

AWI Quarterly

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A MESSAGE FROM THE PRESIDENT

2021 Brings Brighter Outlook for Animals

As we approach the end of the year, AWI is continuing to hold the line for animals. We look forward to 2021 and are eager to work with the new administration to secure a course correction of the anti-animal agenda endured over the past four years and to continue making progress via laws, regulations, and policies that benefit animals and the environments in which they live.

I am pleased to report that both President-elect Biden and Vice President-elect Kamala Harris have demonstrated a commitment to protecting animals during their time in Congress. During his six terms in the Senate, Biden sponsored or cosponsored an array of animal welfare bills, including measures to prevent the slaughter of horses for human

consumption abroad, end the sale of random source dogs and cats to research laboratories, prohibit the trophy hunting of captive exotic animals, end the brutal treatment of downed livestock, and strengthen restrictions on animal fighting. Biden's voting record and repeated public statements reflect his determination to protect the Arctic National Wildlife Refuge and his recognition of the urgent need to act on climate change.

During her term in the Senate, Harris cosponsored a number of bills to benefit animals, including ones to crack down on soring of Tennessee walking horses, prohibit trade in shark fins, conserve and restore wildlife habitat, prohibit the race-day doping of thoroughbreds, and combat wildlife trafficking and the exotic animal pet trade. While serving as attorney general in California, Harris repeatedly and successfully defended numerous state laws to improve the welfare of farm animals from industry challenges.

Our nation will need to confront a plethora of issues in the new year, but our task, with your help, will be to ensure that the incoming administration and Congress provide animals with the protections they deserve. 🐾

— Cathy Liss

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ABOUT THE COVER

The spotlight this issue is on two wolf species—the red wolf (shown on the cover) and the gray wolf. AWI is suing the US Fish and Wildlife Service (USFWS) for grossly mismanaging its Red Wolf Recovery Program (page 14). Meanwhile, the USFWS has lifted protections under the Endangered Species Act for gray wolves, leaving them at the mercy of state managers (page 16). Two projects funded through our Christine Stevens Wildlife Award program seek to ease human-wolf conflicts through noninvasive study of wolf behavior and deployment of nonlethal methods to prevent wolf predation on livestock (pages 12 and 13). Photograph by Mark Newman.

Humans activities are having devastating impacts on ocean habitats and driving many cetacean species—including North Atlantic right whales (shown here)—toward extinction.

SCIENTISTS WARN OF CETACEAN EXTINCTION

In an unprecedented statement, 361 cetacean scientists, including AWI's Dr. Naomi Rose, have signed an open letter expressing grave concern about the risk of extinction of many species and populations of cetaceans due to entanglement in fishing gear, chemical and noise pollution, loss of habitat and prey, climate change, and ship strikes.

The letter warns that many cetaceans, "one after another, will likely be declared extinct within our lifetimes," and bemoans the lack of concrete action to address these human-caused threats "in our increasingly busy, polluted, over-exploited and human-dominated seas and major river systems."

Two critically endangered species—the North Atlantic right whale, with a population in the low hundreds, and the vaquita of Mexico's Gulf of California, which could number as few as 10 individuals, are on a trajectory to follow the Chinese river dolphin "down the road to extinction."

Of the 90 living species of cetaceans, the International Union for Conservation of Nature (IUCN) considers more than half to have a troubling conservation status, with 13 species listed as "Critically Endangered" or "Endangered," seven as "Vulnerable," and seven as "Near Threatened." Twenty-four additional species, listed by the IUCN as "Data Deficient," may also be imperiled.

The scientists call on nations to take precautionary action to protect cetaceans from human activities and strengthen international organizations that can address the



FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION, NOAA

threats they face. The scientists note that cetaceans are sentinels of the aquatic world's health, and their well-being is linked to our own.

OFFICIAL DECREE WOULD MAKE FRANCE DOLPHINARIUM-FREE

In 2017, France's minister of ecology issued a decree phasing out the captive display of cetaceans through a breeding and trade ban. Decrees in France are similar to executive orders in the United States and can, under certain circumstances, carry the force of law. However, this decree was suspended soon after, under challenge from French dolphinariums. A bill to change the law was introduced in the French Parliament this past summer, but failed to pass when the current minister of ecology announced her intent to issue a new decree. This decree would go further than the previous one; it would institute a time limit to end the captive display of cetaceans altogether: two years for orcas and seven to 10 years for bottlenose dolphins (the only two species held in the country). In short, the four orcas

and 27 dolphins currently displayed at three different facilities would need to be transferred out of the country within those time frames. It is presently unclear when the decree will be officially issued or where the cetaceans would go, but the ministry has indicated sanctuaries are an option being considered.

BELUGAS PROSPER IN PIONEERING CETACEAN SANCTUARY

Little White and Little Grey, two young belugas originally captured from Russia's Okhotsk Sea and held in a dolphinarium in Shanghai, China, for a decade, are now the first residents in the world's first cetacean seaside sanctuary, in Vestmannaeyjar, Iceland (see *AWI Quarterly*, fall 2020). In September, they were allowed out of the sea pen where they had been acclimating and into the larger bay area (which is netted off at its mouth) for the first time. They have been active, curious, and doing well, setting the stage for additional sanctuaries sheltering additional species in the future.

DEATH AT SEAWORLD BOOK SLATED FOR SMALL SCREEN SERIES

Death at SeaWorld: Shamu and the Dark Side of Killer Whales in Captivity, by journalist David Kirby, is a 2012 book that examines the killing of SeaWorld trainer Dawn Brancheau by the orca Tilikum. The book has now been optioned by the United Kingdom's Castlefield TV to produce a 10-episode "true-to-life" series, with a target start date for production in late 2021. The series will reflect the narrative of the book, focusing on the investigation that led to SeaWorld being cited by the Occupational Safety and Health Administration and to the end of trainers working in the water with the whales. The book also highlights the life and career of Dr. Naomi Rose, AWI's marine mammal scientist. At this early stage in its development, Castlefield is working to secure a broadcaster for the series.

PROTECTING MARINE MAMMALS IN THE CARIBBEAN

AWI participated as an invited expert in the fourth series of meetings of the Caribbean Marine Mammals Preservation Network (CARI'MAM) in October and November. This year's meetings were held virtually. CARI'MAM comprises marine mammal stakeholders and experts in the Wider Caribbean. At least 37 species of marine mammals call the Wider Caribbean home, and CARI'MAM provides countries with a way to share information, combine resources, and cooperate on marine mammal conservation issues.

The meetings included sessions on "knowledge acquisition and scientific monitoring," "threats, protection, and awareness raising," and "marine

mammal watching." The latter session included a presentation by the International Whaling Commission on its impressive online *Whale Watching Handbook*. The handbook is available in English, French, and Spanish and is for operators, whale watchers, and regulators. The presentation was timely, as whale watching is a growing industry in the Wider Caribbean.

ILL-CONCEIVED COLUMBIA RIVER SEA LION CULL COMMENCES

On August 14, the National Marine Fisheries Service (NMFS) issued a permit to Oregon, Washington, and Idaho, as well as several tribal entities, to kill up to 540 California sea lions and 176 Steller sea lions over the next five years within the Columbia River basin. This cull is meant to protect endangered salmon from predation, but any sea lion sighted up the Columbia River and its tributaries is now a target, even if they do not eat any salmon. AWI has opposed this killing program

from the outset—like most predator-control programs, it is likely to fail in its objectives. However, a bill was rushed through Congress in 2018 to amend the Marine Mammal Protection Act to allow this indiscriminate cull, and AWI has heard that the permit holders started killing sea lions in late 2020. We will monitor the program and hope that we can undo this misguided and inhumane decision in the next Congress. Despite this politically expedient removal of sea lions, salmon will likely continue their downward spiral, because their true threats remain: dams on spawning rivers, habitat degradation, and unsustainable human fisheries that have been restricted but not eliminated.

To save salmon in the Columbia River basin, authorities have chosen to scapegoat sea lions while virtually ignoring the primary drivers of salmon decline: dams, overfishing, and habitat degradation.



BOUKE ATEWA

Aquarium's Beluga Acquisition Comes with Restrictions

In October 2019, the National Marine Fisheries Service (NMFS) indicated it had received a permit application from Mystic Aquarium to import five captive-born beluga whales from MarineLand in Canada, for the purposes of scientific research. Two elements of this application are potentially precedent setting. First, these belugas are captive-bred offspring of whales caught from the wild in Russia, from the Sakhalin Bay-Amur River population that was designated as depleted under the Marine Mammal Protection Act in 2016 (see *AWI Quarterly*, summer 2016). Second, while it is legal to import members of a population designated as depleted for research, it is illegal to import them for public display. Mystic has no dedicated research facilities—all of its belugas are on display, even when used for research.

