AWI Quarterly

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SPOTLIGHT

Court Corrals BLM's Wild Horse Removal Plan

We are delighted to report that on July 15, the US Court of Appeals for the Tenth Circuit ruled in our favor in our lawsuit to protect thousands of wild horses in Wyoming and preserve millions of acres of their designated habitat. Represented by the public interest law firm Eubanks & Associates, AWI, American Wild Horse Conservation, Western Watersheds Project, and private individuals Carol Walker, Kimerlee Curyl, and Chad Hanson, filed suit in May 2023 against the Bureau of Land Management challenging the agency's management plan to eliminate designated wild horse habitat in Wyoming's Checkerboard region. In planning documents, the BLM repeatedly acknowledged that this area could sustain healthy wild horse herds and that environmental degradation was not at issue; rather, the management plan came in response to pressure from the Rock Springs Grazing Association, a livestock group that wanted the wild horses removed.

The BLM's plan called for the permanent removal of more than 3,000 wild horses protected under the 1971 Wild Free-Roaming Horses and Burros Act (WFRHBA). In its opinion, the Tenth Circuit found serious failings with the BLM's management plan under the tenets of the law. The court held that the agency acted arbitrarily and capriciously and violated the WFRHBA by failing to consider its responsibility to manage wild equines as part of a thriving natural ecological balance on public lands.

The ruling marks a significant victory for the preservation of wild horses in the United States, as the BLM's management plan for the Checkerboard amounted to eliminating wild horse habitat and removing these iconic animals from the landscape because they posed an inconvenience to the agency. The Tenth Circuit has remanded the case to the district court to determine an appropriate remedy, and we anticipate the legal battle will continue in that venue; we will provide updates on future legal developments.

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ABOUT THE COVER

Russell and Burch's landmark 1959 book, *The Principles of Humane Experimental Technique*, introduced the 3Rs of more humane animal research: *replacement* of animals as models, *reduction* in the number of animals used, and *refinement* of housing and handling methods to reduce animal stress and suffering. The authors considered "absolute replacement" to be the "absolute ideal." Technological advances in "new approach methodologies" (NAMs), including nonliving organoids and organ chips, are increasingly making replacement feasible in some arenas. Yet *absolute* replacement still faces significant hurdles—technological, cultural, and otherwise. Turn to page 14 to learn more. Photograph by Bradengar S/500px.

government affairs

HILDEANNA

The Refuge from Cruel Trapping Act would protect wildlife, people, and pets from the danger and enormous cruelty of steel-jaw leghold traps within national wildlife refuges.

PROTECTING WILD SPECIES FROM CRUEL CAPTURE AND KILLING METHODS

On June 24, the Refuge from Cruel Trapping Act (HR 4108), was reintroduced by Rep. Jerrold Nadler (D-NY). This bill would prohibit the possession or use of body-gripping devices, such as steel-jaw leghold traps, Conibears, and snares, within the National Wildlife Refuge System (NWRS) with limited exceptions. The NWRS is home to more than 380 endangered species, yet nearly half of national wildlife refuges currently allow trapping, which endangers wildlife, people, and pets.

On June 26, Reps. Jared Huffman (D-CA) and Steve Cohen (D-TN) and Sen. Jeff Merkley (D-OR), reintroduced Canyon's Law (HR 4180/S 2179) to ban the use of wildlife-killing M-44 devices, commonly known as "cyanide bombs," on federal public lands. These cruel and indiscriminate devices injure people and kill thousands of animals each year. The bill was first introduced in 2017—the year that an M-44 device exploded near the home of 14-year-old Canyon Mansfield in Pocatello, Idaho, killing his dog and injuring the teen. Between 2018 and 2023, the federal Wildlife Services program authorized the use of M-44s to poison more than 42,000 animals, including about 1,200 nontarget animals who were unintentionally killed.

AWI also worked closely with the co-chairs of the Congressional Wild Horse Caucus on the reintroduction of the Wild Horse and Burro Protection Act (HR 4356) on July 10. Led by Reps. Dina Titus (D-NV), Juan Ciscomani (R-AZ), and Steve Cohen (D-TN), the legislation would phase out over two years the use of helicopters to remove wild horses from the range. In the interim, helicopters would be required to install cameras to film roundup operations, promoting increased transparency and accountability. In fiscal year 2024 alone, the Bureau of Land Management removed over 16,000 wild equines from the range. These federally protected animals often die during chaotic and brutal roundups, during which panicked horses are driven across vast distances and into lifelong captivity.

ALAN CUMMING URGES END TO PET PRIMATE TRADE

This summer, AWI worked with Emmy and Tony Award–winning actor Alan Cumming on a video in support of the Captive Primate Safety Act (HR 3199/S 1594) that was posted on AWI social media platforms on July 11. The bill, reintroduced in Congress by Reps. Mike Quigley (D-IL), Brian Fitzpatrick (R-PA), Julia Brownley (D-CA), and Nancy Mace (R-SC) and Sen. Richard Blumenthal (D-CT), would end the cruel and dangerous pet primate trade in the United States. For Cumming, this issue is personal. He first met a young chimpanzee named Tonka while working on the 1997 movie *Buddy*. Years later, Cumming discovered that Tonka was caged in a basement and living a life of extreme confinement. Tonka's story, featured in the 2024 docuseries *Chimp Crazy*, is just one of countless heart-wrenching examples of primates suffering in captivity. To watch the video on Instagram, see *bit.ly/4fPwdFJ*.

TAKE ACTION: Please visit AWI's Action Center (*awionline.org/actioncenter*) to urge your members of Congress to support the Captive Primate Safety Act and other important animal welfare bills, to defend vital animal welfare laws such as the Endangered Species Act and the Marine Mammal Protection Act, and more. Your voice matters!

SECURING FUNDING FOR ANIMAL WELFARE PRIORITIES

In encouraging news, both Senate and House fiscal year 2026 Agriculture Appropriations bills winding their way through Congress contain provisions that continue to bar horse slaughter operations in the United States. The House and Senate Interior Appropriations bills also maintain long-standing protections against the slaughter and lethal control of wild horses—provisions absent from the administration's budget proposal released earlier in the year. Importantly, in its report accompanying the bill, the House also directs the Bureau of Land Management to allocate $11 million toward humane fertility control for wild horses.

In addition, the House and Senate Agriculture Appropriations subcommittees included language championed by AWI in their reports that directs the US Department of Agriculture to invest in the development of more effective and humane methods of "depopulation" (i.e., the mass killing of animals to control disease). Such directives are critical given the rampant use of ventilation shutdown plus heat during the ongoing avian influenza outbreak. This controversial depopulation method involves inducing heatstroke over several agonizing hours. (See *AWI Quarterly*, spring 2025.)

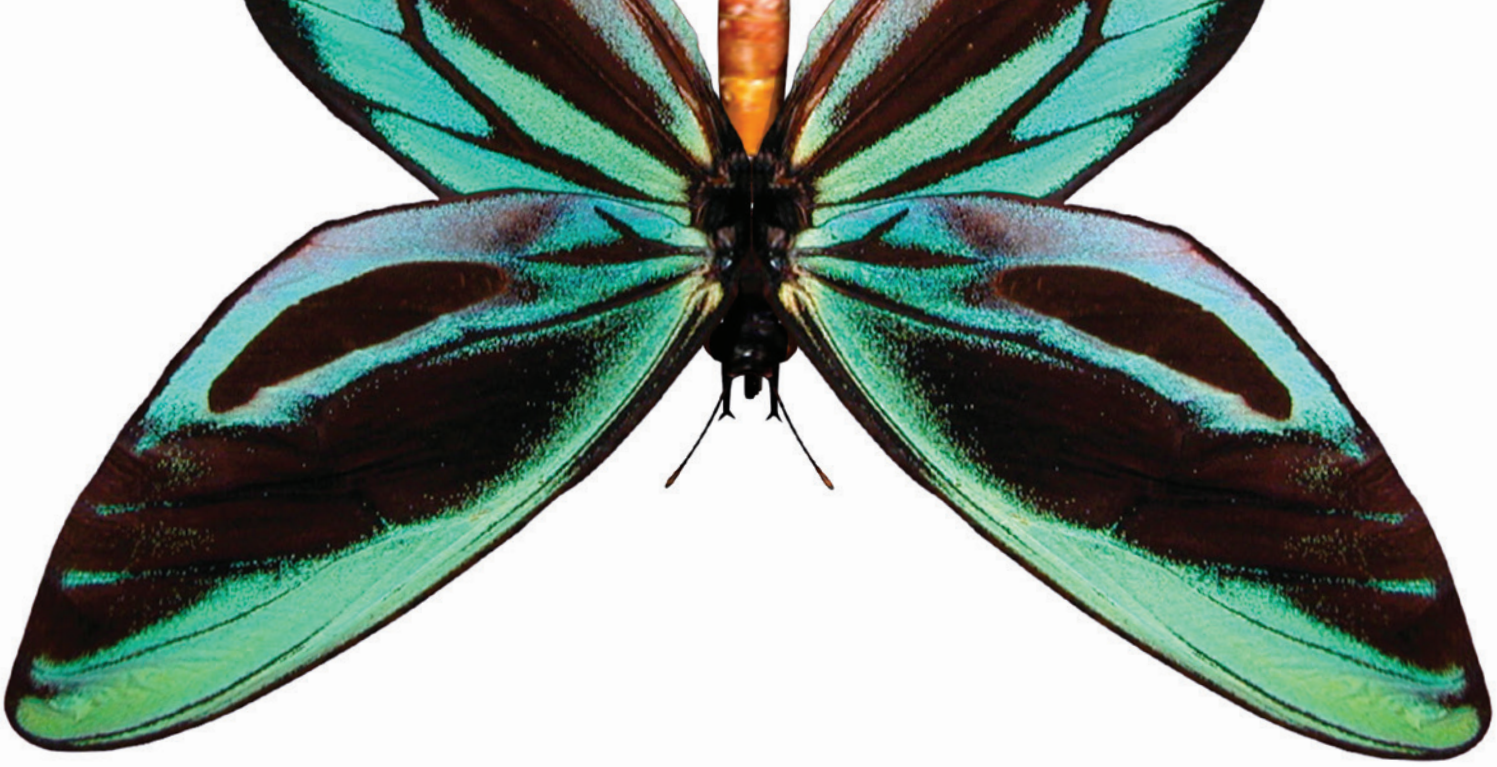
Both House and Senate Agriculture Appropriations bills also maintained key provisions pertaining to Humane Methods of Slaughter Act (HMSA) enforcement. Regarding poultry slaughter, AWI secured a first-of-its-kind directive for the USDA to track "good commercial practices" verification procedures. These practices are critical to improving the handling of birds at slaughter, since the USDA interprets the HMSA to exclude poultry. The Senate report also emphasized the importance of disaster planning by livestock operations to prevent high mortality rates during natural disasters and extreme weather events.

