

Agenda Item 05 - Written Public Comments

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From: Craig Mackie beachbum@nehalemtel.net
Subject: Public Comment about Cougar Resolution
Date: November 17, 2020 at 1:38 PM
To: kvalness@oda.state.or.us

CM

It seems like we are digressing into the days that all predators were hunt to extinction just so farmers would have an easy time raising their livestock. Cougars, wolves, and bears all play an important part in balancing our environment. Right now there is a huge overabundance of coyotes. Coyotes are invading cities and preying on cats and small dogs. Packs of them are seen in neighborhoods in Portland doing just that. If we had a healthy population of wolves and cougars, this would not be happening. I am sure farmers are having their problems with coyotes but right now they are focusing on wolves and cougars to eliminate cause they are blaming their livestock deaths on them. Life is always a give and take with what we want and what we would rather do without. But what we might not want in our lives, other people (or animals) would rather have around, so we need to work together to find solutions that everyone can live with. Please do not support the killing of our cougars that play an important part in our ecosystems.

Craig Mackie
Nehalem, OR

From: David Drouin dddrouin@gmail.com
Subject: Cougar Management Plan
Date: November 17, 2020 at 1:45 PM
To: kvalness@oda.state.or.us



DD

Hi Karla,

I recently learned that the Oregon Board of Agriculture is considering a resolution that supports the Cougar Management Plan because of the “threat that cougar predation poses to the livestock industry in Oregon.”

Data tells us that cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. And, when seldom conflicts that do occur, the overwhelming majority can be prevented with simple, non-lethal precautions like penning livestock at night and installing noise and light devices that deter cougars from an area.

It seems that the resolution creates unnecessary fear in ranchers and farmers, and also overlooks an opportunity to support meaningful and proactive prevention of livestock depredation from cougars and other wildlife.

As an Oregon resident that cares both about wildlife and the livelihoods of rancher, I am asking the Board to *not* pass this resolution. Instead, they should pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock.

I am asking the Board to base their decision on data and science, and not perpetuate divides in our community.

Thank you for your time,
David Drouin

From: Jeannie Peterson jeanniejots@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 17, 2020 at 1:45 PM
To: kvalness@oda.state.or.us



Please do not pass the resolution that supports the Cougar Management Plan. This resolution is all about cougar predation posed to the livestock industry in Oregon. We know from state and federal records that this predation just isn't factual. Cougars are responsible for **less than 1%** of livestock mortality.

Of those few deaths that do occur, the overwhelming majority can be prevented with simple, non-lethal precautions such as penning livestock at night and installing noise and light devices that deter cougars from an area.

The best available science tells us that the indiscriminate killing of cougars **increases** livestock predation. Increases it. Not reducing it.

This resolution is inaccurate and perpetuates misguided myths and instills unnecessary fear in ranchers and farmers. And it overlooks an opportunity to support meaningful and proactive prevention of livestock deaths.

Please do not pass this resolution. Thank you for your time and attention.

Jeannie Peterson
Creswell, OR

From: Deb Foster dfosterpta@yahoo.com
Subject: Public Comment about Cougar Resolution
Date: November 17, 2020 at 2:01 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness,

I'm writing to ask you not to pass the Cougar Management Plan. Too often we resort to killing wild animals that we view as detrimental to our financial well-being instead of finding non-lethal solutions. In this particular scenario, state and federal records show that cougars are responsible for less than 1% of livestock mortality in Oregon ("Domestic sheep were the only domestic livestock killed by cougars during our study, but this was rare[<0.5% of all kills]."The Journal of Wildlife Management 78(7):1161–1176; 2014; DOI: 10.1002/jwmg.760). There are other options to control the small number of occurrences, like keeping livestock penned at night and/or installing noise and light devices to deter cougars. Indiscriminate killing of our wildlife in Oregon should never be the answer. The resolution is misguided. Lets find meaningful and proactive prevention measures instead of perpetuating a myth. Here in Oregon we cherish our wild lands and wildlife. Cougars have a place in our state and a right to life just like we have, and we need to find a way to live with them, not kill them. Especially when their purported threat to livestock is so grossly exaggerated. Please pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective and reactive resolution that provides no solution for Oregonians and is scientifically unsound.

With utmost sincerity,

Debra Foster
Clackamas County

From: Jen Wolfsong jenw@wolfsonglaw.com
Subject: Public Comment re: Cougar Resolution
Date: November 17, 2020 at 2:03 PM
To: kvalness@oda.state.or.us

JW

Dear Ms. Valness,

I am writing to urge the Oregon Board of Agriculture to not pass the resolution supporting the Cougar Management Plan because cougar predation does not pose a threat to the livestock industry. Rather cougars are responsible for less than 1% of livestock losses. We urge the Oregon Board of Agriculture to follow the facts and to support non-lethal strategies rather than the current resolution that clings to outdated and ineffective ways of dealing with cougar/ livestock conflict. Thank you very much for your consideration.

Kindly,

Jen

Black Lives Matter

****Although Washington County has entered Phase 1 reopening, we continue to work from home on most days. Response times may be slower than usual. Thank you for your ongoing patience as we continue to adjust to this unique time.**

Jennifer Wolfsong, Attorney

9900 SW Wilshire St., Suite 100 | Portland OR 97225

Phone: (503) 616-8880 | Email: jenw@wolfsonglaw.com | Website: www.wolfsonglaw.com



For more information about our firm, or about attorney Jennifer Wolfsong, please visit our website at www.wolfsonglaw.com.

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From: Sandy Kuhns sandy.kuhns@comcast.net
Subject: Public comment about Cougar resolution
Date: November 17, 2020 at 2:12 PM
To: kvalness@oda.state.or.us



Please do not pass this resolution.. Instead, consider passing a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective and reactive resolution that provides no solution for Oregonians and Cougars.

Thankyou Sandy Kuhns Corvallis

Sent from my iPad

From: Andrea andreasher_2@yahoo.com
Subject: Public Comment about Cougar Resolution
Date: November 17, 2020 at 2:29 PM
To: kvalness@oda.state.or.us



To whom it may concern,

I am writing to urge you to NOT pass the resolution that supports the Cougar Management Plan.

Cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. Less than 1%! There are proven, non-lethal measures ranchers can take to prevent wildlife conflicts.

The random killing of cougars contradicts that fact that scientists have stated over and over again that indiscriminate killing of cougars INCREASES complaints, and does nothing to eliminate the small number of cougar related livestock deaths.

To best serve Oregon's wildlife, I urge you to pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective method that kills cougars under a false premise.

Again, please do not support the proposed Cougar Management Plan.

Thank you
Andrea

Un-chain a dog today!
www.fencesfordo.org

From: Shannon shannonhunter11@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 17, 2020 at 3:04 PM
To: kvalness@oda.state.or.us



Cougars are responsible for less than 1% of unwanted livestock mortality in Oregon and should not be "managed" (killed) with this excuse (or for any other). There are many other *nonlethal* ways that can help prevent the very minimal amount of conflicts that do occur between livestock and cougars, including penning livestock at night or even installing noise and light devices that will deter cougars from an area.

Killing cougars is NOT the answer to this issue - please do not use public funds or any other funds to kill them as there is not a threat that warrants it.

Thank you,

Shannon Hunter
Oregon Resident

From: Nina babunina10@mind.net
Subject: Cougars
Date: November 17, 2020 at 3:13 PM
To: kvalness@oda.state.or.us



I serious request that non-lethal methods be used to alienate cougars from livestock such as lights, noise, flags tied to wire fences, and other methods. Cougars are part of the natural system of things, and it is time for us humans to understand that we are upsetting nature's balances. Cougars were created by nature for reasons. Perhaps beyond human understanding. We see today how our wildlife are going extinct, and climate change is intensifying, all due to human activity. Directions must change where we learn to respect our precious earth and not take it for granted.
Resident of Southern Oregon

From: Hillary Tiefer hillarytiefer@hotmail.com
Subject: Cougar Management Plan
Date: November 17, 2020 at 3:18 PM
To: kvalness@oda.state.or.us

HT

Karla Valness
Oregon Board of Agriculture

Dear Ms. Valness,

I am against the resolution that supports a "Cougar Management Plan," which apparently supports the killing of cougars. Ostensibly the management plan has to do with protecting livestock. However according to The Humane Society of the United States,

"... cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. Of the few conflicts that do occur, the overwhelming majority can be prevented with simple, non-lethal precautions like penning livestock at night and installing noise and light devices that deter cougars from an area. Further, the best available science tells us that indiscriminate killing of cougars increases complaints and livestock depredation, not reduces it.

What's more, not only is this resolution inaccurate and perpetuates misguided myths and instills unnecessary fear in ranchers and farmers, it also overlooks an opportunity to support meaningful and proactive prevention of livestock depredation from cougars and other wildlife."

Since there is substantial proof that cougars do not pose a serious threat to livestock and that there are non-lethal ways in which to protect livestock from cougars I am inclined to believe that the motivation--at least in part--is to make the hunting and killing of cougars legalized for other reasons. I believe that there is a desire to enjoy the hunt as a blood sport. I have never been able to understand how people can obtain pleasure from inflicting pain and killing other living creatures--to do so as recreation. I wish in my life time that I could witness a greater respect for wildlife in general and for cougars specifically. So many species have already gone extinct because of human selfishness.

We need to respect nature and find ways to live with it.

Sincerely,

Hillary Tiefer, PhD

From: michelle johnson mjohnson58@verizon.net
Subject: cougar resolution
Date: November 17, 2020 at 3:28 PM
To: kvalness@oda.state.or.us



Hello,

I am writing to urge your department not to issue a resolution supporting the Cougar Management Plan. This is deemed scientifically unnecessary. Instead your support should go to non-lethal methods of managing the wildlife program. Indiscriminate killing of wildlife should never be a government policy.

Thank you,

Michelle Johnson
8555 N Calhoun Ave
Portland, OR 97203

From: Debra Merskin dmerskin@uoregon.edu
Subject: Oppose Proposed Resolution
Date: November 17, 2020 at 3:40 PM
To: kvalness@oda.state.or.us

DM

Dear Karla,

I am emailing in strong opposition to the proposed resolution re: cougars. Less than 1% of livestock mortality in Oregon is caused by cougars. Indiscriminate killing of cougars increases complaints and livestock depredation, it doesn't reduce it. Therefore I oppose the proposed resolution and support a resolution that promotes non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective, reactive, and scientifically unsound resolution that provides no solution for Oregonians.

Thank you so much,

Debra

Debra Merskin, Ph.D.
Professor
School of Journalism & Communication
University of Oregon
Eugene, OR 97403
T 541.346.4189
E dmerskin@uoregon.edu
Website: animalsandmedia.org

Pronouns: she/her/hers

From: miaya miaya@aol.com
Subject: Public comment Cougar Resolution
Date: November 17, 2020 at 4:11 PM
To: kvalness@oda.state.or.us



Dear Board Members,

This resolution is no solution and is an inaccurate and perpetuates misguided myths and instills unnecessary fear in ranchers, farmers and the public, it also overlooks an opportunity to support meaningful and proactive prevention of livestock depredation from cougars and other wildlife.

Humanity can do better and we can all live on this planet together. Humanity must stop seeing itself as the only thing that matters. All life and all creatures matter. Please save the lives of Oregon Cougars.

Sincerely
H. M. Sustaita

From: Brad Nahill turtlevols@hotmail.com
Subject: Oregon Cougar Management Plan comment
Date: November 17, 2020 at 4:22 PM
To: kvalness@oda.state.or.us



Hello,

I strongly oppose the proposed change to the state's cougar management plan. Less than 1% of livestock mortality in OR are caused by cougars. As well, indiscriminate killing of cougars increases complaints & livestock depredation, not reduces it.

I oppose the proposed resolution and support a resolution that promotes non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective, reactive, & scientifically unsound resolution that provides no solution for Oregonians.

Brad Nahill
Portland OR

From: Wendy Schumer wendyschumer@gmail.com
Subject: Public Comment about Cougar Resolution.
Date: November 17, 2020 at 4:28 PM
To: kvalness@oda.state.or.us

WS

Oregon Board of Agriculture is considering a resolution that supports the Cougar Management Plan because of the “threat that cougar predation poses to the livestock industry in Oregon.” Yet, we know from state and federal records that this just isn’t factual.

In truth, cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. Of the few conflicts that do occur, the overwhelming majority can be prevented with simple, non-lethal precautions like penning livestock at night and installing noise and light devices that deter cougars from an area. Further, the best available science tells us that indiscriminate killing of cougars increases complaints and livestock depredation, not reduces it.

What’s more, not only is this resolution inaccurate and perpetuates misguided myths and instills unnecessary fear in ranchers and farmers, it also overlooks an opportunity to support meaningful and proactive prevention of livestock depredation from cougars and other wildlife.

Please do not pass this resolution. Instead, pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective and reactive resolution that provides no solution for Oregonians and that is also scientifically unsound.

Thank You
Wendy Schumer
Portland, OR

From: Phil Garfinkel phil.garfinkel@gmail.com
Subject: Comment about Cougar resolution
Date: November 17, 2020 at 4:34 PM
To: kvalness@oda.state.or.us



Hello Karla,

Please do not pass the Cougar Management plan; instead please pass a resolution that uses non-lethal strategies and protects these apex predators. Thank you

Phil Garfinkel, Portland

--

Phil Garfinkel
Pro Audio/Artist Relations Specialist
503-799-1789

From: Beatrice Shapiro beatrice@kindadv.com
Subject: Oregon Cougar Management Plan
Date: November 17, 2020 at 5:08 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness:

I am writing to express my very strong opposition to the proposed resolution in support of the Oregon Cougar Management Plan. I urge you and everyone at ODA to **please support non-lethal strategies** to prevent predation. Less than 1% of livestock mortality in Oregon is caused by cougars and past efforts have proven that killing cougars actually *increases* complaints and livestock deaths.

I hope that the ODA will consider the facts and the science, as well as the rights of all creatures whom we share this ecosystem with.

Thank you so much,
Beatrice Shapiro

7374 Forest Ridge Rd. NE
Silverton, OR 97381
503-302-1070

From: Philip Mandel phmand@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 17, 2020 at 5:17 PM
To: kvalness@oda.state.or.us



To Whom it May Concern:

The Oregon Board of Agriculture is considering a resolution that supports the Cougar Management Plan because of the “threat that cougar predation poses to the livestock industry in Oregon.” Yet we know from state and federal records that this may not be entirely factual.

I am writing to ask the Board NOT to pass this resolution. Instead, it should pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective and reactive resolution that provides no solution for Oregonians and that is scientifically unsound.

Thank you for your consideration.

Respectfully

Philip Mandel
Concerned Citizen
6135 SW Erickson Ave
Beaverton OR 97008

From: Yahoo judeemoonbeam@yahoo.com
Subject: Regarding: Public Comment about Cougar Resolution
Date: November 17, 2020 at 5:28 PM
To: kvalness@oda.state.or.us



Hello Karla,

This email is regarding Oregon Board of Agriculture's consideration of a resolution/change for the cougar management plan because of the "threat that cougar predation poses to the livestock industry in Oregon."

I understand that state and federal records suggest that threat is simply not factual and the resolution may be flawed. What I understand is that few conflicts of this nature occur, and for those that do, most can be prevented with simple, non-lethal precautions like penning livestock at night and installing noise and light devices that deter cougars from an area.

Please do not to pass the resolution.

Many of us would prefer a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock.

I'm a registered/active voter, tax payer and home owner and 3rd generation Oregonian.

Thanks for reading my request.

Regards,
Ann J. Cornwell
503-730-6437
4546 NE 47th Ave
Portland, Oregon 97218

From: wally sykes wally_sykes2000@yahoo.com
Subject: Public comment re: cougar resolution
Date: November 17, 2020 at 6:29 PM
To: kvalness@oda.state.or.us



I urge the Board to reject this resolution. Nonlethal tools and strategies should be prioritized over the kill "solution" which solves nothing but adds to cougar/livestock conflict as has been demonstrated again and again by scientific studies. Please follow the science.

Thank you,

Wally Sykes
Joseph, OR

From: yancette5592 yancette5592@gmail.com
Subject: Cougar and Livestock.
Date: November 17, 2020 at 6:36 PM
To: kvalness@oda.state.or.us



I am writing to you to ask that you not pass the resolution that would kill cougars to prevent livestock losses. All available science indicates that cougars account for just 1 percent of livestock losses so this resolution would be reactionary, would re-affirm people's bigotry toward cougars, add credence toward mythological misunderstanding of cougars and would leave, u addressed, the vast majority of the problem. I believe that a less emotive, meaningful and proactive approach toward the problem would be more fruitful than the indiscriminate killing of cougars. Thank-you for taking the time to consider my position. Stay well and have a happy Thanksgiving.

Sincerely, Yancette Halverson

Sent from my Sprint Samsung Galaxy Phone.

From: Joanie Beldin joanibldn@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 17, 2020 at 8:11 PM
To: kvalness@oda.state.or.us



Dear Oregon Board of Agriculture,

I am writing in opposition to the resolution to kill cougars in the attempt to reduce cougar predation on livestock.

This resolution is based on inaccurate and misguided myths. In reality, cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. According to the best available science, indiscriminate killing of cougars increases rather than reduces livestock depredation. Of the few conflicts that do occur, the overwhelming majority can be prevented with non-lethal precautions.

In place of this resolution, I support a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective and reactive resolution that provides no solution for Oregonians and that is also scientifically unsound.

As top predators, cougars are vital members of Oregon's ecosystems. They deserve management methods that recognize their value and treat them accordingly.

Again, please replace this resolution with one that will prioritize non-lethal over lethal controls.
Thank you for your consideration.

Respectfully,
Joan Beldin

From: Louise molallalouie@gmail.com
Subject: Cougar Management Plan
Date: November 17, 2020 at 8:24 PM
To: kvalness@oda.state.or.us



I urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid a very limited threat to farm animals.

Thank you, Louise Lopes, Oregon resident since 1979

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"Whether we exploit animals to eat, to wear, to entertain us, or to learn, the truth of animal rights requires empty cages, not larger cages." - Tom Regan, PhD, 1938-2017

*The greatness of a nation can be judged by the way its **animals** are treated. - Mahatma **Gandhi***

"I am in favor of animal rights as well as human rights. That is the way of a whole human being." – Abraham Lincoln

From: Chris Lazarus chrislazarus0505@gmail.com
Subject: Please do not support Cougar Management Plan
Date: November 17, 2020 at 9:20 PM
To: kvalness@oda.state.or.us



I urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. This Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid a very limited perceived threat to farm animals.

Thank you.

Chris Lazarus
7521 N. Leavitt Ave
Portland, OR 97203

From: Paul Knollman knollman0101@gmail.com
Subject: Cougars
Date: November 17, 2020 at 11:03 PM
To: kvalness@oda.state.or.us
Cc: Debra Merskin dmerskin@uoregon.edu, Patti Knollman pattiknollman@gmail.com

PK

Karla,

Please oppose the proposed resolution; and instead support a resolution that promotes non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective, reactive, & scientifically unsound resolution that provides no solution for Oregonians. We need our wildlife and a fair balance between nature and the human needs of some.

Thank you.

Paul Knollman
15430 S W Branding Iron Ct.
Powell Butte, OR 97753
Knollman0101@gmail.com

From: Donna Steadman dab1219@comcast.net
Subject: Cougar management plan
Date: November 17, 2020 at 11:58 PM
To: kvalness@oda.state.or.us



Ms. Valness;

I am writing to urge you to reject the cougar management plan as proposed. All wildlife control plans should always emphasize non-lethal approaches first and this one does not. Moreover, the voters (including myself) voted twice to ban the use of dogs to hunt down cougars...and this plan would disregard the will of the electorate. Not good!

Thank you for stopping this ill-conceived plan.

Sincerely,

Donna Steadman

Tigard, OR 97224

From: Linda Rentfrow lrentfrow@msn.com
Subject: Speaking up for Cougars
Date: November 18, 2020 at 5:55 AM
To: kvalness@oda.state.or.us



Please do not make cougars the new villains. They are just like us, trying to survive the ever-changing environment. With habitat and loss of food it will take them time to adapt, let's give them a chance to survive. We have to stop the war on nature. Please

Linda

From: Crystal Elston crystal.elston@icloud.com
Subject: Cougar Management Plan
Date: November 18, 2020 at 7:42 AM
To: kvalness@oda.state.or.us



I am writing in opposition to the recommended resolution to the Cougar Management Plan that is inaccurately pinning cougars with a higher rate of livestock deaths than is actual and as a consequence will impact cougars negatively.

Cougars are responsible for **less than 1%** of unwanted livestock mortality in Oregon. Of the few conflicts that do occur, the overwhelming majority **can be prevented** with simple, **non-lethal precautions** like penning livestock at night and installing noise and light devices that deter cougars from an area.

Further, the best available science tells us that **indiscriminate killing of cougars increases complaints and livestock depredation, not reduces it.**

This resolution perpetuates misguided myths and instills unnecessary fear in ranchers and farmers, which fuels antipathy and disregard, it also overlooks an opportunity to support meaningful and proactive prevention of livestock depredation from cougars and other wildlife.

Instead, you should pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective and reactive resolution that provides no solution for Oregonians and that is also scientifically unsound.

Not unlike the many changes to management plans that I have seen in Oregon, including those for wolves, decision makers in Oregon seem to largely ignore science, put inadequate onus on the farmers - especially those using "public" lands - and instead supports inaccuracies about the behavior of these wild animals and largely side with farmers and hunters in plan resolutions. It is enough! The wildlife of Oregon deserve our protection and we should ALL speak accurately with science based facts about our wildlife and a fair amount of responsibility should be placed on farmers to protect their livestock using all non-lethal methods. Blaming cougars and reducing their numbers based on a blurring of the facts of actual predation numbers is simply wrong and unfair.

Sincerely,

Crystal Elston
Newberg, Oregon

From: Work tailsinbalance@yahoo.com
Subject: OR cougar management plan
Date: November 18, 2020 at 8:11 AM
To: kvalness@oda.state.or.us



I urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid a very limited threat to farm animals.

Specifically the following measures are outdated and should not be adopted:

- - Failure to require specific non-lethal approaches to cougar conflicts with people, pets and wildlife before resorting to killing cougars.
- Allowing intensive, indiscriminate killing of cougars (i.e., not specific cougars known to be causing problems) when reported conflicts with cougars over three years rise above a 10-year average - an arbitrary measure, in our opinion - even though studies show this may actually *increase* conflict by destabilizing cougar populations.
- Allowing cougars to be hunted with packs of dogs for these so-called "management" activities, even though voters outlawed that method of hunting cougars for sport in 1994.

There are plenty of non lethal methods which have been proven to perform the goals of cougar management that can benefit human populations as well as the cougars themselves.

Thank you.

Sent from my iPhone

From: Jill Christiansen jk.christiansen15@gmail.com
Subject: Public comment about cougar resolution
Date: November 18, 2020 at 8:16 AM
To: kvalness@oda.state.or.us



I'm totally **against** the latest consideration for cougar management. I strongly request a halt to any such plan.

Thank you.
Jill Christiansen

From: Aislinn McCarthy-Sinclair aislinn.ms@gmail.com
Subject: Resolution Regarding Cougars
Date: November 18, 2020 at 8:38 AM
To: kvalness@oda.state.or.us



Good morning Karla,

I hope this email finds you well during these trying times! I am writing to strongly urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. Not only is the plan cruel, as it is overly reliant on killing (sometimes in terrible ways, such as with dogs) but we also know from science that plans like this are ineffective at managing populations. I am happy to provide more information if that would be helpful.

Thank you so much for your time and consideration!

--
Aislinn McCarthy-Sinclair, MSW

From: Paige Powell paigepoepowell@gmail.com
Subject: Public Comment About Cougar Resolution
Date: November 18, 2020 at 9:02 AM
To: kvalness@oda.state.or.us

PP

Dear Oregon Board of Agriculturer,

As a native Oregonian, I STRONGLY OPPOSE the Oregon Board of Agriculture resolution supporting the Cougar Management Plan.

This evil, inhumane, anti-conservation, cruel and unnecessary plan is most certainly NOT a *“threat that cougar predation poses to the livestock industry in Oregon.”*

Both state and federal government have science and statistics to back up that facts cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. FACTS and you know it!

Of the very limited conflicts that do occur, the overwhelming majority can be prevented with simple, non-lethal precautions like penning livestock at night and installing noise and light devices that deter cougars from an area.

In fact, I have a friend in Idaho who has llamas humanly and successfully scare them off!!!

Further, the best available science tells us that indiscriminate killing of cougars increases complaints and livestock depredation do not reduce it.

Wake up, DO THE RIGHT CHOICE and do not impose the Cougar Management plan by KILLING OUR STATE COUGARS!!! Leave them alone.

Jane Goodall has clearly stated that huge fires, flooding and worse is Mother Nature Revenge for what humans are doing to the fauna and flora on our planet.

Thank you.
With Best Wishes,

Paige Powell

--
Paige Powell
New Email: paigepoepowell@gmail.com

From: Will Stenberg willrstenberg@gmail.com
Subject: Cougars
Date: November 18, 2020 at 9:17 AM
To: kvalness@oda.state.or.us



To Whom It May Concern,

I strongly urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid a very limited threat to farm animals.

Please respect these majestic and important animals rather than conceding to short-sighted thinking based on financial gain.

Best,

Will

From: Mackenzie Miller mackenziemiller1014@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 9:24 AM
To: kvalness@oda.state.or.us



We are writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you for being a voice for Oregon's cougars.

From: Cristian Sepúlveda C. cristiansepulveda.fauna@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 10:16 AM
To: kvalness@oda.state.or.us



We are writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Best regards

--

Cristian Sepúlveda C.

Consultor e Investigador de Fauna Vertebrada Terrestre.
Ingeniero en Recursos Naturales Renovables, Universidad de Chile.
+56996963412
Alianza Gato Andino
IUCN/SSC Cat Specialist Group
www.flickr.com/photos/cristiansepulvedac

From: Cristian Sepúlveda C. cristiansepulveda.fauna@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 10:16 AM
To: kvalness@oda.state.or.us



We are writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Best regards

--

Cristian Sepúlveda C.

Consultor e Investigador de Fauna Vertebrada Terrestre.
Ingeniero en Recursos Naturales Renovables, Universidad de Chile.
+56996963412
Alianza Gato Andino
IUCN/SSC Cat Specialist Group
www.flickr.com/photos/cristiansepulvedac

From: April menegazzi lovesnature4688@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 10:50 AM
To: kvalness@oda.state.or.us



Hello ,
Please don't let trophy hunters kill off mountain lions. They have rights !!!! Money isn't everything and I live where occasionally livestock is taken and I understand all sides , but to strip these animals of life , is wrong .
There is no reverence in this. They didn't ask humans to be as parasitic as we have become .

Thank you ,
April Menegazzi

Sent from my iPhone

From: dbeau at efn.org dbeau@efn.org
Subject: Public Comment about Cougar Resolution
Date: November 18, 2020 at 10:51 AM
To: kvalness@oda.state.or.us

DE

To Oregon Board of Agriculture,
The State of Oregon, through ODFW, has had in place a robust Cougar Management Plan since 2017.

It is redundant for the Board to approve a misleading and inflammatory resolution purporting to support an existing plan. The current plan allows for a kill quota of 970 cougars in 2020. That quota is still open, allowing for killing this year for cougars who actually pose at threat. A new quota will be established for 2021.

Your No vote this week indicates confidence in the current cougar management operation by ODFW.

Thank you,

Douglas Beauchamp
Lane County, Oregon

From: Rita Iverson rita.iverson@icloud.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 11:09 AM
To: kvalness@oda.state.or.us



We are writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Larry and Rita Iverson
Sent from my iPad

From: Dana Guterman danaguterman@gmail.com
Subject: Public Comment About Cougar Resolution
Date: November 18, 2020 at 11:52 AM
To: kvalness@oda.state.or.us



Hello Ms. Valnes,

I'm writing to ask you not to pass a resolution supporting the Cougar Management Plan. Cougars are responsible for less than 1% of unwanted livestock deaths in our state. Instead, we should use non-lethal strategies to prevent conflicts (fences, lights, etc.). These are scientifically proven and simple, saving both cougar and livestock lives.

I am proud to live in a state that looks to science and compassion in making decisions, and this resolution does neither.

Thank you,
Dana Guterman
Portland, OR

From: Eric ebacyins@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 11:52 AM
To: kvalness@oda.state.or.us



I'm writing to ask that you please consider all vantage points of the upcoming agenda item on Dec. 2 related to Mountain Lion/Cougar management.

While livestock and the industry built around it are undoubtedly vital to the OR economy, the preservation and sustainability of this apex predator is critical to the PNW ecosystem and alternatives can be explored to appease both sides. Thank you for your consideration.

--

Eric Bacyinski
Cell: (734) 649-8596
Email Address: Ebacyins@gmail.com

From: Alison Monroe amonroe@jps.net
Subject: Cougar Resolution
Date: November 18, 2020 at 12:11 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness,

Please support a resolution urging farmers and ranchers to learn to coexist with cougars. Cougars are important to the health of wild populations of the animals we like to hunt, and they are increasingly endangered. Let's be glad we still have cougars.

Sincerely,

Alison Monroe
3121 Lynde St.
Oakland, CA

From: df Gibbs fusco.gibbs@gmail.com
Subject: Public Comment: Cougar Resolution
Date: November 18, 2020 at 12:24 PM
To: kvalness@oda.state.or.us



Dear Karla Valness,

I am writing to you to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan.

I encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you,
Deb Gibbs
Newberg, Oregon

From: Rosana Tracey rotrae1991@hotmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 12:24 PM
To: kvalness@oda.state.or.us



Please respect the right of the Oregon cougars to live. Statistics do not support the concern for cougars as a constant predator to livestock. There are many solutions to that problem that don't include trying to "manage" the number of cougars in the area. They are a top predator, and should not be destroyed. This will only lead to an imbalance in the ecosystem.

Thank you,
Rosana Tracey

Sent from my iPad


From: RR Mier rajaju@icloud.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 12:37 PM
To: kvalness@oda.state.or.us



I am writing to you to please not follow suggestions from Oregon's beef industry against mountain lions , these lions are important links in the biological chain and need to fit into the system not be removed there are many other remedies. The latest study by Federal Wildlife experts showed Wildlife Watchers spend 3 times the amount hunters spend 75 billion to 25 billion learning to live with wildlife is more profitable for states than ever and the future for ranchers is limited. Thank you RR

https://www.fws.gov/wsfrprograms/subpages/nationalsurvey/nat_survey2016.pdf

Sent from my iPhone

From: Adelia Hwang adeliahwang@gmail.com 
Subject: Do not pass the Cougar Resolution
Date: November 18, 2020 at 12:38 PM
To: kvalness@oda.state.or.us

AH

Dear Oregon Board of Agriculture.

I urge you to not adopt a resolution that supports the Cougar Management Plan. The Plan will not work to achieve its goal of minimizing complaints and reducing livestock depredation. Not only is the Plan over-reactive (cougars are responsible for less than 1% of the unwanted livestock mortality in the state), but also many of these livestock takings can be prevented with simple, non-lethal precautions. Allowing the removal and taking of cougars as set out in the Plan results in the indiscriminate killing of individuals and does not reduce livestock depredation.

I respectfully request that you pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock; adopting such a policy will be the most effective in the short- and long-term. An ineffective culling policy should not be a substitute for implementing thoughtful, practical approaches. Alternatives such as penning livestock at night and installing noise and light devices that deter cougars from an area are alternatives that should, at a minimum, be the first line of defense against predation and human-cougar conflict, not unproven harvest and removal.

As humans, we have the capacity to outsmart wildlife with innovative solutions. The strategies laid out in the 2017 Cougar Management Plan are neither innovative nor effective. As support, I am submitting the attached scientific article published February of this year, "*The Elephant in the room: What can we learn from California regarding the use of sport hunting of pumas (*Puma concolor*) as a management tool?*" As stated in the article, a review of relevant data reveals there is

"no evidence that sport hunting of pumas has produced the management outcomes sought by wildlife managers aside from providing a sport hunting opportunity. Consequently, and particularly because other research suggests that sport hunting actually exacerbates conflicts between pumas and humans, we recommend that state agencies re-assess the use of sport hunting as a management tool for pumas."

Laundré JW, Papouchis C (2020) The Elephant in the room: What can we learn from California regarding the use of sport hunting of pumas (*Puma concolor*) as a management tool? PLoS ONE 15(2): e0224638.
<https://doi.org/10.1371/journal.pone.0224638>

Please do not pass the Cougar Resolution and instead adopt a strategy that will be more likely to be effective.

Sincerely,
Adelia Hwang
A thoughtful Oregonian



journal.pone.02
24638.pdf

RESEARCH ARTICLE

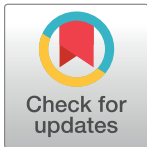
The Elephant in the room: What can we learn from California regarding the use of sport hunting of pumas (*Puma concolor*) as a management tool?

John W. Laundré^{1*}, Christopher Papouchis²

1 Department of Biology, Western Oregon University, Monmouth, OR, United States of America,

2 Department of Environmental Studies, California State University, Sacramento, CA, United States of America

* launjohn@hotmail.com



OPEN ACCESS

Citation: Laundré JW, Papouchis C (2020) The Elephant in the room: What can we learn from California regarding the use of sport hunting of pumas (*Puma concolor*) as a management tool? PLoS ONE 15(2): e0224638. <https://doi.org/10.1371/journal.pone.0224638>

Editor: Julio Cesar de Souza, Universidade Federal de Mato Grosso do Sul, BRAZIL

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Data Availability Statement: All relevant data are within the manuscript and its supporting information files. Data used in the analyses are not data we collected but are from various open access files of state and federal agencies. The specific data sets we used have been included as two Support information files (s1_File.xlsx and s2_File.zip) The first of these is an excel spreadsheet providing the data sets used for each of the figures in the manuscript. Appropriate websites where these data were obtained are provided. In some cases, the documents where we obtained the data are no

Abstract

Puma (*Puma concolor*) management in the western United States is highly contentious, particularly with regard to the use of sport hunting as a management tool. Since the 1970s, puma in ten western states have been managed by state fish and game agencies through the use of a sport hunt. The rationale presented by wildlife managers is that sport hunting, in addition to providing recreational hunting opportunities, also reduces threats to human safety and livestock safety, and increases populations of the puma's ungulate prey, namely deer (*Odocoileus sp.*) and elk (*Cervus elepus*). We evaluated these claims using the state of California as a control, which has prohibited sport hunting since 1972, and employing data obtained from state and federal agencies with authority and control over puma management. Specifically, we tested four hypotheses: 1) sport hunting will suppress puma populations, 2) sport hunting will reduce the number of problematic puma-human encounters; 3) sport hunting will reduce puma predation on domestic livestock, and 4) sport hunting will reduce the impact of puma predation on wild ungulate numbers, resulting in increased hunting opportunities for the sport hunt of ungulates. Our results indicated, respectively, that relative to the 10 states where puma are hunted, California had 1) similar puma densities, 2) the 3rd lowest per capita problematic puma-human encounters, 3) similar per capita loss of cattle ($P = 0.13$) and a significantly lower ($t = 5.7$, $P < 0.001$) per capita loss of sheep, and 4) similar average deer densities while changes in annual deer populations correlated with changes in other states ($F = 95.4$, $P < 0.001$, $R^2 = 0.68$). In sum, our analysis of the records obtained from state and federal wildlife agencies found no evidence that sport hunting of pumas has produced the management outcomes sought by wildlife managers aside from providing a sport hunting opportunity. Consequently, and particularly because other research suggests that sport hunting actually exacerbate conflicts between pumas and humans, we recommend that state agencies re-assess the use of sport hunting as a management tool for pumas.

longer available online. In these cases we refer to the second support information file where the actual documents are contained in a zip file.

Funding: The authors received no specific funding for this work.

Competing interests: The authors have declared that no competing interests exist.

Introduction

Pumas (*Puma concolor*), like the other predators in North America, were viewed by European colonialists and their descendants as threats to human safety and domestic livestock as well as competition for wild ungulates, mainly deer (*Odocoileus* sp) and elk (*Cervus elepus*) [1]. Consequently, they were eliminated from much of their range in the Eastern and Midwestern United States by the mid to late 1800's. In the West, unrestricted trapping and hunting of pumas continued until the 1960's, with bounties being offered for their removal. By the mid-1900's, the scientific evidence began to demonstrate the ecological value of large predators, including pumas, in ecosystems [2, 3]. Additionally, many scientists and citizens began to question the ethics of uncontrolled killing of pumas and began to advocate for some degree of protection [4]. There remained the perception among wildlife managers that some level of control was still necessary to prevent puma populations from growing to socially unacceptable levels where they might threaten human safety, livestock interests, and population objectives for big game, principally deer [5] (<https://idfg.idaho.gov/wildlife/predator-management>). They were also viewed as providing an additional sport hunting opportunity to hunters. In response, in the 1970's ten of the 12 western states where pumas still occurred classified them as a game species and established sport hunting seasons [5]. The two exceptions of this management approach are Texas, where pumas are unprotected and can be hunted without license or limit, and California, where pumas are fully protected from sport hunting and managed through relocation or killing of individuals puma that pose a threat to public safety, livestock or threaten the viability of bighorn sheep populations (<https://www.wildlife.ca.gov/keep-me-wild/lion>, Accessed on February 28, 2018, <https://www.wildlife.ca.gov/Conservation/Mammals/Mountain-Lion/Depredation>, Accessed on February 28, 2018).

In the remaining 10 states, changing its status to a game species provided some degree of protection to pumas through closed seasons and bag limits. Additionally, the intent of a sport season on puma was to not only provide a hunting opportunity but to control their populations and address the three main concerns of public safety, livestock and ungulate protection [6, 7]. As a result, the primary management objective (MO) for sport hunting of pumas in these ten western states was to usually set "bag limits" similar to historic bounty kill levels, which, regionally, never exceeded 1,000 animals per year (<https://www.mountainlion.org/featurearticlefailingtheamericanlion.php>). However, since the enactment of sport hunting, the number of pumas killed annually by sport hunters has steadily increased. By 2016, the 10-state average kill rate of pumas was 390 per state or over 3,900 individuals per year (Fig 1). Of these, 3400, or > 89%, are killed by sport hunters and the rest for specific threats to human safety, livestock depredation, or accidents (S1 and S2 Files). This sustained high-rate of puma killing has elicited questions as to whether sport hunting actually achieves its purported management goals [8].

Most state game agencies rely on the North American Model for Wildlife Conservation (NAM) for guiding their management policies [9]. The NAM explicitly advocates the use of science and research in setting and justifying wildlife management policy [9,10,11,12]. Nevertheless, one recent evaluation of hunt management in the United States and Canada found little adherence to science-based approaches [13]. Using the criteria of Artelle et al. [13], our assessment of available state management plans for pumas, indicates this to be the case for pumas in most of the western states. Additionally, there have been more recent calls for using science to evaluate the possible politicization of wildlife management decisions [14].

Regarding puma management, what does the science tell us? An increasing number of scientific studies have questioned the putative effectiveness of sport hunting to meet MO's of state agencies. Specifically, sport hunting of pumas might not reduce puma numbers [15], or

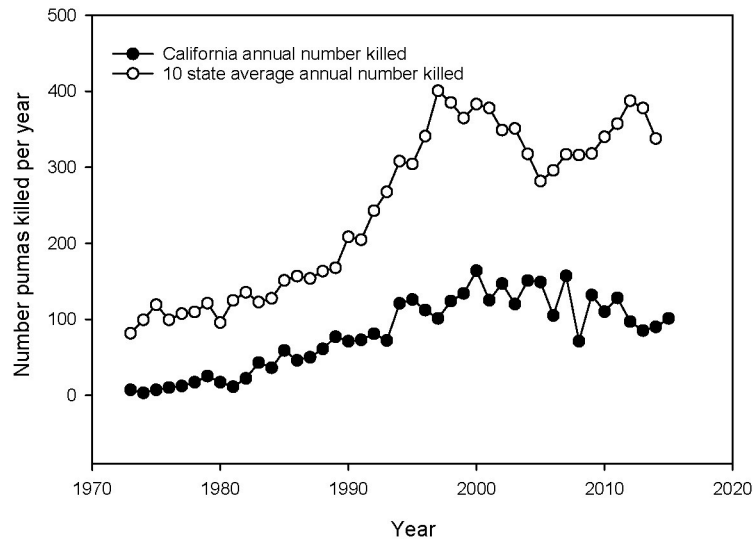


Fig 1. Number of puma killed per year in California compared to the mean for the 10 western states with a sport hunt of puma. The numbers for California represent animals specifically identified as conflicting with human safety or livestock depredation and other causes. The numbers for the 10 other states represent animals killed by sport hunters (80–90%), ones specifically identified as conflicting with human safety or livestock depredation, and other causes.

