

AWI Quarterly

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SPOTLIGHT

Long-Awaited Organic Animal Welfare Regulations Released

Since December 2000, when the regulations implementing the Organic Foods Production Act of 1990 were released by the US Department of Agriculture, animal and consumer advocates have been working continuously to incorporate animal welfare standards into the rules. After two decades of input from the public and the National Organic Standards Board (NOSB), in the last week of his tenure, President Obama finalized a set of animal welfare regulations that had been negotiated by a broad collection of stakeholders, including AWI.

It was anticipated that the long-awaited and widely supported regulations would enhance animal welfare, improve husbandry practices, bolster consumer confidence, safeguard the integrity of the organic label, and protect

higher-welfare producers from being unfairly disadvantaged in the marketplace. Unfortunately, none of these benefits were realized, as the USDA under the Trump administration withdrew the regulations, effective May 2018.

Following the 2020 election, AWI and others pushed the Biden administration to make reinstatement of the organic animal welfare standards a top priority. In April 2021, 40 former members of the NOSB voiced their concern about the integrity of the National Organic Program to USDA Secretary Tom Vilsack and appealed to him to move forward with rulemaking to establish animal welfare standards under the program. These efforts were successful, and on August 5, 2022, the USDA proposed animal welfare regulations substantially similar to the withdrawn rule and announced a 60-day comment period.

AWI will be submitting comments to the USDA urging swift adoption and implementation of the proposed rule. Our supporters can also voice support of the proposed rule and its many benefits to animals, consumers, and higher-welfare, sustainable farmers. Look for an alert in coming weeks inviting you to contact the USDA through our online Action Center: awionline.org/action-center. Those wishing to send a written letter should contact Allie Granger at AWI for instructions. 🐾

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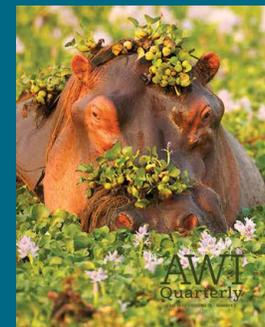
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ABOUT THE COVER

Water hyacinths wreath a hippopotamus in Mana Pools National Park, Zimbabwe. Across Africa, hippos are targeted for their ivory teeth, and populations are in decline. This November, the 19th meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) convenes in Panama. Nations of the world will weigh proposals to strengthen (or weaken) protections for species adversely affected by international trade. One positive proposal would ban international commercial trade in hippos and hippo parts. For more on this all-important meeting, turn to page 10. Photograph by David Fettes.

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USDA ADDRESSES POULTRY DEALERS' UNFAIR PRACTICES

The US Department of Agriculture recently requested comments on a proposed rulemaking under the Packers and Stockyards Act, which governs how meat and poultry companies buy and source animals for slaughter. The proposed rule is intended to tackle the long-standing power disparity between vertically integrated poultry companies such as Tyson and Perdue and the poultry growers they contract with.

Lack of transparency in contract formation and the compensation system has caused financial instability among growers. The rule would require poultry dealers to inform growers about crucial production factors such as expectations for infrastructure improvement, known health issues of birds, and dealer-controlled inputs (e.g., feed, veterinary care).

AWI submitted comments encouraging the inclusion of detailed disclosures related to bird health and dealer policies related to animal welfare that could affect how growers handle birds under their care.

CALIFORNIA FUNDS PLANT-BASED SCHOOL MEALS

In its recently passed budget bill, the state of California took a huge step forward in promoting healthy plant-based meals in public schools. The budget included \$100 million to assist schools in procuring foods that are plant-based, locally grown, and accommodating of restricted diets. The state allocated a further \$600 million to upgrade school kitchen infrastructure and food service worker training, in part to facilitate preparation of plant-based meals. California becomes the first state to publicly fund plant-based options in schools, which has important implications for animal welfare, local agriculture, and the environment.

NEW WELFARE CERTIFICATION FOR FARMED FISH

This summer, the nonprofit animal welfare certification program Global Animal Partnership (GAP) debuted standards for farmed Atlantic salmon. As with other GAP animal welfare

standards, the salmon standards are a series of “step levels” representing varying levels of animal welfare. To be certified at the base level, producers must provide enrichment to fish at all life stages, limit stocking density, comply with “cleaner fish” care and management standards, monitor water quality daily, and use approved methods of stunning and slaughter. To achieve certification at the next level, producers must provide an “enhanced habitat” and limit transport times. Producers at the highest level must use “fish-centered” production practices with increased health and welfare monitoring, and no transport for slaughter.

These standards are a positive step toward transparency and accountability concerning fish welfare in aquaculture. As fish farming expands, it is critical that animal welfare and the environment are top priorities, given the number of fish impacted, the significant impacts on the environment and other species, and growing awareness of the capacity of fish to feel and suffer.

AWI does have concerns, however, regarding what the standards permit in terms of predator control. For example, they allow live trapping of marine mammals and do not expressly prohibit certain nonlethal but potentially harmful deterrents such as paintball or sponge grenades. Another concern is the reliance on third-party certification programs to ensure sustainable feed. A number of eco-label programs have certified fisheries for Antarctic krill—a mainstay additive to salmon feed—that are putting further stress on krill populations already under severe threat from climate change and ocean acidification. These krill are vital prey for whales, seals, and penguins and are an indispensable component of the marine ecosystem.



ATLANTIC SALMON FISH FARM. LEO W KOWAL



DEAD BIRDS BEING HAULED AWAY. WE ANIMALS

Avian Flu Waning but Threat Remains

This year's avian influenza outbreak appears to be waning, following the historical pattern of the disease dissipating in hotter months. However, its exit comes too late to avoid the impact on domestic birds in a variety of settings, including commercial poultry operations, backyard egg operations and hobby farms, gamebird farms, petting zoos, and wildlife rescue and rehabilitation centers. In total, more than 40 million domestic birds in the United States have been “depopulated” to control the spread of highly pathogenic avian influenza (HPAI).

As of late June, HPAI had been detected in 376 domestic flocks (186 commercial and 190 backyard) in 36 states. To control spread of the disease, the US Department of Agriculture has established a policy of depopulating all birds in a flock within 24–48 hours of a positive test. The most common methods for killing birds in backyard flocks are cervical dislocation (dislocating the spinal column from the brain) and carbon dioxide gas.

For commercial poultry operations, the most common depopulation method during the 2022 outbreak has been water-based foam, which kills birds relatively quickly by airway occlusion, and ventilation shutdown plus heat (VSD+), which kills slowly via induced heat stroke. Although USDA policy requires that VSD+ only be used when other, more humane methods are not available or feasible, AWI's analysis of depopulation data shows that more than half of the 186 commercial depopulations were conducted with VSD+, alone or in combination with another method. At least 8 million domestic birds were killed by arguably the most inhumane method possible.

Justifications for use of VSD+ during the 2022 outbreak included lack of access to carbon dioxide gas, limitations to the use of foam with caged birds, and difficulties encountered in conducting extremely large depopulations with any method other than VSD+. Approximately 18 percent of the commercial depopulations were conducted at operations of more than 100,000 birds. Even with use of VSD+, depopulations involving such large numbers of birds frequently exceeded 48 hours. According to AWI's analysis of USDA data, depopulations affecting a total of 22 million birds took more than 48 hours from positive HPAI test to completion of the killing. Four depopulations—all involving over 1 million birds—took 10 days or longer to complete, illustrating the serious threat posed by industrial farming to animal health and welfare.

The 2022 HPAI outbreak affected wild animals as well, with the USDA confirming 1,635 cases of HPAI in wild birds across the country. Avian influenza circulates freely in wild birds—waterfowl and seabirds in particular—with most wild birds exhibiting no signs of illness (although experts have indicated that the current HPAI strain has proven far deadlier to wild birds than previous strains). Scavenging and migrating birds may carry the virus to agricultural areas, exposing large numbers of domestic poultry. In stark contrast to wild birds, mortality typically exceeds 90 percent in infected domestic poultry. This year's outbreak may be abating, but the risk remains that it will return with the next bird migration in the fall. Given the inevitability of future outbreaks, the USDA should take steps now to end the widespread use of VSD+ to depopulate domestic flocks. 🐾

Animal Welfare Label Claims: *USDA Does Little to Deter Deception*

Today's grocery stores offer a dizzying array of options. And the competition for your attention doesn't cool down when you reach the refrigerator and freezer cases—there, consumers of meat, poultry, dairy, and egg products are inundated with compelling images, claims, taglines, and certifications assuring them, among other things, that the items offered are environmentally friendly and the animals involved were well cared for. The chorus of claims, however, can easily confuse—especially when such pronouncements are allowed to stand on scant proof.

The US Department of Agriculture, for the most part, does not regulate how animals are raised within (or the environment affected by) animal agriculture. However, it does require producers to submit animal-raising and sustainability label claims for approval and is supposed to prohibit false or misleading claims. No USDA inspector, however, visits agricultural facilities to see whether claims and conditions coincide. Rather, the department's evaluation of label claims relies solely on information supplied by the producers. And that information is often sorely lacking in substance.

For the past decade, AWI has been the only national nonprofit organization that routinely monitors the use of claims such as “humanely raised” and “sustainable” on

meat and poultry packages and how the USDA addresses its responsibility to ensure that these claims are not false and misleading. We've conveyed our findings in a series of *Label Confusion* reports—the third version of which will be published this fall—which review every label approval application AWI has received from the USDA since 2013. The reports highlight how the USDA is failing consumers by continuing to allow deceptive marketing practices.

In the latest analysis, we discovered that 85 percent of the label claims reviewed lacked meaningful substantiation of the claim, with inadequate evidence provided to support use of the claim. Often, there was no label approval file *whatsoever*—apparently, a significant portion of animal-raising claims that end up on food packaging are never even evaluated by the USDA.

