome not only nature, but those of different cultures, spiritual views, and wealth systems. Native Americans believed their kindred relationship with animals shaped their lives and created a sense of place in the universe, and on land that was communally owned. Animals played a central role in spiritual, individual, and communal cultural identity for which they expressed through their words and in ceremonial dances. Tools, clothing, lodges, and weapons made from animals were held in great reverence. But to this day, the origins of Western Euro-American values demand that only the money made from the exploitation of animals and nature is of value.

Until that is, a cougar crossed two major California freeways to make his home in Hollywood California's Griffith Park, and got his picture on the cover of National Geographic Magazine (Chadwick et al., 2013; Keefe et al., 2013; Curwen et al., 2017; Sabana Films, 2017). Citizens of Los Angele's were thrilled to share edges of cityscapes with their beloved cougar,

Puma 22 (P-22). And the combined efforts of California Department of Fish and Wildlife (CDFW) and university labs began extensive research into co-existing with this American lion. Some Native cultures considered the cougar to be a god, while others valued the puma as powerful totems. Today, scientific inquiry is unlocking the American lions amazing ecological secrets and their linkage to human well-being. From petrograph to the cover of National Geographic Magazine, the citizens of Los Angeles, as may have Native Americans and their cougars, consider elements of P-22's life and journey to his home in their city as near mystical. In retrospect, this single cougar may have changed forever California's social, economic, and ecological perspectives of living with cougar (Chadwick et al., 2013; Keefe et al., 2013; Curwen et al., 2017, Sabana Films, 2017). Good, bad, or indifferent, attached to the cougar's name is the umbilical cord of cultural connections to nature, community values, spiritual awareness, and reflection of identity, all of which intertwine with people's lives, economies, and well-being.

Cougar Biology and Social Behaviors

Adult female cougars' range in size from 80 to 120 lbs (35-55 kg), and adult males will range from 130 to 190 lbs (59 kg – 86 kg). Pumas range in color from a grey-brown to tawny gold. Their entire body is normally between six to eight ft (1.8 – 2.4 m) in length. Cougar tails, important for balance and maneuvering, make up about a third of their long and slender body size. Their hind limbs are lighter than their shorter and heavier forelimbs. One of their many evolved prey advantages besides their limbs are flexible wrists for handling prey (Beck et al., 2005; Hornocker et al., 2010).

Although cougars can give birth at any time of the year, the mother's timing usually coincides with the birth pulse of their prey (Beck et al., 2005). The mean age for females to begin breeding is roughly 29 months with an approximate mean litter size of 2.7 kittens born

once every two years. Kitten survival rates can range between 0% to 95%, but in heavily hunted areas, it is typically low. Reliable information on cougar mortality rates and population responses toward environmental changes usually requires more long-term monitoring, rather than the short-term data derived from hunting them (Beck et al., 2005; Hornocker et al., 2010).

Cougar mortality can occur from various causes, including hunting, road kills, disease, starvation, self-regulating population kills, infanticide, injuries sustained during prey capture, and wolves. Bradshaw's (2009, 2017) research suggests that human-induced stress on cougar can cause Post Traumatic Stress Disorder (PTSD) and trauma. Historically, most cougars lived long lives in the wild, reaching more than ten years old. Today, few cougars reach or exceed the age of five due to higher fatalities from hunting, poisoning, trappings, and road kills. In areas that are not hunted or otherwise influenced by humans, cougar mortality self-regulates their social structure. Conflicts with reintroduced wolves also contribute to cougar mortality (Beck et al., 2005; Hornocker et al., 2010; Ruth et al., 2019; Wielgus, 2019).

Cougar kittens are born with spotted coats, closed ears and eyes, and they are highly dependent on their mother. Usually weighing about 500 gms, within two weeks their eyes open, displaying vivid blue irises. At five months old, their eyes become a golden brown, they are agile at climbing trees, and their coats begin to lose their spots. Although they can become independent at approximately 18 months, they normally do not disperse until they are nearing 24 months of age. Male kittens are usually the first to disperse to seek territory of their own. It is not unusual to see female kittens staying within their mother's proximity or dispersing much later than their male siblings. Sometimes one out of two females may remain close to their natal populations and even periodically socialize with loosely knit groups of nearby females. Cougars have a complex social structure within their species, but outside of immediate family members,

they are solitary, usually hunt alone, and are normally shy of humans (Beck et al., 2005; Hornocker et al., 2010).

Communications

Olfactory, visual, postural, and vocal are four currently known types of communication that cougar rely upon. Olfactory and visual signals consist of scrapes or scratching into the soil, logs, or trees with the use of back or front paws, and sometimes defecating on or near the site. Male cougars are more inclined to use this form of communication. Least understood at this time are the postural body languages between cougars. Cougar vocalizations gain the attention of not only their species but also that of human lore and science. Four types of puma vocalizations have been identified: neonatal, sexual, agonistic, and integrative. From purring, hissing, whistling, and birdlike chirps to a bone-jarring hair-raising caterwaul yawl, their variations of vocalizations convey threats, anger, contentment, calling for mates, and maternity care. All of these vocalizations convey the unique social structure and family bonds indicative of the puma (Hornocker et al., 2010).

Diet

Cougar are selective meat-eaters. Deer (*Odocoileus* spp.), mesopredators, young cohorts of large ungulates, birds, mice, rodents, and wolves, if separated from their pack, are sources of food. Using their raspy tongues, they will strip bones clean and leave them along with the intact stomach as vital resources for scavengers. Unlike coyote (*Canis latrans*) and wolves (*C. lupus*) that may feed upon their prey while it is still alive, cougar efficiently and instantly kill their prey (Beck et al., 2005; Laundre et al., 2007; Hornocker et al., 2010; ODFW 2017c; Laundre et al., 2018a).

Neurology

In recent years, cross-species psychobiological research has yielded important understanding regarding shared neural coding in the subcortical and cortical midline neurological development and processing of young animals and humans. Animals and humans develop patterns of response to outside stimuli, such as trauma, through the same neurological pathways (Bradshaw, 2017). Shifting cultural perspectives and land use changes, from those of Native Americans to Euro-Americans, have often dramatically changed the social structure, stress, and neurological development in the lives of the cougar. As a result of aggressive Euro-American hunting policies and land use changes, the cougar is more susceptible to disease, starvation, social and family structure loss, and PTSD (Bradshaw, 2017; Bradshaw, 2018).

Neurological studies are beginning to show that similar structures in animal brains integrate information (fear, joy, compassion, etc.) in a way that is analogous to processes in the human brain. What may have influenced our historical thinking about the cougar (and animals in general) is the concept that humans are the only beings capable of cognitive-emotional attributes that somehow evolved separately from other species. This concept fueled initially by religious beliefs, economics, and policies, has been a significant factor shaping cultural relationships with predatory species, such as the cougar. There is growing evidence that humans are not the only species with the ability reason and feel (Bradshaw, 2017).

Territory and Behavior

Territory size for cougars is determined by the cumulative effects of prey abundance, fragmented landscapes, roadless areas, human disturbances, and the presence of other cougar or wolf populations (Beck et al., 2005; ODFWc, 2005; Peebles et al., 2013; ODFW, 2017a; Wilmer, 2018; ODFWb, 2019). The more prey, the smaller the territory, the less prey, the larger

the territory. Female territory may be enlarged while they are raising their young. Other predators can indirectly influence prey base distribution and abundance of species that cougar consumes. Predator overlap can pressure puma to establish bigger or smaller territories. Moreover, if cougar sense humans are near, they will normally abandon their kills and seek food in areas less populated by humans (Peebles et al., 2013; Wilmer, 2018; Figure 2). This response is known as the Anthropocentric Landscape of Fear reaction towards humans (Wilmer, 2018). Thus, human encroachment on cougar territory will apply pressure on cougar to kill more deer. As humans thin out or remove cougar from the landscape, deer can sense a reduced predation risk in these human-disturbed areas. In landscapes where deer feel "safe," their populations can increase and eventually exceed vegetation's carrying capacity. These landscapes are at risk of poor ecosystem resiliency and nutrient feedback (Wilmer, 2018). They are also at increased risk for exposing humans to the emerging effects of Lyme disease and deer to chronic wasting disease, or CWD. Current research hypothesizes that with time and exposure to CWD, humans could become vulnerable to this disease. However, unlike Lyme disease, CWD currently cannot be transmitted to humans (Patz et al, 2005; Krumm et al., 2009; Waddell et al., 2017).

As with all large carnivores, cougars need vast amounts of land and high-quality habitat to establish territorial niches and distribution patterns. They are obligate carnivores, which requires they have access to extensive and diverse landscape ranges. Such requirements contribute towards self-organizing and self-regulating ecosystems that also offer cover and adequate prey. Preservation of the cougar on large landscapes increases trophic structure, nutrient flow, and the relationships that define the nature of ecosystems (Ripple et al., 2005; Ripple et al., 2008). Landscapes enhanced by cougar's ecosystem services increase species diversity, which is linked to enhancing forests, watersheds, soil, and pollinators that support agricultural land productivity.

Establishing large landscapes for cougars also supports the health of wildlife and wild places for future generations (Shaw 1994; Hornocker et al., 2010; Peebles et al., 2013).

The natural habitats of cougars historically covered much of North America (Figure 3; Hornocker et al., 2010). In Oregon, cougars, wolves, and grizzlies once roamed coastal forests, the Cascade Range, high deserts, and Klamath Mountains (including the Siskiyou), the Southern Cascades, and the Blue/Wallowa Mountains (including Hells Canyon country). However, due to land use changes, policies, and depredation incidents (e.g., livestock, public safety) puma have lost much of their historic range in Oregon and across the United States (Figure 4). In Oregon, grizzlies have been extirpated, wolves were extirpated but in recent years have been making a slow comeback, and cougar populations have been suppressed. Furthermore, current cougar populations occur over only a portion of their original distribution.

The territory of an adult male cougar can range from approximately 100 to 150 mi² (260-390 km²), but some have been recorded up to 400 mi² (1,040 km²). Adult males are more mobile than female cougars. Established adult males spend much of their travels marking their territory by scraping and otherwise removing young transitioning male pumas who are seeking territory and breeding rights of their own (Shaw, 1994; Hornocker et al., 2010).

Although male cougars do not assist with raising their young, they inadvertently do so by defending their territory from other male cougar's infanticide-induced breeding pressures. The ranges for the female adult cougars are smaller than that of males. Unlike male ranges that will overlap, female ranges rarely overlap more than one male range. Once pregnant, female ranges normally are reduced but, depending on the food source, can expand to ensure adequate prey availability and safety. In a given area, the number of female cougars will often exceed the number of males (Beck et al., 2005).

Managing Suitable Cougar Habitat and Effective Research

There is considerable contention regarding how many cougars Oregon has, or should have. Some suggest that the current computer-generated population model of 6,000 cougars (adults and hypothetical kitten count) in Oregon does not adequately reflect the landmass necessary for the biological functions and social structure, or provide an accurate population estimate. Inaccurate population numbers and their solitary wide-ranging nature are why it is difficult to monitor and survey this large predator. To address these inherent shortfalls, researchers have turned to identifying suitable cougar habitat as the basis for understanding population dynamics.

Successful cougar management normally includes three objectives: 1) identify high-quality habitats based on variables such as suitable cover, diversity of prey, and land uses, 2) preserve sufficient habitat for cougar population resiliency, and 3) conserve habitat as an umbrella effect for biological diversity. Managing cougars through the management of their habitat, as opposed to population management (e.g., manipulation of populations to serve hunting, captive propagation, or predator control), is a conservation tool that can increase the population resiliency of cougars as well as help to maintain species richness of other wildlife. Although wildlife agencies typically manage game animals such as ungulates or birds by annual harvesting, for cougars it is essential to manage for maintaining large areas of high-quality habitat based on the following guidelines (Beck et al., 2005):

- 1. Create a geographically explicit database of cougar habitat and behavior response to changes in habitat quality that includes seasonal changes and their historic range.
- 2. Within a metapopulation, map and identify subpopulation networks as either sinks or sources. Cougar source populations allow for positive population growth, social development, subadult dispersion, and genetic integrity. These source populations represent "biological savings"

accounts" that can augment exploited subpopulation sink areas and cougar harvest. Sink subpopulations are habitat areas surrounded by non-habitat or marginal habitats such as urban areas, reservoirs, freeways, and areas of low prey base or cover. Good source population habitat areas, or natural refugia (areas of little cougar harvest or human impediments), can become habitat patches due to these neighboring impediments, causing subpopulation sinks to occur and restrict migration. Understanding landscape's history and potential for subpopulation area sinks or sources enables effective management of cougar populations and reduction of conflict issues. Geographical mapping of subpopulation areas can assist with managing cougar metapopulations.

- 3. Try to preserve metapopulation source areas that have low human conflict and low cougar mortality. This requires large protected landscapes managed for natural refugia where spatial and temporal evolutionary and ecological processes can occur without significant human interference. For example, to assist in maintaining cougar metapopulation resiliency, the density of roads, livestock, and hunting cougar and their prey species would need to be minimized or significantly reduced in source subpopulation areas.
- 4. Because cougars can be found in remote corners of Oregon, on both public and on private lands, it is important to use spatially explicit information that will help tailor management regimes to the characteristics of the landscape. For example, Geographical Information System (GIS) mapping can be used to help characterize areas with a source or a sink subpopulation. Such mapping is essential for identifying linkages between metapopulations, high hazard areas such as highways or canals, conflict areas such as livestock grazing allotments, or the distribution and status of protected areas. Land use and zoning maps also can help with identifying land conversions or housing developments, which may create cougar genetic bottlenecks or limit connectivity between subpopulations. GIS mapping can also assist with

helping to identify where human disturbances might influence the distribution and numbers of cougar and their prey.

