

DAVID L. HENKIN #6876
KOALANI L. KAULUKUKUI #8573
EARTHJUSTICE
223 South King Street, Suite 400
Honolulu, Hawai`i 96813
Telephone No.: (808) 599-2436
Fax No.: (808) 521-6841
Email: dhenkin@earthjustice.org
kkaulukukui@earthjustice.org

Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT

DISTRICT OF HAWAII

PALILA (*Loxioides bailleui*,) Civil No. 78-0030
formerly *Psittirostra bailleui*), an)
endangered species; SIERRA CLUB,) PLAINTIFFS' MOTION TO
a non-profit corporation; HAWAII) ENFORCE THE 1979, 1987, AND
AUDUBON SOCIETY, a non-profit) 1998 ERADICATION ORDERS;
association; NATIONAL AUDUBON) MEMORANDUM IN SUPPORT OF
SOCIETY, a non-profit association; and) MOTION; DECLARATION OF DR.
ALAN C. ZIEGLER,) PAUL C. BANKO; EXHIBITS 1 TO 8;
) DECLARATION OF KOALANI L.
Plaintiffs,) KAULUKUKUI; EXHIBITS 9 TO 13;
v.) CERTIFICATE OF SERVICE
)
HAWAII DEPARTMENT OF LAND)
AND NATURAL RESOURCES; and)
LAURA H. THIELEN, in her capacity)
as Chairperson of the Hawai`i Board of)
Land and Natural Resources,)
)
Defendants,)
)
and)
)
SPORTSMEN OF HAWAII, INC;)
HAWAII ISLAND ARCHERY CLUB;)
HAWAII RIFLE ASSOCIATION;)

GERALD KANG; KENNETH FUNAI;)
JOHN WONG; and IRWIN KAWANO,)
)
Defendants-)
Intervenors.)

PLAINTIFFS' MOTION TO ENFORCE
THE 1979, 1987, AND 1998 ERADICATION ORDERS

Plaintiffs Palila, Sierra Club, Hawai`i Audubon Society, National Audubon Society, and Alan C. Ziegler respectfully move this Court to compel defendants State of Hawai`i Department of Land and Natural Resources and Laura H. Thielen, in her capacity as Chairperson of the Board of Land and Natural Resources, to comply with the Court's judgment and orders filed in this case on August 1, 1979 and January 27, 1987, as amended, and the stipulation and order filed in this case on November 10, 1998.

The 1979 and 1987 orders collectively enjoin defendants from continuing to maintain any population of feral goats, feral sheep, mouflon sheep, and hybrid feral/mouflon sheep (collectively, "ungulates") within the Palila's federally-designated critical habitat and affirmatively require defendants to remove, completely and permanently, all ungulates from the Palila's critical habitat. 1979 Judgment & Order ¶¶ 3-4; 1987 Judgment & Order ¶¶ 2-5. The 1998 order clarifies, among other things, that defendants must use best efforts to minimize migration of ungulates into the Palila's critical habitat, which may include repair

and upgrade of the Mauna Kea Forest Reserve perimeter fence. 1998 Stipulation & Order ¶ 1.

Plaintiffs seek an order from this Court (1) declaring that defendants are in violation of the 1979, 1987, and 1998 orders; and (2) compelling defendants to minimize ungulate ingress into the Palila's critical habitat by constructing, no later than June 1, 2011, an ungulate-proof fence around the perimeter of the Palila's critical habitat and maintaining this fence in an ungulate-proof condition.

This motion is based on Federal Rule of Civil Procedure 7, the 1979, 1987, and 1998 orders, the attached memorandum, declarations, and exhibits, the pleadings on file herein, and such other matters as may be presented to the Court.

DATED: Honolulu, Hawai'i, March 23, 2009.

Respectfully submitted,

/s/ Koalani L. Kaulukukui
DAVID L. HENKIN
KOALANI L. KAULUKUKUI
Earthjustice
223 S. King Street, Suite 400
Honolulu, Hawai'i 96813
Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT

DISTRICT OF HAWAII

PALILA (*Loxioides bailleui*,) Civil No. 78-0030
formerly *Psittirostra bailleui*), an)
endangered species; SIERRA CLUB,) MEMORANDUM IN SUPPORT OF
a non-profit corporation; HAWAII) MOTION
AUDUBON SOCIETY, a non-profit)
association; NATIONAL AUDUBON)
SOCIETY, a non-profit association; and)
ALAN C. ZIEGLER,)
)
Plaintiffs,)
v.)
)
HAWAII DEPARTMENT OF LAND)
AND NATURAL RESOURCES; and)
LAURA H. THIELEN, in her capacity)
as Chairperson of the Hawai`i Board of)
Land and Natural Resources,)
)
Defendants,)
)
and)
)
SPORTSMEN OF HAWAII, INC;)
HAWAII ISLAND ARCHERY CLUB;)
HAWAII RIFLE ASSOCIATION;)
GERALD KANG; KENNETH FUNAI;)
JOHN WONG; and IRWIN KAWANO,)
)
Defendants-)
Intervenors.)

