

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
EASTERN DIVISION

TRACEY K. KUEHL, an individual;
LISA K. KUEHL, an individual;
KRIS A. BELL, an individual;
NANCY A. HARVEY, an individual;
JOHN T. BRAUMANN, an individual,
and ANIMAL LEGAL DEFENSE
FUND, a non-profit corporation,

Plaintiffs,

vs.

PAMELA SELLNER, an individual;
TOM SELLNER, an individual; and
CRICKET HOLLOW ZOO, a non-
profit corporation,

Defendants.

No. C14-2034

**ORDER FOR
DECLARATORY JUDGMENT
AND INJUNCTIVE RELIEF**

TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	PROCEDURAL HISTORY	3
III.	BACKGROUND	4
	A. <i>The Parties</i>	4
	B. <i>Plaintiffs' Claim</i>	4
IV.	PLAINTIFFS' STANDING	5
	A. <i>Applicable Law</i>	5
	B. <i>Plaintiffs</i>	9
	1. <i>Tracey Kuehl</i>	9
	2. <i>Lisa Kuehl</i>	11

3.	<i>Nancy Harvey</i>	12
4.	<i>John Braumann</i>	13
C.	<i>Analysis</i>	13
V.	REACH OF THE ENDANGERED SPECIES ACT	15
VI.	RELEVANT FACTS	18
A.	<i>Cricket Hollow Zoo</i>	18
1.	<i>Tigers</i>	20
2.	<i>Lemurs</i>	23
B.	<i>Plaintiffs' Site Visits</i>	25
1.	<i>Tracey Kuehl</i>	25
2.	<i>Lisa Kuehl</i>	26
3.	<i>Nancy Harvey</i>	28
4.	<i>John Braumann</i>	29
C.	<i>USDA Inspections</i>	30
D.	<i>Plaintiffs' Expert Witnesses</i>	41
1.	<i>Peter Klopfer, Ph.D.</i>	41
2.	<i>Jennifer Conrad, D.V.M.</i>	45
3.	<i>David Allen</i>	49
E.	<i>Defendants' Expert Witnesses</i>	50
1.	<i>John Herbert Pries, D.V.M.</i>	50
2.	<i>Gary Pusillo, Ph.D.</i>	54
VII.	DISCUSSION	55
A.	<i>Endangered Species Act</i>	55
B.	<i>Lemurs</i>	56
1.	<i>Social Isolation</i>	56
2.	<i>Environmental Enrichment</i>	58
3.	<i>Sanitation</i>	60
4.	<i>Veterinary Care</i>	62
5.	<i>Summary</i>	62
C.	<i>Tigers</i>	63
1.	<i>Veterinary Care</i>	63
2.	<i>Sanitation</i>	67
3.	<i>Housing and Caging</i>	69
4.	<i>Environmental Enrichment</i>	70
5.	<i>Nutritional Protocols</i>	71

6. Summary	71
VIII. CONCLUSION	71
IX. ORDER	72

I. INTRODUCTION

On the 5th day of October 2015, this matter came on for trial on the Complaint for Declaratory and Injunctive Relief (docket number 2) filed by the Plaintiffs on June 11, 2014. The Plaintiffs were represented by their attorneys, Daniel J. Anderson, Elisabeth Holmes, Jeffrey Pierce, and Jessica Blome. Defendants Pamela Sellner and Tom Sellner appeared personally, and were represented by their attorney, Larry J. Thorson.

II. PROCEDURAL HISTORY

On June 11, 2014, Plaintiffs Tracey K. Kuehl, Lisa K. Kuehl, Kris A. Bell, Nancy A. Harvey, John T. Braumann, and the Animal Legal Defense Fund filed a complaint against Defendants Pamela Sellner, Tom Sellner, and Cricket Hollow Zoo, seeking declaratory and injunctive relief. Plaintiffs claim Defendants have violated the Endangered Species Act, and ask the Court to enjoin Defendants from acquiring or possessing lemurs, tigers, wolves, lions, and serval.¹ Defendants answered on July 17, 2014, denying the material allegations.

On August 28, 2014, the Court adopted a proposed Scheduling Order and Discovery Plan submitted by the parties. Also at that time, the case was referred to me pursuant to 28 U.S.C. § 636(c)(3) and the consent of the parties. Plaintiffs' motion for summary judgment was denied and a non-jury trial was held on October 5-8, 2015. Post-trial briefing was completed on December 18, 2015.

¹ Plaintiffs later dismissed their claims regarding the lions and serval. *See* Stipulated Dismissal of Plaintiffs' Claims as to Lions and Serval (docket number 44).

III. BACKGROUND

A. The Parties

The five individual Plaintiffs are Iowans who have an interest in protecting endangered species. The Animal Legal Defense Fund (“ALDF”) is a non-profit organization registered in California, with its principal place of business in Cotati, California. The ALDF has more than 200,000 members and supporters nationwide, including Plaintiffs Tracey Kuehl, Lisa Kuehl, Kris Bell, and Nancy Harvey. The ALDF's mission is to advance the interests and protect the lives of animals through the legal system.

Defendants Pamela Sellner and Tom Sellner, wife and husband, reside in Delaware County, Iowa. Defendant Cricket Hollow Zoo (“Cricket Hollow” or “the Zoo”) is a non-profit corporation registered in Iowa, with its principal and only place of business located in rural Manchester, Iowa. The only owners, operators, members, officers, board members, or full-time employees of the corporation are the Sellners. Cricket Hollow's stated corporate purpose is education.

B. Plaintiffs' Claim

The Endangered Species Act (“ESA”) was enacted in 1973. One of its stated purposes is to “provide a program for the conservation of [] endangered species and threatened species.” 16 U.S.C. § 1531(b). Among other things, the ESA makes it unlawful for any person to “take” any endangered species of wildlife within the United States. 16 U.S.C. § 1538(a)(1)(B). “The term ‘take’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19).

Plaintiffs claim Defendants have violated the ESA's prohibition on the “taking” of endangered species, by “harming” and “harassing” them. Plaintiffs argue Defendants' captive endangered species are harmed and harassed by social isolation, inadequate

veterinary care, inadequate sanitation, inadequate housing and caging, inadequate environmental enrichment, and inadequately implemented nutritional protocols.

IV. PLAINTIFFS' STANDING

A. Applicable Law

Preliminarily, the Court must determine whether Plaintiffs have Article III standing to sue Defendants for an alleged violation of the Endangered Species Act. The ESA authorizes so-called “citizen suits.” *See* 16 U.S.C. § 1540(g)(1)(A) (“[A]ny person may commence a civil suit on his own behalf to enjoin any person . . . who is alleged to be in violation of any provision of this chapter . . .”). The language permitting “any person” to commence a civil suit is “an authorization of remarkable breadth when compared with the language Congress ordinarily uses.” *Bennett v. Spear*, 520 U.S. 154, 164-65 (1997). The Supreme Court found that the “obvious purpose” of this language is “to encourage enforcement by so-called ‘private attorneys general.’” *Id.* at 165.

Article III of the Constitution requires, however, that there must be a “case” or “controversy” to establish jurisdiction. This “irreducible constitutional minimum” of standing requires:

(1) that the plaintiff have suffered an “injury in fact” — an invasion of a judicially cognizable interest which is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) that there be a causal connection between the injury and the conduct complained of — the injury must be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court; and (3) that it be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.

Bennett, 520 U.S. at 167 (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-561 (1992)). “The party invoking federal jurisdiction bears the burden of establishing these elements.” *Lujan*, 504 U.S. at 561.

It would appear Plaintiffs meet the second and third standing requirements of *Bennett*. That is, there is a causal connection between Plaintiffs' alleged injuries and the claimed violations by Defendants. In addition, it is "likely" that Plaintiffs' injuries will be redressed by a favorable decision. The fighting issue, therefore, is whether Plaintiffs have suffered an "injury in fact" — the first standing requirement set forth in *Bennett*.

In *Lujan v. Defenders of Wildlife*, the Court considered the issue of standing under circumstances where the claimants asserted an "esthetic interest" in viewing animals. In that case, organizations dedicated to wildlife conservation filed an action against the Secretary of the Interior, challenging a new regulation regarding the geographic scope of the ESA, and seeking declaratory and injunctive relief. 504 U.S. at 559. The district court granted the Secretary's motion to dismiss for lack of standing, but the Eighth Circuit Court of Appeals reversed. Concluding the respondents lacked standing to bring the action, the Supreme Court reversed, finding the Court of Appeals erred in denying summary judgment.

The Court first identified the three elements constituting the "irreducible constitutional minimum of standing," as later cited in *Bennett* and set forth above. The Court acknowledged that "the desire to use or observe an animal species, even for purely esthetic purposes, is undeniably a cognizable interest for purpose of standing." *Id.* at 562-63 (citing *Sierra Club v. Morton*, 405 U.S. 727, 734 (1972)). *See also Friends of the Earth v. Laidlaw Environmental Services*, 528 U.S. 167, 183 (2000). "But the 'injury in fact' test requires more than an injury to a cognizable interest. It requires that the party seeking review be himself among the injured." *Id.* at 563. That is, one or more of the plaintiffs must be "'directly' affected apart from their 'special interest in the subject.'" *Id.*

One of the members of Defenders of Wildlife stated she traveled to Egypt to observe the traditional habitat of the endangered Nile crocodile and intended to do so

again. She averred she would suffer “harm in fact” as a result of the American role in overseeing the rehabilitation of the Aswan Dam on the Nile River. *Id.* Another member of Defenders of Wildlife stated she had traveled to Sri Lanka and “observed the habitat” of the endangered Asian elephant and the leopard. She claimed that because of a project funded by an agency of the American government, she was unable to see any of the endangered species and that the continued development would seriously reduce the species habitat, thereby harming her because she “intends to return to Sri Lanka in the future and hopes to be more fortunate in spotting at least the endangered elephant and leopard.” *Id.* At her deposition, she testified she planned to return to Sri Lanka, but had no current plans to do so. *Id.* at 564. The Court concluded that standing was lacking, finding the allegations “plainly contain no facts [] showing how damage to the species will produce ‘imminent’ injury” to the two members of the organization. *Id.*

That the women “had visited” the areas of the projects before the projects commenced proves nothing. As we have said in a related context, “‘Past exposure to illegal conduct does not in itself show a present case or controversy regarding injunctive relief ... if unaccompanied by any continuing, present adverse effects.’” And the affiants’ profession of an “intent” to return to the places they had visited before — where they will presumably, this time, be deprived of the opportunity to observe animals of the endangered species — is simply not enough. Such “some day” intentions — without any description of concrete plans, or indeed even any specification of *when* the some day will be — do not support a finding of the “actual or imminent” injury that our cases require.

Defenders of Wildlife, 504 U.S. at 564 (internal citations omitted).

In *Animal Legal Defense Fund, Inc. v. Glickman*, 154 F.3d 426 (D.C. Cir. 1998), the Court considered standing under circumstances similar to those presented here. The plaintiffs in *Glickman* challenged regulations adopted by the USDA on the ground that they

violated the USDA's statutory mandate under the Animal Welfare Act ("AWA"). Finding that one of the individual plaintiffs, Mr. Jurnove, had standing to sue, the Court did not pass on the standing of the other individual plaintiffs.² *Id.* at 429. Jurnove, who was an active volunteer for various human and animal relief and rescue organizations, visited a local "game farm" and zoo at least nine times. Jurnove claimed that on his first visit to the Game Farm, he saw many animals living under inhumane conditions. The day after his first visit, Jurnove "began to contact government agencies, including the USDA, in order to secure help for these animals." *Id.* In an affidavit, Jurnove identified injuries "he has suffered to his aesthetic interest in observing animals living under humane conditions." *Id.* Jurnove also asserted he intended to return to the Game Farm "in the next several weeks" and to "continue visiting the Farm to see the animals there." The D.C. Circuit Court of Appeals, sitting *en banc*, concluded that "Mr. Jurnove's allegations solidly establish injury in fact." *Id.* at 431. Citing the standing requirements of Article III, as set forth in *Bennett* and *Lujan*, the Court concluded that "Mr. Jurnove suffered direct, concrete, and particularized injury to this aesthetic interest in observing animals living under humane conditions." *Id.* "Simply put, Mr. Jurnove has alleged far more than an abstract, and uncognizable, interest in seeing the law enforced." *Id.* at 432.

A North Carolina district court recently reached the same conclusion. In *Hill v. Coggins*, 2014 WL 2738664 (W.D.N.C.), the Court found the plaintiffs, who were "aesthetically and emotionally injured while visiting the Zoo when they observed the grizzly bears living in inhumane conditions," had standing to pursue a claim that the defendants were violating the Endangered Species Act.

² While the claim in *ALDF v. Glickman* was based on an alleged violation of the Animal Welfare Act, rather than the Endangered Species Act, the analysis regarding standing remains the same.

As a result of witnessing the conditions in which the bears at the Zoo live, as well as the condition of the bears themselves, Plaintiffs are currently suffering and will continue to suffer aesthetic and emotional injury. Plaintiffs would like to visit the bears again in the future but are unable to do so while they are housed at the Zoo without suffering additional aesthetic and emotional injury. If, however, the bears were moved to a more humane and natural setting where the bears were allowed to live in an appropriate environment and were humanely treated, then Plaintiffs would visit the bears again.

Hill, 2014 WL 2738664 at *2. Recognizing that “[a]n individual’s aesthetic or recreational interests may constitute an injury sufficient to satisfy the injury in fact standing requirement,” the Court concluded the allegations were sufficient to establish standing. *Id.* at *4 (citing *Laidlaw*, 528 U.S. at 183).

B. Plaintiffs

1. Tracey Kuehl

Turning to the facts in the instant action, Plaintiff Tracey Kuehl testified that she is retired from a position as executive director of a museum. Tracey grew up on a farm and has an interest in animals.³ At the time of trial, Tracey owned dogs, cats, two pot-bellied pigs, some pigmy goats, a sheep, and about a dozen chickens. Tracey testified she enjoys seeing all types of animals, “particularly the wild ones in their natural settings.” Acknowledging that she “probably will never get to see them where they’re living” in the wild, Tracey testified that “I really appreciate the fact that I can go to these [zoo] facilities and see them in a relatively natural setting so I can see how they act as animals.”

Tracey, who lives 120 miles from the Cricket Hollow Zoo, learned about the Zoo while she was traveling through northeast Iowa and found an advertisement for the Zoo

³ The Court will refer to Ms. Kuehl as “Tracey,” to avoid any confusion with co-Plaintiff Lisa K. Kuehl.

in a local tourist newspaper. She first visited the Zoo on June 23, 2012. Tracey testified she was “really upset,” “very concerned,” and “shocked” by the conditions that she found at Cricket Hollow. According to Tracey, the animal enclosures were unsanitary and the animals lacked “enrichment.” The conditions experienced by the tigers made Tracey “really, really sad and really disappointed.”