Producers are required to include a definition for any label claim on the package itself. This sounds promising in terms of consumer comprehension, but the definitions, it turns out, are of dubious value, because producers are allowed to define claims however they see fit. The same terms will have different meanings on different packages. Definitions are also offered that are largely irrelevant to the claim itself. For example, a producer might define



“humanely raised” to mean the animals were raised on a diet that was vegetarian or free of antibiotics—actions that say little about the animals’ overall welfare.

Producers are not just sailing past the approval process unchecked. They’re also creating their own lofty-sounding certification programs that merely codify the low-level standards of conventional factory farms. Industry-backed certification programs such as CARE Certified, One Health Certified, and FACTA Certified mimic legitimate third-party animal welfare certifications that actually *do* verify improvements to the standard of care for animals, programs such as Global Animal Partnership (Steps 2 and higher), Certified Humane, and Animal Welfare Approved by A Greener World.

In evaluating substantiation for label claims, the USDA does not distinguish between industry certification programs and legitimate third-party animal welfare certifications. USDA policy in this respect is wholly unaligned with consumer expectations: According to polls conducted on AWI’s behalf, consumers overwhelmingly believe that the claim “humanely raised” should not be allowed unless a producer *exceeds* minimum industry animal care standards.

Because the industry has taken advantage of the USDA’s lax labeling policy, AWI’s position on animal raising claims and the value of third-party certification programs has been refined. Previously, we urged the USDA to require certification from *any* third party in order to use high-value claims such as “humanely raised” and “sustainable.” Now that producers are certifying compliance with weak industry standards, AWI recommends that the USDA require producers using such claims to gain third-party certification to a standard that exceeds conventional production practices. Producers should also be required to comply with all of the certification’s standards and be audited by the certifier on a routine basis.

Our recommendations to the public have also evolved. AWI’s *A Consumer’s Guide to Food Labels and Animal Welfare* provides important information to consumers about what to look for and what to avoid in the marketplace. In our

latest update to the guide, we added information about vegan, plant-based, and vegetarian labels and new organic certifications such as “Regenerative Organic Certified” and “Real Organic,” which are meant to go beyond the USDA’s National Organic Program.

Of course, the most effective way to ensure that your food choices do not contribute to farm animal suffering is to choose a plant-based or vegan diet. And in any case, if we wish to stem the growth of factory farms and provide a greater percentage of farm animals with a life worth living, Americans as a whole need to eat fewer animal products—that means less meat, dairy, and eggs.

If you do consume animal products, look to the “best choices” category of our guide. These labels signify that the producer adhered to the highest recognized animal care standards, with compliance verified by a third-party auditing program. This category includes Certified Animal Welfare Approved by A Greener World, Certified Grassfed by A Greener World, Certified Humane pasture-raised eggs, Global Animal Partnership (Steps 4, 5, and 5+), and Regenerative Organic Certified (for products other than dairy). Following the “best choices” category in the guide are “next best choices,” “fair choices,” and “beware of these labels,” the last of which includes labels that are meaningless or misleading with regard to animal welfare.

Thanks to ongoing efforts of AWI and other animal protection groups, the USDA has recently committed to revising its policy document relating to label approval. Drastic changes are necessary to ensure that the labeling is meaningful.

Please take action today to help eliminate factory farming, support higher-welfare farms, and promote fairness in labeling by writing Secretary of Agriculture Tom Vilsack, asking him to put an end to misleading and deceptive labeling. You may contact the secretary via our website at awionline.org/labelclaimaction or send a letter addressed as follows: The Honorable Tom Vilsack, Secretary, US Department of Agriculture, 1400 Independence Avenue SW, Washington, DC 20250. 🐾

INVASIVE WHALE STUDY FAILS—AGAIN

For the second year in a row, researchers from the United States and Norway failed to measure a whale's brain waves to determine how they might react to naval sonar and noise from oil and gas exploration.

The experimental protocol calls for a net spanning nearly a mile between islands to herd migrating juvenile minke whales into an enclosure. After 24 hours, a captured whale would be forced into a small, modified aquaculture cage and pinned between two rafts. The researchers would then attempt "auditory evoked potential" testing, placing electrodes on the whale to measure brain waves for up to six hours to determine how the animal might react to active naval sonar, noise from the renewable energy sector, and seismic exploration conducted by the oil and gas industry. Blood samples would also be taken to test for stress markers.

During the month-long experiment in 2022, two minke whales were caught in the larger netted-off research area, but the research team was only able to corral one young male whale into the smaller aquaculture cage where the tests were to be performed. According to a report released in early July, the whale had to be set free following 12 hours of observation after exhibiting signs of stress—which leading scientists predicted would be the likely outcome—and the experiment was stopped. It is unclear whether the team followed the whale post-release to determine whether the animal has suffered any long-term effects due to the stress of the capture.

Last summer, the first phase of the project ended abruptly without testing a single whale after one minke got trapped for eight hours in the massive net before

breaking free. Again, there was no report of any follow-up monitoring to make sure the whale had escaped unharmed.

With two failed research seasons and millions of dollars of US taxpayer money wasted, AWI has written to officials in both the United States and Norway to call for cancellation of this invasive and stressful research. We continue to maintain that the animal welfare and human safety risks associated with this study are unacceptable.

EFFORT ON CAPITOL HILL TO CLOSE DOWN CAPTIVITY OF CERTAIN CETACEANS

In July, Senator Dianne Feinstein (D-CA) and Representatives Adam Schiff (D-CA), Jared Huffman (D-CA), and Suzan DelBene (D-WA) introduced the Strengthening Welfare in Marine Settings (SWIMS) Act (HR 8514/S 4740). This legislation would phase out the captive display of orcas (also known as killer whales), beluga whales, pilot whales, and false killer whales. Specifically, it would prohibit the breeding, wild capture, and import

and export of these species for the purposes of public display, but would not prohibit the continued holding of animals currently in captivity, thus allowing marine theme parks and aquariums time to transition to a more humane future. Science increasingly supports the conclusion that the size and physiological, emotional, and social needs of these species make them unsuitable for life in captivity.

TAKE ACTION!

Visit AWI's online Action Center to urge your US representative and senators to cosponsor the *SWIMS Act*: awionline.org/protectbelugas. Prefer putting ink to paper? Address a letter to your representative as follows:
The Honorable [full name],
US House of Representatives,
Washington, DC 20515.
Address a letter to each of your senators as follows:
The Honorable [full name], US
Senate, Washington, DC 20510.



KUREMO

Use of Roost Boxes by Bats Evicted from Manmade Structures

by Isabelle Zoccolo, Kathleen Kerwin, and Brooke Maslo, Rutgers University

North American bats have an estimated economic value of \$23 billion annually due to their natural role as insect pest regulators. These bats have faced a significant decline due to white-nose syndrome (a fungal disease of hibernating bats), among other threats. Despite their ecological importance and conservation status, bats are sometimes labeled as pests because some species (those that typically roost in tree cavities) have adapted to roosting in manmade structures. Roost sites are used as maternity colonies (where females give birth to and raise pups) as well as hibernation sites.

Due to health concerns (e.g., rabies) surrounding bat-human interactions, wildlife control professionals are often hired to exclude bats from structures where they are roosting. This is done by installing one-way doors to ensure the bats can leave but not re-enter a manmade structure. Many states do not protect bats against harassment, injury, or mortality, and many do not provide guidelines for properly excluding bats. Even in states that do require “humane” bat exclusions, the methods can cause significant stress, lowered reproductive success, and potential mortality to the evicted individuals due to a loss of refuge when food resources are scarce and metabolic requirements are high. Providing alternative roost sites may lessen the negative impacts of bat evictions and successfully resolve bat-human conflicts.



Thanks to support from a Christine Stevens Wildlife Award, we were able to test the effectiveness of providing artificial roost structures (i.e., bat boxes) to minimize the negative impacts to bats evicted from manmade structures.

This study used 108 roost boxes throughout New Jersey, installed through conservation programs sponsored by the Rutgers University Wildlife Conservation and Management Program or the Conserve Wildlife Foundation of New Jersey. Both programs offer roost boxes to homeowners performing bat exclusions, as well as to individuals interested in attracting bats to their yards. For each roost box, we noted when the boxes were installed, where the boxes were installed (either on a manmade structure or tree), and if the installation was preceded by an exclusion. Over the course of several years, these boxes were monitored for bat presence. A box was considered used if, during any survey, bats were observed inside of or exiting from the box, or if there was fresh bat feces beneath the box.