MEMORANDUM IN SUPPORT OF MOTION

TABLE OF CONTENTS

| | <u>Page</u> |
|---|-------------|
| I. INTRODUCTION | 1 |
| II. PROCEDURAL BACKGROUND | 2 |
| III. UNGULATES CONTINUE TO CAUSE ACTUAL HARM TO THE PALILA | 8 |
| A. Ungulates Persist Within The Palila’s Critical Habitat..... | 8 |
| B. The Palila Population Is Plummeting..... | 9 |
| C. Ungulates Immediately Diminish Available Māmane Pods, Impairing The Palila’s Feeding And Breeding Habits..... | 10 |
| D. Ungulates Continue To Prevent Māmane Regeneration, Reducing The Seasonal Availability Of Māmane Pods..... | 12 |
| E. Harm To The Palila Is Accentuated During Drought Periods. | 14 |
| IV. THE COURT SHOULD ENFORCE ITS ERADICATION ORDERS | 16 |
| A. The Court Has Jurisdiction To Enforce Its Orders. | 16 |
| B. Permanent Ungulate Removal Requires Effective Fencing..... | 16 |
| C. Defendants Have Failed To Comply With Their Duty To Minimize Ungulate Migration..... | 19 |
| D. The Court Should Establish An Expeditious Timetable For Defendants To Complete A Perimeter Fence..... | 20 |
| V. CONCLUSION..... | 21 |

TABLE OF AUTHORITIES

Page

FEDERAL CASES

Kokkonen v. Guardian Life Ins. Co.,
511 U.S. 375 (1994).....16, 22

Palila v. Hawai`i Dep't of Land and Natural Resources,
471 F. Supp. 985 (D. Haw. 1979).....passim

Palila v. Hawai`i Dep't of Land and Natural Resources,
639 F.2d 495 (9th Cir. 1981)4

Palila v. Hawai`i Dep't of Land and Natural Resources,
649 F. Supp. 1070 (D. Haw. 1986).....passim

Palila v. Hawai`i Dep't of Land and Natural Resources,
852 F.2d 1106 (9th Cir. 1988)6

Palila v. Hawai`i Dep't of Land and Natural Resources,
73 F. Supp. 2d 1181 (D. Haw. 1999).....1, 6, 7

Palila v. Hawai`i Dep't of Land and Natural Resources,
246 F.3d 675 (9th Cir. 2000)8

CODE OF FEDERAL REGULATIONS

50 C.F.R. § 17.3 (2008)5

FEDERAL REGISTER

46 Fed. Reg. 54,748 (Nov. 4, 1981)5

UNITED STATES CODE

16 U.S.C. § 1531 1

16 U.S.C. § 1532(19) 2

16 U.S.C. § 1538(a)(1)(B) 2

I. INTRODUCTION

“Palila once extinct are gone forever.”¹

Over the last three decades, this Court has three times ordered defendants to end their unlawful take of the highly endangered Palila (*Loxioides bailleui*, formerly *Psittirostra bailleui*) in violation of the Endangered Species Act (“ESA”), 16 U.S.C. § 1531, *et seq.*, by “completely and permanently” removing feral goats (*Capra hircus*), feral sheep (*Ovis aries*), mouflon sheep (*Ovis gmelini musimon*), and hybrid feral/mouflon sheep (collectively, “ungulates”) from the Palila’s critical habitat. See Palila v. Hawai`i Dep’t of Land and Natural Resources, 649 F. Supp. 1070, 1182-83 (D. Haw. 1986) (“Palila III”), aff’d, 852 F.2d 1106 (9th Cir. 1988). Defendants’ failure to take “sufficient and effective” action to completely and permanently remove ungulates has contributed to a 60% decline in the Palila population over the last five years, plunging the species closer to extinction. 1979 Judgment & Order ¶ 5; 1987 Judgment & Order ¶ 7; see also Declaration of Dr. Paul C. Banko ¶¶ 26, 37. Because defendants are not in compliance with the ESA or this Court’s orders, plaintiffs request that the Court require defendants to facilitate complete and permanent ungulate removal by constructing, no later than

¹ Palila v. Hawai`i Dep’t of Land and Natural Resources, 73 F. Supp. 2d 1181, 1187 (D. Haw. 1999) (“Palila V”), appeal dismissed, 246 F.3d 675 (9th Cir. 2000).

June 1, 2011, an ungulate-proof fence around the Palila’s critical habitat to prevent ungulates from entering the area.

