

# AWI Quarterly

SUMMER 2023 • VOLUME 72 • NUMBER 2



## A MESSAGE FROM THE EXECUTIVE DIRECTOR/CEO

### Thanks for Your Support— and Your Input

In this, as in every issue of the *AWI Quarterly*, we offer important news affecting animal welfare and showcase some of what the generous support of our members has allowed AWI to do on behalf of animals—from helping air patrols in Kenya thwart poachers to providing succor to animals victimized by war in Ukraine, fighting inhumane US slaughter practices, working to pull the vaquita porpoise of Mexico from the brink of extinction, and more. In all these efforts, we depend on your support. If you've donated recently—or can take a moment today to make a donation—I offer our heartfelt gratitude.

Our gratitude also goes out to all those who respond to our calls to action by contacting legislators and other

policymakers on key animal measures—it makes a difference. See pages 8 and 9 of this issue to learn about recently introduced animal welfare bills championed by AWI. As always, your legislators need to hear from you on why these measures are important.

AWI also wants to hear from you! We are inviting *AWI Quarterly* readers to take a brief online survey to help inform our outreach efforts to improve the lives of animals. The survey, which should take no longer than 15 minutes, is a chance to offer your thoughts on animal welfare issues that matter most to you, how AWI can optimize its engagement with supporters (including you), and how we can work better together to stand up for animals. We'll keep the survey open through the end of August, and your responses will remain anonymous. To begin, scan the QR code below, or visit [awionline.org/survey](http://awionline.org/survey).

Thank you again for your compassion and for working with us to improve the lives of animals everywhere.

—Susan Millward



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ISSN 1071-1384 (print)  
ISSN 1930-5109 (online)

Tax ID# 13-565952  
CFC# 10474





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**Animal Welfare Institute**

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**ABOUT THE COVER**

In March, nations of the world reached agreement on the High Seas Treaty—an effort to protect the vast oceans beyond the jurisdiction of any nation. The treaty will seek to safeguard the tremendous biodiversity of these areas, including our cover animal, the endangered giant manta ray. (See page 11.) Closer to shore, an effort is underway to protect giant mantas and a number of other ray species that ply the waters of the Mesoamerican Reef. With help from a Christine Stevens Wildlife Award from AWI, scientists are using noninvasive techniques to assess the diversity, distribution, and abundance of these rays. (See page 10.) Photograph by Adobe Stock.

*Elephants, like this mother and baby in Kenya's Amboseli National Park, belong in the wild. AWI is urging the US government to ban imports of live African elephants and elephant trophies.*

## Advocating Greater Protections for African Elephants

In March, AWI submitted comments to the US Fish and Wildlife Service (USFWS) urging the agency to ban the import of live African elephants and their trophies into the United States due to significant welfare concerns and a lack of conservation benefits for wild populations in Africa. African elephants are listed as threatened under the Endangered Species Act (ESA), and specifically tailored protections for the species are set forth in what is known as a “4(d) rule.” The USFWS is revising the existing 4(d) rule (issued in 1978), with the goal of ensuring that US actions enhance African elephant conservation. The agency’s proposed revisions represent an improvement over its current import policies. However, given the severity of the threats faced by the elephants and the precipitous decline in their populations in recent decades, a more robust strategy is necessary.

AWI expressed strong opposition to the continued import of wild-caught African elephants for display in zoos in the United States. Elephant welfare is severely compromised in captive environments, which cannot meet the species’ complex biological, social, and cognitive requirements. Such facilities are unable to adequately emulate the habitats, diets, and herd dynamics of elephants in the wild, and elephants in captivity commonly develop behavioral abnormalities associated with stress; suffer from foot maladies, musculoskeletal issues, obesity, and infectious diseases; and experience lower birth rates and higher mortality rates compared to their wild counterparts. This has been linked to the lack of natural social structures and dynamics, inadequate enclosure size, and poor enclosure design that are inherent in the zoo industry. Additionally, capturing wild elephants for a lifetime in captivity provides no conservation benefit to the species, as no elephants bred in zoos are ever returned to the wild.

AWI also urged the USFWS to institute a full ban on African elephant trophy imports. The United States continues to be the world’s largest importer of hunting trophies, which exacerbates existing threats and undermines our nation’s reputation as a global conservation leader. No credible scientific evidence demonstrates that trophy hunting



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consistently provides meaningful conservation benefits to the species in the wild. The nonconsumptive value of elephants, in terms of revenue generated by tourism from eco or photo safaris, far outweighs revenue generated from hunting. African elephants also have immense value as “ecosystem engineers.” The ecological services African elephants provide include forest regeneration through seed dispersal, nutrient cycling, creation of microhabitats that benefit numerous other species, and carbon sequestration. In its proposal, the USFWS also did not adequately consider the negative impacts of trophy hunting on herd structure and dynamics, genetics, and behavior, or Africans’ cultural and social perceptions of trophy hunting.

Many African elephant populations are already severely depleted due to other threats, such as habitat loss, human-elephant conflict, regional conflict and instability, climate change, and a dramatic escalation in poaching during the 21<sup>st</sup> century. A comprehensive survey of Africa’s savanna elephants, published in 2016, found that their numbers declined by 30 percent between 2007 and 2014. Between 2002 and 2011, the African forest elephant population declined by 62 percent, and its range was reduced by 30 percent. Considering these severe threats, the United States must take stronger action to protect African elephants. 🐘



## PROVIDING SANCTUARY TO TRAUMATIZED PRIMATES

AWI continues its partnership with the Pan African Sanctuary Alliance by providing support to three member sanctuaries in Africa this year: the Chimpanzee Rehabilitation Project in The Gambia, the Limbe Wildlife Centre in Cameroon, and the Vervet Monkey Foundation in South Africa. The Chimpanzee Rehabilitation Project rescues chimpanzees who are survivors of animal trafficking or the research industry and provides them with an island home where they are free to roam, form social ties, and forage their own food in a natural forest environment. The Limbe Wildlife Centre cares for over 350 primates, including gorillas, chimpanzees, and drill monkeys, who are victims of the illegal wildlife trade, including infant chimps who require around-the-clock care. The Vervet Monkey Foundation operates a rehabilitation program for injured and orphaned vervet monkeys whose families have been killed by hunters. Orphans are integrated into the foundation's existing social groups so they can experience rich, complex social lives in a manner similar to

wild monkeys. AWI's support provides desperately needed food, veterinary care, caregiving, and enclosure enrichment and maintenance for the primates in these sanctuaries.

## TO CUT CARBON, ADD ANIMALS

According to a study published in *Nature Climate Change* (Schmitz et al., 2023), policies to protect and rebuild densities of global wildlife populations would also combat climate change. Such “trophic rewilding” could supplement other natural climate solutions to achieve the international goal of holding global mean temperatures to an increase of 2.7°F above pre-industrial levels.

The current focus on protecting ecosystems is laudatory, but additional steps are needed to remove the required 500 gigatons of atmospheric carbon dioxide by the year 2100 to prevent global temperatures from rising 3.6°F. But protecting and rebuilding select wild animal populations and restoring their role in ecosystems would significantly enhance capture and storage of carbon in such habitats. Wildebeest,

for example, help suppress wildfires; muskox compact Arctic soils, which helps protect permafrost; the bodies of baleen whales store large amounts of carbon even in death; and forest elephants promote the growth of large, carbon-dense trees that contribute to atmospheric CO<sub>2</sub> reduction.

## LOOSENING SNARING'S GRIP ON INDIAN WILDLIFE

Snares are indiscriminate tools of torture used around the world to capture wild animals—primarily for food but also for trade in animal parts. Made from inexpensive materials such as rope, wire, plastic, and automotive clutch and brake cables, tens of millions of snares are set every year around the world. A 2020 report compared the impact of snares on terrestrial wildlife to the devastating effects of driftnets on marine and freshwater biodiversity. Snared animals may languish for days or weeks before dying, often from exposure, starvation, or dehydration.

In India, the illegal use of snares to catch wildlife is commonplace, including in protected areas. To combat this, AWI is collaborating with the Wildlife Trust of India by funding anti-snare walks in the central Indian state of Maharashtra, including in the Nawegaon-Nagzira tiger reserve. Thousands of snares have been collected during these walks, in which skilled staff work with forest and enforcement agency officials. Using a recently developed mobile app, participants enter data on the number, type, and location of the snares, species caught, injuries, and deaths to fully assess the impact of snares on India's wildlife.

*AWI is helping sanctuaries in Africa rescue and care for vervet monkeys and other primates who have fallen victim to wildlife poachers and traffickers.*



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# AWI Aids Aerial Efforts to Keep Kenyan Wildlife Safe

A conspicuous patrol airplane cruising at low altitude over a Kenyan National Park has an impact similar to a conspicuous police car cruising along an American interstate highway: It produces a prompt and significant decline in violations.

Deterrence is a top priority for the Kenya Wildlife Service (KWS). Warning potential poachers that there is a very high risk of getting caught and being punished serves to deter the majority. Such deterrence results in no laws being violated, no animals being harmed.

Still, a minority of those seeking to profit from stolen wildlife refuse to heed clear warnings and go poaching anyway. Most of these soon learn why the majority were wise not to chance it. Aerial patrols are very effective in discovering the presence of poachers and leading park ranger units on the ground to intercept and arrest them. To be effective, aerial patrols must fly at low altitude and relatively slow speed. The pilot can see better this way—looking for human footprints on a muddy riverbank, peeking under trees, always searching for circling vultures (who have excellent vision and usually find a poached carcass or an animal caught in a snare before the sharpest-eyed human could).

