AVATA Quarterly WINTER 2024 · VOLUME 73 · NUMBER 4





SPOTLIGHT

An Uncertain Time Ahead

Eight years ago at this time, we waited to see how the incoming Trump administration would handle issues of animal welfare. What unfolded over the next four years proved to be largely disastrous for animals and the environment, both in the United States and across the world. During that time, bedrock laws, including the Endangered Species Act and the National Environmental Policy Act, were significantly weakened, putting wild animals and lands at risk. Protections for gray wolves were stripped, and leases to drill in Alaska's Arctic National Wildlife Refuge were awarded. The United States also pulled out of the Paris Climate Accord, jeopardizing progress made to reduce greenhouse gas emissions that threaten critical habitat.

Enforcement of another bedrock law, the Animal Welfare Act, fell drastically, with fewer new investigations and

fewer violations documented through US Department of Agriculture inspections of facilities operated by animal breeders, dealers, exhibitors, and experimental labs. In early 2017, the department also deleted inspection and enforcement records from its website, dealing a serious blow to transparency and public accountability until the records were returned in early 2020 under congressional order.

Some of the damage was undone during the Biden administration. But on January 20, 2025, a new Trump administration will begin, and the animal welfare and environmental protection community is bracing for a similar, and perhaps even more difficult period.

We know that, notwithstanding partisan politics, there can be bipartisan areas of agreement in support of animal welfare in state and federal legislatures and agencies, and we will continue to pursue those opportunities. Where that is not possible, we will continue to defend the cherished domestic laws and international agreements to protect animals and their homes—which are, after all, also our homes. Throughout, we will be unwavering advocates for animals. Please join us as we rise to the challenge ahead.

DIRECTORS AND OFFICERS

Jill Carey

Caroline A. Griffin, Esq., Vice Chair Mary Lee Jensvold, PhD, Secretary Alan E. Kessock, CPA, Treasurer Cathy Liss, Chair Chris Miller, DVM

SCIENTIFIC COMMITTEE

William S. Stokes, DVM

Juan Carlos Cardenas, DVM
Cristina Eisenberg, PhD
Roger Fouts, PhD
David Fraser, PhD
Rich Reading, PhD
Viktor Reinhardt, DVM, PhD
Robert Schmidt, PhD

STAFF AND CONSULTANTS

Alexandra Alberg Senior Graphic Designer Tessa Archibald Policy Associate, Equine Program Nancy Blaney Director, Government Affairs Claire Coughlin Director, Companion Animal Program

Adrienne Craig, Esq. Senior Policy Associate and Staff Attorney, Farmed Animal Program

Kate Dylewsky Assistant Director, Government Affairs

Melissa Edmonds Scientist, Marine Biology, Marine Wildlife Program

Maisy Englund, PhD Scientist, Animal Cognition, Animals in Laboratories Program

Sue Fisher Senior Policy Advisor, Marine Wildlife and Terrestrial Wildlife Programs

Marjorie Fishman Public Relations Manager

Ericca Gandolfo Senior Policy Associate, Government Affairs

Allie Granger Policy Advisor, Farmed Animal Program

Joanna Grossman, PhD Director, Equine Program and Senior Policy Advisor, Farmed Animal Program

Machelle R.L. Hall, Esq. Senior Attorney, Terrestrial Wildlife Program Johanna Hamburger, Esq. Director and Senior Attorney, Terrestrial Wildlife Program

Georgia Hancock, Esq. Director and Senior Attorney, Marine Wildlife Program

James Jacobs Office Manager

Robin Jacobsohn, Esq. General Counsel and Chief Legal Officer

Joanna Makowska, PhD Director and Senior Scientist, Applied Animal Behavior, Animals in Laboratories Program

Paul Marchione Chief Operations Officer

Lauren McCain Senior Policy Advisor, Terrestrial Wildlife Program

Wendy McNally Donor Relations Manager

Kim Meneo Digital Engagement Manager

Susan Millward Executive Director and Chief Executive Officer

Kate O'Connell Senior Policy Consultant, Marine Wildlife Program

Lauren Ponder Accounting Manager Mary Lou Randour, PhD Coordinating Consultant, Center for the Study of Animal Cruelty Data

Gwendy Reyes-Illg, DVM Scientist, Veterinary Medicine Consultant, Farmed Animal Program

Naomi A. Rose, PhD Senior Scientist, Marine Mammal Biology, Marine Wildlife Program

D.J. Schubert Senior Scientist, Wildlife Biology, Marine Wildlife and Terrestrial Wildlife Programs

Nicole Sebastino Website Administrator

Zack Strong, Esq. Acting Assistant Director and Senior Attorney, Farmed Animal Program

Regina Terlau-Benford Coordinator, Humane Education Program

Senior Writer/Editor Lisa VanAusdall Donor Relations Associate

Dave Tilford

Animal Welfare Institute 900 Pennsylvania Avenue, SE Washington, DC 20003 (202) 337-2332 awi@awionline.org awionline.org



Animal Welfare Institute AWIONLINE.ORG

AWI QUARTERLY WINTER 2024

AWI NEWS

- 2 An Uncertain Time Ahead
- 18 AWI Joins Africa Animal Welfare Conference

ANIMALS IN LABORATORIES

- 24 More Enrichment Makes for Healthier Rodents
- 24 Guidelines Aim to Improve Welfare of Rodent Cancer Models
- 24 Last of Alamogordo Chimps Bound for Sanctuary
- 25 Monkey Business on Hold—for Now
- 25 Approved Toxin Test Bypasses Horseshoe Crab Bleeding

EQUINES

28 HHC Members Ascend Capitol Hill to Advance Equine Welfare

FARMED ANIMALS

- 20 Octopus Farming's Odious Outlook
- 20 Bird Flu Infects Humans and House Cats
- 21 Legislators Quell Cell-Cultivated Competition to Livestock
- 21 US Egg Producers to Curb Chick Culling
- 21 FDA Foregoes Animal Welfare in Gene-Altering Guidance
- 22 Buyer Beware: USDA's New Meat Label Guidelines Are a Raw Deal

HUMANE EDUCATION

- 17 Global Students Get Vocal for Animals
- 17 High School Seniors: Apply Now for AWI Scholarship

MARINE WILDLIFE

- 10 Anthropogenic Impacts of Ecotourism on Antillean Manatees
- 11 Using Infrared Thermography to Assess Welfare in Free-Ranging Rorqual Whales
- 12 AWI Acts as IWC Ambassador at Marine Mammal Conference
- 12 Facing the Facts on Mexico's Vaquita Protection Failures
- 13 IWC69: International Whaling Commission Sails Past Stormy Waters and Solidifies Future
- 16 Latest Mystic Aquarium Beluga Death Merits Further Investigation

TERRESTRIAL WILDLIFE

- Kill the Conflict, Not the Animal: Helping Communities Become Bear Smart
- The Pantanal Is on Fire
- Humans Fall Victim as Ecosystems Fall out of Balance

GOVERNMENT AFFAIRS

- Lawmakers Urge Stronger Animal Protections
- 4 Ridding Interior Appropriations of Harmful Riders
- Message Delivered to Amazon: Stop Selling Ejiao
- Protections Spring into Action Under Big Cat Public Safety Act

REVIEWS

- 26 Veto, The Governor's Cat
- 26 Abandoned
- 27 A History of the Development of Alternatives to Animals in Research and Testing



ABOUT THE COVER

A gray whale rises from the depths. Two years ago, at the 68th meeting of the International Whaling Commission (IWC68), pro-whaling member nations under the sway of ex-IWC member Japan-sowed chaos and confusion, threatening the very existence of the IWC. In the interim between meetings, AWI and our animal protection allies mounted defenses against such disruptive tactics. As a result, IWC69, held this year in Lima, Peru, saw a restoration of order and progress on the IWC's important conservation and animal welfare work—positive news for the world's whales. Our full account of IWC69 begins on page 13. Photograph by Tui De Roy/Minden Pictures.

ISSN 1071-1384 (print) ISSN 1930-5109 (online) Tax ID# 13-5655952 · CFC# 10474

LAWMAKERS URGE STRONGER ANIMAL PROTECTIONS

AWI rallied members of Congress to join letters to government agencies seeking greater animal protections. Sen. Cory Booker (D-NJ) and Rep. Ro Khanna (D-CA) led a letter to the US Department of Agriculture requesting an update on a rulemaking petition submitted by AWI last year to require cameras inside the metal cages that lower pigs into CO₂ gas chambers at slaughterhouses so inspectors could observe the stunning process. Rep. Nick LaLota (R-NY) led a bipartisan letter to House leadership urging inclusion of a ban on horse slaughter in the pending Farm Bill.

Two new AWI-supported bills were introduced: The Cold-Blooded Animal Research and Exhibition (CARE) Act (HR 9571), led by Rep. Betty McCollum (D-MN), would extend Animal Welfare Act protections to animals currently excluded from the law, including fish, reptiles, amphibians, and cephalopods. The Industrial Agriculture Conversion Act (HR 9794), led by Rep. Alma Adams (D-NC), Rep. Jim McGovern

(D-MA), and Sen. Booker, would allow farmers to use USDA conservation funds to voluntarily transition from industrial farming to more sustainable and humane production systems.

Setting up for a strong push in the next Congress, Sen. Martin Heinrich (D-NM) and Reps. Suzan DelBene (D-WA), Rashida Tlaib (D-MI), and Suzanne Bonamici (D-OR) have reintroduced the Developing Alternative Mitigation Systems (DAMS) for Beavers Act (HR 10303/S 5447), which would establish a federal pilot grant program to cover the costs of installing and maintaining nonlethal systems in urban and rural areas experiencing human-beaver conflicts.