Only one roost box not mounted on a building was used by bats. Conversely, 35 percent of roost boxes on a building with no history of exclusion were inhabited by bats, and 86 percent of roost boxes on a building where an exclusion had occurred were inhabited by bats. This suggests that mounting roost boxes on a building should be prioritized over non-building mounting locations, particularly after an exclusion. Although roost boxes are beneficial to recently evicted bats, our results suggest that they generally do not serve as supplemental habitat for cavity-roosting bat communities. However, they are still useful tools from a public outreach perspective and may result in net benefits for some cavity-roosting species over time. 🦇

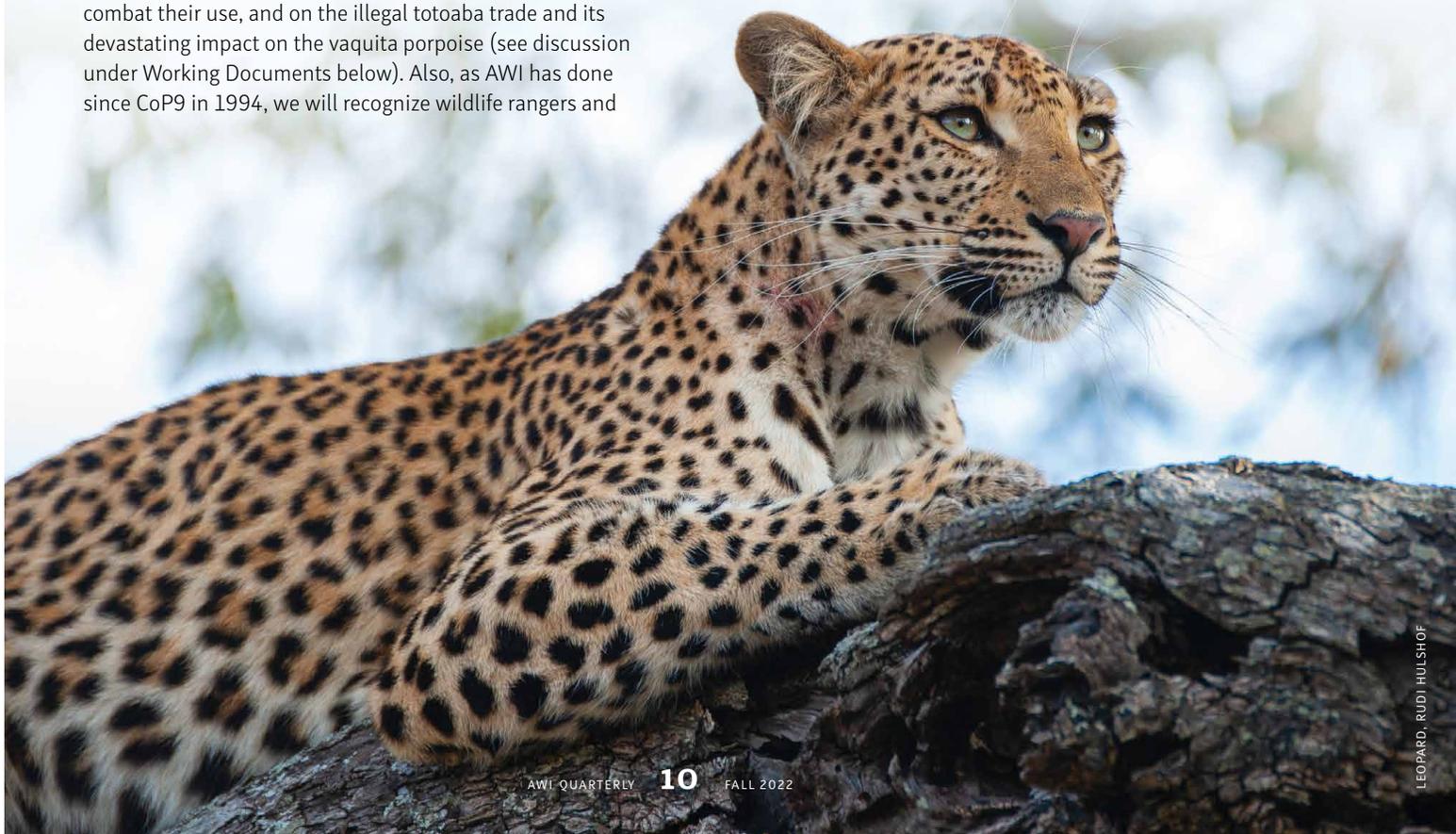
CITES CoP19: NATIONS CONVERGE ON PANAMA TO DETERMINE PROTECTIONS FOR SPECIES IN TRADE

IN 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services revealed that over 1 million species were in danger of extinction and called for transformative change to prevent such a catastrophic loss of biodiversity. The biodiversity that sustains the planet and, ultimately, human well-being, is declining at an astonishing pace—primarily a consequence of human-caused threats that include habitat loss and fragmentation, pollution, climate change, and overexploitation for food, timber, recreation, and the pet trade. In the face of this crisis, the 183 member nations of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) will gather for the 19th meeting of the Conference of the Parties (CoP19) in Panama City, Panama, in November 2022 to debate protections for over 600 species.

AWI has been active in CITES since its inception in 1973 and will send a team of issue experts to CoP19 to participate in the deliberations. We are organizing two side events—on the toll and cruelty of snares and the current initiatives to combat their use, and on the illegal totoaba trade and its devastating impact on the vaquita porpoise (see discussion under Working Documents below). Also, as AWI has done since CoP9 in 1994, we will recognize wildlife rangers and

others who have excelled in combating wildlife crime with the Clark R. Bavin Wildlife Law Enforcement Award at a Species Survival Network reception.

Since CITES's inception, nearly 39,000 species (including almost 6,000 animal species) have been listed in one of three CITES appendices. Appendix I includes species most in danger of extinction. International commercial trade in these animals is largely prohibited. Appendix II species are those that may be threatened by extinction if trade is not regulated. International trade in these species is allowed, under permit, if certain conditions are met—chiefly that the trade is not deemed detrimental to the species' survival. Appendix II also includes “look-alike species” that are similar in appearance to more vulnerable species, making it necessary to restrict trade in both. Appendix III species are those that at least one CITES party has unilaterally listed to prevent/restrict exploitation, and that party is seeking assistance from other parties to control trade.





Species Listing Proposals

REPTILES

The dominant theme in Panama will be reptiles, which account for 23 of the 52 listing proposals. In most cases, the proposals seek to increase protections due to rampant trade for meat and/or pets, which has caused significant declines in some species.

Appendix II listings are sought for common and alligator snapping turtles (in high demand for their meat) and 19 mud turtle species (traded for meat and as pets). Over half a million alligator snapping turtles (most sourced from the wild) were exported from the United States from 2006 to 2020, and seizure data document extensive illegal and unsustainable trade in mud turtles.

Appendix II listings are also proposed for five broad-headed map turtle and six musk turtle species. These animals are traded as pets, with over 1.5 million map turtles traded internationally 2005–2020 and nearly the same number of musk turtles (over 60 percent wild-caught) legally exported from the United States 2013–2019.

The United States is seeking Appendix II protections for all American softshell turtles not already listed on Appendix I. These turtles are subject to illegal collection in all their range states to satisfy demand in Asia following the decimation of Asia's own freshwater turtles. There is a proposal to "uplist" Leith's softshell and Indochinese box turtles from Appendix II to Appendix I due to trade for pets and/or meat, causing wild

populations to decline 90 percent or more over the past 30 and 60 years, respectively. The same heightened protection is sought for the red-crowned roof turtle.

Other species proposed for Appendix II listings include the Chinese water dragon, due to unsustainable trade for pets and meat; two uniquely marked gecko species—the Jeypore ground gecko and the helmeted gecko—due to threats from the pet trade; and 21 species of horned lizards, some of which are subject to extensive legal and illegal trade as pets and some of which are look-alike species. Disturbingly, most wild-caught horned lizards in trade reportedly die from starvation due to the difficulty in meeting their specialized dietary needs (i.e., live ants), fueling a constant demand for more. Trade in the timber rattlesnake, extirpated in Canada and now endemic only to the United States—where the population is declining and reported as threatened, vulnerable, or endangered in 23 of 31 US states where it is found—prompted the United States to seek Appendix II protections for this species.

Conversely, there are proposals to "downlist" the broad-snouted caiman, the Palawan, Philippines' population of saltwater crocodiles, and Thailand's population of Siamese crocodiles from Appendix I to Appendix II. This would permit increased trade in these species, particularly in their skins. For the saltwater and Siamese crocodiles, a zero-export quota would be established for wild members of the species, theoretically limiting trade to captive-bred animals but opening up opportunities for laundering wild specimens.

AMPHIBIANS

The Lemur leaf frog, Laos warty newt, and over 100 species of glass frog are proposed for listing on either Appendix I or II. The leaf frog and newt are both adversely impacted by the pet trade, with the frog population declining as much as 90 percent since 1988 and the newt population cut in half over the past decade. Several countries, including the United States, are seeking an Appendix II listing for glass frogs. Protection is being sought for all glass frog species because of look-alike concerns and to prevent the serial depletion of one species after another to satisfy demand. A similar proposal discussed at CoP18 in 2019 was narrowly rejected by the parties.

SHARKS, GUITARFISH & RAYS

Three hammerhead shark species (the great, smooth, and scalloped hammerhead) were listed on Appendix II at CoP16 in 2013. At CoP19, the remaining species of hammerhead sharks—bonnethead, scalloped bonnethead, scoophead, and winged head—are proposed for listing on Appendix II. The ongoing and relentless trade in shark fins continues to decimate shark species worldwide, with some bonnethead populations declining by 50 to nearly 80 percent over the past 36 years. The remaining hammerheads are proposed for listing due to look-alike concerns.

Dozens of species of requiem sharks, including gray reef, dusky, and sandbar sharks and all unlisted sharks in the family Carcharhinae (including blue sharks), are proposed for listing on Appendix II due to ongoing overexploitation for

the fin trade or look-alike concerns. Populations of species directly impacted by trade have declined by 50 to nearly 100 percent according to recent assessments by the International Union for Conservation of Nature (IUCN). While such listings would help combat the seemingly insatiable demand for fins, many shark species will remain imperiled until the illegal shark fin trade is eradicated.

All 37 species of guitarfish are proposed for listing on Appendix II due to heavy trade in fins of six of the species and look-alike concerns for the others. Populations of those in trade have declined by 80 percent or more over four decades. Seven species of freshwater rays, including the porcupine and white-blotched river stingrays, are proposed for listing on Appendix II due to the demand from the ornamental fish trade.