II. PROCEDURAL BACKGROUND

*“[T]he Endangered Species Act leaves no room for balancing policy considerations.”*²

In 1978, plaintiff Palila and its next friends Sierra Club, National Audubon Society, Hawai`i Audubon Society, and Alan C. Ziegler filed a citizen suit naming the State of Hawai`i Department of Land and Natural Resources (“DLNR”) and its chairperson as defendants. Palila v. Hawai`i Dep’t of Land and Natural Resources, 471 F. Supp. 985, 995 (D. Haw. 1979) (“Palila I”), aff’d, 639 F.2d 495 (9th Cir. 1981). Plaintiffs argued that the defendants’ maintenance of feral sheep and feral goats for sport hunting within the endangered Palila’s last-remaining and federally-designated critical habitat constituted “harm,” and, therefore, a “take” of the Palila in violation of Section 9 of the ESA, 16 U.S.C. § 1538(a)(1)(B). Id.³

This Court found that the Palila evolved together with Mauna Kea’s dryland forest, which was historically composed primarily of thick stands of pure māmane trees and mixed māmane and naio trees, in such a way that the Palila “has become intimately tied to the mamane-naio forest.” Palila I, 471 F. Supp. at 989 & n.7.

² Palila III, 649 F. Supp. at 1082.

³ “Take” is defined to mean “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).

The Court noted that the māmane-naio forest is “essential for the Palila’s survival” and all evidence “points to the fact that the Palila cannot survive without the forest.” Id.

Accordingly, this Court agreed with plaintiffs that ungulate browse constitutes unlawful “harm” because the browse damage causes “significant environmental modification or degradation” that “actually injures or kills” the Palila. Id. at 995. “By consuming seedlings and shoots, [feral goats and sheep] prevent regeneration of the forest, and thus bring about the relentless decline of the Palila’s habitat.” Id. at 990. Because defendants maintained feral goats and sheep within the Palila’s critical habitat and “refuse[d] to adopt a removal program,” id. at 991, despite being “fully aware of the destructive impact that the browsing game animals have had on the mamane-naio ecosystem,” id. at 990, defendants’ “acts and omissions” amounted to “an unlawful ‘taking’ of the Palila” under the ESA, id. at 995.

This Court further recognized that because the Palila’s normal behavioral patterns include seasonal movements, “the Palila requires all of its designated critical habitat in order to survive as a species.” Id. at 991 & n.18. Accordingly, the Court rejected defendants’ proposed “Mauna Kea Plan,” which sought to “fence around portions of the mamane forest,” but not the Palila’s entire critical habitat. Id. at 991. To prevent further harm to the Palila, the Court ordered defendants completely and permanently to remove all feral sheep and goats from

the Palila's critical habitat. Exh. 9: 1979 Judgment & Order ¶ 4. The 1979 order also permanently enjoined defendants from "continuing to maintain any population of feral goats and sheep within the Palila's critical habitat on Mauna Kea, and from continuing to refuse to take positive steps" to eradicate the ungulates. Id. ¶ 3.

On appeal, the Ninth Circuit "agree[d] with Judge King's insightful and thorough discussion" in Palila I. Palila v. Hawai'i Dep't of Land and Natural Resources, 639 F.2d 495, 497 (9th Cir. 1981) ("Palila II"). Because "elimination of the feral goats and sheep is necessary to the survival of the Palila," the Ninth Circuit upheld this Court's determination "that the acts and omissions of the [defendants] were prohibited by the [ESA]." Id. at 497. The Ninth Circuit further agreed that "complete eradication of the feral animals is necessary to prevent harm to the Palila." Id. Because the Mauna Kea Plan "would allow some sheep and goats to remain in the mamane-naio forest," it "would not end the 'taking' of the Palila within the meaning of the [ESA]." Id. Thus, the Ninth Circuit affirmed the 1979 order requiring the complete and permanent eradication of feral goats and sheep from the Palila's critical habitat. Id.

In February 1985, plaintiffs amended their complaint to add mouflon sheep to the group of introduced hoofed mammals that were destroying the māmane-naio

forest and harming the Palila. Palila III, 649 F. Supp. at 1071.⁴ This Court found that, just like the feral goats and sheep, mouflon sheep have “a significant negative impact on the mamane forest, on which the Palila is wholly dependent for breeding, feeding, and sheltering.” Palila III, 649 F. Supp. at 1080. Because this “significant habitat degradation is actually presently injuring the Palila by decreasing food and nesting sites, so that the Palila population is suppressed to its current critically endangered levels,” the “mouflon sheep are harming the Palila within the definition of 50 C.F.R. § 17.3.” Id. at 1080.⁵

This Court dismissed defendants’ argument “that both mouflon sheep and Palila can coexist on Mauna Kea,” holding that once the Court finds that “mouflon sheep are ‘harming’ the Palila population,” the ESA “leaves no room for mixed use or other management strategies or policies.” Palila III, 649 F. Supp. at 1080-81. This Court therefore refused to allow defendants to “play[] Russian roulette with a critically endangered species” through continued maintenance of any mouflon sheep on Mauna Kea. Id. at 1082. Accordingly, the Court re-affirmed its 1979 order and expanded it to include the complete and permanent removal of mouflon

⁴ Sportsmen of Hawaii, along with several other hunting advocacy groups and individual hunters, intervened as defendants to represent their hunting interests.