RIDDING INTERIOR APPROPRIATIONS OF HARMFUL RIDERS

AWI joined a coalition of groups urging US representatives to oppose riders in the House version of the fiscal year 2025 Department of the Interior spending bill that would undermine the Endangered Species Act (ESA)

and other key protections for wildlife. The groups also urged opposition to language that would effectively compel Eglin Air Force Base in Florida to seek exemptions under the ESA and the Marine Mammal Protection Act to fire munitions into the Gulf of Mexico habitat of endangered Rice's whales. The US Air Force did not request such an exemption and, in fact, has actively worked with the National Marine Fisheries Service to mitigate harm to Rice's whales from weapons testing.

MESSAGE DELIVERED TO AMAZON: STOP SELLING EJIAO

On October 16, AWI and other advocacy groups rallied in front of Amazon's second headquarters in Arlington, Virginia, to deliver more than 370,000 petition signatures urging the company to ban the sale of ejiao, a gelatin made from donkey hides. Millions of donkeys are killed each year to supply skins for a growing trade in ejiao, which is used in foods, supplements, cosmetics, and traditional Chinese medicines.

AWI also led a letter to New York Attorney General Letitia James, signed by animal protection and equine rescue groups statewide, urging her to crack down on Amazon's sale of ejiao in New York. The state recently passed a law prohibiting the slaughter of equines and the sale of horseflesh for consumption. At the federal level, Rep. Don Beyer (D-VA) leads the bipartisan Ejiao Act (HR 6021), which would prohibit the sale of ejiao in the United States.



Donkeys are suffering and their populations are being decimated by the global demand for donkey hides to make ejiao. AWI and allies are calling on Amazon to stop selling ejiao products on its site.



RARAN

- Protections Spring into Action Under Big Cat Public Safety Act -

The Big Cat Public Safety Act (BCPSA), a bill championed by AWI, was signed into law by President Biden in December 2022, marking an incredible step forward for both public safety and animal welfare in the United States. The law protects communities from dangerous encounters with big cats kept as pets and safeguards these animals against the appalling cruelty associated with certain exploitative exhibitions and the exotic pet trade.

The BCPSA prohibits private individuals from possessing lions, tigers, leopards, cheetahs, jaguars, cougars, or any hybrid of these species. While the law grandfathered in private owners with big cats already in their possession, it required them to register so authorities will know where these animals are. Additionally, the BCPSA prohibits public petting, playing with, feeding, and photo ops with cubs. The profit derived from encouraging the public to handle and pose with cubs was the primary driver of a relentless breeding cycle that flooded the market with animals who had outgrown the cub stage.

In June 2023, the US Fish and Wildlife Service published an interim rule establishing how the BCPSA would be implemented and provided an opportunity for public comment on the rule. In background information included in the notice, the USFWS stated, "The BCPSA helps to ensure the health and welfare of big cats, protects the public from the dangers associated with private ownership of big cats, and strengthens the Service's ability to combat wildlife trafficking." Although the rule has not yet been finalized (pending review of all public comments), it went into effect upon publication, enabling the USFWS to commence enforcement.

The first enforcement action under the BCPSA came in September 2023, with the arrest of a Texas couple attempting to sell a jaguar cub in a parking lot. The pair were convicted of violating the law and sentenced in April 2024: The wife received two years' probation with 50 hours of community service, and the husband received nine months in prison.

In October 2024, two Arkansas men pleaded guilty to BCPSA-related violations involving the purchase by one of a tiger cub from a wildlife broker in Dallas. The Arkansas Game and Fish Commission notified the USFWS after receiving an anonymous tip about a tiger cub for sale, as well as a complaint of a tiger cub sighting in a residential area of Conway, Arkansas. The man who purchased the cub faces up to five years in prison and a \$10,000 fine. His associate, who helped conceal the crime, faces up to three years in prison and a \$250,000 fine.

Ongoing enforcement of the BCPSA requires not only continued vigilance by the USFWS and other federal and state agencies, but also awareness of this law by citizens who can provide information about potential violations. The USFWS encourages people to email tips regarding potential criminal activity to the following address: LawEnforcement@fws.gov.

The BCPSA is already achieving its purpose: to protect big cats from the pet trade and from public contact exhibits. In its success, it is also providing a model for future legislation to protect other species from similar exploitation.



HELPING COMMUNITIES BECOME BEAR SMART

hen a black bear mother and two cubs came into her yard to eat from the fruit trees, an elderly woman in rural Montana called the local wildlife agency manager. The manager was overloaded with other bear calls, so he called Kim Johnston, the conflict prevention specialist for People and Carnivores (P+C), to see if she could help. Johnston took fencing kits to the property and surrounded the fruit trees with temporary electric fences. The bears returned later that evening, but once they realized they could not access the trees, they wandered off.

Both black and grizzly bears are omnivores who will eat animal meat and insects opportunistically, but most of their natural diet consists of grasses, roots, nuts, fruits, and berries. When fruit trees and berry patches bring bears close to homes and people, however, it can mean trouble, especially for the bears.

In the fall, bears needing to put on weight before hibernation will go wherever the food is. Often, human communities provide an easy abundance—of natural foods such as fruits and berries and a host of unnatural foods, as well. Unnatural attractants may include anything from livestock, beehives, and vegetable gardens to backyard grills, bird feeders, pet food, and discarded scraps of human food found in garbage bins and dump sites. Once bears discover an easy meal, they keep coming back for more. Those conditioned to seek food from human communities and habituated to human presence present a risk to people. Once this happens, they are most often killed—which is why "a fed bear is a dead bear."

To keep bears and other large carnivores safe and in the wild, AWI has teamed up with People and Carnivores on a variety of projects. This Montana-based nonprofit works to prevent human-carnivore conflicts so that bears, wolves, and big cats can move about safely in the human footprint, connect with others of their populations, and expand their range. AWI's partnership with P+C began in 2021, with AWI providing funding to bear-proof a garbage dump in a rural town experiencing a series of black bear conflicts. In 2022, AWI began cost-sharing a new P+C conflict specialist field position in northwestern Montana, where grizzly bears are moving out from the Glacier National Park area to expand their range, but encountering a matrix of small farms and ranches, burgeoning housing developments, and increasing numbers of recreators. In 2023, with AWI's support, P+C distributed additional garbage canisters to homes near the newly secured dump site.

Ryan Wilbur, P+C's northwestern Montana field specialist, has been establishing a carnivore coexistence program in an area between three federal grizzly bear recovery areas, and where wolves and mountain lions also roam. In 2024-25, in addition to cost-sharing the field specialist position, AWI is supporting three P+C coexistence projects: bear safety and coexistence educational materials, development of a "Bear Smart Initiative" in Columbia Falls, Montana, and bear coexistence equipment in the state's Anaconda-Georgetown Lake-Philipsburg corridor, which is experiencing black bear conflicts and an increasing number of dispersed grizzlies. Thus far within the corridor, 12 public park trash and recycling receptacles frequented by bears have been replaced with bolted metal bear-proof garbage cans.

A Bear Smart Initiative is a community-level effort to prevent human-bear conflicts. The goal is to keep people and property safe, and bears moving along. Although there are several Bear Smart Communities in Canada, the movement is still in its infancy in the United States. About six years ago, P+C's Johnston brought the Bear Smart Community idea to the mayor of Virginia City, Montana. At the end of 2022, the Interagency Grizzly Bear Committee (IGBC)—a collaboration involving federal and state agencies, tribes, and others—endorsed a Bear Smart Community framework modeled after the successful Canadian program and developed by Johnston and IGBC working group members. This year, Virginia City was recognized by P+C and by Montana Fish, Wildlife & Parks for being the state's first Bear Smart Community.

Human food tossed in the trash is a tempting target for hungry bears. Installing bear-proof metal trash receptacles in public places helps keep the bears at bay and out of trouble. Any effort by a single landowner or business to keep bears from being drawn to their property is a good one, and P+C's core work is partnering with landowners, tribes, agencies, homeowners, and recreators to implement tools to keep large carnivores separated from attractants such as livestock, crops, or garbage. Community initiatives go one step further. Engaging groups, local officials, neighborhoods, and community leaders to consider a Bear Smart Initiative is a way to expand the benefits of conflict prevention and reduce the fragmentation of single projects. Bear Smart Initiatives can also give residents and businesses a way to strengthen community, hold fun events, and welcome visitors with confidence.

A "community" can be an unincorporated residential area, city or town, housing development, resort, or other definable and connected area. Bear Smart Initiatives look different from place to place because each locale is different. To have a lasting impact, the program needs to address the types of bear conflicts unique to the community and evolve in a way that works for all stakeholders. Yet, even with a community's distinct challenges, there are some common needs in places where people and bears share the landscape: education about bears and how to reduce attractants, best practices to prevent conflicts, and proper waste management. The latter is a key goal, because access to garbage is the single most common source of bear conflicts. (In northwestern Montana, chicken coops come in as number two.)

The AWI/P+C partnership has helped to advance the nascent community initiatives in Columbia Falls and Philipsburg, as well as ones in Alberton, Montana, and Island Park, Idaho. Wilbur has been an active member of the Alberton project, where the town council approved a Bear Smart Initiative, starting with the installation of a fence around a community





garden and orchard. The Alberton working group was also provided funding for other demonstration projects designed to teach residents about bear conflict prevention.