- 5. Landscape-scale genetic connectivity and linkages are essential towards maintaining the metapopulation community and structure of cougars (Beck et al., 2005; Hornocker et al., 2010). Global Positioning System (GPS) collars may assist with identifying suitable linkages and areas in need of improvement. Currently, Oregon Department of Fish and Wildlife relies on sports hunter sightings and kill evaluations, which offer very limited spatial and temporal information regarding suitable habitat and linkages (ODFW, 2005a; ODFW, 2005c; ODFW, 2016a).
- 6. Corridor and linkage quality assessments depend on prey abundance and diversity, land uses, suitable vegetation coverages, and whether they are travel corridors or live-in corridors.

 Travel corridors offer enough resources for a short journey to new territory, whereas live-in corridors can become part of the home range.
- 7. Successfully creating, designing, and funding for long-term habitat conservation as well as the restoration of subpopulation linkages, depends upon several factors: a) How restorable is the habitat? b) What is the quality of the area to be linked? c) How resilient are the areas original habitat? d)What is the size and capacity of the linkage? e) Will the public support the corridor and the long-term costs to purchase needed land, implement restoration, and manage for future wildlife linkages? Subpopulation linkages and corridors may require decades of collaboration among land management agencies, wildlife managers, regional and county planners, private landowners, and transportation agencies to develop. As a result, comprehensive political and social efforts are usually needed to establish, restore, and maintain functional corridors.
- 8. There are several options for successful conservation of cougar. Current tools to help foster thriving and ecologically effective populations of cougar and their habitat can include

financial incentives and changes in public perspectives through education and widespread stakeholder participation. Corridor developments over heavily used road infrastructures increase genetic gene pools, reducing fatalities, and reconnecting fractured landscapes. Private land grant incentives, land conservation policies, and involving Non-Governmental Organizations (NGOs) can help to attain private and public conservation easements, grant incentives, or land purchases (Beck et al., 2005).

Cougar Ecology: Ecological Benefits and Trophic Cascades

To understand human social, economic, and environmental provisioning assets of cougars via trophic cascades, it is essential to understand the benefits of the "ecology of the fear" (Eisenberg, 2010). Due to their all meat diet, cougars are considered at the top of the food chain in most ecosystems. This position makes them not only a keystone species, but an umbrella species that may eventually influence ecological processes such as pollination, seed dispersion, nutrient cycling, and others, thus affecting the structure and functioning of ecosystems (Beck et al., 2005; Laundre et al., 2007; Wilmer, 2018). Predators influence prey species in two major ways, behavior mediation and predation. Altered behavior is often associated with the ecology of fear, which influences the movement and use of habitats by prey species when cougars are present (Eisenberg, 2010). Cougars thus help support the balance, structure, and successional processes that help to maintain the integrity of ecosystem metacommunities. By doing so, they help structure the stochastic demographic process of the food web interactions and interdependencies found in Oregon's diverse ecological communities (Eisenberg, 2010; Laundre, 2012; Wilmer, 2018). Cougar presence may also ensure that processes which create species diversity, niches, and ecosystem functions are maintained, thus influencing Lyme disease hosts

and potential human exposure to this disease. For example, cougars consume deer and wood-rats (*Neotoma fuscipes*), and by that very process, can reduce exposure and spread of the disease.

Density Dependent Processes and Carrying Capacities

Oregon Department of Fish and Wildlife (ODFW) management of ungulate species for sports hunting has increased deer and elk (*Cervus* spp.) populations in Oregon. For example, Oregon elk population has grown to be the fifth-largest in the Western States. Currently, approximately 70,000 Rocky Mountain elk (*C. elaphus nelsoni*) and 55,000 Roosevelt elk (*C. canadensis roosevelti*) now share Oregon's ecosystems, along with 340,000 mule deer (*O. hemionus*), over 2 million cattle (*Bos taurus*), and 200,000 domestic sheep (*Ovis aries*) (USFWS, 2014; ODFW, 2016b; ODFW 2016c, ODFW, 2018; USDA, 2018; ODFW, 2020). The ecological impacts of the livestock industry alone have far greater significance than do roads, timber harvest, and wildfires combined (ODFW, 1987; Beschta et al., 2012; ODFW 2015-2019; ODFW, 2016c; USDA, 2018; Figure 5; Figure 6; Figure 7; Figure 8).

Little is left of Native American knowledge or documentation that might clarify what early predator/prey carrying capacities were prior to Euro-American settlement in Oregon. There has been little research regarding their historic behavioral patterns and interactions, but it is believed that grizzly bears (*Ursus arctos horribilis*) primarily inhabited the forests, wolves the plains, and cougars the rivers and forests (Laundre, 2012). Due to human demand on natural resources, land use changes, altered prey abundance, and loss of predator controls, over time the ecological interactions and social structures of apex predators and their prey were upended (Beck et al., 2005; Laundre et al., 2007; Laundre, 2012). Overall, the structure and diversity of the ecological links between cougars and other carnivores such as the wolf and grizzly represent a complex set of environmental interactions (Laundre et al., 2007; Laundre, 2012).

One indicator of carrying capacity exceedance by ungulates is their physical condition. At peak capacity, population competition for food can reduce nutrition and increase disease. In such conditions, cougar predation can influence prey populations by lowering their densities, reducing competition, decreasing disease, and increasing food sources, thus enhancing recruitment and survival of the remaining prey. Ungulate predation also decreases damage to plant communities from ungulate prey and enhances the stability of those communities (Beck et al., 2005).

Managing cougar for increased ungulate hunting requires an understanding of factors such as successional population shifts due to prey abundance, species carrying capacity, and the spatial and temporal human disturbances associated with landscape fragmentations, desertification, climate change, and others.

The ebb and flow of prey abundance and behavior can increase large carnivore numbers (e.g., bear, wolf) and their competition for food with cougars. In many cases, human presence and land use can adversely affect cougars and cause them to increase predation rates. To help avoid stress on cougar populations, managers need to understand and create options for different prey and alternative habitats suitable for cougars. Although predation numbers can vary due to climate, location, age, sex, and whether the cougar has kittens, on average a cougar often kills 48 large mammals and 38 small mammals annually (Beck et al., 2005).

History, Politics, and Willingness to Coexist

Looking back at pre-Euro American influences in Oregon, one may wonder how long have humans benefited from and lived with cougar? Ecologically healthy ecosystems have historically provided benefits to "early Oregonians." During the Pleistocene, receding glaciers enabled species migration that included Homo sapiens from Asia into North America. What these early Oregonians found were beavers (*Castoroides ohioensis*) the size of bears, and bears

(Arctotherium angustidens) that could run like racehorses. Animals of mythical proportions filled trophic levels and niches alongside saber-tooth cats (Smilodon fatalis), American lion (Panthera atrox), the original massive Mountain Lion (Pantheraatox), and the American cheetah (Miracinonyx); the genetic split of which became the half lion/half cheetah we know today as the cougar. Only one-sixth the size of a saber-tooth cat, the cougar and the jaguar (Panthera onca) were the only large cats to survive the mysterious decline of large predators during the late Pleistocene. The Holocene wolf and cougar symbiotic relationships contributed to thousands of years establishment of successional ecosystem networks, functions, mechanisms, and adaptations, from which Oregonians still benefit today. Like seed "legacies" dropped from dying pine trees in a fire, cougar survived climate and ecosystem disturbances, and thus became a living Pleistocene legacy (ODFW, 2006).

Fast forward from traditional ecological knowledge of Native Americans to the Western-World paradigm of benefit-cost economic analyses and homocentric theory, "The greatest good for the greatest number of people." Cougars became part of Oregon's politics in the 1843 "Wolf Meetings" when one of the first laws enacted by the Provisional Government of Oregon was to put a bounty on cougars and wolves (Porter et al., 1849). The act was based on Euro-American concepts of livestock protection and subsistence farming. Membership fees to the Oregon Wolf Organization paid the bounties on wolves, and later the county treasurer paid bounties on cougar (Porter et al., 1849) giving the fledging pioneers a form of income until their farms became productive. Because of the money made from these bounties, the public grew a government supportive of livestock, timber, and market hunting, thus replacing the stability of fully functioning ecosystems mediated by an intact apex predator guild. If not for the wolf and cougar,

it may have taken longer for Oregon to obtain Statehood. From 1928-61, the annual number of cougars for which a bounty was paid was as follows (ODFW, 2006):

<u>Year</u>	No.	<u>Year</u>	No.	<u>Year</u>	No.	<u>Year</u>	No.
1928	254	1937	163	1946	130	1954	148
1929	288	1938	187	1947	145	1955	116
1930	337	1939	194	1948	187	1956	80
1931	243	1940	222	1949	201	1957	103
1932	295	1941	166	1950	177	1958	56
1933	177	1942	101	1951	143	1959	48
1934	139	1943	77	1952	154	1960	36
1935	149	1944	98	1953	123	1961	27
1936	167	1945	123				

In 1967, conservationists lobbying on behalf of the cougar succeeded in changing the status of cougar from "unprotected" to "game animal". In the process, they urged consideration of the cougar's spatial and temporal effects on the dynamics of biological systems and ecological processes (Shaw, 1994). At this time approximately 200 cougars remained in Oregon. The government bounty program was stopped and ODFW took over management of the species (ODFW, 2017c; ODFWb, 2019). Nearly thirty-three years later, the cougar population had increased to ~3000, and so has the number of hunting tags and allotted areas for hunting them (ODFW 2017b).

Public awareness of cougars increased in 1994 when 52% of the public voted in favor of Measure 18, an initiative put on the ballot by Oregon citizens which stopped hunting bear and cougar with dogs (*Canis familiaris*) (Measure 18, 1994). Measure 18 was intended to reduce the number of cougars being killed by eliminating a tool used to kill them, dogs. Because hound hunting tags represented one of ODFW's sources of income, ODFW changed cougar hunting policies. The price of cougar tags was dropped, the species were incorporated onto other hunting tags, and legislative bills were initiated that allow selected parties to hunt cougar with dogs. Moreover, the estimated cougar population has grown beyond the biological threshold limits of

the cougar's territorial requirements (Wielgus, 2010). ODFW sold 937 cougar tags in 1997, but by 2003 over 34,000 cougar tags were sold. Currently, the rate of killing cougar, with or without dogs, has returned to pre-Measure 18 levels. For the first time in approximately 150 years of cougar control by Euro-Americans, ODFW's new initiative for killing cougar now included public safety and administrative kills (ODFW, 2017a).

Social, Economic, and Environmental Consequences of Oregon's Cougar Management Plan

The trophic cascade disruption and altered food webs from apex predator removal and the subsequent ungulate irruption can impact much of Oregon's social, economic and environmental concerns. Furthermore, the loss of such keystone species can complicate the social and economic choices society makes when managing ecosystems and interconnected species for which the cougar previously helped to regulate.

ODFW Cougar Hunting Policies

Complex biological systems require considerable management and financial support from the public. Unfortunately, evaluations have found that 60% of global wildlife management plans do not address sufficient science or contain the four fundamental hallmarks of research: measurable objectives, evidence, transparency, and independent reviews (Hornocker et al., 2010; Artelle, 2018). Instead, vested parties can promote biased ecological concepts and politically motivated wildlife populations, with the intent of benefiting themselves and not the ecosystems. These are known as "political populations" (Lambert et al., 2006; Wielgus, 2010; Artelle, 2018).

¹⁾ Page 2, para 5. The statewide cougar population (including area sub-populations) is estimated as 5,101 – based on a model from Keister and Van Dyke (2002). The modeled estimates for each area must be verified by empirical data and this was not done here. The estimates for these treatment and control areas have no scientific validity because of this lack of verification. See point 4.

Page 3, para 1. cougar depredation removals increased from 23.4/yr (pre-ballot initiative) to 116.9/yr (post ballot initiative). This may correspond to the socio-political fallout from the ballot initiative – not increased numbers of cougars as implied here (same as occurred in WA). The jump in total cougar removals from 75 in 1995 to 123 in 1996 implies a cougar population increase of 64% in 1 year – a biological impossibility. http://orecat.org/dr_wielguss_cougar_peer_review_(Wielgus, 2010).

Oregon's public trust and investment in the management of their State wildernesses, public State lands, wildlife, and mechanisms that sustain Oregon's biodiversity are assigned to ODFW. Most of their funding comes from hunting tags along with some State and Federal tax funds. Oregon's Wildlife Policy directs ODFW and their board to manage wildlife "... to prevent serious depletion of any indigenous species and to provide the optimum recreational and aesthetic benefits for present and future generations of the citizens of the state" (ORS, 2017a). Policies appear to collide when it comes to the widespread occurrence of invasive livestock and the maintenance of large ungulate populations for sports hunting. "Because of the social constraints resulting from wildlife impacts to private or public land management, population objectives are not normally set at biological carrying capacity. A key objective in Oregon's cougar management strategy involves minimizing conflict between humans and cougars. ODFW is obligated to manage the state's wildlife (ORS, 2017a), and respond to situations where wildlife poses a threat to human safety or inflict property damage" (ORS, 2017b; ORS, 2017c).