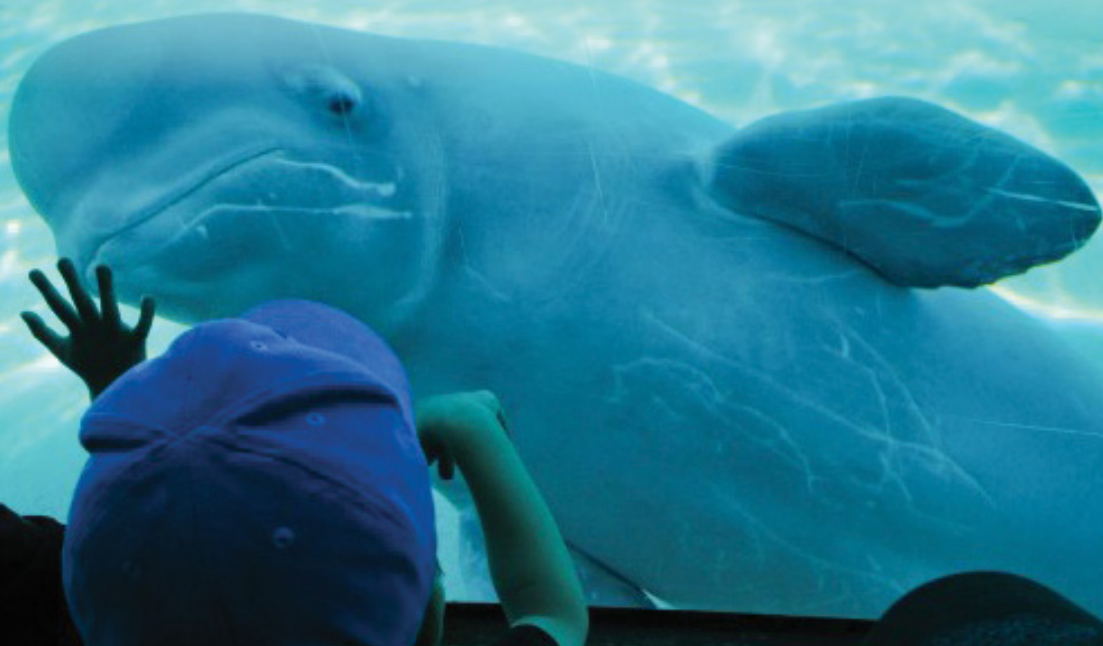
Other depleted marine mammals have been held for research with “incidental” public display in the United States, but they were already in the country (rescued from the wild or born in US facilities). The international trade element of this situation is relevant: If the United States became a market for Russian belugas or their offspring, the incentive to continue captures in the wild would increase.

Mystic stated clearly that it would allow these whales to breed, and if any pregnancies, births, or calves result from this laissez-faire attitude, it would conduct reproductive research. However, Mystic was quite murky about what would become of the whales after the research. It hinted in its application that any calves, as well as the five imported whales, might

eventually be placed on permanent public display at Mystic or other facilities such as Georgia Aquarium.

This would be illegal. AWI and other organizations pointed this out and made other arguments against the import in comments submitted to the government, urging NMFS to deny the request. Pragmatically, however, we also emphasized that *if* a permit was issued, it must contain three conditions: First, no breeding—the reproductive study proposed must be disallowed and contraception must be practiced. Second, no performance—“incidental” display is far from ideal, but certainly there should be no public interactions or shows. Finally, all decisions regarding what happens to these whales during and after the five-year period of the permit should be made by NMFS, not the permit holder.

AWI and allies were prepared to go to court had the permit been issued without these conditions. There are other reasons why this permit is problematic, but these prohibitions would at least prevent the government from setting an entirely negative precedent. Therefore, when NMFS did issue the permit at the end of August, we were gratified to see that it included all three conditions. We are following up with the agency regarding the other elements of concern, but feel that the strong permit conditions make the belugas' import more a simple change of residence than an international trade precedent with broadly negative consequences. We will remain vigilant to future efforts to move Russian belugas and their offspring across international borders as we seek to ensure that the United States never becomes a market for their commercial trade. 🐾





IWC Conservation Committee's Virtual Meeting Produces Positive Outcomes

The COVID-19 pandemic has disrupted the meeting schedules of many international conventions, with most in-person meetings canceled or postponed (see *AWI Quarterly*, fall 2020). The biennial meeting of the International Whaling Commission (IWC) was among the casualties. Scheduled for September 2020 in Slovenia, it has now been postponed a full year.

Despite this setback, the IWC's secretariat adapted nimbly to new ways of doing global business. In the spring, it pivoted to host the annual meeting of its Scientific Committee as an all-online event, enabling the participation of almost 350 scientists, many of whom would not otherwise have been able to attend a traditional, in-person meeting.

The lessons learned from the virtual Scientific Committee meeting recently benefited the IWC's Conservation Committee, which had been scheduled to meet during the biennial IWC meeting. Instead, a week of daily Zoom sessions and online discussions in writing were held, carefully timed to accommodate participants in every time zone. The virtual format enabled AWI and colleagues from 20 other animal protection and conservation organizations to work alongside representatives of 30 governments. We were able to contribute substantively to every agenda item, including the workplan of the IWC's bycatch mitigation initiative, principles for whale watching, future work on

marine debris, a new initiative for South American river dolphins, and ensuring the secretariat has adequate resources to implement the workplan.

The Conservation Committee is a smaller subsidiary body than the Scientific Committee, the latter of which was established in the 1940s, meets for approximately two weeks every year, and regularly attracts 200 participants. The Conservation Committee is, however, no less important. Its role and importance are likely to increase, in fact, as the IWC considers making structural changes to increase its efficiency. The Conservation Committee was created in 2004 to ensure that the research and recommendations of the Scientific Committee are translated into meaningful conservation measures that will reduce or eliminate threats to cetaceans, including from bycatch in fishing gear, marine debris, vessel strikes, and climate change. As those threats have magnified in recent years, the Conservation Committee's strategic plan and workload have grown significantly, to include several species-specific (and soon, region-specific) conservation management plans, two well-established mitigation initiatives (focused on bycatch and vessel strikes), and a new effort to assess the socio-economic contributions of cetaceans to ecosystem functioning.

Although most of the Conservation Committee's substantive work is conducted intersessionally between the biennial IWC meetings, a one-day meeting of the full committee neither does justice to the growing urgency of the issues it addresses nor keeps pace with its increasing workload. AWI believes that the need for an annual Conservation Committee meeting has been clearly established. Although we do not want to relegate the committee to only virtual meetings in the future, we hope that the positive experience—and low financial and environmental cost—of the 2020 virtual Conservation Committee meeting will lead to greater use of modern technology to facilitate IWC deliberations. In particular, we urge consideration of a hybrid model (some participants in person, some online) that ensures transparency and provides equitable access to all member nations and observer organizations. 🐬

MEATPACKERS FINED FOR FAILING TO PROTECT WORKERS

As of November, over 50,000 workers at meat and poultry slaughter facilities had been infected with COVID-19. The Occupational Safety and Health Administration has determined that the spread of COVID-19 at some facilities is largely a result of meatpacking plants not acting quickly to implement measures such as social distancing, physical barriers, face shields, and face coverings. So far, OSHA has fined Smithfield Foods and JBS Foods (operating as Swift Beef Company) for failing to protect employees at four facilities in the Midwest. State regulators have also taken action. In November, OSHA administrators in California fined Smithfield and its contractor over \$100,000 for COVID-related violations at its Vernon, California, facility. However, it is doubtful that the fines, which amount to less than \$150,000 for all five facilities combined, will motivate organizational change. These major corporations may just chalk it up as the cost of doing business.

FAST GROWTH LEADS TO POOR WELFARE FOR CHICKENS

Over the past several decades, the poultry industry has used selective breeding to double the average market weight of chickens raised for meat while cutting nearly in half the amount of time it takes for birds to reach market weight. Researchers at the University of Guelph in Ontario, Canada, recently released a groundbreaking multidisciplinary study that examines how this practice of accelerated growth affects the health and welfare of chickens.

This new research—partially funded by the nonprofit organization Global Animal Partnership (G.A.P.)—assessed

the health and welfare of 7,500 chickens of 16 different genetic strains, using indicators such as behavior, physiology, and anatomy, among others. According to the study's summary, chickens with fast growth rates and high breast yields suffer from poor welfare outcomes, including “lower activity levels, poorer indicators of mobility, poorer foot and hock health, higher biochemical markers of muscle damage, higher rates of muscle myopathies, and potentially inadequate organ development.” A working group of experts will use the results of the study to determine which chicken breeds will be allowed under G.A.P.'s welfare-rating program, with potential to impact the lives of up to 300 million chickens annually raised for meat in accordance with the program's standards.

AWI UPDATES FOOD LABEL GUIDE

AWI has updated *A Consumer's Guide to Food Labels and Animal Welfare* to help shoppers make food choices with animal welfare in mind. The changes include our assessment of two new labels, One Health Certified

and Organic Plus Trust (OPT) Certified Grass-Fed Organic.

The One Health Certified label, which can be found on certain poultry products, has been placed in AWI's “beware” category. Despite presenting an image that it signifies responsible animal care, One Health Certified has not developed its own comprehensive animal welfare standards. Rather, it merely requires that producers meet the criteria of other programs, including those developed by and for the conventional poultry industry that allow for extreme confinement and do not require access to the outdoors or environmental enrichments.

On the other hand, AWI considers OPT Certified Grass-Fed Organic a “next best choice” for dairy products. The program's standards require producers to provide cattle with longer grazing periods and a diet that consists of forage only, in addition to complying with regulations under the National Organic Program that address livestock health and living conditions.

Visit our website at awionline.org/FoodLabelGuide to download the guide.