But flying low and slow is innately hazardous. It offers precious little opportunity for a patrol pilot to handle a mechanical failure or recover from a botched maneuver. Response to emergencies must be decisive and prompt. Sadly, the Heroes Monument at KWS headquarters includes the names of several pilots among the six dozen KWS rangers and wardens who made the ultimate sacrifice to keep Kenya's wildlife secure.

AWI has historically helped KWS protect wild animals by providing quality training and supplies to KWS Airwing. With 14 pilots and a fleet of seven patrol aircraft, one utility aircraft, and two helicopters, the Airwing provides aerial support and security for Kenya's 65 national parks, reserves, and sanctuaries (a total area of about 18,000 square miles), as well as for wildlife everywhere within Kenya's 224,000 square miles of national territory.

Most recently, AWI sponsored a one-week flight safety and proficiency training clinic that brought three of America's very best flight instructors—Patty Wagstaff, Jeff Rochelle, and Pete Muntean—to Kenya, where they volunteered to help KWS pilots hone their flying skills and improve their safety.

"Kenya deserves it," said Wagstaff, three-time US National Aerobatic Champion, celebrity airshow performer, and owner of Patty Wagstaff Aviation Safety LLC in St. Augustine, Florida. "Kenya has demonstrated long-term devotion to protecting wildlife. They closed the door to trophy hunting and similar harmful uses of wildlife back in 1977, and have maintained a fully consistent protective policy ever since." She explained that most other African countries welcome trophy hunters, who pay very high fees for their trophy licenses. "But Kenya has declined that approach for very sound biological and ethical reasons."

The training exercise was conducted in Tsavo West National Park earlier this year. "It's important for this kind of training to be conducted in the environment where our pilots actually work," said Michael Nicholson, head of KWS Airwing. "The instructors provide each pilot with a thorough flight review, which identifies and corrects any bad habits that a pilot might have unknowingly developed. It also provides important







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refresher safety exercises to assure prompt and appropriate response to any in-flight issues. Once flight reviews are accomplished, the instructors use their remaining time providing advanced instruction to KWS pilots—making them all the more proficient and better able to provide the very best security for wild animals on the ground.”

In addition to supporting pilot training, AWI has also been helping KWS Airwing keep its aircraft in safe flying condition—providing the Airwing with several replacement engines for patrol aircraft, as well as a large inventory of certified parts needed to restore a Piper Super Cub and a Cessna 182. Skilled pilots flying safe airplanes are an important key to protecting wildlife in Kenya.

While protecting wildlife from poachers is a priority mission for KWS pilots, these aviators are also responsible for accomplishing many other tasks important for the successful operation of national parks. They deliver food, water, and supplies to ranger units on extended patrols and evacuate sick or injured rangers. They conduct periodic censuses of wildlife populations. They also have good experience evacuating wild animals in distress—including orphaned infant elephants.

Tourist security and rescue is another important part of the KWS Airwing remit. KWS pilots have an excellent record of searching for—and finding—errant tourists. Some tourists wander off the road and get stuck in sand or mud. Others suffer flat tires or mechanical problems. Some simply run out of gas. Still others just get lost in the vastness of the

African wilderness—Tsavo East and Tsavo West National Parks combined cover an area larger than New Jersey. KWS pilots have tracked down wayward tourists from the depths of the Great Rift Valley to the 17,000-foot slopes of Mount Kenya.

Illegal grazing by livestock is yet another challenge facing KWS pilots. Sometimes herdsmen sneak tens of thousands of cattle into remote parts of national parks for some free grazing and water. Such large herds can block the park’s wild animals from access to those habitats and deprive them of vital food and water. It is important to herd the cattle out of the parks, and KWS pilots use their patrol airplanes like aerial border collies to get the job done.

There are other missions assigned to KWS pilots, each in its own way contributing to the security of national parks and the wild animals who live there. “Kenya Wildlife Service is very grateful to the Animal Welfare Institute for its generous contributions of training and equipment,” said Dr. Erustus Kanga, acting director general of KWS. “This is a welcomed expression of partnership that results in providing wildlife with the very best security possible.” 🐾

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*By Dr. Bill Clark, whose long and colorful experience in the service of wildlife conservation includes flying for KWS and helping to train KWS pilots (see AWI Quarterly, fall 2018). Patty Wagstaff and Michael Nicholson, who are quoted herein, also contributed substantially to the writing of this article.*

## ADVANCING ANIMAL WELFARE THROUGH APPROPRIATIONS

AWI has been working with members of the House of Representatives and Senate to raise the profile of animal welfare issues and to secure members' support for stand-alone animal welfare bills (see additional news items on this and the following page) as well as for including animal welfare language in the upcoming fiscal year 2024 appropriations bills. AWI also submitted testimony directly to several subcommittees addressing key animal welfare appropriations requests.

We coordinated efforts that led to well over 100 lawmakers signing onto letters to the House and Senate Appropriations Committees in support of the following: (1) providing \$841.3 million for the US Fish and Wildlife Service (USFWS) to fully implement the Endangered Species Act, which has been severely underfunded for years even as we face a worsening biodiversity crisis; (2) prohibiting the importation of African elephant or lion trophies hunted in Tanzania, Zimbabwe,

or Zambia; (3) directing the USFWS to increase transparency and reporting about the use of body-gripping traps within the National Wildlife Refuge System and to spend \$300,000 on a pilot program replacing body-gripping traps with nonlethal methods of wildlife management; (4) urging critical improvements in Animal Welfare Act and Horse Protection Act enforcement; and (5) ensuring continued funding for the Protecting Animals With Shelter (PAWS) grant program, which enables service providers to better assist domestic violence survivors who have companion animals.

Other letters addressed two key equine welfare provisions—a prohibition on the operation of horse slaughter facilities in the United States and the expansion of safe fertility control options to keep wild horses and burros on the range. The horse slaughter letters—led by Sen. Robert Menendez (D-NJ) and Reps. Jan Schakowsky (D-IL), Vern Buchanan (R-FL), Earl Blumenauer (D-OR), and Troy Carter (D-LA)—were signed by 26 senators and 98 representatives. The wild horse and burro letters—led by Sen. Cory Booker (D-NJ) and Reps. Dina

Titus (D-NV), David Schweikert (R-AZ), and Steve Cohen (D-TN)—were signed by 17 senators and 77 representatives.

## PHASING OUT MINK FARMS

AWI spearheaded the introduction in June of the Mink VIRUS Act (HR 3783), sponsored by Rep. Adriano Espaillat (D-NY). This bill would establish a one-year phaseout of mink fur farms in the United States and create a grant program to reimburse mink farmers for the full value of their farms. A growing body of science shows that mink are particularly high-risk “mixing vessels,” producing dangerous variants of respiratory diseases that are potentially transmissible to humans—including COVID-19 and H5N1, a deadly strain of avian influenza. Mink fur farms—where mink are kept in close quarters and often unsanitary conditions—thus threaten to worsen the current pandemic and usher in the next one. In fact, COVID-19 has already infected millions of farmed mink, and there have been several recorded instances of the mink passing a mutated form of this virus back to humans. In addition, in October 2022, mink on a Spanish fur farm contracted H5N1—which has infected few humans but killed more than half of those infected. This was the first time this virus spread widely between mammals, and it could invade other mink farms and become even more transmissible. Scientists are sounding the alarm on this H5N1 outbreak, calling it a “clear mechanism for an H5 pandemic to start.”



*A blue-throated macaw—one among many species protected under the US Endangered Species Act. AWI is working with members of Congress to bolster funding for ESA implementation.*

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## CORRECTING COURSE ON RIGHT WHALES

In February, Rep. Raúl Grijalva (D-AZ) introduced the RESCUE Whales Act (HR 1213). This bill would repeal harmful language included in the fiscal year 2023 omnibus funding package that significantly threatens the survival and recovery of the North Atlantic right whale—of which fewer than 340 remain. Studies show that, since 2011, the American lobster and Jonah crab fisheries have been responsible for a 30 percent decline in the North Atlantic right whale population. In September 2021, the National Marine Fisheries Service (NMFS) published a rule to reduce lethal entanglements in fishing gear; however, a federal court ultimately determined the rule was insufficient under the Marine Mammal Protection Act (MMPA) and ordered NMFS to promulgate a new rule by December 9, 2024. In December 2022, language was added to the fiscal year 2023 omnibus at the last minute, overriding the judge’s ruling and keeping a woefully insufficient September 2021 rule in effect until 2028. Conservationists and lawmakers say that such a delay undermines both the MMPA and

the Endangered Species Act and will inevitably accelerate the extinction of the North Atlantic right whale.

## MARINE MAMMAL PROTECTION IN A WARMING WORLD

In March, Rep. Julia Brownley (D-CA) reintroduced the Marine Mammal Climate Change Protection Act (HR 1383), to protect marine mammals adversely affected by the climate crisis. Since 1972, the Marine Mammal Protection Act has prohibited the “take” of marine mammals—defined to include harassment, hunting, capturing, collecting, or killing—in US waters. Brownley seeks to bolster existing marine mammal protection law by directing the National Oceanic and Atmospheric Administration to assess the impacts of the climate crisis on marine mammals and help protect them as conditions worsen. Upon the bill’s reintroduction, she stated, “We must act to address the impacts of climate change now before it becomes too late to protect marine life and the ecosystems they need that are critical to their survival.”