To aid such initiatives, P+C has developed a portfolio of bear safety and coexistence information sheets and toolkits, including a vacation rental kit, homeowner's kit, and restaurant kit. To help local groups be effective in their outreach, P+C customizes and brands the kits with localized information before printing. One example is a collaboration with the Henry's Fork Wildlife Alliance (HFWA), which is spearheading the Bear Smart Initiative for Island Park, where numerous grizzlies and black bears have been killed after run-ins with people and property. Through their volunteer program, HFWA has distributed more than 2,500 kits and flyers provided by P+C. Wilbur has also worked with the Columbia Falls City Council and trash hauler, along with wildlife managers, to help achieve passage of a city ordinance requiring residents to keep trash from being accessible to bears. Meanwhile, P+C equipped a Columbia Falls public park with steel trash canisters and has led local events teaching people about bear safety.

Bears are not the only species safeguarded by the AWI/P+C collaboration. Wilbur has implemented several different field tools—working with agencies and landowners to build conflict prevention fences (pictured at right), install scare devices (light and sound), and help ranchers and farmers establish practices that will prevent livestock losses, which also saves carnivores. Each year, primarily during the field season from spring to fall, P+C installs fladry and other fencing to keep wolves, cougars, and bears away from livestock and crops across western Montana. Fladry (pictured above) involves adorning a fence—usually electrified—with flags that move in the breeze, serving as a deterrent for wolves for up to six weeks around livestock pastures.

Wilbur loans out "coexistence toolkits" for landowners who need help right away (for example, if a bear or cougar suddenly shows up) until a more permanent or secure solution can be implemented. The kits include a fencing starter kit, scare devices, bear spray, noisemakers, and educational materials. Additionally, P+C has established bear-resistant cooler and food container loaner programs with public land agencies and has donated bear-resistant equipment to the University of Montana's Outdoor Program and Wilderness Institute. Wilbur has also focused the last two years on developing Spanishlanguage materials and events for commercial orchard workers and fruit pickers, as northwestern Montana has a high density of orchards around Flathead Lake.

AWI and P+C are working together to create a culture of wildlife coexistence rather than control and killing. When landowners and communities are willing to participate in preventative rather than reactive practices, people, wildlife, and agency managers all benefit. To learn more about the work of People and Carnivores and projects supported by AWI, visit peopleandcarnivores.org/bearsmart. &





Devastating fires in the Pantanal home to 1.74 known mammal species, including these black-and-gold howler monkeys—have incinerated habitat and claimed millions of animal lives.

THE PANTANAL IS ON FIRE

South America's Pantanal—one of the world's most biodiverse regions—is burning with a ferocity not seen in the historic record, with devastating suffering and death inflicted on the wild animals who live there. The fires began in January; as of late October, around 9,650 square miles—approximately the size of Maryland—had burned.

The Pantanal is a complex system of rivers, forests, and marshes in Brazil, Bolivia, and Paraguay. Its roughly 60,000 to 75,000 square miles encompasses the world's largest tropical wetland and the world's largest flooded grassland, with such exceptional biodiversity that portions of it have been designated a UNESCO World Heritage site. Researchers have identified more than 4,700 plant and animal species in the Pantanal, including at least 580 birds, 271 fishes, 174 mammals, and 57 amphibians, many of which are endangered or threatened. The region nurtures unique animals such as the Brazilian tapir and the black-andgold howler monkey. It also supports distinctive evolution, including jaguars who grow larger than their counterparts in other regions to enable them to hunt caimans.

Climate change—coupled with deforestation due to farming, mining, and development projects—has created a tinderbox in the region, leading to never-before-seen conditions conducive to megafires that claim the lives of millions of animals.



HOTOLE

The death toll includes not only those who die from burns or smoke inhalation, but also young separated from their parents, animals displaced into unfamiliar or unsuitable habitats, and those who starve when food sources are wiped out. More than 17 million animals are thought to have perished in Pantanal fires in 2020. Scientists fear the death toll from the current fires will exceed that.

HUMANS FALL VICTIM AS ECOSYSTEMS FALL OUT OF BALANCE

A dramatic die-off of vultures in India due to accidental poisoning was associated with a greater than 4 percent increase in human death rates from 2000 to 2005. Such was the finding of a study by Drs. Eyal Frank of the University of Chicago and Anant Sudarshan of the University of Warwick, published in 2023 by the Becker Friedman Institute for Economics. The loss of the scavenging services provided by vultures led to an increase in feral dogs, rabies, and rodents and a reduction in water

quality from decomposing carcasses befouling freshwater sources.

In another study, published this year in Science, Dr. Frank reported a nearly 8 percent increase in human infant mortality in US counties that had experienced a precipitous decline in bat populations due to the fungal disease white-nose syndrome. The connection: Frank found that, from 2006 to 2017, farmers in these counties had increased the use of insecticides known to have adverse effects on human health by over 31 percent to compensate for natural insect control provided by bats. In the affected counties, the corresponding economic cost of the decline in bats, including direct cost to farmers and the "value of statistical life" (the US government's monetary estimate of how much society values reducing the risk of death), was found to be \$39.4 billion.

Such stark evidence of how biodiversity and ecosystem function are inextricably linked to human health and economic self-interest should inform future conservation policies: Saving biodiversity is, quite literally, saving ourselves.

Anthropogenic Impacts of Ecotourism on Antillean Manatees

by Dr. Beth Brady, Save the Manatee Club; Dr. Eric Angel Ramos, Mote Marine Laboratory; Dr. Nataly Castelblanco-Martinez, Fundación Internacional para la Naturaleza y la Sustentabilidad; and Ayshah Kassamali-Fox, Antioch University

Poorly managed wildlife tourism poses major threats to the survival of endangered species globally. For marine mammals, chronically high levels of boat-based tourism can disrupt behaviors and have other negative impacts contributing to potential population declines.

A relatively unknown population of Antillean manatees—a subspecies of the West Indian manatee—inhabits the Sian Ka'an Biosphere Reserve in Quintana Roo, Mexico, concentrating in underwater sinkholes where they are exposed to daily boat-based tourism throughout the year. Without quantitative assessments of the effects of these activities on manatees and enforcement of local regulations, the preservation of this population is tenuous.

Using funds provided by an AWI Christine Stevens Wildlife Award, we aimed to assess whether manatees are negatively impacted by boat-based tourism through direct disturbance and exposure to high levels of engine noise. We conducted 35 drone flights over several sinkholes to observe manatee behavior and document their interactions with vessels. We also deployed two underwater hydrophones to measure noise levels. Aerial videos were reviewed to compare manatee behaviors before, during, and after tour-boat interactions and in relation to vessel movement characteristics (e.g., speed, orientation, proximity to manatees).

The manatees (20–30 individuals) spent most of the time resting and cavorting at the sinkholes. In one instance, 12 of the 30 boats observed entering the area that day violated regulations by exceeding speed limits and by directly approaching and harassing manatees—sometime encircling them and preventing their escape. Manatees responded to nearby boats by attempting to flee, temporarily leaving the area, diving to the seabed, and clustering together. In contrast, when vessels followed regulations and remained stationary and anchored at a distance from the manatees, we observed few to no disturbance responses.

The overall number of boat detections per day ranged from 20 to 44. The sound levels that manatees were exposed to during tour boat interactions ranged from 96 to 117 decibels. Noise levels were influenced by whether the boats were actively pursuing manatees or passively observing them with engines cut. On days when we were not on site, an estimated 11–33 boats entered the area, with noise levels ranging from 64 to 104 decibels based on hydroacoustic recordings. Although these levels are not enough to damage hearing, they are fairly high, and manatees are exposed to them for up to 10 hours a day. This persistent auditory disruption could potentially decrease the number of animals using the site, disrupt foraging, and affect communication.

Recordings also showed that manatees, including cow/calf pairs, use this site in the evening hours. The presence of calves suggests that this area represents critical habitat for manatees. Overnight vocalizations were detected, but most vocalizations were noted during the day. Interestingly, almost all vocalizations occurred when boats were not present, suggesting that boat presence interferes with communication.

These findings indicate that strengthened regulations and monitoring are urgently needed to mitigate long-term impacts of chronic exposure to unregulated boating activity and the chronic noise levels to this small population of endangered manatees.

USING INFRARED THERMOGRAPHY TO ASSESS WELFAREIN FREE-RANGING RORQUAL WHALES

by Anik Boileau and Jamie Ahloy Dallaire, Sept-Iles Education and Research Center

In recent years, anthropogenic disturbances such as maritime traffic, pollution, and fishing have had a negative impact on the welfare of great whales around the world. The town of Sept-Iles, Québec, located on the Gulf of St. Lawrence, hosts the largest mineral port in North America, with an average 500 cargo ships docking annually. This area is also an important feeding ground for many marine mammals, notably blue and fin whales, prompting concern for their welfare. Traditionally, health assessments of great whales employed invasive tools such as biopsies and satellite tagging. A new approach is needed to assess overall welfare in a noninvasive way.

With the support of a Christine Stevens Wildlife Award, the Sept-Iles Education and Research Center developed and validated a noninvasive welfare assessment protocol using infrared thermography to measure stress. Infrared thermography uses a thermal camera to create images of an object from the infrared radiation it emits. In this study, we used this technique to collect data related to behavioral indicators such as reactions to boat approaches and physiological indicators such as respiratory rates, body temperature, and body condition for 10 fin whales found within 20 nautical miles of the Port of Sept-Iles.