<https://doi.org/10.1371/journal.pone.0224638.g001>

result in larger ungulate populations [16,17,18,19]. Several studies provide evidence that sport hunting increases the rate of puma interactions with people and livestock, thereby exacerbating the very problems it is intended to ameliorate [6,20, 21]. This growing body of data has placed doubt upon whether sport hunting is an effective management tool for pumas.

Employing the guidelines of adaptive management [5], it is appropriate to ask whether sport hunting has been successful in meeting management objectives over the ~ 45 years since it was initiated in the western U.S. In doing so, we identified four hypotheses that emerge from desired outcomes articulated by state management agencies. These are that 1) sport hunting will suppress puma populations, 2) sport hunting will reduce the number of problematic puma-human encounters; 3) sport hunting will reduce puma predation on domestic livestock, and 4) sport hunting will reduce the impact of puma predation on wild ungulate numbers, resulting in increased hunting opportunities for the sport hunt of ungulates.

Unfortunately, these hypotheses are difficult to test. In particular, as each of the 10 states have continued to rely on this management strategy, there is no “control” within or among those states other than to alter the number of pumas removed by the sport hunt. One state, Washington initiated a metapopulation style management program [22] where levels of killing of pumas were specifically set for designated specific areas of the state or management units [23]. Consequently, it is in this state that researchers have been able to test some impacts of the sport hunt with the previously mentioned contradictory findings [6,15, 21]. However, except for these localized within state comparisons, we are not aware of any large scale, multi-state test of the sport hunting hypotheses.

Fortunately, the state of California offers a potential control for such a multi-state test. California has not used sport hunting to manage pumas over the same time period the other states have employed it. Instead, since 1972, California has handled puma-human conflicts and livestock depredation on a case-by-case basis and specifically removes animals involved in these conflicts. There is no killing of pumas specifically with regards to management of wild ungulate populations, except for federally listed bighorn sheep (*Ovis canadensis*). As a consequence,

over the same 45 years, the number of pumas killed in California has been consistently lower (< 150 animals/year) than those states with sport hunting seasons on pumas. Thus, California would appear to be an appropriate “control” to compare against the “treatment” of a sport hunt. Since the remaining 10 states have sustained some level of sport hunting as a management strategy used over the time period, this comparison should enable a test of whether a sport hunt management strategy is achieving desired management goals.

If sport hunting is achieving the management goals sought by state wildlife managers, then California, in the absence of a sport hunt of pumas, should have: 1) higher puma population densities; 2) higher per-capita number of problematic puma-human encounters; 3) higher rate of puma predation on domestic sheep and cattle; and 4) higher levels of puma predation on ungulate populations, resulting in lower hunting opportunities for sport hunting of ungulates, specifically deer. As elk are less ubiquitously distributed within states, we restricted our analysis mainly to deer. If these predictions are supported by the 40+ year data base available, then it would lend support to the hypothesis that sport hunting of pumas is a reasonable management strategy to obtain the desired results as stated above. If these predictions are not supported, then it would be reasonable to reject this hypothesis.

Methods

Study areas

The study area includes the eleven states in the western United States and are located approximately between 49.2° Latitude, -125.3° Longitude and 30.7° Latitude, -102° Longitude. The ten western states that use the sport hunt management strategy encompass most of the diverse habitat types found in the Western United States. Pumas are found throughout most of these habitats but are rare in some of the harsher, dryer areas of each state. As a result, puma range in most states is less than the total area of the state. Most states have estimated the suitability and extent of different puma habitats in their states. Where state estimates were not available, we used recent data based on GIS analyses conducted by the Humane Society of the United States [8] (HSUS). As on average, HSUS habitat estimates only differed from state ones by approximately 4%, HSUS estimates were considered reliable enough to use when state estimates were lacking. Each state agency also has estimates of the amounts of appropriate deer (mule *O. hemionus* and white-tailed *O. virginianus*) habitat occurring within their boundaries. In most cases, puma and deer distributions overlap. California, which extends from the border with Mexico north to Oregon, contains most of the major ecosystems found in the West, from desert to high mountain forests [24]. As such, we stipulate that the impact of habitat differences on comparisons between California and the other 10 states should be minimal. California also has identified the amount of appropriate puma and deer habitat. We used the estimates of total area of habitat for pumas and deer from each state when making density calculations.

Data sources

State and Federal data sets used in our analysis include 1) estimates of puma abundance, 2) numbers of pumas killed yearly by sport hunters and other causes, 3) estimates of deer populations, 4) estimates of the number of deer killed yearly by hunters, 5) estimates of the inventory of livestock, cattle and sheep, and 6) estimates of the number of livestock, cattle and sheep killed by pumas. Estimates of the number of puma-human incidents for each state have been maintained mainly by individuals and published either in the scientific literature [25] or available on the internet (http://tchester.org/sgm/lists/lion_attacks.html). These estimates were cross checked with inquires to state agencies as to records they had and updated as necessary.

For all the comparisons made, we relied on data sets that have been maintained and published as open public records. We recognize that the reliability and scientific rigor of some of these data has been questioned. However, we argue that any testing of the sport hunting hypothesis should be done with the same data used to justify sport hunting as a management tool. We further contend that if these data are not considered rigorous enough to test these hypotheses, then they should not be used in making management decisions. However, many of these data sets, e.g. deer/puma population estimates and livestock depredation estimates, are routinely used by state agencies in their management decisions, consequently, we used them to test the hypotheses regarding sport hunting presented here. In [S1](#) and [S2](#) Files, we provide details of the data used as well as the sources of those data.

In making comparisons, we first designated three basic stages in the evolution of the sport hunt of pumas. These are our designations based not on recognized agency policy but on our interpretation of documented puma population and sport kill data available. The first 20 years (~1970–1990) we refer to as the recovery period as puma populations were presumably still low from the decades of uncontrolled killing and the reported killing of animals by sport hunters was also low (~ 100–150 per state per year; [Fig 1](#)). By 1990, various studies indicated that puma populations in general had recuperated (the recovered period, 1990–1999) and were increasing and decreasing with available resources [[26](#), [27](#)]. The sport killing of puma was beginning to increase during this time and along with other human sources of mortality peaked at around 400 per year per state around 2000, with 88% being from the sport hunt ([Fig 1](#)). From approximately 2000 to 2015 (the intense management period) total mortality of pumas remained between 300–400 animals per state per year, again 80–90% from the sport hunt. As puma populations and kill rates were low during the recovery period for the ten states, inclusion of this timeframe in comparisons might dilute effects of the sport hunt on the metrics we compared. Thus, most of our comparisons covered the last two periods as any effect of sport hunting should be more prominent, especially during the last 15 years of intense management.

Standardizing the data

Because the data used for deer and pumas come from a wide geographical area and at least 11 different governmental agencies, we attempted to standardize the data in several ways. Most estimates of abundance or kill levels of deer and pumas were converted to population densities or kill densities (number killed/habitat area) based on the aforementioned estimated areas of appropriate habitat. Kill (= harvest) densities are commonly used by state agencies to set MO's for puma kill limits. Kill densities for puma were per 10,000 km² while kill densities for deer were per 100 km². In some instances, we converted individual entries of a data set to the percent they were of the maximum entry of that data set. This “percentage of the maximum” facilitated comparing patterns of change as well as amplitude of that change among the diverse data sets. Estimates of puma mortality by all sources come from records maintained by state agencies. Total mortality levels were primarily (> 80%) from sport hunting in the ten states under consideration. However, as the level of mortality from California was just from all other causes, in making our comparisons we used the total number of pumas killed in a state rather than just the number killed by sport hunting. Also, some states include non-hunting deaths of pumas in setting their MO's.

To standardize livestock data across states, we converted the estimated number of animals killed by pumas to the percentages they were of total head inventory exposed to predation, e.g. livestock on open range. These data were retrieved from appropriate USDA documents ([S1 File](#)). In these documents, total cattle inventory of a state included beef and dairy cattle. We

subtracted the number of dairy cattle from the total to obtain an estimate of the number of beef cattle, animals most likely to be grazed on open range. There was a category of cattle on feed (= feedlots), but because these cattle could have come from anywhere, including other states, we did not use these estimates to adjust the inventory of beef cattle in a state. Consequently, we assumed all beef cattle were at least at sometimes grazed on open pasture exposed to possible predation by pumas. Data on calves were separately available.

National levels of cattle and calf losses to predators, including pumas were reported yearly. However, there were only 5 years (1991, 1995, 2000, 2005, and 2010) where those losses were separated out by state and cause specific by predator (<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1625>, Accessed on February 28, 2018). Thus, we used only these 5 years in our comparisons of per capita cattle and calf loss by pumas in California verses the other 10 states.

For sheep and lambs, the data categorized all sheep as sheep and lambs combined and also reported the annual lamb crop. The lamb crop was not identified as before or after docking but we assumed it was the same for all states. Because simply subtracting the lamb crop from the total sheep did not always provide us with credible estimates for adult sheep only, we used the categories of “all sheep” (adults and lambs) and “lamb crop” in our comparisons. We assumed all sheep and lambs were at sometimes grazed on open range and thus exposed to possible predation by pumas.

Annual losses of sheep and lambs to predators, included pumas, were available yearly but there were only 5 years (1990, 1994, 1999, 2004, and 2014; <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1628>, Accessed on February 28, 2018), where the data were separated out by state and cause specific by predator. Thus, we used only these 5 years in our comparisons of percentage of sheep and lamb loss by pumas in California compared to the other ten states.

Attack and mortality data from puma attacks on humans were available from before 1900. However, as we were interested in the risk of humans since the early 1970's, we only used the data compiled since 1972, specifically during the recovered and intense killing periods. We estimated per capita (per million people) attack and mortality rates based on total human population estimates within each state for 2010, year of last census. Pumas are widely distributed over most western states and are known to use exurban and suburban areas. As many urban persons visit areas where pumas are, we used the total populations reported for each state.

When comparing deer data among states, we standardized the data relative to density (#/km²). As deer abundance is estimated in similar ways across states, e.g. aerial surveys, we assumed the values reported, converted to densities, could be comparable across states. There could be some inherent differences in possible densities based on the proportion of habitat quality within a state, e.g. desert shrubland versus high altitude alpine vegetation. We address the effects of these differences in the discussion of the results of our comparisons. Deer population densities and deer kill densities (by hunters) were calculated with agency published estimates of deer habitat within each state. Hunter success and the number of deer per hunter were calculated based on the number of licenses sold. In some cases, we again further standardized the data as percentages of the maximum value recorded to facilitate comparisons of trends.

In all the comparisons, data from California were evaluated directly to the equivalent data of the ten states with the sport hunt of pumas. Under this design, when appropriate, a t-test or its non-parametric equivalent for a single observation compared to a sample was used. In the case of any correlation analyses, any comparisons of correlation coefficients were made with appropriate statistical tests. If percentages were compared, they were first transformed with the recommended arcsine square root transformation [28]. Again, we recognize that others have

argued that some of the data collected by agencies may not withstand the rigor for statistical analyses. In some cases, because of this, we did not perform statistical tests, e.g. abundance estimates. However, for the other data sets, we again argue that these are the only data available and are used by agency scientists in their analyses and decision making. As the entire hypothesis for sport hunting rests on these data, they should be used for testing of that hypothesis.

Results

Prediction 1: California will have higher puma population densities

We first tested whether sport hunting has reduced puma populations or at least kept them lower than in the absence of a sport hunt (California). Puma are notoriously difficult to enumerate. However, all game agencies have published estimates of puma numbers within their state at one time or another. These estimates can vary widely and high and low values are usually given. Unfortunately, the years of these estimates across states rarely coincide. For 2003, however, most agencies provided high and low estimates for pumas in their state [29]. As these estimates were provided after over 30 years of control (California) and treatment (10 states with sport hunt management), it would seem reasonable to compare densities between these states and California. We selected the high estimates as these values are commonly the default numbers cited by agencies when developing of management guidelines (Fig 2).

As can be seen in Fig 2, estimates of puma densities in California are not higher than but rather are at the average of those states with sport hunting. Thus, the data do not support the prediction that after 30+ years, puma densities in states with sport hunting of pumas should be significantly lower than in California. In fact, half of the sport hunting states reported puma densities higher than California.

Additional comparisons can be made for any of the states where later estimates are provided. The prediction is that after 12 years of intensive sport hunting, estimated puma population densities within a state should be lower than the 2003 estimate, while California should have no difference. California currently lists its mountain lion population to be between 4,000 and 6,000 animals (<https://www.wildlife.ca.gov/Conservation/Mammals/Mountain-Lion/FAQ#359951241-how-many-mountain-lions-are-in-california>, Accessed on February 28, 2018), which is the same reported for 2003. Arizona currently states it has between 2,500 and 3,000 pumas, placing the current maximum number 500 above the maximum reported in 2003. Montana reports a 2017 maximum estimate of 5,000 pumas [30], which represents a state-wide density of 2.8 animals/100km². Though there is no earlier statewide estimate to compare against, this density is only slightly below the 3.27 animals/100 km² reported in one study area in western Montana [31], suggesting little change in total numbers since that time. New Mexico reported estimated its puma population at 3,123–4,269 animals in 2017 [32], a > 45% increase from the 2003 estimate of 2,150 animals. Of the eight states such comparisons could be made, five had equal or higher numbers of pumas in 2017 compared to 2003. Only Utah, Nevada, and Idaho had lower estimates. In sum, population estimates provided by agencies do not depict declining puma numbers in most states with the sport killing of pumas. Over the same period, puma numbers have not reportedly increased in California where they are protected from sport hunting.

Oregon, bordering California to the North, is one state where puma numbers have reportedly increased, and has published estimates of puma numbers since 1994. These estimates have been used by the Oregon Department of Fish and Wildlife to guide its puma management decisions, including sport hunting mortalities, which have steadily increased since 1994 (Fig 3). We compared ODFW's puma annual population estimates with puma mortality levels and found a significant positive correlation ($P < 0.001$, $R^2 = 0.74$). In effect, it appears that the

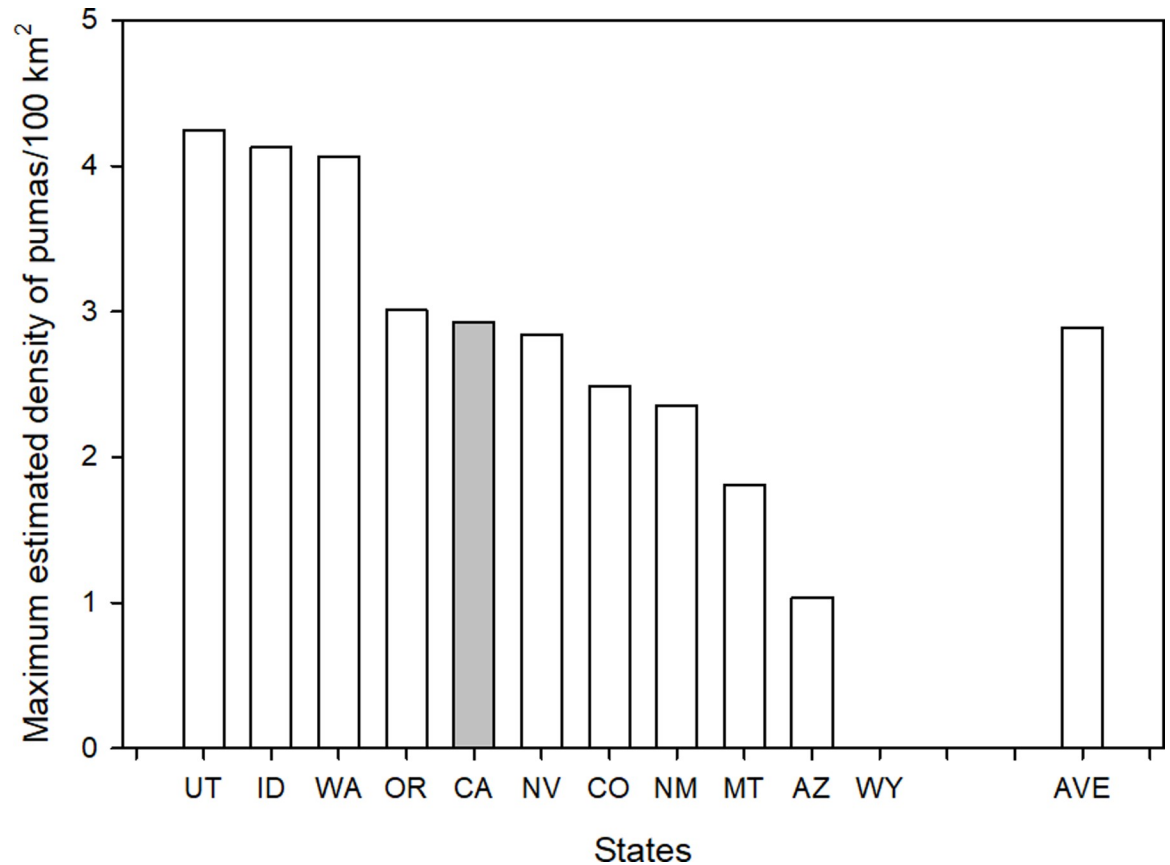


Fig 2. Maximum estimated density of puma (animals/100 km²) in 2003 for 9 of the western states with a sport hunt of puma (no estimate was available for Wyoming) and California (dark column). Estimates are based on data provided by agencies in Becker et al. (2003) and agency reported amounts of puma habitat within their boundaries. States are identified by their standard two-letter postal codes. The final column (AVE) is the average for the 9 states that have a sport hunt of puma.

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more animals that are killed in Oregon, the higher the reported population. This is the exact opposite that is predicted by the sport hunting hypothesis.

In sum, based on the available data, the evidence is equivocal at best as to the hypothesis that sport hunting controls puma numbers below the level expected in the absence of this management practice.

Prediction 2: California will have higher number of per capita puma-human incidents

The test of the sport hunting model for this prediction is whether or not states using this management technique are experiencing fewer problematic puma-human interactions, e.g. attacks and livestock depredations, than California. We compared the per capita (per million persons) number of puma attacks that have occurred in California to the 10 states with sport hunting. In sum, as of 2016, 76 puma attacks on humans, non-fatal and fatal, have been recorded since 1972 (beginning of sport hunting) in the eleven western states being considered (Fig 4A). Most states reported 5 or fewer incidents over the 44 years. The highest was Washington with 16, followed by California with 15, Colorado with 13, and Arizona with 8 incidents. On a per capita basis (per million persons), California ranked 3rd lowest with 0.40 attacks/million persons

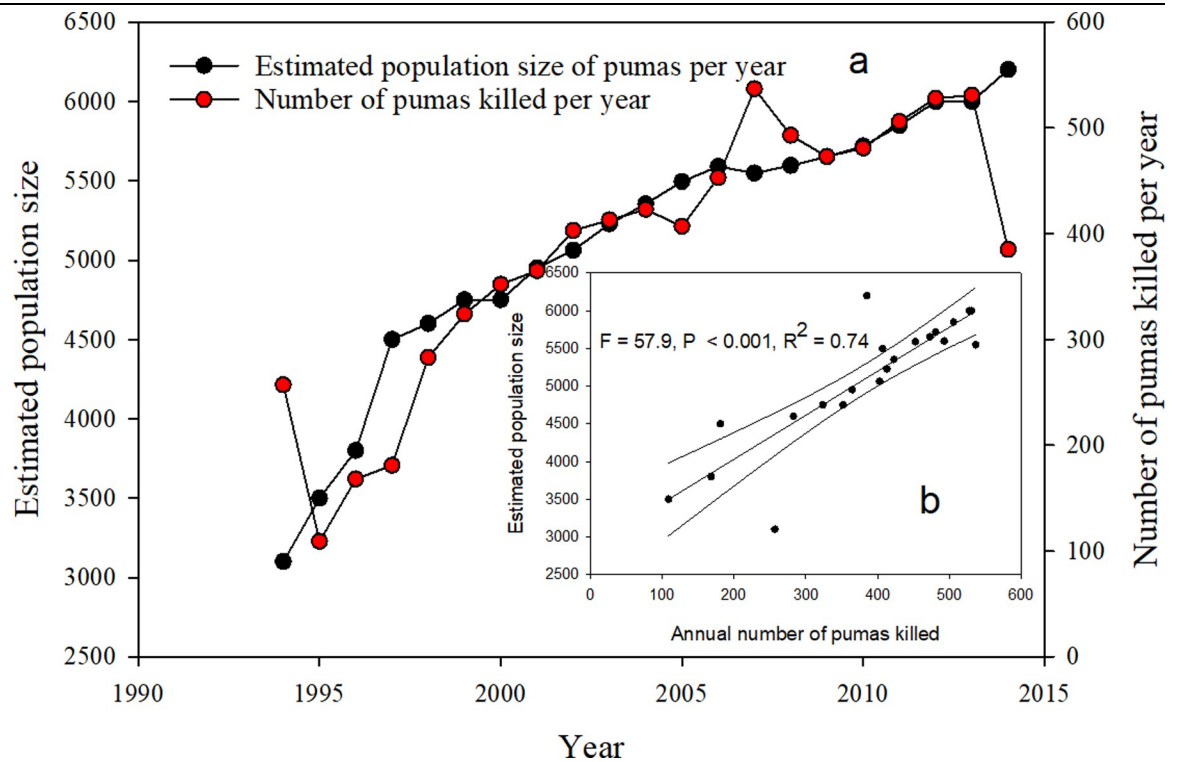


Fig 3. (a) Estimated population size and number of puma killed per year in Oregon as reported by Oregon Department of Fish and Wildlife (<http://www.dfw.state.or.us/wildlife/cougar/>) for 1994 to 2014. It should be noted that the scales for each are different and thus should only be interpreted as showing an increasing trend in each, not the degree of relativeness. That relationship is seen in Fig 3b, which is the correlation of estimated population size with annual number of pumas killed.

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whereas Montana was highest with 7.1/million persons. The pattern does not change, including in reference to California, when we considered the time span of 2000–2015, the period of increased killing of pumas by sport hunting (Fig 4A).

Another indicator of puma-human conflicts is the number of incidents reported per year. California and seven of the 10 states with a sport hunt, recorded incidents that they considered as being serious enough to respond to (Fig 4B). Some of these were actual attacks but many involved perceived threats to person or pets or livestock. California reported an average of 200 incidents/yr since 2000. Though most of the states that use sport hunting had fewer than 100 incidents, Washington (578/yr) and Oregon (328/yr), reported higher numbers of incidents than California. However, again, on a per capita basis, California ranked the lowest of the states reporting (Fig 4B).

Annual incident data were available from the early-mid 1990’s to 2018 for California and three other states (Oregon, Utah, and Washington). When we correlated puma kill density rates with incidents for these 4 states, there was no correlation for California and Oregon but there were positive correlations for Utah and Washington, indicating higher puma kill rates coincided with higher number of reported incidents (S1 Fig).

Based on the attack and incident data, we found little support for the hypothesis that the sport hunting of pumas decreases the level of risk humans faced from pumas.

Prediction 3: California will have higher percentage of puma predation on domestic livestock

Besides human safety, the second most frequently offered rationale for sport hunting of pumas is that it should reduce incidents of livestock depredation, principally of cattle and sheep. To

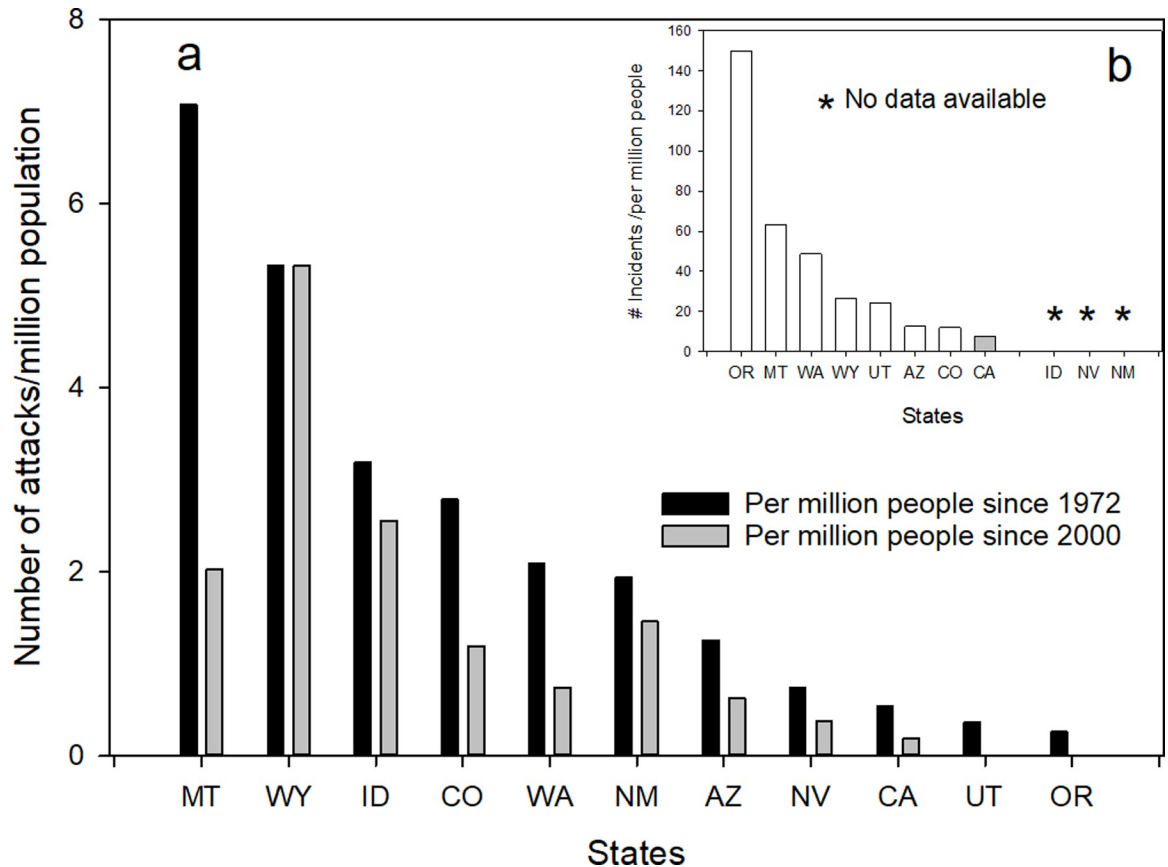


Fig 4. (a) per capita (per million humans) of cougar attacks on humans for the 10 western states with a sport hunt of puma and California. Per capita rates are based on total population (2010 census) of states. Fig 4b is per capita rate of cougar-human incidents, including attacks, threats, and livestock depredation for the 8 states reporting these data. Idaho, Nevada, and New Mexico do not maintain records of incident reports. States are identified by their standard two letter postal code.

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test this prediction, we used cause-specific depredation rates by pumas on livestock and compared among states the percentage loss from pumas based on the total number of head exposed to possible puma predation (see [Methods](#) for details). We present means for the specific years when cause-specific predation was reported.

Cattle. Overall cattle losses to pumas are extremely low, less than 0.2% of total head inventory. [Fig 5A](#) ranks the 11 states relative to the average percentage of cattle lost to pumas during the 5 years reported (see [Methods](#)). California reported higher percent cattle losses than 8 states and lower losses than two states ([Fig 5A](#)). These patterns were similar for calves ([Fig 5B](#)). These data may appear to support the hypothesis but in comparing the percentage loss for the 5 years examined (See [Methods](#)) between California and the average loss for the other ten states, there no significant differences for either cattle (paired-*t*, $P = 0.56$) or for calves ($P = 0.132$).

To further test whether sport hunting reduced cattle losses, we combined the data for percentage loss of calves from the ten states with a sport hunt for the 5 years where data were available and correlated them with the puma kill density for the years previous to the sample years ([Fig 6A](#)). Kill density of pumas was used to standardize the mortality rate across states. The prediction tested was that the percentage loss of calves would be negatively correlated with the number of pumas killed the previous year. The correlation was not significant ([Fig](#)

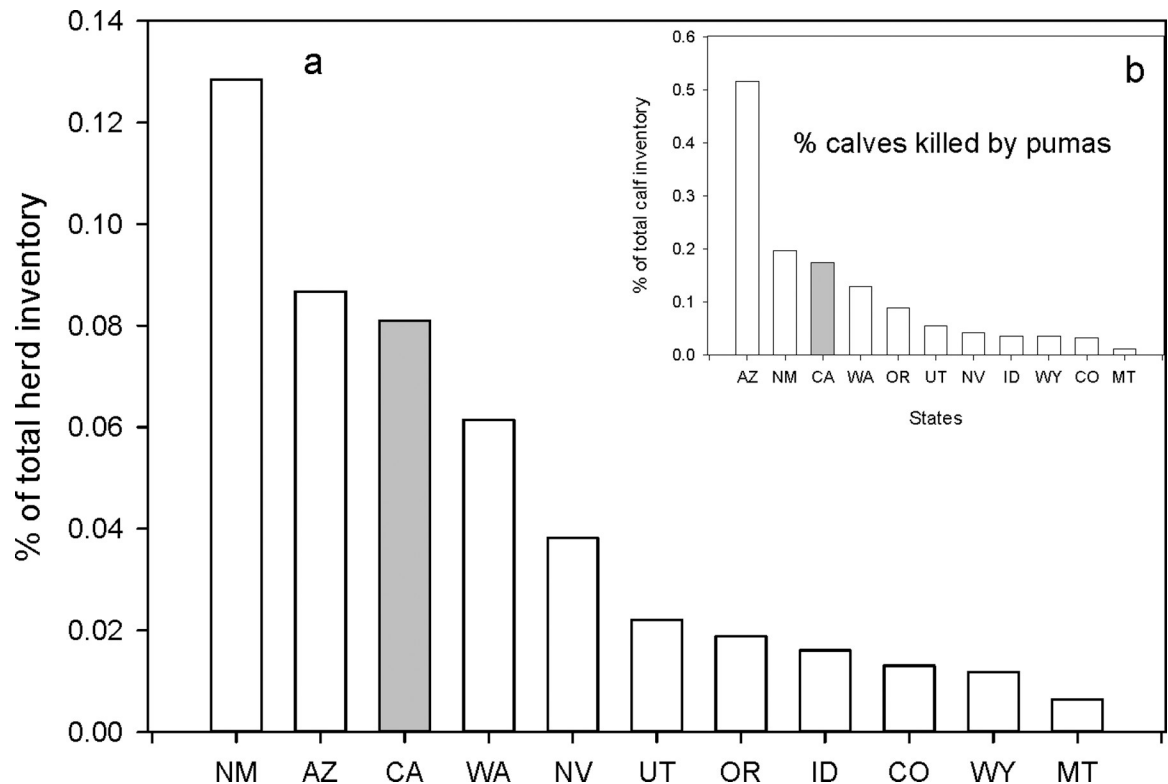


Fig 5. Per capita (percent of total available herd inventory) predation of puma on cattle (a) and calves (b) in the 10 western states with a sport hunt of puma and California. States are identified by their standard two letter postal code.

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6A). When we added the California data to the graph, but not the correlation, California had the lowest per area kill rates and also some of the lowest percentage loss of calves (Fig 6A). The same analysis using cattle lost also showed no correlation.

One state, Wyoming, maintained cause specific depredation records for multiple years, including annually from 2004 to 2012. For each of those years, we compared the number of pumas removed the previous year with the percentage of cattle and calves killed for each year. The prediction is that if sport hunting puma is beneficial to cattle survival, there should be a negative correlation between the number of pumas removed one year and the percentage loss of cattle and calves the following year. The results indicated no relationship between cattle loss and puma kill rates. However, calf losses were positively correlated with the number of pumas killed the preceding year (Fig 6B, $P = 0.003$, $R^2 = 0.58$). Higher calf losses were associated with higher numbers of puma killed, contrary to the prediction.

Sheep. The livestock inventory data did not clearly differentiate sheep and lambs but did present estimates for lamb crops. Sheep losses from puma however, were clearly indicated as either adult sheep or lambs. As the inventory data were often incompatible, e.g. total sheep minus lamb crop did not equal an estimate of adult sheep, we only compared total puma depredation losses as a proportion of combined sheep and lambs and then puma depredation on lambs as a proportion of the lamb crop. For all states, data were available only for specific years (See Methods) and so we present the means over those years.

Relative to the mean percentage of inventory of all sheep and specifically for lamb losses over the 5 years where data were available (See Methods), California ranked 6th of the 12 states (Fig 7A and 7B). When considering the 6 years separately, the percentage lamb loss to pumas

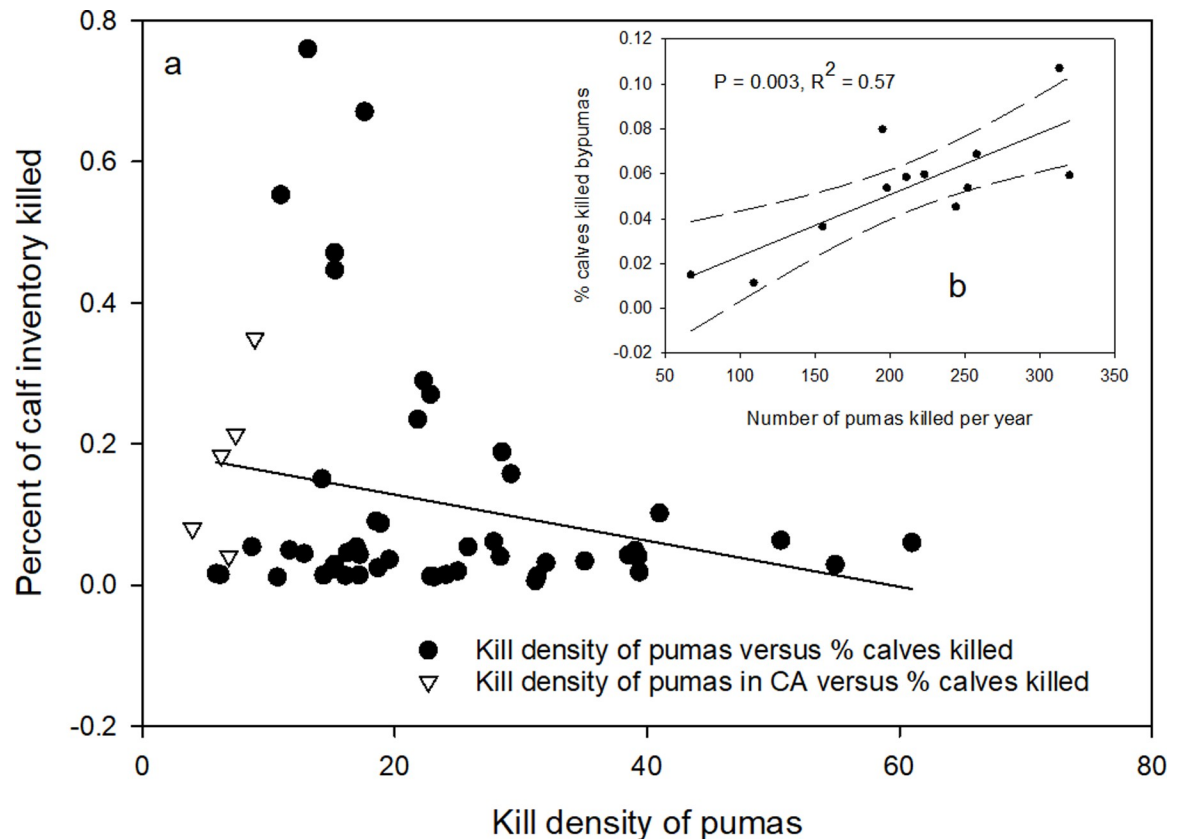


Fig 6. (a) Correlation of percent calves killed by puma with puma kill density (# of puma killed per 10,000 km² of habitat) for combined data from 10 states with a sport hunt on puma. Data from California are included in the graph for comparison but were not included in the correlation analysis. Fig 6b is correlation of percent calves killed by pumas in Wyoming with number of pumas killed per year for 2004 to 2012. Data are from the 5 years where cause specific predator mortality were available (1991, 1995, 2000, 2005, & 2010).

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in California for each year was significantly lower than the corresponding mean for the other 10 states (Paired $t = 3.53$, $P = 0.0077$). This was also the case for all sheep combined (Paired $t = 5.692$, $P < 0.001$).

As with cattle, we combined the total sheep loss data from the ten states with a sport hunt for the 5 years and correlated them with puma kill density for the years previous to the sample years. Again, there was no significant correlation. When we added the California data to the graph, but not the correlation, California again had some of the lowest percentage loss of sheep per number of puma killed. When we repeated this analysis for just lambs lost, again, no correlation was found.

Three states, Wyoming, Colorado and Utah, maintained cause specific losses of sheep and lambs to pumas for multiple years and we correlated sheep and lamb losses for those years with the level of puma killed for the years before. None of the correlations for Wyoming and Colorado were significant. For Utah there was a significant ($P = 0.05$) positive relationship between the number of pumas killed the year before and the percentage of lambs lost and the correlation explained 16% of the variation seen. When all sheep losses were correlated with puma mortality levels, again the relationship was positive, significant ($P = 0.049$) and explained 16% of the variation seen.

The results of the comparisons of livestock losses from pumas did not support the hypothesis that sport killing of pumas resulted in lower per-capita losses of cattle or sheep. In point of

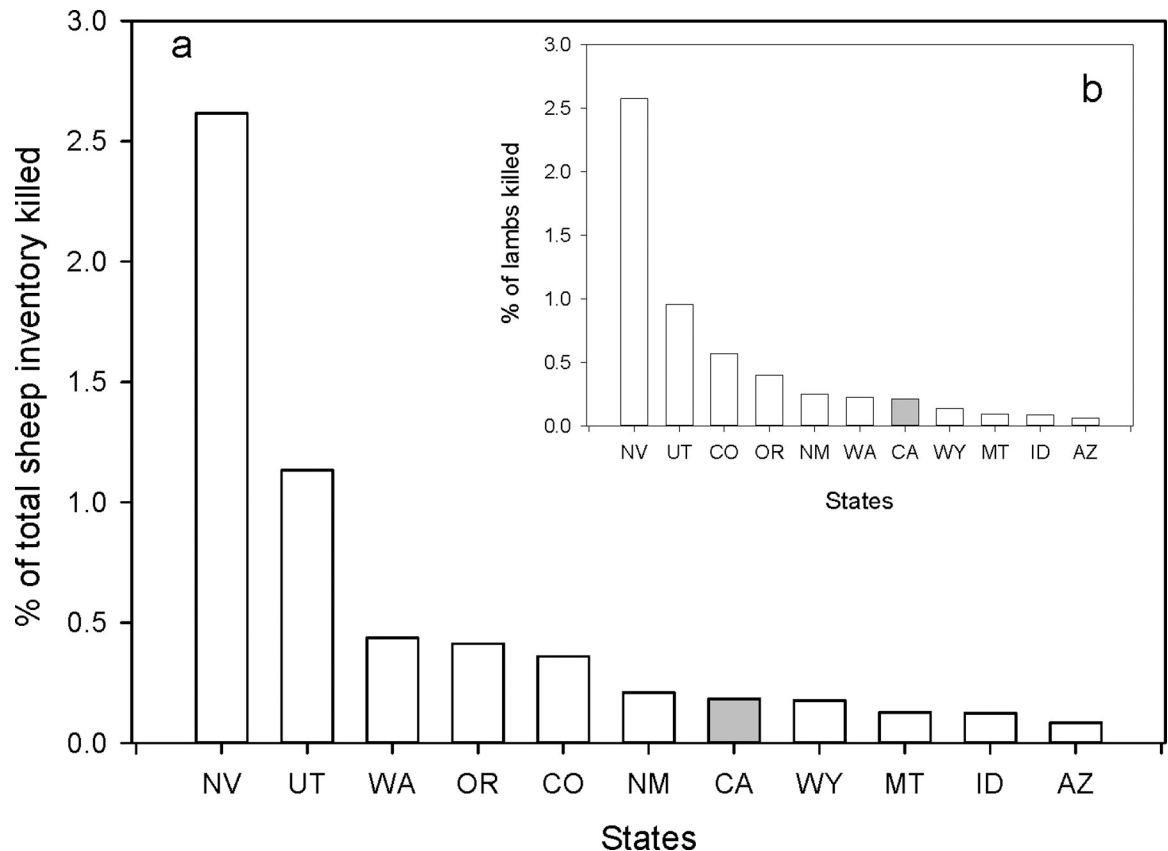


Fig 7. Ranking of each western state with puma relative to percent of total sheep (a) and total lambs (b) killed by pumas. Percentage of animals lost per state were means of the 5 years data were available (1990, 1994, 1999, 2004, & 2014).