## IMPROVING WELFARE OF CAPTIVE WILD ANIMALS

In a surprise move, the US Department of Agriculture published a notice that it was considering changes to its Animal Welfare Act regulations to improve the handling of wild and exotic animals as well as the training of personnel who handle them, and to require environmental enrichment for all regulated species. While AWI was relieved to see the USDA finally acknowledge that providing for the psychological well-being of animals covered by the law is as important as ensuring their physical well-being, the suggestions put forward need work. Our submitted comments on the notice emphasized the need to ban public contact with all wild and exotic animals, end the public display of elephants, and establish specific, measurable standards for environmental enrichment. We also emphasized the need for the USDA to issue a long overdue update to its marine mammal regulations, which were withdrawn in 2017 and have been subject to no further action since.

**TAKE ACTION:** Contact your US representative and urge them to support the bills mentioned here. You can address letters to: The Honorable [full name of your US representative], US House of Representatives, Washington, DC 20515. Or visit AWI’s Action Center at [awionline.org/actioncenter](http://awionline.org/actioncenter) to find phone and email contact info for your legislators and to use our online platform to voice your opinion on several important animal welfare bills.

# Ray Surveys in the Mesoamerican Reef

by Dr. Rachel Graham, MarAlliance

Tropical rays occupy important roles in benthic ecosystems, as their foraging behaviors contribute to soft sediment turnover, which makes food available and creates microhabitats for other species. The Mesoamerican Reef (MAR), from the northern tip of the Isla Contoy in Mexico to the Bay Islands of Honduras, hosts at least 11 coastal-pelagic species of rays—including the Caribbean manta, Caribbean whiptail, cownose, giant manta (shown below), lesser electric, longnose, sicklefin devil, southern, spotted eagle, West Atlantic pygmy devil, and yellow ray. These species are economically important, in terms of fisheries in Mexico and Guatemala, and ecotourism in Belize and Mexico.

With support from a Christine Stevens Wildlife Award, we analyzed previously acquired data from Mexico for several marine species, including rays, and then conducted ray assessments and built local capacities to monitor rays found in the MAR, other offshore sites, and the Belize Barrier Reef (BBR).

Using a pair of standardized noninvasive monitoring methods, including underwater visual census techniques and baited remote underwater video systems, we (including traditional fishers) carried out ray surveys to assess species diversity, distribution, and abundance. Compared to traditional survey techniques, which involve costly boat-based or scuba surveys, our methods are less expensive, cover a far larger geographic area, enable rapid sizing and sexing of animals, and allow for participation of fishers and local students who generally do not have access to scuba gear. Our regional results revealed that ray species diversity

and abundance were highest in Belize, with lower relative sightings at sites in Mexico and Honduras.

The same monitoring techniques were used throughout the BBR and offshore atolls in 2022 to estimate ray species diversity and distribution and to assess changes in abundance over time. Abundance estimates varied annually, with counts of southern rays inversely associated with shark abundance. Spotted eagle ray abundance was highest at the atolls, while overall ray diversity was higher along the BBR, with lower abundance in the southern portion of the reef.

Threats to these species are primarily from bycatch and targeted gillnet fisheries. Though consumption of ray meat in Belize was not common historically, demand for ray products has increased in neighboring countries in recent years, incentivizing illegal retention of bycaught rays in Belize. Ray meat is generally not marketed fresh in Guatemala or Honduras, but sold as salted fish that is consumed locally. Fishing mortality has led to a lower abundance of rays in Mexico and southern Belize.

The regional and Belize-based ray assessments, made possible by the award, represent the first comprehensive study of tropical rays, their distribution, and threats in Mesoamerica. Established and emerging fisheries for these species remain unregulated. Moving forward, multinational conservation measures that build on Belize's recent protective legislation for rays—including the national ban on fishing nets—are needed to protect these ecosystem engineers and support coastal ray-focused ecotourism. To assess the effectiveness of the legislation in conserving and rebuilding ray populations in Belize and the larger MAR area, we will continue to employ our standardized and highly collaborative noninvasive monitoring methods. 🐡







# Protecting Ocean Biodiversity Through the New High Seas Treaty

by *Chris Wold, Professor of Law, Lewis & Clark Law School*

In March 2023, after nearly 20 years of planning and negotiations, governments of the world agreed to the final text of the High Seas Treaty (HST). The treaty establishes important rules to protect the “high seas”—the roughly 45 percent of Earth’s surface falling outside the jurisdiction of any country. Importantly, the treaty creates rules for establishing high seas marine protected areas that could safeguard unique, biodiverse seamounts, hydrothermal vents, and other habitats critical to endangered marine mammals, declining shark species, bioluminescent lanternfish, and other species. Properly designed marine reserves can substantially increase species diversity and abundance. Some vital areas, such as the Sargasso Sea and the Costa Rica Thermal Dome, have already been identified as critical to endangered and threatened animals, and designating these areas as reserves could reduce threats to them from bycatch, entanglement in fishing gear, and ship strikes.

The HST also requires participating nations to prepare environmental impact assessments (EIAs) for proposed activities under their jurisdiction that “may cause substantial pollution of or significant and harmful changes to the marine environment” of the high seas. Before authorizing such activities, a nation must determine “that it has made all reasonable efforts to ensure that the activity can be conducted in a manner consistent with the prevention of significant adverse impacts on the marine environment” of the high seas. This standard is stronger than US law, which the US Supreme Court has ruled “merely prohibits uninformed—rather than unwise—agency action.” Despite establishing

a relatively strong EIA standard, the HST does not require organizations currently responsible for managing certain high seas activities—such as fishing, shipping, and deep-sea mining—to adhere to the new treaty’s EIA standards.

The treaty also requires fair and equitable sharing of benefits arising both from the use of marine genetic resources and from information obtained through sequencing of such resources. These include financial and technological benefits, as well as informational benefits, such as access to genetic samples and scientific data. To facilitate benefit sharing, the treaty establishes a freely accessible information clearinghouse concerning marine genetic resources. It also establishes a special fund supported by contributions from nations that are parties to the treaty. Through this fund, the HST can help build the capacity of developing countries to carry out activities involving high seas marine genetic resources. Sharing of financial benefits from the actual use of marine genetic resources could conceivably involve a tax of some sort imposed on the activities of private actors—future negotiations will determine the rules for these financial transfers.

The United Nations has called the HST “historic,” and that may prove true. First, however, the treaty must be formally adopted, which is expected in June after it is translated into the six working languages of the United Nations. Then, for it to enter into force, it must be ratified by 60 nations.

Once these obstacles are overcome, however, the treaty will provide the processes and institutions to achieve its goal of managing and conserving high seas biodiversity. That is significant because, while governments meet regularly to manage and conserve whales and valuable fish stocks such as tuna and salmon, they do not do the same for other aspects of marine biodiversity. In contrast, parties to the HST will meet regularly to build on the treaty’s biodiversity conservation framework and, one hopes, protect valuable habitats and the species that depend on them. 🐋

## IWC SCIENTIFIC COMMITTEE MEETS IN SLOVENIA

The Scientific Committee of the International Whaling Commission (IWC) met in Bled, Slovenia, in May. At these intense, annual two-week working meetings, up to 200 international cetacean biologists and policy experts discuss a broad range of topics relating to cetacean conservation. Three to four concurrent sessions are held in multiple time slots each day, to address a long and complex agenda. The final report goes to the biennial meeting of IWC member nations, where it guides the decision-making process there. AWI marine mammal scientist Dr. Naomi A. Rose has been participating in Scientific Committee meetings since 1999. She has focused primarily on the subcommittees on whale watching (where she serves as rapporteur), environmental concerns, and small cetaceans. The participation of AWI wildlife biologist DJ Schubert for the first time in person allowed AWI to also cover the subcommittees on aboriginal subsistence whaling and ecosystem modeling. Together with colleagues from other organizations, we managed

to get some strong recommendations into the report, including about the endangered vaquita, the Greenland hunts for small cetaceans, and chemical pollution in the ocean.

## CALIFORNIA SEA OTTERS SHOULD NOT LOSE ESA PROTECTIONS

In August 2022, the US Fish and Wildlife Service (USFWS) published a positive 90-day finding regarding a petition from the sea urchin fishery in California to remove the southern sea otter subspecies (also known as the California sea otter) from the Endangered Species Act (ESA) list of threatened species. The USFWS is currently performing a species status review, which will inform the agency's 12-month finding on whether delisting is warranted.

The southern sea otter was hunted ruthlessly by 18<sup>th</sup> and 19<sup>th</sup> century fur traders and, by the 1930s, was thought to be extinct—until a remnant population was found sheltering in the Monterey Bay area. The subspecies was

listed as threatened under the ESA in 1977, and the population has grown to about 2,900 since—a mere fraction of its historical population size. AWI submitted comments asserting that the delisting petition fails to present sufficient evidence that the southern sea otter has recovered and no longer needs ESA protection.

## EFFORT TO PROTECT ATLANTIC HUMPBAC DOLPHIN UNDER ESA ADVANCES

In September 2021, AWI, along with the Center for Biological Diversity and VIVA Vaquita, petitioned the National Marine Fisheries Service (NMFS) to list the Atlantic humpback dolphin as endangered under the Endangered Species Act. Fewer than 3,000 of these dolphins remain, in small, discontinuous populations along the west coast of Africa. A listing under the ESA could raise the profile of this little-known species, make more funding available for essential research to scientists working with Atlantic humpback dolphin populations, and foster international cooperation to improve conservation efforts. NMFS made a positive 90-day finding on our petition, triggering a year-long status review. Meanwhile, an international group of biologists and others have formed the Consortium for the Conservation of the Atlantic Humpback Dolphin (CCAHD; see [sousateuszii.org](http://sousateuszii.org)), which has made good progress with field studies and stakeholder engagement efforts. NMFS consulted extensively with CCAHD during its status review and issued a proposed rule to list the species as endangered in April. Following the comment period, which ended June 6, NMFS will have until April 2024 to make a final decision.