Referenced in Oregon Revised Statute (ORS, 2017a) are value-laden terminology: To maintain all species of wildlife at optimum levels (what is optimum and for whom?); To permit an orderly and equitable utilization of available wildlife (what is equitable utilization?); To regulate wildlife populations and the public enjoyment of wildlife in a manner that is compatible with primary uses of the lands and waters of the state (primary for ecological or anthropocentric usages?); To make decisions that affect wildlife resources of the state for the benefit of the wildlife resources and to make decisions that allow for the best social, economic and recreational utilization of wildlife resources by all user groups (who is really benefiting?).

Oregonians assume their government is managing their natural resources and wildlife from a foundation of science, but this may not always be the case. Most state wildlife managers,

including those in Oregon, claim to rely on the North American Model of Wildlife Conservation, but cannot consistently articulate what their science-based programs mean or how they relate to the four fundamental hallmarks of research (Artelle, 2018). Hierarchical representation of private vested parties and levels of government can create public trust issues, inefficient accountability, inequitable access to natural resources, ecosystem decline, and politically derived apex predator population counts. Overlooked in Oregon's bundled hierarchical system of livestock, timber, and hunting land use and wildlife management plans are cougar's sustainable and resilient ecological benefits and the hallmarks of science (ODFW, 2017a; Bradshaw, 2018).

ODFW Cougar Management Plan Core Values and Science

Words convey meaning, outcome, and results, yet the words in Oregon's current cougar management plan hold little incentive for public understanding of the importance of conserving the cougar. However, in ODFW's 1987 Cougar Management Plan the agency expressed efforts to protect cougar territory by reducing roads and human encroachment (ODFW, 1987; ODFW, 2017a). "Ecology" is mentioned forty-five times in the plan's literature citations, three times informing the reader to seek other sources to learn about the cougar's ecological values, and twice in the appendices (ODFW, 1987; ODFW, 2017a). Outside of mentioning trophic cascades seven times in the plan's literature citations, trophic cascades are not mentioned at all in the body of the plan. The word "damage" is mentioned 271 times and only in the context of homocentric deer, elk, livestock, and pet depredations (ODFW, 2017a; Table 1). In contrast, California uses words that also reflect public perspectives regarding their cougars. Undoubtedly, word choices used to describe cougar may shape public perspectives of cougar management, as well as the social, economic, and ecological consequences of this carnivore (Table 2).

The neglect of ecological accountability in ODFW's cougar plan, tends to indicate it represents a "forester's fig leaf" more focused on political agendas than sound science (Fortmann et al., 1989; ODFWc, 2005; Lambert et al., 2006; Wielgus, 2010; ODFWa, 2017). ODFW's cougar plan appears to be implying that a simplified system of far fewer species is better than a complex natural ecosystem. Critical aspects appear missing from ODFW's cougar management plan, such as the processes that restore, create, and maintain the synergies of a fully operating ecosystem with an intact large carnivore guild. Current management plans for cougar instead emphasize ungulates, cattle, sports hunting, and human safety (ODFWc, 2005; ODFWa, 2017; ODFWb, 2019). While the ODFW cougar management plan suggests a strong 2 to 5-year repopulation response by cougar in targeted kill zones, the ecological damage and biological damage associated with low or high survival traits of this predator are not adequately accounted for (Peebles et al., 2013; Bradshaw, 2017). Changes in land use and fragmentation complicated by anthropogenic global warming and resulting alterations of abundance and distribution of environmental services also appears not accounted for in ODFW's statement or financial budgets (Figure 9).

The Case of Oregon's Cougar Kittens

We hypothesize that some governments and other organizations justify politically preferred policies by over or underreporting without empirical justification the size or other population data of carnivore populations, creating what we term political populations (populations with ecological attributes constructed to serve political interests) (Darimont et al., 2018, p. 1).

By including cougar kittens, ODFW's cougar population estimates are three times higher than most other states. Although ODFW tells the public that Oregon has approximately 6,600

cougars, its 2017 Cougar Management Plan states there are about 3,300 adult cougars in Oregon (ODFW, 2017a, p. 51). Using kittens to over-estimate the numbers of cougar becomes an issue when determining kill ratios. Due to the high mortality of any wildlife young, other wildlife management programs do not count cougar kitten's population quotas. Only ODFW counts cougar kittens, a practice they do not do with fawns and other young game animals.

The consequences of over-estimating cougar populations typically increase hunting quotas, which can disrupt cougar social structure and result in additional conflict with people and livestock (Beck et al., 2005; Peebles et al., 2013). Moreover, ODFW manages for a "minimum desirable" population of 3,000 cougars statewide. ODFW does not clarify if this number reflects adult cougar only or includes kittens. Once ODFW determines that cougar populations have dropped to 3,000 or less, then hunting will cease to occur. However, ODFW statistical reports indicate that killing more cougar creates more cougar conflict issues and livestock depredations (ODFW, 2005b). Young cougars dispersing from their mother are less inclined to have conflict issues than are cougar orphaned from their mother (Figure 10; Figure 11). Studies indicate that a high magnitude or frequency of kills has an evolutionary effect on cougars (loss of genetic diversity or bottlenecking), that influence the development of life-history traits, body size, infanticide, and PTSD (Shaw, 1994; Hornocker et al., 2010; Peebles et al., 2013; Bradshaw, 2017).

Studies of altered cougar biology and social structure have found that adults and kittens can acquire PTSD as a result of habitat loss and from being hunted (Bradshaw, 2017). Moreover, unlike ODFW's 1987 cougar management plan, ODFW's current cougar hunting policies do not appear to consider pressure on cougar populations from human density, livestock numbers, habitat conditions, or behavior and biological response associated with wolf populations

(ODFW, 1987; Beck et al., 2005; ODFWc, 2005; Peebles et al., 2013; ODFWa, 2017; ODFWb, 2019). Some studies suggest that removal of the older male cougar, sex-age structure, immigration, and orphaned kittens are responsible for increased cougar conflict and livestock depredation (Peebles et al., 2013).

Ecology is now teaching us to search in animal populations for analogies to our own problems. By learning how some small part of the biota ticks, we can guess how the whole mechanism ticks. To sum up, wildlife once fed us and shaped our culture (Leopold, 1949, p. 187).

What does Oregon's Cougar Population mean for Lyme Disease, Public Safety, and Ecosystem Functions?

Identifying a diversified Wall Street financial portfolio risk and returns as an analogy of resilient, diversified ecosystems may help illustrate the effects of altering the ecological role of cougar. Diversified portfolios are, like species-rich ecosystems, more capable of producing stable returns than simple portfolios or simplified ecosystems. Using the financial portfolio as an example of cougar's potential social and economic valuations, risks (public safety) and returns (Lyme disease mitigation) may encourage managers to maintain the keystone umbrella dynamics of cougars that help to mediate ecosystems and influence human well-being (Table 3; Figure 12; Figure 13).

Lyme Disease

Most Oregonians will not experience a cougar conflict or even see a cougar in their lifetime. However, thousands will have a tick conflict because vectors can carry ticks into communities, backyards, and eventually, the ticks may travel on pets into homes. Among the many motivating factors for social, economic, and environmental entities to consider regarding the complexity of

ecosystems is an improved understanding of Lyme disease ecology and its possible prevention. In the Northern Temperate Zone, Lyme disease has become one of the twenty-first century's primary vector-borne diseases (Ostfeld, 2012).

Chapter 14 of the 2004 Millennium Ecosystem Assessment Report provides a summary of global concerns associated with Lyme disease (Patz et al., 2005). Using weighted evaluations, the report concluded, with medium certainty, that North American Lyme disease tick's unique pathogen complexities are a result of biodiversity loss. Moreover, functional ecosystems are a critical regulating factor for the transmission of many infectious diseases, in addition to Lyme disease. The report indicates that the primary causes of Lyme disease in North America are: fractured habitats, altered environments, simplified ecosystems, changes in vector population numbers, and loss of predator controls, such as those the cougar offer. Due to environmental factors such as climate change, irrupted numbers of deer, trophic cascades, and removal of apex predators such as cougar, Lyme disease is migrating across the nation. Human-induced ecosystem disturbances, hunting preferences, social/economic land use changes, missing hallmarks of science, and failure to recognize the complexities of ecosystem functions have led to poor environmental, economic, and social management outcomes for Lyme disease (Sigal, 1996; Patz et al., 2005). In the Eastern states, one of the main contributors to increased Lyme disease was the removal of the eco-mitigating services, via trophic cascades, of the cougar (Velasquez-Manoff, 2016; Figure 14).

Without the mediating effects of apex predators on deer populations, such as those of cougars and wolves, greater numbers of deer in the Eastern states have become an increased hazard on roads, with hundreds of people dying each year from deer-auto collisions. In these communities, deer are also considered to be a primary factor contributing to increased exposure

of humans to Lyme disease (Laundre et al., 2018). Yet any political efforts towards allowing cougar to return to this region are met by resistance from the hunting society.

The first diagnosis of Lyme disease began in 1975 in Lyme, Connecticut, in a community of children and adults suffering from Lyme induced arthritis. However, it was not until 1985 that the bacterium, *Borrelia burgdorferi*, was discovered as being the root cause of Lyme disease (CDPH, 2020). Although significant Lyme disease studies did not begin in Oregon until approximately the 1990s, tick surveys in 1967 indicated that the distribution of this arachnid extended from the western slope of the Cascade mountain range to the Pacific Ocean, and east of Oregon's major metropolis, Portland (Burkot et al., 1999; Doggett et al., 2008). Currently, Oregon and Northern California have some of the highest rates of Lyme disease reported exposure on the West Coast. Unlike Oregon, California has a ban on killing the cougar, and their numbers have self-regulated at about 4000 (CDFW, 2020). California's Lyme disease has been primarily associated with environmental disturbances such as aggressive Sudden Oak Death, thus causing a shift in vectors that carry the diseases. Fragmented landscapes have kept cougar numbers down in these areas and may contribute to the growing populations of ticks (Swei et al., 2011).

Oregon is currently home to a significant "host reservoir" for ticks of approximately 340,000 mule deer, and uncounted numbers of black-tailed deer (ODFW, 2016a; ODFW, 2016b; ODFW, 2018). The host reservoir also contains the Dusty footed woodrat (*Neotoma fuscipes*), also known as packrats, or trade rats, with ranges that extend throughout the western United States. These species are nocturnal rodents in the family of *Cricetidae*, and they prefer a wide range of habitats (Doggett et al., 2008). Elk and moose (*Alces alces*) can also host ticks (ODFW, 2009; Durrani, 2011; VFW, 2020; Figure 15).

According to Ostfeld et al. 2008, there are four attributes necessary for Lyme disease ecology: 1) the vector must be a generalist with the capacity to infect a range of host species, 2) there must be an abundance of host species (reservoir competence) that can be present in both species-poor and species-rich communities, 3) there must be a variation between reservoir competence and host species, and 4) a large populace of infected vectors must acquire their infection by an infected host, rather than transovarial from infected vectors of the previous generation (Ostfeld et al., 2008). Not all ticks are infected with *B. burgdorferi*, but studies show that the critical connection for the risk of infectious exposure to humans is the density of infectious nymphs (Ostfeld, 2012).

Altered Ecosystems

Studies indicate that a landscape of fear reduces ungulate effects on plant communities (Beck et al., 2005; Laundre et al., 2007; Beschta et al., 2009; Beschta et al., 2012; Laundre et al., 2018a). If Oregon's apex predators, including cougar, were allowed to self-regulate their populations, Oregon's wilderness ecosystems might well adjust in ways we have not experienced in over 150 years, or knew existed. More functional ecosystems could be inhabited by more vigilant deer, rather than complacent deer. Landscape-scale renewal of degraded ecosystems would enhance Oregon's "biological savings accounts." It would increase riparian ecosystem functions and the services of natural refugia as well as species diversity that have long been suppressed from Oregon's ecosystems (Beck et al., 2005; Laundre et al., 2007; Beschta et al., 2009; Eisenberg, 2010; Laundre, 2012; Wilmer, 2018).

Oregon's Cattle Greenhouse Gasses (GHG)

According to the annual Intergovernmental Panel on Climate Change (IPCC) assessment reports, American agriculture is part of the global climate change threat and potential loss of

global mean temperature controls (IPCC, 2017; EPA, 2018). The industrial agriculture sector accounts for 10% of the total GHG emissions in the United States. Methane is produced by the ruminant digestion process of cattle, accounts for approximately one-quarter of the total industrial agriculture's 10% GHG. Cattle manure management accounts for about 12% of GHG emissions (EPA, 2018).

Additionally, the external environmental costs of Oregon's expansive land use conversions for livestock are prone to a host of socio-economic and environmental issues such as inequitable property rights, scarcity rents, inefficiencies in carbon "leakage" (cow carbon GHG), inefficient governmental actions, as well as the decline in ecosystem services (Tietenberg, et al., 2016; Ripple, et al. 2005). These negative externalities of landscape management may be accentuated by the loss of cougar. The ecological damage and GHG concerns from millions of Oregon's livestock methane emissions are significant. Species diversity decline, albedo and photosynthesis disruptions, plant nutrient decline, soil compaction and reduced moisture-holding capacities, stream erosion, and other desertification concerns may be mitigated by reducing livestock operations and the ensuring ecologically functional populations of apex predators (Ripple, et al., 2005; Perry, et al., 2008).

Wildlife Disease

Cougar may choose to conserve energy and avoid the risk of injury by selecting prey that are vulnerable or otherwise in poor condition. Young, old, or deer infected with the naturally occurring prion CWD are more susceptible to cougar predation than deer that are healthy or in their prime. Studies of this CWD "sanitation effect" due to cougar predation preferences indicate that puma can be selective and sensitive to the subtle behavior changes of an infected deer long before the body condition noticeably declines (Krumm et al., 2009; Shivik, 2014).

