

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MONTANA  
MISSOULA DIVISION

FLATHEAD-LOLO-BITTERROOT	)	
CITIZEN TASK FORCE and	)	
WILDEARTH GUARDIANS,	)	Civil Action No.
	)	CV-23-101-M-DWM
Plaintiffs,	)	
	)	
-vs-	)	
	)	
STATE OF MONTANA, LESLEY	)	
ROBINSON, and GREG GIANFORTE	)	
	)	
Defendants.	)	

Taken at 1015 Mount Avenue  
Missoula, Montana  
Monday, February 26, 2024 - 10:51 A.M.

VIDEOTAPED DEPOSITION

OF

CECILY COSTELLO, Ph.D.

Reported by Terra Rohlfs, RPR, Jeffries Court Reporting, Inc., 1015 Mount Avenue, Suite B, Missoula, Montana 59801, (406)721-1143, Freelance Court Reporter and Notary Public for the State of Montana, residing in Hamilton, Montana, jrcrcourt@montana.com

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10  
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22  
23 Also appearing: Mike Bader, Lizzy Pennock, and  
24 Irelyn White (videographer).  
25

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1 STIPULATIONS  
2  
3 It was stipulated by and between counsel for  
4 the respective parties that the deposition be taken  
5 by Terra Rohlf, RPR, Freelance Court Reporter and  
6 Notary Public for the State of Montana, residing in  
7 Hamilton, Montana.  
8  
9 It was further stipulated and agreed by and  
10 between counsel for the respective parties that the  
11 deposition be taken in accordance with the Federal  
12 Rules of Civil Procedure.  
13  
14 It was further stipulated and agreed by and  
15 between counsel for the respective parties that all  
16 objections except as to form would be reserved  
17 until time of trial, and that said objections would  
18 have the same force and effect as if interposed at  
19 the time of taking the deposition.  
20  
21 It was further stipulated and agreed by and  
22 between counsel for the respective parties and the  
23 witness that the reading and signing of the  
24 deposition would be expressly reserved.  
25

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1 MONDAY, FEBRUARY 26, 2024  
2 VIDEOGRAPHER WHITE: This is an  
3 audiovisual deposition taken in accordance with the  
4 Federal Rules of Civil Procedure. The recording  
5 equipment is being operated by Irelyn White, whose  
6 principal place of business is Jeffries Court  
7 Reporting, Inc., which is located at 1015 Mount  
8 Avenue, Missoula, Montana.  
9 Today is February 26th, 2024. The time  
10 is 10:50 a.m. Mountain Time. The deposition is  
11 being taken at 1015 Mount Avenue. The caption of  
12 this case is Flathead-Lolo-Bitterroot Task Force,  
13 et al., versus State of Montana, et al., in the  
14 United States District Court for the District of  
15 Montana, Cause Number CV-23-101-M-DWM.  
16 Please note that microphones may pick up  
17 whispering and private conversations. Please mute  
18 your phones at this time.  
19 Will counsel and everyone else present  
20 please introduce themselves, starting with the  
21 noticing attorney.  
22 MR. BECHTOLD: Tim Bechtold for the  
23 plaintiffs.  
24 MR. BADER: Mike Bader representing the  
25 Flathead-Lolo-Bitterroot Citizen Task Force.

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1 MS. PENNOCK: Lizzy Pennock representing  
 2 WildEarth Guardians.  
 3 MS. BELL: Christina Bell with Fish,  
 4 Wildlife & Parks, paralegal.  
 5 MR. SCOLAVINO: Alex Scolavino, attorney  
 6 for the defendants.  
 7 MS. CLERGET: Sarah Clerget, attorney for  
 8 defendants.  
 9 THE WITNESS: Cecily Costello, biologist  
 10 for Fish, Wildlife & Parks.  
 11 VIDEOGRAPHER WHITE: Okay. The name of  
 12 the witness today is Cecily Costello. The oath  
 13 will now be administered by the notary.  
 14 COURT REPORTER: Okay. I'll have you  
 15 raise your right hand, please.  
 16 Thereupon,  
 17 CECILY COSTELLO, Ph.D.,  
 18 a witness of lawful age, having been first duly  
 19 sworn to tell the truth, the whole truth and  
 20 nothing but the truth, testified upon her oath as  
 21 follows:  
 22 EXAMINATION  
 23 BY MR. BECHTOLD:  
 24 **Q. Dr. Costello, my name is Tim Bechtold,**  
 25 **and I'm the attorney for WildEarth Guardians and**

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1 **the Task Force in this case, and I'm going to be**  
 2 **asking you some questions today.**  
 3 A. Okay.  
 4 **Q. First of all, have you ever been deposed**  
 5 **before?**  
 6 A. Deposed? I don't think so.  
 7 **Q. Okay. Well, then I'll just go over a**  
 8 **couple of ground rules to make it easy. So the**  
 9 **most important thing is that we don't speak over**  
 10 **one another, so it's important that before you**  
 11 **begin to answer, you let me finish my question and**  
 12 **similarly, I'll let you finish your answer before I**  
 13 **start to ask another question.**  
 14 **It's important that you make audible**  
 15 **answers so -- and make sure that you say yes and no**  
 16 **instead of uh-huh and huh-uh, or things like that,**  
 17 **and nodding and shaking your head, it's just**  
 18 **important for the court reporter, to say yes and**  
 19 **no, things like that.**  
 20 **This isn't an endurance test, so if you**  
 21 **need to take a break, just say so and we will.**  
 22 **Similarly, it's not a memory test, if you need to**  
 23 **refer to a document, say so, and we'll get that**  
 24 **document out for you.**  
 25 **And if you need -- if you don't**

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1 **understand a question, feel -- say so, and I'll**  
 2 **clarify or try to rephrase it until you do**  
 3 **understand it. And can we agree that if you do**  
 4 **answer a question of mine, it means that you**  
 5 **understood the question and are answering it to**  
 6 **your best ability?**  
 7 A. Yes.  
 8 **Q. Okay. So first of all, are you taking**  
 9 **any medications today that would affect your**  
 10 **ability to answer questions?**  
 11 A. No.  
 12 **Q. Are you having any health issues that**  
 13 **would affect your ability to answer questions**  
 14 **truthfully?**  
 15 A. No.  
 16 **Q. So Dr. Costello, what did you do to**  
 17 **prepare yourself for this deposition today?**  
 18 A. I mostly read over the documents  
 19 associated with the case, the Complaints, you know,  
 20 I don't know all the terminology; the statements.  
 21 **Q. Yeah, so did you refamiliarize yourself**  
 22 **with your own declarations?**  
 23 A. Yes.  
 24 **Q. Okay. Did you speak to anyone besides**  
 25 **your attorneys?**

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1 A. No.  
 2 **Q. Okay. So Dr. Costello, could you tell us**  
 3 **where you're from?**  
 4 A. Right now I live in Manhattan, Montana.  
 5 **Q. Okay. And how long have you lived in**  
 6 **Manhattan?**  
 7 A. Since 1998.  
 8 **Q. And where did you go to high school?**  
 9 A. In Plantation, Florida.  
 10 **Q. And how about college?**  
 11 A. I went to Florida State for my  
 12 undergraduate degree. I went to the State  
 13 University of New York College of Environmental  
 14 Science and Forestry for my master's. And I went  
 15 to Montana State for my Ph.D.  
 16 **Q. Okay. So just to back up, what was your**  
 17 **undergraduate degree?**  
 18 A. Biology.  
 19 **Q. And your master's?**  
 20 A. Environmental and forest biology.  
 21 **Q. So is that -- where was that, Portland or**  
 22 **Syracuse?**  
 23 A. Syracuse.  
 24 **Q. Syracuse; right?**  
 25 A. Uh-huh.

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1 **Q. And then at MSU, your Ph.D. is in?**  
 2 A. Wildlife ecology.  
 3 **Q. Okay. And now we're going to go through**  
 4 **your employment history ever since you got your**  
 5 **Ph.D.**  
 6 A. Oh boy. Well, I guess that's not that  
 7 far.  
 8 **Q. Yeah, that's not that far; right?**  
 9 **{Laughter.}**  
 10 **So what did you do after you got your**  
 11 **Ph.D.?**  
 12 A. I continued to work for the Wildlife  
 13 Conservation Society for a little bit, they  
 14 supported me in my Ph.D. program. And then I had a  
 15 short stint where I worked for People and  
 16 Carnivores, which was then called Keystone  
 17 Conservation. Then I started post-doc working for  
 18 the University of Montana, doing some work on a  
 19 project in Grand Teton, analyzing data, basically,  
 20 and writing a publication on that.  
 21 **Q. And what year was that?**  
 22 A. I believe I started that in 2010, I think  
 23 it was, but I would have to refer to my résumé.  
 24 **Q. Okay. And then what did you do?**  
 25 A. So I continued to work on that and then I

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1 worked for -- what is it called? Western -- West  
 2 Incorporated, working on a black bear study in  
 3 Vermont. And then I got another position working  
 4 for the University of Montana, working with the  
 5 NCDE people, it was under contract with Montana  
 6 Fish, Wildlife & Parks. And then in 2016, I got  
 7 hired on full-time with Montana Fish, Wildlife &  
 8 Parks.  
 9 **Q. And what was your job title in 2016?**  
 10 A. Research wildlife biologist.  
 11 **Q. And that's what you are today?**  
 12 A. Yes.  
 13 **Q. And remind me, what year did you get your**  
 14 **Ph.D. from MSU?**  
 15 A. 2008.  
 16 **Q. So in your current role with Montana**  
 17 **Fish, Wildlife & Parks, what are your job duties?**  
 18 A. One of my major priorities is to oversee  
 19 the trend monitoring program in the Northern  
 20 Continental Divide Ecosystem. So I supervise a  
 21 crew and we capture and monitor bears for their  
 22 survival and reproductive rates, to examine the  
 23 trend in the population. We also do other  
 24 additional work with the data that we are able to  
 25 collect from those bears.