Finally, AWI had been alarmed when the administration's budget proposal and the House subcommittee's initial Agriculture Appropriations bill contained no funding for the Protecting Animals with Shelter (PAWS) grants program, which helps support domestic violence survivors and their pets. Fortunately, Reps. Debbie Wasserman Schultz (D-FL) and Lauren Underwood (D-IL) secured an agreement with House committee leadership to restore $1.5 million to the program in the committee-approved bill. Meanwhile, Sen. Gary Peters (D-MI), a longtime PAWS champion, was able to get $3 million for these essential grants included in the Senate version of the bill. There is still a long way to go before a final spending package is approved, but these developments leave the PAWS program in a much stronger position compared to where it started in the budgetary process.

HOUSE COMMITTEE LEADERSHIP BULLISH ON ANTI-WILDLIFE BILLS

The House Natural Resources Committee has continued to pursue a markedly anti-wildlife agenda by teeing up action on an array of bills to weaken and eliminate protections under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). The committee spent July holding meetings on bills that would delist the Greater Yellowstone Ecosystem population of grizzly bears while barring any legal challenge, prohibit key federal agencies from regulating the use of lead ammunition or fishing tackle in areas under their jurisdiction, gut the core standards of the MMPA while creating impossibly high evidentiary hurdles, subvert the ESA's essential requirement that listing decisions be based on sound science, and delist captive sturgeon species, among other provisions that cater to industry interests at the expense of species survival. AWI will continue fighting these bills, as well as all others that take aim at our bedrock conservation statutes.

PATRICK



PHOTOSVAC

The Hidden Web:

International Trade in Insects and Arachnids as Pets

In the shadowy corners of the multibillion-dollar global wildlife industry, a quiet but flourishing market is often overlooked. As media and regulatory attention focuses primarily on illegal and unsustainable trade in high-profile wild animal species, parts, and products (e.g., live parrots, elephant ivory, and tiger bone pharmaceuticals), millions of live and dead invertebrates are also being transported and sold across international borders each year. From harvester ants prized for their complex behaviors, to dinner plate–sized tarantulas sold as pets, to pinned and framed jewel-toned butterflies and beetles—this commerce represents one of the most neglected facets of global wildlife trade. Indeed, demand for rare and unusual arthropods (invertebrates with exoskeletons and segmented bodies) is growing, with troubling implications for conservation and animal welfare.

Popular arthropods in the exotic pet trade include Madagascar hissing cockroaches, Chilean rose hair tarantulas, Southeast Asian stick insects, iridescent beetles, and boldly patterned butterflies and moths. A tiny proportion of these sought-after species—such as the majestically horned Satanas beetle and the Malabar rose butterfly, with its crimson-accented black-and-white wings—are listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Specimens of Appendix II–listed species in trade must be accompanied by an export permit, which is to be granted only if the source country has determined that the trade is not detrimental to the species' population.

However, the vast majority of arthropods in trade are unprotected—a problem not only for them but also for the protected species that are easily smuggled among them (and often intentionally mislabeled as unprotected species to avoid trade regulations). Most customs officials have no training in identifying invertebrates, and smuggling is much easier when your cargo fits inside an envelope.

Conservation implications

Invertebrates exist in enormous numbers relative to vertebrate species, but their apparent abundance masks a critical gap in our understanding of their population levels. Many coveted insects and spiders are highly sensitive to temperature and humidity changes, resulting in restricted ranges that make them even more susceptible to overcollection. Yet population and distribution data for most species are so poor that it is nearly impossible to assess the true ecological impact of trade in them. Removing numerous individuals from these relatively confined habitats, though, reduces a species' ability to recolonize areas after local extinctions or adapt to environmental shifts—even as climate change renders these shifts more rapid and pronounced.

Tarantulas are a case in point. CITES currently regulates trade in only 36 species of spiders, yet there are more than a thousand known species of tarantulas alone. Many tarantula species have become prized targets in recent decades and are often advertised in online forums and shipped by mail order. Like Pokémon card fans, enthusiasts are driven by the desire to "collect them all," sometimes amassing collections of hundreds of tarantulas of different colors, sizes, and patterns.

But this passion has real-world implications. Tarantulas are long-lived—up to 30 years—and reproduce slowly, making them vulnerable to overexploitation in the same way elephant and whale populations have been decimated by unrestricted demand. Like their leviathan counterparts, tarantulas are also imperiled by other forms of human disturbance, including habitat destruction and climate change, which, as noted above, can be particularly devastating to species with limited natural ranges.

The large and striking Mexican redknee tarantula provides a cautionary example. Once abundant in pet stores worldwide, decades of unrestricted collection combined with destruction or fragmentation of its tropical forest habitat for agriculture, urban development, and road building have led to significant population declines. The species is now listed on CITES Appendix II, but its slow maturation rate makes recovery challenging.

Welfare implications

Unlike mammals and birds, insects, and spiders cannot vocalize distress in ways humans easily recognize, and most cultures do not concern themselves with whether "bugs" are sentient and experience pain. Ensuring the well-being of captive individuals is challenging even for well-intentioned keepers who educate themselves about dietary or environmental needs such as temperature and humidity. Furthermore, high mortality rates are taken in stride by many private collectors as, compared to other exotic pets, most invertebrates are relatively cheap and easy to replace.

Post-purchase deaths are only the tip of the iceberg, however. For every wild-caught invertebrate that survives long enough to reach a collector, countless more die in capture or transit. Many spiders, for example, are collected in large numbers as tiny spiderlings and shipped in small containers—or even mailed in envelopes. Larger specimens fare little better: In 2024, a smuggler was intercepted at a Peruvian airport with hundreds of tarantulas destined for South Korea crammed into small plastic tubes and bags strapped to his body. Two years earlier, smugglers tried to transport more than 230 tarantulas from Colombia to Europe in a single suitcase.

With CITES currently covering only a few invertebrate species, international regulations have failed to address the scope and complexity of the global trade in these animals. With this pressing need in mind, AWI is eagerly anticipating the Twentieth meeting of the CITES Conference of the Parties, beginning in late November in Uzbekistan, where member nations will consider proposals from Bolivia and Panama to regulate trade in 15 more species of tarantulas, including the magnificent Bolivian blue leg and Guyana pinktoe. To support this effort to bring the unseen impacts of the invertebrate trade to international attention and secure protection for its most vulnerable victims, we have established a new working group within the Species Survival Network, an international coalition of over 90 NGOs dedicated to strengthening CITES implementation and enforcement.

In addition to advocating adoption of the new CITES proposals and identifying insects and arachnids that qualify for future listings on CITES appendices, the working group will focus on raising public awareness and improving training and resources for enforcement agencies to identify invertebrate species in trade. These remarkable animals are not just commodities and curiosities; they are integral parts of complex natural ecosystems with intrinsic value and specific welfare needs. As we expand our moral consideration to nonhuman animals, these tiny (and not so tiny) creatures with six, eight, or dozens of legs remind us that size is not the measure of significance.

Avicularia avicularia*, or Guyana pinktoe tarantula. Photo by PhotoSpirit.*

KENYA WILDLIFE SERVICE KEEPS EYES IN THE SKY WITH ASSIST FROM AWI

Wild animals in Kenya's sprawling (5,308 m^2) Tsavo East National Park are safer today because of AWI's ongoing sponsorship of a Kenya Wildlife Service (KWS) Airwing patrol plane based in that park. (See *AWI Quarterly*, summer 2023.) The KWS wildlife protection strategy relies, in part, on vigorous aerial patrols that, most importantly, serve to *deter* most poachers. (Those same patrols are also very effective in leading KWS rangers on the ground to intercept poachers not prudent enough to be deterred.)

But safe aerial patrols require ongoing training and careful maintenance of the equipment, including the certified overhaul of airplane engines once they reach 2,000 hours of operation. AWI recently funded the overhaul of the Tsavo East Husky patrol craft, which is now deployed back to the park and deftly piloted by KWS Capt. John Tiapr. Kenya law prohibits all commercial, recreational, and trophy hunting and trapping. And KWS works diligently to assure those laws are respected. Tsavo East—whose sweeping landscapes served as the backdrop for the Oscar-winning film *Out of Africa*—is home to many thousands of elephants, giraffes, lions, antelopes, zebras, buffaloes, and myriad other species. AWI is happy to support the brave efforts of KWS pilots and rangers to ensure these animals remain at home in the wild and out of the hands of poachers and traffickers.

GAINING GROUND AGAINST COMMERCIAL KANGAROO SLAUGHTER

Since 2010, an estimated 1.1 to 1.7 million kangaroos have been killed annually in what is considered the largest slaughter of terrestrial mammals in the world. (See *AWI Quarterly*, spring 2024.) Hunters, armed with high-powered rifles, pursue kangaroos under the cover of darkness, using bright lights to identify their victims. The animals are killed for their skins—used to manufacture high-end soccer cleats and other footwear—and meat to make pet food.