Two days later, on June 25, 2012, Tracey sent a four-page letter to the Iowa Department of Agriculture and Land Stewardship (“IDALS”) describing her observations while visiting the Zoo.⁴ On the following day, Tracey sent a copy of the letter to the United States Department of Agriculture, Animal and Plant Health Inspection Service (“USDA-APHIS”).⁵

Tracey returned to Cricket Hollow on July 6, 2012, two weeks after her first visit. She decided to go back because she was “curious” and “was hopeful that something would have changed.” Tracey testified that she was “really distressed to see that nothing had changed.” Later that same day, she sent additional letters to IDALS and USDA-APHIS.⁶

Feeling “a little drained” from her first two visits, Tracey did not return to Cricket Hollow until June 24, 2013. During the one year between visits, Tracey remained active in her advocacy for the animals. Tracey reviewed the inspection reports available through the USDA-APHIS online reading room. She also contacted the Iowa Secretary of Agriculture, Iowa Department of Natural Resources, Delaware County Sheriff, Delaware County Board of Supervisors, Delaware County Department of Health, and the Mayor of Manchester. According to Tracey, she felt “obligated” to return to Cricket Hollow “to see if any substantive changes had been made that would improve the lives of any of the

⁴ Plaintiffs' Exhibit 62, at 1-4.

⁵ *Id.* at 5.

⁶ *Id.* at 6-14.

animals living at the zoo.” When she returned to the Zoo in June 2013, however, she “saw the same thing” that she had seen in 2012. Tracey did not return to the Zoo after that time, testifying that “it upset me so much” that “I could barely stomach to go back to the place.” When asked if she would visit the animals again “if their conditions did improve,” however, Tracey responded “yes, I would.”

2. Lisa Kuehl

Lisa Kuehl (Tracey Kuehl's sister), a resident of Madrid, Iowa, testified she is a retired commercial airline pilot and is now employed as a professional figure skating instructor. Lisa, who grew up on a farm and owns several pets, is an active member of Iowa Friends of Companion Animals, which focuses on Iowa's commercial dog breeding industry. While researching the USDA inspection database in January 2012 for non-compliant dog breeders, Lisa found reports from August and December 2011, showing Cricket Hollow's non-compliance with federal regulations. On April 1, 2012, Lisa took aerial photographs of the Zoo and subsequently met with State Veterinarian Dr. David Schmitt. Lisa first visited Cricket Hollow on June 21, 2012, accompanied by three other women, including co-Plaintiffs Kris Bell and Nancy Harvey.⁷

Lisa found the conditions at the Zoo to be unsanitary and the tigers pestered by flies. There was a lack of enrichment activities and, according to Lisa, “the tiger looked bored is a good way to describe it.” After leaving the Zoo, Lisa wrote to the USDA on

⁷ Interestingly, Lisa's sister, Tracey Kuehl, first visited the Zoo two days later, on June 23, 2012. Tracey testified, however, that she learned about the Zoo when she was traveling through northeast Iowa and found an advertisement for the Zoo in a local tourist newspaper. While it is not significant to the issues presented here, it seems more likely that Tracey would have learned of the Zoo from Lisa.

June 28, complaining of the conditions.⁸ Numerous photographs were included with the letter.

Lisa returned to the Zoo in July 2012. According to Lisa, “I was definitely worried about the animals and I was hoping that I would see them in a better place.” Lisa returned to the Zoo a third time on July 13, 2013, accompanied by co-Plaintiff John Braumann. Lisa has not returned to the Zoo since July 2013, but testified that if the conditions of the tiger, wolves, and lemurs improved at the Cricket Hollow Zoo, then she “would go back to the Zoo if I felt like I was welcome.”

3. *Nancy Harvey*

Nancy Harvey, who lives in Ankeny, Iowa, is a retired life insurance underwriter. Like the Kuehls, Harvey grew up on a farm. At the time of trial, Harvey owned two dogs, two cats, and a bird. Harvey testified she feels a “connection” to animals and has “always felt a deep concern and love for them.” Harvey has volunteered with several advocacy groups, including Iowa Voters for Companion Animals and Red Rover Responders. Harvey also has a Facebook page called Iowa Stars for Animals, which raises funds for animal shelters. Harvey is also a member of co-Plaintiff ALDF.

Harvey first became aware of the Cricket Hollow Zoo when she was shown aerial pictures taken by Lisa Kuehl. Harvey and Lisa decided to visit the Zoo on June 21, 2012. Harvey testified she was “really shocked” by the conditions in the reptile house. After witnessing a lion vomiting, Harvey “just shut down.” Harvey testified that she was “so upset and anxious and depressed” by the conditions at the Zoo that “I just didn't want to stay there any longer, so I was ready to go.” Harvey has not returned to Cricket Hollow since that time. Harvey testified “I don't want to see them again if they're still living in

⁸ Plaintiffs' Exhibit 60, at 9-49.

those types of conditions.” When asked if she would return to the Zoo to visit the animals if the conditions there improved, however, Harvey responded “absolutely.”

4. *John Braumann*

John Braumann is a resident of Marion, Iowa, which is approximately a 40-minute drive to the Zoo. Braumann is a member of several animal protection organizations, including the ASPCA, Humane Society of the United States, Mercy for Animals, and Compassion Over Killing; but is not a member of the ALDF. Braumann testified he is “highly vocal against things like poaching, the ivory trade, the taking of wolves.”

Braumann learned of the Cricket Hollow Zoo through a “Facebook friend” and first visited the Zoo on October 13, 2012. Braumann's first impression was that “it struck me as a farm and not a zoo.” Braumann testified he was depressed by the “pathetic conditions” he found at the Zoo. He was “frustrated” by the lack of enrichment provided to the animals. According to Braumann, even reviewing the photographs in anticipation of testifying “upset me greatly.”

Braumann returned to Cricket Hollow again on July 13, 2013. Finding the same conditions, Braumann described himself as frustrated, angry, and depressed. Braumann “made the decision that I wasn't going to go back unless something significant changed.” Braumann testified, however, that he enjoys seeing the animals in person and would be happy to return if changes were made at the Zoo. Braumann would also visit the animals elsewhere if they were relocated.

C. Analysis

As set forth above, the Endangered Species Act authorizes “any person” to bring an enforcement action seeking to enjoin an alleged violation of the ESA. However, to establish the existence of a “case or controversy,” as required by Article III of the Constitution, the plaintiff must establish that they have suffered an “injury in fact.” The

injury must be “judicially cognizable,” “concrete and particularized,” and “actual or imminent, not conjectural or hypothetical.” *Bennett*, 520 U.S. at 167.

The Supreme Court has repeatedly recognized that a claimant's “aesthetic interest” in observing animals is a judicially cognizable interest. *Lujan*, 504 U.S. at 562-63 (“The desire to use or observe an animal species, even for purely esthetic purposes, is undeniably a cognizable interest for purpose of standing.”). *See also Glickman*, 154 F.3d at 432 (“The Supreme Court has repeatedly made clear that injury to an aesthetic interest in the observation of animals is sufficient to satisfy the demands of Article III standing.”).

Article III requires more, however, than an injury to a cognizable interest. “It requires that the party seeking review be himself among the injured.” *Lujan*, 504 U.S. at 563. In *Lujan*, the Court concluded that the plaintiffs' general intentions to return to Egypt and Sri Lanka to view endangered species failed to allege “imminent injury” to the plaintiffs. Such “some day” intentions did not satisfy the “particularized” and “actual or imminent” requirements of an injury in fact. *Id.* I believe, however, that the facts in this case are more akin to those described in *Glickman* and *Coggins*. The D.C. Circuit Court of Appeals concluded in *Glickman* that a plaintiff's allegations that he visited a zoo repeatedly, suffered to his aesthetic interest in observing animals living under humane conditions, and planned to return to the zoo in the future, “solidly establish[ed] injury in fact.” *Glickman*, 154 F.3d at 431. Similarly, the *Coggins* Court found standing based on a claim that the plaintiffs suffered aesthetic and emotional injury while visiting a zoo where they observed grizzly bears living in inhumane conditions. 2014 WL 2738664 at *2.

Here, the four individual Plaintiffs who testified at trial have an “aesthetic” interest in viewing endangered species living in humane conditions. Importantly, Plaintiffs do not simply rely on injury to a generally cognizable interest. Rather, they assert a “concrete and particularized” injury to themselves. That is, Plaintiffs are “‘directly’ affected apart from their ‘special interest in the subject.’” *Lujan*, 504 U.S. at 563. Unlike the plaintiffs

in *Lujan*, Plaintiffs here do not have a “conjectual or hypothetical” interest in the matter, but instead live within easy driving distance of Cricket Hollow and would return to view the animals if conditions improved. *See Coggins*, 2014 WL 2738664 at *4 (“Plaintiffs live near the Zoo; they could return to visit the Zoo at any time but decline to do so because of the alleged living conditions and physical condition of the bears and the additional harm that seeing the bears in this condition will cause Plaintiffs.”). The Court concludes the individual Plaintiffs have suffered an “injury in fact” and have met their burden of establishing the Article III standing requirements described in *Bennett*.

The Court also concludes that Plaintiff Animal Legal Defense Fund has standing as a plaintiff. “An association has standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation in individual members in the lawsuit.” *Laidlaw*, 528 U.S. at 181 (citing *Hunt v. Washington State Apple Advertising Comm'n*, 432 U.S. 333 (1977)). Because Tracey Kuehl, Lisa Kuehl, and Nancy Harvey — all members of the ALDF — have standing, the ALDF also has standing.

V. REACH OF THE ENDANGERED SPECIES ACT

Next, the Court must determine which animals housed at the Cricket Hollow Zoo are covered by the Endangered Species Act and, therefore, are subject to the Court's jurisdiction in this lawsuit. While the record is somewhat imprecise, there are approximately 200-300 birds and animals at the Cricket Hollow Zoo, including tigers, lions, bears, equines, sheep, zebu cattle, deer, camel, Meishan pigs, pot belly pigs, dogs, birds, reptiles, and snakes. In the Final Pretrial Order, the parties stipulated that “[e]ach of the Defendants' tigers, ring tailed lemurs, and the red ruffed lemur who have been or are currently exhibited at the Cricket Hollow Zoo in Manchester, Iowa, are listed as threatened or endangered species under the Endangered Species Act and its implementing

regulations at 50 CFR § 17.11.” The parties disagree, however, regarding whether Defendants' hybrid wolves are protected by the ESA.

Pam Sellner testified that Cricket Hollow has three wolf hybrids, housed in the same cage. According to Sellner, the animals are “75 percent” wolf. That is, one parent was a purebred wolf, while the other parent was half wolf and half domesticated dog. It is undisputed that wolves (*Canis lupus*) are protected by the ESA. *See* 50 C.F.R. § 17.11(h). Plaintiffs argue the protection extends to “hybrid” wolves.

The list found at 50 C.F.R. § 17.11(h) “contains the names of all species of wildlife which have been determined by the Services to be Endangered or Threatened.” § 17.11(a). However, “the listing of a particular taxon includes all lower taxonomic units.” § 17.11(g). For example, because the genus *Hylobates* (gibbons) is listed as endangered, all species, subspecies, and populations of that genus are considered endangered. *Id.* Plaintiffs argue that “crossing a general member of a protected species taxon (*Canis lupus* — the gray wolf) with a specific subspecies thereof (*Canis lupus familiaris* — the domesticated dog), produces protected offspring.”

In support of their argument, Plaintiffs cite *United States v. Kapp*, 2003 WL 23162408 (N.D. Ill.). There, the defendant was convicted of violating and conspiring to violate the Endangered Species Act. Kapp's conviction was affirmed on appeal in *United States v. Kapp*, 419 F.3d 666 (7th Cir. 2005).⁹ A jury found that Kapp and others shot numerous exotic animals, including tigers and leopards, “while they were helplessly confined, sometimes even posing afterwards for safari-style photographs with the carcasses.” *Id.* at 667-68. Kapp argued on appeal that the government had failed to prove

⁹ While Kapp's conviction was affirmed, the case was remanded for the limited purpose of resentencing in view of *United States v. Booker*, 543 U.S. 220 (2005).

beyond a reasonable doubt that the tigers at issue were not unprotected tiger hybrids, such as ligers. *Id.* at 673.

Before considering the merits of Kapp's arguments, the Seventh Circuit reviewed the “reach” of the ESA. *Id.* at 672. Protected animals are listed in the Code of Federal Regulations by genus, then by species and, if applicable, by subspecies. When an animal is listed as protected at the species level, all subspecies of that animal are also protected. *Id.* at 672. If, however, an animal is listed only at the subspecies level, animals of the same species but different subspecies are not protected unless those subspecies are separately listed. *Id.* The Seventh Circuit noted that neither the ESA nor the regulations refer specifically to hybrids, which are crosses between listed and unlisted animals.

Although the Department of the Interior at one time sought to protect hybrids under the ESA if at least one parent was a member of an endangered species, the Department reversed this position because of the adverse impact the protection of such hybrids would have on efforts to preserve listed species. At all times relevant to Kapp's case, the USFWS enforced the policy, consistent with 50 C.F.R. § 17.11(g), in which hybrids of a listed species and an unlisted species are not protected under the ESA. (internal citation omitted) Similarly, the USFWS policy did not allow for protection of hybrids of animals *listed at the subspecies level* and unlisted subspecies.

Kapp, 419 F.3d at 672 (italics in original). For example, a cross between a Bengal tiger (*Panthera tigris tigris*) and a Siberian tiger (*Panthera tigris altaica*) is protected by the ESA. *Id.* at 675 (“The relevant taxon in this case is *Panthera tigris*, which is the tiger at the species level.”). In other words, because the tigers and leopards at issue in *Kapp* were protected at the species level, all tiger and leopard subspecies are similarly protected. *Id.* at 673. “But crosses between tigers or leopards (including all subspecies) and members of unlisted *species* or subspecies, such as lions, are not protected. Therefore, ligers or

tigons, which are hybrids of tigers (*Panthera tigris*, listed) and lions (*Panthera leo*, not listed) are not protected.” *Id.*

Plaintiffs' argument — if I understand it correctly — is that because wolves (*Canis lupus*) are protected by the ESA, all subspecies of *Canis lupus* would be similarly protected. Offspring resulting from crossbreeding between protected species or subspecies are protected by the ESA. According to the argument, the domesticated dog (*Canis lupus familiaris*) is a subspecies of *Canis lupus* and, therefore, a hybrid wolf/dog is protected by the Endangered Species Act. If a *Canis lupus familiaris* is considered a subspecies of *Canis lupus* for purposes of the ESA, however, then it means a domesticated dog is protected by the ESA. See 50 C.F.R. § 17.11(g).

It boggles the mind to consider the implications of finding that a domesticated dog is protected by the Endangered Species Act. Plaintiffs cite no authority for this extreme position. It can only be concluded that *Canis lupus familiaris* is not a protected subspecies of *Canis lupus*. Because the domesticated dog is not a protected subspecies, it follows that crosses between a wolf and a dog are not protected. *Kapp*, 419 F.3d at 673. If a half wolf/half dog is not protected by the ESA, then its offspring when mated with a purebred wolf is similarly unprotected. The Code of Federal Regulations makes it clear that “[c]rosses between wild animal species and domestic animals, such as dogs and wolves or buffalo and domestic cattle, are considered to be domestic animals.” 9 C.F.R. § 1.1. Accordingly, the Court concludes that hybrid wolves, resulting from crossbreeding of wolves and domesticated dogs, are not protected by the Endangered Species Act and, therefore, fall outside the jurisdiction of the Court in this lawsuit.