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fact, in a few cases, the exact opposite of what was predicted was found: higher mortality rates of pumas were correlated with higher losses of livestock.

Prediction 4: California will have higher puma predation on ungulate populations, specifically deer

Several metrics are available to test the prediction that killing of pumas via the sport hunt will enhance deer populations or hunting opportunities for hunters. Two useful metrics are estimated deer density and deer hunter kills. These records are maintained by state agencies and commonly used as indicators of population trends (<http://cpw.state.co.us/thingstodo/Pages/Statistics-Deer.aspx>, Accessed on February 28, 2018). We used both metrics in the following comparisons. As explained in the Methods, we primarily limited our analyses to two time-frames: 1991–2015 and from 2000–2015.

We initially compared long term pattern of changes in deer kill densities from 1927 to 1972 between California and the average for 3 states that also had these data sets (Arizona, Oregon, and Utah). We sought to determine if California had any inherent differences in changes in deer abundance before the sport hunt of pumas was initiated relative to other states, which might affect any comparisons over later timeframes. We standardized the data by calculating the percentage each year's estimate was of the year with the maximum estimate recorded,

which would equal 100%. This allowed us to more directly compare patterns of change in deer kill densities.

When we compared the percent of the maximum deer killed for each year for California and the three-state average for the other states, we found a relatively high degree of concordance (Fig 8B). Based on kill records, all deer populations experienced exponential style growth in the 40's and 50's, peaking around 1960. After 1960, deer populations of California and the other three states appeared to decline in a similar pattern. When compared with a simple correlation of the transformed percentages, the correlation was highly significant (Fig 8B; $F = 95.4$, $P < 0.001$, $R^2 = 0.68$). Thus, as indicated by annual kill levels by hunters, changes in California's deer population before the beginning of the sport hunt of pumas appear comparable to other western states. At times, the magnitude of changes was different but the pattern of change matched. Consequently, any difference between California and the other states during the period of the sport hunt in those states could then be more likely because of the management differences.

To test for those differences in these later time periods, we compared California to the 10-state average from 2000–2015 (Fig 9A). Many states did not have kill data back to 1990 and so we limited our comparison just to the later timeframe of most intense puma kill rates. The prediction tested was that California should exhibit different patterns of change than the other states. For these comparisons, we also converted the number of deer killed in each year to percentages of the year of maximum annual deer kill within that timeframe, to make the lines more comparable. We found (Fig 9A) again that the patterns of change in deer kill density for California matched closely the pattern of the average for the ten states. Of note is that California and most of the other states experienced increased deer kills within the last 4 years, supporting the reported estimates of increasing populations of deer in most western states [33, 34]. We found that these data were also significantly correlated ($F = 19.1$, $P < 0.001$, $R^2 = 0.55$, Fig 9B).

As deer populations in all states seem to be undergoing similar trends, we then tested the following predictions regarding comparisons between California and the other 10 western states.

Prediction: After 10 years of intensive puma control, states with sport hunting of pumas should experience higher deer densities and deer kill densities of deer by hunters than California

We compared California and the 10 states to determine whether or not either deer densities or kill densities changed from the onset of higher puma kill rates over most states in 2005 to 2015. We found that most states had lower deer and deer kill densities (Fig 10). Of the states that had positive changes in deer and deer kill densities, California ranked 3rd highest (Fig 10A and 10B). For most states, deer densities and kill densities have been gradually declining in spite of record high kill rates of pumas. These results do not support the prediction that the intensive killing of pumas through the sport hunt has led to increased deer numbers over the last 10 years.

The primary prediction regarding deer is that the higher levels of killing of pumas should result in higher deer densities. We compared average deer densities among the 11 states for 1990–2015 and 2000–2015 (Fig 11A) and 2016 (Fig 11B). For the first comparison, there were only 4 other states with sufficient long-term data to compare with California. In both comparisons, California had the second highest deer densities in all three time periods.

We further correlated both deer density and deer kill density with puma kill densities for the previous year for the 11 states (Table 1). The prediction was that increasing numbers of

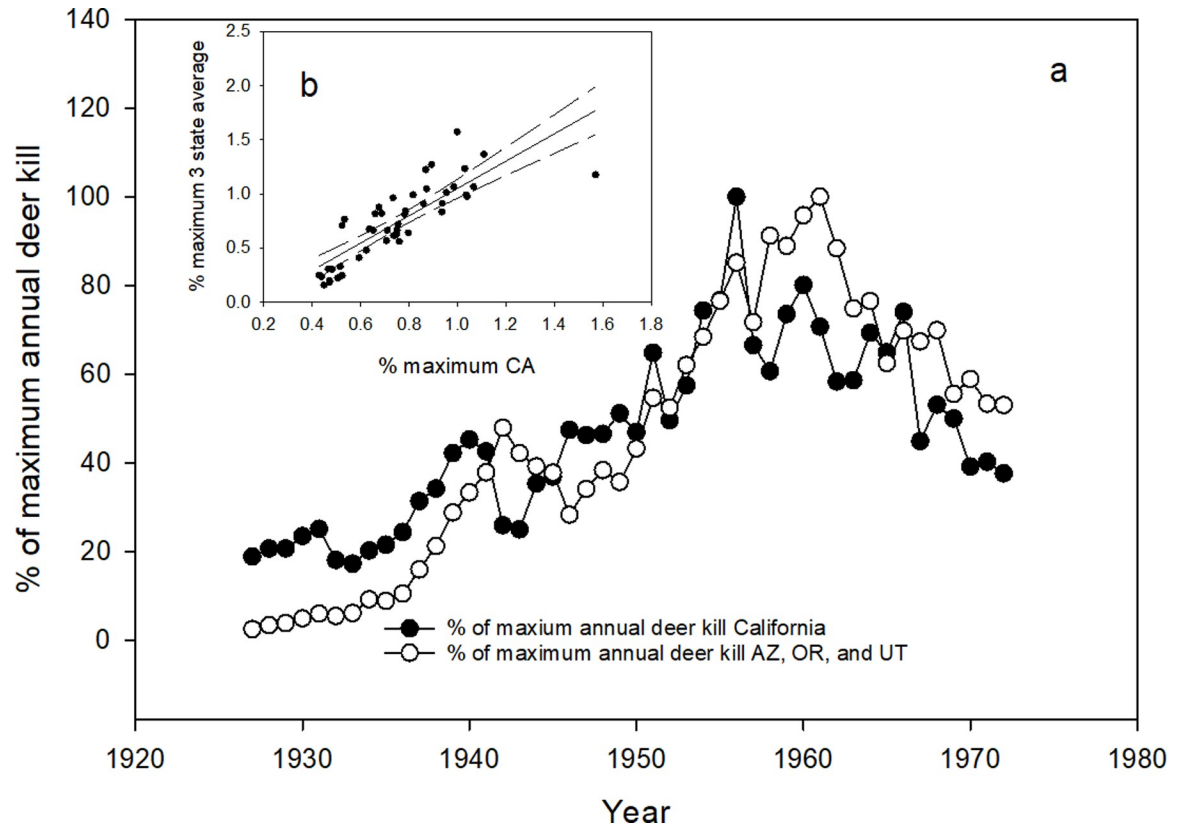


Fig 8. (a) Number of deer killed by hunters each year (1927–1972) expressed as a percentage of the year with the highest deer kill level for California and the average for Arizona, Oregon, and Utah. Fig 8b is the correlation of the mean percent of maximums for the three states versus percent maximum for California.

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pumas killed should have a positive effect on deer density and the number of deer that hunters killed. In all cases except one (Washington), deer density and deer kill density either did not significantly correlate with puma kill densities or were negatively related, i.e. higher number of pumas killed resulted in lower deer densities and kill densities (Table 1).

Prediction: There should be a positive correlation between deer hunter success and the sport killing of pumas the previous year

Hunter success is a common metric used by game agencies to judge the success of providing deer hunting opportunities to hunters. Hunter success, which can differ widely over large geographic areas such as states, is influenced by various factor. These factors, which include but are not limited to deer density, season length and type (e.g. bucks only or either sex), weather, and how hunter success is calculated (e.g. total deer licenses sold versus “active” hunters in the field (Wyoming data)), make useful across state comparisons unrealistic. A further complication is that game agencies calculate how many deer are killed in different ways, e.g. mandatory check-ins vs surveys. To analyze trends within states, we compared these data separately within the 11 states. As with deer densities, we found no correlation or in the cases of Oregon ($F = 15.5, P < 0.001, R^2 = 0.41$) and Wyoming ($F = 16.9, P < 0.001, R^2 = 0.55$), negative correlations, i.e. higher kill levels of pumas were associated with lower hunter success. These results

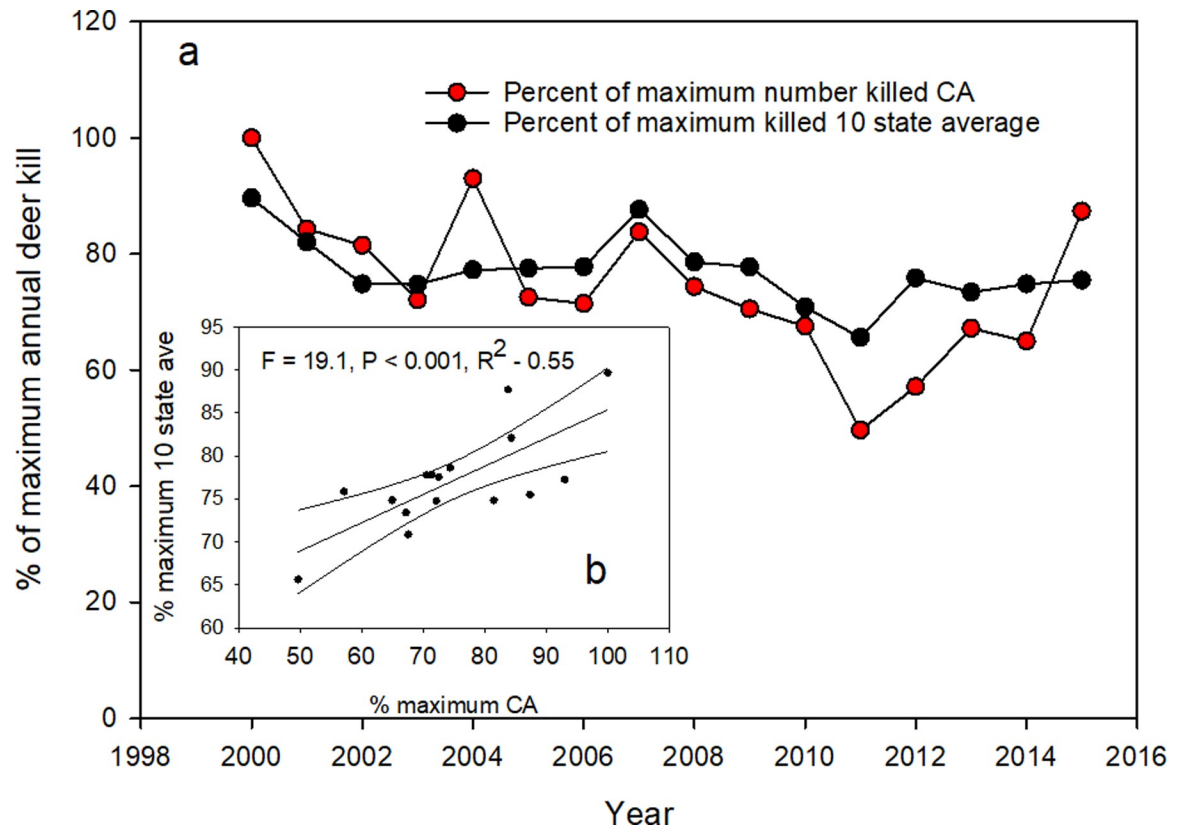


Fig 9. (a) Number of deer killed by hunters each year (2000–2015) expressed as a percentage of the year with the highest deer kill level for California and the mean for the ten states with a sport hunt of pumas. Fig 9b is the correlation of the mean percent of maximums for the 10 states versus percent maximum for California.

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indicated that the level of puma mortality did not produce the desired effect of higher hunter success.

To make comparisons between California and the other ten states regarding the pattern of hunter success over the 1990–2015 timespan, we calculated the percentage each year's hunter success was to the year the maximum hunter success was recorded (See [Methods](#)). We then averaged the percentages for the 10 states and plotted the results with the data from California ([Fig 12](#)). As can be seen in [Fig 12](#), though the amplitude of the percent maximum for each year was different at times, the patterns of increases and decreases in hunter success appeared quite similar. Most years when hunter success went up in the ten states, it also did in California and vis versa. This indicates an underlying common factor other than puma predation could be driving hunter success.

Another metric we used to ascertain if the killing of pumas by sport hunting was having a positive impact on deer availability for human hunters was the estimate of the number of deer per hunter available in the state. Recall that the prediction was that if sport hunting of pumas was having a positive effect, then we should see 1) a higher average number of deer per hunter in the ten hunting states compared to California over the 1990–2015 timeframe, 2) the ten states with a sport hunt should have increases in deer per hunter estimates from 2000-to 2015 (there were insufficient data from several states for the 1990–2015 comparison), and 3) the kill level of pumas within a state should have a positive correlation with the number of deer per hunter.

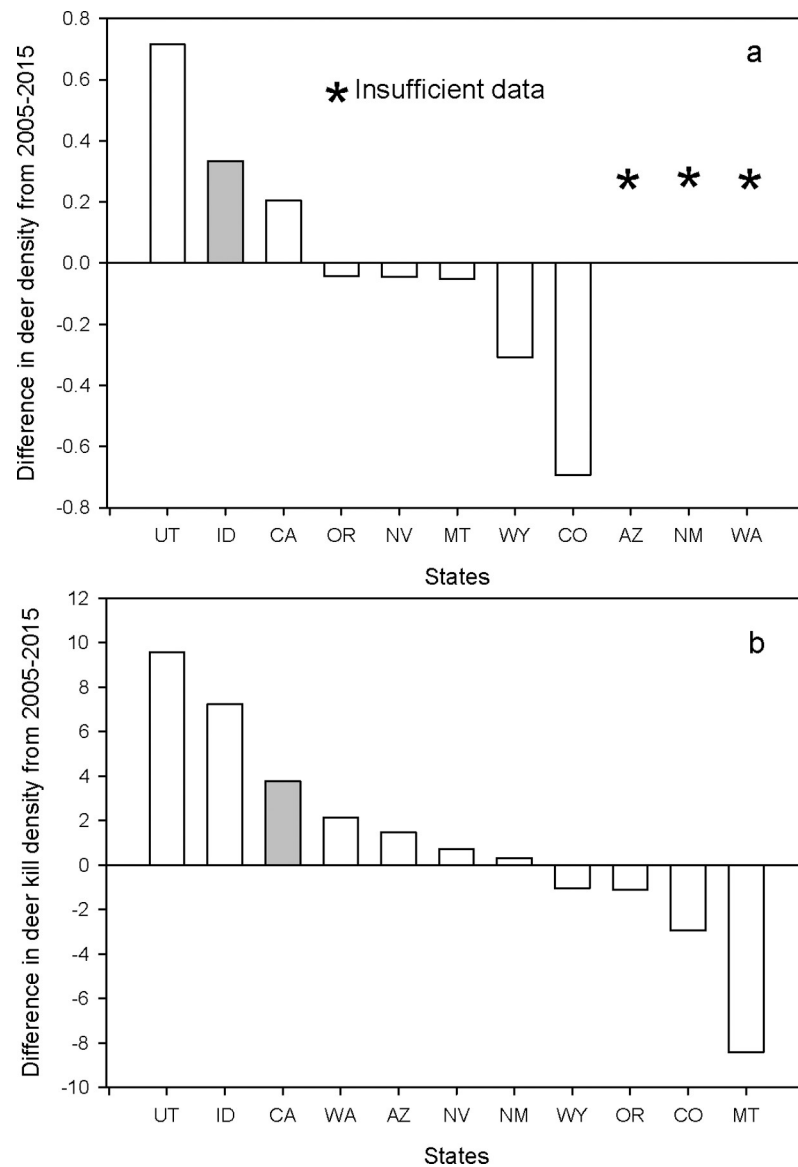


Fig 10. (a) Difference in deer density (#/km²) from 2005 to 2015 for California and 7 of the 10 states with a sport hunt on pumas where data were available. Fig 10b difference in deer kill density (#/100 km²) from 2000 to 2015 for California and the 10 states with a sport hunt on pumas. States are identified by their standard two letter postal codes.

<https://doi.org/10.1371/journal.pone.0224638.g010>

In the first comparison, seven hunting states had more and three had fewer deer per hunter than California (Fig 13A). A one sample t-test comparing the ten sport hunting states with California indicated no statistical difference. In the second comparison, after 15 years of puma mortalities, six states, including California reported a decline in deer per hunter, with California having the smallest decrease, whereas two states (Utah and Oregon) reported more deer per hunter (Fig 13B). In the third comparison, correlating the number of deer per hunter for a given year with the density of puma kills the year before yielded two significant correlations, Oregon had a positive correlation ($F = 31.5, P < 0.001, R^2 = 0.59$) and Wyoming had a negative one ($F = 8.8, P = 0.014, R^2 = 0.42$). The remaining states, including California had no significant relationship between puma kill levels and the number of deer per hunter within their borders.

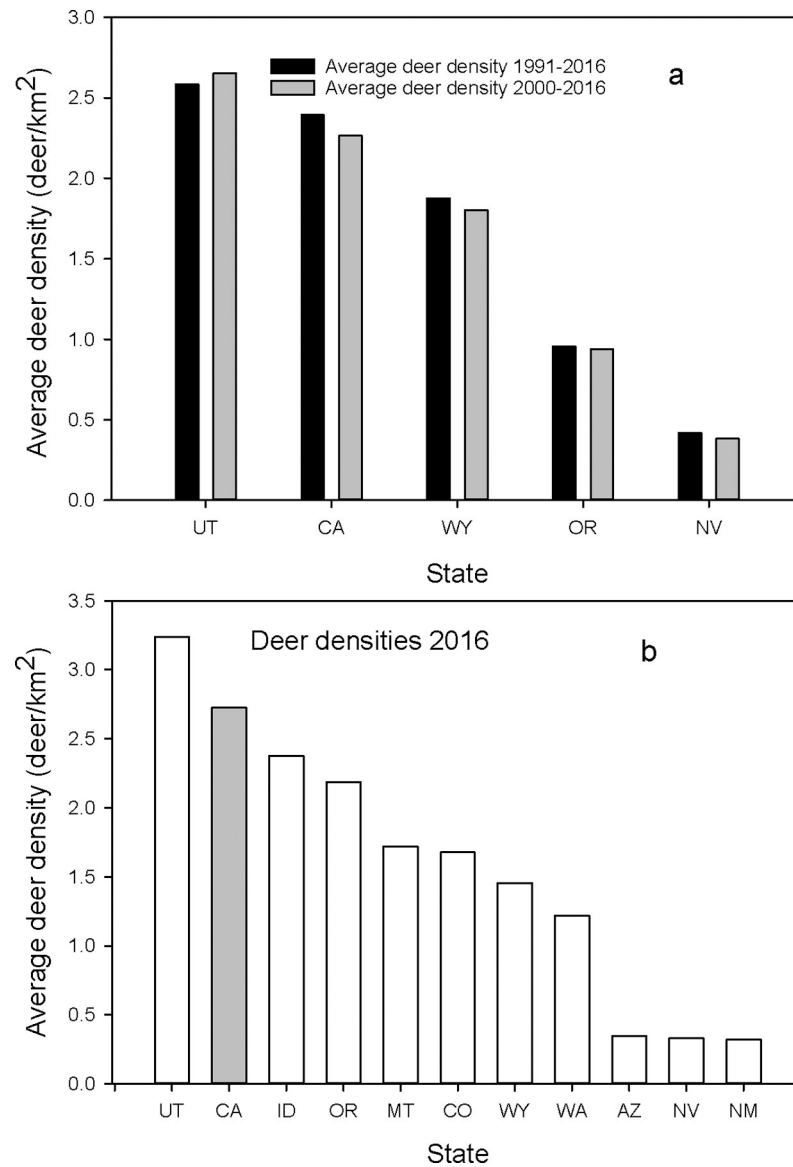


Fig 11. (a) Ranking of mean deer densities (deer/km²) from 1991–2016 and 2000–2016 for California and the 4 states with a sport hunt on pumas with sufficient data. Fig 11b is the mean deer densities in 2016 for California and the 10 states with a sport hunt on pumas. States are identified by their standard two letter postal code.

<https://doi.org/10.1371/journal.pone.0224638.g011>

Discussion

Sport hunting has been widely employed by state wildlife agencies in the western United States to manage puma since the early 1970's. Besides offering an additional hunting opportunity to hunters, stated agency justifications for this practice are based on the hypotheses that widespread killing of puma by hunters will suppress puma numbers, and reduce undesirable puma impacts on human safety, livestock, and ungulate populations (e.g. <https://idfg.idaho.gov/wildlife/predator-management>, Accessed on February 28, 2018). This management strategy has been used by ten western states to kill increasing numbers of puma. There has now been sufficient time to test whether sport hunting is having the desired effects relative to an un-hunted puma population, i.e. California. By making various comparisons between the ten

Table 1. Correlation statistics of deer density (deer/km²) (a) and deer kill density (deer killed by hunters/100 km²) (b) estimates each against puma kill density (number of pumas kill the previous year/10,000 km²). Data are from 1990 to 2015.

	AZ	CA	CO	ID	MT	NV	NM	OR	UT	WA	WY
(a) Deer density (deer/km ²) correlated with number of pumas killed previous year											
F	¹	1.79	16.0	2.35	38.4	1.65	¹	5.28	3.60	¹	16.4
P		0.19	0.002	0.15	<0.001	0.21		0.03	0.07		<0.001
R ²		0.54		0.78				0.15			0.39
² Rel		NS	Neg	NS	Neg	NS		Neg	NS		Neg
(b) Deer kill density (#/100 km ²) correlated with number of pumas killed previous year											
F	12.5	1.14	37.6	0.29	38.3	0.59	0.8	40.9	0.43	8.9	0.29
P	0.002	0.29	0.001	0.59	<0.001	0.45	0.38	<0.001	0.52	0.008	0.59
R ²	0.34		0.72		0.79			0.63		0.31	
² Rel	Neg	NS	Neg	NS	Neg	NS	NS	Neg	NS	Pos	NS

¹Insufficient data to do the analysis.

²Whether relationship was positive (Pos), negative (Neg), or not significant (NS).

<https://doi.org/10.1371/journal.pone.0224638.t001>

sport hunting states and California we tested the hypotheses that a sport hunt would: 1) suppress puma numbers at levels lower than would be expected without a sport hunt, 2) reduce problematic puma-human interactions, 3) reduce puma depredation on domestic livestock, and 4) reduce the impact of puma predation in wild ungulate numbers.

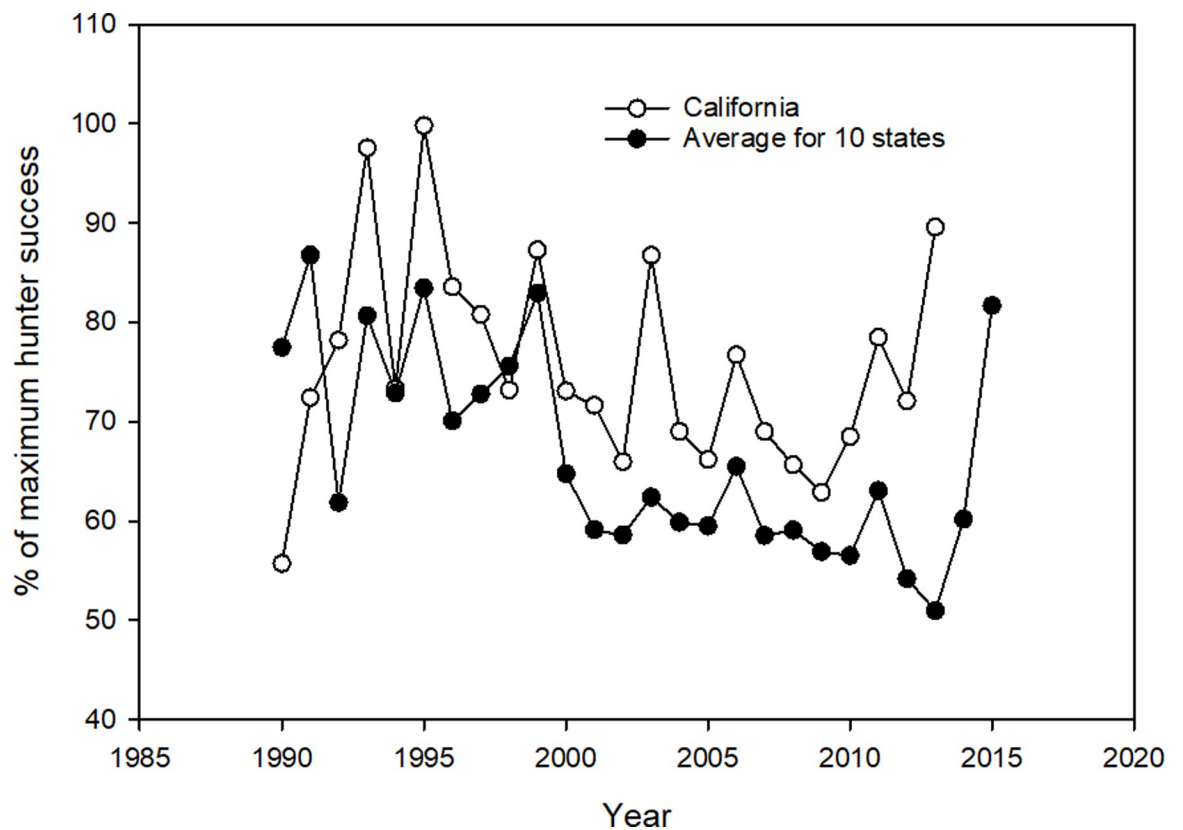


Fig 12. Annual percent hunter success expressed as a percentage of the year of the highest hunter percent success for California and the 10 states with a sport hunt on pumas. The curve for the 10 states is the mean of these states' values.

<https://doi.org/10.1371/journal.pone.0224638.g012>

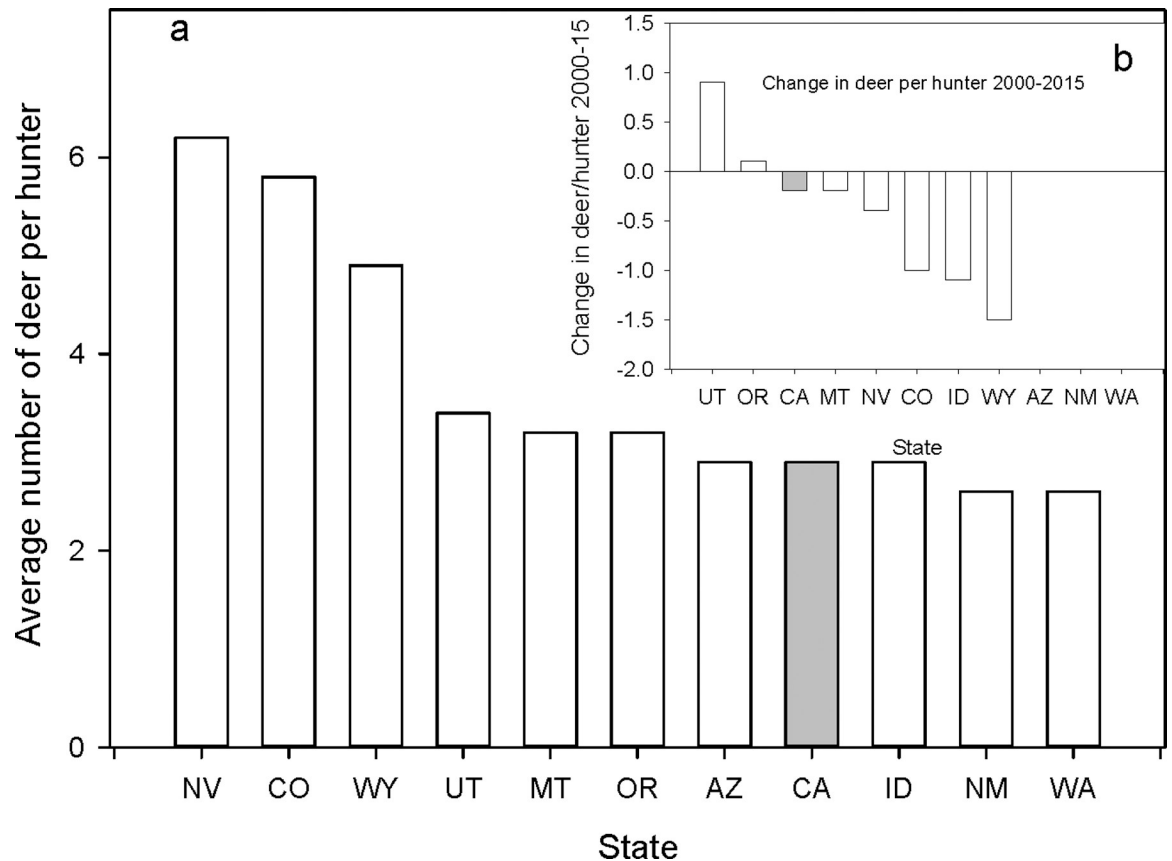


Fig 13. (a) Mean number of deer per hunter (number of deer/number of hunters) for California and the 10 states with a sport hunt on pumas. Fig 13b is the change in the number of deer per hunter from 2000 to 2015 for California and 7 of the 10 states with a sport hunt on pumas. Data were not available for Arizona, New Mexico, and Washington to make this comparison. States are identified by their standard two letter postal codes.

<https://doi.org/10.1371/journal.pone.0224638.g013>

Does sport hunting suppress puma populations?

Regarding impacts of sport hunting on puma numbers, within the constraints of the robustness of the data available, we found no evidence those data support the hypothesis that sport hunting has long-term effects on puma numbers. California reports similar average densities of pumas as the ten hunting states after 40+ years of increasing sport hunting rates by those states (Fig 2). Again, it must be stressed that population estimates of pumas are the least regularly estimated and least reliable data sets used. Thus, conclusions drawn should be done with caution.

The results do, however, concur with Cooley et al. [15] who also found no evidence of sport hunting having a regulating impact on puma populations. In their study, a main factor possibly negating any controlling influence of hunting was the immigration of dispersing individuals from surrounding areas [35]. As any dispersing pumas from California would only have a limited regional impact, e.g. Arizona, Nevada and Oregon, it is unlikely that dispersing individuals from California are affecting puma abundance across the entire West.

Additionally, in our analysis, Oregon records, which are the most complete and, according to the agency, most reliable, data set we have, indicated that increasing killing of pumas is associated with increases, not decreases, in estimated puma numbers (Fig 3). As reported by the

state agency, both puma numbers and puma kill rates in Oregon have substantially risen over the last 20 years, contrary to what would be predicted by the sport hunting model. Consequently, based on their own data, this alone would argue against further use of sport hunting of pumas as a management tool.

If, as the data indicate, sport hunting does not function as a population control mechanism, then the data from California appears to support some of the original studies proposing that social organization of pumas is a limiting factor on total puma abundance [36]. In reality, the number of pumas in California is probably regulated by a combination of social organization and prey abundance [26, 27]. Puma populations fluctuate with prey abundance [26] and when prey abundance is low, its availability probably limits the number of pumas an area can support regardless of social limitations. However, with higher prey levels and increasing puma numbers, social strife possibly sets the upper limit of puma densities in an area, apparently regardless of whether the population is hunted or not. Recent work on social organization in pumas [37] indicates even more complex social interactions than earlier thought. These interactions underscore the importance of a stable social structure that sport hunting appears to disrupt [38].

Does sport hunting reduce risk to human safety?

Regarding the prediction that sport hunting of puma should reduce risk to human safety, recent studies have indicated that the use of this management tool may have just the opposite effect [21, 39]. The results of our multi-state analysis in general supports the more regional findings in that first, there appears to be no relationship between sport hunting of pumas and human safety/conflicts. For each timeframe since 1972, considered, California has similar total numbers of recorded puma attacks as some hunting states and the third lowest number of per capita attacks (Fig 4). In our calculation of per capita rates, we considered the total populations of each state. This was in part because of the difficulty in separating out urban and rural population numbers but also in recognition that in many of the states, pumas are widespread throughout the states and readily use suburban and exurban areas [40, 41]. This is especially the case for California where pumas are commonly reported near and in major housing developments [41, 42, 43, 44]. Though Florida was not included in this analysis, it should be noted that Florida panthers are totally protected, living in one of the most densely human populated area of the U.S. and there have been no attacks on humans over the same time intervals considered [45].

Contrary to predictions, higher kill rates of puma coincided with higher numbers of incidents in two of the three states where data were available, Utah and Washington. Our results from Washington from 1992–2015, concur with a 5-year analysis (2005–2010) of that state [21] and a more recent analysis from British Columbia [39]. Indiscriminate killing of pumas appears to disrupt social structure and stability [37, 38], resulting in younger less experienced individuals having more conflicts with humans [21].

The risk of puma attacks on humans is normally extremely low (approximately 2/year across the 15 states where pumas are found). This is in comparisons to normally accepted higher risks from other wildlife species, e.g. 150–200 human fatalities per year in deer-car collisions [46]. As sport hunting of deer is not used to address these higher incidences, we found no justification for the rationale to use sport hunting pumas to address similar human safety concerns.

Does sport hunting reduce puma depredation on livestock?

The western states we considered all have major extensively managed livestock operations where livestock, mainly cattle and sheep, are grazed on open pasture, often in the same habitats used by pumas. Pumas do prey on these livestock. However, as with human risks, the average rate of depredation is low, especially when considered as a percentage of the total number of head of livestock exposed to the risk of puma predation. This being the case, however, it is still valid to ask: Could the sport hunt of pumas further lower the predation rate on cattle and sheep? Based on our analysis of the data, the answer appears to be no. Comparing the ten puma hunting states to California we found no difference in the percent loss of total inventory of cattle (Fig 5) or sheep (Fig 7). We also found no effect of puma kill rates among all the states and percentage of inventory lost (Fig 6). On the contrary, in concurrence with data from Washington [21], we did find higher percentages of calves killed by pumas with higher puma kill rates in Oregon (Fig 6B) and a similar response for sheep and lambs in Utah. Peebles et al. [21] credited the higher rates of livestock predation in their study to the disruption of the social order by the indiscriminate killing of resident individuals by the sport hunt. It would appear that in these two states at least, a similar social upheaval might be occurring. In conclusion, again, our multi-state analysis failed to demonstrate any reduction of livestock depredation attributable to the sport hunt of pumas.

Does sport hunting of pumas result in higher deer populations?

The last prediction we tested was whether the sport hunt of pumas resulted in “more game in the bag” for deer hunters. Much to the frustration of game agencies, rising and falling deer populations seems to be the norm for most of the western states [19, 47]. Over the long term, the general pattern, based on available data, has been a significant increase in deer numbers after deer were protected from uncontrolled hunting prior to the 1920's (Fig 8). It appears that in most states, including California, deer populations peaked around 1960 and then declined dramatically after, with a minor recovery in the mid 1980's. There have been innumerable number of studies and several reviews of those studies to try and identify what is driving deer populations. The usual suspects have been considered extensively, e.g. weather, habitat destruction, over-browsing, and predation. Many studies have tested whether pumas are affecting deer populations [18, 27, 48, 49] and at least three reviews of these studies exist [16, 17, 19]. The general consensus is that pumas are not affecting deer numbers and killing puma only will enhance deer populations under very limited circumstances in space and time [16, 17, 49]. Similar non-impacts by pumas have been found for elk [48, 50]. Yet, most agencies still use blanket killing of pumas by sport hunting over most of their state to enhance ungulate populations, an approach that appears unjustified. In one study [26, 49] puma population numbers were monitored through the increase in deer numbers in the mid-1980's and their subsequent decline. Based on the demographics of the puma population [26], it appeared that deer numbers were more likely driving puma numbers, with deer numbers being more affected by weather conditions [49]. Our multi-state analysis in general concurs with these many studies and reviews.

We first found that average annual deer densities in California were the second highest for all time intervals considered (Fig 11). The differences in deer densities among states could be due to inherent limits in habitat carrying capacity. This is possibly the case for the states of Arizona, Nevada, and New Mexico as they encompass primarily desert environments. However, most other states did have some years that equaled or exceeded the average deer densities for California. This indicated that while they had the potential to have similar or higher densities, the sport killing of puma did not seem to lead to those higher densities. We found only one

state, Washington, where deer densities were positively related to the number of puma killed (Table 1). In the other states, including California, there was either no relationship or it was a negative one, e.g. lower deer density with higher number of puma killed. Additionally, deer densities in most states, including Washington, have decreased in association with the higher levels of puma kill rates since the year 2000 (Fig 10).

A major management goal of most agencies is to provide hunters with a reasonable level of success. That success can be measured, in part, by the number of deer per hunter. Regardless of the total deer density, the more deer per hunter, the more likely a hunter can be successful. This can be seen in New Mexico where, though it had the lowest deer density of all the states (0.4 deer/km²), had the highest deer per hunter (6.2) and thus had a relatively high hunter success rate (42.2%). California had an equal to or higher number of deer per hunter as seven of the sport hunting states, indicating that there were similar numbers of deer available to hunters in most states regardless of whether pumas were removed. Further, when we compared the change in deer per hunter data for each state after 15 years of intense killing of puma, most states had fewer deer per hunter, with California having the least decline.

Conclusions

The overall conclusion of these comparisons is a rejection of the sport hunting hypothesis regarding 1) suppression of puma numbers, 2) reduction of problematic puma-human encounters, 3) reduction of puma predation on livestock depredation, and 4) reduction of the impact of puma predation on wild ungulate populations. The results of these comparisons concur with a growing number of regional studies that find no consistent evidence that sport hunting is functioning as an effective management tool. It may, in fact, be having the opposite results [15, 21, 39]. It is becoming evident that under the guidelines of adaptive management, in the absence of evidence of its efficacy, state agencies should refrain from prescribing sport hunting as a management tool.

Though the sport hunting of pumas may not have any management application, the 5th reason often given for such hunting is it provides hunters with an additional hunting opportunity. Whether or not sport hunting of pumas should be continued as a hunting opportunity to hunters is, however, a decision that should be made through the democratic process and involve all the citizens within each state. As specified by the North American Model of Wildlife Conservation, hunting laws should be created through the public process and should follow the tenets of the NAM that state 1) wildlife is held in the public trust, 2) wildlife use is allocated by law, 3) wildlife should be killed only for a legitimate purpose, and 4) science should be the basis of all decisions [9]. In making that decision, game agencies will have to justify to the public that maintaining a sport hunt on pumas to solely provide trophy hunting opportunities to a small percent (< 0.4%) of the public [51] is a legitimate reason for killing pumas. They should not, however, use the four proposed outcomes analyzed here as a justification for the continuation of sport hunting of puma. Their own management data just does not support it.

Supporting information

S1 Fig. Correlation of number of puma-human incidences reported with puma removal density (#/10,000 km²). Data are for California and the three states (Oregon, Washington, and Utah) for which these data were available.

(TIF)

S1 File. Data used in the analyses. This is an excel file that contains the data used in the analyses. This file also includes links to the sources of most data sets.

(XLSX)

S2 File. Unavailable data sources. This is a zip file that contains sources of the data used in the analyses that are no longer available on the internet.

(ZIP)

Acknowledgments

We thank Harley Shaw for providing insightful suggestions on this manuscript. We also acknowledge the immense effort of the hundreds of state and federal employees and members of conservation NGOs who collected and compiled the vast amount of data used in our analyses. It is through their efforts that such a large-scale analysis was possible.

Author Contributions

Conceptualization: John W. Laundré, Christopher Papouchis.

Data curation: John W. Laundré.

Formal analysis: John W. Laundré.

Methodology: John W. Laundré, Christopher Papouchis.

Project administration: John W. Laundré.

Validation: Christopher Papouchis.

Visualization: John W. Laundré.

Writing – original draft: John W. Laundré.

Writing – review & editing: Christopher Papouchis.