PROGRESSMAN



HENRYK SADURA

AWI Sues to Prevent Inhumane Handling of Birds at Slaughter

The suffering of birds at federally inspected slaughter establishments is staggering. During the winter months, trucks arrive at the plants with birds who are dead and frozen to their transport cages. Surviving birds sometimes sit for hours—if not days—in freezing temperatures before they are unloaded. In summer months, birds are left on trucks in the hot weather with no shade or access to food and water, leading them to die from heat exhaustion or to endure hours of hunger and thirst.

Once unloaded, the birds face more abuse. They are thrown off the trucks in their crates, carelessly dumped onto conveyor belts, and even run over by forklifts, suffering broken bones, lacerations, and asphyxiation under the crush of other birds. In most US slaughterhouses, birds are then strung up by their feet while conscious onto the slaughter line, which can cause more injuries and distress. As they proceed down the line, they are submerged in an electric water bath to stun them. In some instances, birds are improperly stunned and/or miss having their throats cut by the auto-knife. Such birds may enter the scald tank alive and fully conscious—to die an excruciating death by drowning in scalding hot water.

Birds face this misery due to the USDA's failure to require humane handling at slaughter. According to AWI's research, the USDA's regulatory blind spot has resulted in millions of birds suffering and dying in a manner other than by humane slaughter.

The USDA's own poultry slaughter records demonstrate that birds could be spared this fate if the department regulated bird handling under the Poultry Products Inspection Act (PPIA). The PPIA requires the USDA to prevent "adulteration" (damage or contamination) of poultry products, and the department has acknowledged that humane handling reduces poultry adulteration. AWI has lobbied the USDA for years to use this authority, but the department has refused to do so.

In 2013, AWI and Farm Sanctuary petitioned the USDA to create regulations to require humane handling of birds, arguing that the PPIA mandates such action. AWI also wrote the USDA in 2016 asking that it prohibit establishments from allowing birds to be abandoned for extended periods of time during extreme weather conditions, which causes mass suffering and death of birds other than by humane slaughter. The USDA treated this letter as another petition, but ignored our requests in both cases.

After years of delay, the USDA formally denied the petitions in 2019, asserting that it did not have authority to promulgate the requested regulations and that the PPIA does not give it jurisdiction to require humane handling of birds. AWI and Farm Sanctuary sued the USDA on August 13, 2020, for denying the petitions. We hope that the lawsuit will force the department to end its practice of ignoring inhumane handling at slaughter and failing to prevent the consequent adulteration of poultry products. 🐾

GRIM FATE FOR FACTORY-FARMED TURKEYS

Since the early 1800s, at least, turkey has been a traditional part of holiday dinners in America. Approximately 50 million turkeys are killed for Thanksgiving each year, with another 22 million killed for Christmas dinner. But most Americans know little about the life of the animal who provides the centerpiece for their holiday table.

Most turkeys found on supermarket shelves in the United States were raised among thousands of others in industrial facilities without access to fresh air or the outdoors—a life that no living being would be thankful for. Turkeys who may reach 20 pounds or more are packed tightly together with only a few feet of space each. To prevent feather pecking, cannibalism, and other aggressive behaviors due to crowding and stress, producers perform painful mutilations, such as cutting off the ends of birds' beaks and toes. Lighting in the buildings is also kept dim to minimize aggression and encourage weight gain.

In addition to being exposed to poor environmental conditions, many turkeys suffer from a host of health and welfare problems that result from selective breeding for rapid growth and high meat yield. Modern turkeys grow so quickly their bodies cannot keep up, and they suffer from skeletal problems and leg abnormalities. Turkeys have even become too large to mate naturally, leaving artificial insemination as the only option for breeding. Their myriad health issues lead to high mortality rates on the farm, long before the birds ever reach the slaughterhouse.

Fortunately, for those looking for an alternative to conventionally raised turkeys, there are now more options than ever. While the vast majority of turkeys are still raised in conventional systems, specialty products from higher-welfare farms are steadily increasing. But buyers should beware. A slew of misleading turkey labels make it difficult for consumers to properly evaluate animal welfare and environmental claims. “USDA Certified Organic,” for instance, does not guarantee higher welfare. Even “free range” can mean far less than it implies—in some cases, so-called free range turkeys are given only a few square feet of gravel or barren dirt.

One way for consumers to ensure that turkey and other meat products align with their preferences for animal treatment is to look for verification by independent auditing programs—a “seal of approval” from a trustworthy source. However, even among third-party food certifications, animal welfare standards can vary greatly. Some programs have high standards, whereas others reflect only marginal improvement over conventional industry practices.

While it is possible to find turkey products that come from birds who experience a life worth living, some research is required to navigate the maze of competing brands and confusing, sometimes deceptive labels. AWI can help. We offer a free comprehensive guide to label claims commonly found on meat, egg, and dairy products. (See page 8 for more information.) And, of course, one can also simply leave turkey off the plate. A growing number of Americans are celebrating the season with cruelty-free, plant-based protein options. 🌱





JUAN GOMEZ

The end of 2020 marks the end of greyhound racing in Florida, the former capital of this abusive sport. In another two years, dog tracks in all but one state will be shuttered.

GREYHOUND RACING ROUNDS ITS FINAL TURN

Since its peak in 1985, greyhound racing in the United States has been on the decline. Once the last track in Texas closed in June 2020, only four states—Arkansas, Iowa, West Virginia, and Florida—had active dog tracks.

Cruel practices are well documented in greyhound racing, and unprofitable racing dogs are often killed or discarded. A security guard at one track was paid \$10 a dog to surreptitiously shoot and bury some 3,000 greyhounds over a period of 10 years. In 2010, a trainer left 37 dogs to starve to death after the end of the season. In 2017, a trainer's license was revoked after five of his dogs tested positive for cocaine. A few months later, a dozen dogs from another trainer tested positive for the drug.

Florida was, until recently, the capital of greyhound racing in the United States, with 11 active tracks in 2018 (more than all other states combined). That year, however, nearly 70 percent of Florida voters approved a constitutional amendment that

prohibits betting on live dog races as of the end of 2020—effectively shutting down greyhound racing in the state. Tracks in Iowa and Arkansas will close by the end of 2022, which would leave only West Virginia, which currently has two active tracks, as the last holdout.

AWI UNVEILS NEW SAFE HAVENS WEBSITE

Since 2011, AWI has managed the Safe Havens Mapping Project—a searchable database of sheltering services that can assist individuals experiencing domestic violence in placing their companion animals out of harm's way. AWI works to spread awareness about the link between animal cruelty and family violence, while providing resources for survivors, attorneys, and other advocates. In October, during Domestic Violence Awareness Month, AWI launched a new standalone website for the Safe Havens Mapping Project that includes improved search features so users can safely access the information they need in a matter of seconds.

The need for safe havens for pets is clear—one survey found that 71 percent of victims of domestic violence who have pets reported that their abusers had threatened, injured, or killed their pets. Now, users can access regularly updated information by searching for sheltering services near their zip code or in their state. This database is included on the National Domestic Violence Hotline's website and was accessed tens of thousands of times in 2019. Visit the new site at safehavensforpets.org.

LONG-LOST DOG REUNITED WITH FAMILY

Shortly before Thanksgiving, a stray dog was brought to a local shelter in San Antonio. The dog was scanned and found to have a microchip that identified his family. After receiving a call, the dog's owner rushed to the shelter to get him. "The woman burst into tears as soon as she saw him, fell to her knees, and held him in her arms," while the dog wildly wagged his tail, according to the city's Animal Care Services (ACS) personnel. What made this story remarkable was that the dog (named Honey) had been missing for seven years. Fortunately, San Antonio law requires that all dogs, cats, and ferrets in the city have a registered microchip including the owner's name, address, and phone number, and ACS provides lifetime registration.

companion animals

Sound Science: Tracking Gray Wolves by Their Howls

Wolf-human conflicts are an ongoing concern that can lead to both legal and illegal killing of wild wolves, poor support for wild carnivore welfare among local human populations, and legislative changes that negatively affect wolf conservation.

In central Wisconsin, the gray wolf population has grown in recent years to approximately 144–153 wolves across 34 packs. While this recovery has been positive for the conservation prospects of wolves and for the stabilization of the local ecosystem, it has led to a proportional rise in the number of human-wolf conflicts. Therefore, tracking wild wolves is vital for understanding the factors driving their interactions with livestock and activities around farm property in general.

Wolves are shy and largely nocturnal, so obtaining details of their wild behavior can be challenging. Traditional radio-collar methods are effective at tracking the movements of individuals; however, they are expensive and time consuming and can cause injury to the wolves. The goal of our study, partially funded with a Christine Stevens Wildlife Award, was to demonstrate that passive acoustic localization can accurately be used to track the movements of these packs and understand their behaviors without having to capture, collar, or harass them.

The acoustic system we used was based on devices originally tested in Yellowstone National Park (YNP). We deployed 11 passive recording devices equipped with synchronous GPS units and used the difference in the time of arrival of wolf

howls at each device to triangulate the position of the howling wolf. Over two weeks of recordings, we detected 190 instances of wolves howling, of which 28 were heard on at least three recording devices, allowing us to pinpoint the location of the animals. We also identified the locations of 69 instances of barking dogs and 42 instances of howling coyotes.