VI. RELEVANT FACTS

A. Cricket Hollow Zoo

Defendants Pamela Sellner and Tom Sellner met in high school and were married in 1979. Both Sellners grew up on farms and worked with livestock. After graduating

from high school in 1977, Pam took an artificial insemination course for bovines and then attended a community college studying horse husbandry, but did not finish that course.¹⁰ Pam worked for the Delaware County Dairy Herd Improvement Association for 25 years, retiring in 2001. Tom testified he has worked in construction and farming all of his life, and at the time of trial was working as an ironsmith at a factory. The Sellners have no formal training in zoo administration or accounting.

In 1980, the Sellners purchased a farm and raised about 75 head of dairy cows and 100 head of commercial ewes. The Sellners lost the farm in 1985 during the farm crisis, however, and “started over” at their present farm in 1986. The Sellners maintain a dairy herd, raising their own replacements. According to a recent balance sheet, the Sellners have approximately 90 head of cattle and horses.¹¹ The farm is classified as a Grade A dairy, with the milk suitable for bottling, cheese, butter, or other manufacturing.

The Sellners began keeping “exotic” animals when they acquired an “old ugly llama” in 1986. The Sellners obtained an exhibitor’s license from the USDA in 1992, and also have a state permit to operate the Zoo. Initially, the Sellners had a “mobile zoo,” which included a squirrel monkey, small mammals, and reptiles. When they acquired a cougar, however, it could not be exhibited in a mobile zoo and they established their permanent zoo in July 2002. Cricket Hollow was incorporated in January 2005. The Zoo is adjacent to the dairy farm. Tom Sellner, who is a professional welder, constructed the enclosures.

Pam testified the Zoo has 300-350 birds and animals, including over 20 equines, approximately 60 head of sheep, 25 head of goats, a few Zebu cattle, a deer, a camel,

¹⁰ For convenience, I will refer to the Sellners by their first names. No disrespect is intended.

¹¹ Exhibit 51.

raccoons, woodchucks, ferrets, guinea pigs, porcupines, armadillo, chinchilla, sloth, coati mundi, capybara, cavy, 2 Meishan pigs, 3 pot-bellied pigs, and a skunk. In addition, the Zoo has a cougar, tigers, lions, hybrid wolves, lemurs, bears, coyotes, foxes, bobcat, baboons, and dogs. The Zoo has approximately 30 birds and various reptiles.

Pam has taken care of big cats for over 20 years. She completed a "Basic Husbandry of Wild Felines" course from the Feline Conservation Federation in Ohio in 2005, and talks frequently with "mentors" throughout the country who raise various exotic animals. She holds an "advanced handler registration" from the Feline Conservation Federation. She also reads extensively and researches different animals. Pam is a former member of the Simian Society, having belonged to the group for 25 years.

1. Tigers

The tiger enclosure at Cricket Hollow includes a steel structure covered by a shade cloth. The tigers like to lie in the shade on top of the structure. Another steel enclosure at the back of the cage is the "main house," which can be closed with a guillotine door. The ground cover in the tiger enclosures is pea gravel, which was recommended by the USDA. Pam testified she was told that pea gravel is recommended to use as a substrate because it drains easily. Defendants use a horse stall rake to rake up feces "and the sun and the rain will sanitize it and it's a soft giving surface for cats to walk on."

Defendants have a "land diversion contract" which provides them with a little over a ton of food each week, including produce and fresh vegetables, at minimal cost. Defendants also have a separate contract with a local store that provides food for the animals. Tom picks up the food six days a week, generally on his way home from work. The agreement does not cost Cricket Hollow anything, and saves the store the cost of disposing of the food. The meat is primarily beef, with some pork and chicken. The tigers are also fed whole prey for nutrition and enrichment. Processed meats, like hotdogs, are composted. The food is prepared at a sink in the reptile house and the milk

house. Stainless steel sow feeders are used for food and water in the winter. According to Pam, the sow feeder has never been ripped off or dislodged by a tiger.

In addition to raw meat and other food, Defendants give the big cats supplements produced by Dr. Gary Pusillo. Defendants generally provide a vitamin mineral supplement and calcium for the adult cats, but also use probiotics if a cat has intestinal issues. Cricket Hollow supplements the tigers' diet with Oasis Felidae T and also uses Dr. Pusillo's Primal Cal. None of the cats have shown any signs of brittle bone disease.

Tom Sellner testified that he normally goes through all of the big cat, bear, and wolf enclosures to clean out feces before he goes to work in the morning. Pam generally cleans the enclosures for the other animals. According to Pam, small cages are "spot cleaned" at least every other day, and are "completely cleaned" on a weekly basis.

To address a fly problem, the veterinarian suggested a product called Quickbayt, which Pam testified has "worked extremely well." On the outside pens by the carnivores, Cricket Hollow has flytraps in place and it also uses sticky-type tapes across the ceilings inside buildings. However, fruit which is used to feed the animals constantly attracts fruit flies.

Exhibit 59 shows a water tank in the enclosure used for the white tiger. According to Pam, the tigers love to soak in water when it's a hot day. Their drinking water is supplied, however, by an automatic waterer in the back of the enclosure. It is connected by a "live feed" to a water source and controlled by a float system. As soon as the animal starts drinking out of the water, the float releases more fresh water into the cup "so they always have fresh water 24/7."

For "enrichment," Defendants place bowling balls in the enclosures for the tigers to play with. Pam testified they have been using bowling balls for this purpose since the mid-90s and none of the cats or monkeys have ever hurt themselves on a bowling ball. The tigers also like big heavy cardboard tubes, which Defendants fill with catnip and

essential oils to produce different smells. "Scratch logs" are placed in the tiger enclosures to allow the tigers to sharpen their claws and use them as toys. Pam testified they need to change them out fairly often because the tigers will destroy them. According to Pam, the "newest enrichment" is in the form of some "tiger tables," which stand approximately four feet off the ground and "increases their flexibility because they have to jump up on them."

One of the photographs shows a chain link fence that was bent in, separating two big cat cages. Pam testified they placed the 6-by-6 kennel panel between the cages over the top of the existing fence "just so that the neighboring cat didn't put its hands through there." When USDA inspectors expressed concern that an animal could get hurt on it, Defendants took it out. It was not an exterior fence and, according to Pam, would not allow any animal to get in or out of the enclosure.

Pam testified that Defendants have been successful in saving tiger cubs when they wouldn't nurse. When Sheba had cubs, she would push the cubs away with her feet so they didn't have a chance to get colostrum. Gary Pusillo, an animal nutritionist who testified at trial, provided Defendants with a colostrum supplement and they successfully raised Miraj, their first cub, and other cubs using the colostrum supplement.

The oldest tigers at Cricket Hollow were a breeding pair called Sherkhan and Sheba. They died in 2014 and 2012, respectively, apparently of old age. Both were approximately 20 years old. According to Pam, neither of them was sick or suffering from illness at the time of their death.

In June 2013, it was noticed that Raoul, a young tiger, started having labored breathing. Pam called the veterinarian, who suggested "a bag of different kinds of drugs and things to use on him." Pam drove to Elkader, retrieved the medicine, and immediately gave it to Raoul. Raoul died 12 days later, but his brother, Rajahn, continues

to reside at the Zoo. Pam denied ever failing to treat an animal or calling a veterinarian because of cost concerns.

Casper, a white male tiger approximately 10 years old, was acquired by Cricket Hollow from northern Wisconsin in July 2014. After being transported five hours to Cricket Hollow, he had some scrapes on his face and legs as a result of turning in the transport cage. The veterinarian said that the wounds would "probably abscess out in time and that he would be fine." He was kept separately in a "buddy cage" and, according to Pamela, seemed to be "coming around pretty good." However, Casper acquired pneumonia in 2014 when the weather changed in November and died.

According to Pamela, a big cat will sleep up to 20 hours a day and, if they are in the wild, will hunt in the coolest part of the day to conserve energy. Pam testified it's "disappointing to zoo visitors to see them just lying about, but that's their natural behavior." Pamela testified that the tigers "walk around," but denied that they "paced the fence" or display any other neurotic behavior.

2. *Lemurs*

At the time of trial, Cricket Hollow housed two ring-tailed lemurs (Chuki and Zaboo) in a single enclosure, and a red ruffed lemur (Lucy) next door. Lucy was hand raised by another family and came to Cricket Hollow at age 9. She is now 15 years old. Pam testified that Lucy has bonded with her and "likes to be loved and groomed." According to Pam, "she likes her armpits rubbed and she comes up and begs for that." The ring-tailed lemurs will take food from Pam's hands, but they were not "hand raised" and generally play by themselves.

The lemur enclosure consists of an exterior space and an interior space, located in an area in the back of the reptile house which is off limits to the public. Tom Sellner testified that the interior portion of the cage is 5' x 5', and the exterior portion is 5' x 11'. On the inside there is a solid barrier between the lemur enclosures, but on the outside there

is a fence with one-inch wire so the lemurs can see and hear each other. Pam testified that “we tried to get them to go together, but we found them to be incompatible.” The two female lemurs “are kind of bossy, it didn't work out so well, so we do have to house them separately.” During the winter time, the lemurs are kept indoors, but during the summer they have the choice of going inside or outside.

The inside portion of the lemur enclosures is in the “reptile house,” but there is a solid wall which prohibits the lemurs from seeing any of the reptiles. According to Pam, the lemurs have never exhibited any type of “fear reaction” when they go inside the building. “They're usually there to greet you and receive food or treats or toys.”

Lucy, the red ruffed lemur, has a swing in her enclosure for enrichment. The backs of the outdoor enclosures go up almost ten feet and there are shelves on the back wall and a big dead tree, which allows the lemurs to climb on and play. The lemur enclosure faces west and the lemurs like to sit on the shelves when the sun comes around in the afternoon and “sit like little Buddhas in the sun.” Defendants also place toys in the enclosures, including baseballs and a Sesame Street toy which makes noises. There are PVC tubes on chains inside the cages, and sometimes Defendants will put peanut butter inside of those and then sprinkle different kinds of nuts and seeds in the tube, which the lemurs approach as “kind of like a puzzle.” According to Pam, the lemurs “put their hands in and it adds enrichment and things to busy them.”

The lemurs eat monkey biscuits. Defendants generally use New World monkey biscuits because they are higher in protein and it's easier for them to handle. The lemurs also get fresh fruit and vegetables every day. The lemurs love everything from romaine lettuce to cut-up apples and carrots. According to Pam, “they really love greens, which would be the same basically as the lemurs picking leaves off the trees.”

Cricket Hollow has a veterinarian who conducts a “walkthrough visit” at least annually. He visits each animal, and Pam usually has a list of questions written down

regarding concerns or other things that she wants to review. If the veterinarian from Elkader can't answer a question, Pam has consulted several times with Amy Kamholz, a veterinarian with Covance Primate Research Lab at the University of Wisconsin in Madison. Four lemurs have been born at Cricket Hollow. Two of them, a set of twins, died. The other two went to Waterloo and Fort Dodge. They would be approximately ages 6 and 3.

B. Plaintiffs' Site Visits

1. Tracey Kuehl

Plaintiff Tracey Kuehl first visited the Cricket Hollow Zoo on June 23, 2012. She was immediately struck by a “stinky” odor, unlike the six or seven other zoos which she has visited during her lifetime. Tracey grew up on a hog farm and acknowledged they “can be pretty smelly too,” but testified that “this was significantly more than what I had experienced growing up on a hog farm.” Tracey paid Pam Sellner the \$5.00 admission fee to get in, and then went on a self-guided tour which lasted for an hour or an hour and fifteen minutes. She walked passed the lemur cage, but did not see any lemurs on that visit. According to Tracey, the cage was “pretty sparse,” with a log at an angle in the cage which the lemur could crawl on. Tracey had previously observed lemurs at larger zoos (Zoo Atlanta and Brookfield Zoo), and was surprised by the small enclosure and sparse conditions.

Also on that visit, Tracey observed a white tiger in a small enclosure with a quonset hut-type metal house and a log to sit on. Tracey testified, and a photograph taken by Tracey seems to confirm, that there was tiger excrement scattered throughout the enclosure.¹² Tracey testified it was “pretty neat” to see a white tiger, but she was sad and disappointed in the conditions under which the tiger was living. Tracey also observed

¹² Exhibit 61 at 6.

teenagers taunting a lion, which upset her because there were no zoo staff or volunteers in the area. In her letter to the Iowa Department of Agriculture (Exhibit 62), sent two days later, Tracey describes in detail the conditions which she found at the Zoo.

Tracey returned to Cricket Hollow about two weeks later, on July 6, 2012. It was a very hot day, close to 100 degrees. According to Tracey, she observed a large container of water which was “stagnant looking” and “kind of scummy looking.” A small dead animal, perhaps a rat or a bird, can be seen floating in the water.¹³

Tracey testified the tiger enclosures were in the same condition as she had seen two weeks earlier; namely sparse with “a lot of tiger feces in them.” In Exhibit 61 at 9-10, tigers can be seen in the enclosures, sitting in the shade. It did not appear to Tracey that the tigers were provided with any enrichment activities. When Tracey returned to her home (an hour and twenty minute drive from the Zoo), she wrote another letter to the Iowa Department of Agriculture.¹⁴

Tracey did not return to Cricket Hollow until nearly one year later, on June 23, 2013. According to Tracey, she “saw the same thing that I had seen 12 and 14 months earlier.” Tracey documented problems which she perceived at the Zoo, including issues with the camel enclosure and piles of feces in the wolf enclosure. It also appeared to Tracey that the wolves ears were “fly bitten and crusty and injured.” Following the June visit, Tracey sent a letter to USDA-APHIS.¹⁵

2. Lisa Kuehl

Plaintiff Lisa Kuehl first visited Cricket Hollow on June 21, 2012, accompanied by three other self-described “advocates,” including Plaintiffs Kris Bell and Nancy Harvey.

¹³ Exhibit 61 at 8.

¹⁴ Exhibit 62 at 8-14.

¹⁵ Exhibit 62 at 15-17.

Lisa admitted that she had “preconceived notions” of what the Zoo would be like from reading USDA inspection reports, but testified that “I hoped that I didn't find it.”¹⁶ Lisa testified that “the first thing that hit me was the smell of the facility.” Lisa opined that the odor “was very uncommon to agricultural smells or certainly not the kind of odor you expect when you go to a public tourist attraction.” Lisa attributed the smell to rotting food or feces. Photographs taken by Lisa during the visit were introduced as Exhibit 59.

According to Lisa, there was no vegetation within the tiger enclosures and “nothing for the animal to interact with that I could see.” Lisa opined that the white tiger shown on Exhibit 59 at page 7 appears “bored.” Lisa observed the tigers for “maybe ten minutes.” According to Lisa, the tiger enclosures were “really void of any enrichment.” Lisa walked passed the lemur enclosures, but the roof of the enclosure was creating a very dark shadow and, therefore, she wasn't able to get a good view of the animals. Lisa and the others left the Zoo after a couple of hours.

Lisa returned to Cricket Hollow in July 2012. Lisa testified there were no changes in the tiger enclosures from her earlier visits. According to Lisa, the enclosures were dirty, void of any significant enrichment, and “just very unpleasant conditions for these kinds of animals.”