⁵ The current definition of “harm” in the ESA’s definition of “take,” promulgated in 1981, “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 (2008); see also 46 Fed. Reg. 54,748, 54,750 (Nov. 4, 1981).

and hybrid feral/mouflon sheep. Id. at 1082-83; Exh. 10: 1987 Judgment & Order ¶¶ 3-5.

On appeal, the Ninth Circuit once again upheld this Court’s conclusion that “harm” includes “habitat destruction that could drive the Palila to extinction.” Palila v. Hawai`i Dep’t of Land and Natural Resources, 852 F.2d 1106, 1108 (9th Cir. 1988) (“Palila IV”). The Ninth Circuit specifically affirmed this Court’s finding that even a small number of mouflon could not co-exist with the Palila without resulting in “harm” and, therefore, complete eradication is necessary to prevent the continued violation of the ESA. Id. at 1109-10.

Following the 1987 order, defendants “proceeded to carry out the court’s orders by a combination of staff hunting,” including aerial hunting, “unrestricted public hunting, and fencing.” Palila V, 73 F. Supp. 2d at 1183. “The eradication efforts pursuant to this Court’s order . . . had measurable success in improving the Palila’s critical habitat.” Id. In 1995, however, without leave from the Court, defendants discontinued their eradication program, and sheep populations began to rise. Id. at 1184. Plaintiffs negotiated with defendants to renew compliance with the 1979 and 1987 orders, resulting in a stipulation that was approved and ordered by this Court in 1998. See Exh. 11: 1998 Stipulation & Order; Palila V, 73 F. Supp. 2d at 1185. Among other things, the 1998 stipulation required defendants to continue to implement a program of public involvement in ungulate eradication and to conduct biannual aerial hunts. 1998 Stipulation & Order ¶¶ 2-3.

Defendants were also required to use their “best efforts to minimize migration” of ungulates into the Palila’s critical habitat. Id. ¶ 1. Actions potentially needed to prevent ungulate migration included “maintenance, repair, and upgrading of the forest reserve perimeter fencing, and periodical surveys to detect breaks in the fence.” Id.

Months after the 1998 stipulation was entered, intervenor Sportsmen of Hawaii filed a motion under Fed. R. Civ. P. 60(b)(5) and (6), asking the Court to rescind the 1987 judgment and order, halt defendants’ ungulate eradication program, and allow the sheep to proliferate in the critical habitat. Palila V, 73 F. Supp. 2d at 1185-86.⁶ The Court dismissed as “disingenuous” and “irrelevant” the intervenor’s argument that the sheep population should be allowed to increase because the sheep might reduce “dangerous fire fuels” that threatened the māmane forest. Palila V, 73 F. Supp. 2d at 1186-87.

In July 1999, defendants filed their own motion under Fed. R. Civ. P. 60(b)(5) and (6), seeking to modify the 1987 judgment and order to allow defendants “to maintain a population of at least 200 visible animals plus the animals that are hidden from view within the mamane forest.” Id. at 1188.

Defendants argued they should no longer be required to eradicate ungulates in the

⁶ The motion was originally filed by Sportsmen of Hawaii’s attorney on behalf of a stranger to the suit, hunting advocacy group Wildlife Conservation Association of Hawaii. The Court later agreed to treat the motion as filed on behalf of intervenor Sportsmen of Hawaii.

Palila's critical habitat because they found complete eradication of all sheep and mouflon "difficult," and they believed the numbers of sheep at the time had "not significantly modified or degraded the mamane forest to the extent that the Palila is injured." *Id.* at 1187. Recognizing that none of the experts "recommended abandoning removal of all sheep from the Palila's critical habitat," the Court denied defendants' motion. *Id.* at 1188-89. Defendants did not appeal. See *Palila v. Hawai'i Dep't of Land and Natural Resources*, 246 F.3d 675 (9th Cir. 2000) (dismissing the intervenor's appeal for lack of standing in the absence of the State defendants).

III. UNGULATES CONTINUE TO CAUSE ACTUAL HARM TO THE PALILA

*"Continued destruction of the forest [is] driv[ing] the bird into extinction."*⁷

A. Ungulates Persist Within The Palila's Critical Habitat.

Despite three court orders and the passage of thirty years, ungulates remain in the Palila's critical habitat. In particular, hybrid feral/mouflon sheep continue to be "widespread and locally abundant." Banko decl. ¶ 37. While feral goats are rarely observed on Mauna Kea, sheep are present in both the upper and lower elevations throughout the māmane forest, and reports of large herds, some with over 100 individual sheep, were made during the annual Palila survey in 2008. *Id.*

⁷ *Palila III*, 649 F. Supp. at 1078.