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From: Sara Grusing saragrusing@gmail.com
Subject: Public comment re: Cougar Management plan
Date: November 18, 2020 at 12:39 PM
To: kvalness@oda.state.or.us

SG

Hi Karla,

Here is my comment:

The cougar management plan should be reviewed by ecologists, and although I welcome the opportunity to provide input, I think the idea of allowing people who don't fully understand the ecosystem repercussions is flawed. The damage caused to farm animals, pets, and people needs to be taken into consideration when balanced with the treats to these same entities and other entities under an unbalanced ecosystem with limited or nonexistent cougars. Predators are important to ecosystems.

As a tax payer, I would like to discourage the spending of my tax money on inhumane methods of killing cougars, and encourage other techniques of discouraging cougars from interacting with humans, farm animals, and pets. I also think we need to stop subsidizing animal farming in Oregon to the extent that we can, as the impact to our natural areas in runoff, carbon emissions, and loss of habitat to wild animals is not worth what we gain from it. It doesn't seem fair to plop down a bunch of cattle (most of which are fattened halfway across the country every year) in front of cougars in their NATIVE habitat and then blame the cougars for the dangerous situation. Kind of a no brainer to me and a waste of my money when the farmers are already receiving federal subsidies and polluting my home state. Eating meat is awful for public health, silly, and a waste of resources in 2020, but if you still feel like you need to do it I don't see why the meat has to be grown in my backyard. Please reject the resolution supporting the Oregon Cougar Management Plan.

Thank you!
Sara

From: June Stephens junebirdart@gmail.com
Subject: Oregon Cougars
Date: November 18, 2020 at 1:07 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness:

I am extremely concerned regarding the "Cougar Management Plan" and feel that this is a euphemism for the unnecessary and unwarranted killing of cougars in Oregon. We all know the causes of any conflict with wildlife are **human encroachment and habitat loss**. More than ever, people are interested in preserving our indigenous species such as cougars.

It is a fact that cougars are responsible for less than 1% of livestock mortality in Oregon and there are mitigations that livestock owners can take, such as penning livestock at night, installing noise and light devices, and installing electric fencing.

Killing wildlife is not the solution! EDUCATION is the solution! The Oregon Board of Agriculture and the Oregon Department of Fish and Wildlife should invest in educating humans on how to live WITH cougars (and other wildlife), dispelling myths and inaccuracies. This can be accomplished by having webinars, posting signs, teaching respect for wildlife in schools, and community meetings.

Education, awareness, and common sense are the keys to living with cougars. Destroying these iconic animals makes no sense and robs us all.

Sincerely,

June Stephens

-

From: Andrew Herman 1sunny.herman@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 1:32 PM
To: kvalness@oda.state.or.us



I am writing to ask that you reject the Oregon Board of Agriculture's resolution in support of the Oregon Department of Fish and Wildlife's unsustainable and cruel cougar management plan.

Instead, the Oregon Board of Agriculture should adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock from harm.

ODFW has done a deplorable job of balancing the needs of agricultural interests against those of our natural wildlife populations.

Sincerely,

Andrew Herman

From: Roaninn roaninn@gmail.com
Subject: Defending Cougars
Date: November 18, 2020 at 1:33 PM
To: kvalness@oda.state.or.us



Dear Karla Valness,

I urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid very limited threats to farm animals.

Flaws with the Cougar Management Plan (last updated in 2017) include:

- Failure to require specific non-lethal approaches to cougar conflicts with people, pets and farm animals before resorting to killing cougars.
- Allowing intensive, indiscriminate killing of cougars (i.e., not specific cougars known to be causing problems) when reported conflicts with cougars over three years rise above a 10-year average - an arbitrary measure, in our opinion - even though studies show this may actually *increase* conflict by destabilizing cougar populations.
- Allowing cougars to be hunted with packs of dogs for these so-called "management" activities, even though voters outlawed that method of hunting cougars for sport in 1994.

Thank you,
R. Roaninn

From: Jennifer Hartman jennilouhart@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 1:43 PM
To: kvalness@oda.state.or.us



To whom it may concern,

As a wildlife biologist with extensive experience surveying for & researching mountain lions throughout the west, I was alarmed to learn about ODFW's supposed "management plan." It is both cruel & unsustainable. We should be beyond such practices now. I am writing today to ask that you reject the resolution. Instead, I encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you for being a voice for Oregon's cougars.

Warm regards,
Jennifer Hartman
Research Scientist

From: Shanti Dub sshanti@ymail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 1:57 PM
To: kvalness@oda.state.or.us

SD

To Karla Valness:

In response to your proposed Cougar Management Plan,
The majority of Oregonians want responsible and science-based
wildlife management.

The fact is that cougars are responsible for a tiny portion of livestock
deaths in Oregon and the U.S.

The use of recreational hunting and lethal conflict management is
counterproductive. Indiscriminate killing disrupts the cougars'
complex social structures, leaves young cubs orphaned before they're
able to fend for themselves, and increases conflicts with humans and
livestock.

I am to encouraging you to adopt a resolution urging Oregon's
ranchers and farmers to learn and practice effective nonlethal
strategies for coexisting with wildlife while protecting their livestock
animals from harm.

We need to insist that our state agencies make fact-based decisions
about how to manage the wildlife that belongs to every citizen.

Thank you for reading this,
Susan M. Dubovsky
concerned citizen

From: Susan Parsons sue.parsons@comcast.net
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 1:57 PM
To: kvalness@oda.state.or.us



Please reject the Board of AG's resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, I encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

While predation is a valid concern, research and experience shows most of it is preventable with inexpensive and common sense nonlethal ranching and farming practices.

Thank you for listening.

Susan Parsons
Tualatin Oregon

From: Betty Patton Betty@BettyandRichard.com
Subject: Cougar Management Plan
Date: November 18, 2020 at 2:18 PM
To: KValness@oda.state.or.us



Karla Valness
Oregon Board of Agriculture
18 November 2020
Re: Cougar Management Plan

Dear Ms. Valness: I am writing to urge you not to pass what is labeled as the Cougar Management Plan. Please refer to both state and federal records showing that cougars do not pose a threat to the livestock industry in Oregon. Over 99% of unwanted livestock deaths are attributed to sources other than cougars. Simple solutions to cougar predation exist, none of which involve killing of any animal. Please pass a resolution that supports all of the non-lethal protection methods that are known to be effective and are scientifically proven. Unnecessary killing is not the answer to this problem of cougar predation. Avoidance via non-lethal actions works well. Please pursue that line of action.

Betty Patton
32 NE 44th Avenue
Portland, OR 97213
503-358-0496
Betty@BettyandRichard.com

Most institutions demand unqualified faith; but the institution of science makes skepticism a virtue. -Robert King Merton, sociologist (4 Jul 1910-2003)

From: Suzie Marlow suzie.marlow@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 2:43 PM
To: kvalness@oda.state.or.us



To whom it may concern,

I work in the field of wildlife biology and have been fortunate to contribute to mountain lion research, mostly in regards to population estimates. I was alarmed to learn about ODFW's supposed "management plan." We should be beyond such practices now and be able to identify the negative implications that a cougar cull can cause on the surrounding ecosystem. I am writing today to ask that you reject the resolution. Please, adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm. Just because certain lifestyles and occupations are traditional, it does not mean they can't evolve with the growing knowledge of the surrounding wildlife.

I encourage ODFW to read "Cougar Conundrum" written by Mark Elbroch to be better informed of current cougar knowledge.

Thank you for being a voice for Oregon's cougars.

Warm regards,
Suzie Marlow
Research Scientist

From: BF HOYT bfhozt@comcast.net
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 2:47 PM
To: kvalness@oda.state.or.us

BH

Madam,

Mountain lions need protection. They are NOT responsible for the loss of live stock, like the Cattle Lobby is saying.

Yes, there is some livestock loss due to game hunters killing off many of the lions main food supply, like deer and elk. But the livestock loss is less than 1% due to lions.

The cattle lobby in the western states of America [own] the BLM and Dept. of Fish and Game. They have become "lackeys" for these Departments and do their bidding all the time. Which always is, kill the mountain lions, either by poison or hunting.

In Europe, Turkey and even Russia, they use guard dogs to protect their herds and have much less stock loss than in America. In this country its always shoot first and ask questions later...?!?

If it ain't one thing its another in America. And the gun seems to be the answer to it all. But look at the results this way of controlling the so-called problems as [not] worked out.

There are other and better ways to deal with mountain lions and other predators, then just killing them off.

DO NOT get bullied by the Cattle Lobby and their lies. But I have to add, that there is way too many cattle being raised in America. Even if the herds were reduced as much as 50%, these ranchers would still have more cattle then is need for the US market and they would still rich.

I am NOT a vegetarian saying this either. I eat meat and have at least one steak a week for dinner.

Please look into alternative ways to control this situation other then killing them off. There are so few left now, it would be a "sin" to see them disappear forever. Thank you, B. Hoyt

From: Andrew Geller andrewsgeller@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 18, 2020 at 3:11 PM
To: kvalness@oda.state.or.us



Ms. Valness -

I write to insist that the Board of Agriculture reject the pending resolution in support of the Oregon Cougar Management Plan.

This Plan's emphasis on killing cougars, often by inhumane techniques, is inappropriate. There are many non-lethal approaches that would allow all animals, wild and domesticated, to survive.

Thank you.

Andrew Geller

From: Linda Leyva lindaomsi@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 18, 2020 at 3:29 PM
To: kvalness@oda.state.or.us



To the Oregon Board of Agriculture:

I've become aware that the Oregon Board of Agriculture is considering a resolution that supports the Cougar Management Plan because of the "*threat that cougar predation poses to the livestock industry in Oregon.*" Yet, apparently, from state and federal records, this is not factual. I've read that cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. In addition, apparently the best available science tells us that indiscriminate killing of cougars increases complaints and livestock depredation, not reduces it.

As our human population increases, wildlife habitat decreases. We must practice methods of living with wild animals, not removing them because they are a threat. Even though I live in the city, every night I lock up my chicken house to keep the hens safe from urban predators. Farmers and ranchers who must deal with the threat of predation must learn to use proactive prevention of livestock depredation from cougars and other wildlife, such as simple, non-lethal precautions like penning livestock at night and installing noise and light devices that deter cougars from an area.

So, please, do not to pass this resolution. Instead, pass a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock.

Linda Leyva
lindaomsi@gmail.com

"There are only two ways to live your life. One is as though nothing is a miracle. The other is as if everything is a miracle."-Albert Einstein

From: Jenifer Lindsay hdjen@live.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 3:55 PM
To: kvalness@oda.state.or.us



Hello Karla,

Thank you for your availability to public comment.

I am writing to ask you reject the the AG's resolution in support of ODFW's cougar management plan. I encourage you to urge Oregon's ranchers to learn and practice non-lethal strategies. With intelligence and care, we can coexist with wildlife.

Thank you again for your consideration.

Jenifer Lindsay
Lakeview Oregon resident

From: M Fitzgerald mjfcalf@yahoo.com
Subject: Public Comment - COUGAR Resolution
Date: November 18, 2020 at 3:58 PM
To: kvalness@oda.state.or.us

MF

I am writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, I encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you for being a voice for Oregon's cougars.

Meissa Fitzgerald

From: Sandra Larsen slarsen422@msn.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 4:03 PM
To: kvalness@oda.state.or.us



I am writing today to ask that you reject the Board of AG's resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, I encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you.

Sandra Larsen

From: Mairi Poisson mairipoisson@gmail.com
Subject: Cougar Management Plan
Date: November 18, 2020 at 4:07 PM
To: kvalness@oda.state.or.us

MP

Hello,

Thank you for allowing the opportunity to provide comment ahead of the Dec. 2 board meeting.

I am writing to urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid very limited threats to farm animals.

Increasingly, we are setting aside concerns for biodiversity and species conservation. Cougars are a vital part of the ecosystem, and indiscriminate killing of these individuals is not an effective management tool in the long term. We need to utilize specific and practical non-lethal tools in order to benefit biodiversity, human-wildlife coexistence, and the needs and concerns of people living in cougar country.

Thank you again for listening to our comments, and I look forward to hearing your decision on the matter.

Best,
Mairi Poisson

From: John Rakestraw rakestraw.john@yahoo.com
Subject: Cougar Management Plan
Date: November 18, 2020 at 4:13 PM
To: kvalness@oda.state.or.us



Dear Ms Valness,

I am writing to request that the ODA not endorse the 2017 Oregon Cougar Management Plan, and instead promote non-lethal methods of coexisting with a healthy wild cougar population.

The current plan is based on complaints that do not necessarily reflect actual damage caused by cougars. ODFW accepts complaints that are merely perceived threats to pets and livestock. The actual number of farm animals killed by cougars is quite small.

The 2017 plan would allow the cougar population in Oregon to be reduced by more than half its current level.

It is well established that a healthy population of native predators is essential for the fitness and sustainable population density of deer and elk.

Please do not endorse the current Cougar Management Plan.

Thank you.

John Rakestraw
Washington County, OR

From: Kelly Vuletic Kelly.Vuletic@outlook.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 4:37 PM
To: kvalness@oda.state.or.us



Dear Ms. Karla Valness,

We are writing today to ask that you reject the Board of AG's resolution in support of ODFW's unsustainable and cruel cougar management plan.

Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you for your time.

Kelly Vuletic
Bend, Oregon

From: Sandy Miller mayfly52@gmail.com
Subject: Cougar Management Plan
Date: November 18, 2020 at 4:52 PM
To: kvalness@oda.state.or.us



I urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid very limited threats to farm animals.

From: Leslie Green greengib@peak.org
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 5:38 PM
To: kvalness@oda.state.or.us



I urge you to reject the upcoming cougar management plan and adopt measures that protect this valuable species in Oregon.

Leslie Green
Philomath, OR

From: Oliver Oli ani88mal@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 7:26 PM
To: kvalness@oda.state.or.us



Dear Madam,

We are writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you for being a voice for Oregon's cougars.

From: Laura Lawrence lalawren@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 18, 2020 at 7:50 PM
To: kvalness@oda.state.or.us



To the Oregon Board of Agriculture:

I'm an Oregon resident, and a frequent visitor to our state's beautiful parks, mountains, forests, and wild places. So I was distressed to learn of your proposed resolution in support of our state's Cougar Management Plan that cites the "threat that cougar predation poses to the livestock industry in Oregon." Not only is this statement inaccurate—in fact, statistics show that cougars cause only less than 1% of livestock losses in Oregon—but it perpetuates misguided myths about cougars and instills unnecessary fear about them in our state's ranchers and farmers. This could lead to proactive, random killing of cougars that, research has shown, will only increase livestock conflicts, not reduce them.

Instead, I ask that you pass a resolution that supports the use of proven effective, economical, non-lethal methods to prevent conflicts with livestock and cougars. We Oregonians care very much about protecting our state's magnificent wildlife from cruel and unnecessary killing. Thank you.

Laura Lawrence
Portland, OR

Name

City

--

Laura Lawrence
(503) 697-0564

From: Kasandra Griffin kasandra.griffin@gmail.com
Subject: Public comment about cougar resolution
Date: November 18, 2020 at 8:00 PM
To: kvalness@oda.state.or.us

KG

I am writing to add my voice to those opposing the proposed cougar management plan and associated resolution. I oppose the recreational killing of cougars, and I believe that livestock depredation by cougars is insignificant and better managed in other ways.

Please work instead on non-lethal management strategies for ensuring the health and well being of these magnificent apex predators, who help keep the entire ecosystem healthy and well. I offer as evidence one of the latest articles about the importance of predators for ensuring healthy ungulate populations, which are of much higher value to the hunters and recreation economy than a few cougar tags.

Using Wolves as First Responders Against a Deadly Brain Disease

Some scientists say that the predators are essential to curbing the spread of Chronic Wasting Disease because they pick off weak deer.

<https://www.nytimes.com/2020/11/12/science/wolves-chronic-wasting-disease.html>

Thank you for your service and your consideration.

Kasandra Griffin
1718 SE 34th Avenue
Portland Oregon 97214
503.238.1799
Sent from a handheld, please forgive anything incoherent.

From: Catherine Jurgensen blessedshort@aol.com
Subject: Public Comment, Cougar Resolution
Date: November 18, 2020 at 8:04 PM
To: kvalness@oda.state.or.us



I am writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

**Thank-you.
Catherine Jurgensen**

Sent from my iPhone

From: Zephyr Benson zephyrellab@gmail.com
Subject: Cougars
Date: November 18, 2020 at 8:15 PM
To: kvalness@oda.state.or.us



Dear Board of Agriculture,

Please reject the resolution supporting the Oregon Cougar Management Plan. Hunting cougars with dogs is unnecessary and inappropriate. When one cougar becomes an issue in a community, that does not mean that all cougars should be killed. This could threaten the cougar population and doesn't beneficially contribute to cougar management.

Zella

From: Vanessa vanessaboer@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 18, 2020 at 9:29 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness,

I am writing to ask the board not to pass the resolution supporting the Oregon Cougar Management Plan.

Less than 1% of unwanted livestock deaths are due to cougars and there are humane and simple precautions that can be taken to deter them from bothering livestock. There is too much focus put on killing cougars and minimum populations. They are native species to our environment and have a right to thrive in their natural habitat. Please support proactive, humane methods that allow the farms to secure their property and animals while allowing cougars to thrive at a distance.

Thank you,

Vanessa Boer

Portland, OR

From: Jan Nelson nellie.jan@gmail.com
Subject: cougar resolution comment
Date: November 18, 2020 at 11:06 PM
To: kvalness@oda.state.or.us



I am a farmer and forestland owner in the Coast Range foothills west of Eugene. we live with cougars, bears and coyotes. and I mean WITH them. seems like every decade some farmers organize another attempt to kill cougars and I have to argue against it. when I purchased my property in 1987 and began building a flock of sheep and goats, I made the mistake of not properly protecting them and found two killed. I have since seen cougars and bears and heard coyotes on my property. I consider them magnificent creatures. fortunately, I do have a sufficient barn and made sure the animals were put in at nightfall. (previously I had let them remain outside when it was very hot.)

at this point I realized I was their primary guard animal and must take that role seriously. I also acquired a rescue donkey to assist me - and he does. some livestock owners I know have dogs. speaking of dogs, I'm sure you all will hear that the most common predator of small and young livestock is dogs - yes "man's best friends" have mauled my sheep several times before they had to be dragged off.

in my opinion, farmers who want to kill predators (before they send them to slaughter), are just plain lazy and crybabies who don't want the inconvenience of living in a real world.

by the way I spent my early childhood in a cabin in the north woods of Minnesota with wolves and bears all around me when I played outside. the wolf howls put me to sleep at night - like a lullaby. of course, I also oppose exterminating them.

jan nelson, farmer, forestland owner, BOD Northwest Land Conservation Trust nwlct.org, 85354 Doane rd, Eugene, OR 97402 541 485 1426

From: K J kylejohnson2020@gmail.com
Subject: Public comment cougar resolution
Date: November 19, 2020 at 4:39 AM
To: kvalness@oda.state.or.us



Ms. Valness,

I'm writing this email to ask you to reject the resolution put forth by the ODFW. Like so many of our government policies today, this policy ignores the science and panders to trophy hunters which will have a negative impact on a current fragile cougar population. I understand that cougars are major predators and some management of these animals may be required in certain situations. However, I do not feel the ODFW's current policy uses the best practices for this. I would encourage a policy that uses nonleathal practices and supports education to help farmers coexist with our natural predators. I do hope you take these comments into consideration.

Thank you.

Kyle Johnson

--

Kyle Johnson

Johnson, Gray & Johnson

63 E. Court Street

Franklin, IN 46131

Tel: (317)738-3365

Fax: (317)738-3862

From: R M ram503@ymail.com
Subject: Public Comment, Cougar Resolution
Date: November 19, 2020 at 8:50 AM
To: kvalness@oda.state.or.us
Cc: R A M ram503@ymail.com



RM

Hello I am writing today to ask that you reject the Board of AG's resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Additionally due to the Beachie Creek, Lionshead and Riverside fires and others across Oregon, the cougars habitats have changed and will spread out into non-burn areas - and probably human inhabited and livestock areas - this HAS to be considered also. Humans dont have an innate right to kill off other species and the real problem of this planet is overpopulation of humans. SO how bout working on that issue instead.

Thanks for your consideration
Randall Marker
Gresham Oregon

From: Sean Foley hurkle@mac.com
Subject: Public Comment, Cougar Resolution
Date: November 19, 2020 at 8:51 AM
To: kvalness@oda.state.or.us



Hello, I am writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, I encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

There is an abundance of literature from recent studies that demonstrate resounding success stories of peaceful coexistence from neighboring states like California. These successes should serve as a roadmap to sustainable coexistence with these rare and beautiful big cats - America's big cats. Oregon's big cats. Our big cats.

Thank you for your time and attention.

Sincerely,

Sean Foley

From: Alex Crawford wacrawford@knox.edu
Subject: Public Comment, Cougar Resolution
Date: November 19, 2020 at 9:19 AM
To: kvalness@oda.state.or.us

AC

Hello,

I'm writing you today to request that you reject the resolution in support of ODFW's unsustainable cougar management plan.

Cougars are responsible for only a small percentage of livestock deaths in Oregon. The statistics from the US Department of Agriculture prove this: https://www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/pdr/?file=PDR-C_Report&p=2019:INDEX.

The truth is that illness, complications from birth, and severe weather conditions account for far more deaths to livestock than cougar predation; and indeed all kinds of predation combined. It would make far more sense to invest Oregon's precious money and resources in the development of better living spaces for livestock than it would to invest it in cougar hunts.

This is not to say that predation isn't a valid concern. However, there are plenty of nonlethal strategies that ranchers and farmers could use to coexist with wildlife that would cost far less than this proposed plan and that would yield longer-lasting results than the increased eradication of cougars, who will soon return when the expensive hunts organized against them have ended.

Predators will always exist in nature, no matter how much we seek to eradicate them. A smart farmer knows this, and has competent strategies for how to work around the potential depredation of his or her livestock. It is therefore unfair to ask the citizens of Oregon to shoulder the burden of those companies or individuals who seek to blame their misfortune on a well-known and easily avoidable aspect of their chosen profession.

Alex Crawford

From: Martha gildart mcgildart@yahoo.com
Subject: Public comment, Cougar Resolution
Date: November 19, 2020 at 10:03 AM
To: kvalness@oda.state.or.us

MG

I am writing to you to ask that you reject the resolution for ODFW's cougar management plan. Cougars are of paramount importance in natural ecosystems and their destruction has cascade effects throughout our wilderness. The minimal effect of predation is regularly exaggerated by proponents of hunting. There are non-lethal methods of protecting livestock that have been used in California and elsewhere. Please vote no.

Thank you for your consideration,
Martha Gildart

Sent from my iPhone

From: Stephanie Christensen steph.e.chris@gmail.com
Subject: Cougar Management Plan
Date: November 19, 2020 at 11:25 AM
To: kvalness@oda.state.or.us



Dear Ms Valness,

I am writing today to urge Oregon Board of Agriculture to NOT adopt the Cougar Management Plan as a means to address the loss of livestock to cougar predation. I am deeply concerned that livestock producers would rush to use lethal means, especially in light of the fact that these predations are a very small percentage, less than 1% of overall losses. I would urge the board to adopt instead non-lethal means to discourage these losses....such as pens, guard dogs, noise and lights.

It is time for the livestock industry to move forward in their dealing with predation, and work to resolve conflict without killing wildlife.

Sincerely, Stephanie Christensen

Sent from my iPad

From: Lin Bernhardt linbernhardt@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 19, 2020 at 11:58 AM
To: kvalness@oda.state.or.us



Dear Ms. Valness

I am asking that the Oregon Board of Agriculture NOT adopt a resolution supporting the Cougar Management Plan because of the “*threat that cougar predation poses to the livestock industry in Oregon.*”

In it's place, please consider passing a resolution that supports the use of non-lethal strategies to prevent wildlife conflicts with livestock rather than an ineffective and scientifically unsound solutions. As a farmer, who like most Oregonians values all wildlife, it's time to co-exist with wildlife and help farmers and ranchers with non-lethal solutions.

Sincerely,
L. D. Bernhardt
Shady Grove Farm LLC
Talent, OR

From: Lisa Billings lisarb77@hotmail.com
Subject: Please Veto the Cougar Management Plan Resolution
Date: November 19, 2020 at 12:13 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness,

Cougars are responsible for less than 1% of livestock mortality in Oregon. There are also many ways in which these depredations can be prevented that are non-lethal in nature. We also know that the indiscriminate killing of wildlife of all kinds actually increases complaints and depredations, study after study has shown. I am worried that the resolution before you to support the Cougar Management Plan perpetuates inaccurate perceptions of the role of wildlife in livestock loss, and it will instill unnecessary fear amongst the ranching community. I'd rather the Board of Agriculture supports meaningful proactive measures to avoid livestock and wildlife conflict than to pass this misguided set of regulations.

Please consider that we are currently experiencing a worldwide wildlife extinction crisis, entirely caused by human hands. Our wildlife is precious and special to our way of life in Oregon, cougars being no different than any other imperiled species. Please do not pass the Cougar Management Plan as it stands today.

Best,
Lisa Billings

From: DEBORAH NOBLE dnoble4990@aol.com
Subject: Public Comment about Cougar Resolution
Date: November 19, 2020 at 12:15 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness:

Research indicates cougars are responsible for significantly less livestock deaths than the Public believes.

Please pass a resolution that supports the use of non-lethal ways to solve the issue of conflict between ranchers and wildlife.

Thank You,
Deborah Noble
4990 W. Hillside Dr.
Eugene, OR 97405

From: Laurel Hines laulehines@gmail.com
Subject: Cougar Resolution Comments
Date: November 19, 2020 at 12:23 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness,

Here are my comments for the Board of Agriculture, regarding the Cougar Management Plan:

Oregon ranchers should be held accountable to reduce the risk to livestock without increased killing of cougars. California has learned to live with cougars far better than Oregon. Oregon's wildlife must not be exterminated just to reduce problems for ranchers. Ranchers should instead be guided how to reduce conflicts, even if the cost to them is somewhat increased, to develop such measures.

There are far more cattle and sheep than cougars. Also, the best available science tells us that indiscriminate killing of cougar increases complaints and livestock depredation, and does not reduce it .

The resolution suggested by this committee is inaccurate and continues misguided myths.

I recently saw a TV news story about a cougar up a tree in a suburb of California. Rather than claiming it posed a horrible risk to humans, pets, or nearby livestock, and must be shot, sheriffs showed up to watch the tree and keep people away until letting the cougar leave on its own in the darkness of night (which it did).

We all need to learn to live with large predators, who help the balance of nature. This is what science shows. Humans are destroying that balance, and eliminating the wildlife that belongs to us all, just to please ranchers and reduce their costs. This is not fair to all Oregonians.

Laurel Hines, Oregon resident 10371 Lake Dr SE, Salem , Oregon (near Jefferson by the Ankeny Refuge)

From: dranne@applegatowellness.com
Subject: Public Comment, Cougar Resolution
Date: November 19, 2020 at 12:54 PM
To: kvalness@oda.state.or.us



Dear Ms. Valness

I am writing today to ask that you reject the Board of AG's resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, I encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

Thank you for your time.
Sincerely,
Anne Vincent
Williams Or
97530

From: Lisa Mirhej lfmirhej@hotmail.com
Subject: Public Comment about Cougar Resolution
Date: November 19, 2020 at 2:49 PM
To: kvalness@oda.state.or.us

LM

Dear Ms. Valness,

As a concerned citizen of Oregon, I would like to express my opposition to the resolution that supports the Cougar Management Plan. Many recent scientific studies have clearly shown that killing predators like cougars does not decrease the numbers of livestock killed by predators. In fact, more predator/livestock conflict often occurs when humans meddle with the natural territorial balance of predators. Cougars are responsible for less than 1% of livestock deaths in Oregon. There are other non-lethal and more effective means of protecting livestock from predators. I hope that the Oregon Board of Agriculture will reconsider moving forward with this resolution, and instead support a more effective and humane approach to dealing with Oregon's precious wildlife.

Thank you for your consideration,

Lisa Mirhej

From: Stephanie Sieg siegsteph@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 19, 2020 at 2:53 PM
To: kvalness@oda.state.or.us



Dear Chair Myers and Members of the Agriculture Board of Oregon:

Please consider revising the Cougar Management Plan Resolution. Implementing a solution focused on positive outcomes for ranchers, livestock, and cougars is possible.

Cougar lethality as the primary form of management need not be the most effective form of action. Practical humane deterrents are an option. Allowing cougars to co - exist with ranchers and livestock.

Consider collaborating with conservationists and cougar experts to devise the best strategic plan of action. A forward - thinking approach can result in positive outcomes for ranchers, livestock, and cougars.

Thank you, kindly!

Best,

Stephanie Sieg

From: Maggie Topalian mtopalian.7@gmail.com
Subject: Public Comment on Cougar Resolution
Date: November 19, 2020 at 3:26 PM
To: kvalness@oda.state.or.us

MT

Dear Ms. Valness,

I am writing to you today to urge you to reject the resolution in support of ODFW's barbaric, unsustainable cougar management plan. The plan is clearly biased towards trophy hunters, scientifically baseless, and thus runs contrary to the public's desire for responsible and science-based wildlife management. The board has ignored the data and guidance from leading biologists and conservation organizations proving that ODFW's excessive use of recreational hunting and lethal conflict management is counterproductive. Yet the science and facts of the matter remain true: lethal "control" of cougars actually *increases* conflict with livestock and people by disrupting their social systems and leaving young cubs orphaned. Without their mothers, they are unable to learn how to hunt properly and will thus go for easier prey: livestock. Traumatized animals are also more likely to be aggressive towards humans; naturally, they are extremely avoidant of people. Furthermore, killing these top predators upends the natural balance of ecosystems, which has cascading effects that harm all species, including humans.

The resolution claims that it is a response to the "threat that cougar predation poses to the livestock industry in Oregon," yet this is completely unfounded. Predation accounts for a virtually negligible percent of livestock deaths, as predation by all predator species combined is vastly outweighed by circumstances like extreme weather, disease, and birthing issues. Even in the case that predation does occur, there are many inexpensive, simple, nonlethal alternatives that are more beneficial to cougars, ecosystems, livestock, and ranchers alike. Rather than perpetuating harmful myths about these beautiful, irreplaceable creatures and encouraging their annihilation, please listen to the desires of the public and the expertise of scientists and adopt a resolution focused on coexistence - not violence - between people and cougars.

Thank you for being a voice for Oregon's cougars.

Sincerely,
Maggie Topalian

From: linda humphrey lindalhumphrey@gmail.com
Subject: Public comment about cougar resolution
Date: November 19, 2020 at 3:50 PM
To: kvalness@oda.state.or.us



I am writing to strongly oppose the resolution being considered that supports cougar management. As I am sure you know, cougars are very important to the health of ecosystems and are rarely associated with livestock mortality. In addition, scientific evidence supports the use of non-lethal strategies to prevent cougar/wildlife conflicts with livestock. Please do not pass this resolution!

Thank you.

Linda Humphrey
13414 Red Clover
Black Butte, Or 97759
503-704-1241

From: John D. Vandenberg john.vandenberg@klarquist.com
Subject: Public Comment about Cougar Resolution
Date: November 19, 2020 at 3:58 PM
To: kvalness@oda.state.or.us



I urge you to reject the proposed resolution that would support the Cougar Management Plan.

I live with horses on acreage in Sherwood Oregon.

There is no scientific or other objective basis for this plan. For example, USDA data on this topic mostly is based on unverified accounts.

Instead, I urge you to resolve that Oregon use non-lethal strategies to prevent wildlife conflicts with livestock.

Thank you for your service.

John D. Vandenberg
29040 S.W. Baker Road
Sherwood, OR.

From: Laurele Fulkerson magneticspiral@gmail.com
Subject: Public Comment on Cougar Resolution
Date: November 19, 2020 at 7:35 PM
To: kvalness@oda.state.or.us



Dear Oregon Board of Agriculture,

I urge the Board to reject the resolution supporting the Oregon Cougar Management Plan in its December 2nd meeting. Instead, please adopt a resolution requiring the use of non-lethal measures to reduce the risk of harm to farm animals before resorting to killing cougars. The best available science shows that indiscriminately killing cougars can actually increase livestock depredations and exacerbate conflicts. Further, proactive, non-lethal methods to deter predation have proven to be effective and less expensive, preventing conflicts and protecting both livestock and native carnivores.

Thanks for your consideration.

Sincerely,

Laurele Fulkerson
Portland, OR

From: Beth Redwood redwood@comcast.net
Subject: Please Oppose Oregon Department of Fish and Wildlife's Cougar Management Plan
Date: November 19, 2020 at 9:46 PM
To: kvalness@oda.state.or.us



To the Oregon Board of Agriculture,
I am writing to respectfully request that you reject the resolution supporting the Oregon Cougar Management Plan. Please find a better way than the intensive, indiscriminate killing of cougars when there are very few such animals who may be causing problems. Please implement specific non-lethal approaches that address conflicts between cougars and others. Resorting to mass killing is barbaric, cruel and unnecessary. In addition, Oregon voters rejected using dogs to hunt cougars so please respect that decision and reject any plan that uses the inhumane hunting of cougars with packs of dogs. Surely, the Oregon Board of Agriculture has better ways of dealing with the small number of threats to farm animals from cougars than mass, bloody killing. Please reject the resolution of the Oregon Cougar Management Plan. Thank you.

Respectfully,
Beth Redwood
Portland, Oregon

From: Constance Vorenkamp connievkamp@gmail.com
Subject: Public comment about cougar resolution
Date: November 20, 2020 at 8:58 AM
To: kvalness@oda.state.or.us



Please vote against the Resolution that supports the Cougar Management Plan and support a resolution that uses non-lethal strategies to prevent wildlife conflicts with livestock. The present resolution is inaccurate, reactive and perpetuates misguided myths while instilling unnecessary fear in ranchers and farmers. A non-lethal solution based on science and facts must be found and passed to support all Oregonians while respecting our resident wildlife.

Constance Vorenkamp
Portland, Oregon

Sent from my iPad

From: Renee Windsor-White kodiwolf1@gmail.com
Subject: Reject the Cougar Management Plan resolution
Date: November 20, 2020 at 9:51 AM
To: kvalness@oda.state.or.us
Cc: info@humanevotersoregon.org



RW

I urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars to avoid very limited threats to farm animals. The resolution fails to require specific non-lethal approaches to cougar conflicts with people, pets and farm animals before resorting to killing cougars. It allows intensive, indiscriminate killing of cougars and not the specific cougars known to be causing problems! And it allows cougars to be hunted with packs of dogs for these so-called "management" activities, even though voters outlawed that method of hunting cougars for sport in 1994.

Please reject the Oregon Cougar Management Plan!

Sincerely,
Renee Windsor-White
Lebanon, Oregon

From: Dawn Smallman dawnsmallman@gmail.com
Subject: public comment about Cougar Resolution
Date: November 20, 2020 at 10:19 AM
To: kvalness@oda.state.or.us




Dear Oregon Board of Agriculture-

I'm writing to request that you do not pass the Cougar Resolution currently being proposed. Resolutions like these are not grounded in science and only serve to demonize cougars in the minds of the public and make them a targeted scapegoat in ranching and rural communities such as mine.

People in charge of agricultural policy and wildlife management policy need to be creating policies based in science: responsible livestock management practices, non-lethal deterrents and methods to predation/conflicts between wildlife and livestock. All of our policies must value our wildlife *as much or more* than we value livestock. Cougars and other significant predators are key to a balanced ecosystem. As stewards of agriculture, you must also be stewards of wildlife. Please set in place science-based policies that protect both wildlife and livestock - not this policy that sacrifices the lives of wildlife for livestock production.

Sincerely,
Dawn Smallman
7140 SW Lee Road
Gaston, OR 97119

From: Kelly Peterson kpeterson@humanesociety.org 
Subject: BOA Public Comment December 2020
Date: November 20, 2020 at 11:26 AM
To: Karla Valness kvalness@oda.state.or.us
Cc: Jennifer Hauge jhauge@aldf.org, penny@cougarfund.org, wally sykes wally_sykes2000@yahoo.com, sbruegger@wildearthguardians.org, Brooks Fahy brooks@predatordefense.org, Brian Posewitz brian@humanevotersoregon.org, Haley Stewart hstewart@humanesociety.org, Michelle Blake mblake@mountainlion.org, nwarren1@earthlink.net, Robert Wielgus wielgus.rob@gmail.com, Kelly Peterson kpeterson@humanesociety.org



Dear Chair Hallock and Members of the Agriculture Board:

On behalf of multiple national and state-based conservation organizations, we submit the following comments regarding the proposed Cougar Management Plan Resolution before the Oregon Board of Agriculture.

Please see our detailed comments attached.

Thank you for your consideration.

Respectfully,
Kelly

Kelly Peterson
Oregon Senior State Director

kpeterson@humanesociety.org
P 503-869-0422
humanesociety.org



The Humane Society of the United States is the nation's most effective animal protection organization, fighting for all animals for more than 60 years. To support our work, please make a [monthly donation](#), give in [another way](#) or [volunteer](#).



OBA Cougar
Resolu...20.pdf



Attachment
A_OBA...ns.pdf



Attachment
B_Rob...ion.pdf

Oregon State Board of Agriculture Resolution

Title: Cougar Management Plan	Number: 275 Effective Date: 02/17/2017
Sub-Committee: Government Relations ODA Staff Contact: Kathryn Walker	Next Review Date: 00/00/2020 Date of Last Review/Revision: 02/17/2017 Original Resolution Date: 03/02/2006
Board Chair: Barbara Boyer	Signature on file

Background

Resolution

Whereas, ~~the Oregon State Board of Agriculture recognizes the threat an overpopulation of cougars are a species of Oregon wildlife that is valued and appreciated by many poses to the livestock industry in Oregonians;~~

~~Whereas, cougars may sometimes pose a risk of harm to farm animals in Oregon; and~~

~~Whereas, the best available current science indicates that indiscriminate killing of cougars is not effective to reduce risk of harm by cougars to farm animals and may increase the risk of harm.~~

Be it resolved that the Board of Agriculture supports ~~the use of non-lethal measures to reduce the risk of harm to farm animals by cougars or, if non-lethal measures have been exhausted but not been successful, through killing only of specific cougars known to be harming farm animals; and~~

~~Be it resolved further that the Board of Agriculture does not support attempts to manage Oregon's cougar population generally through indiscriminate killing of cougars the Gougar Management Plan as proposed by the Oregon Department of Fish and Wildlife.~~

Summary

Supports ~~a non-lethal measures to manage cougar management conflicts with farm animals; opposes attempts to manage cougar populations through indiscriminate killing of cougars plan proposed by the Oregon Department of Fish and Wildlife; recognizes that an overpopulation of cougars poses a threat to the livestock industry in Oregon.~~



June 22, 2020

Marty Myers, Chair
 Oregon Board of Agriculture
 635 Capitol St NE
 Salem, OR 97301

Submitted via email: kvalness@oda.state.or.us

RE: Cougar Management Plan Board Resolution

Dear Chair Myers and Members of the Board:

On behalf of the undersigned organizations and our supporters in Oregon, we submit the following comments regarding the Oregon Board of Agriculture (“Board”) Cougar Management Plan Resolution. We call on the Board to withdraw this resolution in light of the best available research which shows that indiscriminate hunting and predator control of cougars (*Puma concolor*), as perpetuated by the Oregon Department of Fish and Wildlife (“ODFW”) Cougar Management Plan, can result in increased livestock depredations, at the expense of livestock, wildlife and ranchers. If the Board wishes to renew this resolution, we ask that it be updated to support the implementation of more effective, proactive measures to prevent livestock depredations within the Cougar Management Plan. We have attached recommended language for such an update.

The current resolution states simply that the Board supports ODFW’s Cougar Management Plan and “recognizes that an overpopulation of cougars poses a threat to the livestock industry in Oregon.” Yet, this resolution is misguided as it 1) fails to recognize the science which shows that indiscriminate killing of cougars is unnecessary to maintain stable population numbers, and 2) assumes that the management strategies outlined in the Cougar Management Plan will be beneficial to Oregon’s livestock operators. This plan relies on recreational hunting and heavy-handed predator control tactics to lethally and indiscriminately remove hundreds of cougars from Oregon’s landscape every year.

For the reasons that follow, we urge you to withdraw this resolution or, alternatively, update it to reflect the very real need for effective solutions that the current Cougar Management Plan sorely lacks.