Lisa visited the Zoo a third time on July 13, 2013, accompanied by Plaintiff John Braumann. Lisa knew Braumann through “mutual animal advocacy efforts.” Lisa took photographs to document what she believed was an ongoing problem of excessive feces and lack of enrichment in the tiger enclosures. One of the photographs shows a pile of

¹⁶ On May 22, 2012, *prior* to visiting the Zoo, Lisa sent the Delaware County Sheriff a letter describing violations documented in the USDA inspection reports, and asking that he conduct a “welfare check” on the animals. Exhibit 60 at 7-8.

what “looks like larger white rocks,” and is apparently old tiger feces.¹⁷ Lisa did not return to the Zoo after July 2013.

3. *Nancy Harvey*

Nancy Harvey testified she has visited the Blank Park Zoo in Des Moines, the Brookfield Zoo in Chicago, and the Miller Park Zoo in Bloomington, Illinois. Harvey admitted on cross-examination that she does not have a background in zoology, and has never volunteered at a zoo. Harvey conceded that “personally, I don't believe in zoos.” Harvey became familiar with the Cricket Hollow Zoo when she was shown aerial photographs taken by Plaintiff Lisa Kuehl. Harvey first visited Cricket Hollow, together with Lisa Kuehl and Kris Bell, on June 21, 2012.

Harvey testified at trial regarding the conditions which she found at the Zoo. Among other things, Harvey described an excessive amount of feces at the bottom of the bird cages. Harvey noticed that a cockatoo had no water, and she asked Pam Sellner if she could water the bird. Sellner then went in and gave the bird water. In an enclosure holding two domestic dogs, Harvey noticed the water tank contained only “algae, nasty water.” Harvey asked Sellner if she could please water the dogs. Sellner initially told Harvey she would do that later, indicating she needed to scrub the tank first. At Harvey's insistence, however, Sellner and Harvey carried a bucket of water to the dog enclosure. Harvey also noticed that the water was apparently leaking out of the water tank for the Scottish Highlander cattle. Harvey told Sellner that it appeared the Highlanders had no water in their tank. Harvey testified Sellner watered the animals which Harvey specifically brought to her attention, but did not check the water for the other animals as she walked by them.

¹⁷ Exhibit 59 at 13-14.

According to Harvey, she witnessed a lion vomiting and “just shut down. I couldn't really look at any of the other animals.” Harvey admitted that she did not pay any particular attention to the tigers or lemurs that day. Harvey left the Zoo and never returned.

4. *John Braumann*

Plaintiff John Braumann visited the Cricket Hollow Zoo on two occasions: October 13, 2012 and July 13, 2013. Braumann is active in groups advocating for animals, but is not a member of the ALDF. He has no experience in animal husbandry, other than caring for a house cat. His exposure to captive wildlife is limited to visits at two zoos and watching animal shows on TV. Braumann learned of Cricket Hollow when he was told about it by a Facebook friend.

Braumann's first impression when he visited the Zoo on October 13, 2012, was that “it struck me as a farm and not a zoo.” Early in his visit, Braumann noticed that the water bottle for the ferrets was empty. According to Braumann, a lot of the watering receptacles and food dishes had a lot of debris and did not appear to have been cleaned in “quite some time.”

Braumann observed the lemurs for three or four minutes. One of the lemurs moved its tail, but “that was about it.” Braumann also observed a tiger and took a photograph. According to Braumann, the tiger enclosure contained an accumulation of feces (“probably eight to ten piles”). The only enrichment activity which Braumann observed in the tiger enclosure was a bowling ball. In another tiger enclosure, Braumann observed a log.

Braumann returned to the Zoo on July 13, 2013, with Plaintiff Lisa Kuehl. According to Braumann, “nothing had really changed,” and there was an accumulation of feces in the tiger enclosures. Photographs taken by Braumann, showing what appears to be fresh and dried feces, were introduced as Exhibit 63 at 7-8. One of the tigers was being housed in a round corn crib, which Braumann had not noticed the previous year.

C. USDA Inspections

The Cricket Hollow Zoo is inspected regularly by the United States Department of Agriculture, Animal and Plant Health Inspection Service (“USDA-APHIS”). Pam Sellner admitted she has “locked horns” with the USDA inspectors on many occasions. According to Sellner, the inspectors were “nitpicky and obsessive compulsive about cleaning and sanitation” at times. Sellner objected specifically to Heather Cole, D.V.M., a USDA veterinary medical officer, because she “had no experience in the real world.”

In an email dated November 8, 2006, Robert M. Gibbens, D.V.M., Director of the Western Region of USDA-APHIS, referred to eight USDA inspections between December 21, 2005 and June 27, 2006, and concluded that “[w]hile the violations are not grave in nature, it is clear that there is a chronic management problem at the facility, and, for whatever reason, the Sellners either do not understand the regulations, are not willing to comply, or are not able to comply.”¹⁸ On December 20, 2006, the Sellners entered into a settlement agreement with the USDA, agreeing to a financial penalty of \$4,035. Among other things, the Sellners were cited for failing to remove excessive accumulation of animal waste and failing to provide “wholesome, palatable, and free from contamination animal feed.”¹⁹ Neither the tigers nor the lemurs were mentioned specifically.

On July 29, 2010, Cynthia M. Neis, an animal care inspector with USDA-APHIS, inspected the Cricket Hollow Zoo, and reported Defendants' failure to provide adequate care for the rabbits; failure to provide adequate shelter and clean and sanitary water for the dogs; failure to provide adequate shelter for capybara, deer, and woodchucks; inadequate food for the sheep; excessive algae in the water for the capybara, skunks, serval, and caracal; and excessive excreta in the llama and lion enclosures. Importantly, as it relates

¹⁸ Exhibit 2.

¹⁹ Exhibit 3.

to this litigation, Neis found “[t]here is accumulation of water in the tiger enclosure. The water is accumulating along the fence line where the tanks used as pools are located. The water has been accumulating long enough that it has become green with algae.”²⁰

On November 22, 2010, Neis conducted an additional inspection. She reported a failure to provide veterinary care for an alpine goat and toggenburg goat; the lions’ den and camel enclosure in disrepair; the roof of the bear enclosure and coyote enclosure in disrepair; inadequate shelter for the sheep and two yearling bear cubs; and inadequate perimeter fencing.²¹ Neis also reported that “[i]mmediately to the east of the lion, leopard, tiger, and bear enclosures are piles of waste that have been removed from the enclosures in the course of the prior week.”

On February 16, 2011, following a routine inspection, Neis reported that a baby baboon had escaped from her enclosure and was found running at large within the primate building. Neis also reported an excessive accumulation of animal waste in the primate building.²²

On August 16, 2011, Neis found that a 3-year-old baboon was not receiving proper care; the goats had excessively long hooves; there was inadequate shelter for sheepdogs; the rabbit boxes were in disrepair with an excessive accumulation of animal waste; there were open boxes of fruit and produce being stored in the reptile house, with “excessive flies and fruit flies hovering over the foodstuffs”; and the monkey enclosure had an excessive build-up of animal waste. There was also an excessive presence of algae in the water provided to the cavy, the capybara, and the bobcat; with an excessive presence of animal waste in the bear, llama, kinkajou, porcupine, and armadillo enclosures.

²⁰ Exhibit 4.

²¹ Exhibit 5.

²² Exhibit 6.

According to Neis' report, the interior enclosure for the ring-tailed lemur did not have adequate lighting and did not "facilitate good husbandry practices nor provide lighting sufficient for Chuki's well-being." Neis also reported "an excessive presence of waste on the perch in the Red Ruffed Lemur's enclosure (mammal room of the reptile house). This comes into contact with the lemur when it is on the perch."²³

On December 8, 2011, Neis inspected the Zoo again. According to her report, Neis found goats with excessively long hooves; inadequate enclosure for the dogs; inadequate watering for the dogs; the rabbit enclosure had an excessive accumulation of animal waste; and the food was not properly stored. Neis also concluded that the two enclosures housing tigers did not have tops or adequate kick-ins, and were not sufficient to contain the tigers. Furthermore, "[t]he enclosure housing Sasha and Keiharan (tigers) and the enclosure housing Jonwah and Kamarah (lions) have an excessive accumulation of animal waste." Neis noted that because the owners have outside work obligations and no additional employees, "the work load continues to exceed the staffing level."²⁴

Additional inspections were conducted on January 3, May 16, and June 29, 2012. *See* Exhibits 10, 12, and 13. The first visit was a "focused inspection" to determine whether the dog watering problem identified in the December 8 inspection had been corrected. The noncompliant item had been corrected. On May 16, it was noted that two uncovered garbage receptacles in the educational center had been there for at least two days, resulting in excessive presence of gnat-like insects and flies in the area. On June 29, John J. Lies, an animal care inspector with USDA-APHIS, reported improper husbandry practices in the nonhuman primate building, including food that was not properly stored.

²³ Exhibit 7.

²⁴ Exhibit 8.

On August 20, 2012, Neis conducted an inspection and reported that “[t]here is approximately two weeks of animal waste collected in one spot under the branch in the outdoor run of the ring-tailed lemur enclosure.”²⁵ Neis reported that “[t]he facility has greatly improved its fly control program. However, there is an excessive presence of flies in and around the bear enclosure.” The report also noted a build-up of animal waste in the bear enclosure.

On October 25, 2012, the USDA sent a “Report of Investigation” to the Sellners, referring to the inspections on “08/16/11, 12/0811, 05/1612, and 07/2912 [*sic*].”²⁶ The report summarized the various deficiencies identified in the inspection reports.²⁷ (The photographs and other attachments to the report were not made a part of the trial exhibit.)

On November 26, 2012, the Zoo was inspected by Heather Cole, D.V.M., a veterinary medical officer with USDA-APHIS. Dr. Cole found a build-up of algae in the water bottles in the two enclosures in the education center; and a build-up of feces and urine-soaked bedding in the capybara enclosure, the porcupine enclosure, the enclosure housing two foxes, and the shelter for the Meishan pigs.²⁸ Dr. Cole also reported “[t]here are cobwebs within the enclosures [housing the lemurs and capuchin] and the majority of the enclosure walls and objects (perches, branches, shelters) within the enclosures have a build-up of dark brown/black grime.” Dr. Cole also reported that “[t]here is a large accumulation of feces within two of the tiger enclosures and two of the lion enclosures.

²⁵ Exhibit 14.

²⁶ There was no inspection on July 29, 2012. Presumably, the reference is to the inspection on June 29, 2012.

²⁷ Exhibit 15.

²⁸ Exhibit 16.

There are large piles of feces in the corners and smaller piles scattered throughout each enclosure.”

On February 13, 2013, Dr. Cole inspected the Zoo and found an excess of excreta in various enclosures.²⁹ On April 29, 2013, the USDA and the Sellners entered into a “settlement agreement,” where Defendants agreed to pay a civil penalty of \$6,857.³⁰ An attachment to the settlement agreement describes the various violations noted during inspections between August 16, 2011 and February 13, 2013, including the failure to provide water and keep the enclosures free of excessive excreta.

On June 12, 2013, the Zoo was inspected by Natalie Cooper, D.V.M., a veterinary medical officer with USDA-APHIS. Dr. Cooper found a capuchin monkey in need of veterinary care; the water receptacle for the dogs contained a build-up of green material; the refrigerator in the reptile house was contaminated with insects; the baboon enclosure was not structurally sound; the sheep and deer enclosure was in disrepair; and the cattle were standing in mud in certain areas.³¹ Also, the water receptacle in the goat and sheep enclosure contained a build-up of green material; the chinchillas showed a lack of appropriate animal husbandry; and the armadillo and sloth enclosures contained a large number of flies.

On July 31, 2013, the Zoo was inspected by Jeffrey Baker, D.V.M., a veterinary medical officer with USDA-APHIS. Dr. Baker found feces in the food receptacle in the guinea pig enclosure; rodent feces on top of the refrigerator; and an excessive number of

²⁹ Exhibit 17.

³⁰ Exhibit 18,

³¹ Exhibit 19.

flies and other flying insects.³² Cynthia, the capuchin monkey, was biting at her tail and other body parts, and had other areas of hair loss suggestive of hair plucking. There was an excessive accumulation of feces on the floor of Obi, a nonhuman primate, and in the bear and capybara enclosures. According to Dr. Baker, in the storage area inside the lemur and coati building, there were rodent feces on the floor and on top of the refrigerator.

Defendants appealed the three citations contained in the June 12, 2013 inspection report. On August 29, 2013, Robert M. Gibbens, D.V.M., Director of the Western Region of USDA-APHIS, replied to Defendants' appeal. Among other things, Dr. Gibbens wrote:

With regard to your question "how good is good enough": the standards of the Animal Welfare Act do not represent or create an expectation of perfection; they are considered to be the minimum standards that must be met by regulated facilities in order to be in compliance. Most regulated facilities exceed those standards, but that is not required. However, full compliance with the minimum standards is required and expected.

Letter from Robert M. Gibbens to Pamela Sellner, dated August 29, 2013 (Plaintiffs' Exhibit 21) at 2.

On September 25, 2013, Dr. Cole conducted an inspection at the Zoo. Among other things, Dr. Cole found a build-up of food waste and/or animal waste on the floor of the red ruffed lemur. Dr. Cole also found a large amount of dust, dirt, debris, and/or cob webs within the reptile house, where the lemurs were located. Dr. Cole also reported alleged defects in facilities, feeding, watering, and sanitation for the animals. There were

³² Exhibit 20.

111 photographs attached to the September 25, 2013 inspection report, documenting problems found on that date.³³

On December 16, 2013, Dr. Cole returned for another inspection. Dr. Cole reported that “[t]he fence between the enclosures housing two tigers and two cougars all have places where the fence is curled up at the bottom.”³⁴ Twenty-four photographs were attached to the December 16, 2013 inspection report.

On May 21, 2014, Dr. Cole arrived at Cricket Hollow at 9:00 a.m. to conduct an inspection. Pam Sellner testified she believes this was “patently unfair” because she had “just gotten done at my dairy and I was just walking out the door when I saw their car in the yard, so I had not started any chores yet.” In addition, it was a particularly difficult week for Cricket Hollow — Sellner had characterized it as “hell week” in the past — because they were preparing to open the Zoo for the season during the following week. Dr. Cole's report following the May 21 inspection was introduced as Exhibit 26.

Among other things, Dr. Cole found a female coyote, a coati mundi, and a capybara in need of veterinary attention. Dr. Cole ordered that the animals be examined by a licensed veterinarian within two days. There was an excessive amount of dust, dirt, and/or debris on the floor surrounding the enclosures in the reptile house where the lemurs were located. Sellner testified she had been cleaning in that area until 11:00 the previous evening and had not finished picking up. According to Sellner, it was a “one-time thing.” Also, there was brown to black grime and cobwebs on the walls within the lemur enclosures. The report notes an excessive number of flies in one of the outdoor tiger enclosures. The report also cites a build-up of food waste and/or animal waste within the enclosure of various animals, including the five tigers. The nine-page inspection report

³³ Exhibit 22.