We analyzed the videos and images with thermal imaging software, focusing on extracting temperature values from the dorsal fin and the blowholes at different angles. We also tested different parameters so we could identify which one should be used specifically for fin whales (as baseline values).

The preliminary results show that the baseline mean temperature of blowholes at the moment of inhalation was 14.76°C (SD=0.73) and the baseline mean temperature of dorsal fins was 7.13°C (SD=0.65). While the core body temperature in fin whales is unknown, we assume it falls within the mammalian range of 31-41°C, as measured using a standard thermometer. Since we can't use this method on a free-ranging cetacean, infrared temperature measurement is the best alternative. For instance, now that we have a baseline normal blowhole infrared temperature of 14.76°C. we expect that this temperature will increase in an emaciated or chronically stressed individual, making it possible to use this method to correlate with other indices when assessing the welfare of cetaceans.

This pilot project demonstrates that using infrared thermography can be a valid tool to integrate into a freeranging whale welfare assessment protocol. Continuing research into validating all animal-based welfare indicators (physical, behavioral, and physiological) and environmental disturbances (ships' presence in the area and distance from the whale, sea temperature, salinity, etc.) can now include correlations with infrared thermography values as a valid, noninvasive welfare measure for fin whales. As we gather more data, we hope our research will support legislative changes concerning whale welfare and best practices in intensive industrial settings and high maritime traffic areas that overlap with cetacean habitat. &

AWI ACTS AS IWC AMBASSADOR AT MARINE MAMMAL CONFERENCE

The 25th Biennial Conference on the Biology of Marine Mammals, hosted by the Society for Marine Mammalogy, took place in November, in Perth, Australia. AWI's Dr. Naomi Rose has attended all but the first six such conferences. Over the years, she has presented talks, posters, and workshops; participated on panel discussions; and tabled for the MMPA Coalition, an alliance of organizations focused on protecting marine mammals and maintaining strong support for the US Marine Mammal Protection Act.

This year, Naomi volunteered to table for the International Whaling Commission, which was hosting a booth at the conference for the first time. The booth featured the work of the IWC and its Scientific Committee, focusing particularly on whale watching. Conference attendees were welcomed to the booth by Naomi and Dr. Stephanie Stack, who explained the work of the Scientific Committee and directed visitors to the IWC's online Whale Watching Handbook, an extensive resource for those interested in responsible whale watching.

Most such visitors were graduate students unaware of the myriad issues examined by the IWC Scientific Committee, including threats to cetaceans from fisheries entanglement, plastics debris, chemical pollution, marine noise, and unsustainable whale watching practices, among others. The booth featured easily accessible graphics illustrating this work and QR codes for information on the IWC

Evidence supplied by AWI and allies shows that Mexico is violating a key international agreement by failing to enforce laws designed to protect critically endangered vaquitas. website expanding on the Scientific Committee's projects. AWI hopes the IWC will continue to host a booth at this conference, to inform up-and-coming young marine mammal scientists of this important forum for cetacean science.

FACING THE FACTS ON MEXICO'S VAQUITA PROTECTION FAILURES

In September, AWI—on behalf of a coalition that includes the Center for Biological Diversity, Natural Resources Defense Council, and Environmental Investigation Agency provided a "detailed submission" to the Commission on Environmental Cooperation (CEC) regarding Mexico's failure to protect the vaquita porpoise. The CEC, founded in 1994 via a side accord to the North American Free Trade Agreement (NAFTA), "facilitates effective cooperation and public participation to conserve, protect and enhance the North American environment in support of sustainable development."

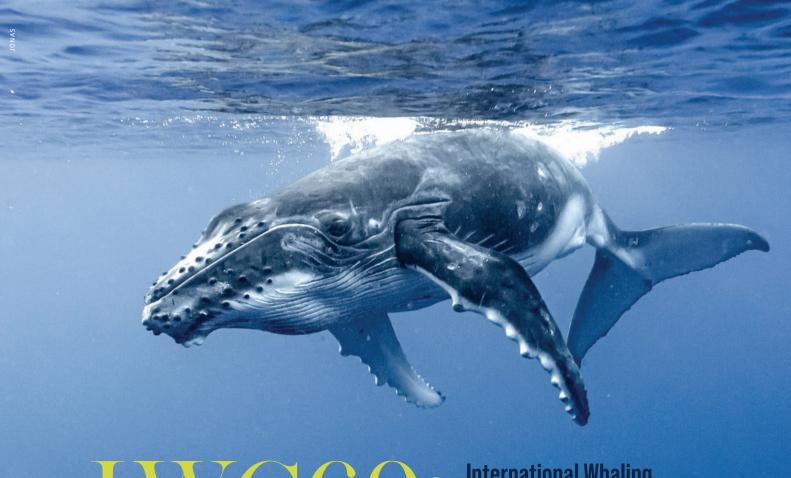
In August 2021, the coalition filed a "submission on enforcement matters"

(SEM), a formal request to develop a factual record of how Mexico is violating its obligations under the United States-Mexico-Canada Agreement (which replaced NAFTA in 2020) by failing to enforce its own fishing and wildlife trade laws. This SEM resulted in a unanimous July 2024 resolution by the CEC Council (the CEC's governing body) instructing the secretariat to develop the factual record—intended to establish the facts relevant to the SEM's assertion, including Mexico's legal obligations and actions taken to fulfill such obligations.

In support of this record, the detailed submission documents Mexico's failure to enforce its laws, including Articles 55 and 56 of the 1975 General Wildlife Act, which banned totoaba fishing, and a 2020 regulation prohibiting gillnet use within vaquita habitat in the Upper Gulf of California. Mexico has reduced illegal fishing in a "zero tolerance area" of core vaquita habitat but has otherwise allowed illegal totoaba fishing to continue, pushing the species to the brink of extinction. A draft factual record from the secretariat is expected in early 2025.



PAULA OLSON, NOAA



International Whaling Commission Sails Past Stormy Waters and Solidifies Future

he AWI team prepared for September's 69th meeting of the International Whaling Commission (IWC69) in Lima, Peru, with a sense of trepidation. IWC68, in 2022, ended in recriminations and uncertainty after several developing countries, heavily influenced by the financial support they receive from former IWC member Japan, staged a walkout—taking advantage of ambiguous procedural rules to intentionally break quorum and prevent a vote on a proposed South Atlantic whale sanctuary.

Compounding this destabilizing event, the IWC was facing a serious budget shortfall due to the failure of many members to pay their annual fees, forcing painful cuts to the Scientific Committee's budget and the secretariat staff's benefits. And yet, despite this recent turmoil and Japan's continued pervasive influence at the IWC, we left Lima with a feeling of accomplishment and optimism.

AWI and our NGO colleagues learned important lessons from the 2022 meeting—not least of which was the need to have all hands on deck. At IWC68, the unexpected absence of several conservation-oriented governments

prevented the IWC from maintaining a quorum in the face of the Japan-orchestrated walkout. At IWC69, therefore, we needed to ensure that all like-minded member governments were represented, with fees paid so they could vote.

Despite a few disappointing no-shows, our intersessional outreach efforts paid off. As some late arrivals took their seats immediately ahead of the session in which the vote on the sanctuary proposal would be taken, the pro-whaling nations realized that they could not break quorum. If they absented themselves from the meeting room as they had in 2022, the vote would go on and the proposal might easily pass.

Sadly, however, thanks to one 11th-hour payment of fees in arrears and some last-minute submissions of repayment plans, as well as an ad hoc ruling by the chair allowing participation by a few countries that had small debts or had provided evidence that payment was forthcoming, several pro-whaling nations unexpectedly gained the right to vote. In the end, the aspirations of the strongly pro-conservation bloc of Latin American governments and NGOs were



dashed, as the proposal fell two votes shy of the threequarters majority required for adoption. With more lessons learned, however, we look forward to the sanctuary being approved at IWC70 in 2026 in Australia.

Refuting negative narrative

The IWC's very existence was aggressively challenged ahead of the meeting in an opinion piece published in Nature by a former IWC chair and others, including a representative of a pro-whaling NGO that receives substantial funding from the government of Japan (including more than \$100,000 for whaling-related work in both 2023 and 2024). Describing the IWC as a "zombie organization," they asserted that it was no longer relevant or effective and that it should be terminated, with its mandate transferred to other intergovernmental organizations.

Led by AWI, the international NGO community mounted a strong defense of the IWC and its important management and conservation mandate. We were concerned that the doomsday narrative would pervade IWC69 and become a self-fulfilling prophecy. Thankfully, it did not, and the chair proclaimed at the close of the meeting that "the IWC has never been more relevant."

During the meeting, quotas for Indigenous subsistence hunters were rolled over, and by an overwhelming majority, the IWC adopted a resolution proposed by the European Union reaffirming the importance of the moratorium on commercial whaling that has been in place since 1986. They also agreed, by consensus, to two other EU-led resolutions that affirmed the value of the IWC's collaboration with other biodiversity-focused organizations, including collaborations on research and conservation in Antarctica—the critical feeding ground for southern hemisphere whales.

Two resolutions proposed by Japan's allies failed to find support. The first—from Antigua and Barbuda, Palau, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines—advocated lifting the moratorium. The other from Cambodia, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Republic of the Congo, Senegal, and Saint Kits and Nevis—promoted the killing of whales to meet food security needs. The proponents ultimately withdrew both, although they may choose to resubmit them at IWC70.

