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SPOTLIGHT

CITES Parties Deliver Big Win for Elephants

In August, delegates at the 18th Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) delivered a historic victory for African elephants by voting to end the cruel practice of capturing live elephants from the wild in Zimbabwe and Botswana and exporting them to zoos and circuses around the world.

Now, absent exceptional circumstances or emergency situations, elephants in these two countries can only be relocated to in-situ conservation programs or secure areas in the wild within the species' natural and historical range in Africa. (Export restrictions are already in place for elephants in all other African nations.) Eighty-seven CITES parties,

representing 75 percent of voting countries, voted in favor of the proposal. The United States, shamefully, voted against it.

Since 2012, Zimbabwe has captured and exported 108 wild African elephants to zoos and circuses in China. Baby elephants are prioritized for capture due to their small size, which makes them easier to transport. Zimbabwe had recently started to target infants as young as 8 months for capture. In addition to the trauma of losing their mothers, baby elephants often face horrific abuse during the capture process. Footage of wild-caught baby elephants awaiting export from Zimbabwe shows calves being beaten and kicked. Some elephants have died before being shipped, during transit, or shortly after arrival. Elephants who survive the long journey have been observed living in dark, barren cells in holding facilities and zoos.

The negative impacts of capture on individuals, families, and larger social groups are well documented. This monumental decision should ensure that wild elephants will no longer be torn from their mothers and familial herds to supply foreign zoos and circuses that are in no way equipped to provide for the needs of these emotionally and socially complex animals. 🐾

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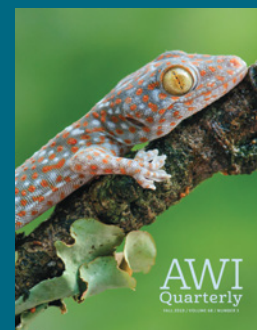
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ABOUT THE COVER

A juvenile Tokay gecko (*Gekko gekko*). Though the animals are not currently considered endangered, extensive removals from the wild for the pet trade and use in traditional medicines have raised concern. At the 18th meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES CoP18), the species was added to CITES Appendix II to enable greater monitoring and control of the trade in these geckos. See page 12 for AWI's review of the successes and setbacks of CITES CoP18. Photograph by Chien Lee, Minden Pictures.

AWI's Cathy Liss rallies support for the Animal Welfare Enforcement Improvement Act, a bill to strengthen licensing requirements for animal dealers, breeders, and exhibitors.



REFORMING RUBBER STAMP OF COMMERCIAL ANIMAL LICENSES

AWI President Cathy Liss joined Rep. Raja Krishnamoorthi (D-IL) and other animal welfare advocates in August at DuPage County Animal Services in Wheaton, Illinois, as Krishnamoorthi announced the introduction of legislation designed to protect animals from unscrupulous dealers and exhibitors and close loopholes in the US Department of Agriculture licensing process.

The Animal Welfare Enforcement Improvement Act (HR 4211) would end the USDA's practice of automatically renewing exhibitor and dealer licenses even when licensees have long histories of failing to comply with the very modest care standards of the federal Animal Welfare Act (AWA).

The bill would require animal dealers, breeders, and exhibitors—including large-scale commercial dog breeders, traveling circuses, roadside zoos, animal acts, marine mammal facilities, and others—to renew their licenses annually, with each renewal contingent on passing an unannounced inspection by the USDA. Businesses determined to be noncompliant with the AWA, or that have repeatedly violated the AWA or local, state, or other federal laws related to animals, would be denied licenses. Further, multiple animal welfare violations could result in license revocation, in which case the

business would also be barred from receiving a license under another business name or business partner.

The bill empowers citizens to file lawsuits to enforce the AWA, similar to provisions in federal environmental laws. The USDA would also be required to publish all inspection reports, enforcement records, and animal inventories online without redactions, as it did prior to February 2017 when the Trump administration ordered that these and other documents be removed from public view.

