25

HAWAIIAN FERAL PIGS

The smaller ones came with the first Polynesian explorers, crossing the open Pacific at least fifteen centuries ago. They were the first hoofed animals ever to set foot on the Hawaiian islands, the world's most isolated landmasses. More than a millennium later, the larger ones came with European settlers. The smaller Asian pigs interbred with the larger European boars. The new breed prospered—and it escaped. Today, with abundant food, a perfect climate, no natural predators, and no significant natural competitors, *Sus scrofa*, the wild Hawaiian pig, flourishes on all five islands.

For ecologists concerned about saving some of the most fragile and unique ecosystems on Earth, that is the problem. The pigs are prodigious eaters. Their hooves crush native plant species that evolved over millions of years in the absence of any such animal. Omnivores, they eat the nestlings of ground-nesting tropical birds. Their wallows create ideal breeding ponds for alien mosquitoes that carry avian malaria, against which native Hawaiian birds have no resistance. They also love to root (one ecologist has called them "living rototillers"), and wherever they annihilate patches of native vegetation, faster-growing alien plants, such as Himalayan ginger, invade and dominate. Perhaps worst, *Sus scrofa* is especially fond of the cores of giant tree ferns. Tree ferns are a favored nesting place for many tropical bird species but grow slowly and are difficult to replace. Half of Hawaii's native bird species had gone extinct by 2000, and the wild pig is widely regarded as the single most important cause. But for the last twenty years, hunters,

government agencies, and environmental groups have been locked in a bitter dispute about how to control the animals. Front and center in the dispute is The Nature Conservancy's Kamakou Preserve on Molokai.

Molokai is the least densely settled of the big islands. It is home to only about 7,000 human inhabitants, most of whom are of Polynesian descent and many of whom have hunted wild pigs for generations. The island is spectacularly beautiful and contains some of the rarest and most interesting ecosystems in the world.

The Nature Conservancy (TNC) owns several preserves on Molokai. Each is home (sometimes the last and only home) to many unique plant and animal species. The Kamakou Preserve was acquired in 1982. It includes lush rain forests and high mountains. It is home to a rare variety of native Hawaiian bird species, some of which (such as the *kakawahie*) survive nowhere else. The preserve abuts other wild areas managed by the Hawaiian Department of Land and National Resources (DLNR) and the U.S. National Park Service (NPS). Collectively, they are a priceless ecological resource.

In the 1960s, DLNR and NPS began a variety of programs to control the wild pigs. Their goal was not eradication but a reduction in numbers sufficient to protect the ecosystem from excessive damage. For the pigs, it was not a happy development: All the control measures (trapping, snaring, and hunting) are lethal. But to DLNR and NPS ecologists, the choice seemed simple: Stop the pigs, which are neither rare nor endangered, or lose bird and plant species, which are both.

Since its founding, TNC has defined its core mission as the preservation of important ecosystems. At the Kamakou Preserve, TNC members and volunteers have spent hundreds of thousands of hours carefully patrolling to remove alien plants, destroy alien insect nests, and so on. In 1989, TNC decided that the existing pig control measures were inadequate: Many parts of the preserve were so remote, for example, that hunters could not be induced to hunt pigs in them. It launched an aggressive new control program using snares. The snares were extremely effective. Between 1989 and 1992, more than 300 wild pigs were killed, and tree fern destruction fell by almost half.

But the snares quickly became controversial. Snares are indiscriminate and will kill a hunting dog as surely as a wild pig. Molokai natives, who use dogs to hunt the pig, soon organized opposition to the snaring program. Snares are also cruel, as animals caught in them often die slowly, sometimes of starvation rather than asphyxiation. In 1993, at the invitation of local hunting organizations, two members of People for the Ethical Treatment of Animals (PETA) secretly entered the Kamakou Preserve. They were Alex

Pacheco (then PETA president) and David Barnes (a PETA staff member of Hawaiian ancestry). Over the next fourteen days, they photographed dead pigs and goats, collected skulls, and destroyed more than 700 TNC snares. Their report, subtitled "Hell in Paradise," is gruesome. It began thus:

> A hunter on the island of Molokai Hawaii came upon a pregnant pig caught in a snare trap, still alive. Maggots filled her open, bleeding neck, where the wire noose had eaten through to her trachea. She was totally dehydrated; obviously she had been there many days. The torn-up ground around her told of her frantic thrashing that had only tightened the noose further. She . . . was one more victim of The Nature Conservancy's (TNC) monstrous program to annihilate the free-roaming pigs of Hawaii, pigs brought here by the Polynesians 1,500 years ago . . .
>
> TNC has set itself up as a judge, arbitrarily deciding who shall live and die so as to recreate the "biodiversity" of a certain moment in time. But the Earth is not a static theme park; it is a living, changing organism, and the animals' capacity for pain and their right to live out their lives are not trivialities, but major considerations. Help us fight TNC's plan![1]

The daily log kept by Pacheco and Barnes is equally vivid. Here are excerpts from two of the entries:

> DAY 6 At one station next to each snare that had been tripped were piles of bones. The skulls were tagged and surveying tape was wrapped around them. . . . Next station, more bones, skulls. More snares TNC had set long ago and just left.
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> DAY 14 One station had 30 snares, almost all had skulls and bones, the vegetation was gone around them all. It must have been quite a scene when all these animals were starving to death here in "paradise."[2]

Weeks later, PETA launched a national campaign calling for a boycott against TNC until the snaring program was stopped.[3] Later that year, partly in response to public demonstrations organized by PETA and local groups, the Hawaiian state legislature asked (but did not order) that DLNR, NPS, and TNC abandon snaring and use other methods to control the wild pig.

A Hawaiian hunting group opposed to snaring offers this comment:

> The fact of the matter is that the majority of the trapped animals are snared in a manner that allows them to survive for days and sometimes weeks. They are subjected to a living death of dehydration, starvation, infection and being eaten alive by the insect larvae that hatch in the gaping cuts inflicted by the

snare and subsequently spread into the eyes, nostrils and mouth of the captured animal. The dependent young that have no choice except to remain with the mother, suffer the same slow death of dehydration and starvation.[4]

The snares are not monitored, and in most areas managed by TNC, NPS, and DLNR, they are checked only every several months. Between 1995 and 2000, TNC spent $85,000 to develop a radio telemetry snare that would send a signal revealing its location, allowing TNC staff to quickly dispatch snared pigs. The system proved impractical because of the numbers of snares (there are thousands on the islands) and the signal-blocking terrain features.

But along with hunting and fencing (with one-way pig gates), TNC still uses unattended steel snares. It believes that it has no other option. Hawaii's native plants and animals reflect its uniquely isolated evolutionary history. It has only two native mammals (a bat and a seal), no native reptiles, and no native land amphibians. Over time, with no selective pressure from large predatory mammals, some native birds lost the ability to fly. Having evolved on islands without grazing animals, many native plants evolved root and stem structures that cannot recover from grazing. The hoofed animals that were introduced to the island (pigs, goats, sheep, and deer) are especially damaging. According to TNC, "These hoofed animals inflict catastrophic damage by trampling vegetation, browsing, and rooting up the tender shoots of young plants, opening the way for other aggressive invasive plant and animal pests."[5]

DISCUSSION

At the dawn of the twenty-first century, Hawaii's island ecosystems are a still a fantastically rich and complex web of plants and animals indigenous to the islands, plants and animals transplanted by Polynesians, and plants and animals imported by Europeans. But all seem to agree that the ecosystems are not as rich or complex as they were only a few decades ago. And most seem to agree that *Sus scrofa* is one of the important causes driving the change.

In the title of this case, we referred to the wild Hawaiian pig as "feral." This is technically correct: *feral* (from the Latin *ferus*) simply means "wild" or "untamed." It is the term most commonly used in the public literature regarding the pig. But from an ecological perspective, what is most important about the pig is not that it is wild but that is an "interloper" or "exotic" in the Hawaiian ecosystem.