³⁴ Exhibit 23.

also cites violations for inadequate watering, sanitation, housing, and facilities. In a follow-up inspection conducted on May 28, 2014, Dr. Cole found the non-compliant items had been corrected.³⁵

On June 2, 2014, Sellner sent a letter to the USDA, appealing the findings in the May 12 and May 21 inspection reports.³⁶ In her detailed 17-page letter, Pamela contested many of Dr. Cole's findings. According to Sellner, it was "obvious that they were on a witch hunt."³⁷

Apparently, Sellner advised the USDA that there were other regulated facilities that were not in compliance with the Animal Welfare Act Regulations and Standards. Tanya Tims, D.V.M., Supervisory Veterinary Medical Officer with USDA-APHIS, responded that USDA-APHIS would investigate those allegations if Sellner provided specific information regarding the names and locations of those facilities. The USDA rejected Sellner's request that a new inspector be assigned to Cricket Hollow, finding that Dr. Cole "is a professional of the highest caliber and conducts herself as such."³⁸

On August 5, 2014, Cricket Hollow was inspected by Margaret Shaver, D.V.M., a veterinary medical officer with the USDA. According to her inspection report, Dr. Shaver found a build-up of feces and food waste on the floor of the wolf hybrid

³⁵ Exhibit 27.

³⁶ According to the USDA's response, dated June 23, 2014, inspectors were present at the Zoo on May 12, 2014 and attempted to conduct an inspection, but were apparently not allowed to do so because of thunder and lightning in the area. The inspectors reported, however, that there was no thunder or lightning in the area at the time they attempted to conduct the inspection. *See* Plaintiffs' Exhibit 73.

³⁷ Exhibit B.

³⁸ Exhibit 73.

enclosure, attracting flies.³⁹ Dr. Shaver found other violations, including a build-up of wet and dirty bedding materials within the enclosure housing two rhesus macaques. When the animals shook the bars of the cage, bugs were observed crawling out from the wet bedding. An excessive number of flies were also observed flying near the lemur enclosures. Several of the enclosures throughout the facility were in need of repair. Large areas of standing water were found within various enclosures, with one large pool of water having a layer of slime. A build-up of food waste and/or animal waste was observed within several enclosures including, two tigers.

On October 7, 2014, Dr. Shaver returned for another inspection. According to her report, Dr. Shaver found a “male, white tiger named 'Casper' (date of birth 6/04) with an open wound on the inside of the left front leg that is about two inches by three inches in size.⁴⁰ The skin around the wound is red and swollen and the skin is pulled back exposing red tissue in two places.” The tiger, which was acquired by Cricket Hollow on July 10, 2014, was described by Dr. Shaver as “moderately thin . . . with mildly protruding hip bones and vertebrae.” Pamela told Dr. Shaver that Casper was thin and had cuts and sores on his face and legs when he arrived at the Zoo. A veterinarian evaluated the tiger on August 25, 2014, but did not prescribe any treatment. A deworming medication was prescribed on September 14, 2014, because of the tiger's thin body condition. The tiger did not gain weight as expected after the deworming medication was given, but had not been seen by a veterinarian since the initial exam in August. Dr. Shaver ordered the animal to be examined by a licensed veterinarian within two days. Dr. Cole returned to

³⁹ Exhibit 28.

⁴⁰ Exhibit 29.

the Zoo on November 6, 2014, and reported that the “non-compliant item” found on the October 7 visit had been corrected.⁴¹

On March 4, 2015, Dr. Cole returned for another inspection.⁴² Dr. Cole reported sanitation issues in the vervet enclosure and the degus enclosure.⁴³

On May 27, 2015, Dr. Cole returned for another inspection. In her report, she noted that the ceiling in the reptile room where the two ring-tail lemurs and one red ruff lemur were housed, was made of porous, uneven-surfaced, white tiles.⁴⁴ The crevices in the tiles were “blackened.” The tiles were not inside the lemur enclosures, but were “directly outside the enclosures and in very close proximity to the nonhuman primates.” Dr. Cole also observed a general lack of cleaning in the reptile house and the education building. According to Dr. Cole, “there was a strong, foul odor of fecal waste and ammonia in the ‘education building,’” housing two bush babies. Dr. Cole reported a male juvenile baboon (“Obi”) was exhibiting “abnormal behaviors associated with psychological distress.” Pamela told Dr. Cole that Obi had not received “any special attention or enrichment due to the abnormal behaviors.” There was an excessive number of live and dead flies in the primate building housing two macaques and four baboons. Multiple enclosures throughout the facility “were severely muddy with large areas of standing water.” One of the bear enclosures had a build-up of old and fresh feces in it. Other enclosures also had an excessive accumulation of feces, and maggots were observed in the

⁴¹ Exhibit 30.

⁴² An inspection was attempted on February 19, 2015, but “a responsible adult was not available to accompany APHIS Officials during the inspection process.” Exhibit 31.

⁴³ Exhibit 32.

⁴⁴ Exhibit 33.

kinkajou waste. Rodent droppings were present in the food storage area for the chinchillas and foxes.

On June 10, 2015, Kevin Shea, an administrator with USDA-APHIS, notified Defendants that their license under the Animal Welfare Act was suspended for a period of 21 days. According to the letter, the license was suspended for three reasons:

[Y]ou failed to (1) provide special attention regarding the environmental enhancement needs of a nonhuman primate who was exhibiting signs of psychological distress; (2) provide a suitable method to rapidly eliminate standing water from multiple enclosures; and (3) remove excreta from multiple animal enclosures as often as required.

Letter from Kevin Shea to Pamela and Tom Sellner, dated June 10, 2015. (Exhibit 34)

On June 15, 2015, Corbin Ranslem, an animal care inspector with USDA-APHIS, attempted an inspection but “a responsible adult was not available to accompany APHIS Officials” during the three times when he was at the Zoo that day.⁴⁵ On June 24, 2015, Dr. Cole attempted to conduct an inspection, but again there was no responsible adult available at that time.⁴⁶

On July 7, 2015, Dr. Cole conducted another inspection at the Zoo. Among other things, Dr. Cole noted that there were an excessive number of flies in the back of the reptile house where the lemurs were housed.⁴⁷

⁴⁵ Exhibit 35.

⁴⁶ Exhibit 36.

⁴⁷ The inspection report was apparently provided to Pamela Sellner prior to the trial, but was not produced to the Plaintiffs until after the trial. The Court granted Plaintiffs' request to submit the report following the trial, and it can be found at docket number 79-1.

On September 22, 2015, Dr. Cole conducted another inspection at Cricket Hollow. This was apparently the last inspection conducted prior to the trial in this case.⁴⁸ Dr. Cole found an excessive number of fruit flies in the back of the reptile house, where the lemurs are housed. The report also cites excessive flies in other locations throughout the Zoo.

D. Plaintiffs' Expert Witnesses

1. Peter Klopfer, Ph.D.

Peter Klopfer, Ph.D., testified as an expert in the behavior and care of lemurs. Dr. Klopfer is a professor emeritus and research scientist at the Duke Lemur Center. He holds a Ph.D. from Yale, is a member of numerous professional societies and organizations, and has received several professional awards. Dr. Klopfer has published well over 100 articles during his professional career and “quite a few books.” He has taught and conducted lemur research at Duke University for over 50 years.

The Duke Lemur Center will celebrate its 50th year in September 2016. Currently, it houses 225 lemurs, but at one point it housed up to 800 lemurs. Dr. Klopfer testified that the cost of maintaining that many animals was more than they could meet. The Duke Lemur Center estimates it needs \$4,000-\$5,000 per animal per year to house the lemurs.

Lemurs are only found in the wild in Madagascar. With the exception of a 10-year interval in the 1970s when Americans couldn't get a visa from the Communist government running Madagascar, Dr. Klopfer has returned to Madagascar “pretty much every year.”

Dr. Klopfer testified that “lemurs live in a somewhat different sensory world than we do.” Like humans, they are “quite visual,” but they also have “a much greater sensitivity to olfactory stimuli than we do.” Various scent glands will produce unique

⁴⁸ The inspection report was apparently provided to Pamela Sellner prior to the trial, but was not produced to the Plaintiffs until after the trial. The Court granted Plaintiffs' request to submit the report following the trial, and it can be found at docket number 82-1.

scents which the animal uses for communication. According to Dr. Klopfer, “a host of things that you and I in an exchange would convey verbally or in writing, these animals convey olfactorily.” A caged lemur may have their environment distorted by the absence of these kinds of communicative signals.

Dr. Klopfer described lemurs as “highly developed animals” which are genetically almost as closely related to humans as are chimpanzees. “They are very highly sentient; advanced cognitive abilities.” They are also a very social species. Some lemurs are solitary, but ruffed lemurs and ring-tailed lemurs — the ones housed at Cricket Hollow — “never live alone.” The ring-tailed lemurs generally live in groups 8 to 20. Ruffed lemurs live in slightly smaller groups, but always in groups. According to Dr. Klopfer, “a single companion just doesn't cut it.” “Isolation for them is an extremely harmful proceeding.” Studies have shown that when lemurs are isolated, they exhibit behavioral abnormalities and physiological changes, including an increase in steroid levels, a distortion of the normal electroencephalograph recordings (EEG), and an elevation of heart rates and blood pressure. Dr. Klopfer testified that lemurs living in isolation are “permanently stressed.”

As part of his duties, Dr. Klopfer sits on the Institutional Animal Care and Use Committee at Duke University. The Committee meets monthly to discuss the conditions of housing, care, and other details associated with animals kept at the University. Each member of the Committee is expected to take part in laboratory inspections four times a year. As part of his involvement in the Committee, Dr. Klopfer is familiar with the Animal Welfare Act and related regulations.

Dr. Klopfer testified there is a consensus as to what constitutes acceptable animal husbandry as it applies to lemurs. There is a book on the care of prosimians, which summarizes the view of specialists as to what is “adequate care,” but the chapter on ruffed lemurs is “still being written.” According to Dr. Klopfer, however, he knows the

principal authors of those chapters and “there's no disagreement among them as to what constitutes appropriate care.”

Between October 2006 and July 2011, five lemurs died at the Cricket Hollow Zoo. In October 2006, two 7-month-old lemurs (Maddy and Gaz) died after being born at Cricket Hollow. One of the animals was sent to the College of Veterinary Medicine at Iowa State University for a necropsy. It was determined that the animal died from encephalitis. Dr. Klopfer was critical of the necropsy, however, because it did not include a serological analysis to differentiate between the various kinds of encephalitis. Dr. Klopfer explained that there are different forms of encephalitis, including bacterial, viral, and parasitic. The parasitic and bacterial forms are treatable, but without a necropsy there is no way of knowing whether the animal died from that cause. According to Dr. Klopfer, by not obtaining that information, it would be “impossible to know whether or not there was any form of treatment possible” for the surviving lemurs.

Two lemurs (Tootsie and Cheech) died in November 2009 and 2010, respectively. According to Defendants, the animals died of “old age,” although no data was provided regarding the age of the animals or when they were acquired by Cricket Hollow. Dr. Klopfer testified that when lemurs die of old age at the Duke Lemur Center, they are generally in their late 20s.

Kondo, a 10-year-old lemur, died at the Zoo in July 2011. Kondo was acquired by Cricket Hollow less than one year prior to his death. The cause of death is described as “unknown,” and no necropsy was performed. Dr. Klopfer acknowledged that the death of an animal doesn't necessarily mean improper care, but a necropsy would have been important as a way of assuring that there was no infectious disease that might be transmitted to other animals.

Dr. Klopfer would not speculate on the cause of death of the deceased lemurs, but opined that the conditions under which the living animals are being kept are harmful to

them. According to Dr. Klopfer, even if the remaining lemurs survive, “they are living miserable lives.” Dr. Klopfer explained that lemurs have a very high level of cognitive ability, they can express and display emotions, and keeping them in a small cage without the opportunity to socialize with other lemurs causes them to suffer. Dr. Klopfer opined that housing lemurs in individual cages is “unacceptable.”

One of the ring tailed lemurs, Chuki, lived alone for a period of 3-1/2 years before it was joined by another lemur, Zaboo. Lucy, the red ruffed lemur, has lived alone since she arrived at Cricket Hollow in April 2009. Dr. Klopfer testified he would have to examine the animals to determine the effects of living in near isolation, but he would expect them to show “pathologies” of various sorts. Dr. Klopfer acknowledged that there are some types of lemurs that are solitary and could be “quite easily accommodated in a zoo in simple single cages,” but that does not apply to ring tailed lemurs and ruffed lemurs. Those types of lemurs need to live in a “social group.” According to Dr. Klopfer, the psychological needs of the lemurs at Cricket Hollow are not being met because they are deprived of their peers.

According to Dr. Klopfer, environmental enrichment can mitigate, but not overcome, the effects of isolation. Dr. Klopfer testified, however, that Cricket Hollow does not have an appropriate enrichment program. Dr. Klopfer did not visit the Zoo, but described the photographs as showing “a barren looking cage with an unhappy looking lemur.” According to Dr. Klopfer, the “hunched posture” shown on Exhibit 63 at 3 shows a “depressed” lemur. Dr. Klopfer opined that “this animal is probably in a near catatonic state; probably has a very high heart rate; undoubtedly has elevated noradrenaline levels and probably is relatively insensitive at this moment to acoustic stimuli, which is pathological for these animals.” Dr. Klopfer then admitted, however, that his opinion is “in part, speculative, of course.”

After reviewing photographs, Dr. Klopfer testified the lemur cages would not permit the lemurs to engage in normal activities. The red ruffed lemur spends about 80 to 90 percent of its day high in the crowns of trees. However, a small cage that doesn't have much height is not as detrimental to a ringed tail lemur, which spends about a third of its time on the ground. The presence of feces and cobwebs in the enclosures interfere with the lemurs' olfactory senses, to which they are "highly attuned." According to Dr. Klopfer, "daily cleaning is de rigueur in the case of captive animals." Dr. Klopfer analogized lemurs having a smelly environment to humans being in a room where there is "constantly white noise being amplified." Dr. Klopfer testified the lemur enclosures at Cricket Hollow "totally precludes the normal behavioral pattern."

2. *Jennifer Conrad, D.V.M.*

Jennifer Conrad, D.V.M., testified regarding the proper care of captive tigers. Dr. Conrad earned a doctor of veterinary medicine degree from the University of California, Davis in 1994. Between 1994 and 1999, Dr. Conrad worked as a veterinarian at the Los Angeles Zoo and Santa Barbara Zoo. She has a private practice specializing in the care of wildlife and exotic animals, with a special interest in "big cats." Dr. Conrad acknowledged that she does not have any special accreditation in big cats, although one is apparently available through the College of Zoo Veterinarians. Dr. Conrad's primary practice is to maintain the health and well-being of tigers, lions, leopards, cougars, and other animals appearing in movies. In addition to ensuring that they have adequate medical care, Dr. Conrad makes sure they are fed properly and have behavioral and environmental enrichment.

After reviewing the complaint, deposition transcripts, photographs, and USDA inspection reports, Dr. Conrad testified that the "endangered species" at the Cricket Hollow Zoo were "not being taken care of in the standard that they should be." When asked whether the conditions at the Zoo are creating a "likelihood of injury" to the

animals, Dr. Conrad opined: "I believe they are creating more than a likelihood. I think it's predictable." Dr. Conrad further speculated that "I believe that their lack of veterinary care and their inability to know their animals when they're beginning to get sick has caused the demise of many animals."

According to Dr. Conrad, the "most egregious" deficiency is Cricket Hollow's failure to timely remove feces from the cages. The accumulation of feces in an animal enclosure constitutes a risk to the animal's health. It can attract flies and parasites. It can also contaminate an animal's food and "is not good for their mental well-being either." Also, Dr. Conrad cited the lack of clean water.