PAST ACT PASSES HOUSE

At long last, legislation to end equine abuse at horse shows received a vote in Congress. The Prevent All Soring Tactics (PAST) Act (HR 693) passed the House of Representatives by an overwhelming vote of 333 to 96. Led by Reps. Kurt Schrader (D-OR) and Ted Yoho (R-FL), co-chairs of the Congressional Veterinary Medicine Caucus, the PAST Act would end

“soring,” the barbaric practice of intentionally injuring a horse’s hooves and legs to force a higher-stepping gait during certain walking horse competitions. Methods used to sore horses include applying diesel fuel and kerosene to burn the skin, grinding down hooves to expose sensitive tissues, and applying sharp or abrasive objects to tender areas to maximize pain.

AWI has fought for passage of this legislation for many years and has been advocating for significant reforms to the US Department of Agriculture’s current failed system that allows the walking horse industry to police itself. The American Veterinary Medical Association and the American Association of Equine Practitioners, along with the American Horse Council and several show horse industry groups, all endorse the PAST Act.

At press time, a companion measure, introduced by Senators Mike Crapo (R-ID) and Mark Warner (D-VA), had already garnered 47 Senate cosponsors.

STATES STRENGTHEN SAFEGUARDS FOR DOMESTIC VIOLENCE SURVIVORS AND PETS

Several states have added new protections for domestic violence survivors and their pets, bringing to 37 the number of states that allow for the inclusion of pets in domestic violence protection orders or include animal cruelty in the definition of domestic violence. Rhode Island law now allows family courts, in issuing protection orders, to provide “for the safety and welfare of all household animals and pets.” An existing provision in Indiana’s law that included beating an animal without justification in its definition of “domestic or family violence” was broadened to cover “abusing” generally. A new Utah law added “aggravated cruelty to an animal, with the intent to harass or threaten” another household member to its definition of domestic violence. And courts in Wyoming may now issue protection orders granting to the petitioner sole possession of any pet kept by the petitioner, the respondent, or minor child “for the purpose of protecting the household pet.” The order may also prohibit the respondent from “abducting, removing, concealing, or disposing of the household pet.”

ILLINOIS ELIMINATES ANIMAL-TESTED COSMETICS

Illinois has joined California, Nevada, and more than 30 countries worldwide in banning the sale of animal-tested cosmetics. SB 241, sponsored by Senator Linda Holmes (D-Aurora) and signed by Governor J.B. Pritzker on August 9, prohibits the import or sale of any cosmetic if the final product or any ingredient was tested on animals after January 1, 2020.

The European Union has already passed laws banning the testing of cosmetic ingredients on animals and the sale of animal-tested cosmetics. To meet EU standards and growing consumer demand elsewhere for cruelty-free products, hundreds of successful cosmetics companies of all sizes already rely on non-animal testing methods.

However, more needs to be done to accelerate the pace of change. With Congress failing to enact a nationwide ban (see *AWI Quarterly*, spring 2018), states are stepping in to provide the impetus for cosmetics companies to invest in non-animal alternatives that will help them stay competitive in a changing global market while sparing animals from tests that cause significant suffering.

ADMINISTRATION AXES ENDANGERED SPECIES PROTECTIONS

In August, the Trump administration released final regulations that severely weaken critical Endangered Species Act (ESA) protections at a time when increased threats from habitat destruction and climate change

necessitate full enforcement of the ESA. This comes just three months after the United Nations released a report warning of “unprecedented” and “accelerating” global mass extinctions caused by human activity.

The new regulations curtail protections afforded to threatened species, allow economic information to be collected when deciding whether to list a species, limit areas within a species’ range that can be designated as critical habitat, and undermine the interagency consultation process by restricting input from experts best suited to determine how federal projects affect imperiled species.

The US Fish and Wildlife Service ignored public outcry against the proposed changes, including more than 800,000 public comments and letters signed by 105 US representatives and 34 senators. Ten states and the District of Columbia also opposed the weakening of the ESA, as did more than 30 tribal nations. By rolling back key components of the law, this administration is once again promoting industrial development at the expense of vulnerable wildlife.