More scrutiny of Japan's influence

Another positive development at IWC69, evident from an unprecedented number of media reports, was longoverdue scrutiny of the small island and other developing states whose representatives have supported Japan's agenda at the IWC for decades. After the meeting, for example, the commissioner from Antigua and Barbuda came under pressure at home for his pro-whaling stance. He acknowledged to his domestic press that his country's position at the IWC was influenced by more than \$200 million in Japanese development aid over the past 20 years. Meanwhile, in West Africa, there has been extensive media coverage of an open letter signed by more than 110 government officials, scientists, and marine policy experts from the region, condemning their countries' pro-whaling position at the IWC and calling on them to withdraw the resolution they had proposed.

To ensure that Japan's insidious and costly influence at the IWC remains in the spotlight, AWI is urging a review of the pitifully small fee Japan pays to attend meetings. Despite being a nonmember government, Japan's killing of IWC-protected whales still generates significant work for the secretariat and Scientific Committee. For example, in order to respond to Japan's recent resumption of North Pacific fin whale hunting, the Scientific Committee will need to deprioritize other work and schedule workshops to assess the structure and status of the target population and provide advice (that Japan will likely ignore) on whether the population can withstand hunting.

Japan paid less than \$8,000 for its six representatives to participate at IWC69. In contrast, it paid more than \$160,000 a year as an IWC member government before it withdrew in 2019. The IWC could help address its budget challenges by applying the same factors to calculate the charge for nonmember governments that it uses to set member governments' annual membership fees, including

their gross domestic product and whaling activities. AWI participates in subcommittees and working groups that will consider financial and operational issues ahead of IWC70, and we will urge IWC members to make this a priority.

AWI's continued commitment to the IWC

AWI began its involvement with the IWC in the early 1970s under the leadership of our founder, Christine Stevens, who was instrumental in launching the "Save the Whales" movement that led to the moratorium. Five decades later, we continue to be deeply involved in the work of this vital organization, including as active participants in its Scientific and Conservation Committees, subcommittees, and working groups. Our involvement includes providing financial support for the IWC's conservation and animal welfare work, hosting virtual and in-person strategy sessions for the NGO community ahead of IWC meetings, preparing briefing documents on pertinent topics to inform delegates' decision-making, and facilitating the participation at meetings of several like-minded NGOs that otherwise would not be able to attend.

The IWC continues to face budget challenges, and more cuts may be needed. But at IWC69, the commissioners reached consensus on a new budget, including a fee increase to keep pace with inflation, and its fundraising efforts are increasing. Notwithstanding the narrow defeat of the South Atlantic whale sanctuary proposal, the 2024 IWC meeting surpassed expectations, and AWI feels optimistic for the organization's future and committed to our ongoing efforts to secure a safer world for whales through our work within the IWC.



LATEST MYSTIC AQUARIUM BELUGA DEATH MERITS FURTHER INVESTIGATION

Three of five beluga whales imported to Connecticut's Mystic Aquarium from Canada in 2021 have now died. In mid-September of this year, the aquarium was fined \$12,200 by the US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), as part of a settlement agreement for three alleged violations of the Animal Welfare Act. While agreeing to pay the fine, Mystic admitted no wrongdoing.

The settlement focused on the deaths of Havok and Havana; the latest death of Kharabali, in December 2023, was too recent to be involved. APHIS alleged that Havok, who died less than three months after his import, received substandard care. He slammed into a gate, suffering an injury, after staff closed it when a visitor dropped an object into his enclosure. In addition, although Havok was displaying substantial distress behaviors during the eight hours prior to his death, the staff did not call a veterinarian.

Havana died in February 2022. The agreement noted that bacterial counts in her tank, near the end of the previous year, were extraordinarily high (at times, an order of magnitude above the acceptable standard). APHIS concluded that Havana suffered health issues, including stomach discomfort, eye disorders, and skin infections, as a result. According to documents AWI received through a Freedom of Information Act request, the level of oxidants, used to kill bacteria, were also dangerously unstable about six

months before this, apparently the result of an equipment malfunction that APHIS felt was not addressed expeditiously.

AWI also reviewed the inspection and necropsy reports for Kharabali. According to a January 2024 inspection report, Kharabali's medical records describe a number of injuries that were not noted during her December necropsy. All injuries, healed or not, should be noted during a necropsy.

This discrepancy is an issue for three reasons. First, zoo necropsies tend to be conducted by facility-approved, rather than independent, veterinarians. This is a conflict of interest. Second, these injuries seemed to be the result of Kharabali ramming the walls of her tank (several times, this contact was described as "hard"), fracturing her jawbones. APHIS noted that this behavior was a "possible indicator of pain and/or distress." Mystic did not record any thoughts on why she was displaying this behavior, and protective measures used by staff were ineffective.

There is typically little incentive for a veterinarian to omit information during a necropsy that is already in the animal's medical records, as both are under the purview of APHIS and open to agency inspection. In addition, while inspection reports are publicly available, they can be difficult to access, while necropsy reports for most captive marine mammals are not available to the public at all. In this case, however, the Marine Mammal Protection Act import permit for these belugas requires necropsy reports to be submitted to the National Marine Fisheries Service, and that agency does make them readily accessible. Arguably, therefore, Mystic did have an incentive to omit details in Kharabali's necropsy report that painted the facility in a poor light.

We urge APHIS to investigate Kharabali's death with the same rigor it brought to the deaths of Havok and Havana. &





One of the prize-winning students in this year's "A Voice for Animals" contest is raising awareness about threats to sea turtles and participating in clean-up efforts at sea turtle nesting sites.

GLOBAL STUDENTS GET VOCAL FOR ANIMALS

The 2024 edition of the annual "A Voice for Animals" contest, sponsored by AWI, the Humane Education Network, and the Palo Alto Humane Society, once again provided a platform for young advocates to highlight and showcase solutions to issues affecting animal welfare. Prizes were awarded for essays, photo essays, and videos involving an array of animals, from red foxes to yellow-crested cockatoos, and a wide range of topics, from fundraising for a local no-kill shelter to clamping down on abuse of racehorses, wildlife trafficking, plastic pollution in the oceans, and much more.

In the video category, first prize winner Allison Cheng of California documented her experience founding the Santa Clara Valley Young Birders Club. Through this group, she has facilitated educational opportunities for novice birders of all backgrounds, helping them to develop an environmentally conscious mindset. Once members are versed in bird identification, they aid in data collection by logging sightings in the Cornell Lab of Ornithology's online database.

Allison aims to continue inspiring younger generations to create positive changes for animals and their habitats.

Determined to aid endangered sea turtles and preserve their habitat, Krrisha Patel of New Jersey has parlayed her fascination with marine life into advocacy. As she notes, "The preservation of sea turtles is vital not only for their own survival but also for the health and balance of marine ecosystems worldwide." Her essay which won first prize in the 16- to 18-year-old category—describes how she has participated in beach cleanup events and created experiences to inform and educate others on the threats to sea turtle populations. Krrisha details these threats in her essay, addressing the impacts of coastal development, plastic pollution, and rising ocean temperatures.

Zai Lee of South Korea took first prize in the 14- to 15-year-old category for an essay that delves into the complex factors that contribute to rhinoceros poaching. The essay makes a case for addressing both the supply and demand side of this illegal practice,

as well as creating opportunities for communities to be active partners in the protection and monitoring of rhino populations. Zai concludes, "Our collective action is the only hope for ensuring they continue to grace our planet with their presence for generations to come."

To see the entire list of winners and their submissions, please visit *hennet.org*.

HIGH SCHOOL SENIORS: APPLY NOW FOR AWI SCHOLARSHIP

Now through March 16, 2025, high school seniors who are passionate about improving the lives of animals and want to continue making a positive impact through college and beyond can apply for an Animal Welfare Institute Scholarship. Winners will receive \$3,000 in scholarship funds, which can be used for tuition, room and board on campus, textbooks, student fees, or any other education-related expenses for the fall of 2025.

Applicants will need to submit two letters of recommendation—one from an academic source and another from someone who can vouch for their dedication to animal welfare efforts. Applicants will also get a chance to share their goals and speak out about important animal welfare issues. Don't miss this exciting opportunity: Visit awionline.org/scholarship to learn more and apply!

AWI Joins Africa Animal Welfare Conference

For the past several years, AWI has supported the Africa Animal Welfare Conference (AAWC), an annual event that draws government officials, animal protection groups, and animal advocates from across the continent. Delegates share experiences, learn of new tools and techniques, and discuss the challenges of animal protection in Africa.

The 8th AAWC, held at the United Nations Environment Programme (UNEP) headquarters in Nairobi, was organized and cohosted by the Africa Network for Animal Welfare (ANAW)—a long-time AWI ally—in collaboration with UNEP, the government of Kenya, and the African Union–InterAfrican Bureau for Animal Resources (AU–IBAR). ANAW invited AWI to participate this year, and AWI's executive director and CEO, Susan Millward, was pleased to accept. While in Kenya, Susan was able to look in on some of the ANAW projects AWI supports (see next page), as well as meet with Kenya Wildlife Service (KWS) officials to discuss AWI's ongoing support for the agency's stalwart wildlife protection efforts.