The hunt is poorly monitored and immensely cruel, with independent studies indicating that upwards of 40 percent of kangaroos are not killed quickly via a shot to the brain. In addition, approximately one-third of the kangaroos killed are females, who often have joeys (dependent young). Conservative estimates indicate that around 400,000 joeys are killed each year, with older joeys often dispatched by being slammed against the ground or a vehicle.

Kangaroos Alive, an Australian-based kangaroo protection organization formed in 2018 after the release of the award-winning documentary *Kangaroos—A Love-Hate Story*, has made great strides in its efforts to combat this industry. Working with its national and international partners, including AWI, Kangaroos Alive has already convinced nearly 20 companies to stop using kangaroo products, including industry giants Adidas, Reebok, Gucci, New Balance, Prada, Converse, Puma, Suzuki, Nike, and Salvatore Ferragamo.

The organization has also partnered with Australian First Nations organizations and elders to recognize and respect the cultural significance and sovereign rights of kangaroos, created World Kangaroo Day (October 24) to educate people about kangaroos, and developed a kangaroo coexistence campaign, as it continues to raise significant questions about the scientific basis of state and national kangaroo population assessments and management.

BETH BAISCH

Kangaroos are Australian icons, yet more than a million are killed each year to make shoes and pet food. A growing movement seeks to end the slaughter.

HYENA WITH OLD SNARE WOUND, KELLY ERMIS

Simple Snares Exert Stranglehold on Wild Animal Populations

Snares are ubiquitous around the world and are emptying our forests, meadows, wetlands, savannas, jungles, grasslands, and other habitats of wildlife, with particularly devastating effects in Africa. They are inexpensive and easy to fashion from wire, rope, or a variety of other ordinary materials. They are indiscriminate and cruel—catching target or nontarget species alike and generally designed to grow ever tighter in response to the victim's panicked struggles. Even if the animals aren't suffocated or killed by the trapper, they may succumb to the elements, predators, or the extreme physiological stress. Escape, where possible, often comes at the expense of broken or dislocated bones or self-amputated limbs, resulting in grievous injuries that can lead to prolonged suffering before death. Some escapees are left burdened with snares cinched around and digging painfully into the flesh of legs, necks, torsos, mouths, faces, reproductive organs, or trunks.

In a study published in *BioScience* in April, Sean Denny of the University of California, Santa Barbara and colleagues from the United Kingdom examined the impact of wildlife snaring in Africa. They report that snares affect an extraordinary diversity of wildlife ranging in size from rodents and shrews to elephants. Ungulates, carnivores, and primates—small and large, ground-dwelling and arboreal—are impacted, as are pangolins, aardvarks, hyraxes, reptiles (e.g., mambas, cobras, crocodiles), and birds (e.g., hornbills, parrots, eagles).

Based on their analysis of snaring data, Denny et al. calculated that 43.8 million to 234.5 million snares are set annually, resulting in the take of at least 380 million to more than 2 billion pounds of wildlife annually in Central Africa alone. (They did not attempt to convert this to numbers of animals.)

While much of the meat from snared wildlife is used for food or sold for income, a considerable amount is discarded due to spoilage or because it is undesired bycatch. The authors conservatively calculated that, every year, 24 million to 129 million pounds of consumable wild meat from snared wildlife is discarded in Central Africa alone, with twice that amount discarded across the whole of Africa.

Regardless of whether the meat is consumed by humans or left to scavengers, snares are decimating wildlife throughout Africa. They have been implicated in the decline of large herbivores and carnivores in Mozambique, Uganda, Zambia, and Zimbabwe; the unsustainable take of antelopes in Central Africa and lemurs in Madagascar; and a decline in small mammals and primates in parts of Kenya. Continent-wide, snares are threatening Africa's carnivores directly through take and indirectly by depleting their prey. Snare injuries have been documented in 20 percent of chimpanzees from a single population in Uganda, in more than 50 percent of all mammals (excluding elephants) within a 386-square-mile region of the Central African Republic, and in 26–44 percent of hyenas from three sites in Zimbabwe.

Given the widespread use of inexpensive snares in Africa, tackling this crisis will not be easy. Denny et al. offer broad suggestions for reform, including through incentivizing sustainable use of wildlife at the local level by changing community governance, improving enforcement, increasing snare removal programs, and initiating programs to reduce dependency on snaring for food and income and to reduce demand for wild meat. If Africa's wildlife is to be saved from the barbarity of dying in snares, these and other reforms are urgently needed.

Assessing Population Vulnerability of American Pika via a Multifaceted, Noninvasive Molecular Genetic Approach

by Dr. Jessica Castillo Vardaro, Department of Biological Sciences, San Jose State University

American pikas (*Ochotona princeps*) are small, adorable mammals found throughout the mountains of western North America. They have gained public attention and are a species of conservation concern due to a rapidly changing climate and their sensitivity to high temperatures. A proposal to list the species under the Endangered Species Act was denied by the US Fish and Wildlife Service in 2010 despite the agency's acknowledgment that many of the pika populations in the Great Basin region are likely at risk of local extinction. These vulnerable sites are hotter, drier, lower in elevation, and more geographically isolated than those found in the Sierra Nevada, Cascade, and Rocky Mountains.

This research, funded in part by a Christine Stevens Wildlife Award from the Animal Welfare Institute, uses noninvasively collected fecal samples and modern genetic techniques to investigate pika diet, intestinal parasites, and population genetic metrics to better understand population vulnerability. This is not only the first project to integrate these three crucial aspects of pika biology, it is also the only study specifically addressing these questions within the Great Basin.

The study targeted multiple sites in the Great Basin region of northwestern Nevada, as well as the southern Sierra Nevada mountains in California, to look at the potential threats to these populations. Historically, such research would have required labor-intensive pika trapping, which has an inherent risk of mortality to the animals. Instead, by collecting fecal pellets, we were able to sample a larger number of individuals from a much broader geographic area without disturbing or harming these sensitive animals.

In collaboration with the Nevada Department of Wildlife, three graduate students (Michael Hernandez, Emily Hadjes, and Jazmine Camacho Servin) and I collected over 100 pika fecal samples. A team of undergraduate student researchers extracted DNA from the samples, thereby collecting DNA from the pikas, as well as from the plants they ate and any parasites living in their intestinal tracts. Population genetic analyses using microsatellites revealed varying levels of connectivity among populations in northwestern Nevada, consistent with the low dispersal ability of American pikas and the patchy distribution of their rocky habitat. This vital information contributes to our understanding of why some populations appear more stable than others.

Dietary analysis of fecal samples, using a DNA metabarcoding approach, revealed a high level of diversity of plant species, consistent with the generalist foraging nature of American pikas (they are not picky eaters). Individual fecal samples contained, on average, five different plant species. Common plants eaten by pikas include antelope bitterbrush and gooseberry. This important research using noninvasive sampling tools will greatly increase our understanding of pika persistence in a changing ecosystem.

JILLIAN

KENZO

Hi-Tech Acoustic Curtain Protects Wildlife from Highway Collisions

by Bill Clark, PhD

Hard facts: According to the National Park Service, 2 million large wild animals are struck by vehicles on America's roads every year. About 440 people are killed in these collisions, as well, and another 59,000 injured. The annual price tag runs about $10 billion. Each incident is a needless, preventable tragedy. What's more, the wildlife kills are certainly undercounted, as not all collisions are reported (and the statistics don't even include the vast numbers of smaller animals such as rabbits and squirrels, who are merely crushed and left behind). Vehicle collisions are also a major cause of untimely death for several endangered species, including the Florida panther and Key deer. Despite many efforts to reduce this carnage, the numbers seem to get worse nearly every year.

But perhaps some hope, or even progress, might be found in a promising field exercise being conducted cooperatively by the Israel Nature and Parks Authority (INPA), *Netivei Israel* (National Roads Authority) and iPTE Traffic Solutions, an Austrian startup that has created an "acoustic curtain" device to help keep wildlife off roadways when vehicles pass.

Ranger Tomer Ofri of the INPA provided the motivation to get the project started and the leadership to see it through. Dr. Dotan Rotem, an INPA landscape ecologist, is also a key figure on the team. According to Rotem, the project team is about halfway through a three-year exercise testing the iPTE device. Currently, 40 of them are mounted on meter-high posts positioned along a one-kilometer section of an Israeli road that had been notorious for its frequency of wildlife kills.

An iPTE device, Rotem explained, is activated by the headlights of an oncoming vehicle, which then triggers an alarm. The devices are positioned to activate in sequence as a vehicle approaches, creating a curtain of sound that prompts wild animals to back away from the road. Once the vehicle passes and the lights are gone, the devices fall silent, and the animals can safely cross.

The technology is cost-effective—about $115 per device, installed. The high-impact polycarbonate, solar-powered devices require virtually no maintenance, short of the occasional cleaning of solar panels after a Middle East dust storm. The devices tested in Israel are operating at a human-audible 4 kHz, but they can be adjusted to frequencies beyond human hearing range when located near communities.

Data are still being gathered, but so far, test results have been promising. Over the past year and a half, there were only two wildlife collision fatalities along the road being tested. During that time, 11 kills were documented over an equivalent kilometer-long stretch of the same road that lacked the devices.

INPA Director General Raya Shukri agrees: "The Acoustic Curtain project serves as another vital pillar in protecting Israel's wild animals," she said. "The road agency's involvement and commitment highlight the importance of collaboration between infrastructure agencies and the INPA to preserve local natural values."

Dr. Bill Clark is a scientist, author, and pilot with a long and colorful career in wildlife conservation. A profile of Bill, focusing on his anti-poaching work with the Kenya Wildlife Service, appeared in the fall 2018 AWI Quarterly.