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1 I also -- because my job is kind of a  
 2 statewide job, I'm also a member of the Interagency  
 3 Grizzly Bear Team in Yellowstone. I don't really  
 4 have any field work requirements down there, but I  
 5 am involved with a number of the studies and  
 6 essentially the population monitoring in that  
 7 ecosystem.  
 8 And then I work on research  
 9 projects/monitoring projects that are related to  
 10 more of a statewide look at grizzly bear. For  
 11 example, I'm a member of the science team for the  
 12 Bitterroot Ecosystem subcommittee, and I work with  
 13 people over there on identifying topics for science  
 14 and working on understanding the statewide look at  
 15 bears. And then I collaborate a little bit with  
 16 people working in the Cabinet-Yaak, as well, that  
 17 work is mostly done by the Fish and Wildlife  
 18 Service.  
 19 **Q. Okay. So do you have personal knowledge**  
 20 **of any grizzly bears staying out of their dens all**  
 21 **winter in Montana?**  
 22 A. No.  
 23 **Q. Do you have any knowledge of grizzly**  
 24 **bears being out of their dens on December 31st,**  
 25 **2023 in Montana?**

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1 A. Just last week there was an email string  
 2 that went around in the department, asking if  
 3 people knew of any bears that were out in January  
 4 or February, and there were -- there was a record  
 5 from the east Front, where a rancher reported a  
 6 bear on January 2nd. And then there was someone  
 7 who reported tracks on -- also on January 22nd  
 8 {sic}, and I think that was in Region 3.  
 9 I have no personal experience with the  
 10 data that I collect of any bears that are -- that  
 11 were present -- that were active on the 31st of  
 12 December.  
 13 **Q. So how many grizzly bears are collared in**  
 14 **the Montana portion of the Greater Yellowstone**  
 15 **Ecosystem?**  
 16 A. I can't tell you the exact number.  
 17 **Q. How many grizzly bears are collared in**  
 18 **the state of Montana?**  
 19 A. Again, I can't tell you the exact number.  
 20 **Q. Why would grizzly bears be collared in**  
 21 **the state of Montana?**  
 22 A. We typically will capture bears for a few  
 23 different reasons. My team and the research -- the  
 24 study team capture bears for research and  
 25 monitoring. So we try to capture kind of a

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1 relatively random sample of bears in the ecosystem,  
 2 so we put traps out in various places all over the  
 3 ecosystem, to try to get a representative sample.  
 4 So we capture them primarily for the purpose of  
 5 looking at their survival rates and reproductive  
 6 rates. A lot of times we focus on capturing  
 7 females so we can get those reproductive rates, so  
 8 that's a major reason.  
 9 And secondly, bears are captured in  
 10 conflict situations by the bear managers. So in  
 11 that case, if there's been a conflict and they  
 12 think it's important to try to capture and  
 13 radio-collar the bear, they will put a trap out,  
 14 and if they are successful in capturing the bear,  
 15 they will collar it, which gives them an idea of  
 16 what the activity of that bear is, so that they can  
 17 monitor it over time.  
 18 In those cases there are times when they  
 19 capture nontarget bears, so we might know that a  
 20 particular conflict involved, say for example, an  
 21 adult female with two cubs, and then they might  
 22 capture a subadult male there, that would be a  
 23 nontarget capture, so that's another way that bears  
 24 get captured.  
 25 And then finally, the last thing is there

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1 are times when a bear is not really involved in  
 2 conflict, but they're in a place or in a situation  
 3 where it might be in their best interest to remove  
 4 them from the area for a little while, and we call  
 5 those preemptive captures. And sometimes they'll  
 6 capture a bear and relocate it so that it doesn't  
 7 get into conflict.  
 8 **Q. What's your best estimate of the**  
 9 **percentage of bears, grizzly bears in Montana that**  
 10 **are radio collared?**  
 11 A. Yeah, I would say, you know, no more than  
 12 5 percent -- or maybe roughly 5 percent.  
 13 **Q. Okay. And how about just in the Northern**  
 14 **Continental Divide Ecosystem?**  
 15 A. We might be slightly higher than that, I  
 16 don't know, less than 10 percent, I guess I would  
 17 say.  
 18 **Q. So in the -- in your declaration at 14**  
 19 **you stated, To my knowledge, there's no evidence**  
 20 **for a lack of denning in Montana.**  
 21 **Is that based on radio collars' data**  
 22 **alone?**  
 23 A. I would say that radio collars provide  
 24 the kind of bulk of my inference for making a  
 25 statement like that. We have had, over the years,

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1 hundreds of bears that have had radio collars, and  
 2 from that sample, I don't recall any that showed  
 3 evidence that they were awake the entire winter.  
 4 **Q. Do you have knowledge of any bears ever**  
 5 **being awake the entire winter in Montana?**  
 6 A. No.  
 7 **Q. And does your collared sample size**  
 8 **provide conclusive evidence that all bears in**  
 9 **Montana den in winter, at least for some period of**  
 10 **time?**  
 11 A. Not all, no, absolutely not.  
 12 **Q. You're aware of documentation from Fish,**  
 13 **Wildlife & Parks personnel that bears have stayed**  
 14 **out all winter; correct?**  
 15 A. I am aware of information that says bears  
 16 are active during all different months of the year.  
 17 I don't think that's the same thing as saying that  
 18 that particular individual never went and denned,  
 19 that's not the same thing.  
 20 **Q. Okay. So your understanding is there**  
 21 **have been some bears who have been active in all**  
 22 **months of the year?**  
 23 A. Yes.  
 24 **Q. Okay. And as far as you know -- for**  
 25 **example, Mr. Jonkel was here earlier today, who**

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1 **said he had written a paper about bears that had**  
 2 **spent the entire winter out in the North Fork of**  
 3 **the Flathead Valley, do you recall any of that?**  
 4 MS. CLERGET: Objection, misstates prior  
 5 testimony.  
 6 **Q. (BY MR. BECHTOLD) Do you recall reading**  
 7 **that paper?**  
 8 A. I have seen that paper -- that little  
 9 article, yes. And again, I would say that it is  
 10 evidence that those bears -- those individuals were  
 11 active at that time, it does not necessarily say  
 12 that they never went into a den the entire winter.  
 13 **Q. So from -- from the information you have**  
 14 **from December of 2023, were more collared bears out**  
 15 **of their den at the beginning of December as**  
 16 **opposed to in their dens?**  
 17 A. I don't think I want to answer that  
 18 without looking specifically at the data for that  
 19 question. You're asking at the beginning of  
 20 December?  
 21 **Q. Yeah, December of 2023.**  
 22 A. I don't want to state emphatically, but I  
 23 would estimate that more bears were denned than not  
 24 denned on December 1st, from our sample.  
 25 **Q. And how about December 15th?**



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1 A. Again, I think more were denned than not  
 2 denned.  
 3 **Q. And on December 31st how many collared**  
 4 **bears were not in their dens?**  
 5 A. I don't think there were any.  
 6 **Q. Okay. Are you aware of any grizzly bears**  
 7 **out of their dens in the NCDE on December 31st of**  
 8 **2023?**  
 9 A. Again, I'm just basing it on those emails  
 10 that were exchanged last week with that report of  
 11 one that was reported by a rancher.  
 12 **Q. Okay. And how about anywhere in Montana,**  
 13 **were there any bears out of their dens in January?**  
 14 A. Again, I would refer to those emails  
 15 where there might've been tracks on January 2nd.  
 16 **Q. Okay. So is it -- is it possible to know**  
 17 **with certainty that all grizzly bears enter their**  
 18 **dens on a given date?**  
 19 A. No.  
 20 **Q. And similarly, is it possible to know**  
 21 **with certainty that all grizzly bears are in their**  
 22 **dens on a certain date?**  
 23 A. No.  
 24 **Q. So the State of Montana cannot be certain**  
 25 **when all grizzly bears have denned; correct?**

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1 A. No.  
 2 **Q. That's not correct?**  
 3 A. State it again, so I'm answering it  
 4 correctly.  
 5 **Q. Is it correct that the State of Montana**  
 6 **can be certain when all grizzly bears have denned?**  
 7 A. Is it correct that they can be certain?  
 8 All, 100 percent? No.  
 9 **Q. Would it be helpful to give you a copy of**  
 10 **your declaration to answer questions about it?**  
 11 A. Yes.  
 12 **Q. Okay.**  
 13 MS. PENNOCK: I didn't print the  
 14 defendant's declarations.  
 15 MR. BECHTOLD: Okay.  
 16 **Q. (BY MR. BECHTOLD) Then I'm not going to**  
 17 **be helpful, I'm just going to tell you what you**  
 18 **said.**  
 19 **In your declaration you state that based**  
 20 **on a sample size of 11, 73 percent of all**  
 21 **defense-of-life/mistaken identification category**  
 22 **kills are reported. Do you recall that?**  
 23 A. I did not say that.  
 24 **Q. Okay.**  
 25 MS. CLERGET: Do you need water or

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1 anything? Are you okay?  
 2 THE WITNESS: I'm okay.  
 3 **Q. (BY MR. BECHTOLD) So is it true that,**  
 4 **unless the injunction that the judge issued in this**  
 5 **case is lifted, that research for grizzly bears**  
 6 **would be prohibited in the summer of 2024?**  
 7 MS. CLERGET: Objection, calls for a  
 8 legal conclusion.  
 9 A. I don't know.  
 10 **Q. (BY MR. BECHTOLD) Grizzly bears are a**  
 11 **listed species under the Endangered Species Act;**  
 12 **correct?**  
 13 A. Yes.  
 14 **Q. What provisions allow the State of**  
 15 **Montana to conduct research on grizzly bears,**  
 16 **despite them being an endangered species?**  
 17 A. To my knowledge, we -- the provision of  
 18 the statute for which we work is -- I believe it's  
 19 part of the 4(d) Rule, and we obtain a permit for  
 20 capturing bears from the Fish and Wildlife Service.  
 21 **Q. In fact, you've been conducting research**  
 22 **under the 4(d) Rule for the last -- since 2016,**  
 23 **correct, as long as you've been working for the**  
 24 **department?**  
 25 A. Correct.