Dr. Conrad acknowledged that treating tigers can be difficult. Often, because of a tiger's "magnificence," people don't recognize its vulnerability and dismiss the fact it could be sick. In addition, conducting a physical exam — including blood work, urine, fecal analysis, and examining inside the animal's mouth — is difficult. To conduct a complete physical, it is necessary to anesthetize the animal and Dr. Conrad generally does it in a facility where she can take x-rays and be prepared to address dental needs. Dr. Conrad opined that the veterinarian for Cricket Hollow seemed "disinterested" in conducting routine periodic examinations. According to Exhibit 41, a veterinarian visited Cricket Hollow approximately 20 times over an 8-year period.⁴⁹

In reviewing the tigers' veterinary records (Exhibit 48), Dr. Conrad also concluded the Zoo's vaccination program was inadequate. Some tigers had apparently been vaccinated multiple times, while other tigers had not received any vaccination. In addition, according to Dr. Conrad, the animals were not vaccinated for rabies or distemper, which she believes is necessary. Dr. Conrad opined that Cricket Hollow's veterinarian did not

⁴⁹ It should be noted that Dr. Pries only attends to Defendants' "exotic animals." The Zoo farm animals are treated by another veterinarian who also services the Sellners' dairy herd.

seem to be “highly involved in the care of these animals.” Dr. Conrad was also critical of the fact that when an animal became sick and died within a short period of time, no necropsy was performed.

On July 10, 2014, Cricket Hollow acquired a 10-year-old white tiger, named Casper. According to Cricket Hollow's records, Casper suffered a “few cuts & rubs” during shipping, which were examined by the veterinarian on August 25, 2014. Exhibit 48 at 7. It appeared that abscesses were forming which “will open soon.” Dr. Pries examined Casper again on October 8, 2014. At that time, Amoxicillin was prescribed for seven days for the sores acquired during transport. On November 1, 2014, Pam Sellner noted in the records that Casper “is looking fatter & better overall.” On December 5, 2014, however, Sellner called Dr. Pries and reported that Casper had pneumonia. Dr. Pries prescribed antibiotics, but Casper died the same day. Dr. Conrad opined that inadequate veterinary care led to Casper's death. According to Dr. Conrad, a 10-year-old tiger is “middle age” and more attention should have been given to the sores which Casper acquired during transport and any symptoms of pneumonia.

Dr. Conrad also testified regarding the importance of enrichment or entertainment for captive animals. It is necessary to provide tigers with enrichment, so they don't engage in stereotypic behaviors like pacing, breaking their teeth on a chainlink fence, or “licking themselves to death.” Enrichment for tigers can include scratch logs, scents on the logs, Christmas trees, balls, pools of water, and cardboard boxes filled with a pumpkin or watermelon or a pineapple. Dr. Conrad does not believe a bowling ball is appropriate enrichment, however, because the tiger can break their teeth on them.

“Attachment 2” to Plaintiffs' trial brief lists the animal deaths reported by Cricket Hollow between 2005 and August 31, 2015. Dr. Conrad was questioned regarding the seven tigers shown on the list. Three of the tigers reportedly died of “old age,” but the ages of Rajah and Sheba at the time of their deaths was not provided. Sherkhan was

20 years old, which Dr. Conrad confirmed was the full life expectancy of a tiger in captivity. The other four tigers — which died between June 1, 2013 and July 1, 2015 — allegedly died of “quick pneumonia” (Raoul), “pneumonia” (Casper), “E. coli” (Luna), and “quick breathing, partial paralysis, lesion on left rear foot” (Miraj). Raoul died in June 2013, less than 10 months after his birth at Cricket Hollow. Casper and Luna both died in about November 2014, approximately four months after their acquisition by Cricket Hollow. Miraj died on July 1, 2015, ten years after his birth at Cricket Hollow.

According to Dr. Conrad, infectious pneumonia is contagious and may be a risk to other animals. If the pneumonia is caused by inhalation or aspiration, then it is not infectious. Dr. Conrad testified that x-rays and a physical examination is necessary to differentiate between the types of pneumonia or, perhaps, discover heart disease or some other reason for the animal's death. Dr. Conrad also testified that the partial paralysis exhibited by Miraj suggested a neurological or a musculoskeletal issue which required an examination by a veterinarian. After treatment with antibiotics, which Dr. Conrad described as a “shotgun approach,” Miraj was euthanized approximately four weeks after her initial diagnosis. Dr. Conrad concluded that inadequate medical care “absolutely” contributed to Miraj's death.

According to Dr. Conrad, most tigers have E. coli, or enteric bacteria, naturally existing within them. If a tiger ingests E. coli from another source, however, then it can act like “food poisoning” and cause the animal to become ill. E. coli can be diagnosed by doing a “culture” on an animal which vomits, or doing a fecal culture. E. coli is treatable in tigers but, according to Dr. Conrad, requires immediate attention. Dr. Conrad testified generally that the inaction of Cricket Hollow to seek timely veterinary care created a “substantial likelihood of injury to the animals.”

3. *David Allen*

David Allen testified as an expert in zoo administration. He earned a B.A. in business administration from the University of Texas. From 1965 to 1973, Mr. Allen was employed as an animal keeper at the Kansas City Zoo. In 1973, Mr. Allen was hired as assistant director of the Cheyenne Mountain Zoo in Colorado Springs, Colorado. He was subsequently promoted to associate director and, later, to executive director. From 1988 to 2007, Mr. Allen was director of the Blank Park Zoo in Des Moines, Iowa. As director, it was Mr. Allen's responsibility to establish strategic plans, set goals and objectives, administer the programs for animal care, veterinary services, education and conservation programs, and financial management. At the time of trial, Mr. Allen was director emeritus of the board of directors of the Blank Park Zoo Foundation.

Mr. Allen testified that while it would not have to be “real sophisticated,” a zoo of the size and nature of Cricket Hollow should at least have an annual budget based on anticipated revenue and expenses, capital resources for repairs and maintenance of facilities, expenses for animal food, and veterinary services. Plaintiffs' Exhibit 57 is a record of the monthly attendance at Cricket Hollow from its opening in July 2002 through the end of 2014. During the last ten years, the attendance has ranged from a high of 4,752 in 2009 to a low of 2,430 in 2014. The cost of admission is \$5.00. Schedule C for 2013 shows Cricket Hollow's gross receipts at \$14,509, plus “other income” of \$5,538, for total gross income of \$20,047. Total expenses are shown at \$20,698, resulting in a \$651 operating loss. Exhibit 55.⁵⁰

Mr. Allen had a difficult time evaluating Cricket Hollow's financial circumstances because the financial data provided by the Sellners generally referred both to their dairy farm and the Zoo. In a balance sheet dated September 12, 2014, the Sellners included both

⁵⁰ On Schedule C, Cricket Hollow is self-described as a “petting zoo.”

the assets and animals associated with their dairy farm and the assets and animals associated with the Zoo. At that time, the Zoo assets, including the animals, were valued at approximately \$122,000. After reviewing the balance sheets, including negative cash flows and annual operating losses, Mr. Allen concluded that the Sellners do not have the financial resources to maintain a zoo in compliance with the Animal Welfare Act. There does not appear to be any money available to hire an adequate staff to care for the animals, nor is there money available for capital improvements to the facilities.

E. Defendants' Expert Witnesses

1. John Herbert Pries, D.V.M.

After graduating from Newton High School in 1971, Dr. Pries earned a bachelor of science degree from Iowa State University in 1975. He then worked on two large cattle farms until entering veterinary school at Iowa State University in 1983. He received a doctor of veterinary medicine degree in 1987. As part of his studies, he took elective courses in dairy science and wildlife rehabilitation.

When Dr. Pries first started practicing in Elkader, one of the younger veterinarians was doing inspections at Cricket Hollow, but he left to go back to Iowa State for an advanced degree. Dr. Pries told Pam Sellner that he would take over the work at Cricket Hollow "if she couldn't find anybody else." He started visiting Cricket Hollow in October 2009, and has conducted an annual inspection every year since that time.⁵¹ From April 23, 2007 to February 5, 2015, a period of nearly eight years, the Elkader Veterinary Clinic charged Cricket Hollow \$6,363.76.⁵²

At the time of trial, Dr. Pries was the owner of the Elkader Veterinary Clinic. The clinic employs four veterinarians, including Dr. Pries, and has a staff of 12. The clinic

⁵¹ Exhibits E and M.

⁵² Exhibit 2.

serves about four counties in northeast Iowa. The facility includes a surgery room, x-ray lab, two exam rooms, an indoor facility for cattle and horses, and boarding for domestic pets. The operating table and x-ray machine are not capable, however, of handling a full-size tiger. Dr. Pries could recall having "a few" primates from Cricket Hollow at the clinic, as well as a leopard and a tiger cub seen by another veterinarian. When using anesthesia on wildlife, it is necessary to go "off label," meaning that there are no USDA approved dosages for animals other than cats or dogs. For example, with a 500-pound tiger "you're just kind of roughing out the numbers to see if this will work because nobody has done the studies to see exactly what the dosage should be." When surgery is required, Dr. Pries generally checks with the anesthesia department at the Iowa State Veterinary College, or calls the veterinarians at the Henry Doorly Zoo in Omaha.

Dr. Pries recalled meeting with a USDA-APHIS inspector at Cricket Hollow a couple of years ago. They discussed flies and issues associated with flies in the summer time in Iowa. According to Dr. Pries, his biggest concern was flies inside the house "where the monkeys come back into the cages." Flies locate where there is spilled food and they "want to go to the windows where it's warmer." Dr. Pries told Pam Sellner about baits or sprays used in food processing plants and restaurants to get rid of the flies. According to Dr. Pries, he "never really saw much of a problem with it until we got down near the horses and the cattle and it was pretty much like any other barn outdoors and that's just part of nature." Dr. Pries testified that fruit flies are "not a disease factor like some of the other flies are."

Dr. Pries testified that Casper, the tiger, originally lived in Texas, but was then sent to a sanctuary in Wisconsin before it was transported to Cricket Hollow in July 2014. According to Dr. Pries, the transport carrier "was probably too small and so we got some lesions or sores on the side of the cat or inside a leg." It was decided that Casper would be treated with antibiotics in the food or water, and the saliva from Casper licking the

wound was “naturally infection prevention and an antibiotic.” According to Dr. Pries, the wound got smaller and Casper started putting some weight back on and was “looking quite a bit better.” It got “really cold fast” in November 2014, however, and Dr. Pries opined that Casper was not acclimated fast enough for Iowa weather. Casper contracted pneumonia and died.

Dr. Pries generally conducts an annual walk-through of the Zoo in August or September. He observes each individual animal and, if it is lying down, he watches it until it gets up so he can observe its respiration. He also looks at the animals' coats to determine their condition. According to Dr. Pries, “[t]here's usually not any feces laying around because they've already cleaned that up, but if I see any, I'm making sure that it's what their diet is; that's what the feces should look like.” If he has any concerns, then he takes a feces sample back to his clinic so it can be tested for parasites.

Dr. Pries does not recommend that Cricket Hollow give a rabies vaccine to the big cats. Such a vaccination is “off label,” because there is no standard in the United States for what dosage may be sufficient. According to Dr. Pries, “they're not going to spend that kind of money to do a double blind study and have animals die to see if the rabies vaccine worked.” Moreover, because the tigers are enclosed, the risk of contracting rabies is minimal.

Even when three big cats — two tigers (Casper and Luna) and a lion (Kamarah) — died within a single month in November 2014, Dr. Pries did not order a necropsy. All three animals were acquired by Cricket Hollow approximately four months earlier, and Dr. Pries testified “[t]hey weren't in the best of condition when she got them.”⁵³ Cricket

⁵³ The USDA “record of acquisition, disposition or transport of animals” signed by Tom Sellner on July 10, 2014 shows receipt of two tigers. The “remarks” indicate the animals are in “gd cond.” and a box checked at the bottom states “animals delivered were (continued...)”

Hollow claims Casper died of pneumonia, Kamarah died of pancreatitis, and Luna died of E. coli. No necropsies were conducted. Since beginning work with Cricket Hollow in 2009, Dr. Pries has never ordered or conducted a necropsy.

Dr. Pries found it necessary to euthanize a tiger (Miraj) in 2015. Its back leg got abscessed or joint infected, causing severe pain. Miraj was not eating well enough to administer an antibiotic orally, and so Dr. Pries attempted to inject the cat with an antibiotic using a 3-foot pole syringe. Pam Sellner believed that the animal's erratic breathing was respiratory, but Dr. Pries felt it was maybe more pain from the joint. When the animal was no longer able to move to where the water and food was located, it was decided to anesthetize the animal and then euthanize it.

According to Dr. Pries, Pam Sellner does "a great job" of describing an animal's symptoms over the phone. Sometimes she will call and say that an animal has pneumonia and that she "started Amoxicillin in the water or Tetracycline." She "wanted to know what to do with the follow-up because the cat or the coyote or whatever had gotten better and I said why don't you just stay where you're at for another five days and see how things go." According to Dr. Pries, an owner of an animal in Iowa "can prescribe those over-the-counter drugs themselves."

Dr. Pries has not treated any of the lemurs at Cricket Hollow, and acknowledged in his deposition that he is not an expert on the unique needs of lemurs. According to Dr. Pries, when doing an annual inspection "[a]ll I do is see what they're acting like in the cage and know that they're eating and acting normal." Dr. Pries testified that enrichment or enhancement of an animal's living quarters is not part of his role as a veterinarian.

⁵³(...continued)
in apparent good condition." Exhibit 40 at 3.

2. *Gary Pusillo, Ph.D.*

Gary Pusillo, Ph.D. testified regarding proper animal nutrition. After receiving a bachelor of science degree in animal husbandry from Delaware Valley College of Science and Agriculture, Dr. Pusillo earned a masters degree in animal production and a Ph.D. in animal nutrition from Iowa State University. He is a member of several professional societies and organizations and holds multiple advanced certifications. Dr. Pusillo's curriculum vitae was introduced as Exhibit T. For the past 30 years, Dr. Pusillo has worked in the area of animal nutrition.

Dr. Pusillo first met Pam Sellner in approximately 2003 regarding an issue with survivability of baby tigers. Pam Sellner contacted Dr. Pusillo regarding the baby tigers not receiving enough mother's milk. Sellner went to Dr. Pusillo's office in Marshalltown and he taught her "how to feed cats and taught her how to mix up specific types of food that would be beneficial for the cats; namely colostrum was a big factor."

Dr. Pusillo's company sells supplements for the animals' diets. The types of supplements are adjusted to meet the needs of individual animals. Dr. Pusillo consults routinely with Cricket Hollow regarding animal nutrition. A nutrition formulation will vary, for example, for a lactating tiger or a tiger that needs extra energy during the wintertime.

Dr. Pusillo has also visited the Cricket Hollow Zoo. Because he travels to Dubuque on unrelated matters at least once a year, he typically drops in "unexpected." Based on his observations, Dr. Pusillo opined that "Pam has some of the best examples of tigers I have ever seen." Nothing in the physical condition of the tigers caused Dr. Pusillo any alarm. Exhibit X at 4 is a photograph of a tiger, taken by Dr. Pusillo in 2005. According to Dr. Pusillo, the photograph shows that the tiger was in excellent shape. Dr. Pusillo opined that when he last visited the Zoo in October 2014, "the conditions

improved since 2005.” Dr. Pusillo admitted on cross-examination, however, that he was not aware of all of the tiger deaths which have occurred at Cricket Hollow.