DOTAN ROTEM

CRISTINA

APPLY NOW: FUNDING AVAILABLE TO DEVELOP OR IMPLEMENT REFINEMENTS

Through October 13, AWI is accepting applications for its Refinement Research Award and its Implementing Refinement Grant. Refinements, in this context, are improvements to the housing, husbandry, and care of animals used in experimentation to minimize pain, suffering, and distress. The Refinement Research Award offers up to $15,000 for research projects designed to study, develop, or validate innovative refinement methods. The Implementing Refinement Grant offers up to $8,000 to introduce existing refinements at a facility (i.e., equipment purchases or staff training) to improve the lives of animals housed there. Visit *awionline.org/research-award* and *awionline.org/implementation-grant* to learn more and apply.

LIFE AFTER THE LAB

Initiatives to encourage adoption or sanctuary placement of animals whose time in the laboratory has come to an end have gained traction across the country at both state and federal levels. This year, Virginia enacted a law requiring state-run facilities that have nonhuman primates no longer needed for research or testing to consider options for releasing them to a certified sanctuary. In 2021, Virginia mandated that animal research and testing facilities pursue adoption opportunities before turning to euthanasia for eligible cats and dogs who are no longer needed in the lab. More than a dozen states in all have instituted laws encouraging post-lab adoption.

A federal bill of this nature has now been introduced in Congress with bipartisan support: Violet's Law (HR 3246) would amend the Animal Welfare Act to require federal research facilities to develop guidelines to facilitate the adoption or nonlaboratory placement of certain eligible animals who are no longer needed for experimentation.

AWI has long advocated the adoption or sanctuary placement of animals whose assignments in the laboratory have come to an end. We hope that these legislative efforts become catalysts for meaningful public education on this issue, financial support for sanctuaries and rescues, and perhaps even government-funded adoption programs. Continued initiatives to encourage post-research adoptions will be crucial to afford more animals the well-deserved chance to live long, happy lives outside the laboratory.

AWI JOINS PARTNERSHIP TO ADVANCE NONANIMAL EXPERIMENTATION METHODS

AWI has joined the Validation & Qualification Network (VQN), a public-private partnership to foster the development and use of new approach methodologies (NAMs)—innovative techniques that can help reduce and replace animals in research and testing. The partnership—launched by the Foundation for the National Institutes of Health in collaboration with the NIH—is an element of the Complement Animal Research in Experimentation (Complement-ARIE) program, an NIH Common Fund initiative working to catalyze the development, standardization, validation, and use of NAMs based on human biological processes.

The VQN is in the midst of a one-year design phase; as a partner, AWI will have the opportunity to weigh in on the partnership's scope and goals and help establish selection criteria for project funding. Following this design phase, the VQN will undergo two implementation phases over the next 10 years, during which it will select and fund validation studies, implement validation efforts, and support NAM qualification.

Turn to page 14 to learn more about NAMs and the outlook for replacing animals in research and testing with nonanimal models.

animals in laboratories

NIH ANNOUNCES MAJOR CHANGE IN FUNDING PRIORITIES

In line with its recently announced initiative to prioritize human-based research (see *AWI Quarterly*, summer 2025), the NIH announced in July that moving forward, all new calls for funding from the agency, known as notices of funding opportunities (NOFOs), that relate to animal experimentation must now also "support human-focused approaches such as clinical trials, real world data, or new approach methods (NAMs)." The NIH further emphasized that it "will no longer issue NOFOs exclusively supporting animal models."

This marks an important symbolic shift in the agency's funding priorities. While this announcement does not mean that the NIH will cease funding animal-only experiments, it does mean that the agency will no longer specifically seek out animal-only experiments in its funding calls, and indeed, the NIH says it may issue NOFOs that exclude proposals for experiments using animals.

BEAGLE BREEDER UNDER INVESTIGATION

Ridglan Farms, one of two remaining US breeders of beagles for research (and the country's second largest dog breeder overall), faces grave allegations of animal cruelty following release of footage taken by activists who broke into its Wisconsin facility, as well as corroborating eyewitness accounts from employee whistleblowers. Allegations range from neglect, failure to provide proper shelter, and performance of surgeries without anesthesia or pain relief.

In January, a circuit court found "probable cause to believe that Ridglan has committed crimes under Wisconsin's animal cruelty laws" and ordered the appointment of a special prosecutor to investigate. Wisconsin's Department of Agriculture, Trade and Consumer Protection, accompanied by the federal Drug Enforcement Administration, then conducted a surprise inspection and reportedly heard more first-hand employee accounts of unlawful and inhumane surgical procedures. Wisconsin's Veterinary Examining Board also placed restrictions on surgical procedures conducted at the facility while investigations continue.

Ridglan Farms, unfortunately, is hardly an isolated case. A USDA Office of Inspector General (OIG) audit in February found that 80 percent of commercial dog breeders (for both the research and pet industries) visited by USDA personnel had outstanding Animal Welfare Act (AWA) noncompliances, examples of which include "excessive feces and flies," "no water provided," "matted hair," "contaminated dog food," and "untreated active eye problem[s]." The OIG report emphasized that such continued noncompliance "poses a threat to the safety and well-being of the animals." Such findings underscore the need for stronger animal protection regulations, more thorough inspections and investigations, and zealous enforcement of existing laws by both state and federal oversight bodies.

AWI LAUNCHES REVAMPED REFINEMENT DATABASE

AWI is excited to announce the 25th anniversary relaunch of our Refinement Database, which has been updated and modernized and can now be accessed via a brand-new website: *refinementdatabase.org*. This database contains a vast array of curated scientific articles, books, and other publications related to improving or safeguarding the welfare of animals used in research and testing. The database is updated every four months, and users can apply various search filters, such as animal type and topic, to easily locate information on the current best welfare practices most relevant to their area of interest.

BEAGLE AT RIDGLAN FARMS, DIRECT ACTION EVERYWHERE

REPLACING ANIMALS IN EXPERIMENTATION: Where We Are, Where We're Going

Experiments on animals ("*in vivo*" experiments) have long been the norm for learning about human health and disease, because testing on live animals enables researchers to investigate how chemicals, drugs, and disease affect a whole body, including the complex interactions between organs, tissues, and other biological systems. However, there are both ethical and scientific concerns about animal experimentation. Research shows that as many as 90 percent of preclinical studies—studies that explore underlying mechanisms of disease in animals and can cause extensive suffering—ultimately fail to translate into successful treatments, diagnostics, or disease prevention for humans.

Historically, experimental technologies that do not rely on the use of animals have been simplistic, isolated, and two-dimensional (e.g., growing cells in petri dishes and examining them under a microscope), which limits their applicability to humans in the real world. But recent technological advancements have generated much more complex and human-relevant methodologies, significantly improving the feasibility of replacing animals in experimentation. This article offers an overview of these innovative "new approach methodologies" (NAMs), as well as an assessment of how close we are to their widespread adoption.

NEW APPROACH METHODOLOGIES

The term "new approach methodologies" typically refers to research and testing techniques that don't involve the use of live animals. This term is often used in the scientific community instead of "nonanimal methods" to signify that the primary focus of NAMs is to acquire more accurate, human-relevant data, regardless of whether the technologies provide direct replacements for existing experimental methods involving animals. NAMs can be divided into three broad categories: *in chemico*, *in vitro*, and *in silico*.

In chemico experiments, the simplest NAMs, do not require live organisms or even entire cells. Instead, biological molecules (e.g., proteins, DNA) are mixed into a test solution to explore what chemical reactions will occur. For example, rather than testing products for potential eye damage by applying chemicals directly to the eye of an awake, restrained rabbit (the infamous Draize test), scientists can add ocular proteins to a test solution containing the chemical and measure protein breakdown as a proxy for ocular irritation.

In vitro refers to experimentation on cells outside a living organism. While there is a long history of coaxing simple cell cultures to flourish in petri dishes and test tubes, scientists have more recently developed ways to grow cells in dynamic, three-dimensional microenvironments, including "organoids" and "organs-on-a-chip." Organoids are microscopic 3D versions of organs grown from stem cells, which are able to divide, differentiate, and self-organize into the entire array of cell types in a given organ. Organs-on-a-chip (aka "organ chips") are small plastic devices that contain tiny hollow channels lined with living human cells. Within organ chips, researchers can apply biomechanical pressures that catalyze the transfer of nutrients, waste, and drug molecules across channels, mimicking how organs function in live bodies (e.g., molecules moving from the bloodstream into the air channels of a breathing lung). Virtually any organ can be mimicked using this technology, and multiple different organ chips can be linked together.

ZHU DIFENG

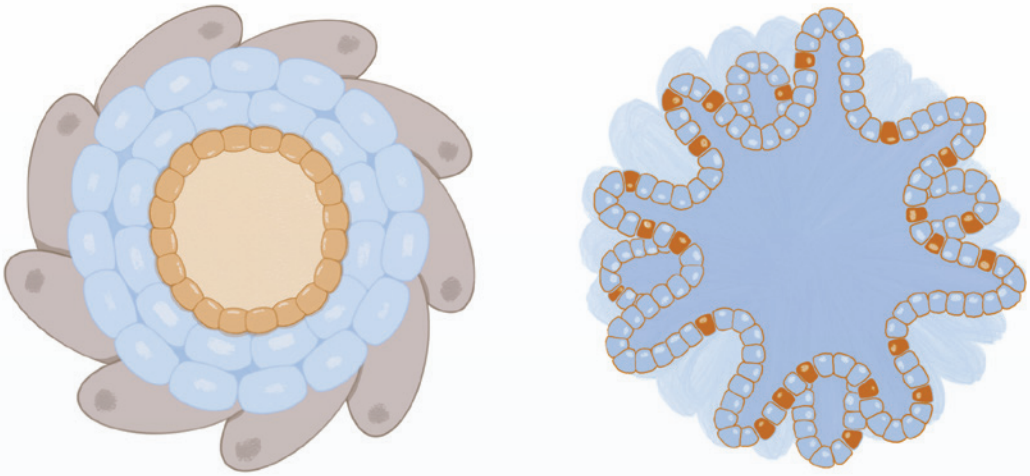


Illustration of a cardiac (left) and intestinal (right) organoid. Organoids are miniature, 3D versions of the larger organs. Illustration by Irene Armas.