¶ 38. “These observations demonstrate that sheep continue to be distributed from the top to the bottom of palila critical habitat. . . .” Id.

Moreover, a statistical analysis of the number of sheep removed by aerial hunting between 1998 and 2002 (as reported by DLNR’s Division of Forestry and Wildlife (“DOFAW”)) reveals the presence of a growing sheep population. Id. ¶¶ 37, 42. The analysis showed a statistically significant upward trend in the number of sheep taken during aerial hunts. Id. Because the aerial hunts are standardized, the “data indicate that the sheep population is growing within palila critical habitat.” Id. ¶ 42. Notably, the upward trend continued through 2007 (the last year for which defendants filed mandatory progress reports with the Court), when the number of ungulates removed by aerial hunting reached “an all-time high of 647 animals.” Id.

B. The Palila Population Is Plummeting.

The feeding and herding habits of ungulates, which favor māmane leaves, stems, seedlings, and sprouts as food sources, continue to “have a devastating effect on the endemic māmane forest.” Palila III, 649 F. Supp. at 1078; see also Palila I, 471 F. Supp. at 990; Banko decl. ¶¶ 38-41. In the past five years, the Palila population has plunged by more than 60%. See Banko decl. ¶ 26; Exh. 4. Experts estimate that, between 2003 and 2008, nearly 4,000 birds have disappeared

from the Palila’s critical habitat, leaving behind a mere 2,640 birds. Id.⁸ This downward trend is especially alarming because it “represents the first statistically significant population decline over any five-year interval in the 29-year palila population record.” Banko decl. ¶ 26. Experts warn that “if environmental conditions causing the decline persist and the downward trajectory continues without change, the species would be extinct by the year 2013.” Id. “Foremost” among the threats to the Palila population “is habitat degradation and loss due to ungulate browsing,” which harms the Palila in several ways. Id. ¶ 52.

C. Ungulates Immediately Diminish Available Māmane Pods, Impairing The Palila’s Feeding And Breeding Habits.

Ungulates “eat the lower branches of trees, causing a distinct ‘browse line’ under which no branches remain,” thereby continuing to “actually presently injure” the Palila by removing available food resources. Banko decl. ¶ 32; see also Exh. 5 (depicting browse line on māmane tree); Palila III, 649 F. Supp. at 1080. On the northern slope, “all māmane trees accessible to sheep near tree line display a distinct browse line below which there is little or no foliage.” Banko decl. ¶ 39. Recent browse damage is also severe on Mauna Kea’s southwestern slope. Id.

⁸ The population estimates Dr. Banko provides differ slightly from the estimates provided to the Court in the defendants’ biannual status reports because the U.S. Geological Survey has standardized the figures to achieve a meaningful comparison of the Palila population over time. See Banko decl. ¶¶ 24-25.

The Palila is an “extreme feeding specialist[] that survive[s] almost entirely on food resources produced or supported by the māmane tree.” Banko decl. ¶ 15; see also Palila I, 471 F. Supp. at 989 (the Palila is “uniquely adapted to feeding upon the mamane”). Māmane seeds, which “Palila obtain . . . by tearing open green māmane pods,” make up the vast majority -- about 90% -- of the Palila’s diet. The Palila obtains additional nutrients from “māmane flower buds and reproductive parts, leaf buds, and developing leaves,” “[n]ative caterpillars (*Cydia plicata*), which are found inside māmane pods,” and “[f]ruits, leaves, and flowers from naio and other native plants.” Banko decl. ¶ 16.

Because the “Palila tend to harvest pods throughout the canopies of mature trees, including branches all the way to ground level,” the ungulates’ removal of low-lying māmane branches, and with them pods, flowers, and leaves, harms the Palila by “remov[ing] food resources from palila habitat.” Id. ¶¶ 17, 32; see also Exh. 3 (depicting healthy māmane with flowering canopies extending to ground level). Indeed, studies indicate the annual survival rates of adult Palila drop as māmane pod availability decreases. Id. ¶ 15.

Reducing the availability of māmane pods also impairs the Palila’s breeding habits, reducing overall offspring production. Id. ¶ 14. Importantly, “when māmane pod availability is higher, more breeding, and, consequently, greater overall production of palila offspring occurs.” Id. When māmane seed pods are abundant, studies have shown that “more palila pairs nest, and eggs are laid over a

longer breeding season. Conversely, when less pods are available, very few pairs nest and the breeding season is shorter.” Id.

D. Ungulates Continue To Prevent Māmane Regeneration, Reducing The Seasonal Availability Of Māmane Pods.

In addition to diminishing the immediate supply of māmane pods and other food products, the presence of ungulates continues to damage older trees and prevent the regeneration of young trees to replace them. See id. ¶ 39 (observing, e.g., “the near extermination of seedlings that had sprouted in previous years” on the northern slope); see also Palila I, 471 F. Supp. at 990 n.11 (“There is a direct correlation between the ability of the mamane to regenerate and the presence of browsing sheep and goats.”).