BIRDS

The white-rumped shama is proposed for listing on Appendix II, while Appendix I protections are sought for the straw-headed bulbul. Both songbird species have been heavily traded as pets and for singing contests that are popular in Southeast Asia. Straw-headed bulbuls have experienced an 80 percent decline in the past 15 years, with only 600 to 1,700 mature individuals estimated to remain.



MAMMALS

Deliberations will continue over the trade in elephants and ivory, rhinos and horns, and hippos. African elephants are currently “split-listed,” with elephants in Botswana, Namibia, South Africa, and Zimbabwe listed on Appendix II and all other African elephants listed on Appendix I. CITES itself cautions against such split-listings, as they create enforcement challenges.

Several African elephant range states have proposed to uplist Botswana, Namibia, South Africa, and Zimbabwe elephants from Appendix II to Appendix I—a move that would prohibit any commercial trade in live elephants and ivory. Conversely, Zimbabwe seeks to amend an annotation to the four-nation Appendix II listing to permit commercial trade in ivory to generate revenue for conservation. Previous experience, however, indicates that such a move would further incentivize poaching—the last one-off sale of ivory, approved by CITES in 2008, triggered a 66 percent increase in black market ivory trade, according to scientific analysis.

Since 2008, approximately 11,000 rhinos throughout Africa have been brutally slaughtered by poachers for their horns, which are coveted for their purported medicinal value, as a status symbol, and for their investment and collectible value. Two proposals involve loosening restrictions on trade in rhinos, again supposedly to fund conservation efforts: Eswatini, home to fewer than 100 rhinos, is proposing to allow it to trade live rhinos and rhino products, including stockpiled horns. And Namibia, which has 1,237 rhinos, wants to downlist its population from Appendix I to Appendix II to permit trade in live animals and hunting trophies. Risking such small populations to generate conservation revenue is reckless.

Several African countries are seeking to uplist the common hippopotamus from Appendix II to Appendix I in response to declining or unknown population trends in most range states and significant international trade in the species. From 2009 to 2018, over 77,500 hippo specimens (primarily carved teeth, but also uncarved teeth, skins, trophies, feet, skulls, and other products) were traded legally, while over 6,000 known specimens (a likely undercount) were traded illegally.



Working Documents

In addition to species proposals, CITES parties will debate over 90 working documents pertaining to the interpretation and implementation of the convention. From budgetary to species-specific issues, many of these documents contain new or amended resolutions or decision text. (Resolutions provide guidance to parties. Decisions provide direction to the secretariat, technical committees, and CITES parties to collect and analyze data, share information, and study wildlife trade issues to inform future debates.)

INTERPRETATION & IMPLEMENTATION

Botswana and Zimbabwe seek to amend voting rules to give more weight to the votes cast by range states for species under debate. On elephant proposals, for example, Botswana wants its vote to count more than a vote cast by the United States. This proposal is sure to fail, as it contravenes the plain language of the convention. Similarly, Eswatini seeks to amend the listing criteria to include a requirement that, for a species to be listed, a determination must first be made that international trade is the key driver of its decline and that food security, livelihoods, and socioeconomics must also factor into the decision—a proposal intended to stymie efforts to list species.

Many of the working documents seek to renew decisions approved at CoP18 in 2019, as the COVID-19 pandemic and a lack of funding prevented progress on many issues. The pandemic itself, given its origin in wildlife trade, will generate discussions about CITES's role in preventing future pandemics. While other international forums are actively engaged in deliberations to mitigate future pandemics linked to zoonotic disease, CITES must also play a role, given the links between habitat destruction, wildlife trade, and the spread of such diseases. Senegal and others have proposed that CITES endorse a “one health” approach (a holistic, multidisciplinary, integrated, and collaborative effort to promote the health of humans, animals, and ecosystems) to reduce the likelihood of zoonotic disease outbreak.

For marine species collected on the high seas (areas beyond the jurisdiction of any country), the United Kingdom seeks to improve the process for making “non-detriment findings”—a critical CITES mechanism aimed at ensuring that authorized trade will not harm the survival of the species in the wild. For species bred in captivity, there will be discussion of an assessment process to ensure that trade in the species is not contravening the convention (e.g., by contributing to laundering of wild-caught specimens as captive-bred). The United States seeks critical reforms to a resolution permitting commercial trade in Appendix I species bred in registered facilities. Among other changes, the United States wants parts or products in trade to be explicitly identified, assurances that legal trade will not undermine efforts to combat illegal trade, and a review of each facility registration every three years.

A proposal pertaining to humane transport guidelines for the international shipment of animals seeks to make such guidance more accessible, establish training workshops, and encourage parties to extend the guidance to domestic transport of CITES-listed wildlife. Ideally, the parties will agree to establish a joint transport working group to regularly review the guidelines, as required by the convention. Parties will also discuss what constitutes an “appropriate and acceptable destination,” a CITES term applicable to certain live animals in trade. During that debate, AWI and allied governments and organizations will seek to amend proposed guidance on the convention's criteria on what constitutes “in situ” conservation and whether zoos are “suitably equipped” to care for certain African elephants and white rhinos in trade.

The role of Indigenous peoples, rural communities, and their livelihoods tied to wildlife trade in the CITES decision-making process will generate considerable debate. AWI supports providing all stakeholders a voice in CITES, but this should be done at the national level—through CITES parties representing the interests of stakeholders within their borders. Similarly, while parties can consider livelihoods in decisions regarding *implementation*, livelihood concerns are



not a factor in the listing process itself, which should remain focused on the degree to which species are imperiled and under threat from trade.

COMPLIANCE & ENFORCEMENT

Parties will continue to discuss the failure by 72 countries to promulgate laws that adequately implement the convention. Some of these countries became signatories to the convention decades ago, providing more than enough time to promulgate adequate regulations. Trade sanctions may be needed to compel such countries to address deficiencies.

The role of domestic wildlife markets and the internet in facilitating illegal trade will be addressed, as will the use of demand-reduction strategies to curb wildlife trafficking. The internet's facilitation of wildlife trafficking has required significant investments by governments to combat such crimes. Similarly, domestic wildlife markets encourage trafficking and incentivize ongoing collection of animals from the wild. Strategies that educate consumers about the ecological and legal costs of purchasing wildlife products are critical.

Of particular interest to AWI will be the ongoing discussion of the totoaba, a large fish that lives in Mexico's Upper Gulf of California whose swim bladders are in high demand in Asia due to their purported medicinal benefit. Mexico's decades-long failure to stop illegal gillnet fishing for totoaba and shrimp has caused numbers of vaquita to plummet from nearly 700 in the late 1990s to fewer than 10 today. Mexico continues to claim that its enforcement efforts have been successful despite overwhelming evidence to the contrary—a claim many parties have unfortunately accepted. This dichotomy between Mexico's rhetoric and reality is clear from the results of the CITES secretariat's second mission to Mexico in May 2022. Ideally, this will convince parties to, at minimum, support revised and strengthened totoaba decision text at CoP19. Scientists report that the vaquita can yet recover if illegal fishing is stopped, but there is no longer any margin for error.

SPECIES-SPECIFIC ISSUES

Several species-specific working documents will generate considerable debate. An initiative approved at CoP18 to restrict export of Appendix II-listed live African elephants (allowing trade only to conservation programs within the species' native range) will be revisited. Several African countries are seeking to amend a resolution on elephant trade to impose the same live trade restrictions on all African elephants, while the European Union is unnecessarily seeking to delay such a decision until CoP20 in 2025. Efforts to close all remaining domestic ivory markets contributing to

illegal trade and elephant poaching will be debated, as will improvements in the management of ivory stockpiles, with an emphasis on promoting destruction of such stocks. As some countries retain ivory stockpiles in hopes of selling them—ostensibly to support conservation—a new strategy to pay parties to destroy stockpiled ivory will be discussed.

The United Kingdom is seeking to strengthen an earlier pangolin resolution and associated decision text to address the ongoing illegal trade in pangolin and their scales. Despite the Appendix I listing of all pangolin species in 2016, illegal trade remains rampant due to the purported medicinal value of pangolin meat, scales, and other parts. With Asian pangolins decimated by overcollection, African species are now targeted, resulting in population declines and local extirpations. The United Kingdom's proposal would strengthen enforcement efforts, close domestic pangolin markets, improve reporting requirements, promote development of pangolin conservation plans, improve pangolin stockpile management, and seek recommendations from the Standing Committee on measurable country-specific initiatives to reduce the trade.

Big cats will also be a focus of debate. The parties will consider the process of setting leopard-hunting quotas and the sustainability of some current quotas. Debate will occur over the cruel trade in cheetahs as pets and the trade in African lions, jaguars, and their parts. The extensive captive breeding of tigers to fuel the trade in live tigers and tiger parts, as well as the ongoing failure of several parties that are breeding tigers in captivity to comply with previously approved resolutions and decisions, will also be examined.

Conclusion

CoP19 will provide important opportunities to seek protections for a multitude of species while strengthening CITES implementation. There will be controversy, and few will leave Panama entirely satisfied with the outcome of the deliberations, particularly considering the urgent action required to address the biodiversity crisis. CITES and other multilateral environmental agreements can aid conservation but rarely operate with the requisite urgency that the planet and its wildlife need.

While CITES remains imperfect, it is considered one of the more effective international environmental treaties, particularly given its enforcement mechanisms. Agreements reached at CoP19 will not resolve the myriad threats to global biodiversity, but they can reduce threats posed by wildlife trade and, in so doing, provide a foundation for other actions, domestic and international, to protect wildlife and their habitats from anthropogenic impacts. 🐾

BRINGING AN END TO BEAR-BILE FARMING IN VIETNAM

AWI recently provided substantial financial support to help the nonprofit Animals Asia construct a second bear sanctuary in Vietnam, primarily to house Asiatic black bears rescued from bear-bile farming. Although Vietnam outlawed bear-bile extraction in 2005, many farms continue to operate illegally. The bile is used as a traditional medicine to treat sore throats, sprains, bruises, and other ailments despite effective, synthetic alternatives.