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1 **Q. So if someone represented that the**  
 2 **research conducted by the State would be stopped**  
 3 **due to the injunction that's currently in place,**  
 4 **would that be correct?**  
 5 MS. CLERGET: Objection, calls for a  
 6 legal conclusion.  
 7 A. I don't know.  
 8 MR. BECHTOLD: Okay. I'd like to go off  
 9 the record.  
 10 VIDEOGRAPHER WHITE: We're going off the  
 11 record at 11:14.  
 12 (Whereupon, the proceedings were in  
 13 recess at 11:14 a.m. and subsequently reconvened at  
 14 11:24 a.m., and the following proceedings were  
 15 entered of record:)  
 16 VIDEOGRAPHER WHITE: We are back on the  
 17 record at 11:24.  
 18 **Q. (BY MR. BECHTOLD) Dr. Costello, were you**  
 19 **aware of the Custer Gallatin National Forest making**  
 20 **a report of a bear out of its den on December -- I**  
 21 **mean, on January 24th, 2024?**  
 22 A. No.  
 23 **Q. Do you work cooperatively with the Forest**  
 24 **Service?**  
 25 A. Yes.

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1 **Q. So would you expect the Forest Service to**  
 2 **report to you if a grizzly bear is out of its den**  
 3 **somewhere in the state of Montana in January of**  
 4 **2024?**  
 5 A. Report to me, personally? Not  
 6 necessarily.  
 7 **Q. To whom would get that data?**  
 8 A. I would think that they would report it  
 9 to the bear manager for the area that they were  
 10 working in.  
 11 **Q. And would that information eventually**  
 12 **come to you?**  
 13 A. It depends on which ecosystem it occurred  
 14 in.  
 15 **Q. Okay. So if it's in the Greater**  
 16 **Yellowstone Ecosystem?**  
 17 A. It would probably go to the study team or  
 18 to Jeremiah Smith, the bear manager for that area.  
 19 **Q. Okay. And as far as you know, that never**  
 20 **happened?**  
 21 A. I am not aware of it.  
 22 **Q. Okay. Would you say it's important for**  
 23 **you to be aware of whether bears are out of their**  
 24 **dens in the state of Montana?**  
 25 A. In what context?

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1 **Q. You're a bear manager for the state of**  
 2 **Montana?**  
 3 A. I'm not a bear manager, I'm a bear  
 4 researcher.  
 5 **Q. I see.**  
 6 **Is it important for your research to be**  
 7 **aware when bears are out of their dens in Montana?**  
 8 A. It's helpful to know, to have anecdotal  
 9 information. But we base a lot of what we do on  
 10 the radio-marked bears in our sample of the  
 11 population.  
 12 **Q. Okay. And of -- your sample of**  
 13 **population consists of, as I think your testimony**  
 14 **is, less than 10 percent?**  
 15 A. At any given time. We have hundreds of  
 16 radio-collared bears that we've been monitoring for  
 17 denning over the years that we could estimate  
 18 denning from.  
 19 **Q. Okay. But at any given time the number**  
 20 **of actual bears is less than 10 percent?**  
 21 A. Yes.  
 22 **Q. And more likely closer to 5 percent;**  
 23 **correct?**  
 24 A. I don't want to judge on how close it is  
 25 to 5 or 10. It varies from year to year quite a

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1 bit.  
 2 **Q. Okay. So for 2023/2024 what is it?**  
 3 A. The number of bears collared?  
 4 **Q. Yeah.**  
 5 A. I don't know.  
 6 **Q. Dr. Costello, I'm going to draw your**  
 7 **attention to paragraph 15 of your declaration.**  
 8 **Could you review that, please, and let me know when**  
 9 **you have.**  
 10 A. I'm ready.  
 11 **Q. So you state in your declaration at**  
 12 **paragraph 15 that, based on a sample size of 11,**  
 13 **that 73 percent of all defense-of-life/mistaken ID**  
 14 **category kills are reported; correct?**  
 15 A. I do not state it that way, I'm telling  
 16 you what we see in our sample.  
 17 **Q. Okay.**  
 18 A. In our sample of 11, we saw a reporting  
 19 rate of 73 percent.  
 20 **Q. Okay. So it's correct to say that in**  
 21 **your sample size of 11, 73 percent were reported?**  
 22 A. Yes.  
 23 **Q. Is 73 percent a typical amount of**  
 24 **reported undetermined malicious kills?**  
 25 A. It's based on a sample that is

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1 representative of the population, and it's our best  
 2 estimate as to what the reporting rate might be.  
 3 **Q. Is that similar to what it was in 2016,**  
 4 **for example?**  
 5 A. This is over a number of years, so it's  
 6 not -- it's not possible to pinpoint a rate for  
 7 each particular year. These are not common sources  
 8 of mortality, they don't happen every year, for  
 9 example.  
 10 **Q. What's the single greatest cause of**  
 11 **mortality?**  
 12 A. Well, management removals are probably  
 13 the most frequent cause of mortality among adult  
 14 bears or independent-aged bears.  
 15 **Q. Okay. And what's the next highest source**  
 16 **of mortality?**  
 17 A. I don't know. I'd need to look at my  
 18 documents. I don't want to speculate without  
 19 reviewing my reports.  
 20 **Q. Okay. So your job is -- would you say**  
 21 **that you're the chief bear researcher for the state**  
 22 **of Montana?**  
 23 A. Yes.  
 24 **Q. And this is sort of information that you**  
 25 **just don't know --**

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1 MS. CLERGET: Objection --  
 2 **Q. (BY MR. BECHTOLD) -- off the top of your**  
 3 **head?**  
 4 MS. CLERGET: -- misstates prior  
 5 testimony.  
 6 **Q. (BY MR. BECHTOLD) I'm asking you to**  
 7 **estimate, are you afraid to estimate?**  
 8 A. I can -- I can list to you some of the  
 9 major causes of mortality among grizzly bears; is  
 10 that what you want to hear?  
 11 **Q. Can you do it in order?**  
 12 A. No, because I don't want to be caught in  
 13 a mistake, so I'm not going to.  
 14 **Q. Okay. List to me the causes of mortality**  
 15 **of grizzly bears in the state of Montana, as you --**  
 16 **as you believe they are.**  
 17 A. Okay. Management removals are -- are a  
 18 common one, and I'm -- these are -- I'm restricting  
 19 this list to independent-aged bears, not cubs or  
 20 yearlings, because we don't always know the causes  
 21 of mortality in cubs and yearlings.  
 22 We have management removals. We have  
 23 automobile kills. We have train kills. We have  
 24 poaching. We have mistaken ID. We have natural  
 25 mortalities. And then we have some other types of

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1 accidental mortalities, for example, when bears are  
 2 killed by poison that was set out for other  
 3 animals. Or bears that drown in irrigation canals,  
 4 those are not very common. Oh, and  
 5 defense-of-life, that's a big one, defense-of-life  
 6 kills. And there's some defense-of-property kills  
 7 which aren't technically legal.  
 8 **Q. How would you know whether the -- you're**  
 9 **going to say you have to look at your papers, but**  
 10 **what's the -- what's poaching? What's the**  
 11 **definition of poaching?**  
 12 A. Well, it's taking an animal illegally.  
 13 **Q. Does it have to be intentional?**  
 14 A. No. Well, does it have to be  
 15 intentional? I guess legally, I don't know what  
 16 the definition might be on that.  
 17 **Q. Would you agree that --**  
 18 A. I mean, if -- yeah, I guess it would have  
 19 to be -- I guess you would expect it to be  
 20 intentional, yes. And I suppose it usually  
 21 involves a weapon.  
 22 MS. CLERGET: Wait for a question.  
 23 **Q. (BY MR. BECHTOLD) Do you consider a**  
 24 **sample size of 11 for the NCDE to be a**  
 25 **scientifically-valid basis for making inferences**

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1 **for the entire population?**  
 2 A. It's the best information we have from a  
 3 radio-collared sample, which represents a  
 4 relatively random sample of the population. These  
 5 are not types of kills that are extremely frequent,  
 6 so it's the best estimate that we have.  
 7 **Q. How do you know if a non-radio-collared**  
 8 **bear is killed?**  
 9 A. Killed by what means?  
 10 **Q. Any means.**  
 11 A. They're reported or a carcass is found is  
 12 primarily the main reason -- main ways that we  
 13 know; a carcass or other parts.  
 14 **Q. And how many are not found?**  
 15 A. That's what these calculations are  
 16 attempting to discover.  
 17 **Q. So how many bears are in the NCDE?**  
 18 A. Roughly 1100 bears.  
 19 **Q. And what percentage of 1100 is 11?**  
 20 A. 1 percent, I think, if I do the math  
 21 right.  
 22 **Q. And again, would a 1-percent sample size**  
 23 **be a scientifically-valid basis for making**  
 24 **inferences for the entire population?**  
 25 A. It's not -- you know, the 11 is not

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1 representing 11 of 1100 bears, it's representing 11  
 2 bears that were killed in those types of  
 3 circumstances, which is a much smaller number.  
 4 **Q. So each year you report grizzly bear**  
 5 **mortalities from outside the demographic monitoring**  
 6 **area; right?**  
 7 A. We report mortalities from outside the  
 8 demographic monitoring area, yes.  
 9 **Q. So what is the demographic monitoring**  
 10 **area?**  
 11 A. It is the area that involves the recovery  
 12 zone and zone 1, and it is the area in which we  
 13 capture bears for monitoring the population.  
 14 **Q. Is that an indication that there's a**  
 15 **significant number of bears that actually are**  
 16 **outside the "occupied" zone?**  
 17 A. Yeah, the "occupied" zone or -- State  
 18 that again, I want to -- Can you state that  
 19 question again?  
 20 MR. BECHTOLD: Terra, can you read that?  
 21 (Whereupon, the court reporter read back  
 22 the following:)  
 23 "QUESTION: Is that an indication that  
 24 there's a significant number of bears that  
 25 actually are outside the "occupied" zone?"