Damage from ungulate browse has truncated and fragmented the Palila’s māmane forest habitat, which has “significantly contributed to the openness of the woodland as we see it today.” Banko decl. ¶ 40. As this Court has noted, even a “small number” of ungulates can “denude an area totally.” Palila I, 471 F. Supp. at 990. Young trees “less than two-meters-tall are more likely to die or suffer slowed growth when heavily browsed, reducing tree recruitment and forest recovery.” Banko decl. ¶ 33; see also Exh. 6 (depicting browse damage to young māmane). In addition, “[a]s older trees die off, whether naturally or due to problems from bark stripping or other threats, the persistence of browsing prevents or slows the regeneration of young trees to replace them.” Id. ¶ 35. For example, long-term

ungulate browse at tree line at the highest elevations, where ungulates often congregate, effectively pushes the tree line down the mountain, truncating the upper limit of the forest. Palila I, 471 F. Supp. at 990; Palila III, 649 F. Supp. at 1078. “Prolonged browsing also reduces māmane cover across the landscape, causing resources to become scarcer as gaps in the canopy enlarge in size.” Banko decl. ¶ 36; see also Exh. 7 (depicting gaps in māmane canopy cover on the western and northern slopes).

Most recently, initial results from a three-year study of māmane forest composition and structure indicate that the overall canopy cover in the Palila’s habitat is only 19%, with less than a third of the canopy comprised of māmane trees. Banko decl. ¶ 41. Because the study was not random, but involved data collected along transects established for the annual Palila survey, “where tree cover seemed relatively high and less variable,” the actual percentage of māmane canopy cover across the mountain is likely even lower. Id. Despite the probable overestimate, the figures “still provide a useful indication of the relatively low cover overall of māmane and other tree species in palila critical habitat.” Id.

“Concentrated, sustained browsing” impairs the Palila’s essential behavioral patterns by reducing “the range over which habitat extends, and, therefore, the period over which māmane pods are available to palila.” Id. ¶ 35. “Māmane trees tend to flower, followed by seed-set, in the upper elevations earlier in the year, with a distinct wave of flowering and seed-set gradually spreading to lower

elevations later in the year.” Id. ¶ 19. The Palila “track the flowering māmane trees up and down the slopes to ensure a continuous supply of food.” Id. “To ensure that palila have a sufficient food source year-round, therefore, it is vital that māmane forest extend over a wide gradient of elevation.” Id. Illustrating this, most Palila reside on Mauna Kea’s western slope, which “supports the most extensive māmane forest in terms of area, where mature māmane trees persist over a wide range of elevation between about” 5,740 and 9,510 feet. Id. ¶ 20; see also Palila III, 649 F. Supp. at 1073-74. The lack of regeneration, however, “reduces māmane cover, fragments the forest, and truncates the range of elevation over which habitat is available to palila.” Banko decl. ¶ 40. The effect is to reduce the amount of māmane pods and parts both immediately and seasonally available to the Palila, impairing the Palila’s feeding and breeding habits as discussed in Part III.C, supra. See also Banko decl. ¶¶ 13-15, 36.

E. Harm To The Palila Is Accentuated During Drought Periods.

The ungulates’ destruction of the māmane forest and the resulting harm to the Palila is accentuated in times of drought and other limiting environmental conditions. See Banko decl. ¶ 12 (decreased annual survival rates of adult Palila correlate with decreased māmane pod production caused by drought). As this Court has recognized, ungulates are destroying the Palila’s habitat and suppressing the Palila population to such an extent that the Palila “is critically susceptible to the

influence of disease, environmental stress, drought, and other limiting factors.”

Palila III, 649 F. Supp. at 1080 & n.38. Studies show that “māmane pods become scarce during periods of prolonged drought, which can have a negative effect on palila body condition, survival, and nesting.” Banko decl. ¶ 12.

Fortunately, māmane do “continue to produce some pods” during periods of drought, and if there were more māmane trees in the forest, pod production would continue to occur at levels that could support the Palila’s feeding and breeding habits. Id. ¶ 27. Thus, “given that palila will have more to eat if there are more trees, it is possible to reduce the effects of drought (or other environmental factors that reduce the availability of māmane pods) by actively increasing the density of trees in the forest.” Id. More trees and pod production will also result in higher levels of nesting and breeding. Id. ¶ 14. As long as ungulates remain and destroy the Palila’s habitat, however, the Palila population will continue to be “highly susceptible to harm from other environmental factors, such as fire or drought.” Palila III, 649 F. Supp. at 1078; see also Banko decl. ¶ 36.