CHERYL STRAHL

AWI WORKS TO END DECEPTIVE LABEL PRACTICES

AS INTEREST in farm animal welfare and environmental sustainability increases, more and more producers of meat, poultry, dairy, and egg products seek to assure potential customers—via claims on food packaging—that *their* animals are raised using higher standards. Unfortunately, it can be hard for consumers to determine the truth of these label claims for a number of reasons. For one, the public has a limited ability to see how the animals are actually treated on farms. Two, some producers make claims that are of little value when it comes to animal welfare and sustainability—often such claims are intentionally misleading in an effort to provide false assurances of humane and environmentally sound practices. And three, the US Department of Agriculture, the entity that should be monitoring the use of such claims and protecting consumers from deceptive practices, often fails to do so in any meaningful way.

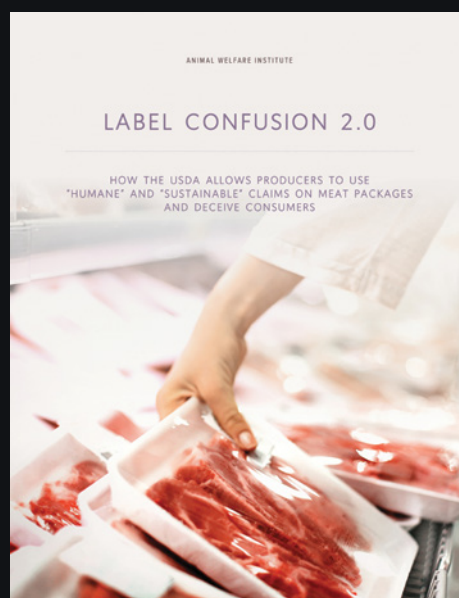
AWI works diligently to ensure that individuals concerned about the welfare of animals raised for food are knowledgeable about food choices. In addition to educating the public about the myriad welfare problems associated with industrial animal agriculture—from living conditions on factory farms to inhumane treatment at slaughterhouses—we help people who want to support high-welfare farms know what to look for in the marketplace and avoid being taken in by deceptive claims on food packaging. To this end, we develop guides to help consumers know which label claims and animal welfare certifications are trustworthy, investigate how the USDA approves the use of animal-raising claims found on packages, and challenge misleading claims.

As part of its investigatory work, AWI recently published an update to its 2014 report, *Label Confusion: How “Humane” and “Sustainable” Claims on Meat Packages Deceive Consumers*.

The new report, *Label Confusion 2.0: How the USDA Allows Producers to Use “Humane” and “Sustainable” Claims on Meat Packages and Deceive Consumers*, evaluates the USDA’s label approval process for claims aimed at consumers interested in animal welfare and sustainability. The core finding of the report is that the USDA continues to fail consumers when it comes to ensuring animal-raising claims on meat and poultry packaging are honest and accurate.

The limited measures the USDA has taken to ensure food labels are trustworthy consist of asking producers to voluntarily define label claims on their packaging and providing guidance to producers to help with the label approval process. Unfortunately, based on AWI’s research, it appears these measures have not been effective. Many producers choose not to comply with the USDA’s recommendation to define animal-raising claims on product packaging. Of the producers that do, the definitions provided are often irrelevant to the claim or too vague to help a consumer understand what the producer means.