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1 A. The "occupied" zone is not what we were  
2 just talking about. We were just talking about the  
3 demographic monitoring area and whether there  
4 are -- whether there are mortalities that occur  
5 outside the demographic monitoring area. So I  
6 don't understand your question in that context.  
7 **Q. (BY MR. BECHTOLD) Okay. Is there a**  
8 **difference between the -- I should -- you're aware**  
9 **of the Fish and Wildlife Service Grizzly Bear**  
10 **Recovery Zone; correct?**  
11 A. Yes.  
12 **Q. Okay. And you're aware of the State of**  
13 **Montana's defined "occupied" habitat; correct?**  
14 A. Yes.  
15 **Q. And you're aware of the demographic**  
16 **monitoring area; correct?**  
17 A. Yes.  
18 **Q. And you're also aware of the Fish and**  
19 **Wildlife Service "may be present" area; correct?**  
20 A. I am familiar with all of those.  
21 **Q. Okay. What is the difference between the**  
22 **recovery zone and the "occupied" habitat area?**  
23 A. They're vastly different things.  
24 **Q. Okay. Tell me what the difference is.**  
25 A. The recovery zone was established by the

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1 U.S. Fish and Wildlife Service in the Recovery  
2 Plan, and it is the area where the -- much of the  
3 demographic monitoring occurs and where habitat  
4 management specific to grizzly bears is focused, so  
5 it is a boundary.  
6 **Q. Okay. And is the "occupied" habitat area**  
7 **also a boundary?**  
8 A. It is an estimate, it's not a fixed  
9 boundary, it's something that changes as the  
10 population expands.  
11 **Q. Okay. And then there's a demographic**  
12 **monitoring area; correct?**  
13 A. Yes.  
14 **Q. Is that a boundary'd area as well?**  
15 A. That is a boundary'd area, yes.  
16 **Q. Okay. And what is the difference between**  
17 **the demographic monitoring area and the "occupied"**  
18 **habitat zone?**  
19 A. Well, one is a boundary and one is an  
20 estimate.  
21 **Q. Okay.**  
22 A. And they are, you know -- they don't  
23 necessarily correspond.  
24 **Q. Okay. And why would they not correspond?**  
25 A. At this time, because the grizzly bear

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1 population is expanding well beyond the bounds of  
2 the demographic monitoring area and the recovery  
3 zone.  
4 **Q. Okay. Now, how does the "occupied"**  
5 **habitat area relate to -- or rather, what is the**  
6 **difference between the "occupied" habitat area and**  
7 **the "may be present" area?**  
8 A. I will read it from my statement, partly  
9 because I want to make sure that that I'm saying it  
10 correctly. The estimated "occupied" range of  
11 grizzly bears is an estimate of the roughly  
12 contiguous minimum area within which grizzly bears  
13 have established residency or have demonstrated  
14 habitat use. And --  
15 **Q. Hold on, you should tell the court**  
16 **reporter tell where you're reading from.**  
17 THE WITNESS: Paragraph 8.  
18 A. And the extent of occurrence, which is  
19 represented by the "may be present" map, is the  
20 larger area over which grizzly bears have been  
21 observed to occur. The extent of occurrence  
22 encompasses peripheral areas of low density, areas  
23 where bears have made occasional forays, and areas  
24 through which bears may be dispersing or newly  
25 colonizing.

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1 **Q. (BY MR. BECHTOLD) Okay. So in simple**  
2 **terms the "may be present" area is bigger than the**  
3 **"occupied" habitat zone?**  
4 A. The "may be present" area is bigger, yes.  
5 **Q. Is it true that there have been multiyear**  
6 **observations of grizzly bears inhabiting areas**  
7 **outside of the habitat area?**  
8 A. There have been observations of bears  
9 outside of "occupied" range within multiple years.  
10 **Q. Okay.**  
11 A. We do not know the residency status of  
12 those individuals.  
13 **Q. And so individuals you're saying you do**  
14 **not know the residency status of, what does not**  
15 **knowing the residency status mean?**  
16 A. It means that we don't know whether those  
17 represent occasional forays or dispersal movements.  
18 And if a bear has been observed in a particular  
19 location that is quite a distance from where we  
20 know bears have set up home ranges and we don't  
21 have any other information on that particular  
22 individual, we do not know that it lives there.  
23 **Q. Okay. If a bear dens in an area do you**  
24 **consider that a bear living there?**  
25 A. It's a little difficult to say because

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1 some bears actually have a summer home range that  
 2 is somewhat separate from where they den, so it  
 3 might be hard to say.  
 4 **Q. Okay. So at paragraph 16 of your**  
 5 **declaration you state that adoption of a new**  
 6 **consensus method resulted in 2022 estimated**  
 7 **"occupied" range of grizzly bears map that was**  
 8 **smaller than the 2020 map using previous methods.**  
 9 **The reduction was due only to the new method, not**  
 10 **to an actual decline in range; do you see that?**  
 11 A. Yes.  
 12 **Q. Are you saying that the actual range of**  
 13 **grizzly bears has not declined?**  
 14 A. Ye.  
 15 **Q. So what's the difference between**  
 16 **distribution and range?**  
 17 A. All of this relates to "occupied" range,  
 18 sometimes I use the word distribution in a more  
 19 general sense. Where is distribution written? Can  
 20 you point that out to me?  
 21 **Q. I'm asking you the difference between**  
 22 **distribution and range, I didn't say that you used**  
 23 **the word distribution.**  
 24 A. Oh, okay. I'm sorry.  
 25 Yeah, I don't think that I have a good

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1 definition for "distribution," which is why we  
 2 specifically decided to use the term "occupied"  
 3 range for this area that we are trying to estimate  
 4 because we thought it was more precise, whereas  
 5 "distribution" is a little bit more of a general  
 6 term.  
 7 **Q. So what was the impetus for reducing the**  
 8 **polygon size from 10 kilometers to 7?**  
 9 A. It wasn't 10, it was 7 and we reduced it  
 10 to 3.  
 11 **Q. Oh, excuse me, 7 to 3.**  
 12 A. And it was so that it -- so that we  
 13 all -- all of the ecosystems in the lower 48 would  
 14 be using the same method. We discussed, you know,  
 15 the 7-by-7-kilometer grid size and the 3-kilometer  
 16 grid size, and we thought that the 3-kilometer was  
 17 more appropriate. It is specific to the size of a  
 18 daily range of a male bear, which you can see in  
 19 some of the documents that we included. And the  
 20 reason that we think it is a more realistic  
 21 estimate using the 3-kilometer grid is because it  
 22 doesn't kind of inflate it beyond where you're  
 23 actually seeing the occupied cells.  
 24 And an example that I described here was  
 25 how, when we estimated the "occupied" range using

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1 the 7-by-7-kilometer grid, it kind of inflated it  
 2 well below Interstate 90, even though there was not  
 3 much evidence that bears were living south of  
 4 Interstate 90 at that time. And when we used the  
 5 3-kilometer grid size, it kind of kept it right  
 6 about at that area of Interstate 90.  
 7 **Q. But there's grizzly bears living south of**  
 8 **Interstate 90 now; correct?**  
 9 A. Yes, between the 2020 map and the 2022  
 10 map, the distribution -- you know, the 2022 map now  
 11 goes south of I-90.  
 12 **Q. So can you definitively conclude that**  
 13 **bears outside of your "occupied" habitat zone do**  
 14 **not represent resident bears?**  
 15 A. Can I say that the bears that are  
 16 observed outside of "occupied" range are not  
 17 residents, is that what you're asking?  
 18 MR. BECHTOLD: Terra, can you read the  
 19 question back?  
 20 (Whereupon, the court reporter read back  
 21 the following:)  
 22 "QUESTION: So can you definitively  
 23 conclude that bears outside of your  
 24 "occupied" habitat zone do not represent  
 25 resident bears?"

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1 A. No.  
 2 **Q. (BY MR. BECHTOLD) So I take it, then,**  
 3 **your "occupied" habitat area is not a definitive**  
 4 **representation that these are the only places where**  
 5 **there are resident bears; correct?**  
 6 A. It is an estimate.  
 7 **Q. And it's not a definitive representation,**  
 8 **correct, of resident bears?**  
 9 MS. CLERGET: Objection, asked and  
 10 answered. Go ahead, you still have to answer.  
 11 THE WITNESS: Oh, I have to answer?  
 12 MS. CLERGET: Yes.  
 13 THE WITNESS: Okay, I'm sorry.  
 14 A. There's uncertainty with everything when  
 15 you use science and data. This is our best  
 16 estimate of "occupied" range, using the data that  
 17 we have available to us.  
 18 **Q. (BY MR. BECHTOLD) And you're certainly**  
 19 **aware that bears have denned outside of your**  
 20 **habitat -- "occupied" habitat zone; right?**  
 21 A. I'm aware of one.  
 22 **Q. Just one?**  
 23 A. Uh-huh.  
 24 **Q. And where is that bear denned?**  
 25 A. It's in the Sapphire Range.