Hunting of cougars increases complaints and livestock depredations: Recreational hunting of cougars and the use of target area removals, both of which are indiscriminate, are not effective tools to prevent livestock depredations as numerous studies in the U.S. have shown.ⁱ In other words, these practices simply kill cougars randomly but do not actually target the individuals who are involved in livestock depredations. In fact, if hunters do select for specific cougars, it is for the large, territorial males, the removal of which can have harmful effects on human communities. Moreover, ODFW already allows any cougar that poses an immediate threat or is found in an urban area or farmstead to be killed. Therefore, a hunting season is entirely unnecessary to reduce potential threats to humans and livestock and may, in fact, exacerbate conflicts.

Heavy hunting of cougars can result in increased conflicts as the practice is disruptive to the sensitive social structure that ensures stability in their population.ⁱⁱ The largest sources of unwanted mortality in Oregon's livestock, such as weather, illness and birthing problems, cause significantly more losses (~88% of unwanted cattle losses; ~59% of unwanted sheep losses) compared to losses from cougar (~1% of unwanted cattle losses; 2.6% of unwanted sheep losses).ⁱⁱⁱ

While we recognize that livestock loss is a serious concern, we believe widespread lethal removal of cougars is not an effective or meaningful approach to preventing conflicts. Rather, this approach likely only results in more livestock depredations. Killing off established, territorial cougars will only create more conflicts for human communities and livestock operators. Killing these cougars opens up their territory and invites young cats to come in. These young cougars are less experienced at hunting natural prey and more likely to be involved in conflicts.

A Washington state study shows that as cougar complaints increased, wildlife officials lengthened seasons and increased bag limits to respond to what they believed was a rapidly growing cougar population. However, the public's perception of an increasing cougar population and greater numbers of livestock depredations was actually a result of a declining female and increasing male population.^{iv} Heavy hunting of cougars skewed the ratio of young males in the population by causing compensatory immigration and emigration by young male cougars, even though it resulted in no net change in the population.^v

Study authors found that the hunting of cougars to reduce complaints and livestock depredations had the opposite effect. Killing cougars disrupts their social structure and increases both complaints and livestock depredations.^{vi} Peebles et al. (2013, p. 6) write:

. . . each additional cougar 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%.^{vii}

Hunting disrupts cougars' sex-age structure and tilts a population to one that is comprised of younger males, who are more likely to engage in livestock depredations than animals in stable, older population.^{viii}

Furthermore, few Oregon livestock owners use non-lethal methods to protect their cattle and sheep.^{ix} Across the western U.S., ranchers and livestock operators are making significant strides with non-lethal methods, including tools and changes to husbandry practices, that prevent the loss of livestock from native carnivores. These tools are effective, inexpensive, and avoid losses from occurring in the first place, rather than dealing with conflicts after livestock have already been killed.

The Cougar Management Plan allows excessive hunting and predator control of cougars that exceeds sustainable levels and disrupts their social structures: ODFW's Cougar Management Plan allows cougars to be hunted for sport year-round; to be killed in response to complaints; and to be killed in large numbers by ODFW and its "agents" (regardless of whether the cougars killed were causing problems to people, pets or farm animals) in any "zone" where the three-year average of cougars killed in response to complaints exceeds the 10-year average. The Resolution would endorse this plan as necessary to prevent "an overpopulation of cougars [that] poses [a threat] to the livestock industry in Oregon."

Yet, we know from the best available science that the tactics ODFW relies on to manage cougars are unnecessary and, indeed, counterproductive for ensuring stable cougar populations. Cougars occur at low densities relative to their primary prey, making them sensitive to bottom-up (prey declines) and top-down (human persecution) influences.^x In order to survive, their populations must stay at a smaller size relative to their prey's biomass or risk starvation.^{xi} They do this by regulating their own numbers.^{xii} When prey populations decline, so do cougar populations.^{xiii} Cougar populations also require expansive habitat, with individual cats maintaining large home ranges, or territories, that overlap with one another.^{xiv} Because of their dependence on prey numbers and territorial nature, recreational hunting is not necessary to limit cougar densities to sustainable levels.

While ODFW relies on a statewide cougar population estimate of more than 6,400 cats, this estimate is not only widely disputed and likely inaccurate, it also presents a false picture of the state of cougars in Oregon by including a rough guesstimate of the number of cougar kittens on the landscape. Cougar kittens have high mortality rates, frequently dying before they've even left their mother's care, and are not legally hunted. Therefore, they should not be considered when setting management goals, strategies or hunting quotas. Instead, ODFW believes Oregon is home to around 3,500 adult and subadult cougars, or those that are old enough to be legally hunted.

As stated above, research shows that high rates of killing are correlated with increased conflicts. Disrupting these communities can cause negative effects and increase conflicts by causing social chaos within their populations.^{xv} Hunting can easily destabilize cougar populations, causing increased conflicts with humans, pets and livestock.^{xvi} Based on the adult and subadult cougar population estimate, ODFW's annual hunting quota of 970 cougars amounts to nearly 28% of the population, or double what experts believe is sustainable.^{xvii} And while such a high level of mortality is typically not reached in most of Oregon's cougar hunting zones, it has been in Zone A. Approximately 30% of cougars were killed in Zone A during the 2018 hunting season, primarily from recreational hunting, the highest level for any region. This high level of hunting has been a common trend in Zone A over recent years. Notably, Zone A is the only region of the state that has experienced an increase in conflicts with cougars, as the research predicts.

For these reasons, we urge the Board to withdraw the Resolution. If you intend to renew the Resolution, we urge you to update it with a call to action for ODFW to include a more meaningful approach for effectively and proactively preventing cougar conflicts with livestock rather than relying on scientifically unsound and inhumane tactics of recreational hunting and indiscriminate predator control. We have attached recommended language for such an update and welcome the opportunity to discuss this language and other options with this Board. Thank you for your consideration.

Sincerely,

Kelly Peterson
Oregon Senior State Director
The Humane Society of the United States

Nancy Warren
Executive Director
National Wolfwatcher Coalition

Brian Posewitz
Director
Humane Voters Oregon

Wally Sykes
Northeast Oregon Ecosystem

Penny Maldonado
Executive Director
The Cougar Fund

Brooks Fahy
Executive Director
Predator Defense

Debra Chase
CEO
Mountain Lion Foundation

Samantha Bruegger
Wildlife Coexistence Campaigner
WildEarth Guardians

Jennifer Hauge
Legislative Affairs Manager
Animal Legal Defense Fund

ⁱ R. J. Lennox et al., "Evaluating the Efficacy of Predator Removal in a Conflict-Prone World," *Biological Conservation* 224 (2018).

ⁱⁱ 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); L. Mark Elbroch and Howard Quigley, "Social Interactions in a Solitary Carnivore," *Current Zoology* 63, no. 4 (2017).

ⁱⁱⁱ The Humane Society of the United States, "Government Data Confirm That Cougars Have a Negligible Effect on U.S. Cattle & Sheep Industries," (2019). See Figs. 5a/b.

^{iv} Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations," citing Lambert et al. 2006 and Robinson et al. 2008

^v Teichman, Cristescu, and Darimont, "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting."

^{vi} Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations."

^{vii} Ibid

^{viii} Ibid

^{ix} The Humane Society of the United States, "Government Data Confirm That Cougars Have a Negligible Effect on U.S. Cattle & Sheep Industries," (2019). See Figs 38 and 39.

^x 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).

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- ^{xi} I. A. Hatton et al., "The Predator-Prey Power Law: Biomass Scaling across Terrestrial and Aquatic Biomes," *Science* 349, no. 6252 (2015).
- ^{xii} A. D. Wallach et al., "What Is an Apex Predator?," *Oikos* 124, no. 11 (2015).
- ^{xiii} Stoner, Wolfe, and Choate, "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics."
- ^{xiv} 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).
- ^{xv} 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); 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); R. B. Wielgus et al., "Effects of Male Trophy Hunting on Female Carnivore Population Growth and Persistence," *Biological Conservation* 167 (2013); C. M. S. Lambert et al., "Cougar Population Dynamics and Viability in the Pacific Northwest," *Journal of Wildlife Management* 70 (2006); S. Creel et al., "Questionable Policy for Large Carnivore Hunting," *Science* 350, no. 6267 (2015); D. E. Ausband et al., "Recruitment in a Social Carnivore before and after Harvest," *Animal Conservation* 18, no. 5 (2015); Chris T. Darimont et al., "The Unique Ecology of Human Predators," *Science* 349, no. 6250 (2015).
- ^{xvi} Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations."
- ^{xvii} R. A. Beausoleil et al., "Research to Regulation: Cougar Social Behavior as a Guide for Management," *Wildlife Society Bulletin* 37, no. 3 (2013).

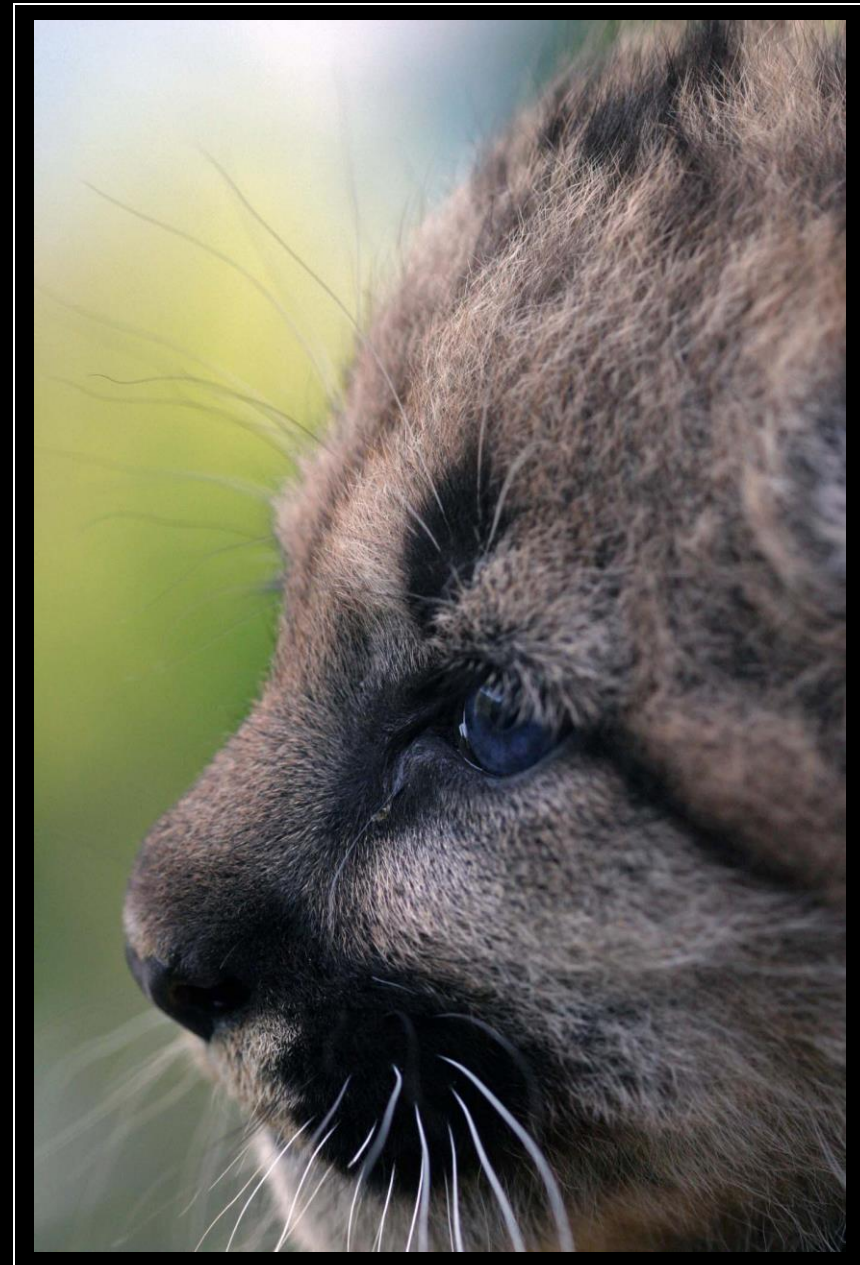
Effects of Sport Hunting on Cougar Population, Community and Landscape Ecology

Presenter:
Rob Wielgus

*Large Carnivore Conservation Lab
School of the Environment
Washington State University*



National Science Foundation



Traditional Hypotheses

Population Ecology

Hunting \uparrow = Cougars \downarrow

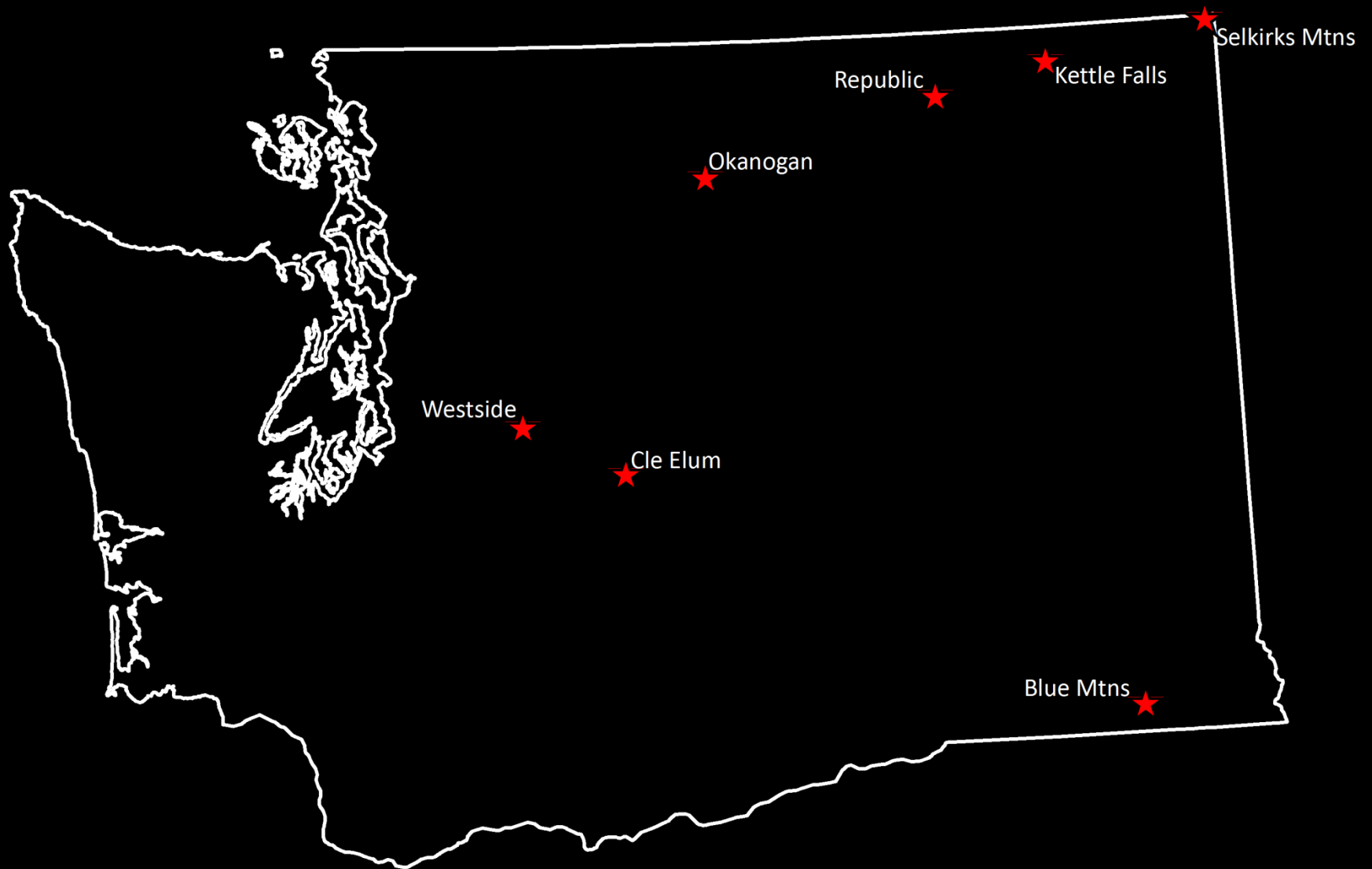
Community Ecology

Hunting \uparrow = Predation \downarrow

Landscape Ecology

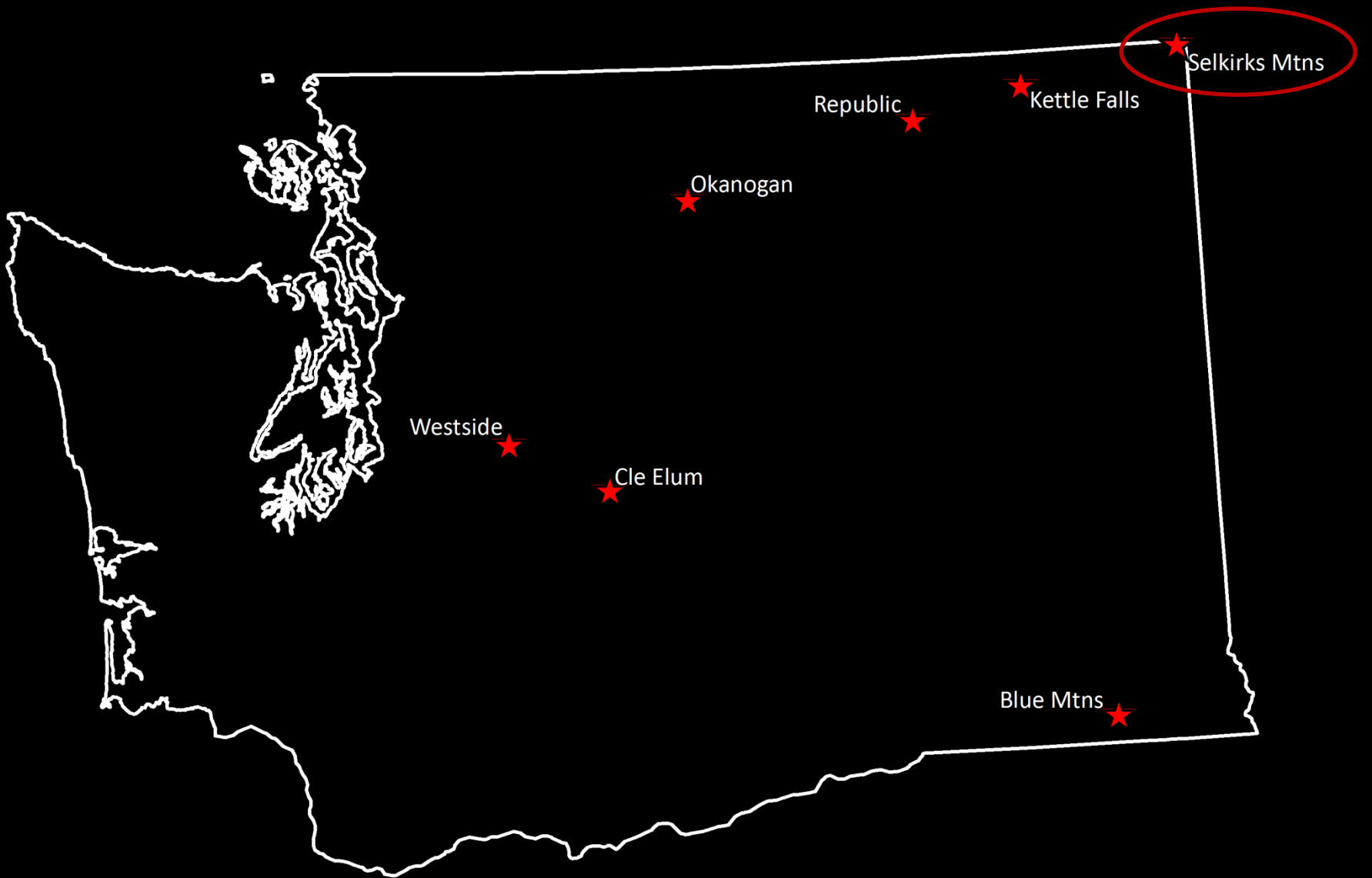
Hunting \uparrow = Complaints and Depredations \downarrow

Seven Study Areas (1998 – 2011)

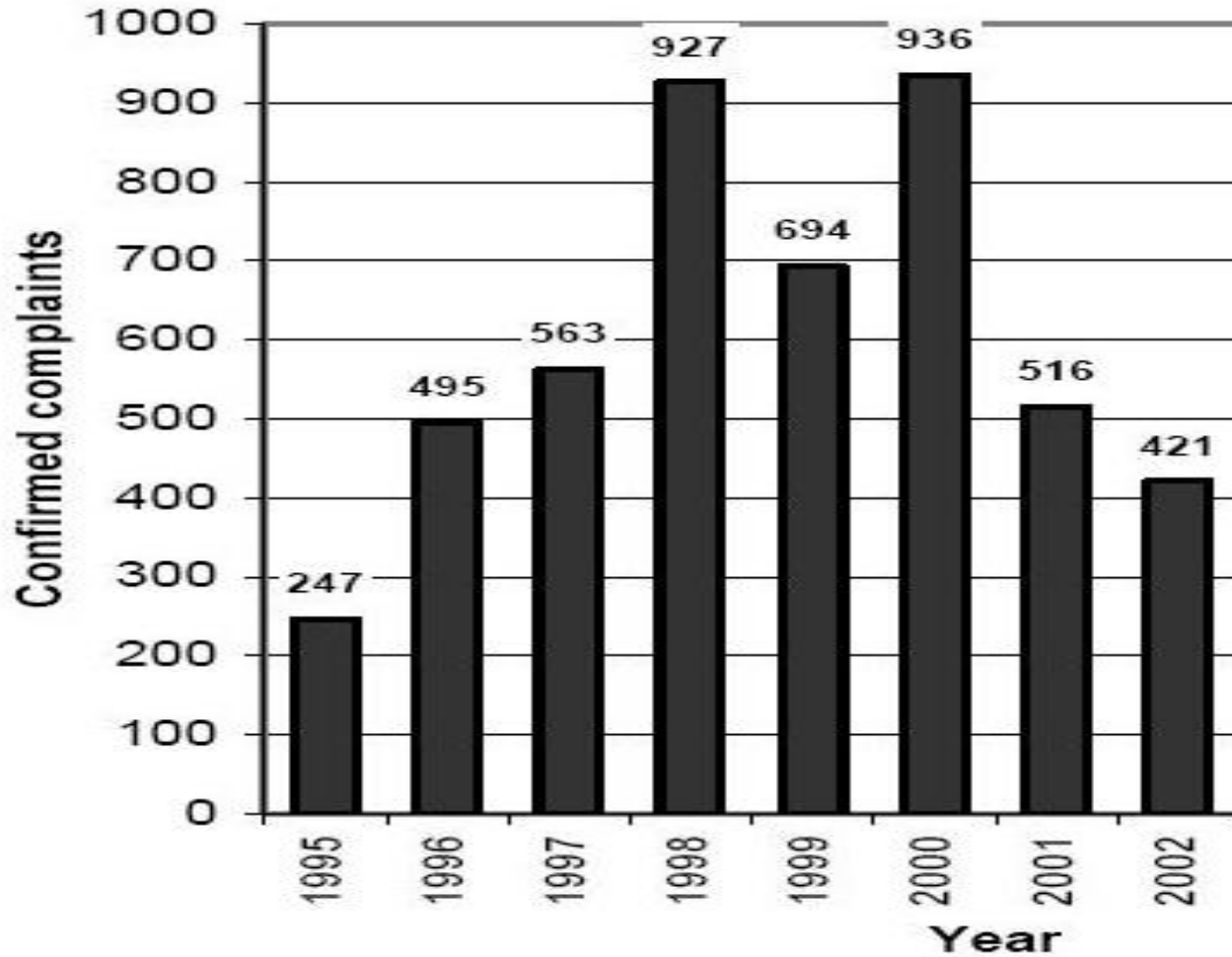


Population Ecology





Complaints ↑ = Cougars ↑ ?



Survival & Fecundity Population growth rate: 0.80 ± 0.04

Hunting Mortality Rate = 0.37

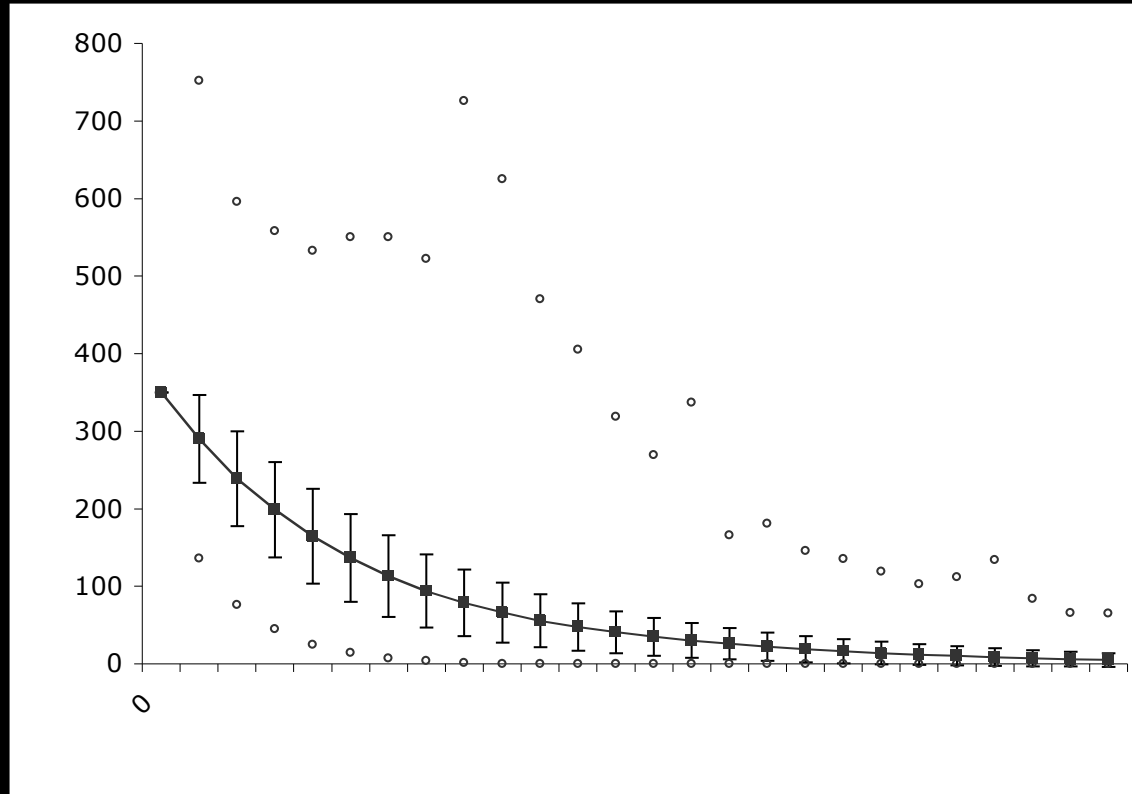


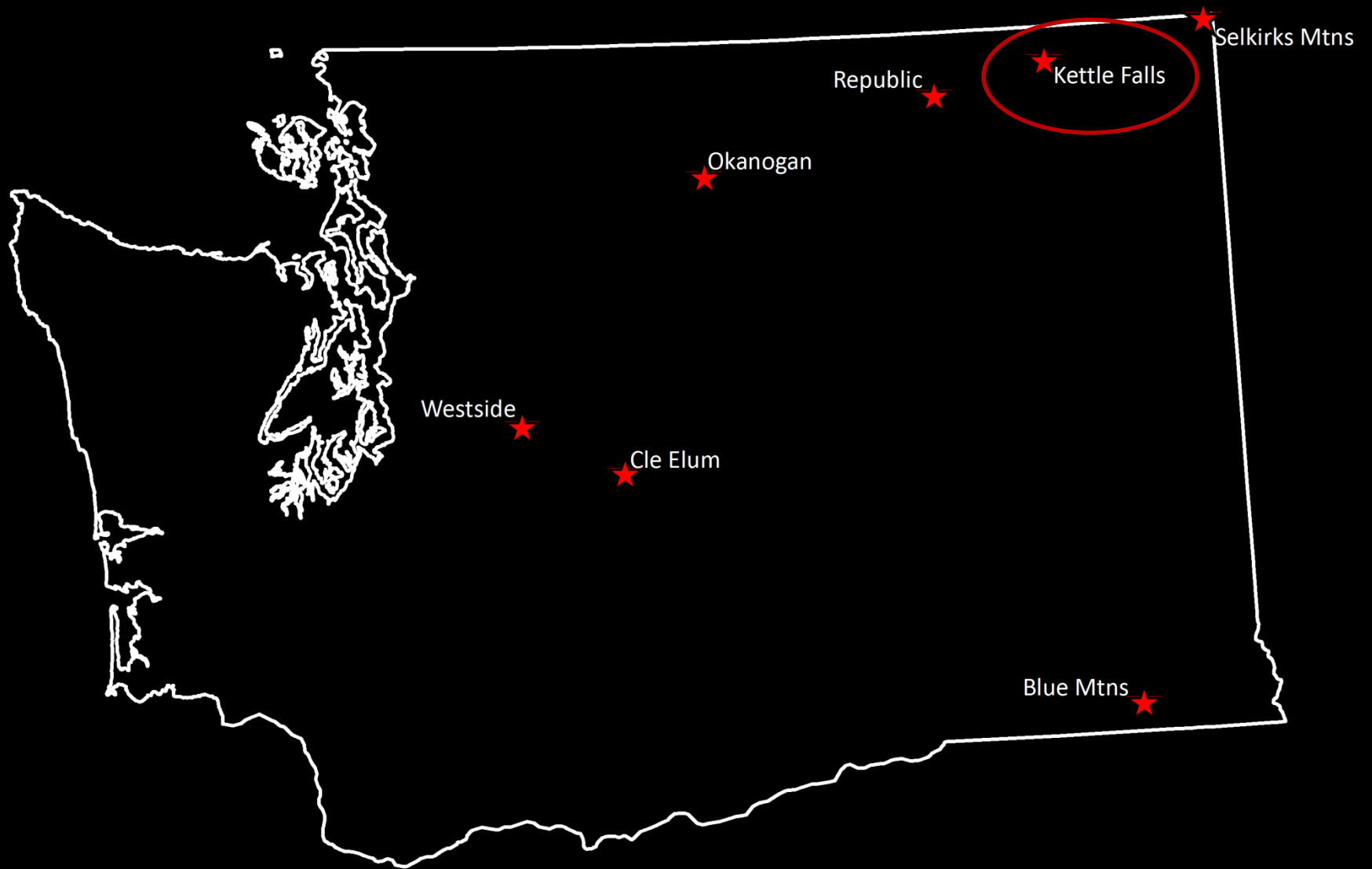
Figure 6. Simulated trajectory of the studied cougar population, based on demographic rates from 1998 to 2003. The squares represent the average abundance, the vertical lines are the standard deviations, and the empty circles are maximum and minimum values obtained in 5,000 simulations.

Complaints ↑ ≠ Cougars ↑

WHY?

**Observed young age structure
(immigrant males?)**

Lambert, C. M., R. B. Wielgus, H. S. Robinson, H. S. Cruickshank, R. Clarke, and J. Almack. 2006. Cougar population dynamics and viability in the Pacific Northwest. *Journal of Wildlife Management* 70:246-254.

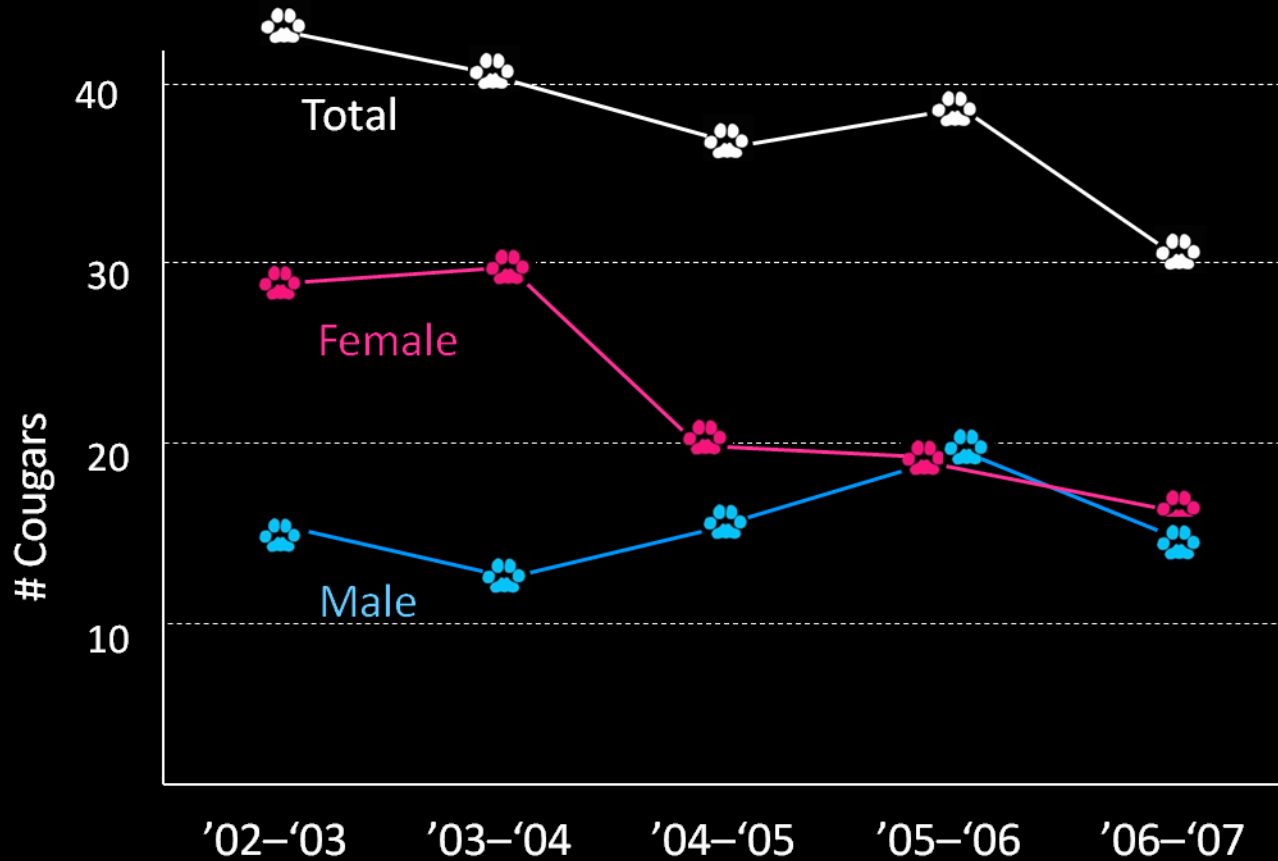


Survival & Fecundity Population Growth = 0.84

Observed Population Growth Rate = 1.0

Immigration rate = 0.16

Hunting Mortality rate = 0.24

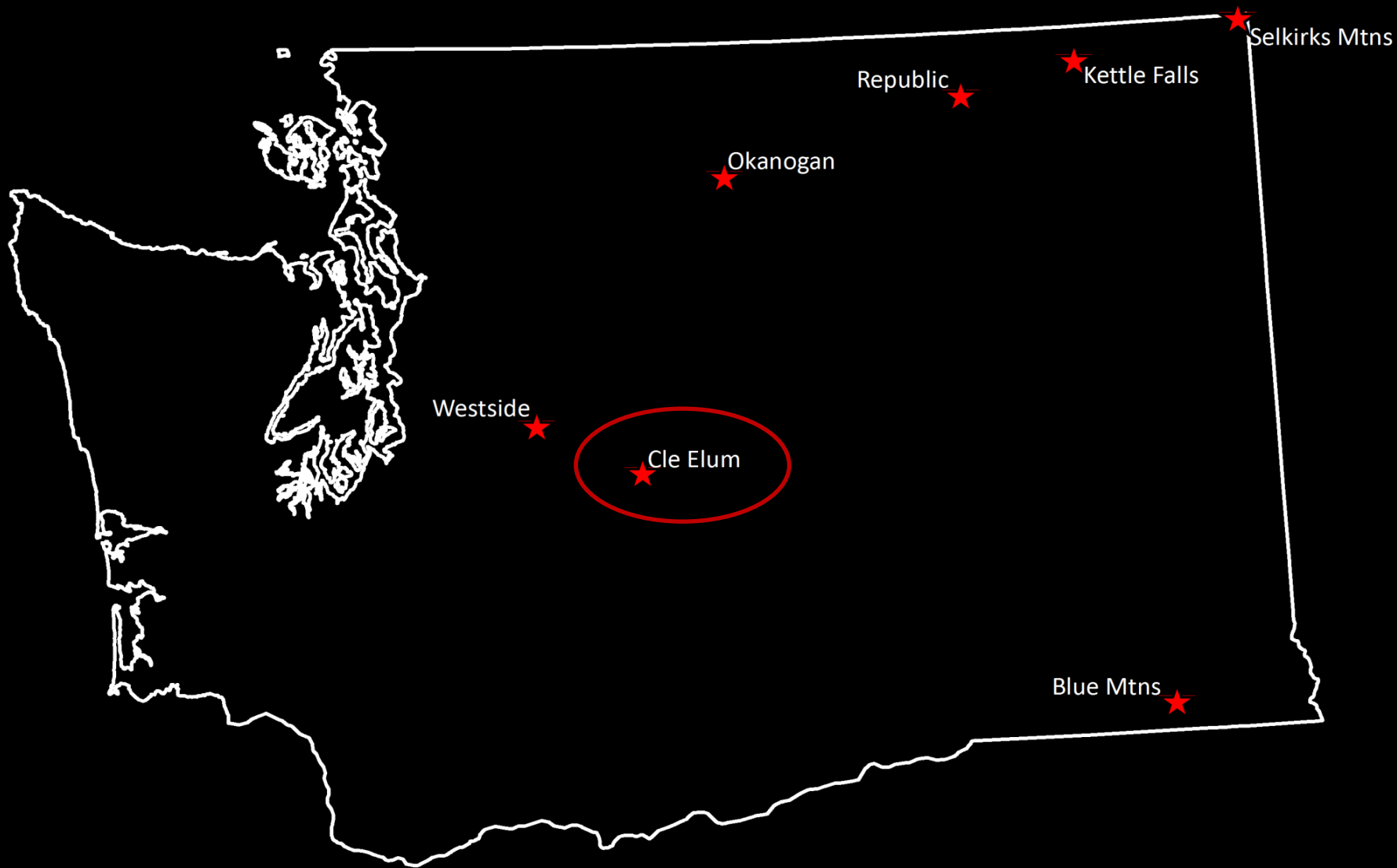


Hunting ↑ ≠ Cougars ↓

WHY?

Increased immigration (male)

Robinson, H.S., R.B. Wielgus, H.S. Cooley, and S.W. Cooley. 2008. Sink populations in large carnivore management:; cougar demography in a hunted population. *Ecological Applications*. 18(4): 1028-1037.