*Two Atlantic humpback dolphins in Guinea.*



TILEN GENOV. CONSERVATION CONSORTIUM FOR THE ATLANTIC HUMPBAC DOLPHIN





BARBARA LOVETT

AWI's Dr. Naomi A. Rose with David Kirby (center left and right) at the home of Barbara and Bruce Lovett.

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## David Kirby (1960-2023)

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David Kirby, an award-winning investigative journalist, died on April 16 at the age of 62, after a series of health setbacks that began in late January after a fall.

David had been active in the AIDS community in the 1990s, working closely with actress Elizabeth Taylor as the press secretary for the American Foundation for AIDS Research, which Taylor co-founded. In subsequent years, he authored four nonfiction books—*Evidence of Harm*, *Animal Factory*, *When They Come for You*, and *Death at SeaWorld*—as well as a comedic novel, *Upper East Bride*. In *Death at SeaWorld* (2012), David focused on the dark side of life in captivity for orcas at SeaWorld and prominently featured the work of AWI marine mammal scientist Dr. Naomi A. Rose.

In March 2010, David was sitting in the green room at CNN, waiting to go on a program to discuss the just-published *Animal Factory*, when he heard that an orca named Tilikum had killed SeaWorld trainer Dawn Brancheau. As he looked into the incident and into issues of orca captivity, Naomi's name kept popping up. He cold-called her that October, and from there, he and Naomi formed a strong relationship—part friendship, part colleague—that continued through the years. Together, they traveled to British Columbia, Canada, to see where she had studied the northern resident orcas years before. He stayed at her home in July 2011 as he combed through her files. In September and November 2011, they attended the nine-day hearing when SeaWorld challenged the Department of Labor citation for Brancheau's death. They were in almost daily contact throughout 2011 and 2012, until *Death at SeaWorld* went off to the printer, and were together at the New York book launch in July 2012 and at subsequent book signings across the country.

David was a clear-sighted writer with a keen ear for narrative, endlessly curious about a wide range of topics. He was whip-smart, witty, and infectiously engaged with life. He had his down moments—there were certainly times when, as a freelance writer, he didn't know where the next job was coming from—but mostly he was always looking forward, to the next journalistic piece, the next book, the next adventure (he and his partner, Carlos, traveled the world, as lightly as two people could possibly travel, often with no more than a day pack of "stuff"). He was an avid gardener, and everywhere he and Carlos lived (they were seasoned house flippers), they constructed the most beautiful botanical spaces, including in Kerhonkson, New York, where they fixed up a cottage and its surrounding buildings to make their summer home, and in Puebla, Mexico, where they bought and renovated a fantastic historic house as their winter home. David also loved his two dogs, Wilson and Dugui, fiercely.

After *Death at SeaWorld* was published, David continued to write for a few years about captive cetaceans, consulting often with Naomi. Eventually, *Death at SeaWorld* was optioned for television, which made David giddy as he reviewed the scripts and obsessed over who would play this or that character, including Naomi.

David was extremely happy in his final years, and it is a solace that he left this world on such a high note. The outpouring of grief from his wider community—those who read his books, knew him personally, and cared deeply about this lovely man—has been overwhelming.

Farewell, and rest in peace, David. 🐾

# HAS A LIFELINE BEEN THROWN TO THE VAQUITA PORPOISE?

**I**N May, scientists conducted a survey in the Upper Gulf of California, looking for the world's most endangered cetacean: the vaquita. Equipped with powerful binoculars and hydrophones, trained observers sought to detect the elusive species, of which fewer than 10 are believed to remain. During the last survey in fall 2021, vaquita adults and calves were observed, demonstrating that after decades of decline, a small population was enduring in its only habitat on Earth.

Survey results are difficult to predict. Fishers targeting the valuable totoaba fish and other lucrative species such as shrimp have plied these waters for decades. Their (now illegal) gillnets indiscriminately kill vaquita, whales, rays, sharks, sea turtles, and myriad other bycaught marine

species, threatening the biodiversity of one of the most ecologically productive marine habitats in the world.

Totoaba bladders—coveted for their purported medicinal benefits, to make soup, and simply as an investment—are worth tens of thousands of dollars on Chinese black markets. Although no credible population estimate is available, scientists indicate the rate at which totoaba are being poached is unsustainable, and the International Union for Conservation of Nature reports that the species is in decline.

Recognizing the threat to the vaquita, totoaba, and other Upper Gulf species, AWI and its partners (the Center for Biological Diversity, Environmental Investigation Agency, and Natural Resources Defense Council) have implemented



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a multifaceted strategy using national laws and international conventions to compel the Mexican government to enforce its fishing laws. In September 2020, Mexico promulgated regulations to combat illegal fishing in vaquita habitat, which, if fully implemented and enforced, could save the vaquita.

Despite the urgency of the situation, international agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the World Heritage Convention are often ill-suited to spur timely action in such crises. Typically, there is a great deal of debate and calls for further studies, as well as deference to the non-compliant country in the hope that it will choose to abide by the international body's decisions and recommendations. The stark reality in this case is that, over the past 30 years, Mexico has made and broken multiple promises to save the vaquita.

In a glimmer of hope, on March 27, the CITES secretariat recommended that parties to the convention suspend all commercial trade with Mexico in CITES-listed species (e.g., reptile skins, artificially propagated plants, timber/wood products)—trade worth millions of dollars annually. The suspension was triggered by Mexico's failure to submit an adequate compliance action plan to combat illegal fishing and trafficking of totoaba as directed by the CITES Standing Committee in November 2022.

In response to the suspension, a delegation of Mexican officials went to Geneva for talks with the secretariat. On April 13, the recommended trade suspension was withdrawn after Mexico submitted a revised plan that was provisionally approved by the secretariat. (That plan has not been released publicly.) Mexico now has six months to implement this plan or potentially face sanctions again when the Standing Committee reconvenes in November 2023.

Mexico may also face sanctions from the United States. In 2014, the Department of the Interior was petitioned to use its authority under the Pelly Amendment to the Fishermen's Protective Act of 1967 to certify that, in targeting totoaba, nationals of Mexico "are engaging in trade or taking which diminishes the effectiveness of [an] international program for endangered or threatened species"—in this case, CITES. Under the Pelly Amendment, once such a certification is issued, the president has 60 days to decide whether to embargo fish or other wildlife products (and potentially limit other imports) from the country.

When the DOI failed to respond to this petition, AWI and our coalition partners sued. On May 18, consistent with a settlement of that suit, Interior Secretary Haaland did, in fact,

certify that the "taking and trade" of totoaba and "related incidental take of vaquita" by Mexican nationals "diminishes the effectiveness of ... CITES." It is now up to President Biden to decide whether and what sanctions to impose.

In addition, the World Heritage Committee (after years of delay due to the COVID-19 pandemic and controversy over Russia's chairmanship) will meet in September to decide on measures designed to protect vaquita and totoaba. The committee designated the World Heritage site in the Upper Gulf as "in danger" in 2019 because of threats to the vaquita and totoaba. Now, it will finally vote on a suite of corrective actions and conservation criteria that, if met, would eventually allow the "in danger" designation to be removed.

Cumulatively, these actions may finally cause Mexico to step up enforcement efforts. Meanwhile, in April, the Sea Shepherd Conservation Society and the Mexican Navy, which have been collaborating in the region, reported a noticeable decline in illegal fishing in the Zero Tolerance Area (ZTA)—where vaquita spend most of their time—as well as in adjacent waters.

While this is good news, illegally set gillnets continue to threaten vaquita. During a single operation in March, for example, over two miles of nets were removed from the Upper Gulf. There are ongoing reports from the Mexican media and from fishers themselves of uncontrolled gillnet fishing for totoaba within the Gillnet Exclusion Zone (which encompasses the much smaller ZTA) to protect the vaquita throughout its historic range.

Furthermore, illegal vessel operations continue to occur in the ZTA, while gillnet use (or potential use) has been documented both within and, more frequently, outside of the ZTA. While the Navy does seize some nets, it prefers to ask fishers to pull their nets and leave the area. Moreover, it does not cite or arrest fishers engaged in illegal activities. Even when totoaba poachers are prosecuted, such cases can be derailed, as with the recent case in which government witnesses refused to testify due to reported threats to their families and themselves.

Is the decline in fishing in the ZTA permanent or an anomaly? Will Mexico's CITES-approved plan succeed or be another broken promise? Despite the decades of lawlessness and Mexico's enforcement failures, this tiny porpoise persists. Such perseverance gives us some hope that if gillnet fishing can be permanently eliminated, the population can recover, and countless other species can be saved from cruelly dying in gillnets. 🐾

## USDA URGED TO ADDRESS MISLEADING LABEL CLAIMS

Four US senators, led by Sen. Richard Blumenthal (D-CT), have written to Sandra Eskin, the US Department of Agriculture's deputy under secretary for food safety, expressing concern about the department's process for evaluating animal-raising claims such as "humanely raised" and "sustainably raised." The senators cited an AWI report indicating that 85 percent of analyzed animal-raising claims on meat and poultry products lacked adequate substantiation. (See *AWI Quarterly*, fall 2022.) The USDA has the authority to deny the use of labels believed to be misleading. AWI's review of label applications over the past decade, however, found that higher-welfare claims on labels have proliferated in the marketplace without USDA approval—or with only marginal evidence to support these claims.