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1 **Q. Okay. Are you aware of any bear denning**  
 2 **in the John Long Mountains?**  
 3 A. Well, I know of one bear, and I'm not  
 4 going to say whether -- I don't -- maybe it's -- I  
 5 know of one bear.  
 6 **Q. Okay.**  
 7 A. With a radio collar, by the way.  
 8 **Q. How many bear dens in the state of**  
 9 **Montana are you aware of the location of, outside**  
 10 **of those with radio collars?**  
 11 A. Can you restate the question?  
 12 **Q. Sure. And I should make a general**  
 13 **statement that when I say bears, I really mean**  
 14 **grizzly bears, but I think we've worked on that**  
 15 **understanding from the beginning.**  
 16 **So I'll use a series of questions. So if**  
 17 **a bear has a radio collar, in general you have a**  
 18 **pretty good idea of when they're denning; correct?**  
 19 A. Typically, yes.  
 20 **Q. Because their signal disappears when they**  
 21 **den and it reemerges when they come out?**  
 22 A. Not always.  
 23 **Q. But usually?**  
 24 A. Oftentimes we'll get locations while  
 25 they're in the den.

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1 **Q. So for those bears that do not have radio**  
 2 **collars, how many den locations are you aware of?**  
 3 A. That are currently occupied by a bear?  
 4 **Q. Correct.**  
 5 A. I don't know.  
 6 **Q. How many?**  
 7 A. I mean, I don't know. I can't point on a  
 8 map to a den that is currently occupied by a  
 9 non-radio-collared bear.  
 10 **Q. Okay. And you could do that for a**  
 11 **radio-collared bear?**  
 12 A. Pretty much.  
 13 **Q. Okay.**  
 14 A. It's -- Yeah.  
 15 **Q. And how do you know when those bears that**  
 16 **do not have radio collars go into their dens?**  
 17 A. I don't.  
 18 **Q. And how do you know when they come out of**  
 19 **their dens?**  
 20 A. I don't.  
 21 MS. CLERGET: Tim, I don't know how much  
 22 more you have, but it might be a break time, it's  
 23 up to you.  
 24 MR. BECHTOLD: Sure, let's go off the  
 25 record.

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1 VIDEOGRAPHER WHITE: We're going off the  
 2 record at 11:57.  
 3 (Whereupon, the proceedings were in  
 4 recess at 11:57 a.m. and subsequently reconvened at  
 5 12:06 p.m., and the following proceedings were  
 6 entered of record:)  
 7 VIDEOGRAPHER WHITE: We are back on the  
 8 record at 12:06 p.m.  
 9 **Q. (BY MR. BECHTOLD) Dr. Costello, you're**  
 10 **aware that a grizzly bear has denned in the Snowy**  
 11 **Mountains; correct?**  
 12 A. No.  
 13 **Q. And you're aware that Fish, Wildlife &**  
 14 **Parks spokesman Greg Lemon recently said there's**  
 15 **been frequent grizzly bear activity for several**  
 16 **consecutive years in the Sapphires and northern**  
 17 **Bitterroot Valley; correct?**  
 18 A. I don't know what Greg Lemon said.  
 19 **Q. Okay. Where would Mr. Lemon get his**  
 20 **information?**  
 21 A. From people working with grizzly bears  
 22 for the department.  
 23 **Q. Okay. Are you aware of Mr. James**  
 24 **Jonkel's Verified Outlier Reports for Region 2?**  
 25 A. Yes.

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1 **Q. Okay. So you're aware that he's reported**  
 2 **bears that are outside the "occupied" zone --**  
 3 **"occupied" habitat zone?**  
 4 A. Yes.  
 5 **Q. In fact there are bears who have denned**  
 6 **outside the "occupied" habitat zone?**  
 7 A. I don't think I'm aware -- besides the  
 8 bear that I've referenced earlier, I don't think  
 9 I'm aware of bear dens -- known bear dens.  
 10 **Q. Okay. Are you aware of resident grizzly**  
 11 **bears in the Ninemile Valley?**  
 12 A. No, I don't -- I can't speak of resident  
 13 bears in the Ninemile Valley.  
 14 **Q. Okay. How about nonresident bears in the**  
 15 **Ninemile Valley?**  
 16 A. The observations that I am aware of are  
 17 all part of the analysis of the "occupied" range,  
 18 so if I'm aware of it, it was part of the analysis  
 19 that went into estimating "occupied" range.  
 20 **Q. Okay. So if there are resident bears in**  
 21 **a particular area and it's not within your estimate**  
 22 **of "occupied" habitat, how do they fall through the**  
 23 **cracks?**  
 24 A. They don't fall through the cracks,  
 25 they're part of the analysis.

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1 **Q. They're just excluded?**  
 2 A. The method is intended to draw a --  
 3 essentially draw a line between the area where  
 4 there's occupied densely-clustered cells, meaning  
 5 that there was a bear present within that  
 6 3-kilometer cell, and the area outside of that line  
 7 where it's only scattered cells where a bear was  
 8 observed. But those observations are putting a  
 9 little 1 in that cell, so they are part of the  
 10 analysis.  
 11 **Q. So even though a bear may have a home**  
 12 **range and a den in an area that's outside of your**  
 13 **estimated "occupied" habitat, it was included as**  
 14 **part of that analysis?**  
 15 A. Any information we have for bears between  
 16 2008 and 2022, verified observations, are included  
 17 in the analysis with the screening of the GPS data.  
 18 **Q. So a grizzly bear that lives outside the**  
 19 **your estimated habitat area is entitled to the same**  
 20 **protections under the Endangered Species Act than**  
 21 **those within it?**  
 22 MS. CLERGET: Objection, calls for a  
 23 legal conclusion. You have to answer.  
 24 A. Yes.  
 25 **Q. (BY MR. BECHTOLD) So all bears have to**

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1 **be treated the same; correct?**  
 2 A. Yes.  
 3 **Q. All bears are entitled to the same**  
 4 **protections; correct?**  
 5 MS. CLERGET: Objection, calls for a  
 6 legal conclusion.  
 7 A. I already answered the question. Yes.  
 8 **Q. (BY MR. BECHTOLD) It's true, isn't it,**  
 9 **that you update your "occupied" habitat area every**  
 10 **two years; correct?**  
 11 A. "Occupied" range, yes, every two years.  
 12 **Q. So there's some inherent lag time; right?**  
 13 A. Yes.  
 14 **Q. So you're always trying to catch up**  
 15 **because your data's always old; right?**  
 16 A. It's not old in the year that we did it.  
 17 **Q. Is that a yes or a no?**  
 18 THE WITNESS: Can you rephrase -- or read  
 19 it?  
 20 (Whereupon, the court reporter read back  
 21 the following:)  
 22 "QUESTION: So you're always trying to  
 23 catch up because your data's always old;  
 24 right?"  
 25 A. No, I think that's a mischaracter --

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1 mischaracterization of what we do.  
 2 **Q. (BY MR. BECHTOLD) So if a bear were to**  
 3 **den for two years, for example, in the area outside**  
 4 **your "occupied" habitat area, when would it get to**  
 5 **be included in your "occupied" habitat area?**  
 6 A. So the analysis for the 2020 year went  
 7 from 2006 to 2020, and the data for the 2022 year  
 8 went from 2008 to 2022.  
 9 **Q. So if a bear, again, had a home range and**  
 10 **a den outside of your "occupied" habitat area, how**  
 11 **many years would it take before it gets to be**  
 12 **included?**  
 13 A. So if it happened in 2021, it would be in  
 14 2022. If it happened in 2022, it would be in 2022.  
 15 **Q. Okay. So just -- so if we have a**  
 16 **situation with a bear that's an outlier, say, for**  
 17 **example, in the Sapphires, and say it dens there**  
 18 **for a couple years and its home range is there for**  
 19 **a couple years, but there's no bears with a home**  
 20 **range between the Sapphires and your estimated**  
 21 **"occupied" habitat, how does that bear get**  
 22 **accounted for? Does it have a little island for**  
 23 **itself or does the estimated habitat range extend**  
 24 **to there?**  
 25 A. We have not had islands occur in our

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1 analysis for the NCDE to date. And I think if it  
 2 was, for example, in the Sapphires, I suspect it  
 3 would not result in an island.  
 4 **Q. Okay. Even with your 3-kilometer --**  
 5 A. Even with the 3-kilometer, if we have  
 6 data to indicate it was a home range and repeated  
 7 den.  
 8 **Q. Okay. Has the grizzly bear population**  
 9 **doubled in the last 11 years?**  
 10 A. No.  
 11 **Q. What was the population in 2022?**  
 12 A. For which --  
 13 **Q. For the NCDE.**  
 14 A. For the NCDE, we have -- we estimated  
 15 projected population of roughly 1100 bears. That's  
 16 based on a population projection using the 2004  
 17 estimate from the Kendall study and projecting it  
 18 forward using vital rates and population modeling.  
 19 **Q. What was the population in 2004 based**  
 20 **upon the Kendall study?**  
 21 A. 765.  
 22 **Q. What was the population estimate in 2012?**  
 23 A. I can't give you the exact number.  
 24 **Q. Okay. Is it true that Montana has**  
 25 **successfully predicted when and where grizzly bears**



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1 **would be for the past decade?**  
 2 A. I don't think that --  
 3 THE WITNESS: Can you repeat the  
 4 question?  
 5 (Whereupon, the court reporter read back  
 6 the following:)  
 7 "QUESTION: Is it true that Montana has  
 8 successfully predicted when and where  
 9 grizzly bears would be for the past decade?"  
 10 A. I don't think Montana has attempted to  
 11 predict when and where grizzly bears will be.  
 12 **Q. (BY MR. BECHTOLD) So the answer is no?**  
 13 A. I think that's a very simplified question  
 14 that I can't really answer.  
 15 **Q. Is it a true statement?**  
 16 MS. CLERGET: Objection, asked and  
 17 answered. You still have to answer.  
 18 A. Oh, I don't know.  
 19 **Q. (BY MR. BECHTOLD) What information would**  
 20 **you need to determine whether that was a true**  
 21 **statement?**  
 22 A. Predict where bears are and will be, is  
 23 that what -- Am I saying that right?  
 24 MR. BECHTOLD: Terra, would you repeat  
 25 that again?