VII. DISCUSSION

This case involves seven animals (four tigers and three lemurs) housed at the Cricket Hollow Zoo. Plaintiffs claim Defendants have violated the Endangered Species Act, which prohibits the “taking” of any animals protected by the Act. Plaintiffs ask the Court to order Defendants to surrender the animals to a USDA licensed facility capable of caring for the animals, and enjoin Defendants from acquiring any animals protected by the Endangered Species Act.

A. Endangered Species Act

The Endangered Species Act makes it unlawful for any person to “take” any protected species within the United States. 16 U.S.C. § 1538(a)(1)(B). “Take” is defined broadly and includes “harass” and “harm.” *See* 16 U.S.C. § 1532(19) (“The term ‘take’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”). The Code of Federal Regulations defines “harass” and “harm” within the meaning of the Endangered Species Act:

Harass in the definition of “take” in the Act means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. This definition, when applied to captive wildlife, does not include generally accepted:

- (1) animal husbandry practices that meet or exceed the minimum standards for facilities and care under the Animal Welfare Act,
- (2) breeding procedures, or

(3) provisions of veterinary care for confining, tranquilizing, or anesthetizing, when such practices, procedures, or provisions are not likely to result in injury to the wildlife.

Harm in the definition of “take” in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

50 C.F.R. § 17.3.

To prevail in this lawsuit, Plaintiffs have the burden of proving Defendants “harassed” or “harmed” the tigers and lemurs in their care.

B. Lemurs

Plaintiffs claim Defendants have “taken” and continue to “take” endangered lemurs by harming and harassing them. Plaintiffs argue the taking occurs in four ways: (1) social isolation, (2) inadequate housing and environmental enrichment, (3) inadequate sanitation, and (4) inadequate veterinary care.

1. Social Isolation

Dr. Peter Klopfer testified as an expert in the behavior and care of lemurs. It would appear that Dr. Klopfer is one of the country's foremost experts on lemurs. He has taught and conducted lemur research at Duke University for over 50 years and has visited Madagascar, the only place in the world where lemurs live in the wild, on a nearly annual basis. The Court found Dr. Klopfer's testimony to be highly credible.

Dr. Klopfer described lemurs as “highly developed animals” with “advanced cognitive abilities.” Importantly, he also described them as a very social species. While some lemurs are solitary, ruffed lemurs and ring-tailed lemurs — like the ones living at Cricket Hollow — “never live alone.” According to Dr. Klopfer, “isolation for them is

an extremely harmful proceeding.” Studies have shown that lemurs living in isolation exhibit behavioral abnormalities and physiological changes.

Cricket Hollow has three lemurs. Lucy, a red ruffed lemur, arrived at the Zoo in April 2009 and has lived alone since that time. Chuki and Kondo, both ring-tailed lemurs, arrived at the Zoo in September 2010 and apparently lived together until Kondo died in July 2011. Chuki then lived alone until Zaboo (who arrived at the Zoo in September 2014) was put in with Chuki in January 2015. According to Dr. Klopfer, ring-tailed lemurs generally live in groups of 8 to 20; while ruffed lemurs live in slightly smaller groups, but always in groups. The outdoor portions of the lemur enclosures are adjacent, and Lucy is able to see Chuki and Zaboo. The indoor portion of the enclosures, however, are separated by a solid wall. When the lemurs are enclosed indoors during the winter, Lucy is completely isolated. Being able to see one another while in the outside portion of the enclosures mitigates the problem somewhat, according to Dr. Klopfer, but does not meet the lemurs' needs. Lucy living in isolation is, according to Dr. Klopfer, “unacceptable.”

“Harassment,” as defined in the Code of Federal Regulations, and when applied to captive wildlife, “does not include generally accepted animal husbandry practices that meet or exceed the minimum standards for facilities and care under the Animal Welfare Act.” 50 C.F.R. § 17.3. Plaintiffs argue Defendants do not meet the minimum standards for the care of lemurs. The Code of Federal Regulations provides that exhibitors of nonhuman primates “must develop, document, and follow an appropriate plan for environmental enhancement adequate to promote the psychological well-being of nonhuman primates.” 9 C.F.R. § 3.81. At a minimum, the plan must address the “social grouping” of the animals. “The environment enhancement plan must include specific provisions to address the social needs of nonhuman primates of species known to exist in social groups in nature.” 9 C.F.R. § 3.81(a). Lemurs, which are nonhuman primates, are known to exist

in social groups in nature. The housing provided the three lemurs at Cricket Hollow Zoo does not address their “social needs.”

To “harass” a protected animal within the meaning of the Endangered Species Act includes an intentional act or omission which significantly disrupts the animal's normal behavioral patterns. According to Dr. Klopfer, lemurs have a very high level of cognitive ability, they can express and display emotions, and keeping them in a small cage without the opportunity to socialize with other lemurs causes them to suffer. Because living in relative isolation disrupts the lemurs' normal behavioral patterns, I believe the housing arrangement at Cricket Hollow constitutes “harassment” and, therefore, a “taking” within the meaning of the Endangered Species Act.

2. *Environmental Enrichment*

Plaintiffs also argue that Cricket Hollow does not provide adequate “environmental enrichment” for the lemurs. The Code of Federal Regulations requires that “[t]he physical environment in the primary enclosures must be enriched by providing means of expressing noninjurious species-typical activities.” 9 C.F.R. § 3.81(b). “Examples of environmental enrichments include providing perches, swings, mirrors, and other increased cage complexities; providing objects to manipulate; varied food items; using foraging or task-oriented feeding methods; and providing interaction with the care giver or other familiar and knowledgeable person consistent with personnel safety precautions.” *Id.*

The Code of Federal Regulations also requires exhibitors to “develop, document, and follow an appropriate plan for environmental enhancement adequate to promote the psychological well-being of nonhuman primates.” 9 C.F.R. § 3.81. Cricket Hollow's Primate Enrichment Program dated November 20, 2013, and approved by Dr. Pries on December 2, 2013, has a single paragraph devoted to lemurs:

Both lemurs [Lucy and Chuki] are housed in individual pens, as they don't get along housed together. They have adjoining

indoor/outdoor pens. In warm weather they enjoy sitting on their outdoor perches and branches — both love sunning themselves in the afternoon. They like PVC tubes with peanut butter and nuts.

Primate Enrichment Program (Exhibit C) at 3.

Environmental enrichment plans must be in accordance with “currently accepted professional standards” and “as directed by the attending veterinarian.” 9 C.F.R. § 3.81. In this case, Cricket Hollow's plan was “noted” by Dr. Pries on December 2, 2013. Dr. Pries testified at the trial, however, that he has never treated a lemur, either at Cricket Hollow or elsewhere. More importantly, when asked “is enrichment or enhancement of an animal's living quarters part of your role as a veterinarian,” Dr. Pries answered “no.”⁵⁴ According to Dr. Pries, his role as a veterinarian is “attending to the health of the animals,” and enrichment or enhancement of the animal's cage is not part of his responsibility.

Not only must an exhibitor develop an environmental enhancement plan, it is required to follow the plan and document its implementation. 9 C.F.R. § 3.81. Here, the plan refers generally to perches and branches, and has a specific reference to PVC tubes with peanut butter and nuts. It provides no detail regarding how often enrichment is provided. Dr. Klopfer testified that Cricket Hollow's environmental enrichment plan for the lemurs is inadequate. Even with the limited plan, however, there is no evidence that Cricket Hollow routinely followed the plan, and there is no evidence that they properly documented their implementation of the enrichment plan. The evidence suggests the lemurs received very little in the way of environmental enrichment. I believe the failure to “develop, document, and follow an appropriate plan for environmental enhancement adequate to promote psychological well-being” for the lemurs significantly disrupts their

⁵⁴ Testimony of Dr. John Pries, 438:8-11.

normal behavioral patterns and, therefore, constitutes “harassment” and “taking” within the meaning of the Endangered Species Act.

3. *Sanitation*

The Code of Federal Regulations applicable to the care of nonhuman primates requires “excreta and food waste must be removed from inside each indoor primary enclosure daily.” 9 C.F.R. § 3.84(a). As far back as 2006, the Sellners were assessed a financial penalty by the USDA for failing to remove excessive accumulation of animal waste, among other things. In February 2011, Cynthia Neis, an animal care inspector with USDA-APHIS, reported an excessive accumulation of animal waste in the primate building. In August 2011, Neis reported that the interior enclosure for the ring-tailed lemur did not have adequate lighting and did not “facilitate good husbandry practices nor provide lighting sufficient for Chuki's well-being.” Neis also reported “an excessive presence of waste on the perch in the Red Ruffed Lemur's enclosure (mammal room of the reptile house). This comes into contact with the lemur when it is on the perch.”

In June 2012, John J. Lies, an animal care inspector with USDA-APHIS, reported improper husbandry practices in the nonhuman primate building, including food that was not properly stored. In August 2012, Neis reported that “there is approximately two weeks of animal waste collected in one spot under the branch in the outdoor run of the ring-tailed lemur enclosure.” In November 2012, Dr. Heather Cole, a veterinary medical officer with USDA-APHIS, reported “there are cobwebs within the enclosures [housing the lemurs and capuchin] and the majority of the enclosure walls and objects (perches, branches, shelters) within the enclosures have a build-up of dark brown/black grime.”

In April 2013, the USDA assessed another civil penalty against the Sellners for various violations, including the failure to provide water and keep the enclosures free of excessive excreta. In July 2013, Dr. Jeffrey Baker, a veterinary medical officer with USDA-APHIS, found rodent feces on the floor and on the top of the refrigerator inside the

lemur building. In September 2013, Dr. Cole found a build-up of food waste and/or animal waste on the floor of the red-ruffed lemur and also found a large amount of dust, dirt, debris, and/or cobwebs within the reptile house, where the lemurs were located. In August 2014, Dr. Margaret Shaver, a veterinary medical officer with USDA-APHIS, found an excessive number of flies near the lemur enclosures.

In May 2015, Dr. Cole reported unsanitary conditions in the lemur enclosures. On June 10, 2015 — shortly before the trial in this case — Cricket Hollow's license under the Animal Welfare Act was suspended for a period of 21 days for failing, among other things, to “remove excreta from multiple animal enclosures as often as required.” Inspections in July 2015 and September 2015 also found an excessive number of flies in the back of the reptile house where the lemurs are housed.

Despite the Sellners' best efforts, cleanliness throughout the Zoo has been a chronic problem. I believe the Sellners care about the animals housed at Cricket Hollow, and it is clear they are extremely hard-working, but they are simply unable to keep up with the demands of caring for 300 animals. The Sellners have a large dairy farm which, in and of itself, demands a substantial amount of work. In addition, Tom Sellner apparently works full-time off the farm. During the months when the Zoo is open, Pam Sellner is generally in the reception area selling tickets. Because of the Zoo's low budget, it is unable to hire additional employees. It appears to the Court that the Sellners, despite their best efforts, are simply unable to keep up with the demands of providing clean water and sanitary conditions for the animals at Cricket Hollow, including the lemurs. The Code of Federal Regulations requires that persons “maintaining nonhuman primates must have enough employees to carry out the level of husbandry practices and care” required by the Animal Welfare Act. 9 C.F.R. § 3.85. A violation of this requirement constitutes “harassment” within the meaning of the Endangered Species Act.

4. *Veterinary Care*

The Code of Federal Regulations requires each exhibitor to have “an attending veterinarian who shall provide adequate veterinary care to its animals.” 9 C.F.R. § 2.40(a). The attending veterinarian must be employed “under formal arrangements.” In the case of a part-time attending veterinarian, “the formal arrangements shall include a written program of veterinary care and regularly scheduled visits to the premises of the dealer or exhibitor.” 9 C.F.R. § 2.40(a)(1). Here, Dr. Pries visits Cricket Hollow annually. He has not treated or examined the lemurs, but observes them during his annual visits to see if they appear healthy. If the animals appear to be moving around the enclosures normally, then Dr. Pries assumes they are healthy.

In support of their claim that the lemurs are not provided adequate veterinary care, Plaintiffs point to the fact that Cricket Hollow had a lemur die in 2009 (Tootsie), 2010 (Cheech), and 2011 (Kondo). In its answers to interrogatories, Cricket Hollow stated that Tootsie and Cheech died of “old age” and Kondo's cause of death was “unknown.” Plaintiffs are critical of the fact that Dr. Pries did not order a necropsy in any of those cases. Both Dr. Klopfer and Dr. Conrad emphasized the importance of a necropsy in determining the cause of death. There is no evidence, however, that any of the lemurs have been “harmed” by the lack of veterinary care. The Court cannot find, on this record, that Defendants failed to provide adequate veterinary care for the lemurs.

5. *Summary*

The Court concludes Plaintiffs have met their burden of proving Defendants violated the Endangered Species Act regarding the lemurs in their care. Housing the lemurs in relative isolation is not consistent with their social needs and significantly disrupts their normal behavioral patterns. Similarly, Defendants' failure to adopt and follow an appropriate environmental enrichment plan significantly disrupts the lemurs' normal behavioral patterns. Moreover, Defendants have not provided adequate sanitation in

compliance with generally accepted animal husbandry practices. The social isolation, lack of environmental enrichment, and inadequate sanitation described above causes injury to the animals and constitutes “harassment” within the “taking” provision of the Endangered Species Act. Accordingly, the Court finds Plaintiffs are entitled to declaratory and injunctive relief.

C. Tigers

Plaintiffs claim Defendants have “taken” and continue to “take” endangered tigers by harming and harassing them. Plaintiffs argue the taking occurs in five ways: (1) inadequate veterinary care, (2) inadequate sanitation, (3) inadequate housing and caging, (4) inadequate environmental enrichment, and (5) inadequately implemented nutritional protocols.

1. Veterinary Care

The Code of Federal Regulations requires each exhibitor to have “an attending veterinarian who shall provide adequate veterinary care to its animals.” 9 C.F.R. § 2.40(a). The attending veterinarian must be employed “under formal arrangements,” which in the case of a part-time attending veterinarian “shall include a written program of veterinary care and regularly scheduled visits to the premises of the dealer or exhibitor.” 9 C.F.R. § 2.40(a)(1). The program for veterinary care must include “[t]he use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries, and the availability of emergency, weekend, and holiday care.” 9 C.F.R. § 2.40(b)(2). Cricket Hollow entered into a Program of Veterinary Care with Dr. Pries on October 9, 2009.⁵⁵ Dr. Pries visits Cricket Hollow annually and treats individual animals when contacted by the Sellners.

⁵⁵ Exhibit 42 at 3.

Citing the trial testimony of Dr. Jennifer Conrad, Plaintiffs argue that minimum preventative care calls for an annual physical exam of all animals. According to Dr. Conrad, a basic physical exam includes blood work, urine and fecal analysis, looking into the animal's mouth and eyes, and a general assessment as to its body condition and fur. Dr. Conrad opined that a basic preventative exam requires the animal to be transported to a facility where x-rays can be taken and dental work can be performed. Dr. Conrad specializes in treating movie animals, however, and I am not convinced that she is an expert in the care of animals housed at a zoo. Nothing in the Code of Federal Regulations requires such an extensive examination. Rather, the exhibitor and its veterinarian must use "appropriate methods" to prevent, control, diagnose, and treat diseases and injuries. 9 C.F.R. § 2.40(b)(2).