Public Safety: What are some of the Risks

There is a risk that killing more cougar may destroy the incentive to protect them, and also increase negative encounters with them, as in the case of the words ODFW and CDFW use to shape public perspectives in the management of their cougar. According to Dr. Robert Wielgus's testimony at a 2019 Oregon State Legislature public hearing on cougar, wild puma once lived to be ten years old. However, because they are intensively hunted in Oregon, it has become rare to find a puma that is older than five years. The loss of this hierarchical social monarch is critical to help avoid a source-sink shift in cougar population structure towards younger, inexperienced cougars with a propensity for human conflict. Intense management and hunting of cougars often create populations with relatively young immigrant cougars that are often orphaned (Peebles et al., 2013). ODFW statistics indicate that it is not the cougar kitten dispensing from its parent that causes conflict; instead, it is often the orphaned cougar. Fragmentation of cougar populations can also negatively change their genetic connectivity by risking sink-genetic structure, contribute to low genetic diversity, and cause genetic extinction in certain areas.

Ecosystems managed to sustain a healthy population of cougars and their social dynamics can be more diversified, and thus more resilient towards disturbances, diseases, and climate changes. Without the mediating effects of cougars, Lyme disease, CWD, and ecosystem decline may increasingly become a social, environmental, and economic concern.

Cougar's Social Economic Stakeholder Benefits

Oregon Lyme Disease Cost Reexamined

The general consequence of Oregon's economic land use that favors livestock and hunting are simplified ecosystems (Beschta et al., 2009). For example, the highest institutionally driven harvest of cougar synchronizes closely with the State's highest poverty rates, the lowest access to

health care, and highest rates of Lyme disease reports (ODFW, 2019a; Weber, 2020; Figure 16). Even though thousands of deer are killed each year in Oregon by hunters, this has not stopped the slow advancement of Lyme disease (ODFW, 2005a; ODFW, 2016b; ODFWb, 2017; ODFW, 2018).

In 2015, Oregon's 78th Session of the Senate Committee on Health heard testimony from the Oregon Medical Board and Oregon State Board of Nursing that rules regarding diagnosis and treatment of Lyme disease were long overdue. Diagnosing Lyme disease is not without controversy. Misdiagnosing Lyme disease and the lack of understanding regarding the unique complexities of ecosystem functions and trophic connections associated with the Lyme agent spirochete bacterium has retarded progress towards treating and diagnosing the disease. Unlike the Eastern states which began tracking the disease in the 1970s, it has only been since the 1990s that the Oregon State Health Division has assimilated data from incident reports on tick-induced bacterium that cause Lyme disease (Zhang et al., 2006; Adrioin et al., 2015; Committee on Health Care, 2015).

The national cost of Lyme disease is significant and over 3.2 billion dollars annually are spent on medical expenses for the disease. This money does not cover economic opportunity losses incurred by indirect costs and incidentals. Also, not included in the national costs are reproductive issues, sleep disorders, chronic heart conditions, magnetic resonance imaging (MRI), cognitive deterioration, arthritic disabilities, Lyme induced autism special education, loss of productivity, and hospitalizations. Undiagnosed or misdiagnosed Lyme disease can cost a patient tens of thousands of dollars, including lost economic productivity that negatively impacts social and economic stability. In 2015, the total lost productivity and treatment costs for Lyme

disease in Oregon were approximately \$16.5 billion, \$13.1 billion for lost productivity and \$3.4 billion for treatment (Committee on Health Care, 2015).

Wildlife Watching Dollars vs. Hunting Dollars

U.S. Department of Interior surveys, done at 5-year intervals since 1955, showed substantial increases in outdoor participation and profits from wildlife-watching. Between 2001 and 2016, profits rose from \$60 billion to \$76 billion as participants simultaneously rose from 72 million to 86 million. Community wildlife-watching increased from 69 million participants in 2011, to 82 million in 2016. Gains were also made from wildlife watchers who were willing to travel. Between 2011 and 2016, travelling wildlife watchers increased from 22.5 million to 23 million participants. Many of these activities generated income for rural community infrastructures such as hotels, restaurants, equipment, transportation, and jobs. The ecological attributes of cougars, as well as healthy populations of this apex predator, can also contribute to local economies by drawing in wildlife watchers and their money. For every dollar the U.S. Government spent on wildlife watching, wildlife watchers spent \$10 in rural communities (USFWS, 2006; USDI, 2017).

The Valuations of Cougar (Figure 17)

Economic, social, and ecological values of cougars are only applicable if humans associate obligatory, spiritual, or financial values associated with sustaining this apex predator. Western Euro-American concepts use benefit-cost analyses, "the greatest good for the greatest number of people," as a foundation for expressing these values and creating policy-making decisions that are supposed to reflect the best benefits for society. All too often benefit-costs economics fall short of sound environmental care and interactions. Valuation economic techniques are a series of vested interests networking methods for evaluating ecological worth in an anthropomorphic

world. They are composed of use values, option values, and nonuse or passive values (bequest and existence) (Tietenberg et al., 2016). Nonuse valuations reflect the economic willingness to pay for the future eco-service and eco-benefits the cougar offer, and the willingness to pay for protecting these interconnected communities regardless if the public ever witnesses or benefits from these processes or not. Cougar's nonuse environmental valuations are both supportive and culturally important for human wellbeing.

An example of use value are the social benefits derived from cougar's regulating services such as mitigating Lyme disease, whereas an option value is the value placed upon cougar's ecosystem provisioning services' effects that benefit future generations. Nonuse or bequest values are more complicated. Regardless, if a person has never visited a wilderness or will ever see a cougar in the wild, it is the knowledge that cougars are out there mitigating the ecosystems for human well-being that is of value. Bequest values, use values, and use options values of wildlife watching according to studies done of Yellowstone National Park's reintroduction of wolves and cougar indicate the public and federal financial gains are significant (USFWS, 2006; Tietenberg, et al., 2016). With regard to Oregon, a U.S. Fish and Wildlife (USFWS) report, "Watching Economic Impacts on National and State Economies" 2006 survey, page 9, wildlife watching raised \$176 million in retail dollars, \$503 million in salaries and wages, 16,000 jobs, \$124 million in state and local taxes, lastly, \$120 million in Federal taxes, and \$1.4 billion in multiplier effects (USFWS, 2006). Dean Runyan Associates 2009 survey review of Oregon's wildlife dollars shows that 2.8 million Oregonians and nonresidents participated in Oregon's recreational activities. Of these, wildlife watching involved 1.7 million local and out-of-state participants, hunting 282,000, shellfishing 175,000, and fishing 631,000. Collective travelgenerated trips to Oregon and local recreation expenditures, and equipment layout for wildlife

watchers totaled over a million dollars, hunters \$500,000, shellfish harvesters \$172,000, and fishermen \$800,000 (Runyan, 2009; Figure 18).

This data shows that it may be more optimal to co-exist with the apex predators than the current expenses and public risk that ODFW incurs managing them. Cougar is a keystone apex known for promoting elements that wildlife watchers seek, fully functioning ecosystems that are rich with species diversity. It may be advantageous for ODFW to develop a cougar management plan that promotes wild open spaces and reduced ungulate populations, and other anthropocentric effects, in exchange for the financial and eco-benefits generated by the wildlife watchers' willingness to pay for them.

Desirable outcomes for vested parties are those where benefits exceed the costs. ODFW could use available economic data along with land use laws or hedonic (the value of property as reflected by its characteristics) property valuation models to define a new ecological paradigm for the management of ecosystems and apex predators (Tietenberg et al., 2016). Unfortunately, comparative studies assessing the positive or normative economic outputs and evaluations of coexisting with the apex predators by investing in ecosystem wildlife watching have not yet been undertaken (Tietenberg et al., 2016).

Ecological and Economic Valuations

The cascading trophic effects of cougar suppression or removal can have irreversible impacts on ecosystem services and resiliency. On the surface, we understand that cougar is a keystone species capable of shaping the ecosystem services of a landscape and the biodiversity that sustains it. In an environment rich with cougar, ungulates move more and eat less, allowing trees to grow canopies that cool streams to just the right temperature for salmon to spawn, and bears to eat them, who in turn fertilize the forests with their mineral rich scat. Water follows

trees, and mineral rich streams become rivers, and rivers become gateways for salmon to swim to the sea. The movement of ungulates in the world of cougar's ecosystem services is called the Ecology of Fear. The top-down pressures of cougars, via an ecology of fear, allow them to influence ungulate populations and foraging patterns, thus allowing diverse plant communities to be sustained. This contributes towards protecting eco-services and eco-function system structures of plant communities, which in turn protect hydrologic cycling, primary productivity, fish habitat, and nutrient cycling that are factored into use values (Beschta et al., 2012; Tietenberg et al., 2016). This ecology of fear also helps protect ecosystem services associated with pollinators, bees, birds, bats, and other wildlife species that ensure the propagation of plants, both wild and domestic. Follow the footsteps of the cougar and you may find an emerging presence of trees and understory, and a wealth of minerals, nutrients, fungus, and biota in the soil. (Eisenberg, 2010; Tietenberg et al., 2016; Ruth et al., 2019).

Currently, Oregon profits \$181 million on pear crops and \$79 million on cherry crops as part of their dependence on pollinators (USDA, 2018). Not only do the puma contribute to pollination, but also ecosystem composition that includes seed dispersion, species richness, nutrient cycling, and other ecosystem processes. Tree canopies provide photosynthesis, respiration, gross primary productivity (GPP), net primary productivity (NPP), carbon balance, and interconnected habitat niches rich with species diversity (Perry et al., 2008; Beschta et al., 2009; Eisenberg, 2010). The apex ecology of fear moves ungulates, thus allowing keystone plants such as trees to develop spatial and temporal successional values necessary for connecting interrelated biogeochemical cycling links between landscape and global ecological processes. The cougar also contributes towards protecting the web of interaction and successional processes that creates the genetic structure of species diversity, niches, and ecosystem functions. More

needs to be researched about the ecosystem services and power of the Ecology of Fear shaped not only by a species with eighty-six names, but also the combined effects of their fellow apexes, the wolf, and the bear.

Social and Economic Combined Valuations

Linking ecology and public health through bequest values, use values, and option values may help maintain protections of the cougar's indirect effects on mediating CWD and Lyme disease ecology. Heightened human risk and vulnerability for receiving transmissions of the *Borrelia burgdorferi* bacterium cost U.S. citizens and the medical industry billions of dollars. Growing numbers of Lyme disease reports in Oregon have health communities scrambling to network and design screening as well as ways to eradicate the source of the infection.

The spatial clustering of Lyme disease in the United States is highest where there are lots of deer and few cougars. Ironically, this includes some of the more popular areas for tourist wildlife watching (U.S. Fish and Wildlife 2006). The Northeast, Mid-Atlantic, and upper Midwest areas of the United States, void of the cougar, have the highest incidents of Lyme disease in the Nation (Forrester et al., 2015). Comparing ODFW's map of planned cougar kills in areas known as "cougar target area" zones for public and livestock safety to that of Oregon's Lyme disease reports shows an interesting correlation. Except for Multnomah County, the number of Lyme disease reports in the cougar target zones areas appear greater than in the non-target areas (Weber, 2020; Figure 19; Figure 20; Figure 21)

As obligatory predators, cougars eat mice, deer, and other vectors that carry the ticks responsible for Lyme disease. Shifting the deer, mice, and the tick's ecological adaptive cycle feedback to include the missing mediating effects of the cougar could help reduce human

exposure to Lyme disease. Such effects could reduce health insurance costs and auto insurance costs, as well as income opportunity losses associated with deer/vehicle collisions.

A Path Forward

Public Survey

To prevent further harm to biophysical and socio-economic systems, stakeholder involvement in a sustainable cougar management program is critical. Understanding stakeholder attitudes and knowledge toward cougars could be achieved through a statewide phone survey. In 2012, Washington State hired the research firm Responsive Management to conduct a statewide phone survey regarding public knowledge and values associated with coexisting with cougar. The study was used to assess public educational needs on cougar ecology, safety, behavior, and management. This information was then used for developing Washington State Department of Fish and Wildlife's Cougar Outreach Project management plan (WDFW, 2020).

According to Responsive Management, an Oregon survey would cost approximately \$35,000 and would evaluate the ecological, economic, and social importance of cougars to Oregonians. Some of the topic areas the survey would assess include the general knowledge of Oregonians regarding cougar populations, biology, and their umbrella effect as ecosystem regulators (Responsive Management, 2019). As referenced from a recent Responsive Management quotation, a survey of theirs would address the following topics:

- Public awareness of and attitudes toward wildlife and wildlife management issues.
- Attitudes toward wildlife law enforcement and opinions on regulations and laws.
- How people value wildlife.

- Public perceptions of wildlife populations and cultural carrying capacity issues—that is, how much is enough and what are people willing to sacrifice for the sake of wildlife conservation.
- Public attitudes toward endangered species.
- Public attitudes toward wildlife reintroductions.
- Opinions on invasive species.
- Attitudes toward habitat, habitat protection, and development.
- Landowner attitudes toward wildlife management issues.
- Information and education about wildlife issues.
- Where the public receives their information on wildlife issues.
- Public awareness of agency funding, and support for and opposition to various funding mechanisms for wildlife management.