AWI reviewed 97 label claims dating to 2013. For nearly half (48), the USDA was unable to provide any application submitted by the producer, suggesting a significant percentage of meat and poultry products in the marketplace contain unapproved claims. Of the remaining claims, most producers provided minimal documentation that, at best, merely indicated compliance with basic industry animal care standards.

In 2021, President Biden signed an executive order directing the USDA to address how consolidation in the agricultural sector is hurting small farmers. AWI urged the USDA to include an examination of its label-

*A fire in Texas killed 18,000 dairy cows. AWI is urging the National Dairy FARM Program to adopt fire safety measures and limitations on crowding that would reduce the risk of such tragedies.*

approval process as part of this effort—since allowing industrial operators to make dubious welfare claims undercuts small farmers who actually do adhere to higher standards. In May 2022, the USDA announced a review of these claims but has yet to release any findings or updated label guidelines.

## TEXAS DAIRY FIRE KILLS 18,000 CATTLE

In April, a massive fire and explosion occurred on South Fork Dairy in Dimmitt, Texas, tragically killing around 18,000 cows. This is the deadliest fire involving cattle since AWI began tracking barn fires in 2013.

In response to this incident, AWI is pressuring the National Dairy FARM Program—the industry's lead auditing and certification program—to revisit past recommendations made by AWI to better protect cows from barn fires. Specifically, we are urging the program to amend its animal care guidelines to require compliance with the National

Fire Protection Association's Fire and Life Safety in Animal Housing Facilities Code (NFPA 150), require evacuation plans for animals housed indoors, establish tighter limits on the number of animals housed in one building, and encourage installation of fire suppression systems (e.g., sprinkler systems) in animal housing areas.

The magnitude of this event and the fact that it involved such a large number of cattle understandably caught the attention of national media outlets and state officials. However, it is not the first fire on an agriculture operation to kill tens of thousands of animals at once (it is not even the first this year). Since 2013, nearly 6.5 million farmed animals have been killed in barn fires across the United States, and large fires on massive, industrial-scale operations that kill tens or even hundreds of thousands of animals at once are largely to blame for the vast majority of those deaths. These incidents illustrate just one of the animal welfare crises associated with confining such large numbers of animals in one facility.



WE ANIMALS



*Inhumane conditions, disease, and environmental harm are all common features of CAFOs. Meanwhile, abuse of such factory-farmed animals at slaughter increases the risk of Salmonella contamination.*

## FED CREDIT TO CAFOS REQUIRES ENVIRONMENTAL ASSESSMENT

In March, the US District Court for the District of Columbia ruled that the US Department of Agriculture’s Farm Service Agency (FSA)—which provides federal loans to farmers and ranchers—must assess the environmental impact of medium-sized concentrated animal feeding operations (CAFOs) before extending credit. The FSA adopted a regulation in 2016 exempting CAFOs that confine up to 1,000 beef cattle or 125,000 chickens from environmental impact review. The plaintiffs in the case sued the USDA in 2019 for failing to provide evidence-based justification for this exemption to review under the National Environmental Policy Act.

## TREATING SALMONELLA AS ADULTERANT IN POULTRY

The USDA’s Food Safety and Inspection Service (FSIS) is proposing, for the first time, to treat *Salmonella* as an adulterant for purposes of the Poultry Products Inspection Act. Under the proposal, breaded and stuffed raw chicken products—which the agency indicates have been associated with *Salmonella* illness outbreaks—would be considered adulterated and subject to rejection if they contain levels of *Salmonella* contamination that exceed a permissible threshold established by the FSIS. This action follows the release of the FSIS’s proposed framework to enhance testing and monitoring of *Salmonella* during poultry slaughter. In October, AWI submitted extensive comments on that proposal, arguing that the agency



PAU

failed to take into account an important factor contributing to *Salmonella* contamination—the frequent mistreatment and mishandling of birds during the slaughter process. (See *AWI Quarterly*, spring 2023.) The FSIS is accepting comments on the proposal to treat *Salmonella* as an adulterant through July 27. To comment, visit [bit.ly/SaAdprop](https://bit.ly/SaAdprop).

## MISSOURI COURT QUASHES LOCAL OVERSIGHT OF HOG FARMS

The Missouri Supreme Court has ruled that a state law prohibiting counties from imposing regulations on industrial hog operations does not violate the Missouri Constitution. The ruling upholds a lower court decision that county ordinances seeking to establish rules for CAFOs are invalid. In 2021, the Missouri General Assembly passed legislation prohibiting local ordinances that are “inconsistent with, in addition to, different from, or more stringent” than state law. Twenty counties had enacted restrictions on animal feeding operations before the state prohibited local regulation.

## “DOWNED” PIG LAWSUIT DISMISSED

In March, a judge in the US District Court, Western District of New York, dismissed a lawsuit brought by AWI and six other animal advocacy organizations to protect the welfare of nonambulatory disabled (NAD) pigs (also known as “downed” pigs). The groups sued the USDA in 2020 alleging the department had arbitrarily denied the plaintiffs’ petition for rulemaking that asked it to no longer allow downed pigs to be slaughtered for human consumption and to require instead that they be humanely euthanized. The suit also charged that the USDA had failed to investigate and submit a report to Congress on NAD pigs and their treatment, as required by law.

The USDA has banned the slaughter of NAD cattle and calves for human consumption, and the plaintiffs had sought the same protection for pigs. In dismissing the case, the court agreed with the federal government’s arguments that the plaintiffs lacked standing to maintain the suit because they had not been sufficiently injured by the department’s lack of action to report on or protect NAD pigs.

# BACK IN SIGHT, BACK IN MIND:

## AWI Petitions to Require Cameras to Monitor Pigs Slaughtered with CO<sub>2</sub> Gas

**O**ut of sight, out of mind. The adage captures one of AWI's central concerns when it comes to the slaughter of pigs in the United States. Most are stunned or killed in the steel-walled confines of carbon dioxide (CO<sub>2</sub>) gas chambers, out of view of federal inspectors. Consequently, those inspectors have no way of assessing the humaneness of the slaughter process or reporting stunning-related humane violations. To address this problem, AWI submitted a rulemaking petition that requests mandatory video cameras inside the gondolas (steel cages or compartments) that are used to convey pigs into the gas chambers. The cameras would be required to both record and provide live footage of the pigs while they are being gassed. This would, for the first time, enable inspectors to evaluate the humaneness of CO<sub>2</sub> use during the slaughter of pigs and to intervene when welfare violations occur.

### Use of CO<sub>2</sub> slaughter in the United States

In a typical slaughter plant, small groups of pigs are loaded into a gondola, which is then lowered into a chamber filled with CO<sub>2</sub>. The gas eventually causes loss of consciousness, or death if exposure is long enough. Stunning can take a minute or more; killing can require several minutes. After stunning, the animals are dumped out of the gondola, strung up head down, bled, and butchered.

CO<sub>2</sub> gas has been used in the slaughter of pigs in the United States for decades. Over the last 20 years, however, its popularity within the pork industry has skyrocketed. In 1999, CO<sub>2</sub> was used to stun about 2 percent of pigs at slaughter. By 2020, it was used to stun about 86 percent

of all pigs and 96 percent of pigs in the largest slaughter plants. That year, more than 110 million pigs were stunned or killed using CO<sub>2</sub>—several times the total combined number of slaughtered cattle, calves, and sheep (about 36 million). Today, according to AWI's review of US Department of Agriculture enforcement records, at least 32 slaughter plants use CO<sub>2</sub> gas systems to stun or kill pigs.

### A long list of welfare concerns

Enabling inspectors to observe CO<sub>2</sub> use in slaughter is critically important, because many pigs suffer from the effects of the gas. They can experience respiratory distress, hyperventilation, a sense of breathlessness, gasping, suffocation, convulsions, fear, panic, stress, and pain from irritation of the eyes and mucous membranes that line the throat and nose. These effects were revealed to the public for the first time in videos taken by an undercover investigator in October at a Smithfield Foods meatpacking plant in Los Angeles. As described in a *Wired* magazine article published in January, the recordings showed that, as the gondola was lowered into the gas pit, "the pigs began to squeal and thrash violently around in the cage, struggling to escape and convulsing for nearly a minute before finally laying still." As the investigator told *Wired*, "Pigs are very human-like in their screaming. And I wasn't expecting to see them suffer for so long. ... I knew it was going to be bad. But I wasn't really prepared for the screaming."

Indeed, exposure to the high concentrations of CO<sub>2</sub> gas typically used by slaughter plants can cause pigs so much pain and fear that the European Food Safety Authority



has called for replacing it with other gas mixtures (such as nitrogen and argon) that are less aversive—calls that have so far gone unheeded by the pork industry in the United States.

Making matters more complex—and adding urgency to the need for careful monitoring—is the fact that not all pigs suffer in the same ways or for the same reasons. The severity of distress and discomfort caused by CO<sub>2</sub> and length of time it takes the gas to render pigs unconscious can vary widely among individual pigs and groups of pigs due to a panoply of

the stunning area also increases the likelihood of an aversive reaction to CO<sub>2</sub>. This is recognized in the USDA's own humane slaughter regulations: "Delivery of calm animals to the [CO<sub>2</sub> gas] anesthesia chamber is essential since the induction, or early phase, of anesthesia is less violent with docile animals."

Further, research has found that sex, age, health conditions, breed, and genetics can all affect how rapidly pigs lose consciousness upon exposure to CO<sub>2</sub>. Overloading of gondolas can also play a role: When overcrowded animals fall on

*Pigs inside a gondola descending into the CO<sub>2</sub> pit of a stunning system at a Smithfield Foods slaughter plant in Los Angeles. Photo by Raven Deerbrook.*



factors. For example, individual pigs and different breeds or ages of pigs may react differently when exposed to the same quantity and concentrations of gas, with some showing little or no struggling, while others exhibit elevated levels of distress through crawling, attempting to escape, and piercing screams.