In some studies, biological effects observed via organ chips have proven to be of greater human relevance than effects observed in experiments using animals. In one example, "liver chips" were used to evaluate 27 drugs. All of the drugs were characterized as "safe" based on animal testing, but subsequent clinical trials revealed that a number of them were toxic to humans. In contrast to animal testing, liver chips correctly identified 87 percent of the toxic drugs.

In silico techniques are experiments conducted by computers via techniques such as computational modeling and artificial intelligence. AI, for instance, can screen large amounts of data from thousands of studies in a matter of moments and use that data to create infinite simulations to test how compounds might interact with each other or with human cells. Through those simulations, AI can make predictions about which compounds are toxic or which drugs could be effective in treating human diseases. *In silico* techniques can save time, resources, and human and animal lives by eliminating trial-and-error experimenting on animals and generating potential solutions not previously considered.

NAMs within the current research landscape

A common misconception is that recent advancements in NAMs allow for full replacement of all ongoing animal experimentation. The reality is more nuanced. As explained in an August 2024 *Scientific American* article, we are closer to replacing animals in regulatory product safety and toxicity testing than in "basic" research undertaken to advance general scientific knowledge.

Specifically, safety testing of cosmetics and personal and household products will likely be the first to transition away from animal use—due in large part to consumer demand for "cruelty-free" products. The United States is also making moves to reduce the use of animals for safety testing of certain drugs and pharmaceuticals: In 2022, the FDA Modernization Act 2.0 did away with a 1938 requirement to test every drug on animals before it goes to market, and in 2025, the Food and Drug Administration announced it would begin phasing out animal testing for monoclonal antibody therapies and other drugs. Toxicity testing of chemicals in consumer goods that may disperse into the environment (e.g., those found in pesticides) will likely be next to scale up NAMs, which have proven to be very effective at predicting whether a substance will cause adverse reactions in humans.

Basic research studies, on the other hand, ask broader questions about how biological systems work and often investigate behavioral or neurological outcomes that are challenging to reproduce outside living organisms. Because of the complexity and exploratory nature of this research, it will likely take much longer to replace animals with nonanimal methods in this arena than in testing. Unfortunately, many more animals are used for basic research purposes than for regulatory testing purposes.

This reality notwithstanding, in many cases where nonanimal alternatives *do* exist, scientists continue to rely on animals not for their scientific merit but due to other factors, such as lack of access to NAMs, lack of knowledge or training for their use, resistance to change, regulatory obstacles, and real or perceived financial costs. Many of these barriers can and must be addressed through regulatory changes and increased funding for NAM development and implementation. A huge societal and scientific shift will be required to help dismantle these barriers—but the shift is already underway.

For more information and NAM-related resources, visit *awionline.org/NAMs*.

GRAY WHALE HUNT

Edges Toward Approval Amid Staggering Population Decline

In March, the National Marine Fisheries Service (NMFS) sought public comment on the Makah Tribe's request for a permit under the Marine Mammal Protection Act (MMPA) to hunt gray whales off the Washington coast. This is the final step in the government's decades-long effort to allow the Tribe to resume whaling after nearly a hundred-year hiatus. Other than a single gray whale killed in 1999 (before litigation stopped a continuation of the hunt) and another killed illegally in 2007, the Makah Tribe had not hunted gray whales since 1927. While AWI respects the Tribe's traditions, it submitted comments to NMFS opposing permit issuance due to biological, legal, and ethical concerns over the proposed hunt.

Only weeks after the comments were submitted, NMFS revealed that Eastern North Pacific (ENP) gray whale numbers had plummeted to an estimated 12,950 animals. This is the lowest count since the early 1970s—a time when gray whales were listed under the Endangered Species Act (ESA)—and less than half the population's estimated high of 27,430 animals in 2016. To make matters worse, NMFS estimates that only 85 calves were born during this year's calving season, not nearly enough to replace the almost 130 individuals reported to have stranded this year from Mexico to Alaska, as well as any unreported strandings and many more (likely thousands) who died and sank undetected rather than wash ashore.

According to scientists, including those from the federal government, this precipitous decline is primarily a consequence of ocean warming in the Arctic, which is causing an ecological paradigm shift and diminishing gray whale food supplies. The Arctic marine ecosystem has long been driven by benthic organisms (marine species that live on the seafloor). Enormous quantities of food, including under-ice algae, would sink to the seafloor to nourish these organisms that provided a food source for gray whales and other marine species. Climate change, however, is diminishing the extent of sea ice, and the warming waters are allowing more southerly species, including fish, to expand their ranges north.

These fluctuations result in more of the food that would normally sustain the benthic organisms being consumed before reaching the seafloor. Consequently, the abundance and composition of benthic organisms (including amphipods—calorically rich crustaceans that are a dietary staple for gray whales) has changed, forcing gray whales to expand their range in search of food. If they can't find sufficient prey, or if the prey is inadequate to meet their biological needs, their physical condition declines, which diminishes their odds of successful reproduction and increases their risk of dying during the lengthy annual migration to Mexico. Disconcertingly, scientists have determined that rising water temperatures and retreating sea ice will likely continue to diminish Arctic benthic productivity, to the enduring detriment of gray whales.

The Makah Tribe's requested hunt during the summer and fall (July through October, every other year) would primarily target Pacific Coast Feeding Group (PCFG) gray whales—whales who spend their summers feeding in nearshore waters from Northern California to British Columbia instead of migrating to the Arctic. In 2022, NMFS estimated that only 202 PCFG gray whales existed. In contrast to its up-to-date estimate documenting the staggering decline in ENP gray whales, however, NMFS has not published a more recent PCFG population estimate. The government's rules for implementing the hunt require it to obtain an updated PCFG abundance estimate before it can authorize a hunt; if the estimate is fewer than 192 whales then, by regulation, a hunt cannot be allowed.

Unfortunately, despite compelling evidence demonstrating that PCFG gray whales should be designated as a separate management stock under the MMPA, NMFS continues to consider them part of the larger ENP population. In 2013, NMFS scientists reported that they were nearly equally split on whether to designate PCFG gray whales as a separate management stock and made clear that such a designation could be made in the future. Since then, a bevy of peer-reviewed studies have been published revealing that PCFG gray whales meet the government's own criteria to be designated as a separate stock, yet NMFS continues to reject reconsideration of the PCFG stock structure.

These recent studies make clear that PCFG whales are morphologically, behaviorally, and genetically distinct from ENP gray whales. Because unique behaviors are passed from mothers to calves, removing whales from this population could potentially reduce the cultural memory of these feeding grounds and behaviors, making localized extirpation more likely and consequential. Indeed, should ENP gray whale numbers continue to decline as climate change wreaks havoc in their Arctic habitat, the importance of protecting PCFG gray whales will only increase.

Although unlikely, even critically endangered Western North Pacific (WNP) gray whales, who spend most of the year in Russian waters and number only an estimated 290 animals, could be adversely impacted if any migrate and remain in the permitted hunt area during the hunting season. All three populations, which are outwardly indistinguishable, are also threatened by ocean contaminants, anthropogenic noise, vessel strikes, and fishing gear entanglement throughout their range. ENP gray whales who migrate to Russian waters in the summer are also hunted by aboriginal subsistence whalers from Chukotka.

In addition to these concerns, whaling is inherently cruel; chasing, harpooning, and shooting a 30- to 40-ton swimming gray whale from a moving vessel—while at the mercy of ocean waves and currents—in a manner that results in a quick kill is virtually impossible. The Makah Tribe's proposed hunting methods—spearing a whale with a traditional harpoon followed by one or more shots from a large-caliber rifle—is not humane. The whale killed in 1999 took eight minutes to die, far from satisfying the MMPA's definition of "humane," which requires the method to involve "the least possible degree of pain and suffering practicable to the mammal involved." Independent of the collapsing ENP gray whale numbers, the cruelty inherent to the Tribe's proposed hunting method is sufficient grounds for NMFS to deny the requested permit.

For decades, gray whales have been celebrated as a poster species for the effectiveness of the protections afforded by the ESA and the MMPA. Now, with climate change devastating their Arctic feeding grounds, the ENP population is in free fall. With the future of gray whales so uncertain and the risks to their survival only worsening, it is time to redouble protections for this species.

ED

A seabird victim of an offshore oil spill. The Trump administration is seeking to vastly expand drilling in US coastal waters while eliminating key safeguards.

THIRST FOR OIL THREATENS MARINE ECOSYSTEMS

The Trump administration's aggressive "energy dominance" agenda is posing a serious threat to ocean wildlife and fragile marine ecosystems. Upon taking office, the president swiftly declared a national "energy emergency," rescinding Biden-era bans on Atlantic, Pacific, and Arctic offshore drilling and calling for the dismantling of a slew of offshore drilling safety regulations. Such safety measures were passed in the wake of the *Deepwater Horizon* disaster and are designed to prevent future such catastrophes.

This summer, the Bureau of Ocean Energy Management (BOEM) issued a formal request for information (RFI) on a new offshore oil and gas plan. Currently, oil and gas leasing occurs only off the coasts of Mississippi, Louisiana, and Texas. The administration is expected to dramatically expand this footprint and initiate new lease sales in the Arctic, Pacific, Eastern Gulf, and Atlantic regions.

AWI and Defenders of Wildlife, on behalf of 19 environmental and wildlife protection groups in all, submitted lengthy comments on the RFI to BOEM, expressing our profound opposition to this effort. In particular, we provided the agency with a detailed analysis of the abundant and diverse ecosystems in the Atlantic and Pacific Oceans, which have remained untouched by oil and gas leasing for more than 40 years. We will continue to weigh in on future steps as we seek to ensure these special areas remain unsullied by offshore drilling and its potential to cause catastrophic harm.