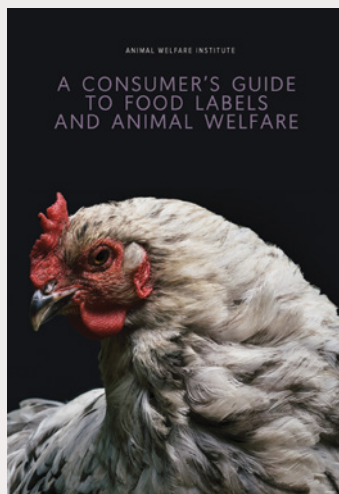
For example, one producer defined “humanely raised” as “meets [the producer’s] humane policy for raising chickens on family farms in a stress-free environment.” This definition is at best incredibly vague and at worst utterly circular (the animals are humanely raised because they are raised according to our humane policy). It certainly offers no actual information for a consumer to understand what the producer specifically did to ensure the animal was indeed “humanely raised.” What exactly is the company’s “humane policy” and what does it entail? What is a “stress-free environment?” “On family farms” certainly sounds good, but in reality says nothing substantive about whether the animal was raised to a higher standard of care. (Sadly, many “family farms” have become cogs in the industrial system.)



The report also explains that, despite the USDA's guidance for the label approval process, the approval system is still easily manipulated by producers who want to make claims on their packages without making any improvements to the treatment of animals raised under their care. For example, even when producers underwent pre-market label approval for their packages, the USDA allowed inadequate substantiation for animal-raising claims. Producers submitted bare-bones affidavits or operational protocols (descriptions of how the animal was cared for) utterly lacking in detail. AWI also examined label approval files that contained ample justification for one animal-raising claim but no information to support other claims.

When AWI sees deceptive food labels that could negatively affect animal welfare and contribute to consumer confusion, we challenge their use by a variety of means. Recently, for example, we successfully challenged the claim “ethically raised” on Hatfield pork products before the National Advertising Division of the Better Business Bureau. (You can read the decision in that case at <http://bit.ly/NAD-Hatfield>.)

To aid consumers in choosing products that conform to their preferences about animal welfare, AWI has also updated *A Consumer's Guide to Food Labels and Animal Welfare*. The new version of the guide divides claims about how farm animals are raised into four categories: “best choices,” “next best choices,” “potentially good choices,” and “beware of these labels.”



“Best choice” labels adorn the packaging of items produced under the highest animal welfare standards, and compliance with these standards is verified by a third-party auditing program. “Next best choices” are claims associated with animal care standards that are somewhat less stringent but still better than industry norms, and compliance is at least verified by a second-party (such as a trade association) or independent third-party certification program. “Potentially good choices” includes label claims that are relevant to animal welfare, but either no clear standard exists for the claim, or

compliance is not verified on the farm via third-party audits. Because of the lack of verification, the level of animal welfare can range from very low to very high for different products with the same label claim. Finally, under “beware of these labels,” we warn about commonly used label claims that are meaningless or misleading with respect to animal welfare.

Vague, subjective animal-raising claims, such as “ethically raised,” “responsibly raised,” and “thoughtfully raised,” fall into the final category and are characterized as misleading, in large part because no definitions and no third-party certification programs exist for the claims. AWI cautions consumers that these claims are a marketing tactic with little or no relevance to animal welfare. Want to learn more? *A Consumer's Guide to Food Labels and Animal Welfare* is available in both pocket and full-length versions, via mail order or download, at www.awionline.org/food-label-guide. 🐾





LNZYX

California, Oregon, and Washington have all enacted laws to ban cramped caged hen facilities such as the one shown here.

recommendations to the National Milk Producers Federation asking for revisions to its animal care standards so that instances like those observed at these farms could be prevented. Unfortunately, the dairy industry operates with little state or federal regulation, and inhumane practices are likely to continue unless outside intervention occurs.

COASTAL CAGE FREE VICTORIES

Oregon and Washington recently joined California in passing laws to ban the use of cruel battery cages to confine egg-laying hens. Twenty million hens in these three states, as a consequence, will be free from stacked tiers of barren cages that are so small that hens cannot even spread their wings. Furthermore, the statutes cover eggs sold in the state (the California law covers all shelled eggs sold in the state, the Washington and Oregon laws cover all eggs and egg products sold in the state). Out-of-state producers who want to maintain a foothold in these vast markets, therefore, will have to improve conditions for their hens, too. Both Oregon's and Washington's laws also require environmental enrichment, including scratch pads, nests, perches, and even dust-bathing areas. According to US Department of Agriculture data, 20.3 percent of all commercial egg-laying hens in the United States are now living in cage-free housing systems—a twofold increase since 2016.