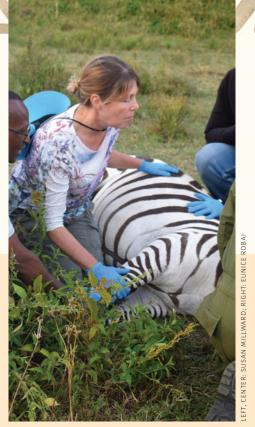
This year's conference theme was "Partnership Actions to Improve Animal Welfare and Environmental Sustainability," with emphasis on the relationship between animal welfare, environmental protection, and human health. On day one, an "Innovations, Education and Emerging Trends in Animal Welfare" panel discussion examined how emergent technologies could help with wildlife protection, as well as how societal trends might aid a transition from industrial animal production to equitable, humane, and sustainable food systems. Other sessions addressed topics such as human-animal interfaces in urban areas, cage-free chicken campaigns (currently, most chickens in Africa are raised cage free, but factory farming driven by overseas companies is looming), and the welfare of working donkeys.

Day two was dedicated to sessions related to UNEP, including how civil society can work within the UN system to further key goals. UNEP officials and others gave presentations on the value of engaging with this UN program at the biannual UN Environment Assembly (UNEA). One presentation addressed the "Animal Welfare, Environment and Sustainable Development Nexus Resolution" passed at UNEA 5.2 in 2022. This groundbreaking declaration, championed by many African countries, represents the first formal UN acknowledgement of animal welfare as an issue that is indelibly linked to human health and a healthy environment and therefore must be addressed as part of the United Nations' sustainable development goals. Other sessions focused on UNEP-civil society interactions, animal transport by sea, and animals in disasters—with examinations of flood responses in Kenya and climate change impacts in Ghana.

On the final day of the conference, Susan moderated a lively discussion on wildlife conservation. Presentations were made on improving bird welfare and conservation, the power of storytelling and education to inspire an affinity for nature, clinical approaches in the rehabilitation of African grey parrots, integrated conservation education, and transboundary partnerships to combat wildlife trafficking. Other sessions featured presentations and discussions on overcoming barriers to adoption of animal welfare policies, improving fish welfare in the growing aquaculture industry, and the relationship between environmental sustainability and animal welfare. The final session featured a presentation by AU–IBAR's Dr. Mwenda Mbaka on understanding animal sentience—a perfect way to round out this wonderful conference.







STUDENT VISITS AND SAVING ANIMALS

Outside the conference, Susan spent time with ANAW staff to observe their work in person and reaffirm the value of our financial support. She visited schools in the Rift Valley and in areas bordering Tsavo National Park where—as elsewhere in Kenya—ANAW has established animal welfare clubs. These clubs encourage students to respect animals and learn how to coexist with those encountered near their homes, including elephants, hyenas, and big cats. Young people from economically disadvantaged families who show a strong interest in animal protection are sponsored by ANAW—part of an effort to break the cycle of poverty, foster a greater understanding of and empathy for animals, and develop future animal protection leaders. AWI supports much of this work, which made meeting the students all the more meaningful.

Susan was also invited to accompany the ANAW de-snaring team on several missions in a region near Lake Naivasha in the Rift Valley. Snaring bushmeat for personal use is a significant issue in protected areas and beyond in Kenya. Locals use easily obtainable wire from fencing and other sources to craft simple wire rings that will tighten around an animal's limbs and other body parts, often leading to a slow, agonizing death. These homemade snares trap indiscriminately. In one day with the team, Susan and ANAW colleagues found over a dozen such snares. ANAW is using educational programs to deter snaring, but it's difficult, especially in impoverished rural areas where money and provisions are tight and wild animals so available (and often seen as a nuisance or safety threat).

Susan joined the ANAW team on two animal rescue missions. The first was for a zebra with a large growth on his neck. With two KWS rangers, a KWS vet, and an ANAW vet, the group set out. The zebra was located and stunned with a dart. Once the animal was immobilized, the afflicted area was carefully trimmed and cleaned, and surgery was performed to remove the growth. Afterwards, the incision was sutured and the zebra revived via an injection. As this took place, herd mates stood close by and brayed their alarm.

A more difficult rescue involved a free-roaming hyena with a wire snare embedded in his neck. A local warden at a privately owned wildlife conservancy had reported the ensnared animal. The team headed out early in the morning to search for the hyena at a watering hole on the property where he had last been seen. A large speaker system positioned on top of the safari truck boomed recordings of lions after a successful hunt—sounds known to attract other carnivores. Within 15 minutes, two black-backed jackals approached, followed by several hyenas.

Eventually, the snared hyena was spotted and darted, and the team quickly set to work removing the wire embedded in his neck. Fortunately, although the flesh constricted by the wire was very inflamed, it had not yet developed into an open wound, and stitches were not needed. During the procedure, one of the KWS rangers kept a lookout for other animals to protect the team and hyena until the sedative wore off and the animal was able to wander away, free from the tormenting snare.

Octopus on display at a fish market. Boosting production of octopus meat via commercial farming is a bad idea—both inherently cruel and utterly unsustainable.

OCTOPUS FARMING'S ODIOUS OUTLOOK

The unsustainability and cruelty involved in octopus farming prompted Sens. Sheldon Whitehouse (D-RI) and Lisa Murkowski (R-AK) to introduce the Opposing the Cultivation and Trade of Octopus Produced through Unethical Strategies (OCTOPUS) Act (S 4810) this summer. This bill would prohibit both commercial octopus farming in the United States and any import of farmed octopus. In October, California became the second state, after Washington, to ban octopus farming and farmed octopus imports. A similar bill has been introduced in the Hawai'i legislature.

Octopus is consumed in many places, primarily as a delicacy rather than a staple food. Overfishing has led to declining wild octopus populations, which has prompted some companies to develop a model for commercial farming to meet demand. So far, none have been successful.

With large brains and sophisticated nervous systems, octopuses have demonstrated an uncanny ability to solve complex problems, distinguish between individual humans, and outwit predators, as well as engage in playful behavior. They also tend to be nonsocial and have high enrichment needs—such that the barren individual housing necessary for profitable production would severely compromise their welfare and result in significant suffering. In fact, efforts to farm octopuses have been plagued by high mortality rates, increased aggression, and parasitic infection. In addition, octopuses are carnivorous



and typically consume three times their weight in food, meaning that production on any scale would further overburden fisheries.

BIRD FLU INFECTS HUMANS AND HOUSE CATS

February will mark four years of the United States battling the most significant animal health emergency in the country's history: the continued spread of highly pathogenic avian influenza (HPAI, aka bird flu). Since our last reporting on the bird flu crisis (see AWI Quarterly, summer 2024), the virus has continued to spread to dairy herds and domestic bird flocks across the country, bringing the total number of known cases in dairy herds to 334 across 14 states, and the total number of infected poultry flocks to 512 commercial operations and 670 backyard flocks across 48 states, impacting over 104 million birds.

In yet another alarming development, the virus now seems to be infecting

both human and feline members of households who've had either no direct exposure to the virus or no known occupational exposure to sick or infected animals. In August, the Colorado Veterinary Medical Association reported that six domestic cats in the state had been diagnosed with HPAI during 2024, two of whom were indoor-only cats with no direct exposures to the virus. The first recorded case involving an infected human with no direct or occupational exposure occurred in Missouri in September. As of mid-December, the Center for Disease Control has indicated that two of the 60 confirmed US cases of bird flu infections in humans were from "unknown" sources.

Despite these developments, the CDC still asserts that the public health risk is low, and the US Department of Agriculture has shown no sign of changing its response strategy, including its policy of indemnifying producers who use depopulation methods—in particular, "ventilation shutdown plus heat" (see AWI Quarterly, fall 2023) that have caused millions of birds to suffer agonized deaths.

LEGISLATORS QUELL CELL-CULTIVATED COMPETITION TO LIVESTOCK

In May, Florida became the first US state to ban the sale and manufacture for sale of "cell-cultivated" meat (aka "lab-grown" meat; see AWI Quarterly, fall 2023). Shortly after, Alabama followed suit by enacting its own ban on what proponents of the innovative product believe is the first cruelty-free meat option for consumers.

Since then, legislation has been introduced in a number of other states that would bar access to cell-cultivated meat or set strict labeling requirements under the guise of preventing consumer confusion. Such legislative efforts are particularly prevalent in livestockproducing heavyweights such as Iowa, Nebraska, and Pennsylvania, strongly suggesting that the actual motive behind these bills is to cripple the competition rather than clear confusion. Another cell-cultivation setback occurred in October, when a federal judge denied a request for an injunction against Florida's ban, allowing it to remain in effect as litigation on the issue moves forward.

old male chicks are culled annually, typically by maceration (dropped into a high-speed grinder and shredded alive) or by suffocation (dumped into large plastic bags). The chicks are killed because they cannot lay eggs, and the breeds used for egg production do not grow fast enough to be economically raised for meat. Sexing technology enables eggs containing male embryos to be identified and disposed of before the embryo begins to feel pain.

FDA FOREGOES ANIMAL **WELFARE IN GENE-ALTERING GUIDANCE**

AWI recently submitted comments urging greater consideration of animal welfare in guidance documents issued by the Food and Drug Administration to developers of animals with intentional genomic alterations (IGAs). IGAs are changes made to the genome by molecular technologies, including gene editing (deleting or altering a specific gene), and inserting genes from one species into the genome of a different species.

The animal agriculture industry is very interested in IGAs, primarily because of their potential to increase farmed animal productivity and disease resistance. In some cases, IGAs may improve animal welfare. For example, most dairy cattle undergo a painful procedure to remove their horns or prevent horn growth, and IGAs can produce hornless cattle. However, many IGAs have the potential to negatively impact animal welfare.