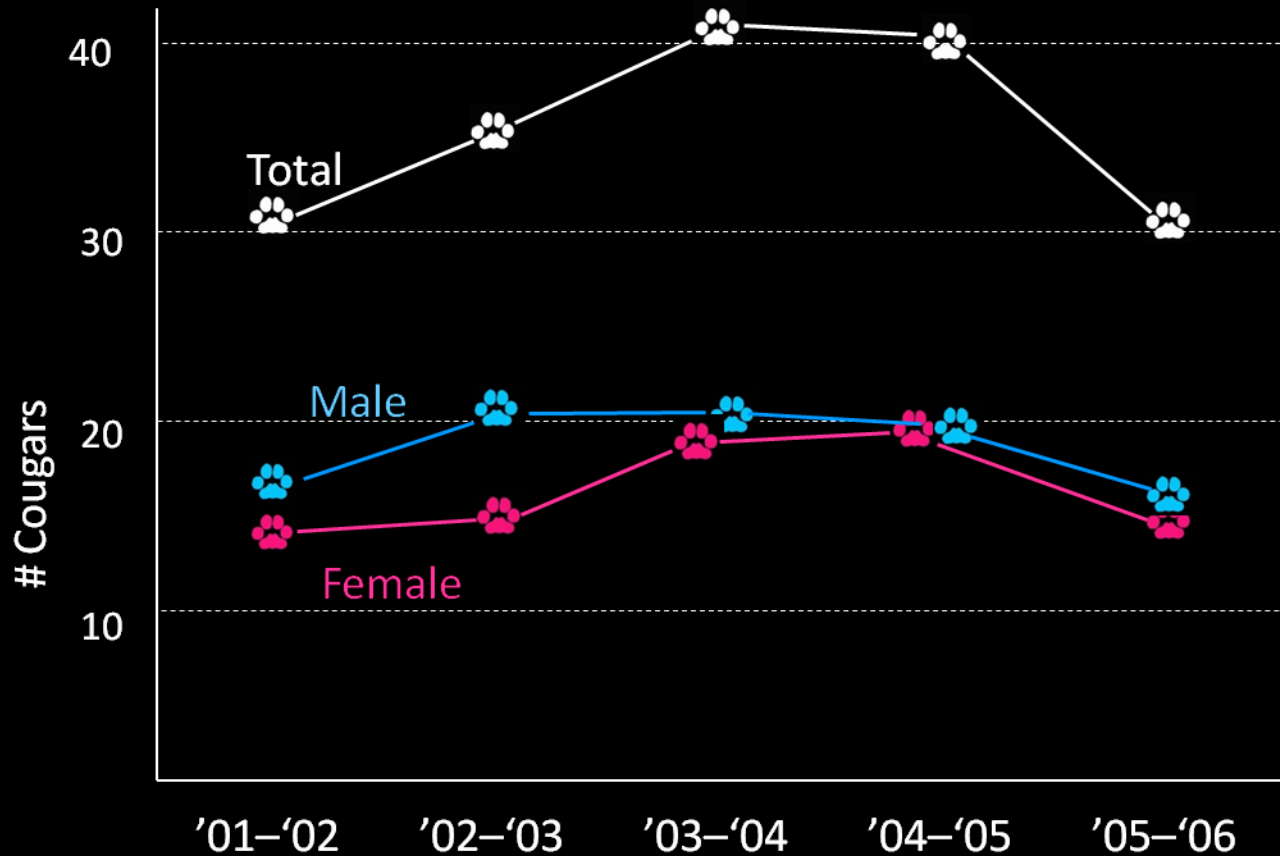


Survival & Fecundity Population Growth = 1.10

Observed Population Growth Rate = 0.98

Emigration rate = 0.12

Hunting Mortality rate = 0.11

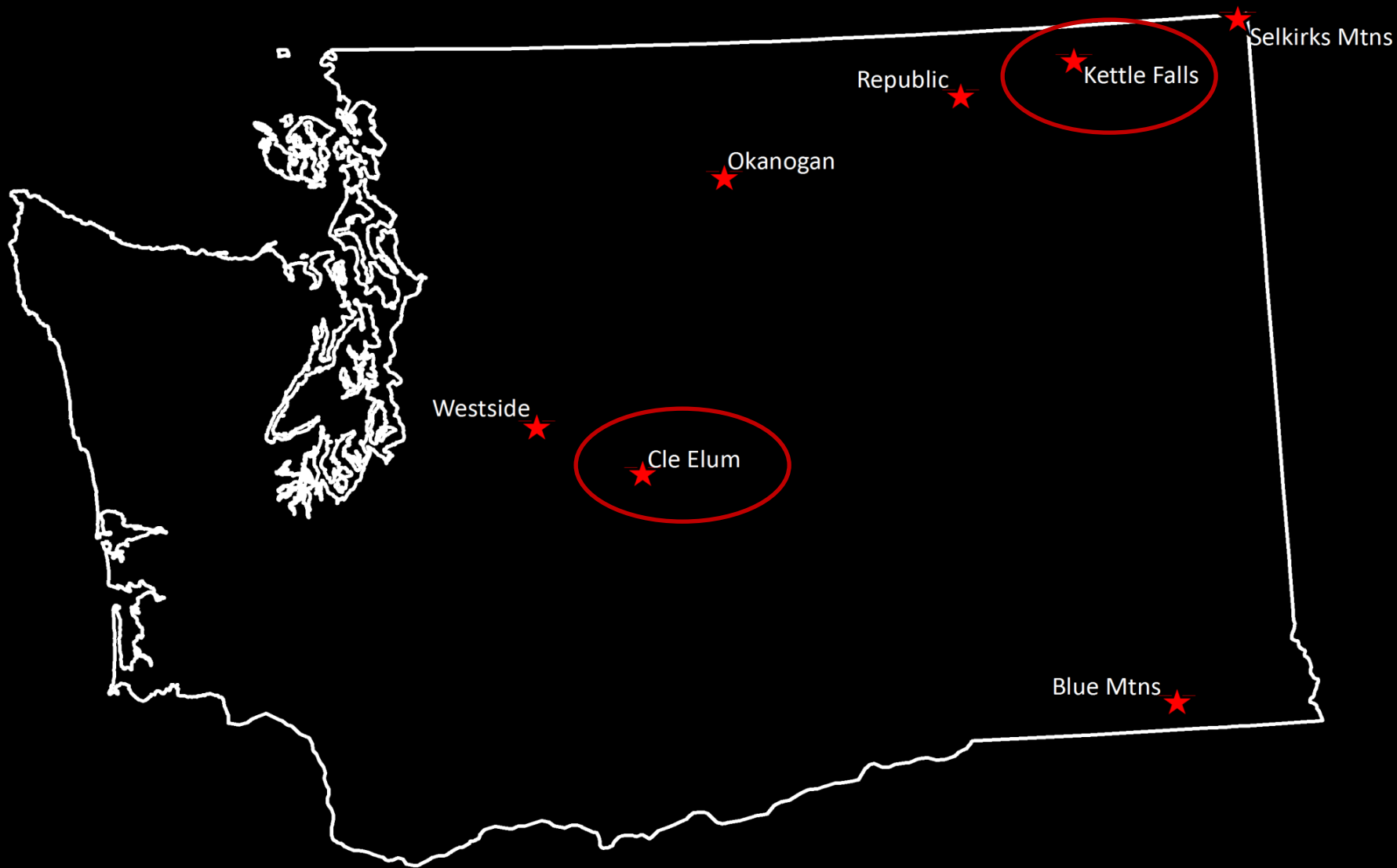


Hunting ↓ ≠ Cougars ↑

WHY?

Increased emigration (male)

Cooley, H.S., R.B., Wielgus, G. Koehler, and B. Maletzke. 2009. Source populations in carnivore management: cougar demography and emigration in a lightly hunted population. *Animal Conservation* 12: 321-328.



Calculating Population Change

$$\Delta N = (B - D) + (I - E)$$

Cle Elum

0.98

1.10

- 0.12

Kettle Falls

0.91

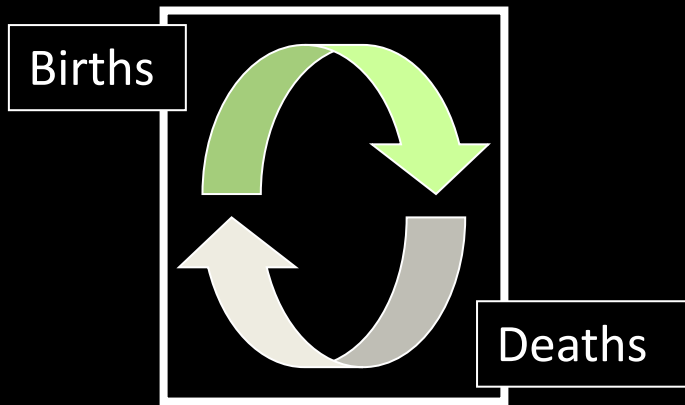
0.73

+ 0.18

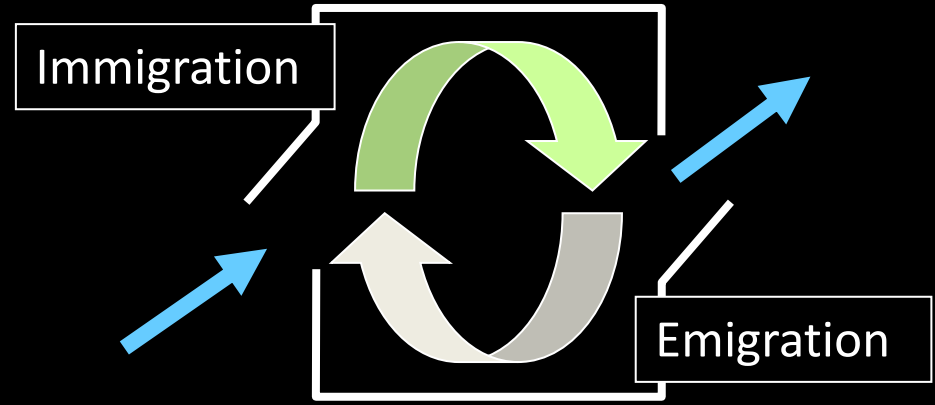
Calculating Population Change

Kettle Falls:
Immigration Rate
18%

Cle Elum:
Emigration Rate
12%



CLOSED POPULATION



OPEN POPULATION

Hunting ↓ ≠ Cougars ↑

Hunting ↑ ≠ Cougars ↓

WHY?

Immigration & Emigration

Cooley, H.S., R.B. Wielgus, H.S. Robinson, G. Koehler, and B. Maletzke. 2009. Does hunting regulate cougar populations: a test of the compensatory mortality hypothesis. *Ecology* 90: 2913–2921.

Hunting Mortality is not Compensatory

Hunting \uparrow \neq Reproduction \uparrow

Hunting \uparrow \neq Natural Mortality \downarrow

Cooley, H.S., R.B. Wielgus, H.S. Robinson, G. Koehler, and B. Maletzke. 2009. Does hunting regulate cougar populations: a test of the compensatory mortality hypothesis. *Ecology* 90: 2913–2921.

Survival Rates

	Cle Elum (LH)	Kettle Falls (HH)
Kitten	0.58	0.30
Juvenile	0.87	0.93
Adult	0.91	0.88

After removing the effects of hunting (incidental female deaths and infanticides), survival rates were remarkably similar for the 2 populations

Stochastic Growth Rates

	Cle Elum (LH)	Kettle Falls (HH)	Selkirk (HH)
Hunting and infanticide included	1.05 ± 0.01	0.78 ± 0.78	0.80 ± 0.11
Just hunting removed	1.14 ± 0.03	0.91 ± 0.04	1.17 ± 0.11
Hunting and infanticide removed	-----	1.14 ± 0.01	-----
Just infanticide removed	-----	0.99 ± 0.17	-----

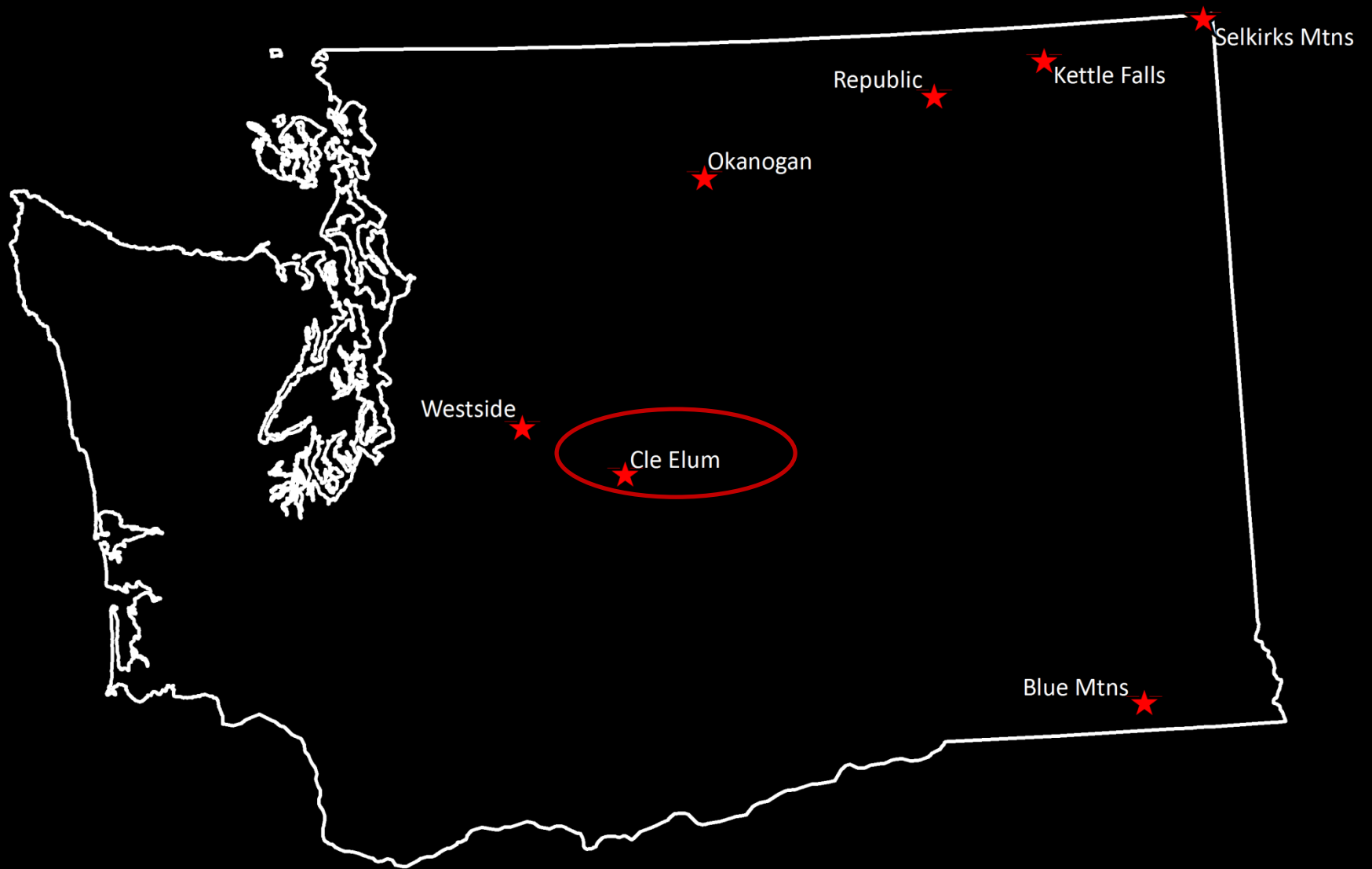
Intrinsic Growth Rate = 1.14

Sustainable Hunting Rate = 0.14

R.B. Wielgus, Morrison, D.E., H.S. Cooley, B.T. Maletzke, and G.M. Koehler. 2013
Effects of male trophy hunting on female carnivore population growth and
persistence. *Biological Conservation* 167: 69-75

Community Ecology





Cougar Prey Use by Sex

Observed Frequencies

Age	Species	Cougar Sex	
		Female	Male
Juvenile	Mule Deer	73	19
	Elk	65	37
Adult	Mule Deer	51	14
	Elk	13	22



More mule deer were killed than elk.



Females had higher proportional use of mule deer.



Males had higher proportional use of elk.

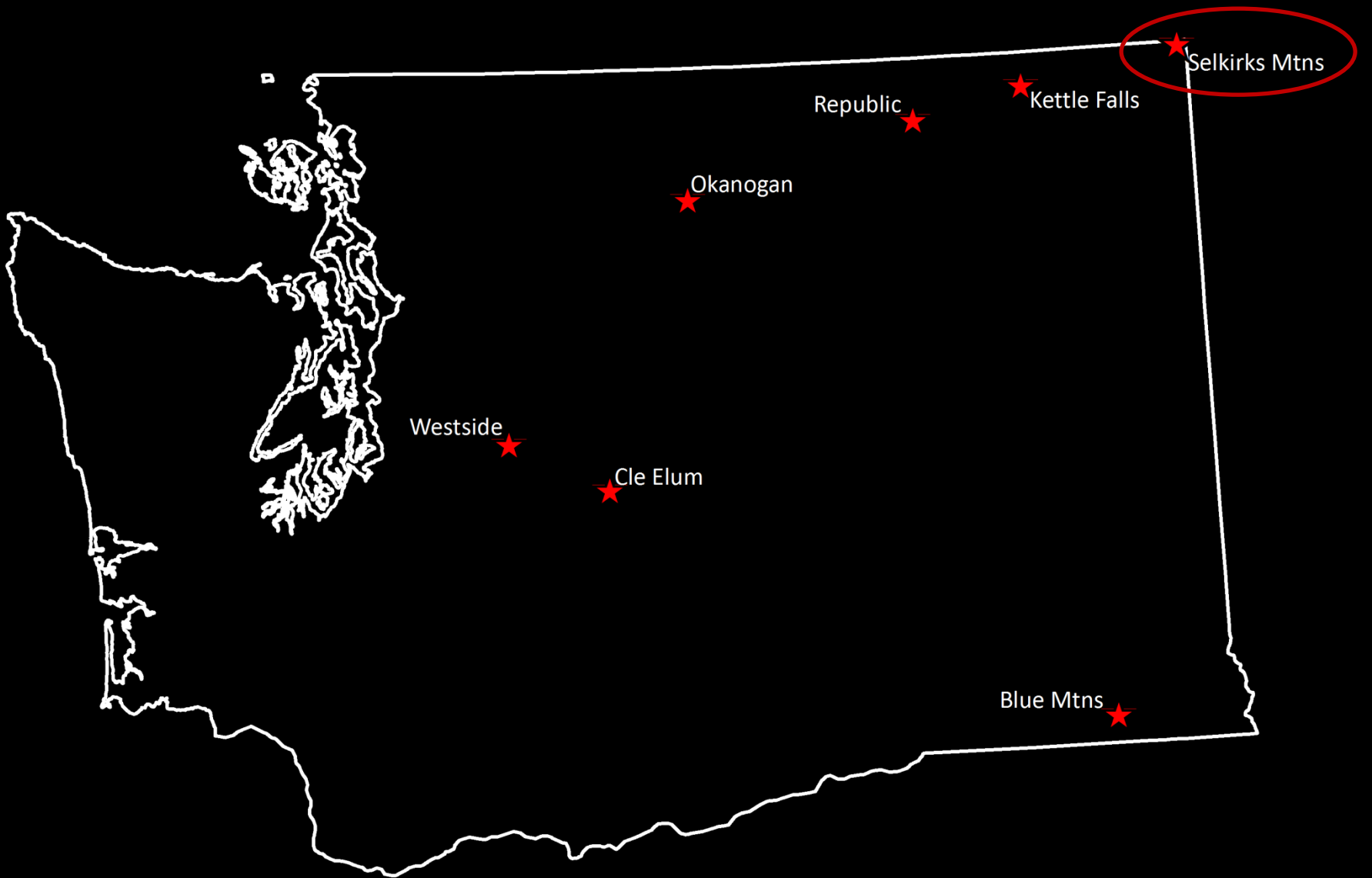


Males proportionately killed more adult prey than females .

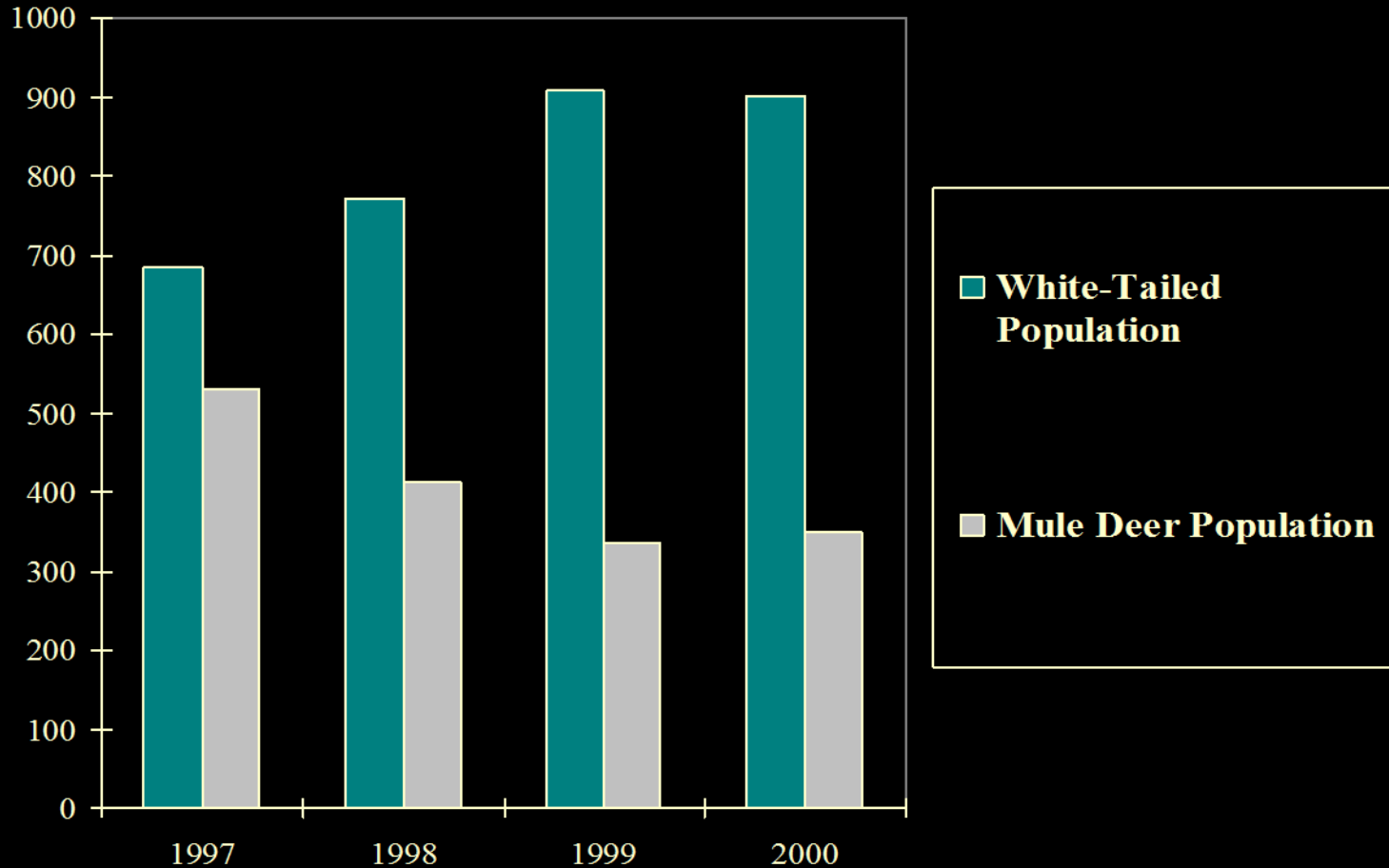


Males proportionately killed 4 times as many adult elk as females.

White, K.S., G.M. Koehler, B.T. Maletzke, and R.B. Wielgus. 2011. Differential prey use by male and female cougars in Washington. *Journal of Wildlife Management*. 75(5):1115-1120



Mule Deer/Whitetail Deer Numbers



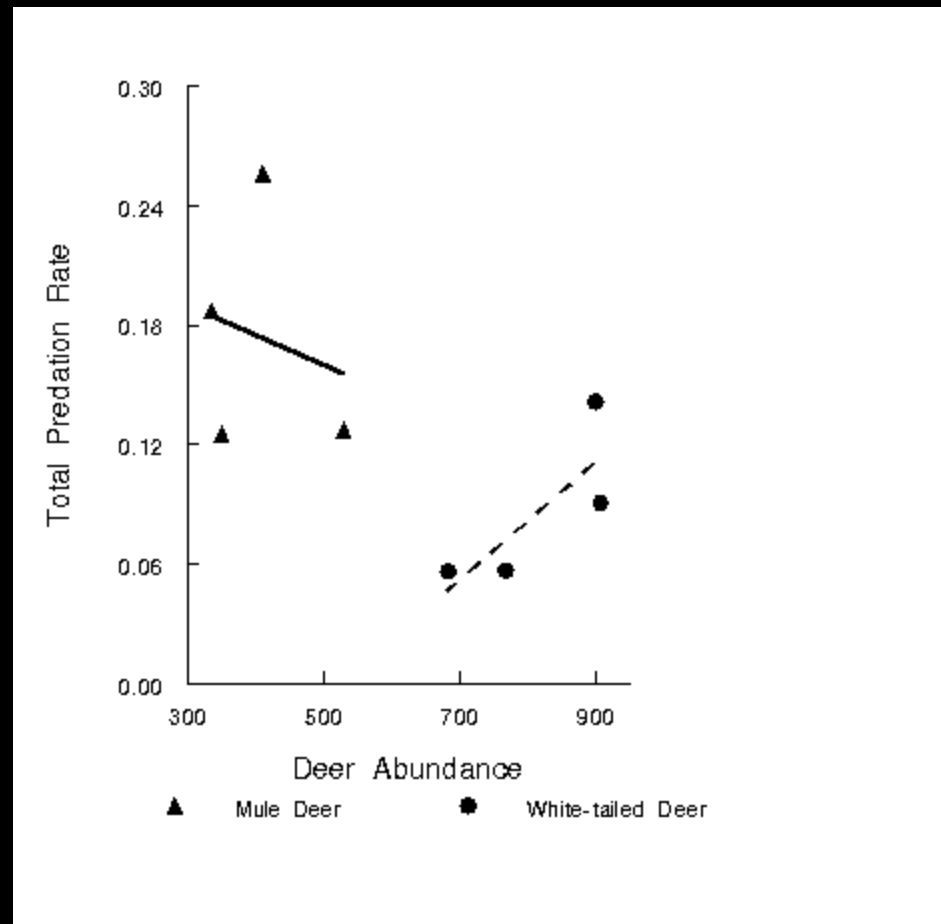
Due to cougar predation rate

Mule Deer = 17%

Whitetail Deer = 9%

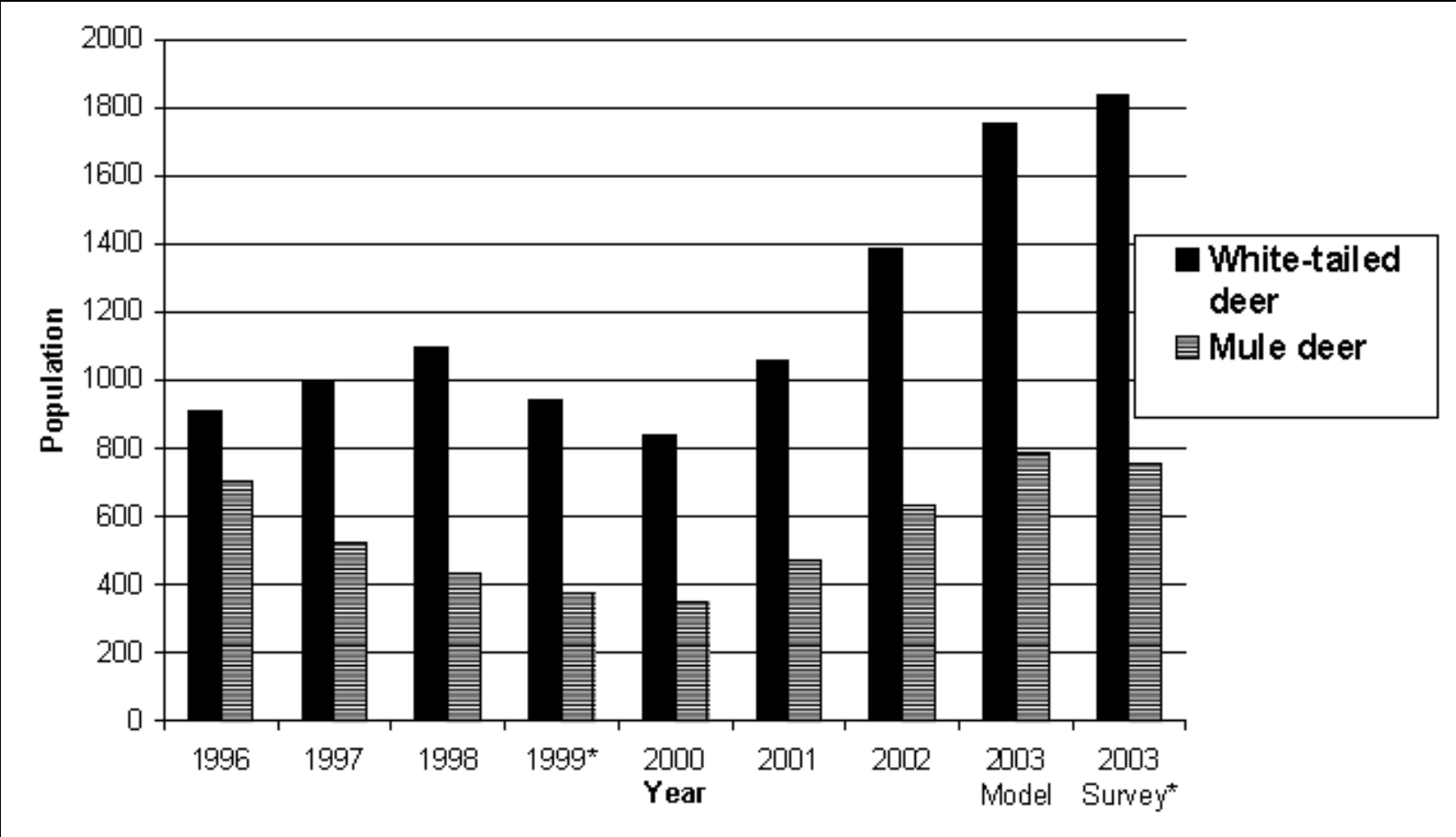
Predation appears to be density independent on mule deer and density dependent on white-tailed deer

Why?

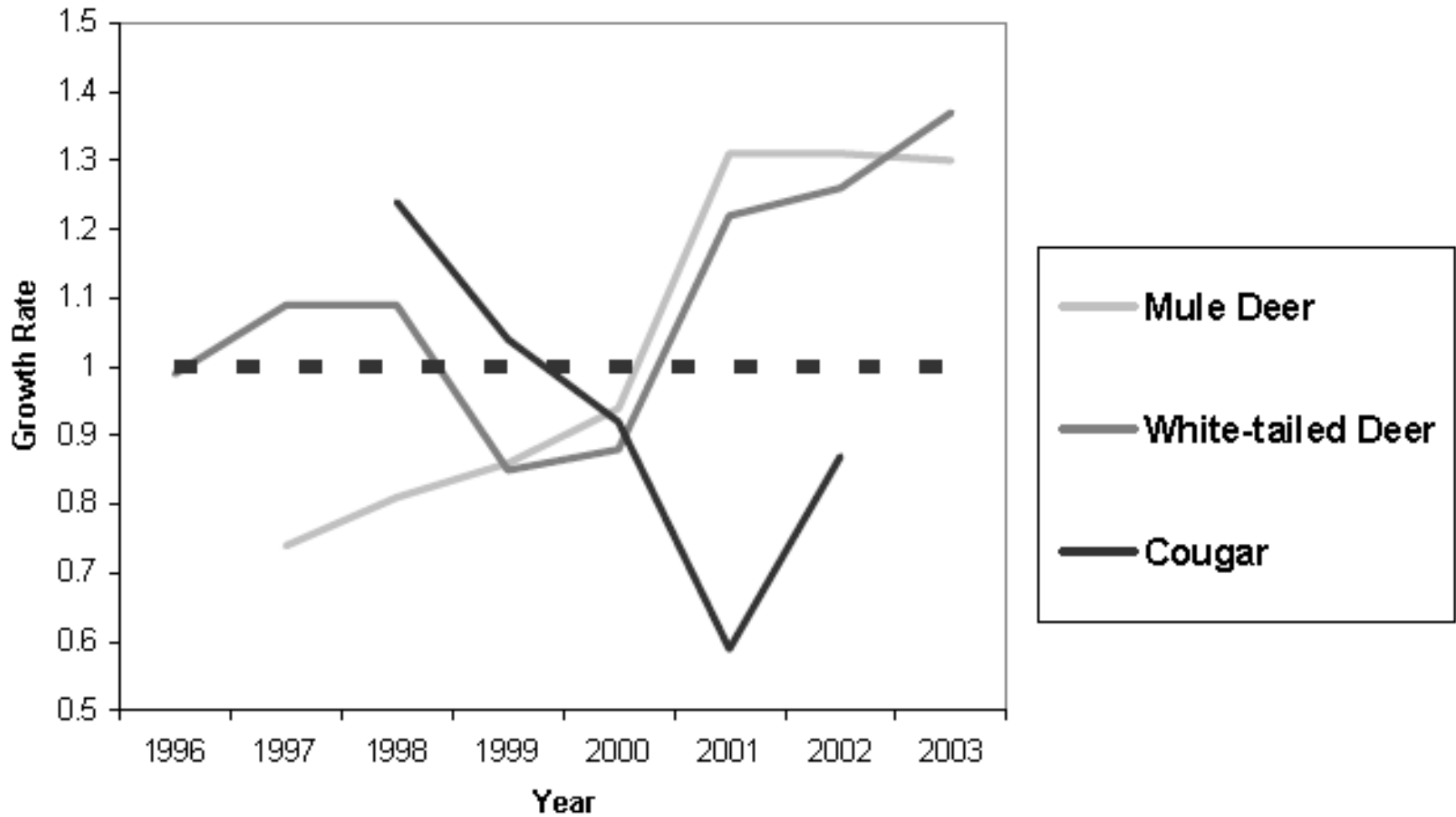


Robinson, H.S., R.B. Wielgus, and J.C. Gwilliam. 2002. Cougar predation and population growth of sympatric mule deer and white-tailed deer. *Canadian Journal of Zoology*. 80(3): 556-568.

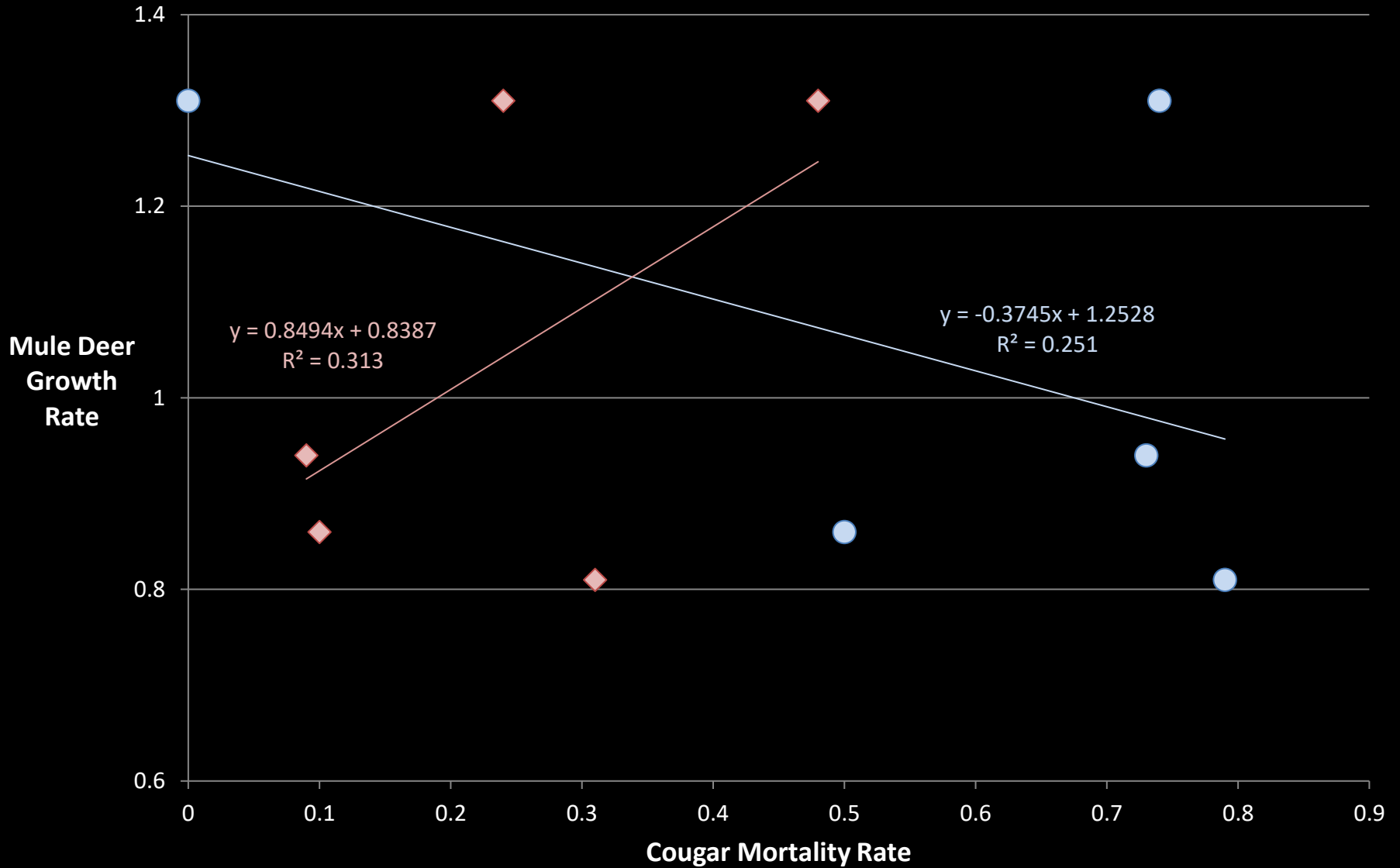
Longer Time Series

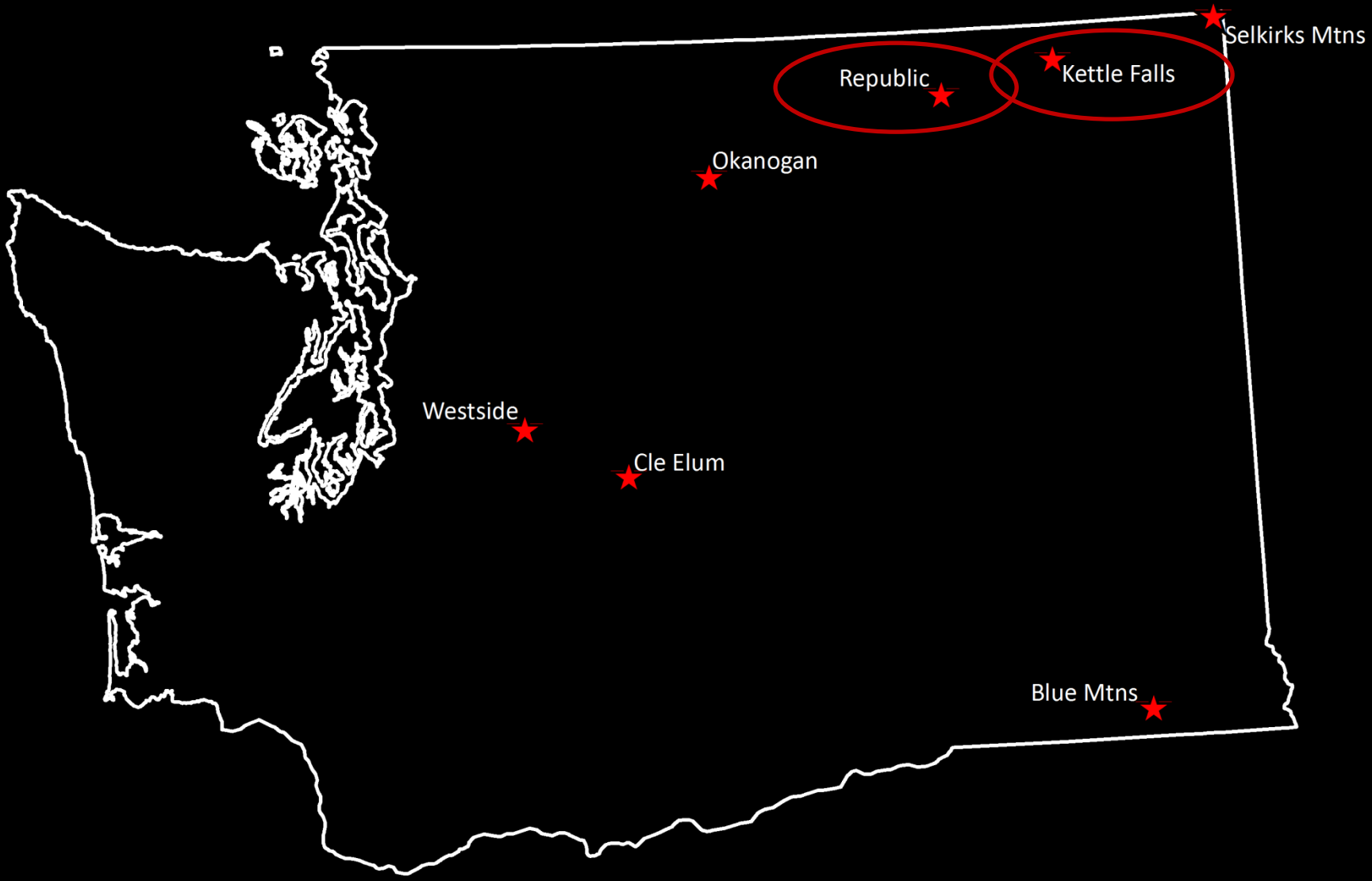


Mule Deer Recovery in 2000-01 = Female cougar mortality ↑
From 10% to 48%



Mule Deer Growth Rate and Cougar Mortality Rate





Cougar Prey Selection

	χ^2	p	Selection Ratios	
			WT	MD
ANNUAL				
Wedge	2.82	0.09	0.84	1.74
Republic	1.99	0.26	0.79	1.26
Study Area	4.42	0.04	0.82	1.53
SEASONAL				
Summer	4.28	0.04	0.83	1.44
Winter	0.04	0.84	1.04	1.03

**Cougars select for 20% Mule Deer but not
80% Whitetail Deer**

(Only in Summer)

Why?