SUSTAINING THE SEAS: OUTCOMES OF THIRD UN OCEAN CONFERENCE

The Third United Nations Ocean Conference (UNOC 3) took place in Nice, France, in June. One of its priorities was to advance implementation of Sustainable Development Goal 14 (SDG14)—one of 17 such goals established by the United Nations in 2015—which aims to "conserve and sustainably use the oceans, seas and marine resources for sustainable development." At the conference, member countries adopted the Nice Action Plan for the Ocean, which includes a political declaration titled "Our Ocean, Our Future: United for Urgent Action," along with the following three voluntary commitments from stakeholders:

1. Strengthen international ocean governance and protection through key multilateral processes that concern the ocean. The prime example of this would be entry into force of the Agreement on the Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction, which at time of publication, only needed ratification by seven more countries to take effect.

2. Mobilize financial resources for SDG14 implementation, such as increasing investment in the maritime trade and tourism sectors in order to promote a "sustainable blue economy."

3. Enhance scientific knowledge and understanding of the ocean that supports informed decision-making and improved policy development by encouraging international scientific cooperation and better dissemination of marine science information.

The interrelationship between climate change and ocean health was thematic throughout the conference, with discussions focused on the effects of climate change on the oceans, such as rising water temperatures, acidification, and marine biodiversity loss. Strategies to mitigate these impacts and promote the resilience of marine ecosystems were also discussed. In addition, several countries and NGOs launched a call to action to prevent the extinction of gravely imperiled shark and ray species.

Federal Protection of Animals in Transport Goes off the Rails

Every year, hundreds of millions of farmed animals are shipped across the United States to breeding, feeding, and slaughter facilities—transport that represents one of the most stressful experiences in a farmed animal's life. AWI research, chronicled in the newly published second edition of our report *Farmed Animals in Transport: The Twenty-Eight Hour Law*, indicates that a significant number of these animals likely undergo journeys in excess of 28 hours without food, water, or rest—despite a federal law enacted more than a century and a half ago that is meant to prevent just that.

The Twenty-Eight Hour Law

The very first federal animal protection statute—the Twenty-Eight Hour Law—was enacted in 1873 to safeguard farmed animals from excessive suffering during long-distance transport. In its current form, it prohibits (with some exceptions) confinement of animals for more than 28 consecutive hours without being unloaded for at least five hours for food, water, and rest. Civil penalties of up to $500 can be assessed for each violation.

The Twenty-Eight Hour Law is included in the section of the US Code covering transportation, suggesting a potential role for the Department of Transportation in its enforcement. Historically, however, the Department of Agriculture has been the one to investigate compliance with the law and refer evidence of violations to the Department of Justice. In 1963, the USDA's "Statement of Policy under the Twenty-Eight Hour Law" was incorporated into the federal regulations, clarifying, among other things, the amount of food to be provided to animals and the conditions required at unloading facilities.

In 1873, trains were the only practical way to ship farmed animals across the country. By 1963, this mode of transport was in steep decline, as rail cars increasingly gave way to long-haul trucks traversing the nation's interstate highways. From the 1960s until at least the mid-1990s, however, the USDA approached the Twenty-Eight Hour Law as if it were applicable to animals transported via rail only. In 2003, following a petition and pressure by animal advocates, the USDA finally clarified via an internal guidance memo that the law applies to trucks as well. Yet it has never updated its regulations to reflect modern practices.

The regulations contain no mechanism for monitoring transport duration. Two USDA agencies—the Animal and Plant Health Inspection Service (APHIS) and the Food Safety and Inspection Service (FSIS)—play limited roles in detecting violations. The FSIS, which oversees humane handling at federally inspected slaughter establishments, incorporated the Twenty-Eight Hour Law into a 2011 directive instructing FSIS personnel to question plant managers about compliance with the law only if animals arriving at the plant appear exhausted or dehydrated.

The APHIS Veterinary Services (VS) program oversees the import and export of animals across US borders. For some exports, such as cattle shipped from the United States to Mexico, VS protocols require transport containers to be sealed at departure and only opened at the destination or, if the trucks are required to stop, at a designated USDA-approved rest station. The seals provide a mechanism to determine whether animals were unloaded during transit. However, for some imports—including all animals sent directly to slaughter from Canada—VS protocols either omit reference to the Twenty-Eight Hour Law entirely or instruct drivers to proceed directly to their destinations without stopping, effectively ignoring the law's requirements.

AWI's investigation into modern enforcement

In the decades after the Twenty-Eight Hour Law's enactment, enforcement was common. In an 11-year stretch following a 1906 update of the law, the USDA reported more than 800 violations a year. As fewer animals were transported via rail, fewer violations were reported—falling to less than 100 a year by 1976. Long-distance transport of animals, meanwhile, continues apace: In 2023 alone, 64 million pigs and 21 million cattle were moved interstate for purposes other than slaughter. None of these shipments were officially monitored for compliance with the Twenty-Eight Hour Law. In fact, there is no official effort to compile data on transport durations.

Information gleaned from state certificates of veterinary inspection (CVIs), however, suggests travel beyond 28 hours is still common. In a review of over 3,500 CVIs for cattle leaving Florida in 2023, for instance, AWI identified 173 shipments, involving over 30,000 total animals, that likely exceeded this timeframe. A review of calf shipments in 2022 from six states revealed that nearly 123,000 calves under 1 month old may have been confined beyond 28 hours without food, water, or rest. Given these and other examples, it seems evident that the practice Congress meant to curtail over a century ago has not stopped, even as the pursuit of penalties for violations essentially has.

AWI submitted over a dozen Freedom of Information Act (FOIA) requests to APHIS, the Justice Department's Environment and Natural Resources Division (ENRD), and the Department of Transportation's Federal Motor Carrier Safety Administration and its Office of Inspector General seeking documentation of enforcement from 2006 through 2023. Neither DOT entity provided records responsive to AWI's requests, and DOT guidance and websites make no mention of the Twenty-Eight Hour Law; we have seen no evidence that the department is assuming an active role in enforcement. Meanwhile, the ENRD's minimal and heavily redacted records suggest that the DOJ hasn't pursued penalties in the last 20 years, and a search of federal district court dockets for mention of the law during this period returned no results. The records do show, however, one case referred by APHIS to the ENRD (of which there is no further record) and an unrelated scheduled meeting between ENRD and APHIS staff concerning the Twenty-Eight Hour Law.

APHIS's Investigation and Enforcement Services (IES), by contrast, provided hundreds of pages documenting USDA investigations into possible violations of the Twenty-Eight Hour Law. The totality of records received (and one found independently by AWI), however, point to only 20 such investigations conducted between 2006 and 2023, while revealing much about the state of modern enforcement:

Scant monitoring: Most investigations were initiated by emergency incidents of extreme weather or public complaints. Since the 2011 directive, FSIS inspectors have reported five

PHOTOS BY WE ANIMALS

potential violations, only two of which appear to be based on directly observing signs of animal distress. As noted above, inspectors are to make inquiries about the journey if the animals appear exhausted or dehydrated. This detection system depends heavily on the inspector's subjective judgment. More importantly, inspectors don't even observe unloading unless performing specific humane inspection tasks. In fact, the records received suggest that inspectors may only watch truck unloading for a short time once every few weeks.

Incomplete travel documentation: Livestock haulers are exempt from the requirement to use electronic logging devices (ELDs) to document hours of service and do not maintain paper records of travel time, rest stops, or mileage beyond a few months. Industry shipping forms can be incomplete or inaccurate, and investigators often rely on long-after-the-fact interviews and mapping tools to estimate trip duration—methods prone to delay and ambiguity.

Poor follow-through: In multiple cases, investigations were closed due to "insufficient evidence," even when drivers admitted to noncompliance or when mortality rates or seal data pointed to violations. Moreover, some investigations took months to complete, during which key evidence was lost or forgotten.

USDA's muddled view of its authority under the law: In at least 12 of the 20 investigations, there was evidence the animals endured 28 hours or more of transport without being unloaded. Yet only one case was referred to the DOJ. Four others resulted in "official warnings" issued by the USDA threatening penalties (that it arguably doesn't have the authority to assess). Furthermore, in multiple cases involving Canadian transport companies, USDA officials concluded they lacked any authority to act—despite no known exemption to US laws for foreign entities operating within the United States.

A transportation system that has changed and a law that hasn't

In sum, it appears that government agencies have failed to adapt to the modernization of animal transport and failed to invest in the infrastructure needed to detect and prove violations. In truth, comprehensive legislation to address inhumane transport conditions is needed. Short of this, however, steps can be taken to restore some meaning to the existing Twenty-Eight Hour Law.

For one thing, USDA oversight should be strengthened. FSIS inspectors should be required to verify compliance more frequently during unloading at slaughter plants. VS should update border protocols to require and verify compliance for all animals entering or exiting the United States. APHIS should standardize documentation, require trip records, and refer all substantiated violations to the DOJ.

In addition, Congress should pass legislation incorporating an explicit enforcement mechanism into the Twenty-Eight Hour Law. This could include (1) requiring the DOT to monitor compliance with the law at the roadside checks it already routinely performs, and (2) removing the ELD exemption for animal haulers. These reforms involve actions and technologies already in use to monitor compliance with other transportation rules. They could readily be used to monitor compliance with the Twenty-Eight Hour law as well.

Toward this goal, Rep. Dina Titus (D-NV) worked with AWI last year to introduce the Humane Transport of Farmed Animals Act (HR 8699). This bill would require the DOT and the USDA to create mechanisms such as those outlined above for investigating transport violations—including inspections and audits of records—a major step toward developing a consistent and effective approach to monitoring and enforcing the Twenty-Eight Hour Law and ending the constructive nullification of one of the very few statutes Congress has passed to protect farmed animal health and welfare.

ANSELM

"Humanely raised" on food labels might invoke pastoral scenes like this, yet the USDA allows producers to make such claims even when animals are raised in industrial settings.

LAX LABEL CLAIM OVERSIGHT UNDERMINES CONSUMER EXPECTATIONS

AWI has commissioned several surveys over the past 15 years regarding consumer attitudes about animal-raising claims on meat and poultry packaging. In most, including the most recent survey conducted earlier this year, the overwhelming majority of respondents agreed that food producers should not be allowed to use the claim "humanely raised" on meat or poultry product labels unless their animal care standards exceed minimum industry standards. Results also show that most consumers expect "humanely raised" claims to be meaningful, measurable, and verifiable.