Bile farming involves terrible trauma and suffering. Cubs are poached from the wild, and the bears are crammed into metal cages barely larger than their bodies. They are restrained or sedated and stabbed repeatedly with a long needle until the gallbladder is located and a catheter connected to a mechanical pump that sucks out the bile. Bears may endure these horrific conditions, in perpetual agony, as long as 30 years.

In 2017, Animals Asia entered into a cooperative agreement with the Vietnamese government to end the

country's bear-bile industry and rescue the approximately 300 bears remaining on bile farms. The new facility will provide Animals Asia with the capacity to help ensure no bear is left behind.

BLM SEEKS SEVERE REDUCTION IN WILD HORSE POPULATION, HABITAT

In June, AWI filed a protest against the Bureau of Land Management's plan to eliminate over 2 million acres of designated habitat for wild horses in the Wyoming Checkerboard region. The BLM's Final Environmental Impact Statement and Proposed Resource Management Plan Amendment, released in May over significant public outcry, come on the heels of the largest roundup of wild horses in US history, in which the agency removed over 3,500 horses from the Checkerboard last winter.

If finalized, this plan would result in a devastating reduction in population and habitat. The BLM is pursuing this plan following a consent decree it reached with the Rock Springs Grazing

Association, a livestock industry group that has sought to have the wild horses removed. In filing the protest, AWI has signaled to the BLM we are weighing all legal options to stop this reckless plan that would set a dangerous precedent for wild horse management across the West.

AWI AIDS APE SANCTUARIES

This summer, AWI funded sanctuaries in three countries that provide care to great apes rescued from a variety of cruel circumstances and give them a second chance at a life worth living.

We helped Jeunes Animaux Confisqués au Katanga, a primate rehabilitation center in the Democratic Republic of the Congo, construct a new nursery building to house young chimpanzees rescued from the bushmeat trade, the pet trade, and for use at amusement parks and in circuses. We provided funding for food and medical supplies to the Fauna Foundation, Canada's only chimpanzee sanctuary, which houses chimpanzees who were used in biomedical and behavioral research studies. And we supported the construction of new chimpanzee habitat and the expansion of existing orangutan space at the Center for Great Apes, a rescue center in Florida that takes in animals from the entertainment industry, research facilities, and the pet trade.

AWI is dedicated to ensuring that the suffering these animals endured is a distant memory, replaced by health and happiness for the remainder of their lives.

AWI is helping Animals Asia create sanctuary space for bears victimized by the sadistic, illegal bear-bile industry in Vietnam.



ANIMALS ASIA



ANNA RATUSKI

Anxiolytic Effects of Environmental Enrichment for Mice: A Systematic Review

by *Lucía Améndola Saavedra, Postdoctoral Research Fellow, University of British Columbia*

Standard barren housing systems for laboratory mice restrict the expression of natural behaviors and are associated with a high incidence of abnormal behavior. There is abundant evidence that environmental enrichment has a positive impact on affective states in mice, improving their welfare. However, there is considerable methodological variation between studies, such that simple conclusions on how to refine housing conditions are difficult to make. The aim of this systematic review, which was funded by an AWI Refinement Grant, was to identify the environmental characteristics that most consistently appear to improve affective states in mice.

Performing a literature search in two databases (MEDLINE and Web of Science), we identified studies on environmental enrichment in mice that assessed anxiety using three standard tests: the elevated plus maze, the open field test, and the light-dark box. After excluding studies that were not relevant (e.g., ones that considered the addition of nesting or bedding materials to be “enrichment”), we retained 25 studies for further assessment. Of these, 16 tested mice in the elevated plus maze. (The elevated plus maze involves an elevated four-way track in the shape of a plus symbol. Two of the arms are enclosed within walls, while two are exposed. A willingness to venture onto the exposed arms is viewed as an indicator of lower anxiety in mice.) Within these 16 studies, we examined characteristics of the study design, the animals, and the intervention and control conditions.

Thirteen of the studies showed a small to large positive effect of environmental enrichment (more time spent in the open arms: 60 percent of studies; more entries into the open arms: 90 percent of studies). Two studies showed a medium to large negative effect of environmental enrichment on anxiety. These studies, however, were carried out within the same research group and under a reversed light schedule, limiting our ability to compare the studies with others we reviewed.

All of the 11 studies showing large positive effects in the presence of environmental enrichment were carried out on male mice. Among these, 60 percent contained a running wheel, 90 percent contained some form of shelter (e.g., tubes, tunnels, boxes, boards connected at an angle, igloos, or cage shelves), and 80 percent contained other objects (e.g., ladders, plastic or wooden toys). In 70 percent of the studies with large positive effects, mice were introduced into enriched cages at 21 to 30 days of age, and in 60 percent, mice remained in the enriched cages between 30 and 60 days. Cage size was highly variable, providing between zero and 10 times more space than standard conditions. Only one used two-level cages with increased spatial complexity; the rest consisted of single-level cages.

The elevated plus maze data indicated that improvements to standard laboratory mouse housing ameliorate the negative effects of barren environments on mouse anxiety. We conclude that housing mice with additional shelters and other objects of interest, as well as beginning enrichment in the early stages of development, is beneficial to mouse welfare. 🐾



CONSTANCE WOODMAN

3D Printing for Animal Welfare

by Constance Woodman, PhD, Program Manager for USDA Conservation Innovation Grants, Texas A&M University

Enrichment—adding complexity to an animal’s environment—is an essential element of improving the lives of animals in captivity. Species-appropriate toys, puzzles, and structures, for example, can provide cognitive stimulation and opportunities to engage in natural behaviors. Animals deprived of such opportunities may engage in abnormal, often harmful activities out of boredom and frustration.

Enrichment items often have to be rotated or replaced, and providing a continual variety of enrichment—especially, custom-built enrichment—can be costly and time-consuming. If the animals “consume” the enrichment faster than the caregivers can construct and install it, the animals may remain stressed.

For custom-made objects, 3D printers may prove useful in keeping up with demand—once a design is acquired, objects could be printed as needed—but there isn’t much history of their use as an animal welfare tool. In a series of studies funded by an AWI Refinement Grant, I carried out experiments and demonstrations to better understand how 3D printing can and can’t benefit animal welfare.

My first concern was whether 3D-printed objects would absorb wet grime or concentrate cleaning chemicals. I tested absorption during cleaning for four types of printing and finishing, across four types of filament—PLA, PETG, PVB, and ABS—for a total of 160 samples. Samples were placed

in a sanitizing soak, dried, and weighed. Watertight printing (extra material printed at a higher temperature) absorbed significantly less than normal printing. Chemically smoothed prints absorbed even less. However, ABS plastic prints lost weight during smoothing and sanitizing, a safety concern. Plastic might be leaving the item and be consumed.

The printable plastic was tested for heavy metal toxicity and endocrine disruption next, before and after being printed by six printer models. Metals tested were antimony, arsenic, barium, cadmium, chromium, lead, mercury, and selenium. After printing, the toys contained up to 6ppm barium, 8ppm arsenic, 11ppm lead, and no other metals. To understand the risk, I referenced ASTM safety standard F963-17 for toys containing modeling clay—as clay can be eaten by children and, consequently, its metal levels are strictly regulated. None of the heavy metal concentrations found exceeded this standard, suggesting this is not a concern.

The four types of printable plastic were then tested for endocrine disruptors—BPA and eight phthalates regulated under the US Consumer Product Safety Commission. Phthalates were not detected in any filament. A trace amount of BPA was found in the PETG (< 1ppm, considered the detection threshold by the State of Washington).

Based on these results—heavy metal concentrations low enough to meet a safety standard established to safeguard children and almost no evidence of endocrine disruptors—I would be comfortable creating hutches, exercise devices, climbing structures, etc., from 3D prints that would be chewed on by animals and used around infant animals (especially if food-safe-certified or virgin materials are used to reduce any toxicity that may arise from added colorants).

Multiple examples of 3D printed materials in use can be found in this study’s full report, available in AWI’s Refinement Database: awionline.org/3d-printing-animal-welfare. 🐾

Monkeying Around as Enrichment:

Using Caregivers to Provide Social Enrichment to Macaques in Research

by Rachel van Vliet, MSc student, McGill University; Dr. Nadège Aigueperse, researcher, National Research Institute for Agriculture, Food and Environment; Dr. Elsa Vasseur, associate professor, McGill University

Enrichment is pivotal to captive animal welfare. Social enrichment is particularly important for any social animals who, due to practical constraints, are not housed in larger groups. Pair housing is the most common social housing type for macaques in laboratories across North America. This does allow for some degree of socialization, but falls well short of what their wild counterparts experience within typical groups of 30–80 monkeys. The goal of our project, which was funded by an AWI Refinement Grant, was to see if laboratory caregivers could act as an additional source of social enrichment to pair-housed macaques in research.

We set out to see if additional time spent with the monkeys would positively impact them, and what type of interactions would benefit them most. Ten adult rhesus and six adult cynomolgus macaques, housed in pairs, were enrolled in the study; only one focal animal per pair was observed. Each day, for a three-week period, caregivers would spend six minutes engaging with the monkeys during their regular afternoon feeding (two minutes each before, during, and after feeding). Caregivers engaged with half the monkeys via human behaviors (HB)—using human body language and speaking softly. Caregivers mimicked monkey behavior (MB) to engage with the other half, all the while avoiding eye contact or speaking (behaviors the macaques could perceive as aggressive).