INVESTIGATIONS REVEAL ABUSE AT US DAIRIES

Recent undercover investigations conducted by animal welfare organizations at Indiana, Nebraska, Pennsylvania, and Texas dairies have revealed horrendous conditions for cows on these farms. The investigations reveal extreme abuse, inhumane handling, routine neglect of calves, painful mutilations without anesthesia, and unsanitary housing conditions. Kicking, shoving, stabbing, and hitting cows was rampant. Immobile cows and calves were moved using heavy machinery and by dragging them by their heads. Several of the facilities also failed to keep the animals' housing clean and sanitary, with the cows at one mired in feces within cramped, soggy, quarters. Even more disturbing were the repeated images of neglected calves lying in tiny, barren outdoor pens, some with frozen feet or covered in feces.

The practices observed on these farms inflict immense suffering and fall well short of even the minimal industry standards for the care of dairy cows and calves. AWI recently submitted

INEXCUSABLE ANIMAL SUFFERING AT USDA'S MARC... AGAIN

An inspection report from August 6 for the US Meat Animal Research Center (MARC) documents extreme neglect of animals, including "repeated failures" to follow veterinarian instructions. Underfed ewes deteriorated so badly over the course of a month that two had to be euthanized. MARC co-mingled incompatible breeds of sheep, leading to food competition and "markedly thin" body condition for 20-30 percent of the more docile breed. Even after the veterinarian ordered more food immediately, the facility failed to do so. MARC also deprived a crippled, dehydrated ewe of care and finally euthanized her. And right in front of inspectors, MARC denied a lame lamb veterinarian-prescribed treatment.

This is the same facility that caused public ire and congressional scrutiny—eventually compelling the USDA to implement an inspection regime—after a *New York Times* article exposed deplorable animal suffering there (see *AWI Quarterly*, winter 2015). That such conditions could once again be documented is beyond belief.

BOMBSHELL REPORT EXPOSES DREADFUL ABUSE OF EXPLOSIVE DETECTION DOGS

This dog—among the many sent from the United States to Jordan to detect explosives—was later found suffering from severe emaciation.



DOGS dying from parvovirus, heat stroke, and renal failure caused by tick-borne disease. Dogs infested with fleas and ticks. Emaciated dogs living in feces-filled kennels and eating off the floor. The latest puppy mill horror? No. These have been the conditions endured by dogs trained in the United States and given to “foreign partner nations” to supplement their antiterrorism efforts—under a program financed by millions of US tax dollars.

In September, the State Department’s Office of Inspector General (OIG) released a report documenting the unconscionable mistreatment of dogs sent overseas under the Explosive Detection Canine Program (EDCP). This situation came to light only after a whistleblower—Dr. Karen Iovino, a veterinarian who had worked for the private contractor that trained the dogs—raised serious concerns about their health and welfare.

For over 20 years, the State Department has been sending highly trained explosive detection dogs to foreign countries “to enhance the ability of their law enforcement to deter and counter terrorism.” The EDCP, however, has failed to properly monitor the recipient countries’ care of the dogs. In Jordan alone between 2008 and 2016, 10 dogs died “while others

were living in unhealthy conditions.” Yet since then, the United States has supplied an additional 66 dogs to that country.

“The Department conducts health and welfare follow ups infrequently and inconsistently,” observed the OIG. The report noted that the program lacked policies, procedures, and written standards to ensure the health and welfare of the dogs, and no written documents were produced “until after a draft of the report was provided in June 2019.” No policies were in place for canine adoption or retirement, and the OIG expressed concern that dogs may be left in kennels at the end of their working lives. Working conditions and the quality of nutrition and veterinary care were discovered to be so substandard, in fact, that the dogs were unable to perform their jobs and “had lost the will to work.”