If the temperature or humidity of the gas falls too low, it can cause burns on the skin or pain during inhalation. Loud sounds, such as from machinery and the screams of other pigs in the stunner, can compound stress experienced during CO<sub>2</sub> exposure. Rough handling of pigs as they are moved toward

top of each other, it can compress their chests and lead to insufficient inhalation of gas. Yet another factor is the speed at which the gondola descends into the pit. Faster conveyor speeds could reduce the time of exposure to the gas, which could result in animals that are not rendered as deeply unconscious, or unconscious at all.

Even outdoor environmental conditions such as wind, temperature, and humidity can affect pigs by reducing the CO<sub>2</sub> concentration in the gas chamber when doors are opened and closed or fans are turned on and off within the plant. Lower gas concentrations typically prolong the time to unconsciousness

and may result in a shallower plane of anesthesia, increasing the risk that pigs will regain consciousness while they are being hoisted by a back leg and cut for bleeding.

### The urgent need for observation

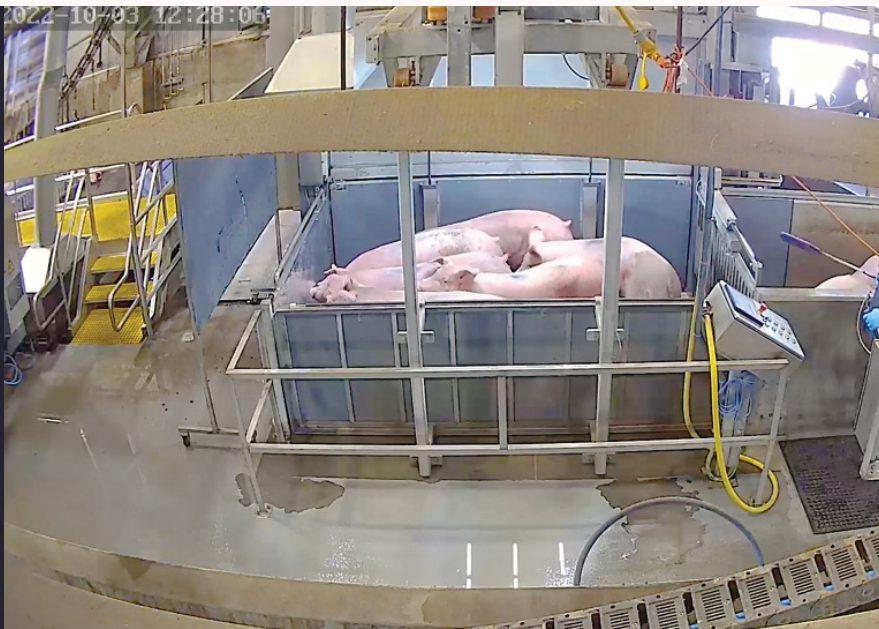
It is evident that a worrisome host of variables could cause any individual pig or group of pigs loaded into a CO<sub>2</sub> gondola to experience severe suffering. That is why it is urgently important that federal inspectors be able to directly observe the stunning or killing as it is taking place. This would enable them to assess, each time a gondola is lowered into the gas chamber, the extent to which any individual pig or group of pigs is suffering and whether any violations of federal humane requirements are occurring—and if so, suspend slaughter operations until corrections are made.

Yet, inexplicably, the use of CO<sub>2</sub> remains the only approved method of slaughter that occurs out of inspectors' view. In contrast, captive bolt stunners, electrical stunners, and firearms are used in areas where inspectors can actually watch and hear the process. This lack of visual access when CO<sub>2</sub> is in use is particularly egregious given that the vast majority of pigs are slaughtered with CO<sub>2</sub>. It is also unlawful: The Federal Meat Inspection Act and Humane Methods of Slaughter Act require inspectors to conduct an "examination and inspection" of all methods of stunning and killing at slaughter and to assess whether those methods are humane. If inspectors are unable to observe the use of CO<sub>2</sub> to stun or kill pigs, there is no way they can examine or inspect the slaughter process, or determine if it is humane.

To address this logical and legal shortcoming, AWI and its allies petitioned the USDA's Food Safety Inspection Service to amend its regulations to require that (1) cameras be installed inside all gondolas used in CO<sub>2</sub> gas systems and (2) the cameras both record and provide live video (including audio) of the entire interior of the cage and all of the animals inside during the gassing operation. No animals could be loaded into a gondola unless these standards are met.

Installing cameras in gondolas would not be a significant burden for the many slaughter plants that already use cameras in other areas of their facilities. On the contrary, it would benefit their operations by helping to alert them to problems that may need to be addressed—such as improper gas concentrations, temperature, or humidity; overloading of the gondola; or improper gondola speeds—any of which could influence how rapidly and effectively pigs are stunned and killed. It would also align with the advice of researchers such as renowned animal behaviorist Dr. Temple Grandin, who has long called for the use of video cameras to observe pigs while they are being stunned or killed with CO<sub>2</sub> gas.

So long as the stunning and killing of pigs with CO<sub>2</sub> continues to occur out of sight, with no opportunity to observe what is happening on the other side, plant inspectors will remain unable to evaluate whether slaughter is occurring humanely, as the law requires. Mandating the placement of cameras inside gondolas used in CO<sub>2</sub> systems would be a simple, affordable, and effective step toward bringing the welfare of pigs back into view, and back into the minds, of inspectors with the power to enforce what humane regulations require. 🐾



RAVEN DEERBROOK



# *Senseless Killing of Rats at Baylor Exposes Institutional Oversight Failures*



## *“Animal welfare is our top priority.”*

These words are recited like a refrain whenever someone raises concerns about the use of animals for experimentation, testing or education. Next come assurances that the institution “follows all applicable laws” and that “the work has been reviewed and approved as ethical and humane” by the Institutional Animal Care and Use Committee (IACUC)—the institution’s federally mandated internal body overseeing its care and use of animals in research, testing, and education. Translation: “The oversight system is working.”

But is it working? How thoroughly was this research reviewed, and how closely were all laws and regulations followed? How much did the IACUC members—most of whom work at the research facility—prioritize animal welfare over practicality or expediency? And what, if anything, happens if laws and regulations *aren’t* followed?

In December 2022, AWI learned of a disturbing situation involving the use of rats in an undergraduate class at Baylor University. AWI wrote to Baylor expressing grave concerns. Baylor responded—but in an opaque manner that merely raised more questions, so AWI followed up with another letter seeking answers. Many weeks have

passed since, with no further response from the university. The situation, described below, serves as a case study illustrating how the oversight system is failing animals and why it must be strengthened.

Institutions such as Baylor that receive federal Public Health Service funding must also comply with the *Public Health Service Policy on Humane Care and Use of Laboratory Animals* (PHS Policy), with compliance monitored by the National Institutes of Health’s Office of Laboratory Animal Welfare (OLAW). In an upcoming issue of the *AWI Quarterly*, we will present a second case study that examines just how well OLAW “resolves” animal welfare issues.

## *“It was better for students to not know.”* -----

Baylor’s Learning & Behavior Lab is an undergraduate class, offered for nearly 20 years by the university’s Department of Psychology and Neuroscience. This past fall, approximately 60 rats were trained by students of this class to press a lever and perform a trick. The lab manual indicated that, following this experiment, the animals would be “used by other Baylor researchers for numerous other purposes.” However, as Baylor faculty members reportedly acknowledged, this information was false; in fact, the animals were meant to be killed following their use by the students.

When the truth of the rats’ imminent death came out—after a few teaching assistants came clean to students in their sections—at least one student implored the lab instructor, Dr. Hugh Riley, and the department chair, Dr. Bradley Keele, to have the rats adopted, placed in a sanctuary, or kept as class pets instead. This student, whose plea was denied, told the *Baylor Lariat* student newspaper that he felt “betrayed” and “duped into a situation where [he was] complicit in killing a life.” When the student asked Riley why students had been deliberately misled, Riley reportedly replied that it was better for students to not know.

Defending the university’s refusal to spare the rats’ lives, Keele—who also chairs Baylor’s IACUC—said that because the IACUC-approved protocol dictated the killing of the rats, the university was bound by law to do so. “We operate 100% to comply with all local, state and federal laws,” Keele told the *Lariat*. “The euthanasia of the animals in the learning

and behavior lab is what we have to do to remain compliant.” This isn’t entirely true—the protocol could be amended to have the rats adopted rather than killed. Regardless, there is an undeniable problem when the oversight system meant to protect animals not only allows the killing of healthy individuals but also is used as an excuse to deny a more humane option.

The failings of Baylor’s IACUC go well beyond approving the senseless killing of so many healthy rats—the use of rats for this class should never have been allowed in the first place. The ethical use of animals in science, including science education, mandates that animals should only be used if the research/learning objectives cannot be achieved using non-animal methods. And in the case of teaching introductory level undergraduate students about operant conditioning, alternatives to live animals *do* exist and are already in use by this class in the form of “Sniffy the Virtual Rat” software. As stated in the lab manual, “The Sniffy Virtual Rat program is used extensively and often exclusively in many Universities,” and “Using Sniffy also allows for students to observe some learning experiences that a real rat lab could not provide.” Nevertheless, the university has the class follow up with live animals, apparently because, according to the lab manual, use of a real rat in an in-person lab format is “nice.” This attitude inevitably teaches students that rats are expendable—a lesson driven home with force once the students learned of the rats’ fate.