Our results showed that monkeys were more likely to engage in interactions before feeding, indicating that this may be an ideal time to provide social enrichment. During the interactions, monkeys in the HB group interacted more with the caregivers, showing higher rates of affiliative and submissive behaviors, but also higher rates of abnormal behavior (e.g., pacing, plucking hair) than monkeys

in the MB group. Throughout treatment application, monkeys from both groups spent most of their time oriented toward the caregivers and at the front of their cages, showed a 2.2 percent increase in time spent self-grooming, and a 3.4 percent reduction in time spent interacting negatively with their cagemates across the three weeks of treatment ($p < 0.10$).

In order to assess long-term treatment effects, we analyzed grooming and social behaviors when no humans were present and compared the three weeks of treatment application to three weeks before and after. Results showed that while HB monkeys did indeed have higher rates of certain abnormal behaviors, monkeys from both groups showed a 3.5 percent decrease in the frequency of cage-directed abnormal behaviors (e.g., cage biting) from before to after treatment and a 1.2 percent decrease in the frequency of stereotypic abnormal behaviors (e.g., abnormal postures) from treatment to after. In addition, all monkeys saw a 12.5 percent increase in the proportion of time spent interacting positively with cagemates, including a 10.6 percent increase in time spent grooming each other from before to after treatment. Conversely, they displayed a 0.7 percent decrease in time spent interacting negatively (primarily through aggressive interactions) from treatment to after ($p < 0.10$).

We were not able to distinguish if either treatment was preferred, though monkeys seemed more responsive during human-behavior interactions (though negative impacts were also identified). Overall, we can conclude that macaques housed in pairs can benefit from additional unstructured interactions with their human caregivers. 🐵



BEAGLE BREEDER ATROCITIES LEAVE USDA-APHIS UNMOVED

“Beagle production facility.”

That’s how John Sagartz, chief strategy officer for Inotiv (the company that purchased Envigo last November) repeatedly described its Cumberland, Virginia, dog-breeding operation during a June 2022 hearing concerning conditions at the facility. Sagartz went on to say that 25 percent of the “domestic supply” of beagles for research was provided by what his declaration called the company’s “animal production facility focused on the generation of beagle dogs.” His language evokes images of a factory assembly line. Dogs here are not born and raised—rather, the “product” is “generated.”

The hearing was triggered by a complaint for injunctive relief filed by the US Department of Justice. The complaint was filed May 19, 2022, one day after the DOJ, in coordination with the Commonwealth of Virginia, began executing a search warrant at the facility, from which they ultimately seized 446 dogs deemed by veterinarians to be in “acute distress.” After the hearing, the parties reached a settlement and the court entered a consent decree whereby Inotiv must shutter the facility and surrender approximately 4,000 dogs for adoption.

Such a seizure and settlement involving one of the world’s largest research suppliers is historic. However, it should never have come to this. The abject failure on the part of the

US Department of Agriculture’s Animal and Plant Health Inspection Service (APHIS) to act—after documenting unconscionable suffering at the facility for months—cries out for systemic change and accountability.

AMONG THE WORST AWI HAS EVER SEEN

On July 20, 2021—nearly a year before the settlement—inspectors at the Cumberland facility documented seven “direct” citations and three additional “critical” citations regarding fundamental animal welfare requirements such as veterinary care, staffing, housing, sanitation, records, and feeding. Critical citations involve situations adversely affecting an animal’s health and well-being, with direct citations being the most severe type. Ten critical citations, including seven direct citations, in one inspection is hard to fathom—indicative of truly abysmal conditions. AWI told *Science* magazine, in fact, that the scope of suffering at Cumberland was “almost beyond words.”

Among the findings, inspectors documented Envigo’s failure to determine the cause of death for over 300 puppies who had perished since January 2021, including 173 so decomposed it was no longer possible to determine cause of death—information vital to ensuring the health of survivors. The inspection report also chronicled deficient staffing, with

approximately 128 dogs per employee and a single full-time veterinarian for over 5,000 dogs at the site.

A concurrent inspection of an Envigo research site in Virginia produced additional critical citations, including for refusing to provide full study records despite repeated requests by inspectors, who wrote that this made it impossible to fully ascertain Animal Welfare Act (AWA) compliance. Out of over 10,000 research facility inspections since 2014, Envigo is the only entity to receive a critical citation for failure to provide such records.

APHIS BLATANTLY VIOLATES 14-DAY REINSPECTION MANDATE

APHIS's *Animal Welfare Inspection Guide* states that a single direct citation “must” [emphasis in original] be reinspected within 14 days—regardless of appeals (which Envigo filed multiple times). Here, seven direct citations spoke to horrendous suffering dating back at least seven months. Yet APHIS waited over three months to reinspect—not returning until October 25.

Once it did return, it found similar conditions. The report documented seven critical citations—six of them direct—and stated that “there continue to be severe staffing shortages.” In fact, despite Envigo’s \$291.7 million in revenue in 2021, staffing at Cumberland had actually *decreased*—from approximately one employee per 128 dogs to one per 154, and still only one full-time veterinarian. (Tellingly, the report used the words “still” or “continue(s)” 15 times.)

Three weeks later, on November 16, another inspection occurred, and it was worse than the two prior. Inspectors documented 12 non-critical citations and an unbelievable

14 direct citations—exceeding the total number of directs from the previous two combined. For perspective: From 2014 to 2021, notorious chinchilla dealer Daniel Moulton racked up 51 direct citations, more than any of the other 10,000+ AWA licensees and registrants during that time. (See *AWI Quarterly*, winter 2021.) In three inspections over five months, Envigo collected 27—more than half the number of direct citations Moulton amassed in almost eight years.

And yet, after this truly disastrous November inspection, APHIS waited nearly another *four months*, until March 8, 2022, to reinspect Envigo. In this inspection, a scant 79 dogs (less than 2 percent of Envigo’s population in November) were observed. Inspectors still encountered conditions bad enough to merit two more direct citations, including the widespread use of slatted floors, which Envigo had been previously warned were “especially dangerous.” Indeed, inspectors repeatedly witnessed multiple dogs “actively stuck.”

APHIS UNMOVED BY UPROAR, ATROCITIES

The situation at Cumberland was explosive enough to spark international media attention, demands for action from members of Congress of both parties, and legislative action in the Commonwealth of Virginia aimed at preventing such a fiasco in the future. This did not appear to faze APHIS, which not only repeatedly ignored the 14-day reinspection mandate from its own inspection guide, but also failed to take a single enforcement action: It did not file an administrative complaint, did not suspend the breeder license, did not even issue a warning letter. It did not confiscate a single dog and did not refer the case to the DOJ for injunctive relief. The AWA mandates that if APHIS has reason to believe that an entity is placing the health of animals in serious danger (obviously the case here) it must refer the matter to the DOJ.



An investigator assisting a search of the facility described dogs in overcrowded cages, dogs with paws stuck in the grated floors, and dogs with limited access to food and water.

The lead veterinarian assisting the search observed fights and injuries “indicative of dogs fighting.” This female beagle had “severe, infected, and shredded ear pinna” and “two puncture wounds.”

As badly as APHIS bungled a case last year involving similar systemic issues against dog-breeder Daniel Gingerich (it failed to confiscate suffering dogs and only referred the case to the DOJ after an inexcusable delay—see *AWI Quarterly*, winter 2021), the agency at least made some effort then to uphold the 14-day reinspection mandate. From July 7 to October 13, 2021—even as it refused to reinspect Envigo—APHIS conducted 18 inspections at four Gingerich sites, with the vast majority of reinspections that followed direct citations occurring within 14 days. In the end, Gingerich surrendered over 500 dogs and had his license permanently revoked. Indeed, APHIS permanently revoked both Gingerich’s and Moulton’s licenses. But, of course, neither of these abhorrent abusers come close to Envigo’s wealth, size, or power.

After a May 3, 2022, inspection by APHIS documenting just one citation—dogs once again “actively stuck” in slatted floors—the DOJ, supported by Virginia, began executing a search warrant on May 18. They found conditions so awful they felt the need to rescue 446 of the dogs. Among the numerous atrocities revealed: A dead puppy had been discovered not long before with only a head remaining. The rest had been eaten.

How many dogs suffered or died behind Envigo’s closed doors because APHIS refused to act? Indeed, even weeks after the seizure, an investigator from the Virginia Attorney General’s Animal Law Unit who assisted with the raid documented continued fundamental issues with food, water, sanitation, enclosures, and veterinary care.

ENVIGO, INOTIV TURN ON GASLIGHTS

Meanwhile, Envigo was trying desperately to redirect the narrative. In November 2021, the company publicly touted \$3 million spent on improvements over the past five years and asserted it “immediately began to address [APHIS’s] concerns,” was taking “the necessary corrective actions for all issues,” and “do[es] not neglect our animals,” adding, for good measure, “the highest quality of animal welfare is a core value of our company.”

In March of this year, Envigo downplayed the release of video from the July 2021 inspection, stating, “The story is not new,” and it was “taking the necessary actions to address those issues.” Just days before the May 2022 raid commenced, Envigo told *National Geographic* the company was aware of a recent inspection that “essentially repeats earlier findings, all of which are being addressed.”



MOFFITT REPORT, US V ENVIGO

The gaslighting continued at the June hearing, at which the chief strategy officer of Inotiv testified. Even after APHIS had repeatedly and egregiously delayed inspection and failed to take any enforcement action, Inotiv had the gall to complain about regulatory scrutiny. It also proposed selling thousands of dogs—through the same subsidiary that had refused to disclose full study records—by prefilling contracts with delivery dates as late as July 2023, potentially keeping dogs longer in this execrable facility. Inotiv claimed it takes AWA compliance seriously and was making improvements, and sought to deflect blame by reminding the court it had taken control of the Cumberland facility only six months prior—ignoring the fact that the horrors continued on Inotiv’s watch, as well as the extent to which Envigo—in both actions and actors—is entwined with Inotiv.