Education

Oregon's cougar management plan could follow that of California's and adopt extensive, research and public education goals. Various stakeholders – wildlife managers, ranchers, hunters, policymakers, wildlife watchers, and the general public - could be trained and encouraged to think like an ecologist. The public could become citizen scientists through education, greater public inclusion, youth vocational guidance, and citizenship training. There would be increased focus on ecosystem paradigms and environmental ethics inclusive of the cougar's wellbeing when determining cougar policymaking, and while recognizing cougar's ability to enhance human economics, social and environmental benefits. Further research into the human neurological similarities and responses to traumatic life stimuli would also be encouraged.

Policy

Oregon Cougar Action Team (OreCat), a 501c3 educational grass-roots foundation established in 2004, developed the "License to Protect" (LTP) program in 2011. It is a response to ODFW policies usurping M18 and the lack of public funding for wildlife. The hypothesis was that if ODFW received more funds from the public rather than hunters, they would be able to manage for the benefit of biodiversity and ecosystem services, rather than for livestock production, hunting, and forest harvesting. Forests provide important cover and suitable habitat for cougars. LTP was introduced as a draft at Oregon's legislative assembly to help support the intents of M18, provide funding, and help address our public and livestock conflict issues with cougar (OreCat, 2020; Figure 22). In 2019, Oregon State Senator Roblan was seeking a way to remedy ODFW's wildlife funding inequity and introduced a tax on birdseed to help connect public funding for wildlife. However, the bill failed.

Institution

ODFW could become Oregon Department of Resilient Ecosystems (ODRE) and would focus on managing Oregon's landscapes for the benefit of biodiversity and ecosystem services, rather than for livestock production, hunting, and timber production. ODRE, stakeholders, and science would collaborate to design a functional and timely political agenda, based on the hallmarks of science and prudent economic profits. Similar to California's cougar research and monitoring methodologies, testing criteria would continually address transformability, adaptation, and resiliency of co-existing with the puma, and preferably the wolf and bear in fully functioning ecosystems (ODFW, 1987; CDFW, 2020). Using ecological economic valuations (use, option, and nonuse values) would help define adaptation methodologies for economic

switch point calculations, ecosystem transformability, and social resiliency (Tietenberg et al., 2016).

ODRE would do away with its cougar management plan and instead implement university research programs to better understand how to co-exist with the cougar (CDFW, 2020). Two, ODRE would eliminate the wolf, cougar, and bear plans and instead develop a single plan encompassing the ecological benefits of the apex predator guild. Regardless of either approach, ODRE would need to validate an accurate cougar population model count, develop ecological management tools, and work with scientists to design and monitor models which quantify the effects of cougar predation on prey populations, on public incidents or conflicts, and any shifts in ecosystem services. They would also need to incorporate critical anthropomorphism into cougar management plans (Masson, 2014).

Livestock Guardian Dogs

Remember: Your farm as part of a larger community, locally, nationally and internationally; we now know we are part of outside the environment. We need to remember that the global market is looking at us. There is very little protection for predators, therefore we need to reconsider our way of thinking and become more scientific and ethical in our approach to human wildlife conflict resolution (Schumann, 2004, p. 32).

As with Oregon's cougar, the two driving elements that directly impact Namibia's cheetah's (*Acinonyx jubatus*) biological factors are human population growth and resulting cheetah removal (Marker et al., 2004; Marker et al., 2005). However, one of the simplest tools that have been used for thousands of years to protect investments in livestock and human well-being is the livestock guardian dog (LGD). These breeds can consist of cross-over or purebred Akbash, Great

Pyrenees, Spanish Mastiffs, Miramma, Komondor, and Yugoslavian's Sharplaninak. Livestock dogs have proven themselves to be efficient livestock protectors, replacing expensive and often lethal measures to reduce predation of livestock. However, they can in certain circumstances, be dangerous for humans unknowingly advancing through areas the dogs are protecting. It is therefore advised that livestock owners provide postings that LGDs are in the area (Mosley et al., 2020). With the use of dogs, more cougars, as with Namibia's cheetahs, may co-exist around livestock operations and human wilderness activities.

An excellent example of the importance of LGD use is identified in Namibia's constitutional environmental bylaws and conservation programs "Guide to Integrated Livestock and Predator Management" (Namibia, 1995; Schumann, 2004). Their programs are deeply connected to the social, economic, and ecological factors associated with cheetahs, as well as ongoing struggles to protect cheetahs from extinction. By the innovative use of dogs to protect not only livestock but also cheetahs, conservation programs and both commercial and subsistence farmers have been able to co-exist with this predator, thus contributing to a sustainable economy (Marker et al., 2004; Marker et al., 2005; Figure 23).

Influenced by Namibia's LGD program, in 2018, concerned citizens implemented a similar program in Oregon (OreCat, 2020). The Great Pyrenees/Miramma mix breed puppies were chosen to protect livestock and, ultimately the cougar. This mixed Spanish/Italian breed has a lineage of protecting livestock that exceeds six thousand years. The dogs are large, radiant white, with an aggressive bark, strong traits of protective behavior, and are fast runners. On average, they weigh between 90 to 150 lbs (41 - 68 kg). The breed is attentive, trustworthy, and capable of living alone with livestock on vast commercial or small livestock operations without harming the herd. From a pup, they are raised with the livestock and, by instinct, place themselves

between the livestock and danger, but never herd them. They can become good family dogs, but most are used for protecting livestock, working and living most of their lives independent from humans. (OreCat, 2020; Figure 24)

OreCat trains members to be citizen scientists capable of holding public presentations about the cougar (Figure 25). They are also taught to carefully analyze potential farming operations before establishing puppies with these families. Periodic visits are established, allowing OreCat opportunity to collect data from the farmers regarding any changes in livestock predations. As donations permit, OreCat gives puppies away to qualified operations. Since 2018, OreCat has placed puppies on five small Oregon subsistence family farming operations (OreCat, 2020).

Conclusion

This paper suggests that the greatest good for the greatest number of Oregonian stakeholder safety issues and economic concerns is to adopt California's cougar plan. Their plan does not include the harvesting of cougars by hunters but instead is based on research, education, and collaborations to co-exist with the American Lion (Sabana, 2017; CDFW, 2020). Instead of focusing on the harvesting of pumas, ODFW would emphasize research studies and expansive landscape scale restoration management of ungulate-altered ecosystems inclusive of their 1987 reduced road plans throughout Oregon's wildlands (ODFW, 1987; Laundre et al., 2018a). To ensure fully functioning ecosystems, this paper suggests creating an overarching management plan for all three apex carnivores--cougar, wolf, and bear.

This paper also recommends that conservation plans need to support networks of habitat connectivity that help maintain landscape-scale ecosystems such as wildlife freeway crossings. Efforts to manage, monitor, and maintain habitat connectivity may ensure decreases in cougar conflicts while increasing the resiliency of ecosystem services during disturbances, changing

climate conditions, and human activities. Furthermore, an improved understanding is needed regarding the socioeconomic opportunity losses, the biological mechanisms of cougar's trophic effects on human exposure to Lyme disease, and other ecosystem alterations that may have occurred under ODFW's current cougar management plan.

By familiarizing the reader of the cougar's nature and biology and addressing Oregon's history of public perspectives regarding puma policy and management, this paper will hopefully inspire more research into the dynamics of the puma's ecological services and their economic and social consequences. Maintaining an abundant cougar population in Oregon depends on understanding the relationships between humans, the cougar, and the three tiers of human well-being: social, economic, and environment.

References

- Adrioin, E. R., Aucotta J., Lemke K. W., & Weiner, J. P. (2015). Health care costs, utilization and patterns of care following Lyme disease. *PLOS ONE 10*(2). https://doi.org/10.1371/journal.pone.0116767
- Artelle, A. A. (2018). Hallmarks of science missing from North American wildlife management. Science Advances Research Article, 4, https://advances.sciencemag.org/content/4/3/eaao0167.full
- Beck, T., Beecham, J., Beier, P., Hofstra, T., Hornocker, M., Lindzey, F., Logan, K., Pierce, B., Quigley, B., Ross, I., Shaw, H., Sparrowe, R., & Torres, S. (2005). *Cougar management guidelines*. WildFutures, Bainbridge, WA.
- Beschta, R. L., Donahue, D. L., DellaSala, D. A., Rhodes, J. J., Karr, J. R., & O'Brien, M. O. (2012). Adapting to climate change on western public lands: Addressing the ecological effects of domestic, wild, and feral ungulates. *Environmental Management*, *51*, 474–491. https://link.springer.com/article/10.1007%2Fs00267-012-9964-9
- Beschta, R. L. & Ripple, W. J. (2009). Large predators and trophic cascades in terrestrial ecosystems of the Western United States, *Biological Conservation*, *142*(11), 2401-2414, https://doi.org/10.1016/j.biocon.2009.06.015
- Bradshaw, G. A. (2017). *Carnivore minds: Who these fearsome animals really are*. Yale University Press, New Haven, CT.
- Bradshaw, G. A. (2018, October 23). A bad hair day for lions and science: Science dodges the questions of captivity, confinement, and isolation. *Psychology Today Blog*.

 https://www.psychologytoday.com/us/blog/bear-in-mind/201810/bad-hair-day-lions-and-science
- Bradshaw, G. A. (2009). *Elephants on the edge: What animals teach us about humanity*. Yale University Press, New Haven, CT.
- Burkot, T. R., Clover, J. R., Happ, C. M., DeBess, E., & Maupin, G. O. (1999). Isolation of borrelia burgdorferi from neotoma fuscipes, peromyscus maniculatus, peromyscus boylii, and lxodes pacificus in Oregon. The American Journal of Tropical Medicine and Hygiene, 60(3), 453-457. https://doi.org/10.4269/ajtmh.1999.60.453
- California Department of Fish and Wildlife. (2020). *Currently permitted mountain lion research*. https://www.wildlife.ca.gov/Conservation/Mammals/Mountain-Lion/Approved-Projects

- Chadwick, D. H.; Winter, S. (December 2013). Ghost Cat. *National Geographic Magazine*. https://www.nationalgeographic.com/magazine/2013/12/cougars/
- Committee on Health Care. (2015). Lyme disease in Oregon: Support to testimony. Oregon State Legislature.
 - https://olis.leg.state.or.us/liz/2015R1/Downloads/CommitteeMeetingDocument/58313
- Connecticut State Department of Public Health. (2020). *Lyme disease*. https://portal.ct.gov/DPH/Ptileniology-and-Emerging-Infections/Lyme-Disease
- Curwen, T., Fox, J. (February 8, 2017). A week in the life of P-22, the big cat who shares Griffith Park with millions of people. *Los Angeles Times*. Los Angeles, CA. https://www.latimes.com/projects/la-me-griffith-park-mountain-lion/
- Darimont, C. T., Paquet, P. C., Treves, A., Artelle, K. A., & Chapron, G. (2018). Political populations of large carnivores. *Conservation Biology*, *32*(3), 747-749. https://doi.org/10.1111/cobi.13065
- Doggett, J. S., Kihlhepp, S., Gresbrink, R., Metz, P., Gleaves, C., Gilbert, D., & Gresbrink, R. (2008). Lyme disease in Oregon. *Journal of Clinical Microbiology*, *46*(6) pp. 2115-2118. https://ohsu.pure.elsevier.com/en/publications/lyme-disease-in-oregon-2
- Durrani, A. Z., Goyal, S. M. (2011). Retrospective study on seroprevalence of borrelia burgdorferi in elk and moose in Minnesota. *The Journal of Animal and Plant Sciences*, 21(3): 2011, Page:481- 484. https://thejaps.org.pk/docs/21-3/6.pdf
- Eisenberg, C. (2010). *The wolf's tooth, keystone predators, trophic cascades, and biodiversity*. Island Press, Washington, D.C.
- Environmental Protection Agency. (2018). Sources of greenhouse gas emissions. https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions
- Forrester, J. D., Kugeler, K. J., Perea, A. E., Pastula, D. M., & Mead, P. S. (2015). No Geographic Correlation between Lyme disease and death due to 4 neurodegenerative disorders, United States, 2001–2010. *Emerging Infectious Diseases*, 21(11), 2036-2039. https://wwwnc.cdc.gov/eid/article/21/11/15-0778 article
- Fortmann, L. P., Kusel, J., & Fairfax, S. K. (1989). Community stability in forest-based communities: The foresters' fig leaf. In by D. LeMaster and j. Beuter (Eds.), *Community stability in forest-based communities* (1st ed., pp. 44-50). Timber Press, Beaverton, OR.
- Hilton, L. (2014, November 13). Lyme in Oregon. What is Lyme disease?