As noted in the discussions of Case 23: Have You Seen This Fish? and Case 24: Australian Cats, the concept of an exotic, alien, or interloper species is more complex than it may seem. This may be especially true in Hawaii, where the only truly native species are those that landed or evolved before the arrival of the first Polynesians. Neither TNC nor any other environmental group intends or aspires to restore a pre-Polynesian ecosystem on any part of the Hawaiian islands. But TNC, with the support of other groups and agencies, does hope, as far as it is possible, to restore a pre-European ecosystem in some of its Hawaiian preserves.

In TNC's view, the pre-European Hawaiian ecosystems have special value—values sufficient to justify not only the time and effort required to restore them but also the painful killing of the wild pigs who threaten them.

In PETA's view, the project could hardly be more wrong: It is using immoral means—a "monstrous program to annihilate the free-roaming pigs of Hawaii"—to pursue an ecologically silly goal: a "a static theme park."

The mostly Polynesian hunters on Molokai have a range of views, but at least three beliefs seem to be widely shared. First, the wild pig should not be eradicated from the entire island. Second, controlling wild pig populations in the ecological reserves may be necessary to save endangered bird and plant species. Third, means other than unmonitored steel snares (which are cruel to pigs and dangerous to dogs) should be used.

QUESTIONS

1. TNC believes that Hawaii's pre-European island ecosystems, to the extent that they can be restored, have very special value. Do they? What is that value? Is it sufficient to justify killing members of interloper species such as the wild pig? Is it sufficient to justify killing such animals slowly and painfully?
2. PETA asserts that it would be better to eradicate the wild pig from Molokai once and for all than to "control" them indefinitely by the use of cruel and painful methods. Eradication would clearly not please island natives, who have hunted and eaten the pigs for generations. Is eradication morally preferable to control? Is eradication morally preferable to control programs relying on snares?
3. Molokai's hunters obviously believe that their dogs are more valuable than the wild pig: They use their dogs, after all, to help them kill the

pigs. Is their view morally justified? To their owners, the hunting dog obviously has more extrinsic or instrumental value than the hunted pig. Does the dog have more intrinsic or inherent value?

4. How do the issues raised by this case differ from the issues raised by the other cases involving alien or interloper species, such as Case 22: Saving Mink, Killing Voles, Case 23: Have You Seen This Fish?, and Case 24: Australian Cats?
5. Why is killing wild pigs on Molokai so controversial but killing northern snakeheads in Maryland so uncontroversial? Both are interlopers. Both are regarded as delicacies by those who eat them. Both threaten substantial ecological havoc, including the extermination of native species. Both can suffer. Is the crucial difference simply the use of snares, or is it simply more acceptable to kill a fish than to kill a mammal?
6. Suppose that the snares could be modified so that they invariably caused a quick death. They would then be much more dangerous to dogs, who are usually accompanied by their owners and can now be freed when accidentally caught. Would such snares be morally preferable to the ones now in use?
7. Suppose that a variety of the swine flu virus could be modified to render it highly lethal to swine but nonpathogenic to other animals, including humans. And suppose that there were a vaccine to guard against the virus's escape into other populations. Would it be morally justifiable to release the virus on Molokai in the hope of eradicating the island's pigs?
8. According to Aldo Leopold, "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."[6] If Leopold is correct, what should TNC do regarding the wild pigs in the Kamakou Preserve?

NOTES

1. "A Research and Investigative Report: Hell in Paradise," *PETA News* 8, no. 2 (1993), available at www.halehaku.com/peta.html.
2. "A Research and Investigative Report."
3. As of January 2003, PETA publications still advised readers not to donate to TNC. See Carla Bennett, "Find Out Where Your Donations Are Going," available at www.peta.org/liv/c/23.html.

4. Halehaku, "A Comment on Steel Snares," available at www.halehaku.com/informationonsnares.html.
5. The Nature Conservancy, "Hawaii's Natural History," available at http://nature.org/wherewework/northamerica/states/hawaii/science/art2412.html.
6. Aldo Leopold, *A Sand County Almanac; With Essays on Conservation from Round River* (New York: Oxford University Press, 1966).

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