In a February 2022 presentation to investors, three of eight individuals touted as Inotiv’s “Accomplished Senior Leadership” are Envigo holdovers, including Executive Vice President Adrian Hardy, who had been Envigo’s CEO since 2002. That presentation also underscored Envigo’s financial significance to Inotiv: Inotiv’s Research Models and Services (RMS) division accounts for 74 percent of its revenue, and the vast majority of its RMS business comes from Envigo. In contrast, a May investor call reported zero RMS revenue for Inotiv the prior year, before the Envigo acquisition.

INOTIV EXPANDS, ACQUIRES OTHER TROUBLED SITES

In addition to Envigo holdovers, Inotiv has hired key staff from notorious lab animal suppliers SNBL USA and Covance. In 2016, SNBL, which owned a monkey site in Alice, Texas, was hit with a \$185,000 fine and had its dealer license suspended for acts that included the negligence-induced deaths of 25 of

840 crab-eating macaques imported from Asia. That same year, Covance, which owned two other monkey facilities in Alice, was assessed a \$31,500 fine for incidents involving 13 overheating deaths of crab-eating macaques and failing to provide water and air conditioning for five others who suffered distress during transport from the airport.

Inotiv has since run afoul of the AWA with respect to its own macaques. A May 2022 inspection of an Inotiv lab in Mount Vernon, Indiana, resulted in a critical citation over multiple deaths of crab-eating macaques in primate restraint chairs. Inspectors also found other issues. In 2021, this lab used 750 monkeys.

Meanwhile, despite the grave issues at Cumberland, Inotiv's expansion continues. In addition to a number of sites housing untold numbers of rodents, it has purchased Robinson Services (thereby expanding its rabbit total to 30,000) and monkey dealer Orient BioResource, which took over SNBL's Alice, Texas, site. The other two Alice monkey sites, previously owned by Covance, were acquired by Envigo in June 2019—meaning Inotiv now owns all three sites. The most recent inspection inventories of the sites show a combined total of 6,388 crab-eating macaques and 2,784 rhesus macaques.

ANIMALS DESERVE FEDERAL PROTECTOR, NOT INDUSTRY ENABLER

It is extremely fortunate that the DOJ and Virginia stepped in and rescued these 4,000 dogs, but frustrating beyond measure that APHIS's inaction has constrained the scope of the available remedy. Because APHIS declined to take enforcement action, the July 14 settlement does not include license revocation. If any company ever earned permanent license revocation, it is Envigo.

Now the question becomes—what will protect the over 50,000 animals at Inotiv's other sites? Given Inotiv's focus on expansion, its disregard for the AWA, and APHIS's failure to act, what prevents this company from reconstituting its dog breeding business—and its 25 percent market share—in a jurisdiction less enlightened than Virginia?

Researchers who purchase Inotiv's "product" perpetuate a business linked to the unconscionable mistreatment of a multitude of dogs, which is not only inhumane but also, we believe, raises significant questions about the value of the resulting "science." AWI urges them to think long and hard before buying from a company that shows so little regard for the animals under its control.

We urge everyone to write Secretary of Agriculture Tom Vilsack to express your outrage at the USDA's failure to enforce the AWA and swiftly come to the rescue of thousands of dogs enduring unimaginably grim conditions. You can reach the secretary at the following address: *The Honorable Tom Vilsack, Secretary, US Department of Agriculture, 1400 Independence Avenue SW, Washington, DC 20250.* 🐾



The House version of the minibus spending package would require the USDA to report on an initiative to monitor and contain the spread of COVID-19 among mink and humans around mink farms.



WE ANIMALS

HOUSE MAKES AMPLE ROOM FOR ANIMALS IN MINIBUS

In July, the House of Representatives passed HR 8294, a “minibus” package of six spending bills for fiscal year 2023 that includes many wins for animals. For starters, the bill provides funds for Animal Welfare Act (AWA) enforcement and sets forth actions the US Department of Agriculture must take to step up its woeful enforcement of the law and prevent the all-too-common suffering and death of animals at licensed facilities. (See page 20 for a starkly disturbing example.) Moreover, HR 8294 directs the USDA to prioritize and reissue proposed AWA regulations related to the handling and care of marine mammals in captivity—regulations that have not been updated since first adopted almost four decades ago. The bill also continues the ban on licensing of Class B dealers who sell dogs and cats acquired from random sources for use in laboratories.

The USDA is directed to maintain transparency about the number of humane handling verification procedures it performs and the number of administrative actions it takes in livestock slaughter plants, and to work with producers in developing disaster preparedness plans to protect livestock, who die annually by the millions during extreme weather events.

HR 8294 provides \$4.55 million to the USDA’s Wildlife Services program to “expand, develop, and implement nonlethal methods with a focus on reducing human-wildlife conflicts related to predators and beavers

in the Western Region and Great Lakes.” And the USDA must report to Congress on the new Mink SARS-CoV-2 Transmission Avoidance and Monitoring Plan (Mink STAMP), which is designed to monitor for COVID-19 infection on mink farms and minimize the risk of virus transmission among mink, humans, and other animals on and around mink farms.

The House package includes several wins for equines—most notably a significant boost in funding for Horse Protection Act enforcement, a permanent ban on the operation of horse slaughter facilities in the United States, provisions to protect wild horses and burros from slaughter, and funds to implement proven and safe immunocontraceptive vaccines to keep wild herds in their natural habitats rather than being subjected to inhumane roundups.

Under HR 8294, Endangered Species Act programs will receive nearly \$355 million, a \$77 million increase over last year’s budget. This increase is needed to begin addressing a backlog of more than 300 species awaiting protection decisions, among other priorities. In addition, the US Fish and Wildlife

Service is prohibited from issuing permits to import sport-hunted elephant or lion trophies taken in Tanzania, Zimbabwe, or Zambia, and must review the Trump-era policies that reduced transparency in the import permitting process. The USFWS also must brief Congress on body-gripping traps used on national wildlife refuges and outline nonlethal methods that could replace trapping for wildlife management purposes.

PREVENTING PANDEMICS, PROTECTING WILDLIFE

Language from the AWI-endorsed Preventing Future Pandemics Act (PFPA) was successfully adopted as an amendment to the House-passed version of the National Defense Authorization Act. The PFPA recognizes the urgent need for a global approach to emerging diseases. This amendment calls on the State Department and other federal agencies to form international coalitions and pursue diplomatic measures to encourage closures of live wildlife markets abroad. It also authorizes funding to deploy law enforcement officers to assist countries where there is a flourishing trade in at-risk species.

BILL TO BAR BIG CATS IN PRIVATE HOMES PASSES HOUSE

On International Tiger Day (July 29), the House of Representatives passed the Big Cat Public Safety Act by a vote of 278–134, aiming to end several abusive practices associated with keeping big cats in captivity. The bill would prohibit private individuals from possessing lions, tigers, leopards, cheetahs, jaguars, cougars, or any hybrid of these species. Additionally, it would ban public petting, playing with, feeding, and photo ops with cubs. The Senate now has until the end of the year to pass the bill and send it to President Biden's desk.

HORSE PROTECTION BILLS GALLOP FORWARD

On June 23, both the Save America's Forgotten Equines (SAFE) Act (HR 3355) and the Prevent All Soring Tactics (PAST) Act (HR 5441) were unanimously approved by the House Energy and Commerce Committee's Consumer Protection and Commerce Subcommittee. The SAFE Act would permanently ban the slaughter of American horses for human consumption, and the PAST Act would end the horrific abuses associated with horse soring. With respect to the persistent problem of soring show horses at competitions, AWI also convened a stakeholder meeting with USDA officials in early June to press for the finalization of a rule that is expected to mirror many of the key elements in the PAST Act. The administration has indicated it plans to publish the proposed regulations later this year.

Canyon's Law would ban the use of M-44s on public lands. These devices—designed to spray cyanide when triggered by coyotes and other predators—are both cruel and indiscriminate.

BOOTING CYANIDE BOMBS OFF PUBLIC LANDS

On July 21, Canyon's Law (HR 4951/S 4584), a bill to outlaw the use of M-44 devices (a.k.a. cyanide bombs) on public lands, received a hearing in the House Natural Resources Subcommittee on Water, Oceans, and Wildlife. Representative Peter DeFazio (D-OR) had previously introduced the bill in the House. On the day of the House hearing, Senator Jeff Merkley (D-OR) introduced it in the Senate.

The USDA's Wildlife Services program uses M-44s as a form of predator control. In 2017, Canyon Mansfield, a 14-year-old Idaho boy, was walking with his dog, Kasey, on BLM land near his home when they accidentally triggered an M-44, which spewed cyanide on them. Canyon has lingering health effects from the exposure. Kasey, who took the blast more directly, died in agony. Canyon and his family have used this nightmarish experience to become powerful advocates against these insidious devices.