- http://whatislyme.com/lyme-in-oregon/
- Hornocker, M., & Negri, S. (2010). *Cougar, ecology and conservation*. The University of Chicago Press, Chicago, IL.
- Intergovernmental Panel on Climate Change. (2017). Greenhouse Gas. *United Nations*Intergovernmental Panel on Climate Change (IPCC) Assessment Reports.

 https://www.ipcc.ch/reports/
- Jackson, H. T. (1961). *Journal of Mammalogy*, Volume 42, Issue 3, 21 August 1961, Page 430, https://doi.org/10.2esn307/1377074
- Kennerknecht, S. (2014, August 25th). *Pumas are better for our health*. https://www.pumapix.com/project-puma-how-cougars-are-better-for-our-health/
- Keefe, A; Winter, S. (November 14, 2013). A Cougar Ready for his Closeup. *National Geographic Magazine*.
 https://www.nationalgeographic.com/photography/proof/2013/11/14/a-cougar-ready-for-his-closeup/
- Krumm, C. E., Conner, M. M., Hobbs, N. T., Hunter, D. O., & Miller, M. W. (2009). Mountain lions prey selectively on prion-infected mule deer. *Biology Letters*, 6, 209-211. https://doi.org/10.1098/rsb1.2009.0742
- Lambert, C. M., Wielgus, R. B., Robinson, H. S., Katnik, D. D., Cruickshank, H. S., & Clarke,
 R. (2006). Cougar population: Dynamics and viability in the Pacific Northwest. *The Journal of Wildlife management*, 70(1), 246-254.
- Laundre, J. W., Hernández, L, & Clark, S.G. (2007). Numerical and demographic responses of pumas to changes in prey abundance: Testing current predictions. *Journal of Wildlife Management* 71(2), 345-355. https://doi.org/10.2193/2005-627
- Laundre, J. W. (2012). *Phantoms of the prairie, the return of cougars in the Midwest*. University of Wisconsin Press, Madison, WI.
- Laundre, J., & Spatz, C. (2018a). The Ecological Imperative for a national cougar recovery plan, part 1. *Rewilding Earth*. https://rewilding.org/the-ecological-imperative-for-a-national-cougar-recovery-plan-part-1/
- Laundre, J. (2018b, November 16). Cougar Kitten Survival Rate Graphs. *Oregon Cougar Action Team Laundre email*.

- Leopold, A. (1949). A Sand County Almanac and Sketches here and There. Oxford University Press, Oxford, NY.
- Mack, J. (2019, May 21). 50 States Ranked by Average Income of the 99%. *Mlive News Media Group*. https://www.mlive.com/news/2016/08/50_states_ranked_by_average_in.html
- Marker, L., & Dickman, A. (2004). Human aspects of cheetah conservation: Lessons learned from the Namibian farmlands. *Human Dimensions of Wildlife*, *9*(4), 297-305. https://doi.org/10.1080/10871200490505729
- Marker, L., Dickman, A., & Macdonald, D. W. (2005). Perceived effectiveness of livestock-guarding dogs placed on Namibian farms. *Rangeland Ecology Management*, *58*, 329-336. http://www.catsg.org/cheetah/05_library/5_3_publications/M/Marker_et_al_2005_Effective_ness_of_live-stock_guarding_dogs_in_Namibia.pdf
- Masson, J. M. (2014). *Beasts: What animals can teach us about the origins of good and evil.* Bloomsbury, Bloomsbury, NY.
- Measure 18. (1994). Oregon Ban on Baited Bear Hunting and Cougar Hunting with Dogs,

 Measure 18. An Initiated State Statute approved on November 9, 1994.

 https://ballotpedia.org/Oregon_Ban_on_Baited_Bear_Hunting_and_Cougar_Hunting_with_Dogs, Measure 18 (1994)
- Mosley, J.C, Roeder, B.L., Frost, R.A., Wells, L.S., McNew, L.B., Clark, P.E. (2020). Mitigating Human Conflicts with Livestock Guardian Dogs in Extensive Sheep Grazing Systems. *Rangeland Ecology Management*. doi:https://doi.org/10.1016/j.rama.2020.04.009
- Namibia (1995). Republic of Namibia Environmental Assessment Policy for Sustainable Development and Environmental Conservation. *Directorate of Environmental Affairs, Ministry of Environmental and Tourism*.
 - http://www.met.gov.na/files/downloads/05cEnvironmental%20Assesssment%20policy.pdf
- National Park Services (2015, April 10). Petroglyph of cougar hunting with humans. *Saguaro*. https://www.nps.gov/sagu/learn/historyculture/petroglyphs.htm
- ODFW (Oregon Department of Fish and Wildlife). (1987) Oregon Cougar Management Plan. https://www.dfw.state.or.us/wildlife/cougar/docs/1987 Cougar Mgmt Plan.pdf
- ODFW (Oregon Department of Fish and Wildlife). (2005a). Big game statistical report.

 https://www.dfw.state.or.us/resources/hunting/big_game/controlled_hunts/docs/hunt_statistics/05/02-deer.pdf

- ODFW (Oregon Department of Fish and Wildlife). (2005b). Public cougar forum. https://www.biggamehunt.net/news/public-invited-comment-proposed-cougar-management-plan
- ODFW (Oregon Department of Fish and Wildlife). (2005c, updated 2017). Wolf conservation and management plan. https://www.dfw.state.or.us/Wolves/management_plan.asp.
- ODFW (Oregon Department of Fish and Wildlife). (2006). Cougar Management Plan. https://www.dfw.state.or.us/wildlife/cougar/docs/cougarPLAN-Final.pdf
- ODFW (Oregon Department of Fish and Wildlife). (2009). Moose move In. https://www.dfw.state.or.us/conservationstrategy/news/2009/2009_october.asp#moose
- ODFW (Oregon Department of Fish and Wildlife). (2015-19). Rocky Mountain elk population survey. https://myodfw.com/articles/big-game-population-survey-data.
- ODFW (Oregon Department of Fish and Wildlife). (2016a). Big game hunting outlook. https://www.dfw.state.or.us/RR/hunting_forecast/docs/2016_Big_Game_Hunt_Forecast.pdf
- ODFW (Oregon Department of Fish and Wildlife). (2016b). Mule deer management objectives. https://www.dfw.state.or.us/wildlife/management_plans/docs/Mule%20Deer%20Management_nt%20Objectives%20-%202016.pdf.
- ODFW (Oregon Department of Fish and Wildlife). (2016c). Roosevelt elk management objectives.

 https://www.dfw.state.or.us/wildlife/management_plans/docs/Roosevelt%20Elk%20Management%20Objectives-2016.pdf.
- ODFW (Oregon Department of Fish and Wildlife). (2017a). Cougar management plan. https://www.dfw.state.or.us/wildlife/cougar/docs/2017_Oregon_Cougar_Management_Plan.pdf.
- ODFW (Oregon Department of Fish and Wildlife). (2017b). Estimated rifle buck deer harvest.

 https://www.dfw.state.or.us/resources/hunting/big_game/controlled_hunts/docs/hunts_summ

 ary_reports/2017_Rifle_Deer_Harvest_Est_100_Series.pdf.
- ODFW (Oregon Department of Fish and Wildlife). (2017c). Key facts about cougars. https://www.dfw.state.or.us/wildlife/cougar/.
- ODFW (Oregon Department of Fish and Wildlife). (2018). Mule deer management objective. https://www.dfw.state.or.us/resources/hunting/big_game/controlled_hunts/docs/hunt_statistics/18/Mule_Deer_2014-18.pdf.

- ODFW (Oregon Department of Fish and Wildlife). (2019a). Cougar target areas.

 https://www.dfw.state
 .or.us/resources/hunting/big game/cougar/map.asp
- ODFW (Oregon Department of Fish and Wildlife). (2019b). *Oregon wolf conservation and management plan.* https://www.dfw.state.or.us/Wolves/docs/2019_Oregon_Wolf_Plan.pdf
- ODFW (Oregon Department of Fish and Wildlife). (2020). Roosevelt elk. https://myodfw.com/big-game-hunting/species/roosevelt-elk.
- OreCat (Oregon Cougar Action Team). (2020). https://orecat.org/
- ORS 496.012. (2017a). OregonLaws.org. 12(496.012). Is the policy of the State of Oregon that wildlife shall be managed to prevent serious depletion of any indigenous species and to provide the optimum recreational and aesthetic benefits for the present and future generations of the citizens of this state. https://www.oregonlaws.org/ors/496.012
- ORS 498.012. (2017b). OregonLaws.org. 12(498.012). *Taking wildlife causing damage, posing public health risk or that is public nuisance*. https://www.oregonlaws.org/ors/498.012
- ORS 498.164. (2017c). OregonLaws.org 12(498.164). *Use of dogs or bait to hunt black bears or cougars*. https://www.oregonlaws.org/ors/498.164
- Ostfeld, R., Keesing, F., & Eviner, V. T. (2008). *Infectious diseases ecology: Effects of ecosystems on diseases and of diseases on ecosystems*. Princeton University Press, Princeton, NJ. https://doi.org/10.1186/1756-3305-1-28
- Ostfeld, R. (2012). Lyme disease: Ecology of a complex system. Oxford Press, New York, NY.
- Panthera. (2020). Puma. *Global conservation organization researching and conserving the world's 40 wildcat species*. https://www.panthera.org/cat/puma
- Patz, J.A., Confalonieri, E.C., Amerasinghe, F.P., Chua, K.B., Daszak, P., Hyatt, A.D.,
 Molyneux, D., Thomson, M., Yameogo, L., Lazaro, M.M., Vasconcelos, P., Rubio-Palis, Y.,
 Campbell-Lendrum, D., Jaenisch, T., Mahamat, H., Mutero, C., Walter-Toews, D., &
 Whiteman, C. (2005). Human health: Ecosystem regulation of infectious diseases. In R.
 Hassan, R. Sholes, & N. Ash (Eds.), *Ecosystems and human well-being: current state and trends volume 1* (pp. 391-415). Island Press, Washington, D.C.
 http://www.millenniumassessment.org/documents/document.283.aspx.pdf
- Peebles, K. A. Wielgus, R. B., Maletzke, B. T., & Swanson, M. E. (2013). Effects of remedial sports hunting on cougar complaints and livestock depredations. *Washington State*

- University, Department of Natural Resources. PloS One2013: 8(11): e79713. doi: 10.1371/journal.pone.0079713 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3834330/
- Perry, D. A., Oren, R., & Hart, S. C. (2008). *Forest ecosystems*. (2nd ed.). The John Hopkins University Press, Baltimore, MD.
- Porter, W., & Clerk, H. R. (1849). Animal bounty bill 1849. *Document 3645, Oregon Archives*. https://sos.oregon.gov/archives/exhibits/echoes/Pages/animal-bounty.aspx
- Responsive Management. (2019). Washington State Fish and Wildlife survey, and requested Oregon Stare cougar survey. *Responsive Management International survey research firm*. https://responsivemanagement.com/
- Ripple, W. J., & Beschta, R. L. (2005). Linking wolves and plants: Aldo Leopold on trophic cascades. *BioScience*, *55*(7), 613–621. https://doi.org/10.1641/0006-3568(2005)055[0613:LWAPAL]2.0.CO;2
- Ripple, W.J., & Beschta, R.L. (2008). Trophic cascades involving cougar, mule deer, and black oaks in Yosemite National Park. *Biological Conservation*, 141 (2008) 1249-1256. http://users.wfu.edu/silmanmr/bio377/assignments/Readings/trophic.cascades/ripple&bescht a.yosemite.biocons08.pdf
- Rivas, A. R., & Burghardt, G. M. (2001) Understanding sexual size dimorphism in snakes: Wearing the snake's shoes. *Animal Behavior*, .62(3), F1-F6. https://doi.org/10.1006/anbe.2001.1755
- Runyan, D. (2009). Fishing, hunting, wildlife viewing, and shellfishing in Oregon. 2008 State and County Expenditure Estimates.
 - https://www.dfw.state.or.us/agency/docs/Report 5 6 09--Final%20(2).pdf
- Ruth, T. K., Buotte, P. C., & Hornocker, M. G. (2019). *Yellowstone cougars: Ecology before and during wolf restoration*. University Press of Colorado, Louisville, CO.
- Sabana Films P-22. (2017). The California cougar that changed America. https://thecatthatchangedamerica.com/press/
- Schumann, M. (2004). Guide to integrated livestock and predator management p. 4. *Adopted* from Cheetah Conservation Fund/RISE-Namibia Communal Conservancy Shepard Training Course. https://cheetah.org/resource-library/guide-to-integrated-livestock-and-predator-management/

- Shaw, H. (1994). Soul among lions: *The cougar as peaceful adversary*. University of Arizona Press.
- Shivik, J. A. (2014). *The predator paradox, ending the war with wolves, bears, cougars and coyotes*. Beacon Press Books. Boston, MA.
- Sigal, L. H. (1996). The Lyme disease controversy: Social and financial costs of misdiagnosis and mismanagement. *Archives of Internal Medicine*, *156*(14), 1493-1500. https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/622189
- Swei, A., Ostfeld, R. S., Lane, R. S., & Briggs, C. J. (2011). Effects of an invasive forest pathogen on abundance of ticks and their vertebrate hosts in a California Lyme disease focus. *Oecologia*, *166*, 91-100. https://doi.org/10.1007/s00442-010-1796-9
- Tietenberg, T., & Lewis, L. (2016). *Environmental and natural resource economics*. (10TH Ed.). Routlede, New York, NY.
- United States Department of Agriculture. (2018). *Oregon agriculture facts & figures*.

 https://www.nass.usda.gov/Statistics_by_State/Oregon/Publications/facts_and_figures/facts_and_figures.pdf
- U.S. Department of Interior. (2017). New five-year report shows 101.6 million Americans participated in hunting, fishing, & wildlife activities. *U.S. Fish and Wildlife survey press release findings*. https://www.doi.gov/pressreleases/new-5-year-report-shows-1016-million-americans-participated-hunting-fishing-wildlife
- U.S. Fish & Wildlife Services. (2014, April 25). Cold *Springs Wildlife Refuge: Rocky Mountain Elk.* https://www.fws.gov/refuge/Cold_Springs/Wildlife_Habitat/Elk.html
- U.S. Fish and Wildlife Services. (2006). Wildlife watching in the U.S.: The economic impacts on national and state economies in 2006.
 - https://www.fws.gov/uploadedFiles/nat_survey2006_economics.pdf
- Velasquez-Manoff, M. (2016, August 20). A natural cure for Lyme disease. *New York Times*, SR9. https://www.nytimes.com/2016/08/21/opinion/sunday/a-natural-cure-for-lyme-disease.html
- Vermont Fish and Wildlife. (2020). Moose season recommendation.