In 2021, AWI learned of a proposal to transfer regulatory oversight of animal IGAs from the FDA to the US Department of Agriculture. We expressed opposition to this change, as USDA oversight would likely be far less stringent. In the end, the FDA retained oversight of animals with IGAs; however, new guidance documents make clear that, even under the FDA, the IGA-approval process lacks robust assessment of animal welfare impacts and fails to consider sociopolitical implications (e.g., impact on small, independent farmers). In our comments, AWI encouraged substantive changes to address these shortfalls.

US EGG PRODUCERS TO CURB CHICK CULLING

For the first time, several major US egg producers have committed to using a new technology called "in-ovo sexing" that can determine the sex of chicken embryos before they hatch. (See AWI Quarterly, winter 2023.) Kipster, NestFresh, and Egg Innovations have announced plans to begin implementing the inventive technique in the coming months, with a goal of offering in-ovosexed eggs in US stores in 2025.

Many European countries have already banned chick culling. In the United States, however, millions of day-





a much-anticipated move, the US Department of Agriculture's Food Safety and Inspection Service (FSIS) released its updated Guideline on Substantiating Animal-Raising or Environment-Related Labeling Claims in late August. Last revised in 2019, this important publication consists of a set of guidelines instructing meat and poultry producers how to use label claims such as "free range" and "humanely raised" in a manner that is not—as the law prohibits—"false or misleading in any particular." This year's update came in response to questions and concerns raised by members of the public and a wide variety of industry and advocacy organizations, including AWI and its members.

Though the modified guidelines contain some small improvements, they remain grossly insufficient to ensure labels displaying animal-raising claims do not deceive consumers. For some claims, for instance, the guidelines do not require companies to include enough information on the product packaging to adequately inform consumers about the living conditions of the animals. They do not, for example, require poultry product labels displaying the phrases "free range" or "pasture raised" to include

definitions of those terms, leaving shoppers in the dark about what the claims mean or whether they are different.

Even when the guidelines indicate that a particular label claim should be accompanied by a definition, the definition is often unhelpful or misleading. For instance, the guidelines state that claims such as "humanely raised" and "raised with care" must be defined on the label—but companies can essentially define these terms however they want. The guidelines offer, as a compliant example, a chicken breast product label with the claim "humanely raised" defined to mean "fed all vegetarian diet with no animal by-products." This definition tells consumers nothing about key aspects of the animal's care, such as housing conditions, health management, or whether the bird was subjected to painful procedures such as beak trimming.

Another serious problem involves the documentation a company must submit to substantiate certain claims. For example, a company making a "free range" claim on poultry packaging must submit documentation demonstrating "continuous, free access to the outside throughout their normal growing cycle." But this doesn't necessarily mean easy access to verdant pasture. Quite the opposite, it could mean a barren patch of concrete accessed through a small exit from a crowded indoor space. Such a low threshold for what constitutes "free access to the outside" renders the "free range" claim all but useless and contributes to consumer confusion.

The provisions governing the use of "pasture raised" also fall short. In response to a petition submitted by Purdue Farms and supported by AWI, the updated guidelines establish a new definition of "pasture raised": (1) the majority of each animal's life was spent on pasture, and (2) "pasture" means land where "the majority is rooted in vegetative cover with grass or other plants." This is an improvement over the 2019 definition. Inexplicably, however, companies seeking to use the claim are only "strongly encouraged"—not required—to submit documentation verifying that these two factors were met. Thus, meat and poultry products featuring the claim "pasture raised" may or may not meet the guidelines' definition of the term.

Another severely disappointing aspect is the lack of documentation required to substantiate negative antibiotic claims, such as "raised without antibiotics" and "no antibiotics ever." As the FSIS explained in its press release announcing the updated guidelines, recent sampling conducted by the agency indicated an alarmingly high presence of antibiotics in supposedly antibiotic-free products:

In light of concerns about negative antibiotic claims, FSIS announced last year that the agency would be conducting a study in partnership with USDA's Agricultural Research Service (ARS) to assess the veracity of these claims. FSIS collected liver and kidney samples from 196 eligible cattle at 84 slaughter establishments in 34 states, and ARS analyzed the samples using a method that targeted more than 180 veterinary drugs including various major classes of antibiotics. The study found antibiotic residues in approximately 20% of samples tested from the "Raised Without Antibiotics" market.

Despite these findings, and despite acknowledging "the need for more rigorous substantiation" of negative antibiotic claims, the FSIS indicated it would not be conducting additional testing or random sampling for now, nor would it require companies promoting such claims to do so. Instead, the FSIS—once again—"strongly encourages" companies to institute their own sampling programs.

Similarly, the agency "strongly encourages," rather than requires, the use of third parties to verify animal-raising claims. Independent, third-party certifiers play a valuable role in confirming the truthfulness of claims, because they visit farms and conduct on-site inspections—unlike the FSIS, which claims it lacks the legal authority to do so.

Finally, the revised guidelines make no mention of steps the FSIS might take to correct a major deficiency revealed by the 2022 AWI report *Deceptive Consumer Labels*. As indicated in the report, AWI asked the FSIS to provide label approval files for 97 meat and poultry animal-raising claims so we could review the adequacy of the documentation producers provided to substantiate those claims. Astonishingly, the agency was unable to provide records for nearly half (48) of the claims. This means either the FSIS had lost the files, or the producers had not submitted the relevant applications for the use of the claims. Either would be unacceptable; yet the issue remains unaddressed.

In sum, the pervasive flaw of the guidelines is that they fail to compel meat and poultry companies to provide meaningful proof that the claims on their packaging are truthful. If the FSIS is unwilling to include such a requirement in its guidelines, then it should do so through rulemaking—a step the agency has previously indicated a willingness to consider. In the meantime, buyers should carefully scrutinize the claims on meat and poultry packaging, and avoid products adorned with claims that are ill-defined and unverified by independent third parties. &



MORE ENRICHMENT MAKES FOR HEALTHIER RODENTS

A recent meta-analysis published in the journal Applied Animal Behaviour Science (Cait et al., 2024) found that the more types of resources (i.e., "enrichment") rodents receive, the better their health. A previous study by these authors (see AWI Quarterly, spring 2022) found that rats and mice housed in conventional laboratory cages experience chronic stress, which causes them to have higher morbidity (disease severity) and mortality than rodents who live in "well-resourced" cages. The new study aimed to dig further into the relationship between enrichment and health by determining whether the number of resource types mattered.

The authors explored the impact of providing one to five types of additional resources (the maximum number they could assess based on the available studies) compared to conventional housing standards. The resources included were those known to meet a particular rodent behavioral or physiological need: additional space, increased environmental complexity, nesting materials, shelters, and wheels.

The study found a positive linear relationship between the number of resource types and rodent health, with no leveling off even at five resource types—suggesting that rodents would continue to benefit even if *more* than five types of enrichment were added. It also supports the authors' previous findings that rodents in conventional housing have greater morbidity than those in better-resourced housing, which has implications both for rodent welfare and for the scientific research

A new study found that rodent well-being improves each time another resource type (e.g., wheels, shelters, nesting materials) is added to the cage—the more the merrier, with no apparent leveling off.

conducted with them. The authors recommend setting more ambitious housing standards to improve the welfare of the millions of rodents used in laboratory research.

GUIDELINES AIM TO IMPROVE WELFARE OF RODENT CANCER MODELS

Rats and mice are often used as cancer models—meaning cancer is induced in these animals to study the progression of the disease and potential treatments in hopes of translating the findings into successful treatments of human cancers. Until recently, there was no clear and standardized approach for how to minimize the suffering of rodents in oncology research. In February, a set of standards devised by an international group of scientists was published in the journal Nature Protocols (De Vleeschauwer et al., 2024). Dubbed Oncology Bestpractices: Signs, Endpoints and Refinements for in Vivo Experiments (OBSERVE), these guidelines provide recommendations to scientists and

animal care staff for improving the welfare of rodents in cancer research. The guidelines include health and tumor growth monitoring sheets, descriptions of symptoms and humane endpoints, and an overview of severity assessment, among other resources.

LAST OF ALAMOGORDO CHIMPS BOUND FOR SANCTUARY

In a surprising reversal, the National Institutes of Health announced that the remaining chimpanzees (23 as of October 1) at its Alamogordo Primate Facility will be relocated to a federally operated sanctuary after all. Previously, the NIH stated that these former research animals could not be moved due to health concerns. (See AWI Quarterly, fall 2024.) But the agency indicated it had reconsidered after learning that most of the staff caring for the animals will be retiring next year. AWI is thrilled with this decision and believes that the sanctuary is the most suitable retirement location for these chimpanzees.



ARY SWII



The United States Pharmacopeia has finally approved a synthetic endotoxin test reagent—one that doesn't subject horseshoe crabs to debilitating blood drains.

MONKEY BUSINESS ON

HOLD-FOR NOW

As reported this spring in the AWI Quarterly, a company called Safer Human Medicine (SHM) is seeking to build a massive facility in Bainbridge, Georgia, to breed tens of thousands of long-tailed macaques that it would sell for research purposes. The company name would certainly suggest a noble effort to fulfill an imperative social need. Behind the public relations, however, is a business model associated with enormous profits and a company led by industry insiders with unsavory animal welfare histories—including a CEO who served as COO of Envigo during the time when conditions at that company's Virginia dog-breeding operation were so atrocious that the facility was eventually shuttered. Subsequently, Envigo was convicted of conspiring to violate the Animal Welfare Act and paid the largest-ever fine in a case involving this law. (See AWI Quarterly, fall 2024.)

The planned Georgia facility is currently mired in multiple legal disputes.