## *“A little bit of humor here, folks.”* -----

Before the rats were senselessly killed, they suffered senseless deprivations. Per the lab manual, they lived in social isolation, notwithstanding direction from the federal *Guide for the Care and Use of Laboratory Animals*, which the IACUC must follow. The guide states, “Social animals should be housed in stable pairs or groups of compatible individuals unless they must be housed alone for experimental reasons or because of social incompatibility.” Social species suffer when deprived of companionship, and here, there is no scientifically justifiable reason for the rats to be housed alone.

The manual further indicates that the rats were deprived of water for 23 hours a day to motivate them during training

to press a lever for a water “reward.” In truth, rats with unrestricted access to food and water readily learn to press a lever for a sweet treat. Thus, had the IACUC done its due diligence, it would have at the very least requested that the animals be housed with a companion and have free access to food and water.

Equally troubling is the manner in which rats are portrayed and belittled throughout the lab manual—for example, as lazy and unintelligent animals for whom solitary confinement in a small cage with little stimulation is not only “reasonable” but also creates a more optimum learning environment. Some of the manual’s statements even make light of the abusive conditions (see screenshot on next page).





(If you) lever-press --> (you get to) drink --> (and, therefore,  
 you may continue to) live (in solitary confinement).  
 1  
 (If you) don't lever-press --> (you) don't drink --> (and you) die.

<sup>1</sup> A little bit of humor here, folks. We are not going to abuse your animal.

Language matters, particularly in a teaching situation. Educators have a duty to teach young scientists to honor and respect animals used in the name of science.

Following our initial inquiry, Baylor stated, “The IACUC performed a complete *de novo* review of all protocols involving live rats used for teaching.” It also indicated that it has “re-enacted” an adoption policy as one of several alternatives to killing. Among the questions we attempted to resolve in our follow-up letter: If there was a prior adoption

program, why was it abandoned? Will killing remain one of the available options? Will rats continue to be used in this and similar courses—and, if so, will they continue to be subjected to single-housing and prolonged water deprivation? Baylor also stated, “The department revised and corrected the laboratory manual in use in the course to reflect more accurately the policies and procedures of Baylor and the actions and requirements of the IACUC”; however, the university has not responded to our request to see the revised manual.

**“Used appropriately.”/“Living the plush life.”** -----

Like most research institutions, Baylor claims high ethical and animal care standards. In September 2022, a puff piece appeared in the *Lariat* titled, “BSB [Baylor Science Building] Vivarium delves into research with animal welfare in mind.” In this article, Dr. Ryan Stoffel—attending veterinarian, animal program director, and IACUC member—said, “I want to make sure that the animals that we use in research are well cared for and that we take into account their welfare” and asserted that the IACUC makes sure animals “are used appropriately.” Natasha Howard, manager of the BSB director’s office and a former laboratory animal assistant in the BSB Vivarium, claimed, “Research mice and rats get fed very well and are ‘living the plush life.’”

Does the Baylor IACUC really consider social isolation, prolonged water deprivation, and needless killing of rats for an undergraduate psychology course to be examples of animals “used appropriately” and “tak[ing] into account their welfare”? (Meanwhile, the photo accompanying the article shows Stoffel standing in front of a rack full of shoebox cages

for mice, barren but for a single cotton Nestlet—an amount known to be insufficient to allow mice to build a nest.)

Baylor told AWI that it has “corresponded with OLAW regarding this instance and has resolved the issues at hand.” And the fact is, Baylor may well have resolved the situation in OLAW’s eyes. IACUCs have a duty to demonstrate good ethics, but have wide discretion and little accountability. Baylor’s treatment of rodents may be highly questionable and even cruel, but it is the type of conduct that is frequently allowed—either because it is permitted under the law or the law is not enforced.

Baylor’s animal welfare record is not unique, nor is it the worst. Institution after institution asserts compliance with the law as proof that its treatment of animals is humane. But the Baylor case amply illustrates that “compliant” and “humane” are not synonymous. Until an oversight system emerges that truly does emphasize animal welfare as the top priority, “compliant” will continue to allow for the misuse and mistreatment of animals in research, testing, and teaching. 🐾

# Science in the Service of Animals

*Located* in upstate New York, Farm Sanctuary's New York shelter is home to more than 500 rescued animals, including cows, pigs, and chickens. As described in a recent *New York Times* article—"Why Did the Chicken Cross the Barn? To Sign Up for the Scientific Study."—some of the sanctuary's residents also voluntarily participate in behavioral research that aims to better understand the nature and lived experiences of farmed animals as individuals and as species.

Research at Farm Sanctuary follows strict ethics standards, which the sanctuary developed in collaboration with Dr. Lori Gruen, an animal ethicist at Wesleyan University. The guidelines state, among other things, that studies must be noninvasive and benefit the animals, and that sanctuary residents must be viewed as cocreators of knowledge and always be provided with choice and control over their participation in a study. To ensure adherence to these guidelines as well as high levels of scientific rigor, the research is conducted under the guidance of the sanctuary's Research with the Animals Advisory Committee comprising several scientists and a veterinarian.

Can—and should—all such research with animals be conducted according to similar standards? Advisory committee member Dr. Becca Franks, an assistant professor in the Department of Environmental Studies at New York University, thinks so. Speaking with Dr. Joanna Makowska,

AWI's laboratory animal advisor, Franks explained that noncoercive research with animals as cocreators of knowledge is not only possible, but also exactly the kind of information we need if we want to solve many of the world's problems, including the biodiversity crisis. "Conducting research this way wouldn't shut down science," she explained, "it would be a new way to learn about the world and to understand how our decisions about interventions with wildlife affect biodiversity and conservation."

Historically, wildlife conservation management grew out of 20<sup>th</sup> century scientific perspectives that emphasized population- and ecosystem-level patterns and assumed that all individuals of a species behave uniformly, which minimized individual personalities or cultural differences between communities. "When we talk about preserving an elephant or even cod or Atlantic halibut—these are animals who have built up millennia of knowledge. It's not just a biological inheritance," said Franks.

Indeed, conservation efforts can sometimes fail because scientists disregard animal psychology. For example, African elephant conservation efforts that focus exclusively on younger individuals' reproductive potential run the risk of overlooking the important fact that young elephants cannot survive without the information about their social and ecological environment passed on from the matriarchs. Similarly, translocations of kangaroo rats to restored habitats







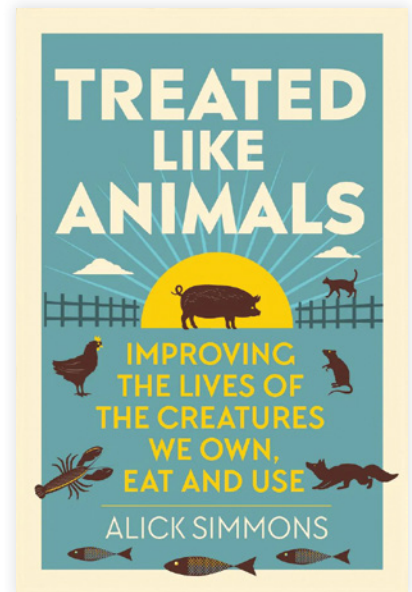
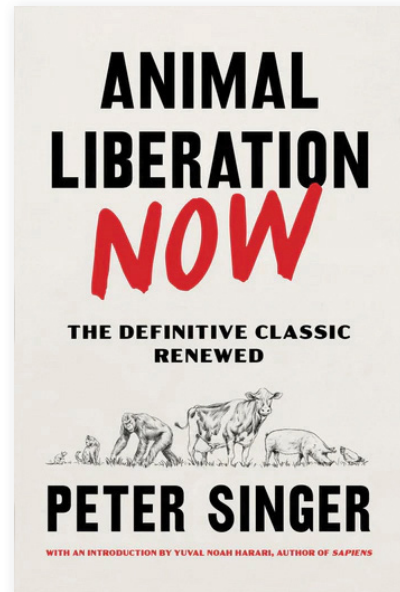
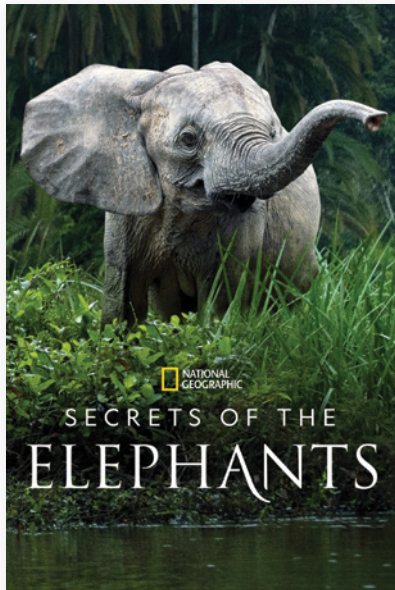
have been shown to be unsuccessful when individual kangaroo rats' social relationships and preferences are not taken into account. The importance of social groups and intergenerational transfer of knowledge has recently been recognized by the Convention on the Conservation of Migratory Species of Wild Animals, an international treaty operating under the UN Environment Programme.

Franks believes that scientific investigations need to begin with thinking about the inherent worth and value of animals and taking that moral status seriously. "If you have that standard at your core, it steers your attention towards different aspects of the animal's life and what questions to ask, what problems to solve, and what tools to solve those problems with," she explained. Traditionally, ethics are seen as a constraint that limits the types of questions you are allowed to ask. However, Franks said, "if you push through that view, and engage with ethics on a level where it is actually changing the way you see the world, it can draw our attention to aspects of the world that we aren't currently tracking with science very well." And far from constraining the type of questions science can ask, this type of ethical, collaborative science invites us to consider how different species' knowledge adds to our limited human perception of the world.