Our results not only demonstrated that the methods used with the wolves in YNP can be effective in habitats where wolf-human conflicts are more frequent, but also generated a data set that is currently being analyzed to understand the vocal interactions between these three species. By using sound to track wolf movements and locations, we can develop suggested mitigation measures to reduce wolf-livestock interactions. Since the acoustic devices also recorded barking dogs and howling coyotes, we hope to expand our suggested mitigation tools to more broadly reduce conflicts between wild predators and farmers.

Given the success of this technology in YNP and Wisconsin, it likely will also be successful in identifying the locations and tracking the movements of predators in other countries, providing a new tool to help mitigate predator-livestock conflicts globally. Indeed, our acoustic system will soon be tested in South Africa to study the interactions between livestock guard dogs and wildlife. 🐾

by Dr. Angela Dassow, Carthage College



BARKLIGHT COLLARS ON GUARD DOGS COULD HELP PROTECT LIVESTOCK



Gray wolf expansion into previously occupied habitat is among the most ecologically successful but socially controversial wildlife restoration efforts undertaken in the western United States. Conflicts between wolves and humans arising from livestock depredation have resulted in the killing of thousands of wolves and continue to undermine species recovery. More than 100 studies indicate that nonlethal methods of deterring carnivores from livestock are as effective as or superior to lethal control. Nonlethal methods have the added advantage of supporting human-wildlife coexistence, through enabling ranchers and wolves to share landscapes and ecosystem benefits, including top predator regulation of ecosystem processes. Adaptive and proactive nonlethal predator deterrents are more sustainable and ecologically beneficial than lethal control programs, which cost millions of dollars and kill untold numbers of wildlife every year.

We used a Christine Stevens Wildlife Award to field test a nonlethal predator deterrent, the E-Shepherd collar, which had shown promise in South Africa when placed on livestock. When tests in the western United States yielded disappointing results, we transitioned to testing a prototype for a new, experimental product called BarkLight Collars. The collars, which are triggered by sounds in the frequency range of a dog bark (400Hz), are placed on livestock guard dogs. When the dogs bark, which typically occurs when defending livestock from a threat such as a wild predator, bright LED lights flash on the collars. If the sound is determined to be a real bark (pattern of 3-4 barks in 100ms) the lights stay on for

up to one minute. The barking also triggers additional lights installed on the property and serves to deter predators and alert humans that predators are near.

During the summer of 2019, in partnership with livestock producers, we field tested the prototype collars on multiple livestock guard dogs. Initial testing showed that these devices work as designed while not distressing the dogs. We identified several improvements to the electronics and the design of the device's plastic shell to increase the effectiveness and durability of the collars. These optimizations include refinements in waterproofing and in both power source and management. In addition, we learned that Great Pyrenees dogs, a breed commonly used as guard dogs, have a distinctive bark pattern. Since the algorithm that distinguishes between dog barks (generally in the 400Hz range) and other sounds was based on recordings of Great Pyrenees, the software will likely need additional tuning to work with other types of dogs. We are satisfied with the proof of concept of the BarkLight Collar. Our main livestock producer partner is also encouraged by the performance of the devices and is working with the High Desert Design Center, which manufactured the original prototype, to move the product forward to eventual market testing. 🐾

article by Zoë Hanley, Defenders of Wildlife; research conducted by Defenders of Wildlife field conservation staff




AWI RETURNS TO COURT TO RESUSCITATE RED WOLF RECOVERY PROGRAM

IN November, AWI and allies sued the US Fish and Wildlife Service (USFWS) for violating the Endangered Species Act (ESA) by grossly mismanaging the wild red wolf population in North Carolina. The red wolf once roamed the eastern and southcentral United States. Now, however, it is the most endangered canid in the world, and one of the rarest mammals, due to predator control programs, habitat degradation, killing by hunters, and, most recently, the abandonment of the Red Wolf Recovery Program by the USFWS. Scientists have warned that if current management practices continue, red wolves could be extinct in the wild by 2024.

The red wolf was first declared extinct in the wild in 1980. In 1987, in an effort to revive the species, 12 red wolves from the captive population were reintroduced into eastern North Carolina. The reintroduction proved to be a success—so much so that the USFWS once called it a model





for predator reintroductions. Between 2002 and 2014, the population consistently numbered over 100 wolves.

In 2013, however, the recovery program was transferred from the jurisdiction of the National Wildlife Refuge System to the Ecological Services Program, and decision-making shifted from red wolf biologists to administrative staff in Atlanta. Program priorities shifted as well—toward appeasement of landowners hostile to the recovery program. The agency began issuing permits allowing landowners to indiscriminately kill red wolves on private land. It also suspended further releases of captive wolves into the wild and stopped sterilizing coyotes in the region to prevent hybridization. In 2018, the USFWS announced plans to shrink the recovery area by 90 percent.

As the USFWS pulled back its protections and reintroduction efforts, the population began to dwindle. By 2015, there were 75 or fewer red wolves in the recovery area. By 2016, the population was under 50. By 2019, it had dropped to fewer than 18, and that year, for the first time in the reintroduction program's history, no pups were born. In 2020, again, no wild red wolves produced litters. The population has now fallen to only seven collared animals.

The USFWS's decision to bar releases from the captive population was based on a novel interpretation of the red wolf 10(j) rule. In support of the ESA's command to conserve and recover species in the wild, section 10(j) of the ESA authorizes the USFWS to reintroduce populations of threatened and endangered species within their historic range. Pursuant to section 10(j), and from the beginning of the red wolf reintroduction program in 1987, the USFWS managed the wild population with the understanding that captive releases were essential for the recovery of the species. From 1987 through 2014, the USFWS released 134 red wolves into the recovery area.

However, after temporarily halting releases from captivity in 2015, the USFWS adopted the position around 2018 that the red wolf 10(j) rule did not authorize the release of captive wolves into the wild beyond the first 12 released in 1987. This interpretation represents a significant departure from the USFWS's former understanding and longstanding practice of releasing captive-born red wolves into the wild on an ongoing basis for over 25 years after the initial 1987 releases.

AWI's lawsuit seeks to require the USFWS to reverse this new interpretation of the red wolf 10(j) rule. The complaint alleges the agency is violating the ESA by failing to use its authority to further red wolf recovery and failing to insure that its actions are not likely to jeopardize the continued existence

of the red wolf. The ESA requires the USFWS to promote red wolf recovery by carrying out programs for the conservation of the species, which the agency is not currently doing. The ESA also obligates federal agencies to insure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any threatened or endangered species. The USFWS's decision to stop releasing captive red wolves, by its own admission, will jeopardize the species' continued existence unless it begins implementing conservation measures again.

The new red wolf 10(j) rule interpretation also violates the Administrative Procedure Act because it departs from the agency's past practice without adequate explanation. Public records indicate the USFWS acknowledges that captive releases are vital to the genetic health and viability of the wild population. The agency has no plausible explanation for how it can continue to fulfill its mission of recovering the red wolf without releasing captive wolves. Even key staff overseeing the wild population were at a loss for how to explain the new stance.

AWI has a long and successful history of fighting to protect red wolves. This is the fourth lawsuit AWI and allies have filed since 2012 to protect the species. The first and second actions, initiated in 2012 and 2013, were brought against the North Carolina Wildlife Resources Commission, challenging its decision to allow coyote hunting in areas occupied by red wolves, who are easily mistaken for coyotes. The 2012 case was resolved in our favor, and the 2013 case resulted in an agreement that banned coyote hunting at night throughout the recovery area and during the day on public lands in the area, and required the issuance of permits before coyotes could be killed on private lands.

The third lawsuit, initiated in 2015, was brought against the USFWS for issuing permits that allowed landowners to kill any red wolf on their private land—regardless of whether the wolves were actually causing trouble—and for discontinuing programs vital to maintaining the red wolf population. In 2018, the court held that the USFWS violated the ESA and prevented the agency from issuing additional permits to kill red wolves without first demonstrating the wolves are a threat to the safety of humans, livestock, or pets. The court also ruled that the USFWS failed to administer the red wolf program in furtherance of the purposes of the ESA and was likely jeopardizing the continued existence of the species.

By challenging the USFWS's abandonment of proven conservation measures, AWI is continuing our fight to ensure that these beautiful animals remain on the landscape in a healthy and functioning population. 🐾

GRAY WOLVES LOSE ENDANGERED SPECIES PROTECTIONS

In October, the US Fish and Wildlife Service finalized a rule removing Endangered Species Act (ESA) protection for all gray wolves in the lower 48 states except for a small population of Mexican wolves in Arizona and New Mexico. This delisting will have disastrous consequences for a species that has not yet fully recovered. The gray wolf population once numbered 2 million animals living in a majority of US states, but today only 6,100 gray wolves remain in pockets of nine states, even after nearly 50 years of federal protections.

This delisting is inconsistent with the basic tenets of the ESA because it (1) relies on state regulations that are clearly insufficient to protect gray wolves and their habitat, (2) fails to provide for the recovery of gray wolves in a significant portion of their range, (3) does not rely on the best available scientific evidence, and (4) fails to adequately assess the numerous threats that gray wolves and their habitat continue to face.