Unfortunately, animal care standards associated with "humanely raised" claims often do not align with these expectations. Under US Department of Agriculture labeling guidelines, producers are allowed to claim their animals were "humanely raised" based on their own declared definition of the term. Regarding this and similar claims, producers are merely "strongly encouraged" to obtain third-party certification to verify that they meet meaningful care standards.

In some cases, producers define "humanely raised" simply as "vegetarian fed," which has no relevance to whether the animals were raised, transported, or slaughtered in ways that minimized suffering or provided opportunities in life to express natural behaviors. In our latest survey, four in five Americans agreed that holistic animal raising claims such as "humanely raised" should not be defined by a single factor such as "vegetarian fed."

AWI is working to expose labeling practices that essentially amount to "humane washing"—misleading consumers by suggesting animals raised for food were treated humanely when they were not. To learn more about the USDA's failure to prevent humane washing, see the AWI report *Deceptive Consumer Labels*. And to make informed decisions when seeking higher-welfare animal products (as well as reliably cruelty-free plant-based options), consult our *Consumer's Guide to Food Labels and Animal Welfare*.

EGG PRODUCER LOSES 6 MILLION HENS TO BIRD FLU

In May, Hickman's Family Farms—a major US egg company—announced the loss of a staggering 95 percent of its chicken flock after highly pathogenic avian influenza (bird flu) swept through several of its farms in Arizona. To prevent further disease spread, approximately 6 million birds were reportedly killed, the majority of whom were being raised within massive industrial facilities—the largest of which, according to US Department of Agriculture data, housed over 2.25 million chickens at a site in Maricopa County. On operations of this size, flocks are typically "depopulated" using an extremely cruel method known as ventilation shutdown plus heat (VSD+), which slowly induces heatstroke.

The animal welfare and economic disasters that bird flu has unleashed on the US poultry and egg industries, which have lost nearly 175 million birds since the start of the outbreak in 2022—make a very strong case for placing restrictions on flock sizes within any one facility and requiring proper emergency planning.

Bird flu is not the only thing that has recently wrought devastation at Hickman's Family Farms facilities—the company has also experienced three massive fires over the past six years. The first occurred in 2019 in a large empty structure just before it was stocked, followed by another fire in 2021 that reportedly killed over 165,000 hens, and another in 2024 that destroyed a multistory structure in which many hens were presumably killed, though the number of deaths was never released.

ADMINISTRATION TAKES AIM AT CALIFORNIA ANIMAL WELFARE LAW

The Department of Justice filed a lawsuit against the state of California in July, alleging that a combination of its "voter initiatives, legislative enactments, and regulations" have contributed to higher egg prices. In particular, the legal challenge singles out California's Proposition 12 (passed by nearly 63 percent of the state's voters in 2018), which prohibits the in-state sale of eggs from hens kept in cages or enclosures that do not comply with specific space requirements. The suit follows threats made by Secretary of Agriculture Brooke Rollins in a *Wall Street Journal* opinion piece in February that the Trump administration would seek to "remove unnecessary regulatory burdens on egg producers where possible."

The lawsuit does not mention the effect on egg prices of the ongoing outbreak of highly pathogenic avian influenza (aka bird flu; see previous page) that has resulted in the destruction of tens of millions of egg-laying hens since 2022 and, in turn, caused a significant decrease in the nation's egg supply. Indeed, the June update to the USDA's *Food Price Outlook*—published just two weeks before the lawsuit was filed—continued to indicate that bird flu "contributes to elevated egg prices by reducing egg-layer flocks and egg production." (What this official forecast fails to mention is that the outbreak is arguably exacerbated by a *lack* of proper regulation concerning the crowded conditions at egg mega-farms: see *AWI Quarterly*, spring 2025.)

The DOJ's complaint also makes no mention of the recent US Supreme Court decision rejecting a claim by the National Pork Producers Council that Proposition 12 imposed an unconstitutional burden on interstate trade. The administration is arguing instead that the state law, as it pertains to eggs, is preempted by the federal Egg Products Inspection Act, which governs federal egg inspection and food safety standards for eggs. How the courts will ultimately decide the case remains an open question. Another question is whether this latest attack on a voter-approved farmed animal welfare law is motivated primarily by concern for the pocketbooks of those voters or by a desire to line the deeper pockets of out-of-state industrial agriculture operations.

SEVENTYFOUR

The Trump administration is seeking to overturn California's voter-approved Proposition 12 so factory-farmed eggs can once again be sold in the state.

FENDING OFF OCTOPUS AND MARINE FISH FACTORY FARMS

A pair of bipartisan bills currently before Congress would protect octopuses, finfish, and marine ecosystems from the animal welfare and environmental ills of marine factory farms in the United States. In April, Sens. Cory Booker (D-NJ) and Dan Sullivan (R-AK) reintroduced the Keep Finfish Free Act to prohibit federal agencies from issuing permits for commercial finfish farming in federal marine waters. In June, Sens. Sheldon Whitehouse (D-RI) and Lisa Murkowski (R-AK) reintroduced the Opposing the Cultivation and Trade of Octopus Produced through Unethical Strategies (OCTOPUS) Act, which would prohibit domestic octopus aquaculture operations and forbid imports of commercially farmed octopus or octopus products. If passed, this bill would prevent the nascent commercial octopus farming industry (see *AWI Quarterly*, summer 2025) from taking hold in the United States and send a strong signal to overseas operators seeking to profit from octopus farming that octopuses belong in the ocean, not on inherently inhumane factory farms. Take action at *awionline.org/octopus*.

ALEXANDRA ALBERG

AWI's Nancy Blaney: Tenacious in Making Government Work for Animals

On any given day, you'll find Nancy Blaney, AWI's director of government affairs, sprinting through the halls of Congress, camped out at a committee hearing, and/or intercepting a potential ally at a reception to bend an ear. It's never been an easy job. Early in her career, Nancy traveled to her home state of Pennsylvania to testify at a state House committee hearing in support of an exotic pet ban. After addressing the serious animal welfare and public safety concerns with keeping tigers and chimpanzees in private homes, Nancy decided to go off script. She urged the state to also ban barbaric steel-jaw leghold traps, which threaten wildlife, humans, and pets. "Well, little lady," bristled the chairman, "you were doing fine up until then."

A voice for the vulnerable

Growing up in Bucks County, Pennsylvania, Nancy was, in her telling, "always one for rescuing something—usually things that really didn't need to be rescued." While attending an all-girl Catholic high school, she refused to dissect a crayfish—an uncommon moral position in the late 1960s—explaining that it was unnecessary "at the high school level to require that animals be taken apart."

After studying government and politics at the University of Maryland, Nancy arrived on Capitol Hill in 1977 as the first woman to work in the US House of Representatives documents room, where she typed up bill summaries on index cards. Following that, she was a legislative assistant for Rep. Allen Ertel (D-PA). Nancy would go on to assume various roles at major animal protection organizations, including documenting animal mistreatment at roadside zoos for the Humane Society of the United States, advocating protections for captive elephants on behalf of the Performing Animal Welfare Society, and overseeing national legislative affairs for the ASPCA. In 2007, she joined the staff at AWI.

While consulting for the Doris Day Animal League, Nancy (an avowed grammar nerd) pointed out a drafting error in the 2002 Helms Amendment to the Animal Welfare Act (AWA). The amendment had intended to exclude from the law's protections rats and mice used in research, as well as *all* birds. However, due to an errant comma in the final, enacted legislation, birds in the pet trade had not been excluded. "We had a meeting at the US Department

of Agriculture where I brought this up," Nancy recalls. "You could see them blanche." Eventually, the USDA issued regulations outlining AWA protections for these birds. (See *AWI Quarterly*, spring 2023.)

AWA coverage and enforcement, in fact, has long been a thorn in Nancy's paw. She once told a meeting of USDA administrators that the department "treats license holders as if they are the clients. They're not. This is the Animal Welfare Act, not the License Holder Welfare Act." The Animal Welfare Enforcement Improvement Act, a bill AWI supports, would end the USDA's practice of issuing licenses to dealers and exhibitors who chronically fail to comply with the law's minimum welfare standards.

Nancy currently co-chairs the Animal Cruelty Advisory Committee of the Association of Prosecuting Attorneys and serves on several other law enforcement advisory boards. Since 2009, she has helped shape AWI's efforts to educate a multitude of prosecutors, police officers, veterinarians, social workers, and others on the link between animal cruelty and a host of crimes involving interpersonal violence.

As a result, AWI has successfully fought for millions of dollars in federal grants to bolster shelter options for domestic violence survivors seeking safety for themselves and their pets and has created state-specific manuals to guide advocates and attorneys in how to include pets in domestic violence protection order.