Taking a similar, noncoercive approach to science with animals is Dr. Laurie Santos, professor in the Department of Psychology at Yale University, who conducts much of her research with free-ranging rhesus macaques at Cayo Santiago, a small island off the coast of Puerto Rico. Santos' area of interest is comparative cognition, which investigates differences in cognitive development and

processing between human and nonhuman animals. At Cayo Santiago, monkeys roam, eat, and drink freely among their peers. Far from hindering research, this environment has allowed Santos and colleagues to develop new ways to learn about monkey cognition. Santos uses tasks that capture the monkeys' attention and for which monkeys volunteer. Actually, Santos' team uses some of the same methods they use with human infant participants, which has the added—perhaps crucial—advantage of more direct comparisons between the two species.

In a recent review paper, Santos and graduate student Amanda Royka stated that "testing primates in naturalistic conditions allows researchers to study primates' cognitive abilities under more ecologically valid conditions" and that "more naturalistic contexts may increase subjects' motivation on tasks, revealing cognitive competencies that may be masked in captive settings." Echoing this sentiment, Franks firmly believes that traditional science misrepresents animals because it is myopically focused on studying animals living very constrained lives. "There is truth value in telling stories about who animals are and in understanding what we are depriving them of, and how data are distorted, if we constrain them with no choices and few opportunities for pleasure," she said. "We can't get the public to care about animals when we provide data on boring and deprived creatures. We need to generate information on rats who are problem solving in their community, looking for the best place to start a family; rats who build elaborate burrows and are interested in burrow maintenance. This is what is taken from them in 'standard' cages—reducing their behavioral repertoire and also not telling a more honest story about who they are." 🐾



## SECRETS OF THE ELEPHANTS

2023 / National Geographic / Four episodes

National Geographic's newly released four-part docuseries, *Secrets of the Elephants*, streaming on Disney+, takes an in-depth look at the complex behaviors of elephants living in southern Asia and in savannas, rainforests, and the Namib Desert of Africa.

Produced by James Cameron and narrated by Natalie Portman, the series provides a rich, engaging, and cautionary account of these highly imperiled gentle giants. Dr. Paula Kahumbu of WildlifeDirect, who has spent decades studying elephants, serves as primary guide during the series, providing keen insights into elephant society.

Beautiful panoramic and aerial vistas provide a visually compelling backdrop to the narrative, which deftly details the extraordinary and varied challenges that elephants face simply to survive in the modern era—from ivory hunters to angry farmers to climate change. Notwithstanding these difficulties, the viewer can't help but marvel at the intelligence and adaptability of these enormous creatures—such as the elephant bulls in Thailand who have successfully

managed to extract a sugarcane “toll” from truckers passing through with a harvest.

The remarkably strong familial and social bonds that define so much of elephant culture come to the forefront throughout. Seeing the young elephant calves try to find their way in an inhospitable world (under the constant tutelage of their elders)—including the first to survive past six months in the Namib Desert in eight years—provides a heart-wrenching reminder of how close to the precipice so many elephant populations remain. While the series avoids showing graphic and violent footage, the subject of poaching—which has decimated elephant populations—is unavoidable. Here again, the effects on the next generation take center stage—from orphaned toddlers who form a close-knit herd in the Reteti Elephant Sanctuary to the story of Zoe, who incredibly joins and becomes the matriarch of a buffalo herd after losing her entire family to poachers at the age of two.

Like National Geographic's *Secrets of the Whales*, released in 2021 to critical acclaim, *Secrets of the Elephants* showcases its titular mammal in a range of unique habitats to underscore their remarkable abilities and drive to carry on against all odds.



## ANIMAL LIBERATION NOW

Peter Singer / Harper Perennial / 368 pages

*Animal Liberation Now: The Definitive Classic Renewed* is the latest update to Peter Singer's seminal 1975 book, *Animal Liberation*. While the facts and figures have been updated, the ultimate message has not changed significantly. Now, as then, Singer focuses on two principles: utilitarianism and equality. Utilitarianism provides that a moral action is one that minimizes suffering or leads to the greatest happiness. Equality requires not identical *treatment* of everyone, but rather equal consideration of everyone's interests.

Traditional utilitarian calculations only involve human happiness and suffering. However, Singer asserts that the capacity to suffer—i.e., sentience—rather than membership in the human race is the characteristic that entitles a being to equal consideration of their interests in the utilitarian calculation. Science has shown that all vertebrate animals (and at least some invertebrates) are sentient; they can suffer, both physically and mentally, and have an interest in not suffering.

In Singer's view, to fail to consider the interests of nonhuman animals is speciesism—the primary examples of which are the hundreds of millions of animals used in research and the more than 100 billion animals farmed for food each year. He feels that, overall, the extreme suffering experienced by animals in laboratories is unjustified by the derived benefits. Regarding factory farms, he observes that “with most intensive animal production, when economics and animal welfare point in different directions, economics wins.” Singer thinks much of this suffering is unnecessary because most humans can thrive without consuming animal products or products tested on animals. Therefore, from a utilitarian standpoint, one should avoid doing so as far as is reasonable and practical to individual circumstances.

Whether one agrees with Singer or makes a different utilitarian calculation (as does the author in the following review), Singer's book will make the reader rethink the consideration we give to nonhuman animals' interests.

## TREATED LIKE ANIMALS

Alick Simmons / Pelagic Publishing / 264 pages

Alick Simmons, former deputy chief veterinary officer for the United Kingdom, acknowledges that he has “actively facilitated exploitative interactions with animals.” But so have the rest of us, he writes in his intriguing book, *Treated Like Animals: Improving the Lives of the Creatures We Own, Eat*

*and Use*. Simmons does not limit “exploitative interactions” to only mean eating meat or wearing leather. By applying a broad definition of “exploit” (“to make full use of and derive benefit from”), he contends that we are also complicit in animal exploitation by managing wildlife, destroying “pests,” and even keeping cats and dogs as pets (e.g., through selective breeding and castration).

Nevertheless, Simmons does not promote ending all animal exploitation. Rather, he encourages us to become better informed about the myriad ways societies and economies depend on animals—and to be more accountable for our choices. Humans, as moral beings, have a responsibility to protect the sentient animals we exploit, yet we often apply arbitrary and contradictory distinctions between species—and even within the same species.

The author acknowledges his own inconsistencies—he eats meat (albeit less now), goes fishing, and supports wildlife interventions to protect endangered species. He advocates a “practical” and “utilitarian” middle ground; animal research is justified, he feels, when it advances important medical knowledge and no alternative exists, but it must be carefully regulated to minimize suffering. With respect to food, Simmons clearly has an insider's perspective (he used to inspect American slaughter plants on behalf of the United Kingdom), and he tries not to alienate readers by promoting a specific lifestyle. At various points, he lumps animal rights extremists with industry propagandists.

Simmons largely limits his discussion of protecting animals, especially in slaughterhouses and in research labs, to UK laws, even though he acknowledges that the United States and other countries have weaker regulations. Notwithstanding this narrow focus, his overall message is universal: that we, as a society, must determine (based on evidence) when the benefits of animal exploitation outweigh the harms.

## BEQUESTS

If you would like to help assure AWI's future through a provision in your will, this general form of bequest is suggested: *I give, devise and bequeath to the Animal Welfare Institute, located in Washington, DC, the sum of \$ \_\_\_\_\_ and/or (specifically described property).*

Donations to AWI, a not-for-profit corporation exempt under Internal Revenue Code Section 501(c)(3), are tax-deductible. We welcome any inquiries you may have. In cases in which you have specific wishes about the disposition of your bequest, we suggest you discuss such provisions with your attorney.



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## UPDATE ON AWI'S SUPPORT OF ANIMAL WELFARE EFFORTS IN UKRAINE

With the war in Ukraine now well into its second year, the level of destruction that continues to be inflicted upon the country's people and animals is truly staggering. Ongoing loss of life and mass displacement have created a humanitarian crisis that has affected tens of millions of people and untold numbers of animals. Since the beginning of the war, thanks to our members' generous donations, AWI has worked with organizations in Ukraine and neighboring countries in Europe to help alleviate the suffering of the animals of Ukraine.

We have distributed nearly \$200,000 to 17 organizations that run or support private and public shelters, veterinary clinics, zoos, and rescue and rehabilitation centers providing desperately needed care. The organizations we have funded are Animal Advocacy and Protection, Animal Society, Asociatia Save Our Paws, Casa lui Patrocle Animal Rescue, Foundation for Bears, FOUR PAWS, Gyvūnų gerovės iniciatyvos, Happy Paw, Natuurhulpcentrum, Romanian League in Defense of Animals, Save the Dogs and Other Animals, Sirius, Speranta

Shelter, UAnimals, Ukrainian Equestrian Federation Charity Foundation, Viva! Poland, and White Paw Organisation e.V.

These organizations have all played unique and essential roles in improving the lives of companion animals, equines, and captive wild animals in Ukraine during different stages of the war. Some of the services provided by the various organizations: providing medical care, food, blankets, vaccines, microchips, pet carriers, beds, and other supplies for companion animals fleeing the country; providing food and shelter for stray dogs and cats; operating a pilot program to reunite pets and families; humanely spaying and neutering animals left to fend for themselves; transporting horses to safer locations and providing them with food and bedding; and evacuating wild animals such as bears and tigers from zoos and wildlife rescue centers and providing them with food, medical care, and shelter far from the war's front lines.

AWI is grateful for the opportunity to partner with organizations and the people behind them who have worked tirelessly to help animals in the most dire of circumstances. 🐾