IV. THE COURT SHOULD ENFORCE ITS ERADICATION ORDERS

*The Palila continues to be “perched on the verge of extinction.”*⁹

A. The Court Has Jurisdiction To Enforce Its Orders.

This Court expressly retained jurisdiction to enforce its 1979 and 1987 orders “to determine, as necessary, whether defendants have taken sufficient and effective action completely and permanently to remove [the ungulates] from the Palila’s critical habitat on Mauna Kea in compliance with the mandate of this court.” 1979 Judgment & Order ¶ 5; 1987 Judgment & Order ¶ 7. Even in the absence of the Court’s express reservation of jurisdiction, the Court has inherent power to “vindicate its authority, and effectuate its decrees.” Kokkonen v. Guardian Life Ins. Co., 511 U.S. 375, 381 (1994).

B. Permanent Ungulate Removal Requires Effective Fencing.

Hawai`i’s territorial government recognized the importance of fencing to achieve permanent ungulate eradication as early as the 1930s, when it undertook to protect the Mauna Kea Forest Reserve (which, with the exception of the Ka`ohe Game Management Area, roughly overlaps the Palila’s critical habitat) from destruction by feral ungulates. See Banko decl. ¶ 29. “The first step” the territory undertook “was to build trails and roads so that a perimeter fence could be constructed.” Id. In a 20-month period between June 1935 and January 1937, the

⁹ Palila III, 649 F. Supp. at 1178.

territory erected a 55-mile long stock-proof fence around the entire Mauna Kea Forest Reserve. Id. After the fence was completed, the territory proceeded to remove “over 46,000 feral sheep and more than 2,220 other ungulates” from the Forest Reserve between 1937 and 1947. Id. While portions of the perimeter fence still stand today, the fence is degraded and presently inadequate to keep ungulates out of the Palila’s critical habitat. See id. ¶ 43.

Defendants themselves have long recognized that ungulate-proof fencing is necessary to comply with the Court’s eradication orders. As early as the eradication plan they filed with this Court on September 17, 1979, defendants committed to make the existing perimeter fence around the Mauna Kea Forest Reserve “as stock-proof as possible to avoid re-colonization of Mauna Kea.” Exh. 12: 1979 Eradication Plan at 7. Three years later, defendants attributed an increase in ungulate population “mostly” to “immigration of sheep from adjacent ranch lands.” Defendants’ Eighth Status Report, Exhibit A at 2 (filed Nov. 3, 1981). That status report recognized that total eradication would require “a systematic fencing program.” Id. at 3.

Several of the biannual status reports thereafter submitted to the Court indicate that, as a part of their eradication efforts throughout the 1980s and 1990s, defendants did inspect and repair major gaps in the Mauna Kea Forest Reserve perimeter fence. See, e.g., Defendants’ Tenth Status Report, Exhibit A at 2 (filed Feb. 14, 1984) (“The larger gaps in the fencing around Mauna Kea were closed

and the Kaohe perimeter fence was restored to prevent ingress by sheep and goats.”); Defendants’ Seventeenth Status Report, Exhibit A at 1 (filed July 30, 1987) (“One additional mile of fence was constructed along the southern boundary of Mauna Kea.”); Defendants’ Eighteenth Status Report, Exhibit A at 2 (filed Feb. 24, 1988) (“Extensive repairs were made to the Mauna Kea Forest Reserve boundary fence.”); Defendants’ Thirty-Third Status Report, Exhibit A at 2 (filed Sept. 3, 1996) (“Boundary fence maintenance efforts are on-going in order to minimize or eliminate ingress of sheep and livestock from adjacent ranch lands.”); Defendants’ Thirty-Seventh Status Report, Exhibit A at 3 (filed Sept. 17, 1998) (“The entire boundary fence around Mauna Kea was inspected during the report period.”); Thirty-Eighth Status Report, Exhibit A at 3 (filed Feb. 22, 1999) (“Boundary fence maintenance efforts are on-going in order to eliminate or minimize ingress of sheep and livestock from adjacent ranch lands. When breaks are observed, work crews are assigned to do repair work.”). These reports demonstrate defendants’ recognition that an ungulate-proof perimeter fence is essential to minimize ungulate movement into the Palila’s critical habitat and a necessary component of an effective ungulate eradication strategy.

In 1998, defendants reaffirmed the importance of ungulate-proof fencing when they committed to use their “best efforts to minimize migration” of ungulates, expressly acknowledging that such efforts might require “maintenance, repair, and upgrading of the forest reserve perimeter fencing.” 1998 Stipulation &

Order ¶ 1. Only last year, DOFAW similarly acknowledged in a grant pre-proposal that “fencing around Mauna Kea should be initiated to prevent immigration of ungulates from outside Critical Habitat.” Exh. 13: DOFAW’s 2008 National Fish and Wildlife Foundation (“NFWF”) pre-proposal at 2.