 https://vtfishandwildlife.com/hunt/hunting-and-trapping-opportunities/moose/2020-moose-season-recommendation

- Waddell, L., Greig, J., Mascarenhas, M. Otten, A., Corrin, T., & Hierlihy, K. (2017). Current evidence supporting the transmissibility of chronic wasting disease prions to humans: A systematic review. *Transbounding and emerging disease*, 65, 37-49. https://doi.org/10.1111/tbed.12612
- Washington Department of Fish and Wildlife. (2020). *Game management plan*. https://wdfw.wa.gov/sites/default/fils/publications/01676/wdfw01676.pdf
- Weber, J. (2020). Tick check: Reports of Lyme disease in Oregon. https://www.tickcheck.com/stats/state/oregon/lyme
- Wielgus, R. B. (2010). Review of ODFW cougar management plan. https://orecat.org/dr wielguss cougar peer review
- Wielgus, R. B. (2019). Oregon State Legislature House Committee on Natural Resources public hearing testimonies. *Natural Resources House Committee Hearing responsible for policy and management of Oregon's cougars*. Salem, OR. https://olis.leg.state.or.us/liz/2019R1/Downloads/CommitteeMeetingDocument/161825
- Wilmer, C. (2018, Fall Term). *The physiology, behavior, and indirect effects of large predators in a human dominated world*. Seminar presented at the Environmental Studies Department, University of California, Santa Cruz, CA.
- Young, S. P., & Goldman, E. A. (1946). *The puma: Mysterious American cat*. The American Wildlife Institute. Washington, D.C.
- Zhang, X., Meltzer, M. I., Peña, C. A., Hopkins, A. B., Wroth, L., & Fix, A. D. (2006). Economic Impact of Lyme Disease. *Emerging Infectious Diseases*, 12(4), 653-660 10.3201/eid1204.050602

Appendix

Table 1
State Cougar Management Plan Word Comparisons, California, Washington, Oregon.

THE THREE PILLARS	Cougar Management Plan CALIFORNIA* Ecocentric	Cougar Management Plan WASHINGTON Homocentric	Cougar Management Plan OREGON Egocentric
SOCIAL			
Public		163	151
Public Safety		11	7
Coexisting		28	0
Education		193	27
ECOSYSTEM			
Ecology		57	48
Conservation		17	24
Ungulate		2	67
Elk		5	344
Deer		43	352
Cougar		1130	2680
ECONOMIC			
Damage		1	271
Livestock		83	200
Hunting		39	350
Cattle		2	6
Cattlemen's Association		16	0

^{*}Note: Since 1972, there has been no funding for hunting cougar in California, and there is no cougar management plan. In place of hunting and a plan, is a statewide effort to understand the cougar. University involvement includes extensive research by Dr. Seth Riley who is a National Park Service urban wildlife expert for Griffin Park and Ventura County. The famous L.A. cougar P22 is part of his study area. U.C. Davis Dr. Winston Victors manages the Santa Monica cougar research project. Dr. Chris W. Wilmers operates the Orange County San Diego cougar research lab at the University of California, Santa Cruz.

Source: ODFW, 2017a; WDFW, 2020, CDWF, 2020.

Table 2

Oregon "conflict" and California "incident" cougar public safety comparisons.^a

California Cougar <i>Incident</i> describes encounters with cougars Between the years: 2009-2013 ^b	Cougar Incident 739	Public Safety Kills 20
Oregon Cougar <i>Conflict</i> describes encounters with cougars Between the years: 2009-2013 ^c	Cougar Conflict 2189	Public Safety Kills 149

These comparative stats indicate that killing more cougar creates more human and livestock safety threats. In comparison to Oregon, California's lack of a cougar management plan and ban on killing cougar has reduced incident and public safety issues and their management expense. California is a larger state with more livestock, people, and wildlife than Oregon, yet they have fewer issues with cougar. Words help create public perspectives and opinions and the words "incident" and "conflict" are used to describe a cougar encounter in completely different contexts. Conflict is described as a clash of interests and a loss of harmony, whereas incident indicates a chance occurrence, event, or episode.

Source:

- bhttps://www.wildlife.ca.gov/Conservation/Mammals/Mountain-Lion/Trends
- ^c ODFW 2017a, p. 23; https://www.dfw.state.or.us/wildlife/cougar/docs/2017_Oregon_Cougar_Management_Plan.pdf

ODFW statistician Dr. Richardson held a public forum in Corvallis, Oregon, where he informed the audience that ODFW stats indicate kittens dispersing from their parent were not the conflict cougars. It was the orphaned kittens that were the conflict issues. Hunting, policy, and shoot-and-shovel create large populations of orphaned cougar kittens (ODFW, 2005b).

Table 3
What are the risks or the benefits of living with, or without cougar and their effects on Lyme disease?

Risks	Lyme Exposure	Social well-being	Economic decline	Ecosystem decline
Cougar	Low	High	Low	Low
No	High	Low	High	High
Cougar				

Figure 1

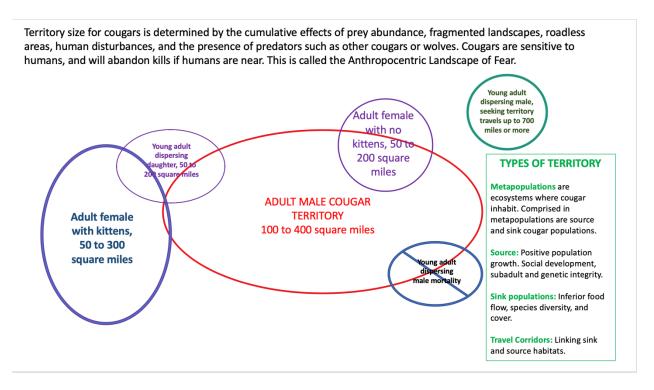
Petroglyphs of cougar hunting with humans.



Source: (National Park Service 2020).

Figure 2

Cougar Territory Size.



Source: (Beck, et al., 2005).

Figure 3

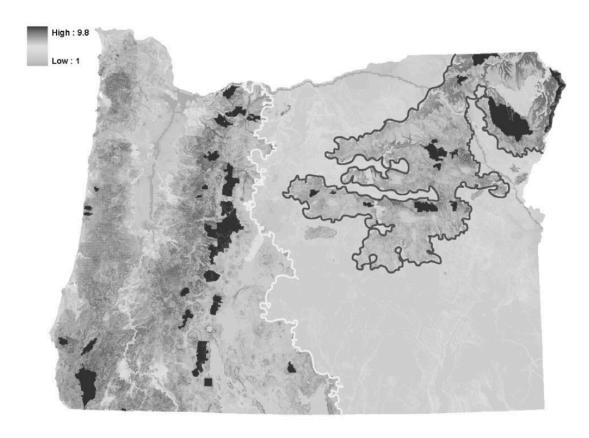
Current and historic cougar range across North America.



Source: www.Panthera.org.

Figure 4

Cougar habitat in Oregon.

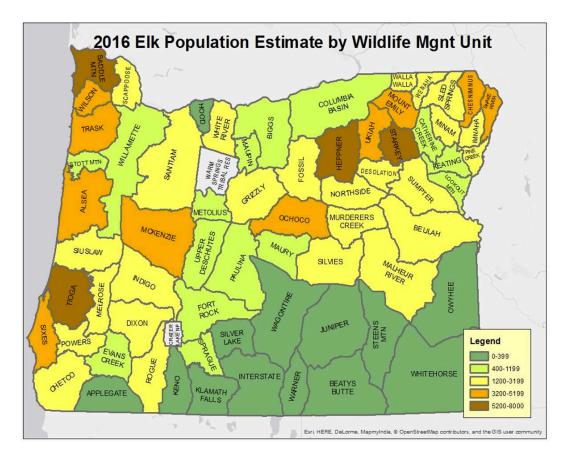


Habitat variables do not include human density, major roadways, lost forest cover, and reduced wilderness areas. Darker areas designate more suitable cougar habitats whereas lighter areas are less suitable habitats.

Source: (ODFW, 2017).

Figure 5

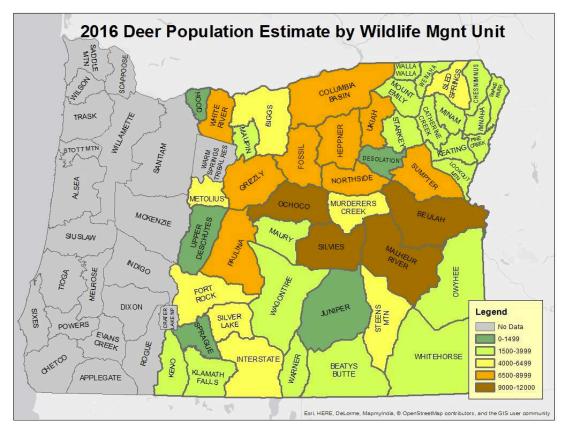
Elk population estimates in Oregon, by wildlife management unit.



Source: (ODFW, 2016).

Figure 6

Mule deer population estimates in eastern Oregon, by management unit.

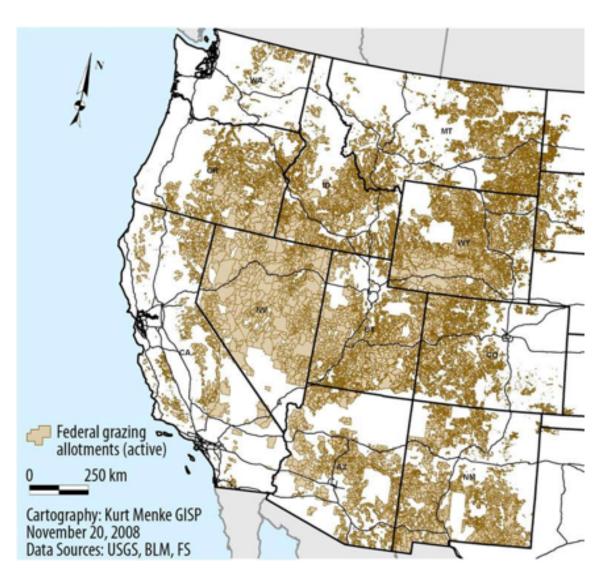


Black-tail deer estimates are not available for westside units.

Source: (ODFW, 2016).

Figure 7

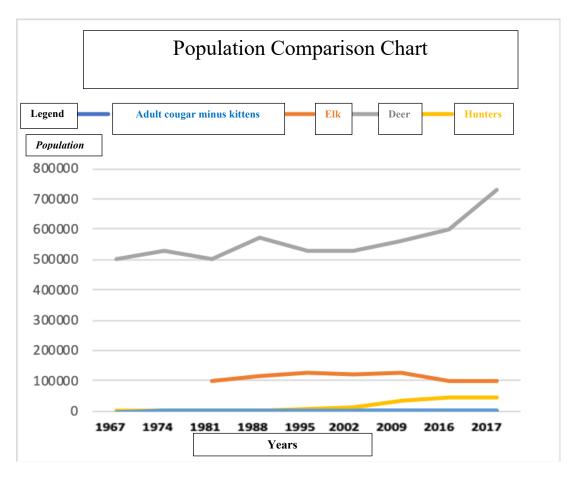
Federal grazing allotments in the western United States.



Source: (Beschta et al., 2012).

Figure 8

Populations of cougar, deer, elk and hunters in Oregon.



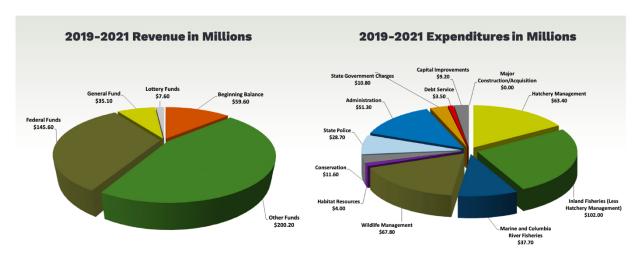
Source: (ODFW, 1987; ODFW, 2006; ODFWa, 2017).

Figure 9

ODFW 2019-2021 Legislatively Adopted Budget.

2019-2021 Legislatively Adopted Budget

	2017-2019 Legislatively Approved	2019-2021 Legislatively Adopted Budget
General Fund	\$ 29,458,285	\$ 35,094,508
Lottery Funds	\$ 5,326,259	\$ 7,621,405
Other Funds	\$ 193,825,411	\$ 202,770,148
Federal Funds	\$ 135,922,685	\$ 144,438,993
Total Funds	\$ 364,532,640	\$ 389,925,054
Positions	1,375	1,357
Full Time Equivalent	1,154.05	1,154.69



Revenue	Expenditures	Balance
\$ 448,142,851	\$ 389,925,054	\$ 58,217,797

Source: ODFW 2019-2021 Legislatively Adopted Budget.

https://www.dfw.state.or.us/agency/budget/docs/19 21 GB/Budget%20backgrounders ODFW%20Budget%20summary.pdf

Figure 10

The domestication of cougar kittens.

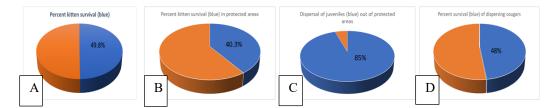


Cougar, if taken young enough from the wild can be immediately domesticated, as indicated in these two 1940 photos taken in Oregon. Cougar kittens taken from the wild are exposed to traumatic experiences and can be sold on wildlife black markets.