Plaintiffs also point to circumstances, however, where Cricket Hollow allegedly did not seek timely veterinary intervention. Between June 2013 and July 2015, five tigers died at the Cricket Hollow Zoo. Three of those tigers died between the filing of Plaintiffs' complaint (June 11, 2014) and the time of trial (October 5, 2015). Plaintiffs argue Cricket Hollow did not seek timely or appropriate veterinary care for the animals. Plaintiffs are also critical of the fact that Cricket Hollow did not obtain a necropsy on any of the dead tigers.

On June 1, 2013, Raoul — a tiger born at Cricket Hollow in August 2012 — developed what Pamela Sellner described as "quick pneumonia."⁵⁶ Sellner drove to Dr. Pries' clinic in Elkader and retrieved medicine prescribed by Dr. Pries. Raoul died, however, on June 13, 2013, without having been examined by Dr. Pries. No necropsy was performed. (Raoul's twin brother, Rajahn, continues to reside at Cricket Hollow.)

⁵⁶ Exhibit 48 at 5.

Sherkhan died on February 28, 2014 of “old age.” According Cricket Hollow's records, Sherkhan was born in 1994 and arrived at Cricket Hollow at age 10. Sherkhan died at age 20, which is apparently a full lifespan for a captive tiger.

Casper, a while male tiger, arrived at Cricket Hollow on July 10, 2014 after being transported approximately five hours from a zoo in northern Wisconsin. The record of acquisition signed by Tom Sellner on that date shows the tiger was in “good condition.” Apparently, however, he suffered “a few cuts and rubs” from shipping and was examined by Dr. Pries on August 25, 2014. Abscesses were forming at the sites of the wounds. When Dr. Margaret Shaver, a veterinary medical officer with USDA-APHIS, visited the Zoo on October 7, 2014, she found “an open wound on the inside of the left front leg that is about two inches by three inches in size.”⁵⁷ According to Dr. Shaver's report, she was told that Dr. Pries “evaluated” Casper on August 25, 2014, but “[n]o treatment guidelines were given to the licensee at that time.” Accordingly, “[n]o treatment for the skin or wounds has been given to this animal.” Dr. Shaver ordered Cricket Hollow to have the tiger examined by a licensed veterinarian within two days. Dr. Pries returned on October 8, 2014 and prescribed Amoxicillin powder for seven days.⁵⁸ On November 1, 2014, Pam Sellner reported in her records that Casper was “looking fatter & better overall.”⁵⁹ However, on December 5, 2014, Sellner called Dr. Pries and reported that Casper “has pneumonia.” Dr. Pries prescribed antibiotics to be placed by Sellner in Casper's water. Casper died later the same day. No necropsy was performed.

On the same day that Cricket Hollow received Casper (July 10, 2014), it also received Luna, an 11-year-old female tiger. Like Casper, Luna also died in November

⁵⁷ Exhibit 29 at 1.

⁵⁸ Exhibit 48 at 8.

⁵⁹ Exhibit 48 at 7.

2014, four months after she arrived at Cricket Hollow. According to Pam Sellner, Luna died from “E. coli.” There is no evidence the Sellners contacted Dr. Pries regarding Luna, or that she ever received any treatment. No necropsy was performed.

Miraj, a tiger born at Cricket Hollow in December 2004, showed signs on June 3, 2015 of “quick breathing[,] partial paralysis, [and] lesion on left rear foot from not being able to bear weight properly.”⁶⁰ Pam Sellner called Dr. Pries and described the symptoms over the phone. Dr. Pries testified that Miraj “came up with an injury on her rear foot and was limping and then it had a placing deficit, so I knew I had some nerve damage. And it was breathing fast and we associated that with the pain in the foot.” According to Dr. Pries, Sellner thought the shallow breathing “maybe was respiratory and I felt it was maybe more pain from the joint.” Dr. Pries initially prescribed an injection of antibiotics using a 3-foot pole syringe, followed by oral antibiotics placed in the animal's water and food. While the record is somewhat imprecise, these medications were apparently all administered by Sellner. Miraj did not respond to the treatment and was “going downhill fast.” On July 1, 2015, Dr. Pries traveled to the Zoo and Miraj was euthanized.

The Court concludes Cricket Hollow has not complied with its obligation to provide adequate veterinary care to the endangered tigers. “[A] mechanism of direct and frequent communication is required [in a program of adequate veterinary care] so that timely and accurate information on problems of animal health, behavior, and well-being is conveyed to the attending veterinarian.” 9 C.F.R. § 2.40(b)(3). Cricket Hollow has consistently failed to timely contact Dr. Pries regarding animal health issues. On those occasions when Dr. Pries was contacted, it was generally a phone call with Pam Sellner describing the animal's symptoms, and sometimes ostensibly diagnosing the problem. Dr. Pries would then prescribe a course of treatment telephonically.

⁶⁰ Exhibit 48 at 12.

Raoul purportedly died of pneumonia, but he was never seen by Dr. Pries and no necropsy was performed. While Dr. Pries examined Casper on August 25, 2014, no course of treatment was directed and his wound apparently worsened. It was not until Dr. Shaver, an inspector with USDA-APHIS, visited the Zoo on October 7, 2014 that Pam Sellner contacted Dr. Pries and asked that he return. There is no evidence that Casper's death two months later was directly related to the open wound, but no necropsy was performed. Similarly, no necropsy was performed on Luna, who arrived on the same day as Casper and died at about the same time. In fact, the evidence suggests that Dr. Pries was never told of Luna's brief illness or her death. Dr. Pries was told of Miraj's injury and breathing issues, but he apparently did not travel to the Zoo until Miraj was euthanized four weeks later.

The Code of Federal Regulations requires all exhibitors to provide adequate veterinary care for all animals housed at their facility. Obviously, if an exhibitor chooses to keep endangered species, it must assume the obligation — and the cost — of providing such care. I believe Cricket Hollow's failure to provide timely and appropriate veterinary care has delayed or prevented adequate treatment, thus resulting in “injury” to the tigers. Any act which injures a protected animal constitutes “harm” within the definition of “take” in the Endangered Species Act. 50 C.F.R. § 17.3.

2. *Sanitation*

In concluding that Cricket Hollow has failed to comply with standard animal husbandry practices, Plaintiffs' expert, Dr. Jennifer Conrad, opined that the “most egregious” violation is the failure to timely remove the animals' feces. The Code of Federal Regulations provides that “[e]xcreta shall be removed from primary enclosures as often as necessary to prevent contamination of the animals contained therein and to minimize disease hazards and to reduce odors.” 9 C.F.R. § 3.131(a). According to

Dr. Conrad, accumulated feces can attract flies and harbor parasites, both of which may transmit disease.

The USDA inspection reports cite this issue repeatedly. In December 2006, the Sellners entered into a settlement agreement with the USDA, agreeing to a financial penalty of \$4,035. Among other things, the Sellners were cited for failing to remove excessive accumulation of animal waste. Following an inspection on November 22, 2010, Cynthia Neis, an animal care inspector with USDA-APHIS, reported that “[i]mmediately to the east of the lion, leopard, tiger, and bear enclosures are piles of waste that have been removed from the enclosures in the course of the prior week.” Federal regulations require that a provision must be made for the removal and disposal of animal wastes, and the disposal facilities must be “operated as to minimize vermin infestation, odors, and disease hazards.” 9 C.F.R. § 3.125(d).

On December 8, 2011, Neis inspected the Zoo and found “an excessive accumulation of animal waste” in the enclosure housing two of the tigers (Sasha and Keiharan) and the enclosure housing two lions. Neis noted that because the owners have outside work obligations and no additional employees, “the work load continues to exceed the staffing level.”

On November 26, 2012, the Zoo was inspected by Dr. Heather Cole, a veterinary medical officer with USDA-APHIS. Dr. Cole reported “a large accumulation of feces within two of the tiger enclosures and two of the lion enclosures. There are large piles of feces in the corners and smaller piles scattered throughout each enclosure.” Dr. Cole returned to the Zoo on February 13, 2013, and found an excess of excreta in various enclosures. On April 29, 2013, the USDA and the Sellners entered into another settlement agreement, where Defendants agreed to pay a civil penalty of \$6,857. Among the violations leading to the settlement was the failure to keep enclosures free of excessive excreta.

Following her inspection on May 21, 2014, Dr. Cole reported numerous violations, including a build-up of animal waste within the enclosures of various animals, including the five tigers. After Pam Sellner claimed that Dr. Cole was on a “witch hunt,” the Zoo was inspected by Dr. Margaret Shaver, another veterinary medical officer with USDA-APHIS, on August 5, 2014. Dr. Shaver reported a build-up of feces and food waste in several enclosures, including an enclosure housing two tigers.

Cricket Hollow's failure to timely remove feces from the tiger enclosures (as well as other animals' enclosures) is chronic and longstanding. As the Court has noted previously, the Sellners are extremely hard-working. However, given the demands of operating a large dairy farm and Tom Sellner's employment off the farm, it appears to the Court that the Sellners are overwhelmed by the amount of work required to care for approximately 300 zoo animals. The regulations suggest, and Dr. Conrad confirmed, that an accumulation of feces constitutes a “disease hazard.” In failing to timely remove excessive excreta from the tiger enclosures, Cricket Hollow has fallen below the minimum standard of generally accepted animal husbandry practices for facilities governed by the Animal Welfare Act. Because this failure creates a likelihood of disease, I believe this deficiency constitutes “harassment” within the definition of “take” in the Endangered Species Act.

3. Housing and Caging

Next, Plaintiffs argue Defendants “harm and harass their tigers by inadequately sizing and maintaining their tiger enclosures.” Plaintiffs apparently concede that the square footage of the tiger enclosures meets or exceeds the minimum requirements of the Animal Welfare Act. Plaintiffs argue, however, that even if the minimum requirements of the AWA are met, “it is by no means a generally accepted practice and cannot provide for the natural behaviors of a tiger without annoying the animal and creating a likelihood of injury.” Plaintiffs also object to Cricket Hollow using pea gravel in the tiger

enclosures, arguing that it is unsanitary and becomes “firmly compacted.” Pam Sellner testified that it was the USDA that recommended the use of pea gravel.

The Court concludes that Plaintiffs have failed to meet their burden of proving that the cage sizes, or materials used by Cricket Hollow, constitute “harassment” or “harm” within the meaning of “taking” requirement of the Endangered Species Act. While the USDA inspectors cited certain structural defects in the tiger enclosures and the perimeter fencing, those issues have now been corrected.

4. Environmental Enrichment

Plaintiffs argue Defendants failed to provide the tigers with appropriate environmental enrichment. According to Dr. Jennifer Conrad, captive tigers which do not receive appropriate environmental enrichment may exhibit “stereotypic behaviors” like pacing, neurotic licking, or breaking their teeth on chain-link fence. Pam Sellner testified that Cricket Hollow places bowling balls in the enclosures for the tigers to play with. Scratch logs are placed in the tiger enclosures to allow the tigers to sharpen their claws and use them as toys. According to Sellner, the tigers also like big heavy cardboard tubes filled with catnip and essential oils to produce different smells. Sellner testified the “newest enrichment” is in the form of steel “tiger tables,” which the tigers jump on. Also, water tanks are placed in the enclosures for the tigers to soak in on hot days. Plaintiffs testified, however, that when they visited the Zoo they did not see any enrichment, other than a scratch log and a bowling ball.

Plaintiffs presented no evidence the tigers engaged in “stereotypic behavior” and Sellner testified that none of the tigers have ever been injured by a bowling ball. The Court concludes that Plaintiffs' evidence falls short of supporting a finding that the tigers are “harassed” or “harmed” within the meaning of the Endangered Species Act due to lack of environmental enrichment. While the amount of enrichment provided by Cricket Hollow appears to be nominal, the Court cannot say that the limited enrichment “creates

the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns.” 50 C.F.R. § 17.3. Furthermore, because the lack of enrichment does not “actually kill[] or injure[]” the tigers, it does not meet the definition of “harm” within the meaning of “take” in the Endangered Species Act.

5. *Nutritional Protocols*

Finally, Plaintiffs argue Cricket Hollow has failed to adequately implement nutritional protocols as directed by Dr. Gary Pusillo. Plaintiffs acknowledge Dr. Pusillo's expertise in the area of animal nutrition, but argue that the protocols have not been updated since 2006 and have not been properly implemented. Plaintiffs failed to provide any credible evidence to support this allegation.

6. *Summary*

The Court concludes Plaintiffs have met their burden of proving Defendants violated the Endangered Species Act regarding the tigers in their care. The tigers have been “harmed” within the definition of “take” in the Endangered Species Act by Defendants' failure to provide timely and appropriate veterinary care. In addition, Defendants' failure to provide adequate sanitation to the tigers constitutes “harassment” within the definition of “take” in the Endangered Species Act. Accordingly, the Court finds Plaintiffs are entitled to declaratory and injunctive relief.

VIII. CONCLUSION

The Endangered Species Act makes it unlawful for any person to “take” any protected species within the United States. The term “take” includes “harass” or “harm,” as defined in the Code of Federal Regulations. For the reasons set forth above, the Court concludes the social isolation, lack of environmental enrichment, and inadequate sanitation provided to the lemurs constitutes “harassment” within the “taking” provision of the Endangered Species Act. In addition, the Court concludes that the tigers in Defendants' care were “harmed” by the failure to provide adequate veterinary care, and were

“harassed” by the failure to provide adequate sanitation. These are violations of the Endangered Species Act.

Defendants' violations are pervasive, long-standing, and ongoing. If the endangered species are not removed from Defendants' care, then the violations are likely to continue. To prevent further “taking” in violation of the ESA, Plaintiffs are entitled to declaratory judgment and injunctive relief. *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 193 (1978); *Friends of the Earth v. U.S. Navy*, 841 F.2d 927, 933 (9th Cir. 1988). Specifically, Defendants must transfer the lemurs and tigers in their possession to an appropriate facility which is licensed by the USDA and is capable of meeting the needs of the endangered species. This transfer must occur not later than 90 days after the filing of this Order. Furthermore, Defendants are enjoined from acquiring any additional animals on the endangered species list, without first demonstrating an ability to care for the animals and receiving Court approval.

Plaintiffs ask that they be awarded the costs of litigation, including attorney fees and expert witness fees, pursuant to 16 U.S.C. § 1540(g)(4). After considering all of the facts and circumstances, the Court declines to assess litigation costs against Defendants.


IX. ORDER

IT IS HEREBY ORDERED that Defendants must transfer the lemurs and tigers in their possession to an appropriate facility which is licensed by the USDA and is capable of meeting the needs of the endangered species. This transfer must occur not later than **Ninety Days (90)** after the filing of this Order.

IT IS FURTHER ORDERED that Defendants are enjoined from acquiring any additional animals on the endangered species list, without first demonstrating an ability to care for the animals and receiving Court approval.

IT IS FURTHER **ORDERED** that Plaintiffs' request for the costs of litigation, including attorney fees and expert witness fees, is denied.

DATED this 11th day of February, 2016.



JON STUART SCOLES
CHIEF MAGISTRATE JUDGE
NORTHERN DISTRICT OF IOWA