C. Defendants Have Failed To Comply With Their Duty To Minimize Ungulate Migration.

Notwithstanding their recognition that fencing is essential to minimize ungulate migration and achieve complete and permanent eradication, defendants have failed to report having performed any work on the perimeter fence since 2001. See Defendants’ Forty-Fourth Status Report, Exhibit A at 2 (filed Mar. 21, 2002) (“No work was done on the Mauna Kea boundary fenceline” for the period July 1, 2001 though Dec. 31, 2001); Defendants’ Forty-Fifth Status Report, Exhibit A at 2 (filed Sept. 3, 2002) (“No work was done on the Mauna Kea boundary fenceline” for the period Jan. 1, 2002 though June 30, 2002).

All mention of maintenance, repair, or even inspection of the perimeter fence disappears from the defendants’ status reports to the Court after 2003. See generally Defendants’ Forty-Eighth Status Report (filed July 22, 2004) (for the period July 1, 2003 through Dec. 31, 2003) through Defendants’ Fifty-Sixth Status Report (filed April 11, 2008) (for the period July 1, 2007 through Dec. 31, 2007).¹⁰

¹⁰ Defendants filed no further reports with the Court in 2008, and have yet to file any reports in 2009.

Defendants' failure to maintain an ungulate-proof fence has left sheep free to roam into the Palila's critical habitat, as the perimeter fence "has been breached in many places." Banko decl. ¶ 43; see also DOFAW's 2008 NFWF pre-proposal at 2 ("A fence currently encircling the Mauna Kea Forest Reserve was constructed in 1937 and has fallen into disrepair.").

D. The Court Should Establish An Expeditious Timetable For Defendants To Complete A Perimeter Fence.

It is unconscionable that defendants have failed to construct and maintain an ungulate-proof perimeter fence after acknowledging for the past thirty years that such a fence is necessary to completely and permanently remove ungulates from the Palila's critical habitat. See Part IV.B, supra. In the 1930s, lacking the technology and road access available today, the Territory of Hawai'i completed the Mauna Kea Forest Reserve perimeter fence in only twenty months. See Banko decl. ¶ 29. As was the territory's goal, the fence facilitated the eradication of feral ungulates and resulted in a resurgence of the Palila's māmane-naio habitat. Id. This accomplishment illustrates that it is possible, within a reasonable timeframe, to minimize ungulate migration into the very same area encompassed by this Court's orders.

Eleven years after promising to use best efforts to minimize ungulate migration, defendants have indicated they will complete, by October 1, 2009, a comprehensive plan for fencing the Palila's critical habitat. See Declaration of

Koalani L. Kaulukukui ¶ 9. Defendants have refused, however, to commit to a firm schedule for implementing the fencing plan. *Id.* ¶ 8. Plaintiffs have made good faith efforts to resolve this matter without further motion practice, but after decades of violating the ESA and this Court’s orders, defendants’ vague assurances they may build an ungulate-proof fence sometime in the future are simply not adequate. *Id.* The Court must establish a concrete and enforceable timeline to hold defendants’ feet to the fire and ensure they finally construct the fence.

Time is of the essence if there is to be any hope of stopping the Palila’s slide toward extinction. Accordingly, plaintiffs respectfully ask the Court to order defendants to complete construction of an ungulate-proof fence around the lower boundary of the Palila’s critical habitat no later than June 1, 2011. This deadline will provide defendants with twenty months to implement their fencing plan. More than seventy years ago, the territorial government successfully completed such a fence in twenty months. With all the modern equipment at their disposal, defendants should need no more time to get the job done.

V. CONCLUSION

“If the Palila is to have any hope of survival, the [ungulates] must be removed to give the mamane forest a chance to recover and expand.”¹¹

By failing to halt the ingress of ungulates into the Palila’s critical habitat, defendants have failed to take “sufficient and effective action” completely and

¹¹ *Palila III*, 649 F. Supp. at 1080.

permanently to remove the ungulates, violating orders this Court entered decades ago. 1979 Judgment & Order ¶ 5; 1987 Judgment & Order ¶ 7. Defendants themselves have recognized an ungulate-proof perimeter fence is vital to effectuate this Court's eradication orders, yet they have refused to commit to a firm timetable to construct and maintain the long-overdue fence. Accordingly, plaintiffs request that the Court "vindicate its authority, and effectuate its decrees," Kokkonen, 511 U.S. at 381, by ordering defendants to construct, no later than June 1, 2011, a fence following the lower boundary of the Palila's critical habitat that will prevent ungulates from entering the Palila's critical habitat, and to maintain this fence in an ungulate-proof condition.

DATED: Honolulu, Hawai'i, March 23, 2009.

Respectfully submitted,

/s/ Koalani L. Kaulukukui
DAVID L. HENKIN
KOALANI L. KAULUKUKUI
Earthjustice
223 S. King Street, Suite 400
Honolulu, Hawai'i 96813

Attorneys for Plaintiffs