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1 (Whereupon, the court reporter read back  
 2 the following:)  
 3 "QUESTION: Is it true that Montana has  
 4 successfully predicted when and where  
 5 grizzly bears would be for the past decade?"  
 6 A. I don't think that we're predicting where  
 7 they will be.  
 8 **Q. (BY MR. BECHTOLD) Okay.**  
 9 A. At least my part of this. In estimating  
 10 "occupied" range, I'm estimating where bears have  
 11 been and are. And in contributing to the "may be  
 12 present," where they have been.  
 13 **Q. Okay. I'm going to ask you to tell me if**  
 14 **this is a true statement: Montana's predictions of**  
 15 **where grizzly bears will be is correct; true**  
 16 **statement?**  
 17 A. When? I mean, will be when?  
 18 **Q. Okay. How about this statement -- I take**  
 19 **it the answer is you don't know?**  
 20 A. I don't know.  
 21 **Q. So our predictions of -- our predictions**  
 22 **of where grizzly bears will be is correct and our**  
 23 **predictions of when they will den is accurate; true**  
 24 **statement?**  
 25 A. I don't know.

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1 **Q. So would you say that Montana's**  
 2 **predictions of where grizzlies will be is**  
 3 **inaccurate?**  
 4 A. Will be when?  
 5 **Q. Where they den.**  
 6 A. I seriously don't know how to answer this  
 7 question because it just seems so vague and  
 8 open-ended.  
 9 **Q. Okay. Do you think Montana can predict**  
 10 **when grizzly bears -- accurately predict when**  
 11 **grizzly bears will den?**  
 12 A. Will den in the future, like next year?  
 13 **Q. Correct.**  
 14 A. I think we have information to judge when  
 15 they have denned, and it provides some information  
 16 about when they might den later.  
 17 **Q. Okay. Does the Bjornlie method capture**  
 18 **the entire distribution of grizzly bears in the**  
 19 **Greater Yellowstone Ecosystem?**  
 20 A. Can you repeat?  
 21 **Q. Does the Bjornlie method capture the**  
 22 **entire distribution of grizzly bears in the Greater**  
 23 **Yellowstone Ecosystem?**  
 24 A. It captures the "occupied" range of  
 25 grizzly bears in the Yellowstone.

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1 **Q. But not the entire distribution?**  
 2 A. If you use distribution as a general  
 3 statement of where bears might be.  
 4 **Q. Okay. Do you believe the Fish and**  
 5 **Wildlife Service believe that the Bjornlie -- or do**  
 6 **you know whether the Fish and Wildlife Service**  
 7 **believes the Bjornlie method has -- estimate**  
 8 **captures the entire distribution of grizzly bears**  
 9 **in the Greater Yellowstone Ecosystem?**  
 10 MS. CLERGET: Objection, calls for  
 11 speculation.  
 12 **Q. (BY MR. BECHTOLD) If you know.**  
 13 A. I think that as -- given the fact that  
 14 Fish and Wildlife Service was a collaborator on the  
 15 joint method for estimating "occupied" range, I  
 16 think that they would concur that the Bjornlie  
 17 method is a good method for estimating "occupied"  
 18 range.  
 19 **Q. And what's the difference between**  
 20 **"occupied" range and distribution?**  
 21 MS. CLERGET: Objection, asked and  
 22 answered.  
 23 MR. BECHTOLD: No, I asked a different  
 24 question before.  
 25 A. No, I think you asked that one.



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1 **Q. (BY MR. BECHTOLD) No, I just said what's**  
 2 **the difference between range and distribution. Now**  
 3 **I'm asking the difference between "occupied" range**  
 4 **and distribution?**  
 5 A. Well, I would state on the record that if  
 6 you said range, I interpreted it as "occupied"  
 7 range.  
 8 **Q. Okay. So your previous answer would**  
 9 **apply to that same question?**  
 10 A. Yes.  
 11 **Q. Thank you.**  
 12 **If the Fish and Wildlife Service stated**  
 13 **that in the Greater Yellowstone Ecosystem the**  
 14 **Bjornlie method does not capture the entire**  
 15 **distribution of grizzly bears, is the Fish and**  
 16 **Wildlife Service wrong?**  
 17 A. If you use the word distribution to  
 18 encompass more than "occupied" range, then no, they  
 19 are not wrong.  
 20 **Q. Okay. Do you have any personal**  
 21 **experiences with grizzly bears being caught in**  
 22 **traps set by recreational trappers?**  
 23 A. No.  
 24 **Q. Do you have any personal experience with**  
 25 **grizzly bears caught in management traps?**

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1 A. Management traps for grizzly bears?  
 2 **Q. Correct.**  
 3 A. Yes.  
 4 **Q. And what kind of traps are you -- do you**  
 5 **have personal experience with?**  
 6 A. In a management setting or a research  
 7 setting or --  
 8 **Q. Either or both.**  
 9 A. Culvert traps, which may or may not be  
 10 actual culverts, the kind that they go into and the  
 11 door comes down behind them, and foot snares.  
 12 **Q. Okay. You've never used leghold traps in**  
 13 **management settings, have you?**  
 14 A. I have no experience with leghold traps.  
 15 **Q. And you've never used leghold traps in**  
 16 **research settings, have you?**  
 17 A. No.  
 18 **Q. Are you aware of any biologist with the**  
 19 **State of Montana since you've been employed by the**  
 20 **State of Montana to use leghold traps in either of**  
 21 **those settings?**  
 22 A. To capture grizzly bears?  
 23 **Q. To capture grizzly bears.**  
 24 A. I am not aware of anyone using leghold  
 25 traps for the purpose of capturing grizzly bears.

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1 **Q. Why is that?**  
 2 A. I don't think they're very effective for  
 3 capturing grizzly bears.  
 4 **Q. Do you have any personal experience with**  
 5 **seeing injuries or damages caused to grizzly bears**  
 6 **by leghold traps?**  
 7 A. No.  
 8 **Q. So for example, a management bear that --**  
 9 **or a research bear that was caught that had been --**  
 10 **that had injuries that looked as if they were**  
 11 **caused by leghold traps?**  
 12 A. I have experience seeing a -- one grizzly  
 13 bear with injuries that had -- that may or may not  
 14 have been caused by a trap.  
 15 **Q. What kind of injuries were they?**  
 16 A. Missing toes.  
 17 **Q. Did they look like they were evulsed?**  
 18 A. Did they what?  
 19 **Q. Did they look like they had been evulsed?**  
 20 A. If I don't think I know that word,  
 21 actually.  
 22 **Q. Ripped off.**  
 23 A. Ripped off? I can't say. They were  
 24 missing, they were healed over.  
 25 **Q. Okay. And you couldn't tell if it was a**

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1 **clean cut, rough cut, rip off, bite off --**  
 2 A. No.  
 3 **Q. -- they were just gone?**  
 4 A. They were very much healed over.  
 5 **Q. Are you aware of Mace, et al.'s**  
 6 **population estimates for grizzly bears in 2012?**  
 7 A. Yes.  
 8 **Q. Okay. And do you recall what that is?**  
 9 A. I believe it was very close to 1,000.  
 10 **Q. And so since then, I think you estimated**  
 11 **now there's 1100; is that correct?**  
 12 A. Correct.  
 13 **Q. Okay. What involvement did you have in**  
 14 **development of the current wolf trapping**  
 15 **regulations?**  
 16 A. I did not have any involvement with  
 17 developing the regulations.  
 18 **Q. Okay. Were you asked to have any input**  
 19 **in development of the regulations?**  
 20 A. No.  
 21 **Q. How about the 2022 regulations?**  
 22 A. Nope.  
 23 **Q. How about the 2021 regulations?**  
 24 A. No.  
 25 **Q. How about the 2020 regulations?**

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1 A. No.  
 2 **Q. So at no time have you ever been**  
 3 **consulted about development of the regulations for**  
 4 **wolf trapping?**  
 5 A. No.  
 6 **Q. How about for wolf hunting?**  
 7 A. No.  
 8 **Q. Have any of the biologists who work with**  
 9 **you and for you been consulted about the**  
 10 **development of these regulations?**  
 11 A. I don't know.  
 12 **Q. Do some bears live part-time in Montana**  
 13 **and part-time in other states?**  
 14 A. Yes.  
 15 **Q. Do some bears live part-time in Montana**  
 16 **and part-time in Alberta and British Columbia?**  
 17 A. Yes.  
 18 **Q. Are bears attracted to baited traps?**  
 19 A. Yes.  
 20 **Q. Are bears attracted to scented traps?**  
 21 A. Yes, it might depend on the scent.  
 22 **Q. Does the Fish, Wildlife & Parks have a**  
 23 **grizzly bear assessment?**  
 24 A. Assessment for what?  
 25 **Q. Just an assessment of grizzly bears, is**

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1 **there a document that says this is a grizzly bear**  
 2 **assessment?**  
 3 A. I'm not aware of a document that is  
 4 called a grizzly bear assessment.  
 5 **Q. Okay. Does the Fish, Wildlife & Parks**  
 6 **put out a Weekly Grizzly Bear Activity Assessment?**  
 7 A. With respect to the wolf trapping?  
 8 **Q. Is that what it's for, wolf trapping?**  
 9 A. If you're speaking about the assessments  
 10 that occur weekly between Thanksgiving and the end  
 11 of December, yes --  
 12 **Q. Okay.**  
 13 A. -- there is.  
 14 **Q. So what's the purpose of these**  
 15 **assessments?**  
 16 A. To my knowledge, it's trying to determine  
 17 whether there's evidence that bears are still  
 18 active.  
 19 **Q. Okay. And to what end do you want to**  
 20 **determine if bears are still active?**  
 21 A. It's been my impression that this is part  
 22 of the regulations for determining the opening date  
 23 for trapping.  
 24 **Q. Okay. And what involvement do you have**  
 25 **in these assessments?**

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1 A. The data we collect in the NCDE for  
 2 radio-marked bears contributes to any indication as  
 3 to whether or not a bear is still active.  
 4 **Q. Okay. And do you have any personal**  
 5 **involvement?**  
 6 A. My team does.  
 7 **Q. Who's your team?**  
 8 A. Lori Roberts, Milan Vinks work with me in  
 9 the NCDE.  
 10 **Q. Okay. So they're the ones who would be**  
 11 **involved in this, not you, personally?**  
 12 A. It would -- it's mostly Lori that keeps  
 13 track of the -- looks at bear activity --  
 14 **Q. Okay.**  
 15 A. -- but I have access to the data as well.  
 16 **Q. Okay. Is it fair to say that a bear**  
 17 **manager like Mr. Wenum or Mr. Jonkel would report**  
 18 **bear activity to Lori?**  
 19 A. No, that is not correct.  
 20 **Q. Okay. How does that transaction take**  
 21 **place?**  
 22 A. They report it to Molly Parks in Helena.  
 23 **Q. Okay.**  
 24 A. So each manager reports directly to  
 25 Molly, as does Lori.