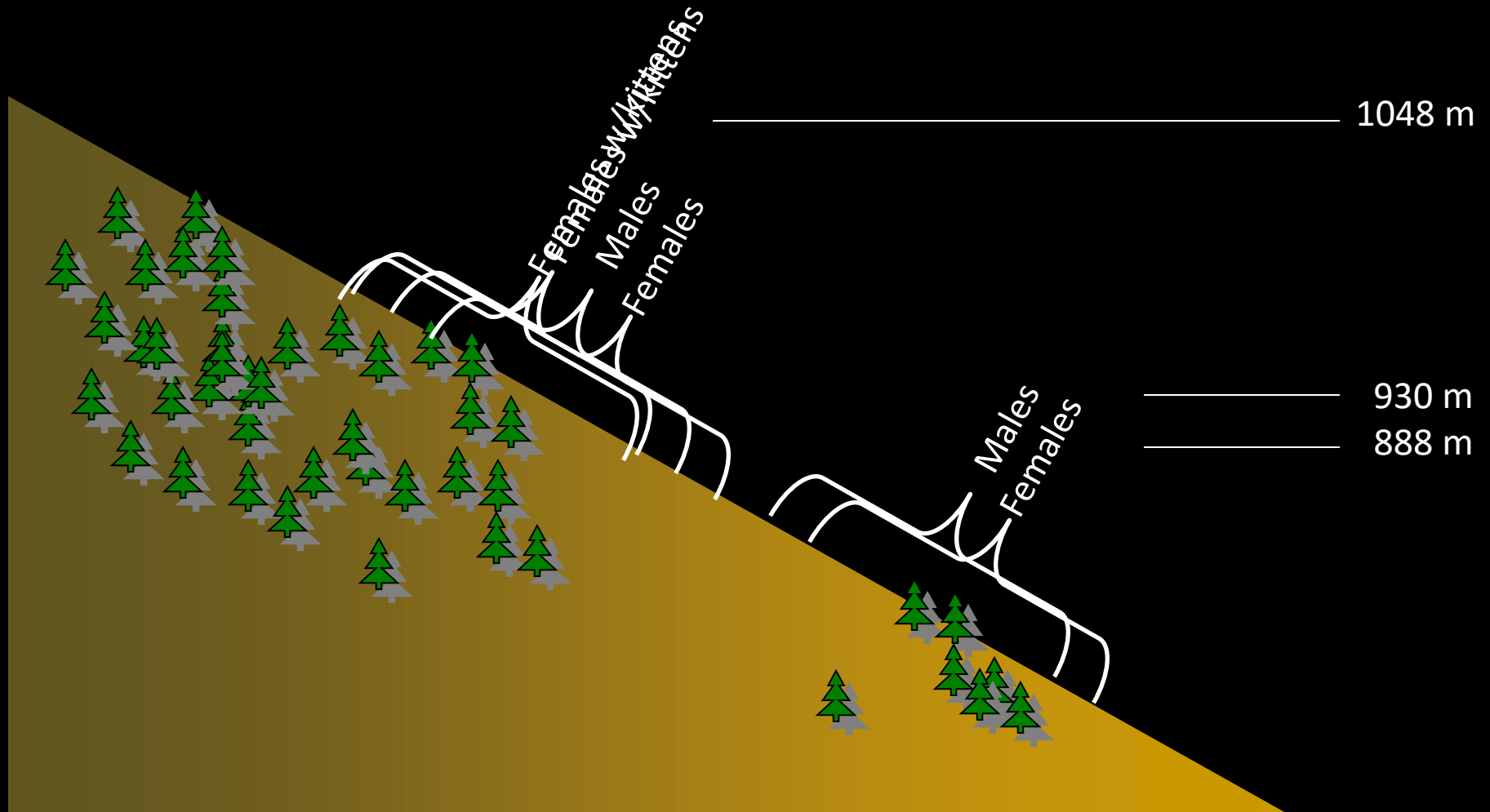
Cooley, H.S., H.S. Robinson, R.B. Wielgus, and C.S. Lambert. 2008. Cougar prey selection in a white-tailed deer and mule deer community. *Journal of Wildlife Management*. 72(1): 99-106.

Cougar Prey Selection

	Prey	Obs.	Exp.	χ^2	<i>P</i> value
Annual (ALL)	WT	144	184	40.05	<0.01
	MD	82	42		
Summer (FK)	WT	12	25	27.81	<0.01
	MD	19	6		
Summer (F)	WT	22	25	2.06	0.15
	MD	9	5		
Summer (M)	WT	24	27	1.55	0.21
	MD	9	6		

Sexual segregation

SUMMER



Female cougars with kittens select for low density Mule Deer during summer and others don't.

Why?

Keehner, J.N., R.B. Wielgus, and Keehner A.M. 2015. Effects of male targeted hunting regimes on prey switching by female mountain lions: implications for apparent competition on declining secondary prey. *Biological Conservation*. 192: 101-108.

Only Females/w Kittens avoided males
~ Only in Kettle Falls
~ Only in Summer

Only Females /w Kittens selected MD
at higher elevations
~ Only in Kettle Falls
~ Only in Summer

**Because of Sexually selected infanticide by
immigrant males**

Keehner, J.N., R.B. Wielgus, B.T. Maletzke, and M.E. Swanson. 2015.
Effects of male targeted hunting regime on sexual segregation in
mountain lion. *Biological Conservation*. 192: 42-47.

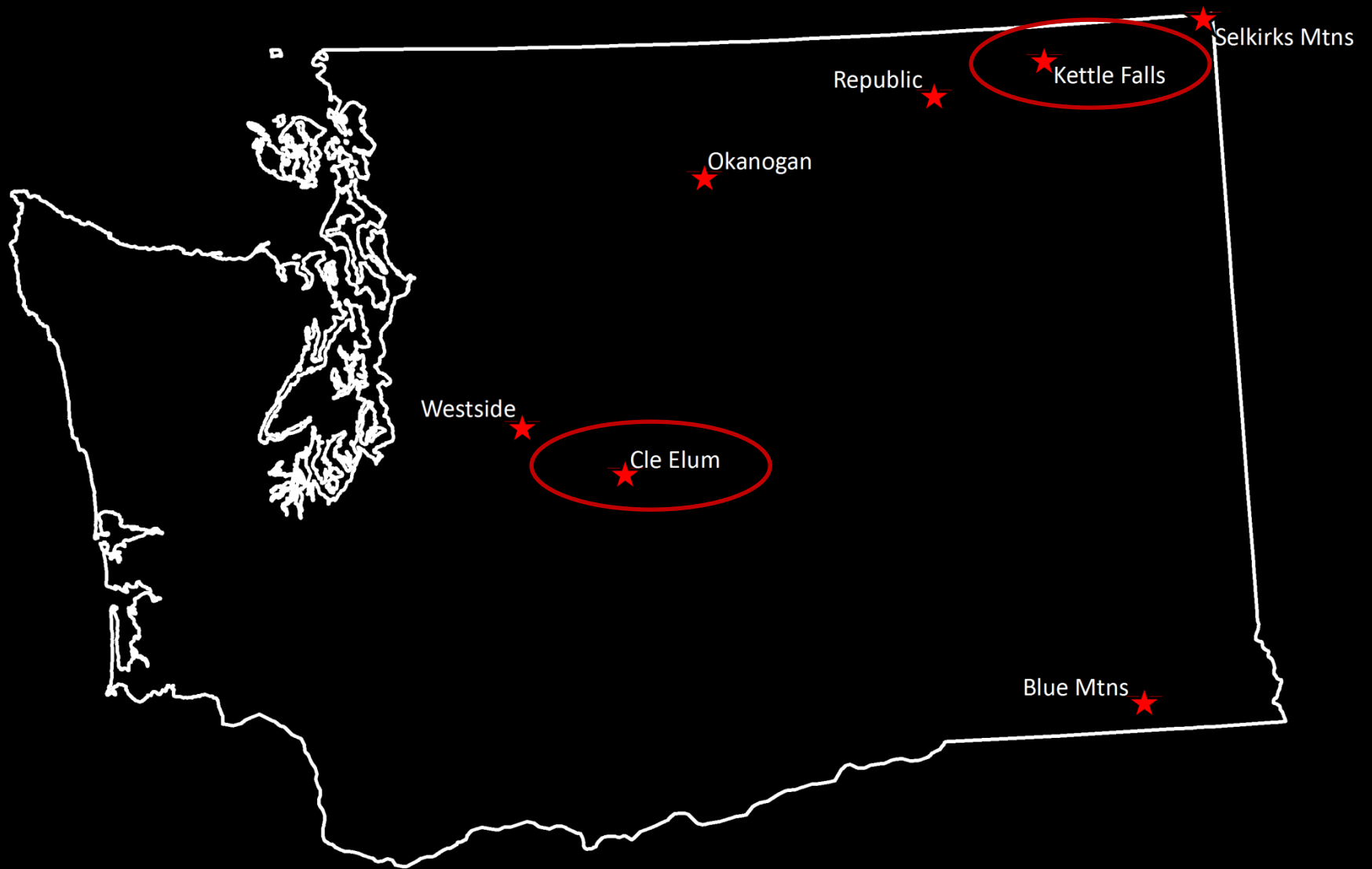
Hunting ↑ ≠ Predation ↓

WHY?

**Increased immigration by males (Elk?)
Sexually segregated prey use (Mule Deer)**

Landscape Ecology





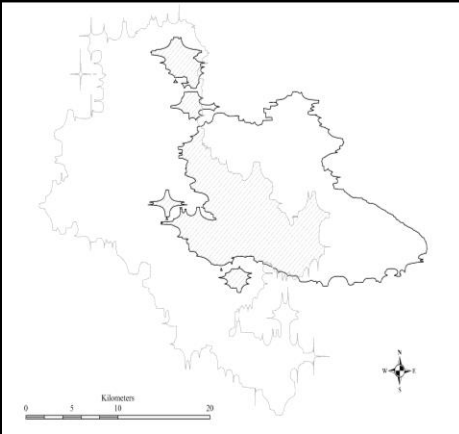
Home Range Size Comparison



Home range size of Wedge males was significantly higher.

	Wedge (Mean km ² ± SD)	Cle Elum (Mean km ² ± SD)	P-value
Males	753 ± 338	347 ± 134	< 0.01
Females	240 ± 104	199 ± 240	0.53

2-D Overlap Comparison

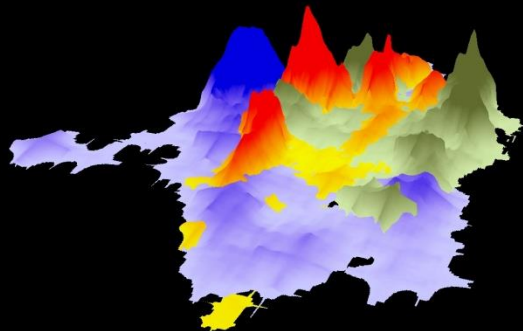


Wedge

Cle Elum

Sex	(Mean km² ± SD)	(Mean km² ± SD)	P-value	Holm_Bonf α/k
♂	0.41 ± 0.23	0.17 ± 0.11	< 0.01	0.01
♀	0.31 ± 0.18	0.20 ± 0.15	0.03	0.02
♂ - ♀	0.16 ± 0.06	0.26 ± 0.18	0.22	0.03
♀ - ♂	0.57 ± 0.19	0.51 ± 0.26	0.55	0.05

Holm-Bonferroni adjusted alpha value where $\alpha = 0.05$ and k is the number of pairwise comparisons

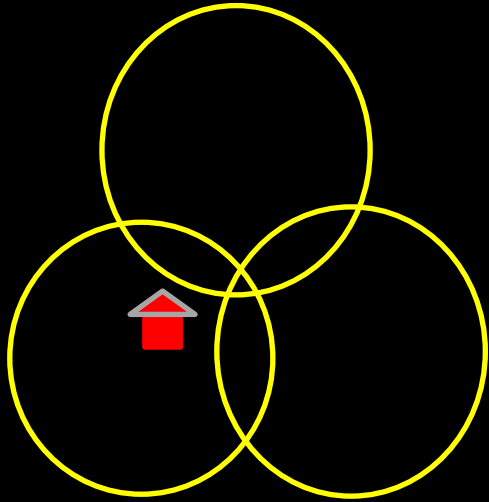


3-D Overlap Comparison

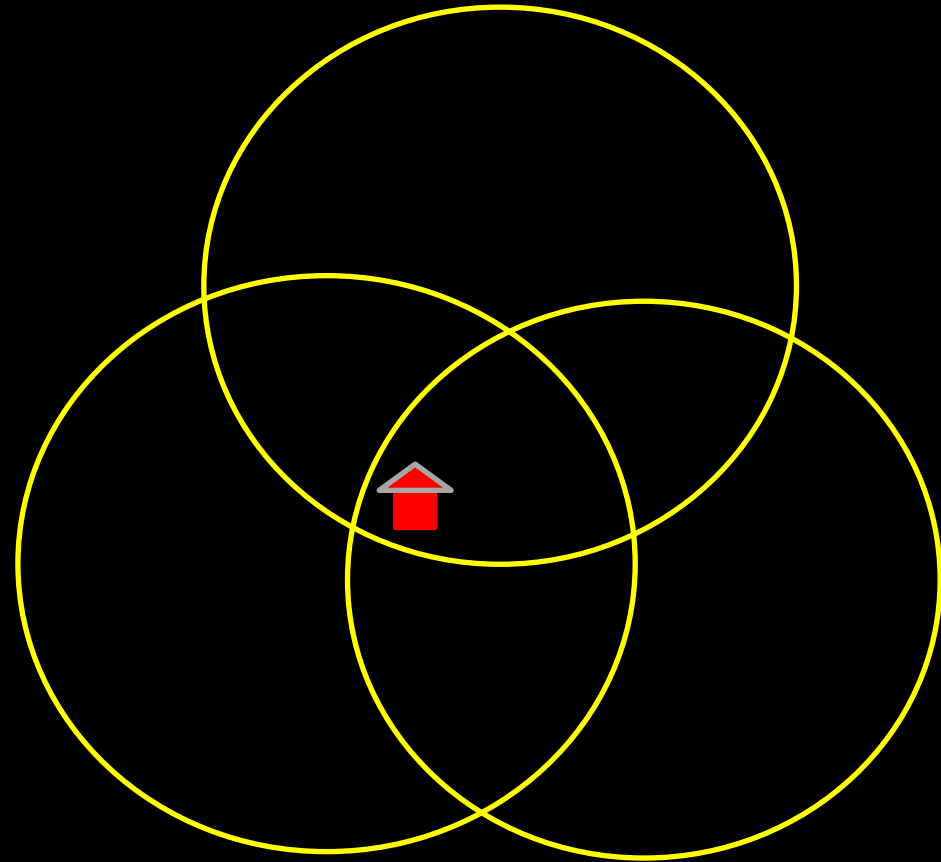
Sex	Wedge (Mean km ² ± SD)	Cle Elum (Mean km ² ± SD)	<i>P</i> -value	<i>Holm_Bonf</i> α/k
♂	0.38 ± 0.27	0.16 ± 0.15	0.01	0.01
♀	0.27 ± 0.29	0.12 ± 0.14	0.04	0.02
♂ - ♀	0.19 ± 0.08	0.30 ± 0.25	0.36	0.03
♀ - ♂	0.19 ± 0.11	0.32 ± 0.30	0.30	0.05

Holm-Bonferroni adjusted alpha value where $\alpha = 0.05$ and k is the number of pairwise comparisons

Cougar - Human Encounters



Cougar Encounter = 1



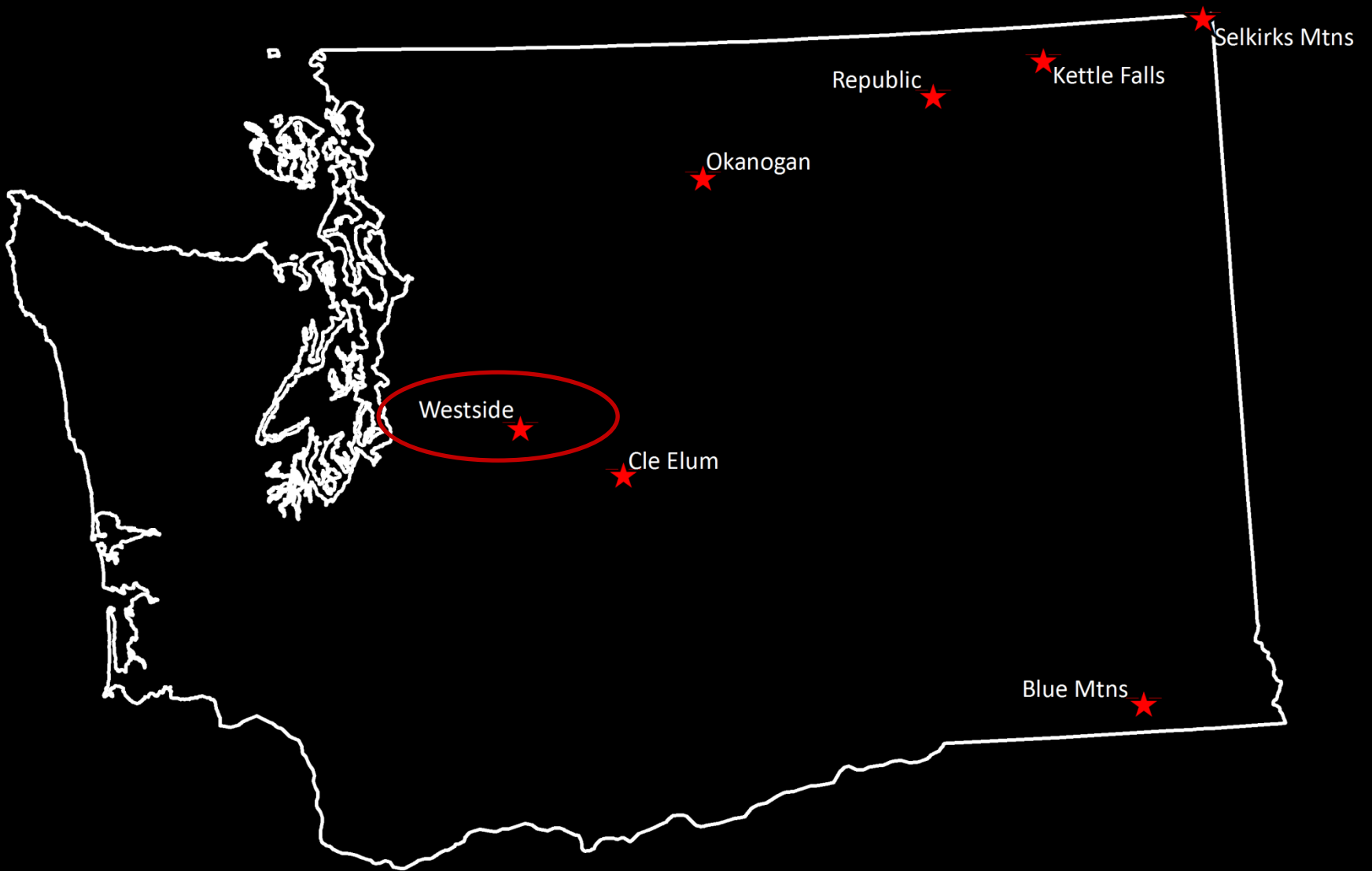
Cougar Encounter = 3

Hunting ↑ = Home Range Size ↑

Hunting ↑ = Home Range Overlap ↑

Hunting ↑ = Cougar Human Encounter ↑?

Maletzke, B.T., R.B. Wielgus, G.M. Koehler, M.E. Swanson, H.S. Cooley, and J.R. Alldredge. 2014. Effects of hunting on cougar spatial organization. Ecology and Evolution. Doi: 10.1002/ECE3.1089.



**Comparison of Sex & Age on
UD & 99% fixed KHR overlap
with residential development.**

	Sex				Age			
	Male (n = 17)		Female (n = 16)		Adult (n = 24)		Subadult (n = 9)	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
UD Volume	16.33	16.13	17.42	18.50	12.69	16.05	27.99	15.19
Home Range Area	20.09	17.43	16.51	16.36	13.90	14.04	30.23	18.38

Young Animals = More Overlap

Comparison of Resident & Transient cougars on Average UD & 99% fixed KHR overlap with residential development.

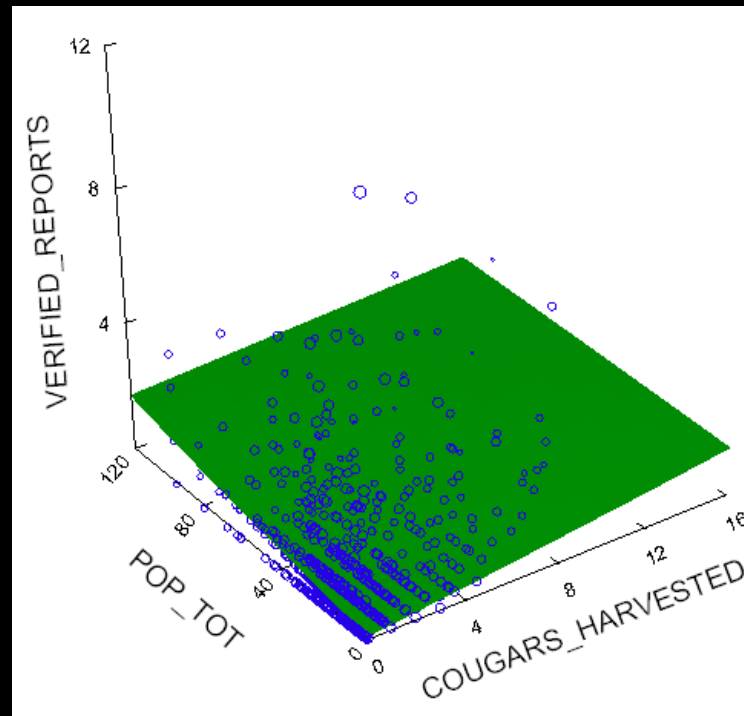
	Subadult Male Transient (n = 5)		Subadult Female Transient (n = 4)		Adult Male Resident (n = 9)		Adult Male Transient (n = 3)		Adult Female Resident (n = 12)	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
UD Volume	26.89	20.43	29.35	7.38	11.30	11.70	13.79	17.20	13.45	19.57
Home Range Area	30.48	24.36	29.92	10.46	14.90	10.56	18.36	20.03	12.04	15.74

Transient Animals = More Overlap

Kertsen, B.N. Spencer, R.D., Grue, C.E. 2013. Demographic influences on cougar residential use and interactions with people in Washington. *Journal of Mammalogy*. 94(2): 269-281.

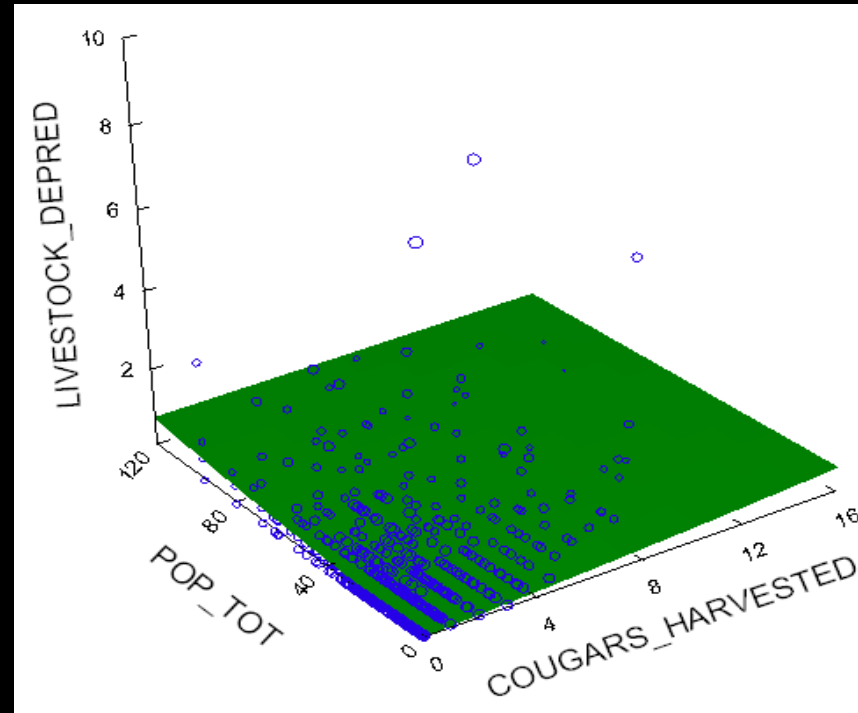


Verified Complaints vs Cougar Population and Cougar Harvest for 136 GMUs in WA from 2005-2010



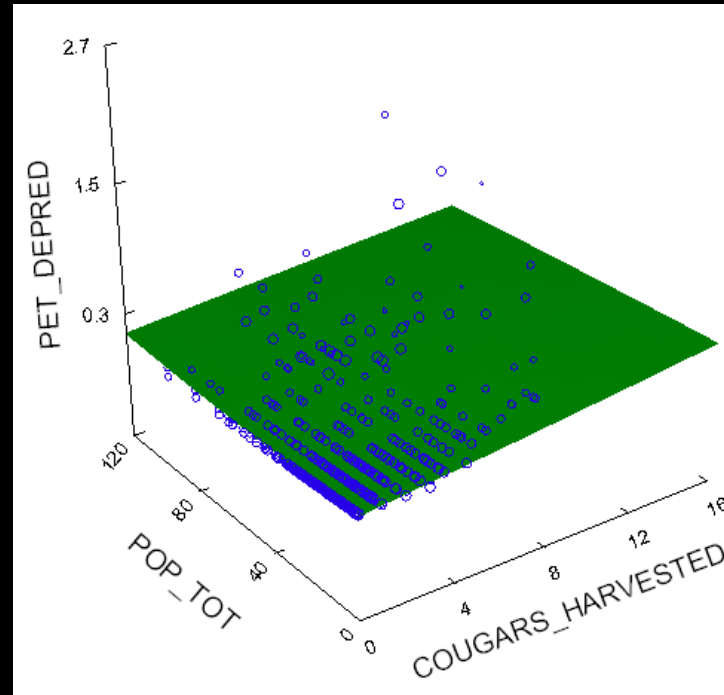
Effect	Coefficient	Standard Error	Std. Coefficient	t	p-value
Constant	0.095	0.063	0.000	1.509	0.132
Cougar Population	0.014	0.002	0.215	5.808	0.000
Cougar Harvest	0.086	0.020	0.158	4.276	0.000

Livestock depredations vs Cougar Population and Cougar Harvest for 136 GMUs in WA from 2005-2010



Effect	Coefficient	Standard Error	Std. Coefficient	t	p-value
Constant	0.019	0.038	0.000	0.488	0.626
Cougar Population	0.006	0.001	0.155	4.090	0.000
Cougar Harvest	0.037	0.012	0.116	3.059	0.002

Pet depredations vs Cougar Population and Cougar Harvest for 136 GMUs in WA from 2005-2010



Effect	Coefficient	Standard Error	Std. Coefficient	t	p-value
Constant	-0.005	0.013	0.000	-0.386	0.699
Cougar Population	0.001	0.000	0.079	2.105	0.036
Cougar Harvest	0.025	0.004	0.232	6.189	0.000

Hunting ↑ = Verified Incident Reports ↑

Hunting ↑ = Livestock Depredations ↑

Hunting ↑ = Pet Depredations ↑

Peebles, K.A., Wielgus, R.B., Maletzke, B.T., and Swanson, M.E. 2013. Effects of remedial sport hunting on cougar complaints and livestock depredations. PLoS ONE 8(13) e79713

Summary

Hunting ↑ ≠ Cougars ↓

Hunting ↑ ≠ Predation ↓

Hunting ↑ ≠ Depredations ↓

Hunting ↑ ≠ Complaints ↓

**Special Thanks to all
the Cougar Researchers
in Washington!**

Hugh Robinson (WSU)

Jonathon Keehner (WSU)

Catherine Lambert (WSU)

Dana Morrison (WSU)

Hilary Cooley (WSU)

Kaylie Peebles (WSU)

Benjamin Maletzke (WSU)

Brian Kertson (UW)

Kevin White (WSU)

Richard Beausoleil (WDFW)

Gary Koehler (WDFW)

Donny Martorello (WDFW)

Questions?



Oregon State Board of Agriculture Resolution	
Title: Cougar Management Plan	Number: 275 Effective Date: 02/17/2017
Sub-Committee: Government Relations ODA Staff Contact: Kathryn Walker	Next Review Date: 00/00/2020 Date of Last Review/Revision: 02/17/2017 Original Resolution Date: 03/02/2006
Board Chair: Barbara Boyer	Signature on file

Background

Resolution

Whereas, ~~the Oregon State Board of Agriculture recognizes the threat an overpopulation of cougars are a species of Oregon wildlife that is valued and appreciated by many poses to the livestock industry in Oregonians;~~

~~Whereas, cougars may sometimes pose a risk of harm to farm animals in Oregon; and~~

~~Whereas, the best available current science indicates that indiscriminate killing of cougars is not effective to reduce risk of harm by cougars to farm animals and may increase the risk of harm.~~

Be it resolved that the Board of Agriculture supports ~~the use of non-lethal measures to reduce the risk of harm to farm animals by cougars or, if non-lethal measures have been exhausted but not been successful, through killing only of specific cougars known to be harming farm animals; and~~

~~Be it resolved further that the Board of Agriculture does not support attempts to manage Oregon's cougar population generally through indiscriminate killing of cougarsthe Cougar Management Plan as proposed by the Oregon Department of Fish and Wildlife.~~

Summary

Supports ~~a non-lethal measures to manage cougar management conflicts with farm animals; opposes attempts to manage cougar populations through indiscriminate killing of cougarsplan proposed by the Oregon Department of Fish and Wildlife; recognizes that an overpopulation of cougars poses a threat to the livestock industry in Oregon.~~



November 20, 2020

Stephanie Hallock, Chair
 Oregon Board of Agriculture
 635 Capitol St NE
 Salem, OR 97301

Submitted via email: kvalness@oda.state.or.us

RE: Cougar Management Plan Resolution

Dear Chair Hallock and Members of the Board:

On behalf of the undersigned organizations and our supporters in Oregon, we submit the following comments regarding the Oregon Board of Agriculture (“Board”) draft Cougar Management Plan Resolution. We appreciate your consideration of our comments submitted in June regarding this issue and once again urge the Board to consider changes to the resolution that support proactive measures to prevent livestock depredation. The current draft, which states that “cougar predation poses a threat to the livestock industry in Oregon,” is not only inaccurate and may stoke unnecessary fear among ranchers and livestock operators, it also misses out on an opportunity to support this industry through meaningful and proactive prevention of livestock depredation from cougars.

As we shared in our June comments to the Board (Attachment A), the best available research shows that indiscriminate hunting and predator control of cougars are not effective tools to prevent livestock depredation because these practices simply kill cougars randomly but do not actually target the individuals who are involved in livestock depredations.ⁱ In fact, heavy hunting of cougars, as is currently permitted under the Oregon Department of Fish and Wildlife’s (ODFW) Cougar Management Plan, can actually result in increased loss of livestock. Based on the adult and subadult cougar population estimate, ODFW’s annual hunting quota of 970 cougars amounts to nearly 28% of the population, or double what experts believe is sustainable.ⁱⁱ

It is critical for this Board to understand the effects of heavy hunting on cougar populations and how that can result in increased conflicts with humans, pets and livestock. We requested but were denied the opportunity to allow Dr. Rob Wielgus, the former director of Washington State

University's Large Carnivore Lab and one of the world's pre-eminent experts on large carnivores, to present on this issue during your December meeting. Dr. Wielgus, in collaboration with state and federal agencies, oversaw more than a decade of research on this topic and has authored or co-authored numerous studies that detail the effect of hunting on cougar populations.

Because we were denied the opportunity to provide you with a presentation by Dr. Wielgus, we have attached his slide presentation which will hopefully give you some insight into the extensive research he has help to conduct on this issue (Attachment B). Overall, this research shows that heavy, indiscriminate removal of cougars disrupts their sensitive social structure, removing territorial males that protect an area from incoming young cougars.ⁱⁱⁱ Hunting of cougars opens up an area to these younger cats who are more likely to prey on livestock, while larger adult cougars are more likely to target their natural prey like deer and elk. When hunters remove territorial, adult cougars at high levels such as those permitted in Oregon, this leads to an influx of "subadult" cougars and the result is an increase in complaints and conflicts. Moreover, ODFW already allows any cougar that poses an immediate threat or is found in an urban area or farmstead to be killed. Therefore, indiscriminate hunting of cougars is entirely unnecessary and may, in fact, exacerbate conflicts.^{iv}

The proposed draft of the resolution claims that cougar predation poses a threat to Oregon's livestock industry. Yet the reality is that cougar predation in Oregon is incredibly limited and does not pose a noteworthy threat to the industry. In all of 2019, USDA Wildlife Services reported fewer than 300 livestock killed by cougars, out of the millions of livestock reported in Oregon.^v This includes 90 sheep out of 175,000 total head, 8 goats out of 40,000 total head, and 62 cattle out of 1.28 million total head reported for 2019. It also includes just 2 llamas and 3 alpacas, among a handful of other animals.^{vi} The largest sources of unwanted mortality in Oregon's livestock, such as weather, illness and birthing problems, cause significantly more losses (~88% of unwanted cattle losses; ~59% of unwanted sheep losses) compared to losses from cougars.^{vii}

While we recognize that livestock loss is a serious concern, these numbers show that cougars do not in fact pose a threat to Oregon's livestock industry and a resolution by the Oregon Board of Agriculture claiming they do is unnecessary, perpetuates misguided myths, and instils unnecessary fear in ranchers and livestock operators about cougars and other wildlife. Instead, a resolution by this Board would have much more value if it sought to uphold and support the implementation of nonlethal measures to prevent the very few livestock depredations from occurring in the first place, rather than dealing with conflicts after livestock have already been killed. We know that recreational hunting of cougars will not do that, but proactive, non-lethal deterrents and strategies can.

Across the western U.S., ranchers and livestock operators are making significant strides with non-lethal methods, including tools and changes to husbandry practices, that prevent the loss of livestock from native carnivores. These tools are effective, inexpensive, and avoid losses from occurring in the first place. Yet, as USDA data show, few Oregon ranchers and livestock operators currently use non-lethal methods to protect their cattle and sheep.^{viii}

We urge this Board to support Oregon's livestock industry and our state's wildlife by approving a proactive resolution on non-lethal measures, rather than an ineffective and reactive resolution

that provides no solution for Oregonians. Such a resolution should include a call to action for ODFW to include a more meaningful approach for preventing cougar conflicts with livestock rather than relying on recreational hunting and indiscriminate predator control, both of which we know are not effective. We encourage you to once again consider our recommended edits to the resolution (Attachment C) and welcome the opportunity to discuss this language and other options with this Board. Thank you for your consideration.

Sincerely,

Kelly Peterson
Oregon Senior State Director
The Humane Society of the United States

Nancy Warren
Executive Director
National Wolfwatcher Coalition

Brian Posewitz
Director
Humane Voters Oregon

Wally Sykes
Co-Founder
Northeast Oregon Ecosystem

Penny Maldonado
Executive Director
The Cougar Fund

Brooks Fahy
Executive Director
Predator Defense

Debra Chase
CEO
Mountain Lion Foundation

Samantha Bruegger
Wildlife Coexistence Campaigner
WildEarth Guardians

Jennifer Hauge
Legislative Affairs Manager
Animal Legal Defense Fund

ⁱ R. J. Lennox et al., "Evaluating the Efficacy of Predator Removal in a Conflict-Prone World," *Biological Conservation* 224 (2018).

ⁱⁱ R. A. Beausoleil et al., "Research to Regulation: Cougar Social Behavior as a Guide for Management," *Wildlife Society Bulletin* 37, no. 3 (2013).

ⁱⁱⁱ 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); L. Mark Elbroch and Howard Quigley, "Social Interactions in a Solitary Carnivore," *Current Zoology* 63, no. 4 (2017).

^{iv} Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations."

^v U.S. Department of Agriculture, "Program Data Report C – 2019, Threats to Resources by Wildlife & Occurrence of Damage Reported By Wildlife Services," (2019). Retrieved from https://www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/pdr/?file=PDR-C_Report&p=2019:INDEX.

^{vi} Ibid.

^{vii} The Humane Society of the United States, "Government Data Confirm That Cougars Have a Negligible Effect on U.S. Cattle & Sheep Industries," (2019). See Figs. 5a/b.

^{viii} The Humane Society of the United States, "Government Data Confirm That Cougars Have a Negligible Effect on U.S. Cattle & Sheep Industries," (2019). See Figs 38 and 39.

From: Jasmine Lyons coruja6@hotmail.com
Subject: Public Comment, Cougar Resolution
Date: November 20, 2020 at 11:43 AM
To: kvalness@oda.state.or.us



Hello,

I am an Oregon resident writing to express my opposition to the Board of AG's resolution in support of ODFW's cougar management plan. I urge you to adopt a humane, intelligent resolution that focuses on coexistence between farmers/ranchers and the native predators who are essential to this ecosystem. There are numerous non-lethal solutions that can be implemented.

Thank you,
Jasmine Lyons

Sent from my iPhone

From: Jane Bicquette jbicquette@gmail.com
Subject: Please say NO to the Cougar Mgmt Plan
Date: November 20, 2020 at 11:58 AM
To: kvalness@oda.state.or.us
Cc: jbicquette jbicquette@gmail.com



Dear Oregon Department of Agriculture,
Ms. Karla Valness,

I am writing to you in haste today to plead with you to NOT pass the inaccurate, unscientific and inhumane Cougar Management Plan.

First, cougars are not responsible for livestock predation to a degree that legitimizes this resolution. Cougar predation on livestock is less than 1% of livestock predation. Predators, in general, do not kill livestock to the degree that the cattle industry claims. The cattle industry, from my observations at ODFW hearings, want to "cash in" on our state government to the greatest degree they can get away with. Their claims are often unreasonable, unproven and simply false.

Furthermore, killing predators, not just cougars, causes the exact opposite effect: killing predator family members disrupts their natural balance and this leads to younger, inexperienced predator family members causing human-wildlife conflicts. This is true of coyotes, wolves, bears and cougars. We all know this from the scientific research that has been sited and explained over and over again to ODFW and to the Dept. of Agriculture.

Thirdly, with climate change and habitat losses, and wildfires, these beautiful animals are already under such threat and are suffering. We need to take responsibility for our impact on their habitats. The cattle industry contributes largely to climate change. We all know that eating a plant-based diet is better for our bodies, our planet, and for our souls. Let's hold the cattle industry accountable and put the onus on the cattle ranchers to prevent predators, like cougars, from easy attacks on their cattle. There are new, effective tools, such as movement sensor lights that flash and make sounds, penning cattle at night, and improved electric fencing. Some effort needs to be made by cattle ranchers other than killing. Killing should always be the very very last option.

Finally, I assert that the cougars are a valuable part of Oregon's wildlife; they need and deserve our protection and care. As an Oregonian, I count on there being wild lands and wild spaces, habitats for wildlife, predators and prey alike, that keep us in check and balance our use of natural resources.

Those cougars have a right to life and habitat. We need to protect them, not kill them.

Thank you for your consideration. I hope you will not pursue this cougar management plan.

Sincerely,

Jane Bicquette
29040 SW Baker Rd.
Sherwood, OR 97140

From: Janice Asher janasher@yahoo.com
Subject: ODA - PUBLIC COMMENT ABOUT COUGAR RESOLUTION
Date: November 20, 2020 at 12:33 PM
To: kvalness@oda.state.or.us



Dear Board Members:

The Cougar Management Plan resolution does not contain factual, but inaccurate data. Cougars are responsible for less than 1% of unwanted livestock mortality in Oregon. Of the few conflicts that do occur, the overwhelming majority can be prevented with simple inexpensive, non-lethal precautions like penning livestock at night and/or installing noise and light devices that deter cougars from an area. Further, science, best practices, tells us that indiscriminate killing of cougars increases complaints and livestock depredation, it does not reduce livestock mortality.