A huge debt of gratitude is owed to Dr. Iovino, who exposed these problems at great personal expense, and to the veterinarians interviewed for this report who shared their own concerns. Moreover, since the report’s release, Sen. Charles Grassley (R-IA), chairman of the Finance Committee, and Sen. Mark Warner (D-VA), vice-chairman of the Intelligence Committee, have written to Secretary of State Mike Pompeo expressing deep concerns about the program and asking the secretary how he plans to remedy the problems.

It is shocking that a program this expensive and supposedly this critical to antiterrorism efforts is being run so haphazardly. AWI calls on Secretary Pompeo to respond fully to Senators Grassley and Warner, and we call on the appropriate congressional committees to schedule oversight hearings to ensure that all of the recommendations in this report have been implemented. Until then, the program should be suspended and all dogs returned to the United States. It is time to stop putting highly intelligent, trained, and, above all, innocent animals into situations where their lives are in danger, not from the work they do but from the poor care they receive. 🐾

(SOME) CETACEANS SPRUNG FROM WHALE JAIL

AWI has followed the saga of the Russian “whale jail” for over a year now. It began in summer 2018, when 90 beluga whales and 11 orcas were captured in the Russian Far East and held in small holding pens all winter. Three of the belugas and one of the orcas died by the following spring. In an amazing development, the 10 surviving orcas were released back to the wild by the end of August 2019, after many months of suffering. The process was rushed and the young whales’ rehabilitation insufficient—many recommendations by an international team of experts were not followed. However, the Russian government’s decision not to allow the capture operators to sell the orcas to China was a positive step and resulted from intense international outrage. Several of the juvenile orcas were tagged and some of those tags are still transmitting data, so we know at least four of these whales survive. Another whale, whose visible tag is no longer transmitting, was observed with a wild pod, which is very encouraging. Several belugas were also released, to an unknown fate; unfortunately, others could still be sold to marine theme parks. We will continue efforts to get the remaining animals released.

BEYOND BLACKFISH: CETACEAN CAPTIVITY REVISITED

A new documentary, *Long Gone Wild*, marketed as the follow-up to the 2013 blockbuster *Blackfish*, is making the film festival rounds and is available on several streaming services. An interview with AWI’s Dr. Naomi Rose is featured in this film, which covers

the captures of belugas and orcas in Russia and the expanding marine theme park industry in China. The filmmaker, William Neal, did extensive research into the current trade in wild-caught whales and the poor conditions to which many of these animals have been subjected. Visit www.longgonewild.com to watch the trailer and rent or purchase the film.

COMPANIES MOVE ON FROM MARINE THEME PARKS

As for *Blackfish* itself, its impact continues to be felt in society. It has been six years since the film premiered and in that time several erstwhile corporate partners have severed ties with SeaWorld and other marine theme parks, recognizing the shift in public sentiment away from these exploitative tourist attractions.

The trend continues: Virgin Holidays’ evolving policy started with no longer doing business with marine theme parks that still acquired cetaceans from

the wild, and then expanded to not forming ties with new attractions. Now the tourism company has ended all ties with dolphinariums and marine theme parks. United Airlines and British Airways Holidays quickly followed suit—these airlines will no longer sell tickets to attractions that feature captive cetaceans.

Tourism companies that promote and market tourism attractions all over the world are learning that keeping these intelligent, wide-ranging, socially complex marine mammals in small tanks and pens and using them to entertain people has lost its luster for a majority of the public. AWI continues to pressure dolphinariums to reach this conclusion too and begin shifting their business models away from exploitation and toward true conservation and positive animal welfare.

In the open ocean, wild dolphins swim together and range widely. In captivity, their movements and social interactions are severely restricted.



EGLE SIDARAVICIUTE

AWI is involved in efforts to protect the Caribbean's amazing marine life, including these sperm whales swimming near Dominica.