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1 **Q. Okay. And Molly Parks is the one who**  
 2 **puts out the weekly assessment?**  
 3 A. She -- she summarizes it, yes.  
 4 **Q. Okay. So you don't have oversight in**  
 5 **what -- in this assessment, it's -- actually, the**  
 6 **oversight is from Molly Parks?**  
 7 A. Yes.  
 8 **Q. Okay. And your role is only to**  
 9 **contribute to it?**  
 10 A. Correct.  
 11 MR. BECHTOLD: So I'm going to take about  
 12 a five-minute break and go over my notes and we'll  
 13 come back and wrap up the deposition, unless your  
 14 counsel has other questions.  
 15 So let's go off the record.  
 16 VIDEOGRAPHER WHITE: We're going off the  
 17 record at 12:37.  
 18 (Whereupon, the proceedings were in  
 19 recess at 12:37 p.m. and subsequently reconvened at  
 20 12:47 p.m., and the following proceedings were  
 21 entered of record:)  
 22 VIDEOGRAPHER WHITE: We are back on the  
 23 record at 12:47.  
 24 **Q. (BY MR. BECHTOLD) Okay. Dr. Costello,**  
 25 **how many bears live in -- who have an "occupied"**

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1 **range in both Montana and Wyoming?**  
 2 A. How many?  
 3 **Q. Yeah.**  
 4 A. I don't know.  
 5 **Q. How many have "occupied" range that is in**  
 6 **both Montana and Idaho?**  
 7 A. I don't know.  
 8 **Q. How many have "occupied" range in both**  
 9 **Montana and Alberta?**  
 10 A. I don't know.  
 11 **Q. And how about Montana and BC?**  
 12 A. I don't know.  
 13 **Q. Here's one you do know, how about Montana**  
 14 **and North Dakota?**  
 15 A. I think it's zero. {Laughter.}  
 16 MR. BADER: So far.  
 17 **Q. (BY MR. BECHTOLD) So you -- that**  
 18 **incident where you had personal knowledge of a bear**  
 19 **that had missing toes, what was the date of that?**  
 20 A. It's one of the ones in the table, and I  
 21 believe --  
 22 **Q. Hold on, I'll get you a copy of the**  
 23 **table.**  
 24 A. Okay. I believe it's the record  
 25 number 26 of 3, September 2021.

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1 **Q. So you were working with Tim Manley at**  
 2 **that time?**  
 3 A. I was at the office and he had -- that  
 4 was a management removal, and he brought the  
 5 carcass to the office and I saw the carcass.  
 6 **Q. Oh, okay. How rapidly is the "occupied"**  
 7 **range of grizzly bears expanding from 2012 until**  
 8 **today?**  
 9 A. So for the NCDE, between 2004 and 2022,  
 10 the range -- "occupied" range has expanded an  
 11 average of 3 percent per year. In the Yellowstone  
 12 population, the estimate is that it has averaged  
 13 3.7 percent between 1990 and 2022.  
 14 **Q. Mr. Wenum, who we spoke with earlier**  
 15 **today, and I'm going to paraphrase because I don't**  
 16 **remember the exact quote, but he said something to**  
 17 **the effect that he can say where 4 percent of the**  
 18 **bears are, but he can't tell you where 96 percent**  
 19 **of the bears are, is that a statement you generally**  
 20 **concur with?**  
 21 MS. CLERGET: Objection, misstates prior  
 22 testimony of Erik.  
 23 A. I don't think -- So repeat the question,  
 24 just --  
 25 **Q. (BY MR. BECHTOLD) He said, I can tell**

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1 **you where 4 percent of the bears are, I can't tell**  
 2 **you where 96 percent of the bears are?**  
 3 MS. CLERGET: Same objection.  
 4 A. And you're asking me is that true?  
 5 **Q. (BY MR. BECHTOLD) Yeah, do you agree**  
 6 **with that?**  
 7 A. Not entirely, no.  
 8 **Q. Okay. To what degree?**  
 9 A. We do have pretty good information about  
 10 where bears live.  
 11 **Q. Okay.**  
 12 A. I guess it's a difference between asking  
 13 about where an individual is at any given moment  
 14 and where a population exists.  
 15 **Q. Okay. So do you think you could pinpoint**  
 16 **it by, say for example, hunting district?**  
 17 A. Pinpoint what?  
 18 **Q. Whether that hunting district has bears**  
 19 **that live in it.**  
 20 A. If it's within our "occupied" range, I  
 21 think we have a pretty good idea.  
 22 **Q. Okay. How about by county?**  
 23 A. Yes, I mean, the part of the county that  
 24 falls within our "occupied" range we would consider  
 25 occupied.

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1 **Q. All right. Have you heard of the**  
 2 **aphorism "shoot, shovel and shut up"?**  
 3 A. Of course.  
 4 **Q. What's it mean to you?**  
 5 A. It means it's a euphemism for poaching,  
 6 you know, for getting rid of a problem bear and  
 7 hiding it.  
 8 **Q. Does that happen in Montana?**  
 9 A. I would assume, yes.  
 10 **Q. But I think based on your earlier**  
 11 **testimony, you don't know how often that happens?**  
 12 A. We document it sometimes.  
 13 **Q. So is that a yes?**  
 14 A. We can estimate how often it happens.  
 15 **Q. Okay. And what is your estimate of how**  
 16 **often it happens?**  
 17 A. Well, to give you an example, our female  
 18 survival rate for independent females is between 93  
 19 and 95 percent. And the causes of mortality that  
 20 are involved with that survival or that mortality  
 21 that occurs include a whole number of causes, and  
 22 poaching is only one of them, so it's not a  
 23 frequent event.  
 24 **Q. And could you quantify the word**  
 25 **"frequent"?**

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1 A. No, I mean, I would rather refer to  
 2 scientific studies that try to estimate the  
 3 specific mortality rate that is tied to poaching.  
 4 **Q. Okay. Which studies would you refer to?**  
 5 A. I can't recall them off the top of my  
 6 head.  
 7 **Q. Any biologists who you would recommend,**  
 8 **who does that kind of work?**  
 9 A. Well, I do. Rick Mace did. The study  
 10 team does in Yellowstone. Wayne Kasworm does in  
 11 the Cabinet-Yaak and Selkirks.  
 12 **Q. Okay. So based upon your own research,**  
 13 **what do your results show?**  
 14 A. I can't give you a result for that  
 15 specific question.  
 16 **Q. Because you don't have one?**  
 17 A. I don't recall if I have one or if it's  
 18 tied up with other causes of death. You're asking  
 19 for a specific cause of death and the number of  
 20 times it happens, and it's difficult to tease those  
 21 out, and I don't know if I have attempted it or not  
 22 in the past.  
 23 **Q. Okay. And you're aware, however, that**  
 24 **other biologists have attempted to do that?**  
 25 A. Have attempted to estimate --

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1 **Q. The number of illegally-killed bears that**  
 2 **are not reported?**  
 3 A. That are not reported?  
 4 **Q. That's the "shut up."**  
 5 A. That's the part you didn't ask. You were  
 6 asking how many die, I thought; that's what I  
 7 answered. So maybe I misinterpreted your question,  
 8 but I was trying to answer how many bears die due  
 9 to poaching, because I thought that was the  
 10 question.  
 11 **Q. Okay. So we could rephrase the question**  
 12 **to say how many bears die due to poaching that**  
 13 **you're aware of?**  
 14 A. On an annual basis?  
 15 **Q. On an annual basis. For example, how**  
 16 **many died in 2023 due to poaching, that you are**  
 17 **aware of?**  
 18 A. I can't give you an example number.  
 19 **Q. Okay. Do you have an estimate?**  
 20 A. I would rather not speculate on the  
 21 number. I wasn't expecting these types of  
 22 questions on poaching.  
 23 **Q. Would you agree that you have no way of**  
 24 **knowing how many bears died due to the "shoot,**  
 25 **shovel and shut up" aphorism, so to speak?**

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1 MS. CLERGET: Objection, misstates prior  
 2 testimony, assumes facts not in evidence.  
 3 A. I do not concur that we have nothing to  
 4 go on in order to estimate how many or what  
 5 proportion of a population dies due to poaching.  
 6 **Q. (BY MR. BECHTOLD) Okay. What do we have**  
 7 **to go on?**  
 8 A. We have evidence from radio-collared  
 9 bears and which -- from which we estimate our  
 10 survival rate, and we can get a rate that is  
 11 specific to poaching. We have, additionally, the  
 12 reported mortalities that occur to give us  
 13 information about un-collared bears.  
 14 **Q. I think you testified that, in general,**  
 15 **the population of the NCDE has increased about 100**  
 16 **bears over the last -- since 2012, the base study;**  
 17 **correct?**  
 18 A. It is increased, the -- we're using a  
 19 different population growth rate currently than  
 20 what was reported in the Mace study --  
 21 **Q. Okay. But --**  
 22 A. -- but they are increasing.  
 23 **Q. Right. I think you said about 1,000, and**  
 24 **now they're about 1100; is that correct?**  
 25 A. Yes.