Testifying before the subcommittee, Canyon's father, Dr. Mark Mansfield, recounted that horrific day and urged congressional action. He pointedly

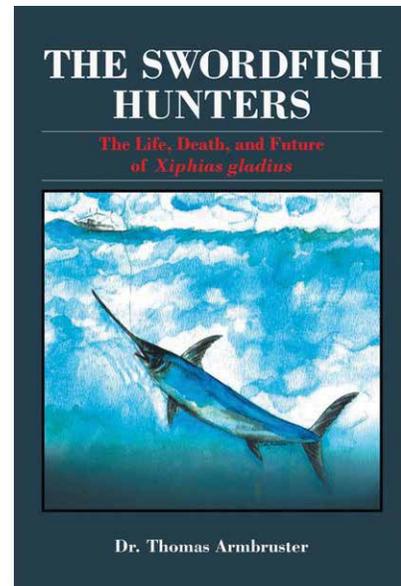
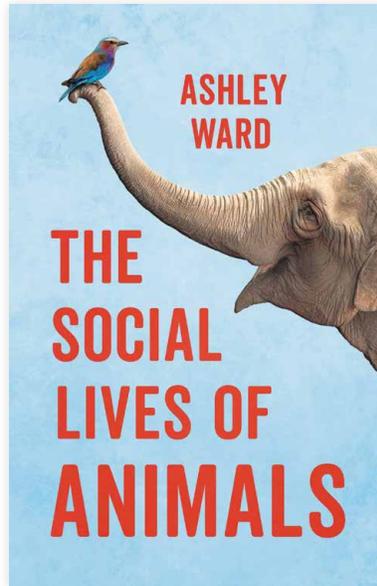
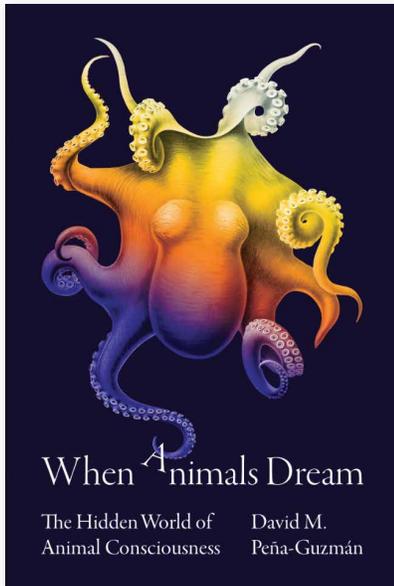
asked, "How many pets must be killed, how many children poisoned, and how many families traumatized before meaningful federal action is taken? I am powerless to change what happened to my son, but Congress can ensure that it does not happen to others. Is it going to take the death of a child to ban this antiquated, indiscriminate device?"

TAKE ACTION!

It is time to stop endangering people, pets, and wildlife and put an end to the use of M-44 cyanide bombs on public lands. Please visit AWI's online Action Center to urge your US representative and senators to cosponsor Canyon's Law: awionline.org/endcyanidebombs. Prefer putting ink to paper? Address a letter to your representative as follows: The Honorable [full name], US House of Representatives, Washington, DC 20515. Address a letter to each of your senators as follows: The Honorable [full name], US Senate, Washington, DC 20510.



BGSWIRTH



WHEN ANIMALS DREAM

David M. Peña-Guzmán / Princeton University Press / 272 pages

When Animals Dream: The Hidden World of Animal Consciousness, by philosopher Dr. David M. Peña-Guzmán, is part storytelling and part dense academic text. The book tackles a fascinating topic: Is there evidence that nonhuman animals dream, and if so, what does that tell us about their capacity for consciousness?

Beginning with vivid descriptions of studies on sleep in a variety of species, Peña-Guzmán builds a compelling case that animals do dream. In the introduction and first chapter we learn about snoozing octopuses changing color in nonrandom sequences that correspond to changes during real-life events (for example, noticing, pursuing, and consuming prey), zebra finches replaying their songs while asleep, and American Sign Language–proficient chimpanzees signing in their sleep. While these studies' authors rarely concluded they had observed dreaming, Peña-Guzmán—whose professional interests include the history and philosophy of science—challenges readers to consider how researchers' interpretations of their study findings often reflect their own philosophical convictions rather than scientific truths.

In the next two chapters, Peña-Guzmán argues that evidence of dreaming is necessarily evidence of consciousness. These chapters delve deep into philosophical and neuroscientific theories of consciousness, with topics such as subjective and affective consciousness, the dream ego, lucidity, metacognition, imagination, and nightmares (the latter makes for a very difficult read, as it describes trauma experienced by animals who were deliberately tortured by experimenters or had witnessed violence at the hands of poachers and wildlife traffickers).

The last chapter closes the loop by explaining that being conscious confers moral standing; therefore, evidence of dreaming is evidence that animals are “conscious beings who matter and for whom things matter.” Contrary to the publisher’s summary, however, Peña-Guzmán does not discuss the “profound implications” this conclusion has for “contemporary debates about animal cognition, animal ethics, and animal rights.” He also fails to acknowledge that most studies reviewed in the book rely on invasive experiments on animals with electrodes implanted in their brains—a glaring omission in a book on animals as “conscious beings who matter.” Nevertheless, it is a thought-provoking book for anyone interested in animal minds and philosophy.

THE SOCIAL LIVES OF ANIMALS

Ashley Ward / Basic Books / 384 pages

Dr. Ashley Ward is an engaging writer, with a Briton's native wit. The best part of his book, *The Social Lives of Animals*, is his genuine fascination with the animal behavior he observes, but his humor comes a close second. He demonstrates the intensity of his interest in easy-flowing and heartfelt prose, describing the genesis of his chosen career with charming honesty in his introduction and reinforcing the empathy he feels in each detailed chapter. He offers amusing anecdotes of his personal encounters with a wide variety of animals doing their social thing, to accompany his more science-based explanations for some of the remarkably complex behaviors animals perform.

Ward goes around the world and truly *looks* at how animals interact with each other, from tiny insects to massive whales. As a marine mammal biologist, I naturally went first to the chapter on whales and dolphins (the book makes chapter hopping easy, but basically progresses methodically through the animal kingdom's taxonomic groups). He chose a number of examples of the extraordinary cultural sophistication and intelligence of these marine mammals, focusing on sperm whales, orcas, bottlenose dolphins, and humpback whales. While Ward is obviously not a whale expert (he repeatedly calls pectoral fins "flukes," which are only on the tail), his descriptions of coming face-to-face with these species when he's in the water with them are breathtaking.

Ward's consideration for the dignity and individual value of the animals he encounters—from swarming bees to ditch-living fish to elephants—shines through each page. His goal with this book was clearly to share his passion for animal sociality and its many intricacies, even among species humans frequently consider dull or unimpressive (did you know sheep can recognize other sheep from photographs alone?). Yet he chooses his stories carefully, building a solid case that all animals, from termites to hyenas, deserve not only our interest but also our respect.

—Naomi Rose, PhD

THE SWORDFISH HUNTERS

Thomas Armbruster / SandyHook SeaLife Foundation / 310 pages

In *The Swordfish Hunters: The Life, Death and Future of Xiphias gladius*, marine biologist and physician Dr. Thomas Armbruster recounts in vivid detail his time spent as a young deckhand on a swordfish longline vessel, the *Defiance*, in the 1980s. This is, at its heart, a book about fishing, similar at first glance to episodes of *Deadliest Catch* in its descriptions of life on board a commercial fishing vessel. What sets it apart is the author's abundantly evident concern for the future of this awe-inspiring species, one of the largest ocean predators. Armbruster's portrayal of the beauty and strength of the broadbill swordfish is accompanied by charming and informative pencil sketches from illustrator Tony Troy.

In addition to his descriptions of *Xiphias gladius*, the author writes with emotion and wonder about other large, highly migratory marine species, including sharks, tuna, and whales. He holds nothing back in his description of the brutality of the longline hunt, and his condemnation of the industrialized modern fishing technologies that have decimated wild fish populations for decades. There is one particularly jarring, difficult-to-read moment in the book, however, when the author describes a run-in with the *Defiance's* canine mascot, Mutt. Armbruster's treatment of the tiny dog stands in stark contrast to the compassion and respect he manifests for the marine animals he encountered on his voyage.

The book is an expansion of Armbruster's 2002 volume, *The Crimson Broadbill: Commercial Swordfishing the NW Atlantic*. The author brings that book's observations on overfishing and the state of the oceans up to date, however, by including an annex with updated research and identification of new and growing threats to marine life, such as bycatch, illegal fishing, and pollution. Most importantly, Armbruster closes the annex with a challenge to readers to become active marine conservationists, noting that the future survival of the ocean and marine life is the responsibility of us all.

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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CONTEST SHOWCASES EFFORTS OF YOUTH TO ADVANCE ANIMAL WELFARE

On July 31, AWI and the Humane Education Network announced the winners of the 2022 “A Voice for Animals” contest. As in prior years, students were free to choose their own topic, but this year were also invited to explore the relationship between alternative energy sources and the impacts on wildlife. Many entrants accepted this challenge and wrote submissions that acknowledged the need to generate alternatives to fossil fuels while working to mitigate the negative consequences energy generation can pose for animals and their habitats. Other entries covered urban wildlife struggles, highlighted volunteer work, or examined the role that cultural beliefs can play in shaping attitudes toward animals.

First prize video winner Ava Smith underscored the plight of city pigeons. Her engaging video details the efforts of an Amsterdam organization that rescues birds who suffer debilitating foot injuries after becoming ensnared in trash containing strings, as well as her own efforts to foster pigeons and her work at the Carolina Raptor Center. The video is a wonderful example of how education, combined with action, can make a difference in the lives of animals.

Determined to help animals despite her group’s youth and the limitations imposed by COVID-19, PAWS club president Katelyn Chen facilitated unique projects her group could take part in. Her prize-winning essay describes how she and other club members embraced creative challenges such as constructing training tables for a local rescue. Under Katelyn’s leadership, the club also went on to make toys for shelter animals and build feral cat shelters.

ESL winner Ayram Beltran’s essay explains how understanding cultural context can improve the well-being of certain species that may be maligned due to folklore and superstition—specifically *lechuzas* (barn owls). Ayram makes a case for disseminating clear, factual information to communities that may not realize the critical role of these birds in the ecosystem, and for supporting groups who work to protect them.

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



DANGMARA KSANDROVA