Gray wolf management will now be shifted to the states, the majority of which have prioritized recreational hunting interests and protection of livestock over the maintenance of viable wolf populations. For example, since 2011, when wolves were delisted in Montana, Idaho, and Wyoming, nearly 3,500 wolves have been shot and trapped in those states. During the brief time when wolves were delisted in the Great Lakes region, 25 percent of Minnesota's wolf population was

killed, and Wisconsin's population was reduced by 18 percent. The Great Lakes states and others are expected to adopt expansive hunting and trapping seasons that allow brutal killing methods, which, in addition to the suffering caused, would devastate the gray wolf population and undermine decades of investment in restoring these animals to their native lands.

AWI CONTINUES CAMPAIGN TO REFORM WILDLIFE SERVICES PROGRAM

In 2019, Wildlife Services killed 2.2 million animals, including 1.2 million native wildlife species, according to data released in October 2020. AWI is co-leading a coalition of organizations working to ensure that this US Department of Agriculture program fulfills its legal duty under the National Environmental Policy Act to fully consider the environmental impact of its wildlife damage management programs. Recently, through submitting comments to the USDA and testifying at public hearings on the program's operations in California

and Wyoming, we once again argued against the use of cruel methods of lethal management, including strangling snares, leghold traps, body-crushing traps, killing pups in their den, and aerial gunning, and we encouraged Wildlife Services to consider nonlethal alternatives to managing human-wildlife conflict.

CALIFORNIA CLAMPS DOWN ON RODENTICIDES

In September, California enacted a law placing a moratorium on the use of second-generation anticoagulant rodenticides (SGARs) until new restrictions are adopted to better protect wildlife from these highly toxic chemicals. The law also bans the use of SGARs in state parks, wildlife refuges, and conservancies. SGARs wreak havoc on nontarget wild animals through direct and secondary poisoning. In recent years, over 70 percent of wild animals tested in California have had SGARs in their systems, including mountain lions, bobcats, hawks, and coyotes, as well as endangered species such as the northern spotted owl, Pacific fisher, and San Joaquin kit fox.

California placed a moratorium on the use of second generation anticoagulant rodenticides—which pose a grave threat to predators, including the endangered northern spotted owl.



FRANK D. LOSPALLUTO



GUDKOV ANDREY

Living forest elephants have enormous economic value—among other things, they contribute to carbon sequestration and thereby combat climate change.

ELEPHANTS NEARLY ELIMINATED IN IVORY COAST

One hundred years ago, Côte d'Ivoire—a nation that takes its name from the once-flourishing ivory trade that ran through its ports—was home to between 3,000 and 5,000 forest elephants. Today, according to a study by Kouakou et al., published in *PLOS ONE* in October, extensive habitat loss and poaching have left a mere 225 forest elephants in the country. The study authors state that “forest elephants will be extinct in Côte d'Ivoire unless immediate actions are implemented to safeguard the remaining population.” In the past two decades alone, forest elephant numbers in the country have plummeted by 90 percent.

The authors surveyed 25 areas of the country, totaling nearly 3,700 square kilometers (over 1,400 square miles) that were at least nominally protected. Elephants have been extirpated from 21 of these areas, largely due to forest loss—71 percent of the forests have been cleared or transformed into agricultural plantations, primarily for the production of cocoa. The remaining elephants are struggling to survive on islands of forests surrounded by

agricultural lands. As forest habitat is lost, elephant food supplies dwindle, forcing them into human-occupied areas, including agricultural fields, increasing incidents of human–elephant conflict and, in turn, poaching.

Kouakou and colleagues note that “aggressive conservation actions including law enforcement for the protection of their remaining habitat and anti-poaching actions are needed to protect the remaining forest elephant populations.”

FOREST ELEPHANT CONSERVATION HAS HIGH ECONOMIC VALUE

Forest elephant populations throughout Central and West Africa have declined from 700,000 to 100,000 animals over the past several decades, primarily due to poaching and habitat loss. In Central Africa alone, scientists have reported a 62 percent decline in forest elephants between 2002 and 2011.

The ecological cost of this decline is alarming, given the role of elephants in forest ecosystems, including through seed dispersal, nutrient recycling,

herbivory, trampling, and carbon sequestration. Forest elephants facilitate carbon capture by removing (through feeding and trampling) small trees, thereby favoring larger trees that store large quantities of carbon, preventing its release into the environment.

Such impacts have economic value, according to an August 2020 working paper by Ralph Chami (an economist at the International Monetary Fund) and colleagues, published by Duke University's Economic Research Initiatives. Combining the carbon sequestration provided by the current 100,000 elephants and the contribution from future generations these elephants would produce, the authors calculate a present value of over \$176 billion (\$1.76 million per existing elephant). That value would be even higher if poaching were eliminated. Without poaching, the population would grow at a rate of 3.6 percent rather than the current 1.9 percent, and the population's value would soar to over \$375 billion (\$3.75 million per existing elephant). In other words, according to the authors, poaching is reducing the economic value of forest elephants by nearly \$200 billion. And these values do not even factor in the other ecological and economic (e.g., ecotourism) services the elephants provide.

Thus far, the continent-wide collapse in forest elephant numbers and the associated ecological damage tied to population declines have not prevented poaching. Perhaps a recognition of the tremendous economic value of the elephants will spur governments to protect the elephants and their habitat.

TIGER KING

Cohorts Collared

The major players perpetuating the big cat trade in the United States are a small network of eccentric individuals who have been profiting off animal suffering for decades. The hit Netflix series *Tiger King: Murder, Mayhem and Madness* shined a spotlight on a few of them, including Joe Maldonado-Passage (a.k.a. Joe Exotic), Jeff Lowe, Tim Stark, and Bhagavan “Doc” Antle.

For far too long, such exhibitors evaded consequences for their horrendous exploitation of animals. In recent months, however, they have begun to fall like dominoes, as law enforcement has finally cracked down on their unscrupulous activities.

Maldonado-Passage, of course, sits in prison—convicted for trafficking tigers and other endangered species and killing five tigers at his Greater Wynnewood Exotic Animal Park (GW Zoo) in Oklahoma. As much of America knows by now, he was also convicted for his bumbling murder-for-hire plot against sanctuary owner Carole Baskin after she persistently called out his animal abuse.

In *Tiger King*, the plight of the animals was largely glossed over as the filmmakers trained their lenses instead on the jaw-dropping human drama. For years, the US Department of Agriculture glossed over the abuse as well. Despite years of Animal



Welfare Act (AWA) citations, the GW Zoo never got more than a slap on the wrist from the USDA.

Jeff Lowe, the man who acquired the GW Zoo from Maldonado-Passage, previously ran an unlicensed business in which he provided interactions and photo ops with tiger cubs and other exotic animals at his home and aboard his “Jungle Bus” that cruised the Las Vegas Strip. Eventually, the operation was shut down by local authorities and Lowe was arrested. He avoided jail time by entering a plea deal in which he paid \$10,000 in restitution, surrendered his animals, and agreed to stay out of trouble for one year—including no “animal related violations.”

With Lowe at the helm, conditions at the GW Zoo did not improve. In June, an inspection report documented shocking conditions and widespread animal misery, and in August, the USDA suspended Lowe’s exhibitor license, which he later surrendered altogether (see *AWI Quarterly*, fall 2020). In November, the US Department of Justice filed a civil complaint against Lowe for operating a new zoo without a license and for continuing to keep animals in inhumane conditions, alleging violations of the AWA and the Endangered Species Act (ESA). The DOJ asked the court to require that Lowe surrender some of his animals, among other penalties. Lowe is also due back in court in Nevada in January for potentially violating the “stay out of trouble” order, and could face six months in jail.

Tim Stark—whose tempestuous and ultimately failed partnership with Lowe was depicted in *Tiger King*—owned Wildlife in Need, a roadside zoo in Indiana. There, wild animals suffered behind bars for decades, including the juvenile big cats handed over to the public at “Tiger Baby Playtime.” Across years of inspections and investigations, USDA officials allege that Stark threatened government officials, failed to provide veterinary care for gravely ill animals, and committed other horrific acts such as “euthanizing” a leopard cub with a baseball bat.

Despite the severity of the findings, and an initial attempt at revoking Stark’s license in 2015, it took until February 2020 for the USDA to finally do so and fine him and his facility \$340,000 for more than 120 AWA citations over a four-year period. More than 200 animals from the property, including numerous big cats, were moved to accredited zoos and sanctuaries. Stark even hid some animals from officials, prompting an arrest warrant to be issued and Stark to go on the run in September. He was apprehended in New York in October.

The final two notorious zoo owners to fall this year are Doc Antle, who owns Myrtle Beach Safari in South Carolina,

and Keith Wilson, owner of Wilson’s Wild Animal Park in Virginia. Antle is one of the most prolific cub breeders in the United States; his 37-year-old facility had long been a hub for the big cat trade. Undercover video at Myrtle Beach Safari showed rampant abuse, including dozens of adult tigers shoved into cramped, reconfigured horse stalls. Antle also admitted to regularly euthanizing cross-eyed tigers, a common result of inbreeding to produce tigers with white coloration. Meanwhile, authorities found appalling conditions at Wilson’s zoo during an investigation. Some of the animals had severe skin conditions, and they were given maggot-infested meat and left without water.