Source: (Young et al., 1946, p.p. 79, 156; Bradshaw, 2018).

Figure 11

Dr. John Laundre Cougar Kittens Survival Rate Graphs.



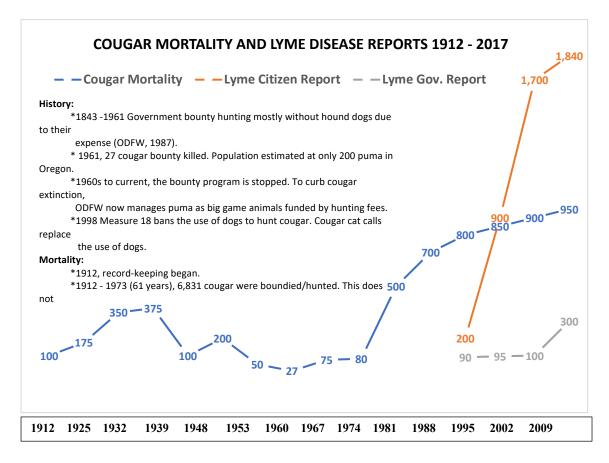
- A On average across the Western states, about 50% of the kittens born do not reach dispersal age. The range is from as high as 71.5% to a low of 21%. Three of the studies in Figure A come from protected cougar populations (no sport hunt). They include one from California, one from New Mexico and one from Yellowstone National Park. These can be considered to be stable populations (that is could be considered to be at carrying capacity). On average, the kitten survival is 40.3% or almost 60% of the kittens born in a saturated population (which ODFW says Oregon is approaching), will not reach dispersal age. ODFW is literally counting dead kittens (or soon to be) in their total population estimate
- B Of kittens that do reach dispersal age (40-50% of those born), 85% of those (90% males and 80% females) disperse from their natal area and thus should NOT BE COUNTED in the total population for that area.
- C Of those that do disperse out of their natal area, almost 50% of them die within the first year after dispersing. This includes six studies from hunted and protected areas. In hunted areas, many of these dispersers are killed by hunters. However, hunters are actually killing "dead cougars walking" as they would probably die anyway!
- D Of those that survive, 50% of 50% or 25%, replace those adults that would normally die. Average overall survival rate of adult cougars (male and female) in protected and unprotected areas is 79% but has been reported as low as 50%. Primary causes of non-hunting deaths are disease, interactions with other cougars, and accidents.

The conclusions to be drawn for these data from all these studies is that the ODFW estimate of the total cougar population (including resident adults, kittens, and dispersing animals) consists of approximately 50% of combined kittens and dispersing animals, 75% of which will die before becoming part of the resident population. The other 25% will basically replace normal losses of adult resident ones. As with other game animals, these expected losses should not be counted or reported as part of the actual number of cougars that are in Oregon. Based on the science, there is no reason to think that cougar populations are acting any different than any other predator population and are internally controlled by prey availability and social structure.

Source: (Laundre, 2018b, quoted).

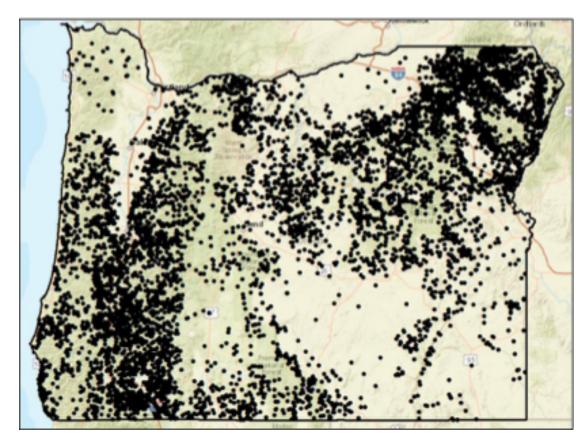
Figure 12

Cougar mortality and Lyme disease reports for 1912-2017.



Source: (ODFW, 1987; ODFW, 2007; ODFWa, 2017).

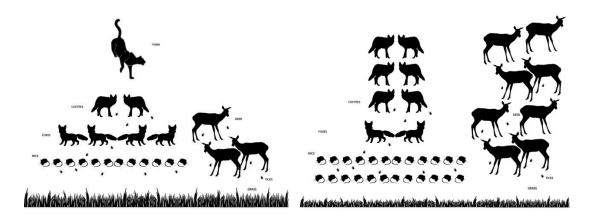




Source: (ODFW, 2017c).

Figure 14

Cougar's regulating controls.



In the left panel, cougar predation reduces the population of tick vectors, deer, and mice. Doing so, decreases the numbers of vectors, disrupt the tick's life cycle, and limits food sources, thus reducing human exposure to infected Lyme disease ticks. The right panel indicates an ecosystem void of cougar's mediating effects. In this scenario, deer and mesopredator populations such as coyote increase and so do the tick's reproductive cycles and access to food. This suggests that human risk for Lyme disease may be higher in ecosystems void of cougar.

Source: (Kennerknecht, 2014).

Figure 15
Winter tick infestation decreases Moose populations.



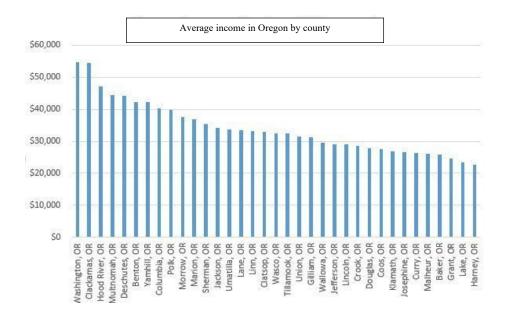


A three-year study of moose in Vermont indicated that chronic high winter tick loads caused their health to be very poor, with about half of moose calves dying each winter, primarily due to heavy winter tick loads.

Source: (VFW, 2020).

Figure 16

Oregon's average income by county.



Source: (Mack, 2019).

Figure 17

Potential Cougar Valuations.

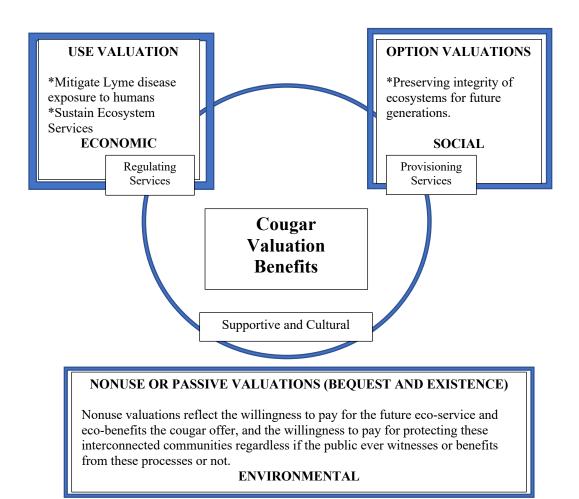
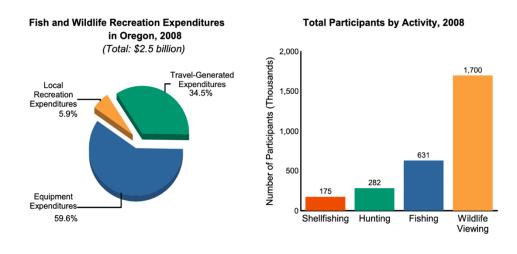


Figure 18

Estimated expenditures for fishing, hunting, wildlife viewing, and shellfishing in Oregon.

Total	(in thousands)
Participants in Oregon	2,788
Trips in Oregon	21,163
Travel-Generated Expenditures	\$862,188
Local Recreation Expenditures	\$146,908
Equipment Expenditures	\$1,486,932



Page 6 Dean Runyan Associates

Source: (Runyan, 2009).

Figure 19

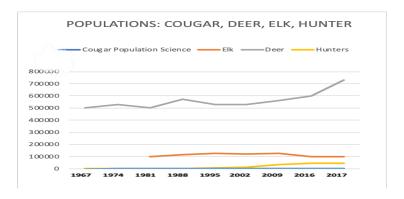
Cougar target zones (areas in red hatching) identified by Oregon Department of Fish and Wildlife (ODFW).



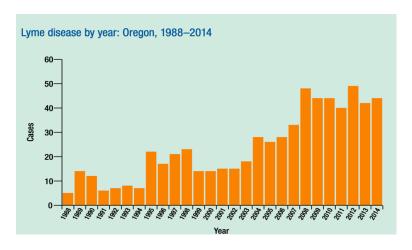
Source: (ODFW, 2019a).

Figure 20

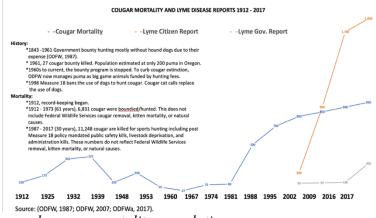
Population correlations in Oregon of Lyme disease, cougar mortality, and deer from 1912 - 2017.



A. Deer population numbers increased between 1967 and 2017.



B. Increased Lyme disease reporting.

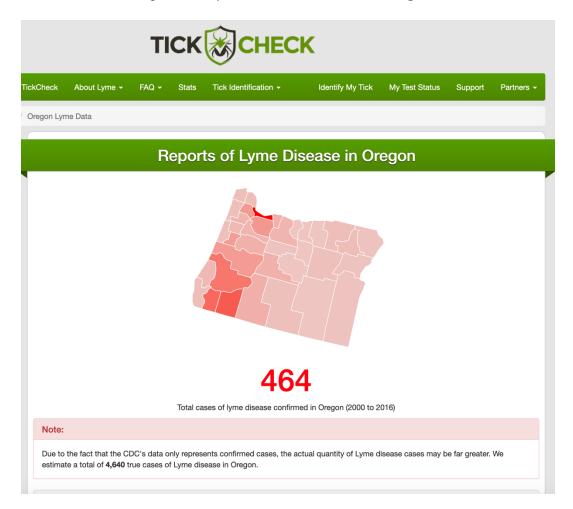


C. Lyme disease and cougar mortality correlations.

Source: (ODFW 1987; ODFW 2007; ODFW, 2017a).

Figure 21

2016 Tick Check website reports on Lyme disease outbreaks in Oregon counties.



Between 2000 and 2016, Oregon governmental health and insurance regulators recognized approximately 464 Lyme disease cases. Researchers believe Lyme disease cases may be closer to 4,640 in Oregon. Cougar harvest zones closely correlate with areas of Lyme disease cases.

Source: (Hilton, 2014; Committee on Health Care, 2015; Weber, 2020).

Figure 22

2011 legislative draft of License To Protect (LTP).

DRAFT

SUMMARY

Requires Stateadsrre and Wildlife Commission to provide means for persons to make voluntary contributions to be used for programs that promote livestock safety and wildlife protection.

Establishes Oregonians for Wildlife and Livestock Safety Subaccount in Fish and Wildlife Account.

A BILL FOR AN ACT

Relating to the State Fish and Wildlife Commission; creating new provisions; and amending ORS 496.303.

Be It Enacted by the People of the State of Oregon:

SECTION 1. (1) The State Fish and Wildlife Commission shall provide a means for persons to make voluntary contributions to be used for outreach and educational programs that promote livestock safety and wildlife protection.

(2) The commission shall seek voluntary contributions in conjunction with the sale of licenses, tags and permits and by such other means as the commission considers appropriate. The commission shall establish a means by which persons who do not hunt wildlife but who desire to support the programs described in subsection (1) of this section may make voluntary contributions.

(3) If the commission implements an electronic licensing system, the commission shall include in that system a means for persons to make voluntary contributions to support the programs described in subsection (1) of this section.

LZCTION 2. ORS 496.303 is amended to read:

496.303. (1) The Fish and Wildlife Account is established in the State

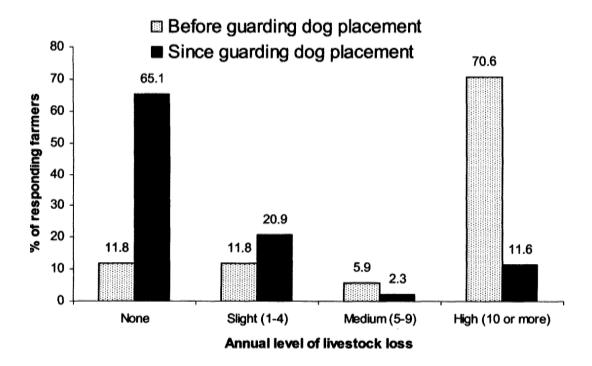
NOTE: Matter in boldfaced type in an amended section is new; matter [italic and bracketed] is existing law to be omitted. New sections are in boldfaced type.

LTP was designed by a grass roots nongovernmental not for profit Oregon Cougar Action Team to help connect rural and urban responsibility and funding for protecting Oregon's cougar. This policy effort was to ensure equitable citizen investment, and understanding of living with Oregon's cougar.

Source: (OreCat, 2020).

Figure 23

Effects of guardian dogs on livestock loss in Namibia.



Source: (Namibia, 1995; Marker et al., 2004).

Figure 24

OreCat's Great Pyrenees/Maremma guardian dog program helps reduce livestock losses from predators.



Oregon small subsistence farmer is awarded a livestock guardian puppy.

Source: (OreCat, 2020).

Figure 25

OreCat public cougar education presentation.



Oregon Cougar Action Team members offer free public cougar presentations throughout Oregon.

Source: (OreCat, 2020).