AWI WORKS TO PROTECT MARINE LIFE IN THE CARIBBEAN

The Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (Cartagena Convention) is the only legally binding environmental treaty in the region focused on the protection of biodiversity. Coordinated by the United Nations Caribbean Environment Programme, the Cartagena Convention is implemented by three separate agreements, or protocols, focusing on the protection and management of marine ecosystems, management of land-based sources of pollution, and response to oil spills.

The first of those three, the Protocol Concerning Specially Protected Areas and Wildlife (SPA Protocol), entered into force in June 2000. Long-time AWI consultant Tom Garrett and close AWI ally Milton Kaufman were intimately involved in the development of this protocol, and AWI consultant Kate O'Connell was involved in the protocol's early promulgation. Of 28 countries in the region, 17 (including the United States) have thus far signed and ratified the agreement.

For the past decade, AWI's SPA Protocol work has focused on the development of listing guidelines for species and marine protected areas and implementation of the Marine Mammal Action Plan—a comprehensive framework for the agreement. In early June 2019, AWI attended the biennial Conference of the Parties to the Cartagena Convention, held in Roatán, Honduras. While there, we played a primary role in furthering the development of the Caribbean Wildlife Enforcement Network (CaribWEN) to



JANOS

address the growing illegal trafficking of threatened species in the region.

We also drew much-needed attention to the ongoing hunts of protected species, such as whales, dolphins, and sea turtles—presenting a briefing paper that resulted in recommendations by the parties to implement stricter domestic measures to prohibit these hunts, collect and share data, and monitor targeted populations. Although hunting of cetaceans and other protected species is banned under the SPA Protocol, several countries continue to do so, undermining the integrity of the agreement.

Now that the Roatán meeting has concluded, AWI will continue to work intercessionally with the SPAW secretariat and engage with parties to further the aims of the SPAW Protocol.

VAQUITA HABITAT FINALLY RECOGNIZED AS “IN DANGER”

In early July, in response to a 2015 petition from AWI and the Center for Biological Diversity, the UNESCO World Heritage Committee (WHC) approved an “in danger” designation for Mexico's Islands and Protected

Areas of the Gulf of California World Heritage site. The area is critical habitat for the endangered vaquita porpoise, as well as the totoaba, a fish that is the target of rampant illegal fishing due to its high value on Asian black markets.

The decision by the 21 members of the committee was based on Mexico's poor track record enforcing its regulations. After years of opposition to the “in danger” listing, the Mexican government accepted the WHC's verdict, and must now work with UNESCO and the International Union for Conservation of Nature to develop measures to save the vaquita and end illegal fishing and trafficking of totoaba if it wishes to retain the area's designation as a World Heritage site.

Although a recent study indicated a 98.6 percent decline in the vaquita population over the past eight years, researchers reported six sightings of the elusive porpoise in late August/early September. The animals were healthy, keeping hope alive for the species' survival. The determination that their habitat is in danger will facilitate both financial and logistical international assistance and help ensure that Mexico takes the management and enforcement actions necessary to save the vaquita.

ANIMALS GET ADDED TRADE PROTECTIONS AT CITES CONFERENCE



THE 18th meeting of the Conference of the Parties (CoP) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) took place in Geneva, Switzerland, in August. It began on a somber note, with expressions of condolences to the government and people of Sri Lanka, where the CoP was originally to be held in May, for the tragic loss of lives in the April terrorist attacks.

Three AWI representatives—D.J. Schubert, Sue Fisher, and Johanna Hamburger—attended, along with over 100 colleagues from the Species Survival Network, an AWI-cofounded global coalition of animal protection and conservation organizations. Over two weeks, thousands of delegates from countries and nongovernmental organizations (NGOs) negotiated over 100 documents addressing technical issues related to the implementation and enforcement of the convention and debated the merits of more than 55 proposals to change the protection status of species listed in the CITES appendices. Of these, Appendix I is reserved for species threatened with extinction and affected by international trade; Appendix II lists species deemed not currently in danger of extinction but which may become so due to international trade. In general, commercial trade in Appendix I species is prohibited. International trade in Appendix II species is allowed but ostensibly regulated to ensure sustainability and prevent harm to the species.