In October, the Virginia attorney general charged Antle and Wilson with wildlife trafficking, conspiracy to traffic wildlife, animal cruelty, and conspiracy to violate the ESA. Wilson was additionally charged with violating the ESA and was already facing 46 counts of animal cruelty stemming from a raid in November 2019 that resulted in authorities confiscating 119 animals. Two of Antle’s daughters were also charged with animal cruelty and violating the ESA.

This spate of enforcement actions over the past year is certainly welcome, but it is also a stark reminder of how long these zoo owners were allowed to continue operating despite clear and abundant evidence detailing the suffering inherent in their business models. While the USDA did revoke Stark’s license and is seeking to revoke Lowe’s, the most significant of the enforcement actions fell to the states. The Indiana and Virginia attorneys general displayed a heroic commitment to saving these animals from further torment, but the appalling conditions at these zoos should have been prevented by proper enforcement of the AWA in the first place. None of these facilities should have been allowed to continue operations after it became clear that they flagrantly and continuously flouted federal law, and the USDA should not have looked the other way for years before taking action.

Federal deference to the industries regulated under the AWA is an insidious problem that allows egregious brutality to occur unchecked. While we celebrate the enforcement actions taken against these individuals and their commercial operations, it will not be a true victory until a pattern of strong enforcement is established and we can be sure that all abusers will be held accountable in the future.

We also need stronger federal laws. The Big Cat Public Safety Act (HR 1380/S 2561), a bill to prohibit private ownership of big cats and direct contact between cubs and the public, overwhelmingly passed the House in December. At the time of printing, it had not yet been taken up by the Senate. 🐾

Bats at a market in Laos. Encroaching on wildlife habitat and trading in wildlife threatens biodiversity and brings humans into contact with deadly novel pathogens.

reevaluate our treatment of animals and our relationship with the natural world in order to protect public health.

In September, Senators John Cornyn (R-TX) and Cory Booker (D-NJ) and Representatives Mike Quigley (D-IL) and Fred Upton (R-MI) introduced the Preventing Future Pandemics Act (HR 8433/S 4749). This bill would outlaw the import, export, and sale of live wildlife for human consumption in the United States. It would also provide support for efforts to help curb wildlife trade for human consumption abroad.

The United States is responsible for an estimated 20 percent of the global wildlife trade. Live wildlife markets, the primary focus of this bill, constitute just one segment of this multibillion-dollar trade, yet COVID-19 has taught us that they can have serious repercussions for public health. At such markets, wild animals such as civets and bats are crammed together near humans, creating an ideal scenario for the spillover of diseases to which we have no immunity.

By exploiting animals and their habitats, we contribute to precipitous declines in biodiversity and come into more frequent contact with wildlife that carry novel and dangerous pathogens. AWI will continue advocating for the Preventing Future Pandemics Act to position the United States as a global leader in protecting both wildlife and public health.



JO-ANNE MCARTHUR, WE ANIMALS

NEW YEAR, NEW CONGRESS

With a new administration taking the helm in January, we can expect an end to the damaging wildlife and environmental policies that have unfortunately been a hallmark of the current administration (see page 2). The Congressional outlook may depend on the results of the Senate runoff races in Georgia, but this much we know: The vast majority of the sponsors and cosponsors of priority AWI legislation who ran for reelection won their races, with two notable exceptions: Senator Martha McSally (R-AZ), who has been an active supporter on animal welfare issues since her days in the House, and Representative Joe Cunningham (D-SC), who, in addition to his support of key bills, has been an outspoken critic of the use of seismic testing because of its effect on marine mammals.

We would also like to acknowledge three retiring members of the House: Representative Peter King (R-NY), the lead cosponsor on several important bills, including the Child and Animal Abuse Detection and Reporting Act,

the Horse Transportation Safety Act, the PREPARED Act, and the ProTECT Act; and Representative Ted Yoho (R-FL), the lead cosponsor on the PAST Act. And a special debt of gratitude is owed to Representative Nita Lowey (D-NY), the first female chair of the powerful House Appropriations Committee, who has been a long-time proponent of ending the use of steel-jaw leghold traps and has helped ensure on many occasions that agency spending bills were vehicles for advancing animal welfare.

PREVENTING FUTURE PANDEMICS ACT

One of the stark realities COVID-19 has forced us to confront is the huge risk posed by zoonotic diseases—pathogens passed from nonhuman animals to humans. COVID is merely the latest and most devastating example of this type of disease. In the past 40 years, the worst pandemics and epidemics—including SARS, Ebola, HIV/AIDS, avian flu, swine flu, and Zika—have all originated in animals. We must

HOUSE PASSES HORSERACING INTEGRITY AND SAFETY ACT

On September 29, the House of Representatives passed the Horseracing Integrity and Safety Act (HR 1754) by voice vote. Led by Representatives Paul Tonko (D-NY) and Andy Barr (R-KY), the bill would crack down on widespread doping within the horseracing industry. It would prohibit race-day medications and create an independent anti-doping authority to set uniform national standards, testing procedures, and penalties for thoroughbred racing—replacing the inconsistent and often lax regulatory schemes that currently exist among 38 jurisdictions. The nonprofit US Anti-Doping Agency—widely recognized as the nation’s premier anti-doping organization—would handle enforcement, laboratory testing, and violations.

Hundreds of horses break down during races each year in the United States. An overreliance on performance-enhancing drugs contributes to this staggering death toll—one that far exceeds that of other racing jurisdictions around the

world, where race-day medications are already prohibited.

At the time of printing, it was unclear whether the Horseracing Integrity and Safety Act will be voted on in the Senate during the lame duck session. However, we remain hopeful, as Senate Majority Leader Mitch McConnell (R-KY) is the bill’s lead sponsor.

BIRDS POISED TO FINALLY GET ANIMAL WELFARE ACT PROTECTIONS

For over 50 years, birds have been denied protection under the Animal Welfare Act (AWA). Twenty years ago, the animal welfare community won a lawsuit against the US Department of Agriculture challenging this exclusion. Since then, however, the USDA has stalled on issuing regulations to include birds. Meanwhile, in 2002, a law was enacted to declare that birds bred for research are not even “animals” as the term is used in the AWA.

After losing yet another court case over the delay, the USDA has begun

the process of writing new rules to at least bring birds not bred for use in research under the protection of the AWA. During listening sessions and an open comment period for gathering public input, AWI urged the USDA to adopt solid standards of care for birds in the pet trade and entertainment (e.g., circuses and roadside zoos) and for wild-caught birds in research.

Industry organizations and individuals who want to continue abusing and exploiting birds without restriction argued against the move. They suggested, for instance, that industry self-policing has ensured appropriate care for birds. But if that were the case, we would not have the long litany of investigations for cruel treatment inflicted by bird breeders and others. Another specious argument made during the listening sessions suggested that birds covered by the Endangered Species Act or the Migratory Bird Treaty Act should be exempt from the protections of the AWA, despite little or no overlap between the laws.

Birds should receive the same level of oversight as other animals covered by the AWA. At a minimum, regulations regarding the humane care and welfare of birds should prohibit the sale of unweaned baby birds, require health certificates and record keeping, prohibit painful physical mutilations, and require enclosures that allow birds to express their natural behaviors, including flight.



DAMON HALL

After years of stalling, the USDA is finally going to bring birds other than those bred for use in research under the protection of the Animal Welfare Act.

USDA ALLOWS ABYSMAL CONDITIONS TO PERSIST AT PENNSYLVANIA GUINEA PIG BREEDERS

LOGANTON, PENNSYLVANIA, a tiny one-square-mile Amish farming community, is home to 468 residents and 15 USDA-licensed guinea pig breeders. While this may suggest the community has a fondness for these animals, the Animal Welfare Act (AWA) record of some of these breeders tells a very different story. The suffering of guinea pigs at these facilities exemplifies the USDA's most recent failure to uphold the basic tenets of the AWA.

After years of uproar, a new regulation, effective November 2020, ended the USDA's practice of automatically renewing licenses (see *AWI Quarterly*, summer 2020). Now, all licenses last three years, at the end of which applicants must apply for a new license. But in determining whether to issue the new license, the USDA allows the applicant up to three opportunities to pass an *announced* inspection and does not consider the results of *unannounced* compliance inspections.

Many of these Loganton breeders have passed such pre-license inspections with flying colors while miserably failing the compliance inspections. Perhaps the most egregious example is Moses Fisher, who passed the announced pre-license inspection in September 2016 on his first try, then failed seven of 10 unannounced compliance inspections, five with documented critical or direct citations. His first compliance inspection (July 2017) found a host of problems (and 423 guinea pigs), including feces in water, inadequate caging (at least three guinea pigs running loose), and overall filthy conditions (according to the inspection report, "every primary enclosure requires cleaning"). Fisher told the USDA he only cleans them once a year; the USDA ordered him to clean at least every two weeks, as the AWA requires.

Conditions were even worse during his next three compliance inspections. On February 21, 2018, inspectors found seven animals suffering from untreated masses and eye issues

and six dead guinea pigs whom Fisher had failed to remove or even notice. They also found the same filthy conditions. Fisher's wife said it had been at least five months since any cleaning had been done. A month later, on March 22, Fisher refused to allow inspectors on the property.