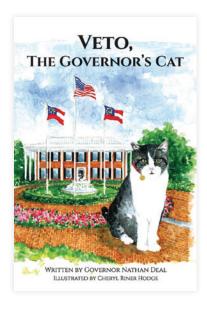
In February, the Decatur County Development Authority voted to revoke a bond resolution it had approved to help finance the project, prompting SHM to sue the Development Authority for breaching its agreement. That case, however, is currently on hold pending the outcome of a legal challenge to the validity of the bond resolution filed that same month by local citizens, who claim it was approved in violation of Georgia's Open Meeting Act. In August, local citizens filed a second lawsuit to halt the project on the grounds that the resulting noise, smells, and negative economic impacts in the residential area would constitute a public nuisance.

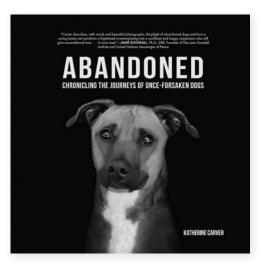
Public protest over the proposed Bainbridge facility only intensified after news broke in early November that 43 monkeys had escaped from a primate research facility in South Carolina, prompting police to advise nearby homeowners to lock doors and windows until the monkeys were recaptured. Four monkeys remained on the loose as of late November, according to media reports.

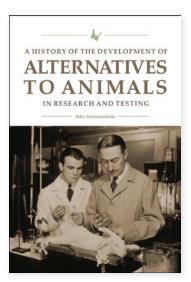
APPROVED TOXIN TEST **BYPASSES HORSESHOE CRAB BLEEDING**

In a welcome development, nonanimal-derived reagents have been approved for endotoxin testing by the United States Pharmacopeia (USP) Microbiology Expert Committee, and the approval is expected to become official in May 2025. As reported in the winter 2021 and winter 2022 editions of the AWI Quarterly, every vear in the United States, hundreds of thousands of horseshoe crabs are taken from the wild and drained of nearly a third of their blood to create a reagent to test for endotoxin contamination in drugs, vaccines, and medical devices. The animals are returned to the wild, but the debilitating procedure ultimately results in the death of tens of thousands of them.

Along with its obvious impact on animal welfare, this annual harvest is contributing to a significant decline in the horseshoe crab population. This, in turn, deprives other animals including the red knot, an endangered migratory shorebird—of a vital food source: nutrient-rich horseshoe crab eggs. Approval by the USP of non-animal-derived reagents as an acceptable alternative to the (still accepted) test derived from horseshoe crab blood will hopefully mean that fewer crabs will be used in the future. This approval will finally bring the United States in line with other global pharmacopeias, which approved the safe, dependable synthetic reagent several years ago.







VETO, THE GOVERNOR'S CAT

Nathan Deal (author), Cheryl Riner Hodge (illustrator) / Booklogix / 60 pages

Animals are often the main characters in children's books, capturing younger readers' attention and delivering life lessons in an entertaining and easily digestible format. Veto, The Governor's Cat, by former Georgia governor Nathan Deal, is no exception; it touches on universal themes of friendship, loss, and life changes. The story centers on Veto, the cat who shared a home with the governor and his late wife, Sandra Dunagan Deal.

Born to a barn cat mother, Veto initially takes up residence at the governor's stately mansion to chase away birds and chipmunks from the gardens. (AWI recommends that domesticated cats be secured indoors whenever possible for their own safety and that of wildlife.) Over time, Veto learns how to make new friends with an array of different animals and adjusts to a new home after Deal finishes his second term. Veto also copes with the death of a beloved family member his brother Bill—supported by his animal friends. In the face of overwhelming loss, Veto realizes that his happy memories of his loved one and his own resilience will see him through.

Deftly illustrated by Cheryl Riner Hodge, the book communicates several important values that are relatable to children, such as showing kindness to others and demonstrating courage in new situations. The animal characters are portrayed with warmth and respect, even if their behaviors are not entirely factual. The discussion questions at the end of the book may be useful for parents, caregivers, and educators to teach children about empathy and to encourage them to share their own experiences.

ABANDONED

Katherine Carver / Lantern Publishing & Media / 250 pages

Photographer and author Katherine Carver spent the past decade documenting the fate of 59 abandoned dogs. Inspired by her own rescue dog who had suffered from neglect and abuse, Carver photographed each of the abandoned dogs while they were staying at shelters or rescues. She returned one year after they were adopted, using striking blackand-white imagery to convey their emotions and moods in Abandoned: Chronicling the Journeys of Once-Forsaken Dogs. The power and beauty of these photographs resonate on a deep, personal level. Readers witness the transformation of dogs from anxious, confused, and fearful in the shelter environment to content, confident, and full of joy with their adoptive families.

A simple narrative is provided for each dog, detailing their background, behavior, length of stay at the shelter or rescue, and number of times returned. The adoptive families also offer firsthand accounts of their dogs' strength and resilience, imparting lessons about the power of forgiveness, selflessness, and loyalty. Many adopters speak of rescue dogs never leaving their side and providing emotional support and healing in times of serious illness and grief.

According to the national database Shelter Animals Count, an estimated 3.2 million dogs entered shelters and rescue organizations nationwide last year; 360,000 were euthanized. Carver, who is donating a portion of the book's proceeds to rescue groups, acknowledges that not all the 59 dogs featured in Abandoned found a happily ever after. She honors those who were never adopted, reminding us that they are not just anonymous statistics, but rather individuals with their own stories.

Abandoned raises awareness about the benefits of animal adoption. Both the dogs and their adopters experience the restorative power of the human-animal bond, manifested in the magic of everyday moments.

A HISTORY OF THE DEVELOPMENT OF ALTERNATIVES TO ANIMALS IN **RESEARCH AND TESTING**

John Parascandola / Purdue University Press / 194 pages

Distinguished medical historian Dr. John Parascandola offers an engaging, thought-provoking, and well-researched account of the growth of animal experimentation and the parallel rise of the animal protection movement in the United States and Great Britain during the 19th and 20th centuries. From the outset, he explains that "one of the major themes of the book

is the crucial role played by the animal protection movement in promoting alternatives," which he defines as methods that reduce the suffering of animals used in research.

Not surprisingly, AWI founder Christine Stevens and her father, Dr. Robert Gesell—both pioneers in the compassionate treatment of animals used in experimental laboratories—are heavily featured in the book. Parascandola charts the rise of live animal experimentation during the 1800s, leading to increased public concern about their suffering. This ultimately gave birth to the antivivisection movement, which called for the total abolition of animal experimentation, and later to the formation of animal welfare groups such as AWI that pushed for reforms to the system to reduce animal suffering. During this period, organizations opposed to increased protections for animals in research also developed—most notably the National Society for Medical Research (which later merged with another group to become the powerful National Association for Biomedical Research).

Parascandola discusses Russell and Burch's development of the landmark 3Rs framework (i.e., replacement, reduction, and refinement) and its reception by the scientific and advocacy community, which was surprisingly lukewarm at first. He also describes the herculean efforts of Christine Stevens and other animal welfare advocates in the 1960s to challenge unregulated and painful animal research methods, including pushing for passage of the 1966 Laboratory Animal Welfare Act, which would evolve into the Animal Welfare Act. The author mentions that Stevens used her influence to effectively kill a follow-up bill that seemingly would have increased research oversight but does not explain why she did so. (In reality, Stevens felt that the proposed enforcement body—the agency in charge of funding much animal research—would have been like the proverbial fox guarding the henhouse.)

The book concludes in the 1980s, by which time, according to Parascandola, the concept of research alternatives had become firmly established; an epilogue describes more recent advancements. For those currently working in the animal protection movement, Parascandola's chronology of the last 75 years of disputes between animal advocates and the research industry may ring familiar.

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.

Return Service Requested

Non-Profit Org. **US** Postage PAID

Washington, DC Permit No. 2300

f @animalwelfareinstitute





HHC MEMBERS ASCEND CAPITOL HILL TO ADVANCE EQUINE WELFARE

In September, more than 100 representatives of equine rescue, sanctuary, and advocacy organizations from across the country met in Washington, DC, for the 2024 Homes for Horses Coalition (HHC) Conference. HHC, co-led by AWI and American Wild Horse Conservation, is dedicated to ending horse slaughter and other forms of equine cruelty. Its 500+ members are working together to strengthen the equine safety net through advocacy, education, and professionalization of care and rescue operations. The three-day conference provided an opportunity for horse rescuers and advocates to build new connections, share ideas, and discuss solutions to pressing equine welfare issues.

Conference sessions covered a variety of topics, including care of traumatized horses, effective advocacy, and the strategies and tools necessary to operate a stable, successful nonprofit rescue—from fundraising and public outreach to strengthening relationships with local law enforcement and avoiding burnout. On the final day of the event, more than 60 equine advocates representing 16 states walked together to Capitol Hill to "talk

some horse sense" into Congress. This strong contingent was well-prepared to speak on the issues, as most work on the ground with at-risk equines every day. They conducted over 50 meetings with congressional offices, each a great opportunity to educate members of Congress and their staff on important equine issues and rally support for important equine welfare legislation. HHC members addressed measures to establish a federal ban on the slaughter of American horses here and abroad, stop brutal helicopter roundups of wild horses, strengthen enforcement action against horse soring, end US participation in the cruel trade in donkey skins to create ejiao, and prohibit the unsafe and inhumane use of double-deck trailers to transport horses.

The gathering underscored the collective strength of groups across the country working to protect at-risk equines. AWI is committed to supporting these efforts and providing opportunities like the conference to bolster and empower the equine protection community.