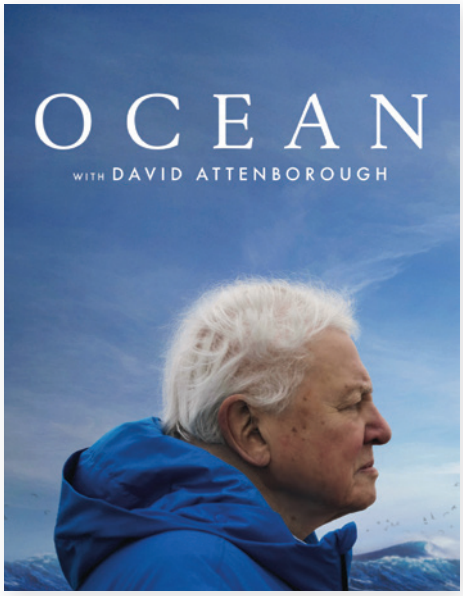
Navigating a politically fractured climate

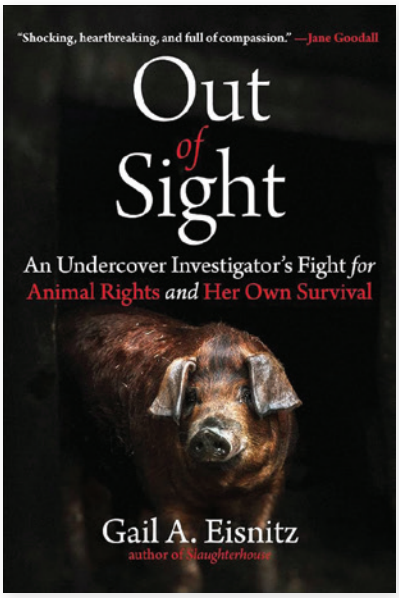
A self-described "belt-and-suspenders gal," Nancy believes in pursuing more than one political path to achieve AWI's objectives. Although animal-friendly legislation often attracts bipartisan support, enacting strong standalone bills can prove difficult amid competing priorities. Occasionally, her team and their allies will secure a major standalone win, such as the 2022 Big Cat Public Safety Act, which ended the dangerous trade in pet big cats. Far more often, however, they will persuade lawmakers to insert language into existing appropriations or other priority bills to achieve important aims, such as AWI's success in getting language added to withhold funding for the licensing of "Class B" dealers who acquire cats and dog from random sources and sell them to labs for experimentation—a measure that effectively shuts these historically shady dealers down.

"If you're measuring progress only by standalone bills getting passed, you're not seeing the big picture," says Nancy. "All of this is education and raising awareness and an imperceptible change in thinking. It's a vastly different place from when I started." Much of the work today, sadly, also involves defending long-standing animal protection laws from unprecedented attacks. "Advocacy work can be distressing, humbling, and discouraging," observes Kate Dylewsky, assistant director of government affairs at AWI, "but Nancy has the remarkable ability to regroup after every setback and never give up."

Nancy and her husband share space at their Virginia home with rescue cats Earl and Julius, "frenemies" who have yet to destroy her vast collection of Wedgwood china. "After all these years, I have found that wrangling cats at home is good practice for all the wrangling that goes into my job!"

Top: Nancy and AWI's Cathy Liss (at right) with Colleen Carroll, Esq., from the USDA Office of the General Counsel, at a 2016 Capitol Hill event commemorating 50 years of the AWA. Bottom: Nancy at a congressional briefing on the Pet and Women Safety Act. Photos by Alexandra Alberg.





OCEAN WITH DAVID ATTENBOROUGH

2025 / National Geographic Society and Altitude Film Distribution / 1h 35m

In *Ocean with David Attenborough*, the legendary naturalist (who turned 99 in May) takes the viewer on a breathtaking tour of Earth's marine ecosystems, from the coastal seas and kelp forests to sea grass meadows, sea mounts, and the open ocean. The documentary is full of interesting facts (e.g., around 2,000 new marine species are discovered every year) as it addresses multiple important themes and delivers several timely messages.

A primary theme of the film involves the interplay between fisheries and ocean health. Approximately 3 billion people rely on the ocean for food, yet large fleets from a few wealthy nations are overfishing to the detriment of coastal communities. Today, residents of "small island developing states" are often pulling plastic from the seas rather than fish—the food source they have relied on for millennia. Attenborough dubs this "modern colonialism at sea" and notes that, while we used to fish in just a few nearshore locations to feed nearby communities, now we fish everywhere, all the time.

Every year, bottom trawlers dragging enormous nets anchored to chains or metal beams scour an area of the seabed almost the size of the entire Amazon rainforest. They indiscriminately scoop up whatever crosses their path and leave behind a trail of utter destruction. Typically, the trawlers are after a single species, and over 75 percent of what is hauled aboard is discarded as bycatch.

Attenborough clearly conveys the message that protecting our oceans does not require being against fishing. Healthy fisheries and conservation can coexist—in fact, fisheries *depend* on conservation to remain viable. This concept leads to a second theme: the importance of balanced ecosystems. As we have seen following the overhunting of apex predators such as sharks and sea otters, when you remove a significant element of an ecosystem, it can fall out of balance and collapse. Conversely, when left alone, ocean ecosystems rebound and thrive. However, despite nearly every country having agreed to protect 30 percent of the ocean by 2030, currently less than 3 percent of it is fully protected.

A third theme covers just how vital our oceans are to the fight against climate change. While bottom trawling releases carbon dioxide into the atmosphere, marine plant life does just the opposite. Ocean jungles and meadows remove far more carbon from the atmosphere than equivalent areas of rainforest on land. Phytoplankton, which flourish in coastal waters, absorb almost one-third of global carbon emissions and produce more oxygen than all the trees on Earth combined, equating to half of the air we breathe. All in all, the key takeaway from the film is this: "if we save the sea, we save our world."

THIS DOG WILL CHANGE YOUR LIFE

Elias Weiss Friedman and Ben Greenman / Ballantine Books / 270 pages

Elias Weiss Friedman—creator of the wildly popular social media brand, The Dogist—begins *This Dog Will Change Your Life* by describing how his Labrador retriever, Oreo, saved his life when he was a toddler by herding him back on the sidewalk after he got lost in the neighborhood. The book, written with former *New Yorker* editor Ben Greenman, also explores the myriad not-so-dramatic ways that dogs enhance our lives—teaching us about personal identity, relationships, purpose, and the importance of taking a breather ("a place to… paws," as Weiss Freidman puts it).

After being downsized from a marketing job, Weiss Friedman started The Dogist on Instagram in 2013, snapping photographs of delightful pooches on the streets of Manhattan with blurbs about what makes them tick (e.g., Asta, a Kerry blue terrier, enjoys skateboards and stinky cheese). Today, the "dogumentarian" boasts more than 10 million followers across online platforms and is a regular photographer at the Westminster Kennel Club Dog Show and the Puppy Bowl.

Diehard Dogist fans will likely appreciate the collection of personal and professional vignettes in *This Dog Will Change Your Life*. (Readers expecting adorable images of dogs, however, will have to pick up the author's other two books: *The Dogist: Photographic Encounters with 1,000 Dogs* and *The Dogist Puppies*.) This book can feel disjointed and even jarring at times—jumping from veterinarian suicide rates, to the merits of search-and-rescue dogs, to a quail hunt in which Weiss Friedman happily participated. Overall, though, the book is about how dogs make *us* better. "We can say for certain that there would have been no dogs without humans," Weiss Friedman observes. "But there might also have been no humanity without dogs."

OUT OF SIGHT

Gail A. Eisnitz / Skyhorse Publishing / 250 pages

In Gail Eisnitz's memoir, *Out of Sight: An Undercover Investigator's Fight for Animal Rights and Her Own Survival*, she recounts a 40-year career working to understand and expose the gruesome truth about the unconscionable ways millions of cattle, pigs, chickens, and other farmed species are raised and killed in factory farms and slaughter plants across the United States each year.

Eisnitz is the long-serving chief investigator for the Humane Farming Association. She has worked with whistleblowers and major news outlets to shine a national spotlight on multiple instances of egregious cruelty—particularly in slaughterhouses. Her efforts have been instrumental in securing some of the few criminal charges and convictions ever obtained for farmed animal mistreatment—including in a case involving workers at an Ohio farm using chains and front-end loaders to hang and slowly strangle to death sick and injured breeding sows.

Out of Sight is a testament to Eisnitz's decades-long mission to make publicly visible—and hold bad actors accountable for—cruelty that so often is carefully concealed behind barn and abattoir walls. At times intensely personal, the book also describes Eisnitz's struggles with baffling and increasingly debilitating health conditions, which she must somehow overcome even as she contends with the meat industry—one of the nation's most powerful political and economic forces.

Among her many accolades, Eisnitz was the 2004 recipient of AWI's Schweitzer Medal for outstanding achievement in the advancement of animal welfare. Two decades later, Eisnitz is still at it, and with *Out of Sight* has given us an inspiring and instructive account of the playbook she honed and repeatedly employed to pull back the curtain on farmed animal injustice.

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AWI'S CHRISTINE STEVENS WILDLIFE AWARD RECIPIENTS FOR 2025

The Christine Stevens Wildlife Award—named in honor of AWI's late founder and president for over 50 years—provides grants of up to $15,000 to help fund innovative strategies for humane, nonlethal wildlife conflict management and study. This year, over 40 applications were submitted encompassing species ranging from bees to beaked whales and issues such as mitigating light pollution harm to pollinators, using contraceptives to humanely reduce urban rat populations, and assessing the impact of livestock pathogens on bighorn sheep. Of these, the following eight projects were chosen to receive awards:

Mr. Nate Denke, University of Washington: using bioacoustics to examine the impact of recreational activities on sensitive birds.

Dr. Lorenzo Fiori, Texas A&M University–Corpus Christi: using drones to assess the nutritional conditions of dolphins who interact with fishing trawlers.

Rushil Kukreja, Thomas Jefferson High School for Science and Technology: assessing the impact of light pollution on pollinators via high-speed cameras and acoustic devices.

Dr. Maureen H. Murray, Lincoln Park Zoo: assessing the efficacy of contraceptive food pellets to nonlethally reduce an urban rat population.

Dr. Nico(la) Ransome, La Orca de Sayulita/Murdoch University: collecting beaked whale DNA via noninvasive tools to assess species presence in the Islas Marias UNESCO Biosphere Reserve in Mexico.

Dr. Ronnie Serfa Juan, USDA-Agricultural Research Service Center for Grain and Animal Health Research: humanely deterring birds around aquaculture facilities via AI-driven, nonlethal tactics.

Dr. Logan Thomas, Kansas State University: collecting hair samples from javelina via noninvasive camera-monitored hair snares to assess drivers of javelina-human conflicts.

Ms. Jasime Veitch, University of Calgary: performing genetic analysis on bighorn sheep fecal samples to examine the microbial transmission of pathogens at the wildlife-livestock interface.