By March 28, Fisher had 738 guinea pigs and the number of untreated guinea pigs needing veterinary care had increased to 16, including those suffering from "eye problems, neck area masses, head tilt, [and] emaciated body condition." One of the seven guinea pigs the USDA had previously found needing veterinary care died the morning after that February 21 inspection. Inspectors could not check the other six because "individual animals are not identified at this facility." The filth was even worse, and "the ammonia levels were so high that both inspectors' eyes and throats were burning." Once again, inspectors found deficient enclosures, with two guinea pigs running loose. Feces still contaminated the water, and it was "obvious that sanitization is ineffective to non-existent."

In February 2019 and January 2020, the ammonia odor again caused "inspectors' eyes and noses to burn," while both food and water were feces-contaminated. When Fisher wanted to add a new site with 554 guinea pigs, the USDA approved it after an announced inspection. Despite Fisher's appalling history of failed unannounced inspections, his active license is at least his third—meaning he passed previous announced pre-license inspections.

There are similar issues with other Loganton breeders. Aaron Esh passed his announced pre-license inspection in November 2017 (with 179 guinea pigs) on his first try. The next four unannounced inspections found significant issues, including two inspections in 2020 with multiple direct citations. Inspectors have documented filthy conditions, overcrowding, and contaminated water. A January 2020



report found two guinea pigs with untreated veterinary care issues, cold housing temperatures, ammonia smell strong enough to cause burning of inspectors' eyes and noses, feces-contaminated enclosures, green water, and cobwebs. Esh told inspectors he was "only sanitizing once a month." A month later, in February 2020, inspectors found the same filthy conditions, too-cold temperature, and contaminated water.

Amos and Katie Stoltzfus passed an announced pre-license inspection in August 2017, with 106 guinea pigs. After two non-eventful compliance inspections in 2018, the USDA attempted an inspection in August 2019. Inspectors returned in January 2020 to find two guinea pigs with untreated masses that the Stoltzfuses had never discussed with the attending veterinarian, as well as a strong ammonia odor, dirty and soiled bedding, and food and water contaminated with feces. In February, inspectors observed similar contaminated conditions.

Amos Fisher passed his announced pre-license inspection in February 2019, with 466 guinea pigs. Every unannounced compliance inspection since then has found significant issues. In February 2020, inspectors documented seven untreated guinea pigs needing veterinary care, including a weanling who appeared severely lethargic, with spasms and decreased respiration. He died during the inspection. A strong ammonia odor caused the inspectors' eyes and noses to burn; food was feces-contaminated, and many enclosures were filthy. Fisher had 860 guinea pigs. The next month, in March

2020, inspectors found eight guinea pigs needing veterinary care, as well as one dead animal whom Fisher had observed as lethargic. He did not contact the attending veterinarian.

John Esh passed his announced pre-license inspection in December 2018 with 551 guinea pigs. On his first unannounced compliance inspection in June 2019, the USDA found 11 guinea pigs who had not received any veterinary care, including nine suffering from untreated masses. Esh had noticed the masses but had not contacted the veterinarian. The report also documented sanitation and inadequate caging issues. Inspectors tried to follow up two months later but no one answered. The next time inspectors came, in January 2020, Esh "voluntarily" gave up his license. But, like Moses Fisher and other breeders in Loganton, Esh can apply for a new license, pass the USDA's announced pre-license inspection, and then utterly fail to comply with the minimum standards of the AWA while yet more animals suffer.

Loganton is one tiny town with just 15 of the thousands of licensees regulated under the AWA. But these guinea pig breeders exemplify a much larger problem, and constitute a stark warning. The USDA has not only enabled them—and their animals' suffering—but also the thousands of other licensees who will benefit from the department's utterly inadequate reliance solely on announced inspections to determine who gets and keeps licenses. 🐾

AWI REFINEMENT GRANT WINNERS ANNOUNCED

Each year, AWI awards several Refinement Grants to investigators in the United States and Canada to support innovative research projects aimed at improving the welfare of animals in research. We wish to congratulate this year's winners:

- **Sasha Prasad-Shreckengast** (CUNY Hunter College) for a project assessing voluntary interaction of carp with novel environmental enrichment items that promote cognitive stimulation and agency.
- **Dr. Lucía Améndola** (University of British Columbia) for a systematic review of the literature to critically evaluate the effects of different environmental enrichment strategies on affective states in mice.
- **Dr. Giridhar Athrey and Constance Woodman** (Texas A&M University) to test the suitability of 3D printing materials for use as environmental enrichment items for laboratory animals, especially for avian species.
- **Brittney Armitage-Brown** (Queen's University) to test rhesus macaque preferences for physical

versus touchscreen-based tasks used as cognitive enrichment.

- **Dr. Christopher Cheleuite-Nieve** (Memorial Sloan Kettering Cancer Center) for a study assessing the effects of natural, species-appropriate, visual environments on stress and behavior of indoor-housed macaques and African green monkeys.
- **Margaret Dye** (Duke Lemur Center) to build and assess an enrichment management tracking system for documenting and monitoring multiple enrichment activities that impact an animal's environment and welfare.

LAREF HAS MOVED!

AWI's Laboratory Animal Refinement & Enrichment Forum (LAREF) is an electronic discussion forum facilitating the factual exchange of experiences about ways to refine the conditions under which animals are housed and handled in research institutions. The forum is intended to serve the international animal care community in its effort to promote animal welfare and improve scientific methodology. The forum is open to animal care personnel,

animal technicians, students, attending veterinarians, and researchers who have or had first-hand experience in the care of animals kept in research and education facilities.

The forum has just moved to a new platform and is now found at <https://groups.io/g/LAREF>. If you would like to join this online forum, please send a message to viktor@cot.net indicating briefly your practical experience with animals kept in research laboratories, your current professional affiliation, and your interests as they pertain to the discussion group. Existing members are automatically migrated to the new platform and need not apply again.

NIH DENIES SANCTUARY TO DOZENS OF FORMER RESEARCH CHIMPS

On October 1, the National Institutes of Health provided its annual update regarding government-owned and government-supported chimpanzees retired from research, including data on those who are still held in laboratories. The NIH has announced that the 37 chimpanzees at the Alamogordo Primate Facility in New Mexico will remain at this research facility for the rest of their lives rather than be moved to the Chimp Haven sanctuary. In Texas, 54 chimps are still at the Keeling Center for Comparative Medicine and Research in Bastrop, and 53 are at the Southwest National Primate Research Center in San Antonio. The NIH says the fate of these chimps is still under review. As noted in the winter 2019 *AWI Quarterly*, the NIH is giving a host of excuses for denying sanctuary for certain chimps.

Since 2002, LAREF has provided animal care personnel with a platform to discuss innovative ways to create better, more species-appropriate environments for animals in research.



ANNA RATUSKI



GASKILL LAB

Does Online Training Increase Implementation of a Welfare-Enhancing Technique?

Megan R. LaFollette, Sylvie Cloutier, Colleen M. Brady, Marguerite E. O'Haire, and Brianna N. Gaskill

A new study (LaFollette et al. 2020. *Animals* 10(8): 1435), supported by a grant from AWI, shows that implementation of a particular animal welfare-enhancing technique can be improved through targeted training.

“Rat tickling” is a technique of interacting with rats in a way that mimics aspects of rat rough-and-tumble play. Engaging in rat tickling can reduce fear and stress in rats handled by humans. Despite the well-documented benefits of rat tickling, the technique is rarely implemented (55% of personnel never use it and most do not use it regularly). In a previous survey (LaFollette et al. 2019. *PLOS ONE* 14(8): e0220580), which was also supported by AWI, laboratory animal personnel indicated a lack of training as a barrier to its implementation. Therefore, the objective of this study was to determine the effectiveness of two rat tickling training programs (as compared to a control treatment) on reported rat tickling implementation, self-efficacy, knowledge, familiarity, and beliefs.

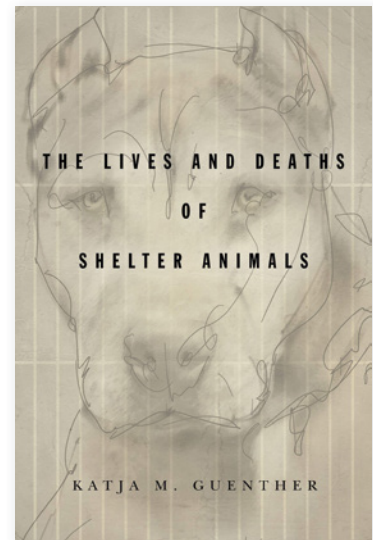
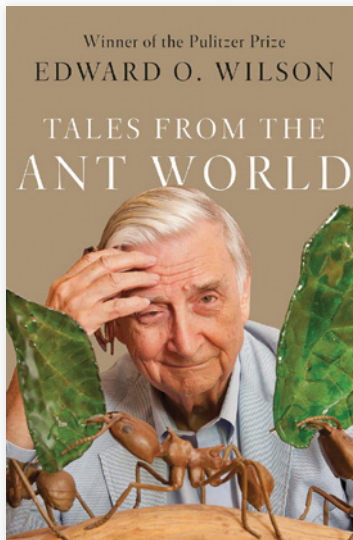
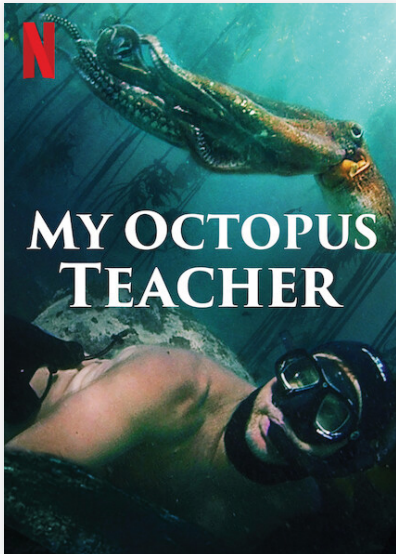
Laboratory animal personnel currently working with rats in the United States were recruited to participate in the study. After completing an initial survey, 96 individuals received either online-only training, online plus hands-on training, or no training (waitlist control condition). Both training groups completed a 30-minute, online, interactive, visual training course in rat tickling. The hands-on training group received an additional 30-minute, in-person training session specifically reviewing the hands-on components of the technique. Participants received a survey directly after their assigned training (or a waitlist control waiting period) and a follow-up survey two months later. In each survey, participants answered

questions related to their rat tickling implementation, self-efficacy, knowledge, familiarity, and beliefs.