Killing cougars may be easier, and require less effort, but there is no justification in destroying wildlife because its easier. We have to find a way to share this land as we take away more-and-more of their habitat.

Please vote NO on this resolution.

Sincerely,

Jan Asher

From: Melinda Fleming melindafleming11@gmail.com
Subject: Public Comment about Cougar Resolution
Date: November 20, 2020 at 2:10 PM
To: kvalness@oda.state.or.us



Dear Karla Valness,

re: Public Comment About Cougar Resolution:

Preventing livestock depredation is every rancher & farmer's right. I support this right.

However, this resolution is not the way to do it. Indiscriminate killing of cougars does not reduce complaints or livestock depredation. In fact, it increases it. There are good, non-lethal ways of solving this problem instead. Worst of all: this resolution would sideline - or even eliminate - an opportunity to discuss and implement actual, real prevention of depredation.

Yours faithfully,

Melinda Fleming
Portland, OR

From: Greg Snider gregwsnider@gmail.com
Subject: public comment about Cougar Resolution
Date: November 20, 2020 at 2:36 PM
To: kvalness@oda.state.or.us



Dear Oregon Board of Agriculture-

I'm writing to request that you do not pass the Cougar Resolution currently under consideration.

A balanced ecosystem depends on the continued existence of all animals in the wild. Ranching is a commercial enterprise that needs to consider the importance of animals outside the capitalist model. The continued existence of all animals in the wild are at the mercy of humans. As we continue to diminish their habitats, we must take into consideration their plights.

As stewards of agriculture, you must also be stewards of wildlife. Please set in place science-based policies that protect both wildlife and livestock - not this policy that sacrifices the lives of wildlife for livestock production.

Sincerely,
Greg Snider
7140 SW Lee Road
Gaston, OR 97119

From: Roxane Auer roxane24@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 20, 2020 at 2:42 PM
To: kvalness@oda.state.or.us

RA

I am writing today to respectfully ask that you reject the Board of Agriculture's resolution in support of Oregon Department of Fish and Wildlife's cougar management plan. Decades of scientific studies have shown that killing cougars in response to predation of livestock only makes the problem worse. There is no evidence to support the Department of Fish and Wildlife's plan.

The only real solution to the problem is to fund programs to help farmers and ranchers learn and practice effective non lethal strategies for protecting their livestock and help with implementation of a non lethal plan. Anything else is both cruel and ineffective.

Sincerely,
Roxane Auer
Portland Oregon, 97215

Consider the following evidence:


- In 2019, an unusually high number of cougar attacks occurred in close proximity to recent, extreme hunting efforts to cull the cougar population by half. No attacks were reported in areas that were farther away from hunting efforts. When Dr. Robert Wielgus, director of the large carnivore laboratory at Washington State University, was asked if he thought the killing of cougars nearby could be linked to the attack on an 8yr old boy, he replied "Yeah, I do."^[i]
- A 2013 study in Washington called "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock Depredations" found that "the odds of increased complaints and livestock depredations increased dramatically (36 to 240%) with increased cougar harvest."^[ii]
- A 2011 study titled "Factors Governing Risk of Cougar Attacks on Humans" looked at 386 instances of cougar-human contact in the U.S. and Canada and found that "heavy localized hunting of older cougars could increase rather than reduce exposure of people to close-threatening encounters with cougars." This is because young males, the most likely to attack, move into areas disturbed by hunting.^[iii]
- In 2005 the book *Cougar Management Guidelines* looked at then current cougar research and found that "hunting may shift cougar population structure toward young animals, which are more likely than adult cougars to attack humans." They conclude, "Sport hunting [of cougars] is occasionally proposed as a tool to reduce the risk that cougars will attack humans. There is no scientific evidence that sport hunting achieves this goal." The working group that created the guidelines was comprised of 13 professionals including two Colorado biologists with the Colorado Division of Wildlife, the forerunner of today's Colorado Division of Parks and Wildlife.^[iv]

^[i] <https://www.boulderweekly.com/news/are-state-actions-increasing-the-risk-of-cougars-attacking-people/>

^[ii] <https://www.ncbi.nlm.nih.gov/pubmed/24260291>

^[iii] <https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1259&context=hwi>

[iv] <https://www.boulderweekly.com/news/are-state-actions-increasing-the-risk-of-cougars-attacking-people/>

From: Randy and Pamela Comeleo rotyler@peak.org 
Subject: Public Comment on Cougar Management Plan Board Resolution
Date: November 20, 2020 at 2:43 PM
To: kvalness@oda.state.or.us



Dear Chair Hallock and Members of the Agriculture Board:

Thank you for the opportunity to submit the following comments regarding the proposed Cougar Management Plan Resolution before the Oregon Board of Agriculture.

Based on our experience managing conflict between livestock and wildlife in Benton County, Oregon, we believe the Board of Agriculture could better serve its constituents by withdrawing its resolution in support of the flawed ODFW Cougar Management Plan and, instead, draft a resolution which supports the protection of livestock rather than the indiscriminate killing of predators.

The 2017 ODFW Cougar Management Plan aims to “reduce conflict by reducing cougar numbers” while an ever-increasing number of scientific studies show that indiscriminate killing of cougars actually *increases* conflict between livestock and wildlife by disrupting cougar social structure. The ODFW Cougar Plan dismisses this important research out of hand by simply stating that “research results vary and a good deal of uncertainty remains on the topic”. It is irresponsible for ODFW to claim, without substantiation, that we can “kill our way to a solution” to livestock-wildlife conflicts. Spreading misinformation about livestock-wildlife conflict management only fuels fear among livestock producers and does nothing to protect livestock, or wildlife.

In 2017, recognizing what scientists, and farmers, were saying about the effectiveness of non-lethal wildlife deterrents, wildlife conservation and agricultural leaders in Benton County partnered with Oregon State University Extension Service, the [Chintimini Wildlife Center](#), and county government to create the Benton County Agriculture and Wildlife Protection Program ([AWPP](#)).

<https://www.co.benton.or.us/awpp/page/about-program>

The [AWPP](#) encourages the proactive use of non-lethal animal damage deterrents in an effort to foster the coexistence of agriculture and wildlife. Agricultural operations in Benton County that wish to prevent conflicts with cougars and other wildlife may qualify for up to \$5,000 in reimbursement grant funds for the purchase of proactive non-lethal wildlife deterrents to protect livestock, crops, and property.

Over the past three years, the [AWPP](#) has awarded approximately \$80,000 in grant funds to Benton County farms. Amounts awarded ranged from \$2,621 to the maximum allowed of \$5,000. Farms were located throughout the Coast Range and foothills of rural Benton County and ranged in size from 2 to 102 acres. Farmers had experience ranging from 0 to 23 years. Many of the farms had unsuccessfully used lethal animal damage control methods in previous years. All grant recipients agreed to not use traps, snares, calling-and-shooting, or poisons for at least three years as part of the grant application process.

Sheep and goats were the most common livestock proposed for protection. Cougars were the most common wildlife conflict species identified by grant recipients.

All farms that participated in the grant program experienced little or no livestock losses using non-lethal deterrents, even though record keeping forms indicated that cougars, coyotes, and

other carnivores were often present during the reporting period. Farms that had previously experienced livestock losses while using traps, snares, and poisons, experienced no losses when using only non-lethal deterrents.

Grant participants used a wide variety of non-lethal wildlife deterrents including livestock guardian animals, electrified fencing, electronic scare devices, and protective housing to protect their livestock from cougars and other carnivores. All grant participants reported they were satisfied with the non-lethal methods and tools they used to deter predators and said they would apply again for a wildlife deterrents grant and would recommend the grant program to other farmers.

Based on our experience protecting livestock from cougars and other predators in Benton County, there are numerous benefits to using non-lethal deterrents to protect livestock versus killing cougars:

- Fewer Livestock Losses – more effective animal damage control by preventing rather than reacting to livestock losses
- Cost-Effective – invest in long-term protective measures such as guardian animals, protective housing, and fencing rather than ongoing killing of wildlife using traps, snares, and poisons
- Science-Based – avoid indiscriminate killing of carnivores which disrupts social structures and can lead to increased conflicts with livestock
- Behavior-Based – prevent carnivores from learning to kill unprotected livestock which can be very difficult to prevent from happening again
- Farm Safety – reduce safety hazards for pets, children, and other livestock associated with the use of traps, snares, and poisons
- Choice of Solutions – allow individual livestock producers to select the appropriate deterrents for preventing wildlife conflicts on their ranch
- Ecosystem Friendly – recognize the value of conserving native wildlife on family farms and ranches
- Adds Value – foster the production of valuable wildlife friendly products
- More Humane – prevent pain and suffering of unprotected livestock

Thank you for taking the time to learn about our experiences with livestock-wildlife conflict management in Benton County and for considering our comments.

Respectfully,

Randy and Pam Comeleo
Co-Founders

Benton County Agriculture and Wildlife Protection Program (AWPP)

<https://www.co.benton.or.us/awpp>



Public Comment

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Respectfully,

Randy and Pam Comeleo

Co-Founders

Benton County Agriculture and Wildlife Protection Program (AWPP)

<https://www.co.benton.or.us/awpp>

From: Brian Posewitz brian@humanevotersoregon.org 
Subject: Comments on Proposed Cougar Resolution
Date: November 20, 2020 at 3:20 PM
To: Karla Valness kvalness@oda.state.or.us

BP

Dear Ms. Valness, Chair Hallock and Members of the Board:

Humane Voters Oregon, a nonprofit organization advocating for humane treatment of animals, urges you not to adopt proposed resolution No. 275, which states (a) that cougars are a “threat” to “the livestock industry in Oregon”; and (b) that the Board supports the Cougar Management Plan adopted by the Oregon Department of Fish and Wildlife.

Please consider the following points (as well as our attachment comments on the Plan before it was adopted):

1. While cougars do occasionally prey on farm animals, they do not do so to an extent that “threat[ens]” “the livestock industry.” *See* Letter from Humane Society of the United States, et. al. (Nov. 20, 2020). Unless it can be said that cougars, by themselves, have the potential to seriously impact the ability of the “industry” to succeed or fail (which we do not believe to be the case), the language of the resolution is alarmist and tends to support an unnecessary and unwarranted level of lethal actions directed at cougars, an animal that many Oregonians value and appreciate having in the wild.

2. While we support several aspects of the Cougar Management Plan (it recognizes the value of cougars to the public and allows populations to grow above 3,000, for example), other parts of the Plan are controversial and received significant opposition from the public. *See* Aug. 4, 2017, meeting materials (including written comments) and testimony (https://www.dfw.state.or.us/agency/commission/minutes/17/08_aug/index.asp). Among other reasons, the Plan relies on indiscriminate (i.e., not targeted at specific problem animals) “management” killing of cougars (which we understand to allow hunting with packs of dogs even though voters consider that inhumane and banned it by ballot measure in 1994 for sport hunting) whenever “conflicts” with people, pets and/or farm animals rise above a particular statistical threshold (three-year average exceeds ten-year average, which we believe to be arbitrary and untested for statistical significance). It does this even though the science is, at best, unclear on whether intensive killing increases or decreases the conflict it is meant to address. *See* Presentation of Rob Wielgus (included with materials from Humane Society,

et. al.); Cougar Management plan, p. 38 (acknowledging studies showing cougar “removals” increase conflict). Attached are written comments we submitted in 2017, which provide more detail on our concerns with the Plan.

3. Given the controversial nature of the Plan and its significant opposition, the Board should not simply defer to a sister agency or take it on faith that the Plan appropriately balances risk, science and public sentiment. The Board should conduct an independent review. At the very least, the Board should hear a scientific presentation suggesting flaws in the Plan, not just the planned presentation from the Department of Fish and Wildlife, which obviously will promote its own plan. Our understanding is that the Humane Society of the United States offered to provide such a presentation but that the Board, through its staff, declined to hear it. *See* Letter from Humane Society, et. al.

For all of these reasons, we encourage the Board to not adopt the proposed resolution. If the Board adopts any resolution on cougars, its should adopt the resolution proposed by us and other animal-welfare and wildlife groups, which was included with submittals from the Humane Society of the United States.

Thank you for considering these comments.

Regards,

Brian Posewitz

Secretary | Director

Humane Voters Oregon | 5331 SW Macadam Ave., Ste. 258 (PMB 624) |
Portland, Oregon 97202

Phone: 503-946-1534

Email: brian@humanevotersoregon.org | Website:

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Click [here](#) to help Humane Voters Oregon and Humane Voters Oregon PAC advocate for animals in Oregon's political process.



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September 17, 2017

VIA ELECTRONIC MAIL – odfw.commission@state.or.us

Oregon Fish and Wildlife Commission
4034 Fairview Industrial Drive SE
Salem, OR 97302

Re: Oregon Cougar Management Plan Update (2017)

Dear Chair Finley and Members of the Commission:

Please consider the following comments of Humane Oregon on the update to Oregon's Cougar Management Plan. By way of background, Humane Oregon was formed in 2014 to help advocate for humane treatment of animals in Oregon's political process and elections. We are a moderate but progressive animal welfare organization, with board members from many different parts of Oregon's animal welfare community. We are not affiliated with any other state or national organization.

On behalf of our board and many supporters, we offer the following comments on the cougar management plan that we understand you will be asked to adopt at your meeting of October 13, 2017. The specific plan you will be asked to adopt was not available at the time these comments were submitted. Therefore, our comments are based on the draft plan presented to you on August 4, 2017, and on the comments of commissioners during that meeting. These comments are substantially the same as our August 3, 2017, comments on the draft plan. However, we have made a few changes to reflect information acquired since the previous comments were submitted, including a better understanding of the significance of the 3,000-cougar population threshold referenced in the plan.

General Comments on Cougar Management

Our comments are guided by our following general views on cougar management in Oregon:

1. Cougars deserve the space (habitat) and tolerance they need to survive and thrive in Oregon, in reasonable balance with people, pets, farm animals and other species of wildlife.
2. Cougars should not be killed in response to exaggerated or unsubstantiated risks or conflicts with humans, pets, farm animals or other wildlife populations.
3. Cougars should not be killed to resolve risk or conflict unless it is clear that doing so will resolve the risk or conflict and there are no reasonable non-lethal alternatives.
4. Cougars hunted or killed for management purposes, as well as cougars hunted for sport, generally should not be killed in a manner that most Oregonians consider inhumane, as reflected in part by the ballot measure that prohibits hunting cougars with dogs.

Specific Comments on Management Plan

The general management approach of the draft plan is to maintain the statewide cougar population above a minimum level of 3,000, to set quotas for cougar mortalities, to allow hunting year-round until those quotas are reached, and to allow cougars to be killed to resolve conflicts with people and farm animals even after the quotas are reached. The plan also provides for the Department to direct killing of cougars in “target areas” based on specified thresholds of conflict with people, pets, farm animals or other wildlife populations. Department-directed killing, as well as killing by landowners claiming danger or damage from cougars, can be done using dogs to track and tree or corner the cougars. The plan encourages use of education and non-lethal means to resolve conflict and risk but does not clearly define the point at which the response moves from non-lethal to lethal action.

Against this framework, we have the following specific comments:

1. **Public Opinion**. We support the plan’s goal of a management program that “incorporates the desires of the public,” (p. VIII). In this regard, we support the plan’s recognition that many Oregonians care about cougars even if they do not hunt them, live around them or even see them, (pp. VIII). As the plan acknowledges, “[a]lthough many Oregonians may never see a cougar, they find satisfaction in the knowledge that cougars still remain in Oregon and that their existence is not threatened,” (p. 1). The desires of those Oregonians need to be respected to the same extent as the desires of hunters, ranchers and rural residents.

The plan should include more specific reference and recognition of the substantial majority of Oregonians who voted to prohibit hunting cougars with dogs in 1994, and

who voted against repealing that prohibition in 1996. Instead, the plan discusses, as though representative of public opinion generally, a 2002 survey in six southern Oregon counties, only one of which voted with the majority in 1996 to keep cougars protected from hunting with dogs (we do not have the county-by-county results for 1994), (p. 1). That discussion should be eliminated or qualified as not representative of the entire state. The plan also discusses survey results in Colorado and Washington, which seem to us to have very little relevance to what Oregon's cougar management plan should say.

The plan claims “[c]ougar management is complicated by the dichotomy of sentiment toward cougars among Oregon residents,” (p. II). We wonder whether that is really true, given the election results on the ballot measures and the weight of public comments when cougar issues arise in statewide public forums, or whether the Department gives undue weight to some minority perspectives. In our view, the clear majority of Oregonians wants cougars to survive and thrive in Oregon, doesn't want them killed as a first response to perceived risk or conflict, and doesn't want them hunted with dogs.

2. Cougar Populations. We support the aspect of the plan that allows cougar populations to increase above the population target of 3,000, which apparently was set in 1995 based on an estimate of Oregon's cougar population in 1994. We agree that, “[w]ith adequate control of conflict,” Oregon's cougar population should be allowed to grow to “any number higher than the minimum objective of 3,000,” and that a cougar population of 3,000 should be a “safety net” minimum, not a management target, (p. 54). So long as conflicts can be effectively managed, there is no reason to kill more cougars in the name of cougar “management.”
3. Killing Cougars to Resolve Conflict. The plan relies heavily on cougar “removals” to resolve conflict even though, according to the lengthy discussions on cougar biology and behavior, it is not clear from the science that killing cougars reduces conflict, (p. 12). For example, the plan acknowledges that “[s]ome studies have indicated a relationship between intensive cougar removals and an *increase* in livestock depredation and human-cougar conflicts due to an influx of juvenile males,” (p. 38 (emphasis added)). Also for example, increased killing of cougars to recover mule deer populations in the Steens and Warner target areas was found to *not* benefit the deer population, (p. 61). The science on these issues needs to be better resolved before management relies so heavily on killing cougars as the way to reduce conflict and protect other wildlife species.
4. Triggers for Measuring Conflict. The proposed test in the plan for whether conflicts with people, pets or farm animals justifies targeted killing of cougars is whether the three-year average of cougar killings to resolve specific conflicts is greater than the ten-year average. This test strikes us as arbitrary and problematic. First, we do not see in the plan

any social or biological justification for the measure as an indicator of unacceptable conflict. Second, there apparently is no test for whether the variation from the 10-year average is statistically significant, meaning it could be just a random variation instead of an indication of more conflict. Third, there is no screen to determine whether the specific conflict killings used to measure conflict were in fact the result of conflict (i.e., were justified).

5. Impacts on Ungulates. The plan would allow cougars to be targeted for more killing in an area with depressed ungulate (deer, elk, etc.) populations based only a possibility that cougars are to blame, (p. 59). If cougars are going to be targeted for that reason, despite inconsistent evidence that it helps solve the problem, the plan should at least require a stronger finding that cougars are a significant cause of the problem in the first place. According to research discussed in the plan, that does not go without saying, (pp. 10, 11).
6. Non-lethal Methods. The plan should be more specific about requiring education and non-lethal methods to resolve a specific cougar conflict before the Department conducts or directs killing of cougars to resolve conflict. The plan also should provide separate, stronger criteria for conflict killings in zones where mortality quotas have been exceeded. In those zones, more effort should be made to resolve the conflict with non-lethal methods first.
7. Killing with Dogs. The plan should specifically require that any killing of cougars authorized by the plan be attempted first without the use of dogs. The majority of Oregonians consider hunting with dogs inhumane and the Department should respect that judgment. Moreover, it strikes us as contradictory to say, as many often do, that cougars are too numerous for the safety of people, pets and farm animals (or for healthy populations of deer and elk), but we can't get close enough to shoot one without dogs to track them down.¹

Comments on Background Data and Information

The draft plan also includes significant discussion on cougar biology and research, the status of cougar populations, and the history and status of cougar management in Oregon, (Chapter II). We have the following comments on this portion of the plan:

1. Hunter "Success Rates." References to changes in the hunter "success rate" since 1994, which seem designed to subtly advocate for resumption of hound hunting, should be eliminated or more clearly qualified to reflect the dramatic changes in licensing practices

¹ We recognize there may be circumstances, such as a public safety issue that requires finding a particular cougar, in which dogs may be required, but that should be the rare exception.

(giving a license to everyone who buys a “Sport Pac”) and licensing fees (now 70% lower than 1997 even before adjusting for inflation). The nature of the cougar “hunters” for whom the “success rate” is measured has clearly changed from a person who specifically buys a license for cougars and targets cougars to numerous hunters hunting other species who happen to have a cougar tag in case they might see one, (p. 27). Thus, for example, Table 6 (p. 30) misleadingly suggests that the cougar hunting “success rate” dropped from roughly 40% and to roughly 2% with no apparent explanation besides Measure 18. In fact, the table is comparing apples and oranges. If the number of cougar hunters in 1994 (probably targeting cougars) grew at the same rate as the general population of Oregon, there were 469 real cougar hunters in 2016. Taking out the 66% of cougars killed pursuing other game (p. 27), the “success rate” of real cougar hunters was about 37 percent, which is not dramatically different from the pre-Measure 18 “success rate.”

2. Poaching. The plan does not have a good explanation for estimates of cougars killed by poachers, (p. 32). First, although the discussion refers to an estimate of “less than 1%,” it is not clear if that is the number included in the population model. Second, the assumption that people are unlikely to poach cougars because taxidermists won’t process the hide without an ODFW “seal” (if we are tracking the explanation) seems unrealistic to us. (We don’t see why the ability to taxidermy would make or break a decision to poach or why all taxidermists can be assumed to be so scrupulous.) The assumption that poaching would ordinarily generate a complaint to OSP also seems unrealistic. We doubt anyone would be in a position to witness it in many cases. Third, the telemetry studies suggest illegal kill rates higher than those apparently assumed in the model.
3. Cougars Killed by Hunters. The number of cougars killed by hunters in 2016 (measured by “Harvest Check In”) is approximately 80% higher than the number of cougars killed by hunters before Measure 18 prohibited the use of dogs, (p. 30). We think this defeats any argument that dogs are necessary to successfully hunt cougars.
4. Livestock Damage and Humane Safety/Pet Conflict. The total number of cougars killed in Oregon for harming farm animals, and for conflicts with people and their pets, which apparently is treated as a measure of conflict with cougars, appears relatively stable since approximately 2000, (p. 33). (As with much of the data presented in the draft plan, there appears to be no test of statistical significance for changes, or attempt to account for other possible explanations for changes, which we think are necessary for drawing conclusions.) The Adaptive Management Section also acknowledges this, (p. 61 (“[e]xcept for Zone A, non-hunting cougar mortalities due to human safety/pet conflicts have been stable throughout most of the state and complaints are also stable or declining”). While the numbers were much lower before Measure 18, they rose rapidly

(from 10 to 40, or 300 percent) while hunting with dogs was legal. All of this contradicts the popular narrative that Oregon is experiencing an epidemic of cougar conflict brought on by increasing cougar populations.

5. Complaints. “With the exception of Zone A, [even] cougar *complaints* [from 2007 through 2016] are stable or declining across much of Oregon (Table 10),” (p. 38 (emphasis added)). In fact, “[w]ith the exception of Zone A,” complaints have declined across *all* of Oregon. This further contradicts the popular narrative that Oregon is experiencing an epidemic of cougar conflict brought on by increasing cougar populations.

“ODFW staff speculate that declining cougar complaints may be due to the local public being familiar with how to live with cougars, [knowing] how to resolve their issue, or [being] familiar with their legal options,” and that the opposite may be true where complaints have increased (i.e., people are newly encountering cougars), (p. 33). However, speculation is not a good basis for a management plan. It could also be just because there is less conflict.


6. Population Growth Rates – Hunting with Dogs or Not. A model used by the Department for estimating growth in cougar populations estimates that “the cougar population subjected to hunting with dogs was increasing at a faster rate than one that was not hunted with dogs,” (pp. 40-41). We hope this will eliminate arguments, and subtle suggestions in the plan, that resumed sport hunting with dogs is necessary to prevent runaway growth of cougar populations in Oregon. We also think the plan should express the growth rates in a consistent format in this section (both as a percentage, for example) to avoid obscuring the point.
7. Self-regulation of Cougar Populations. We would like to see more discussion on research regarding the extent to which cougar populations will “self-regulate” without hunting, target removals and lethal conflict management.

Thank you for considering our comments on this important issue.

Sincerely,

Brian Posewitz

Brian Posewitz
Board Member and Administrator

From: **Al LePage** al.lepage@spiretech.com 
Subject: Public Comments RE Proposed Cougar Resolution Submitted 11-20-20 from Albert LePage
Date: November 20, 2020 at 4:27 PM
To: Karla Valness kvalness@oda.state.or.us



Hello . . .

I have attached my comments regarding the proposed cougar resolution by the Oregon Board of Agriculture.

Thank you for your efforts in this regard and forwarding it to the board members for their consideration.

Respectfully,

Albert LePage



Public
Comm...ge.pdf

November 20, 2020

**Oregon Board of Agriculture
Public Comments RE Proposed Cougar Resolution**

Hello:

My essential comment is simple . . . Science AND "Storytelling."

One great moment in the history of science was when Galileo spoke truth to power, when he essentially said, "The earth moves," to the church in Rome, who still pitched the same story that Aristotle had started some two thousand years before -- that the sun moves! In other words, that the sun moves around the earth, not that the earth moves around the sun. Of course, we all know now -- and no longer tell any other "story" -- other than . . . the earth moves. We've all taken up Galileo's "story" . . . so to speak. But is this simply just another "story?" Well, not really. Let me explain.

Aristotle prided himself upon his method, which was to use reason and logic, to understand and know the world . . . and the heavens above. The fallacy of doing so, however, is clear in this example from the history of science. There have been various such "stories" through history, based at best on logic and reason, and perhaps at worst, on superstition and myth. A lighter iron cannon ball would fall more slowly than a heavier one, for example, which our hero Galileo is apparently said to have tested by dropping some from the leaning Tower of Pisa, both hitting the ground at the same time. Well, of course, you say, how could it be otherwise, right?

The point here is this . . . Galileo's method was not one of logic and reason . . . which obviously can certainly be flawed, and just downright wrong . . . **Galileo made observations of what he experienced in the natural world to collect facts and draw his conclusions. He used Science, the scientific method, to understand the world.**

And other scientists have been doing that . . . for years since then . . . and without that method we would not understand so much about the earth and how things work, about the human body, about the universe at large . . . about the world around us and beyond. And, we would not have the technology, would not have the techniques and materials to save lives and stay healthy . . . in essence, we'd be living in the dark ages . . . not a good place to live with all it's suffering, sickness and death.

So, that brings me to my statement . . . **relative to this testimony regarding cougars and the proposed resolution . . . and it's simply this . . . It's time to base decisions, policy and resolutions upon data and science. It's time to stop the "storytelling," what might be called myth-making, when it comes to cougars and livestock.**

As "the story" typically goes . . . cougars are a problem -- and *by implication a MAJOR problem* -- relative to livestock. And, it appears to be a widely held story, just like Aristotle's one . . . that the sun moves around the earth! HOWEVER . . . *the science shows that they are relatively speaking a MINOR problem at worst.*

So, since the currently proposed resolution apparently now begins . . . "*Whereas the Oregon State Board of Agriculture recognizes the threat that cougar predation poses to the livestock industry in Oregon.*" and that such a statement in itself implies that cougars are a significant threat . . . **existing data not only does NOT support that statement, it does, in fact, show otherwise, that it is NOT a significant threat in this regard.** [1]

Referencing the data [1] in the footnoted report we find these "Items of Note" in this regard.

Items of Note

Inventory

- In 2015, total U.S. inventory of adult cattle (over 500 lb) was 78 million head, and total calf crop was 34 million head.
- Nearly two-thirds of operations represented in this report were cattle operations, and nearly two-thirds of cattle represented in this report resided on cattle operations.

Overall death loss

- Almost 3.9 million cattle and calves were lost to all causes (nonpredator and predator) in 2015.
- The estimated cost of death loss in cattle and calves in 2015 was \$3.87 billion.
- The percentage of adult-cattle and calf-crop inventories lost to all causes has been relatively consistent since 2000.
- In 2015, nonpredator causes accounted for almost 98 percent of all deaths in adult cattle and almost 89 percent of all deaths in calves.
- The percentage of calf deaths attributed to predators increased steadily from 3.5 percent in 1995 to 11.1 percent in 2015.
- Predator-related calf deaths on cattle operations accounted for nearly 16 percent of calf deaths on these types of operations—nearly triple the percentage of predator-related deaths on other types of operations.
- About one-third of cattle operations had deaths in adult cattle.
- About 40 percent of cattle operations had deaths in calves.

Nonpredator death loss

- Respiratory problems accounted for the highest percentage of deaths in cattle due to nonpredators (23.9 percent), followed by unknown causes (14.0 percent) and old age (11.8 percent).
- Respiratory problems also accounted for the highest percentage of deaths in calves due to nonpredators (26.9 percent), followed by calving-related problems (17.8 percent) and digestive problems (15.4 percent).

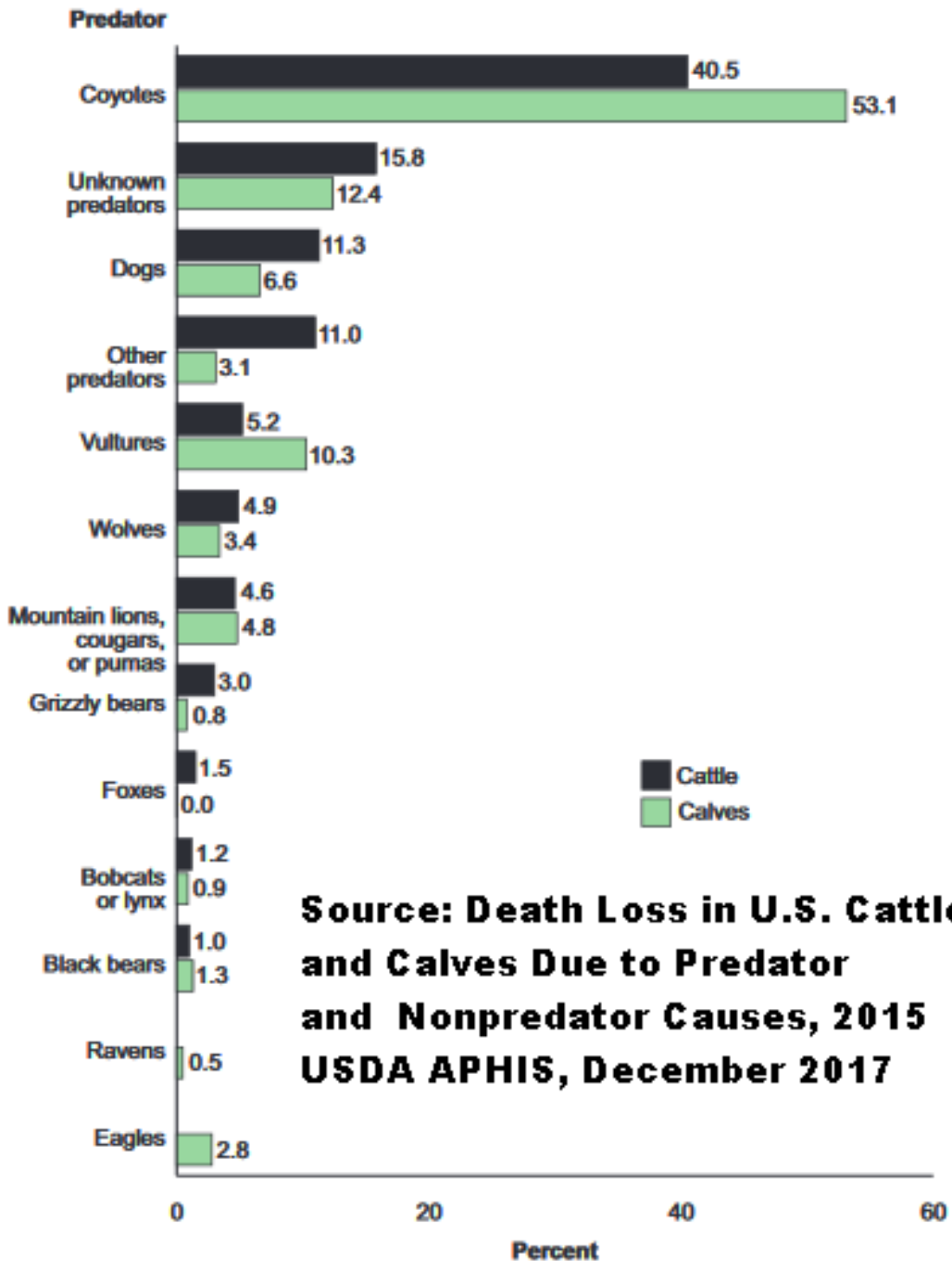
Predator death loss

- In 2015, coyotes accounted for the highest percentage of cattle deaths due to predators (40.5 percent), followed by unknown predators (15.8 percent) and dogs (11.3 percent).
- Coyotes also accounted for the highest percentage of calf deaths due to predators (53.1 percent), followed by unknown predator causes (12.4 percent) and vultures (10.3 percent).

And this information, these numbers, in conjunction with the following bar graph makes it clear that cougars are not a significant threat, are indeed a relatively minor threat, and any implication otherwise is “storytelling.”

[1] USDA. 2015. “Cattle and Calves Death Loss in the United States Due to Predator and Nonpredator Causes, 2015” USDA–APHIS–VS–CEAH. Fort Collins, CO#745.1217

Percentage of cattle and calves death loss, by predator

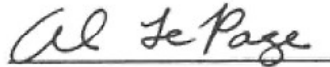


https://www.aphis.usda.gov/animal_health/nahms/general/downloads/cattle_calves_deathloss_2015.pdf

Finally, therefore, since the data and bar graph does not support the initial statement of the proposed resolution, and especially relative to cougar predation regarding the additional statement about the cougar management plan, it's clear **the existing resolution has no basis in fact . . . and should therefore not be approved.**

Thank you for your . . . rational consideration . . . in this regard . . . based upon the data and existing facts.

Respectfully,

A handwritten signature in cursive script that reads "Al LePage". The signature is written in black ink and is positioned above a thin horizontal line.

Albert LePage, M.Ed. Science, B.S. Biology
Member, *American Association for the Advancement of Science*
Eugene, Oregon

[1] USDA. 2015. "Cattle and Calves Death Loss in the United States Due to Predator and Nonpredator Causes, 2015" USDA-APHIS-VS-CEAH. Fort Collins, CO#745.1217

https://www.aphis.usda.gov/animal_health/nahms/general/downloads/cattle_calves_deathloss_2015.pdf

From: Kristin Leppert kristinleppert@gmail.com
Subject: Public Comment re Cougar Resolution
Date: November 20, 2020 at 4:32 PM
To: kvalness@oda.state.or.us

KL

Oregon Board of Agriculture,

I'm writing today to ask that you pass a resolution that recognizes and supports NON-LETHAL methods of preventing wildlife conflict with farmed animals. Records show that cougars are responsible for less than 1% of farmed animal deaths in Oregon. It's ineffective to kill indiscriminately and reactively. For the sake of our wildlife and our ranchers, please adopt non-lethal methods of dealing with conflict like noise and light technology that scares cougars off. Also, penning farmed animals at night makes absolute sense and ranchers should be encouraged to do this. It works.

Thank you,
Kristin Leppert
Oregon resident

From: Jana Fussell janafussell@gmail.com
Subject: Oregon Cougar Management Plan
Date: November 20, 2020 at 4:34 PM
To: kvalness@oda.state.or.us



I urge the Board of Agriculture to reject the resolution supporting the Oregon Cougar Management Plan. The Plan puts too much emphasis on killing cougars, often with inhumane techniques such as hunting cougars with packs of dogs, to avoid very limited threats to farm animals. The voters have spoken and do not want dogs used to hunt cougars.

Jana Fussell
Lake Oswego, Oregon

From: Rosanna tristanisolde@earthlink.net
Subject: Public Comment about Cougar Resolution
Date: November 20, 2020 at 7:06 PM
To: kvalness@oda.state.or.us



I understand that the Oregon Board of Agriculture is considering a resolution that supports a Cougar Management Plan because of an alleged "threat that cougar predation poses to the livestock industry in Oregon." I know from my research that this is not a realistic assessment of the situation. There are definitely nonlethal options available to handle any livestock mortality.

I was a volunteer wildlife educator for over ten years with the Colorado Parks & Wildlife, , where I assisted, primarily in Boulder, Colorado, in helping people coexist with wildlife (black bears and cougars), and have had numerous conversations with wildlife biologists and wildlife officers. I know that there are better options for cougar management and ways to protect livestock. Please do not pass a resolution that supports a Cougar Management Plan. Thank you for your consideration.


Rosanna Greenwood
Hillsboro, Oregon

From: forever zzz davinia915@gmail.com
Subject: Public Comment, Cougar Resolution
Date: November 23, 2020 at 9:41 PM
To: kvalness@oda.state.or.us



Subject: Public Comment, Cougar Resolution

We are writing today to ask that you reject the resolution in support of ODFW's unsustainable and cruel cougar management plan. Instead, we encourage you to adopt a resolution urging Oregon's ranchers and farmers to learn and practice effective nonlethal strategies for coexisting with wildlife while protecting their livestock animals from harm.

From: Scott Beckstead Sbeckstead@centerforahumaneconomy.org 
Subject: Cougar Resolution
Date: November 27, 2020 at 4:47 PM
To: kvalness@oda.state.or.us

SB

Karla, I would like the opportunity to testify on the cougar management resolution being considered by the Board of Agriculture at its meeting next week. My name and contact information is below. My telephone number is 541-530-3460. Attached please find my written comments.



Scott Beckstead
Director of Campaigns
737 Tanglewood St.
Sutherlin, OR 97479

M 541-530-3460

f <https://www.facebook.com/wppacelle>

W AnimalWellnessAction.org

W

CenterforaHumaneEconomy.org

Helping Animals Helps Us All.



11-27-2020
Memo...n.docx

TO: OREGON AGRICULTURE BOARD

FROM: SCOTT BECKSTEAD, DIRECTOR OF CAMPAIGNS, ANIMAL WELLNESS ACTION AND CENTER FOR A HUMANE ECONOMY; sbeckstead@centerforahumaneconomy.org; 541-530-3460

RE: COUGAR RESOLUTION

DATE: November 27, 2020

Dear Board members:

On behalf of Animal Wellness Action and the Center for A Humane Economy, I write in opposition to the resolution being considered by the Oregon Agriculture relating to Oregon's cougar population. By way of background, I have worked to protect Oregon's cougars from abusive hunting methods and persecution by houndsmen, trophy hunters, and livestock producers since moving to Oregon in the early 1990's.

The resolution as drafted includes misstatements and inaccuracies about Oregon cougars, including the size of Oregon's cougar population, which is grossly and deliberately overstated by ODFW and the livestock and hunting lobbies to justify their war on these iconic native carnivores. The resolution overstates the threats cougars pose to livestock (cougar predation amounts to a tiny percentage of overall livestock mortality), and promotes notions of cougar management which have been widely discredited by the world's top cougar biologists. Instead of perpetuating fear-based myths and mistruths, the Board should be taking a position that aligns with modern scientific understanding of cougars and cougar populations. It is well established that increased hunting pressure on cougars will lead to more, not less, conflicts with people and livestock. Cougars are best managed by leaving them alone, and allowing the normal social dynamics control the population. Advocating for mass killing of cougars may make some feel better, but it's counterproductive and leads to more problems.

The people of Oregon have repeatedly stated they want cougars given more protection. That's why they passed Measure 18 in 1994 by a sizable majority, and rejected a repeal measure two years later by an even larger majority. Since then, the small but vocal minority who view cougars as unwanted pests and/or hunting trophies have tried weakening the law. This resolution continues that effort, and is sure to create the public's perception of agriculture as out of tune with Oregon's conservation ethic and strong humane values.

We urge the Board to instead adopt a resolution that expresses support for a healthy and balanced cougar population, and that prioritizes the use of nonlethal deterrents and measures to prevent conflicts with cougars. Killing cougars should absolutely be a measure of last resort, and only in those rare circumstances where there is a real and verifiable threat.

The resolution as drafted ignores modern scientific understanding of cougars, just as it ignores the views of the majority of Oregonians who value cougars for the role they play in our wild ecosystem. Cougars must be protected, not persecuted.