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1 **Q. So how many female bears are there in the**  
 2 **NCDE?**  
 3 A. They represent about 40 -- or I'm sorry,  
 4 about, I believe somewhere between 55 and 60  
 5 percent of the population, I believe.  
 6 **Q. Is female?**  
 7 A. Yeah.  
 8 **Q. And --**  
 9 A. I might have those numbers wrong, but  
 10 it's roughly that.  
 11 **Q. And how many breeding females are there?**  
 12 A. We believe that adult females, I believe,  
 13 make up about something like 40 percent of the  
 14 population.  
 15 **Q. And what's the replacement rate?**  
 16 A. I don't know, it depends on how you  
 17 define it. I would want a definition to that term.  
 18 **Q. Okay. How do you define replacement**  
 19 **rate?**  
 20 A. I don't use the term replacement rate, so  
 21 I guess I --  
 22 **Q. Okay.**  
 23 A. -- I wouldn't have a definition for it.  
 24 **Q. Easy enough.**  
 25 **Why has it taken so long for the bears to**

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1 **increase by 100 individuals?**  
 2 A. So long, huh?  
 3 **Q. Why has it taken 11 years for a**  
 4 **population of 1,000 to increase to 1100?**  
 5 A. Because they grow at 2.3 percent per  
 6 year.  
 7 **Q. The population grows?**  
 8 A. Uh-huh.  
 9 **Q. And how many bears are born annually?**  
 10 A. You're wanting kind of a rough estimate  
 11 of the number?  
 12 **Q. Correct, because I think you testified**  
 13 **that you don't know where they all are; correct?**  
 14 A. I'm not following the logic of those two  
 15 things. Okay. Restate the question.  
 16 (Whereupon, the court reporter read back  
 17 the following):  
 18 "QUESTION: How many bears are born  
 19 annually?"  
 20 A. A ballpark figure, and it's only a  
 21 ballpark, would be maybe 200 cubs every year.  
 22 **Q. (BY MR. BECHTOLD) Okay. And how many**  
 23 **bears die in each year?**  
 24 A. Well, according to our cub mortality  
 25 rate, which is estimated at 55 percent, you know,

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1 more than half of those cubs die.  
 2 **Q. Within the first year of life?**  
 3 A. Yes.  
 4 **Q. Do you have plans to conduct research**  
 5 **this summer --**  
 6 A. Yes.  
 7 **Q. -- 2024?**  
 8 **Using your same 4(d) permit?**  
 9 MS. CLERGET: Objection, calls for a  
 10 legal conclusion.  
 11 A. I'm hoping that we will be able to do our  
 12 work.  
 13 **Q. (BY MR. BECHTOLD) Has someone told you**  
 14 **that you were forbidden from doing your work?**  
 15 MS. CLERGET: Objection, privileged,  
 16 don't answer.  
 17 **Q. (BY MR. BECHTOLD) Has someone besides**  
 18 **your attorneys told you that you were forbidden**  
 19 **from conducting your research this summer?**  
 20 MS. CLERGET: Objection, it still goes to  
 21 privilege because all of the conversations about  
 22 what is or is not allowed under the current  
 23 injunction have been privileged.  
 24 **Q. (BY MR. BECHTOLD) So you don't know if**  
 25 **you will be able to conduct research this summer.**

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1 **is that the upshot here?**  
 2 A. I guess I would say yes, that is -- I do  
 3 not know. I do not know if I can trap, I will  
 4 still be doing research.  
 5 MR. BECHTOLD: Okay. I have nothing  
 6 further, thank you.  
 7 MS. CLERGET: All right. A few things  
 8 from defendant.  
 9 EXAMINATION  
 10 BY MS. CLERGET:  
 11 **Q. First, you stated in your testimony that**  
 12 **you weren't consulted on the development of the**  
 13 **wolf regulations, but your map is in the wolf**  
 14 **regulations; right?**  
 15 A. True, I was asked to provide the estimate  
 16 of "occupied" range for the wolf regulations.  
 17 **Q. And how does your data that you collect**  
 18 **and the math that you use, how does that inform the**  
 19 **regulations, if you know?**  
 20 A. To my knowledge, inside the area of  
 21 "occupied" range, the start date of the first  
 22 Monday after Thanksgiving is not automatic and,  
 23 instead, it depends on when there's evidence that  
 24 grizzly bears are denned.  
 25 **Q. And a piece of that evidence is your**

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1 **collar data; is that right?**  
 2 A. Yeah.  
 3 **Q. Okay. And then there were some quotes**  
 4 **that came -- that counsel was reading for you that**  
 5 **came from me in my argument. One of them -- you**  
 6 **were at the hearing with Judge Molloy; right?**  
 7 A. I was.  
 8 **Q. And so you heard everything I said during**  
 9 **that hearing?**  
 10 A. (Witness nods head.)  
 11 **Q. And you heard me say foothold traps for**  
 12 **bears during that hearing; right?**  
 13 A. Yeah.  
 14 **Q. And you immediately corrected me after I**  
 15 **got off the stand and said I was wrong, I meant**  
 16 **wolf traps and instead I said bear traps?**  
 17 A. So for research -- for capturing bears  
 18 for research, you meant to talk about that it's the  
 19 same trap used for wolves, whether it's recreation  
 20 or whether it's research, they're using the same  
 21 trap, but instead you said bears.  
 22 **Q. Is that correct?**  
 23 A. Yes.  
 24 **Q. So I was wrong about that; right?**  
 25 A. Yeah.



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1 **Q. My mistake?**  
 2 A. Yeah.  
 3 **Q. And then the counsel asked you about**  
 4 **predicting when and where -- my statements about**  
 5 **Montana having been successful when and where --**  
 6 **when and where bears will be for the last decade,**  
 7 **and you said that you don't predict where they will**  
 8 **be; is that right?**  
 9 A. Right.  
 10 **Q. So how does your data and your mapping**  
 11 **help predict or has it predicted in the past where**  
 12 **and when bears will be?**  
 13 A. Well, the estimates of "occupied" range  
 14 have been in the areas where the incidental capture  
 15 has occurred. So there has not been incidental  
 16 capture of grizzly bears outside of the "occupied"  
 17 range.  
 18 **Q. So is that your understanding of our**  
 19 **estimations of when and where grizzly bears will be**  
 20 **for the purposes of wolf trapping?**  
 21 A. Yes, the way you're arguing it, that is  
 22 what I would say, yes.  
 23 **Q. Okay. And the last thing counsel read to**  
 24 **you, my statement of the population doubling, I'll**  
 25 **just, for the record, state that that came from the**

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1 **White Bark Pine case that was argued under our same**  
 2 **judge at the Ninth Circuit, the number -- the 500**  
 3 **number versus the 1100 number. But that's --**  
 4 **again, your numbers today are more accurate than**  
 5 **those numbers; is that right?**  
 6 A. Yes.  
 7 **Q. Okay.**  
 8 A. I'm not sure where your 500 number  
 9 might've come from.  
 10 **Q. You didn't read that case?**  
 11 A. I don't think it's accurate for the time  
 12 frame --  
 13 **Q. Right. So --**  
 14 A. -- of 2011.  
 15 **Q. Yes, okay.**  
 16 MS. CLERGET: That's what I wanted to  
 17 clarify, that's all I've got.  
 18 EXAMINATION  
 19 BY MR. BECHTOLD:  
 20 **Q. What's incidental capture mean?**  
 21 A. Well, what's in those tables, maybe  
 22 that's not the proper terminology.  
 23 **Q. So as I understand your testimony, then,**  
 24 **the exhibit to Mr. McDonald's declaration with the**  
 25 **incidences of trapping/catch, those are the**

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1 **incidental captures?**  
 2 A. That's what I was referring to, yes, in  
 3 that statement.  
 4 MR. BECHTOLD: Thank you. Nothing  
 5 further.  
 6 VIDEOGRAPHER WHITE: Okay. This  
 7 concludes the audiovisual deposition of Cecily  
 8 Costello. The original media of this deposition  
 9 will remain in the custody of Jeffries Court  
 10 Reporting, Inc., located in Missoula, Montana.  
 11 We are going off the record at 1:11 p.m.  
 12 (Deposition concluded at 1:11 p.m.)  
 13 Witness excused, signature reserved.)  
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1 CERTIFICATE OF WITNESS  
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 10 I hereby certify that this is a true and  
 11 correct copy of my testimony, together with any  
 12 changes I have made on this and any subsequent  
 13 pages attached hereto.  
 14  
 15 Dated on this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.  
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 17 \_\_\_\_\_  
 18 CECILY COSTELLO, Ph.D., Deponent.  
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County of Missoula )

I, Terra Rohlfes, RPR, Freelance Court Reporter and Notary Public for the State of Montana, residing in Hamilton, Montana, do hereby certify:

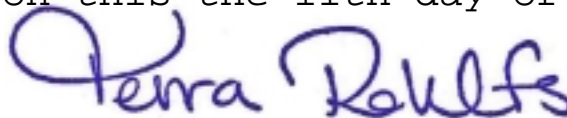
That I was duly authorized to swear in the witness and did report the deposition of CECILY COSTELLO, Ph.D. in this cause;

That the reading and signing of the deposition by the witness have been expressly reserved;

That the foregoing pages of this deposition constitute a true and accurate transcription of my stenotype notes of the testimony of said witness.

I further certify that I am not an attorney nor counsel of any of the parties; nor a relative or employee of any attorney or counsel connected with the action, nor financially interested in the action.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this the 11th day of March, 2024.



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Terra Rohlfes, RPR,  
Freelance Court Reporter  
Notary Public, State of Montana  
Residing in Hamilton, Montana  
My Commission expires: 11/4/27