Results showed that both online-only and online plus hands-on training improved key outcomes for rat tickling (i.e., increased implementation, self-efficacy, knowledge, familiarity, and beliefs with rat tickling) compared to no training. Online plus hands-on training, however, had a few additional benefits (i.e., increased control beliefs and greater increases for self-efficacy and familiarity with rat tickling).

Overall, these findings support the development of targeted interactive training programs to improve the implementation of potential welfare-enhancing techniques. While hands-on training may offer additional benefits, the online platform alone was also effective. This finding is encouraging, since the online platform can reach a widespread group of people and does not require resources for travel or attendance at an in-person workshop. The online course used in this study can be found at bit.ly/RatTicklingCertificate and is now open to anyone interested in receiving a certificate in rat tickling. 🐾

Megan R. LaFollette is a 3Rs fellow at the North American 3Rs Collaborative. Dr. Sylvie Cloutier is an independent scientist in Ottawa, Canada. Dr. Colleen M. Brady is a professor of agricultural sciences at Purdue University. Dr. Marguerite E. O'Haire is an associate professor of human-animal interaction at Purdue. At the time this study was published in the journal Animals, Dr. Brianna Gaskill was an associate professor of animal science at Purdue focused on welfare assessment of laboratory animals.



MY OCTOPUS TEACHER

2020 / Netflix / Documentary / 90 minutes

Netflix's *My Octopus Teacher* is a visually breathtaking film that provides an intimate glimpse into the world of another species. When famed documentary filmmaker Craig Foster found himself unable to feel joy from any of his usual activities, he returned to his childhood home—a seaside bungalow near Cape Town, South Africa—and went free diving every day in an effort to “rejoin the natural world.”

One day he stumbled across what looked like a ball of seashells. As he tried to make sense of the sight, a small octopus erupted, leaving her protective armor of seashells behind. This chance encounter led to a truly remarkable relationship.

Foster returned every day and eventually the octopus became so acclimated to his presence that she just went about her business, giving us a rare insight into how highly intelligent octopuses learn to hunt, evade predators, and even play. The octopus approaches Foster’s camera holding a seashell in front of her as a shield. She walks on the sea bottom using two tentacles like legs. She survives a truly harrowing shark attack and learns to outsmart the next shark who tries.

As his time with the octopus draws to a close, it’s Foster who is transformed. By seeing beyond the otherness of a species so different from our own, he accomplishes his goal, coming to see himself as part of the natural world, and not just a visitor.

TALES FROM THE ANT WORLD

Edward O. Wilson / Liveright / 240 pages

Tales from the Ant World, by famed naturalist E. O. Wilson, is full of interesting, absorbable facts about ants (at the time of writing 15,438 species had been recognized, with Wilson estimating almost twice that number likely yet to be discovered), as well as humorous anecdotes about Wilson’s childhood, where he found his passion for ants. A child more at home in the wilds and caves of Alabama than with classmates, he knew early on that he wanted to become a nature expert. After toying with long-legged flies, Wilson settled on ants after encountering a migrating swarm of army ants in his backyard accompanied by hanger-on scavengers—silverfish and various small beetles. At the age of 13, Wilson discovered the first known colony of fire ants

(an invasive species) in the United States, near the docks in Mobile, Alabama.

Wilson went on to study entomology and ants at the University of Alabama before moving to Harvard for his doctorate, where he stayed. He was appalled at mass pesticide use in attempts to (unsuccessfully) eradicate the fire ants, and he rues missing a meeting with Rachel Carson, who was too sick to travel. She went on to publish her revolutionary book, *Silent Spring*, which he lauds for effectively tackling the pesticide crisis and forever changing the US environmental movement.

Wilson has traveled around the world to explore and research all kinds of ants, from species living in total darkness in caves to the fiercest of ants, the *Camponotus femoratus* of the Amazon rain forest, which spray copious amounts of formic acid when threatened. He helped discover pheromones and their source in ants. In the book, he explains how ants can find their way even when seemingly lost, and how he used their technique to find his way after becoming lost (partly due to an overfriendly parrot) in the Amazon rainforest. His passion for ants and their incredible abilities are clearly demonstrated throughout the book, and the list of his accomplishments in all things ant related is incredible.

THE LIVES AND DEATHS OF SHELTER ANIMALS

Katja M. Guenther / Stanford University Press / 312 pages

As part of an ethnographic study, Katja Guenther—an associate professor of gender and sexuality studies at UC Riverside—spent three years as a volunteer at a high-intake animal shelter in metropolitan Los Angeles. In the opening of *The Lives and Deaths of Shelter Animals*, we are introduced briefly to Monster, a pit bull slated to die the next day. Guenther’s book examines Monster’s death—and the deaths of many other such animals—in the context of multiple social processes linked to societal attitudes concerning race, class, gender, ability, and species.

Guenther approaches her subject matter through the lens of “critical animal studies,” a theoretical framework “that explains how ‘animal’ issues extend more broadly into the community and align with concerns that social justice advocates have in general” (Deckha, 2012). Guenther asserts that a rejection of authority would lead to a more equitable state for all that lived within it and that such a state could be achieved. Her philosophical rejection of authority—not merely authoritarianism, although that certainly would be included—

leads her to certain recommendations that she defines as the Humane Communities Revolution (HCR). This would include (1) ending the practice of shelter killing, (2) reducing the precariousness of human and animals’ lives by better housing that permitted pets, (3) ending discrimination against pit bulls, (4) economic justice through wage increases and lowering of housing costs, (5) solutions for community cats that might include massive outdoor catteries or relocation of cats to less bird-dense areas, (6) more transparency by shelters, including having volunteers involved in policy-making decisions, and (7) representation of animals on shelter boards.

Re-imagining the ideal with creative and novel approaches can and should be employed. At the same time, the actual means to achieve these idealistic ends must be considered. Guenther notes that one of HCR’s goals—elimination of shelter killing—has had remarkable success in the last few years; 2018 marked the first year that under 1 million animals were killed in shelters nationwide. Most of her other recommendations, however, would require considerable political clout—more public funding for shelters and community cats, pressure on insurance companies to drop their exclusion of pit bulls, and economic justice. She is silent on any concrete plans to achieve these goals.

Her insight into the dynamic between management, staff, and volunteers at an animal shelter and her proposal that volunteers be accorded more access to decision making are worthy of serious discussion. However, her characterization of animal shelters as sometimes “hostile arms of the state” and her idea that “the mandate of spaying and neutering is also a powerful form of policing the bodies of companion animals and the animal practices of animal guardians” will be off-putting to many and may interfere with her insights being considered more broadly.

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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SCHOLARSHIP AVAILABLE TO ANIMAL ADVOCATES ENTERING COLLEGE

Last December, for the first time ever, AWI offered a scholarship to high school seniors who are engaged in bettering the lives of animals and who plan to pursue a course of study that would enable them to continue working on animals' behalf.

At the time, no one knew the recipients would be beginning their freshman year during a worldwide health crisis. Through their applications and letters of recommendation, we learned that the winners were exemplary students who showed initiative and drive to help animals. Now, while dealing with the effects of COVID-19 on their communities and campuses, these students have also shown that they are resilient and that they remain as committed as ever to advocating for animals.

Several of the scholarship recipients have been attending hybrid classes that combine classroom time with remote learning, while others are enrolled in online classes only. Despite the challenges of the pandemic, students are finding that their commitment to working for animal welfare has been reinforced by their college experience. Some have had the opportunity to work hands-on with animals by participating in wildlife rehab, training service dogs, and working part-time at an emergency

vet clinic while maintaining full-time course loads. "I am currently enrolled in 14 credits with 8 of them being geared towards animals, which have all strengthened my love for the field as well as my desire to want to do more" noted one scholarship winner.

This year's high school seniors again have an opportunity to apply for the Animal Welfare Institute Scholarship. AWI will award up to 12 scholarships of \$2,000 each to applicants who have an impressive and clear plan to continue working to protect animals. The deadline to apply is February 14, 2021. To learn more about the scholarship and application process, please visit awionline.org/scholarship. 🐾