The day before the start of the CoP, the CITES Standing Committee met to deliberate a variety of matters. Of particular interest to AWI: Japan's ongoing trade in sei whale meat (see back page) and Mexico's application to register a captive breeding facility for totoaba with the CITES secretariat so that it could legally trade in totoaba parts. The totoaba is an Appendix I-listed fish whose swim bladder is coveted on the black market in Asia. This illegal trade strongly affects another endangered species: the vaquita porpoise. Death by entanglement in gillnets set for wild totoaba in the Upper Gulf of California has driven the vaquita toward the precipice of extinction; fewer than 19 individuals are estimated to remain.

AWI strongly opposes any trade in captive-bred totoaba because it will increase demand for totoaba products, incentivize poaching, and provide a means to launder parts from wild-caught fish. Instead of rejecting the application as AWI advocated, the Standing Committee deferred a decision until 2020, when more information, including an analysis of how legal trade in totoaba could impact the wild population, will be available.

During the CoP itself, the United States and other countries expressed grave concern over Mexico's utter failure to stop totoaba poaching and trade in totoaba swim bladders. While the parties did not support a call for trade sanctions against Mexico, as urged by AWI and our allies, they did agree to decisions that could lead to such trade sanctions at the next meeting of the CITES Standing Committee in 2020.

Notwithstanding these disappointing decisions to put off responses to a crisis that demands urgent action, CoP18 can generally be viewed in a positive light, as it resulted in greater protection from international trade for a number of imperiled species. The following species were added to Appendix I (moved up from Appendix II in some cases) due to declining populations, restricted range, and unsustainable trade: saiga antelope, small-clawed and smooth-coated otters, black-crowned crane, Grenadines clawed gecko, pancake and star tortoises, riverside and Mindoro peacock swallowtail butterflies, several horned and pygmy lizard species, and Bourret's box, Vietnamese box, and Vietnamese pond turtles. Conversely, some species, most notably the vicuna and American crocodile, were downlisted from Appendix I to Appendix II due to population recovery and a reduction in threats from international trade—although for the American crocodile, trade in any wild-caught animals for commercial purposes was prohibited.

Far more species were added to Appendix II, including the giraffe, spiny-tailed iguana, spider-tailed horned viper, longfin and shortfin mako sharks, and multiple species of guitarfish, wedgefish, ornamental tarantula spider, newt, and gecko. They were listed to provide increased protections from the adverse impacts of unregulated trade, population declines, or a restricted range, or because of the look-alike provision,



which permits similar-looking species to be given the same level of protection as their more endangered counterparts.

Most of these proposals were adopted by consensus, but several were highly contentious. For the giraffe, despite a 40 percent population decline in recent decades, the critically endangered status of some subspecies, and increasing international demand and trade in giraffe parts, a number of countries expressed opposition to this proposal. Some, primarily the southern African countries, proposed an amendment to exclude themselves from the Appendix II listing. Fortunately, that amendment was overwhelmingly rejected by vote and the proposal passed with 83 percent support.

Several parties disagreed over the status of mako sharks, with some claiming that populations were robust and that their management was best left to Regional Fishery Management Organizations (RFMOs). Others, however, emphasized the decline in shark numbers and the fact that voluntary measures adopted by RFMOs have not worked to conserve the species. The parties ultimately voted to support the listings.

Proposals related to elephants and rhinoceroses generated the most controversy. Attempts by Eswatini (formerly Swaziland) and Namibia to reduce CITES protections for their rhino populations failed. Similarly, Zambia’s proposal to downlist its elephant population from Appendix I to II to permit a legal trade in ivory and a proposal to permit a “one-off” sale of raw ivory from government-owned stockpiles in Botswana, Namibia, South Africa, and Zimbabwe were rejected by most parties due to fears they would increase demand for ivory and add to the ongoing elephant poaching epidemic. In contrast, an attempt by Gabon and other countries to address the poaching crisis by including all African elephants in Appendix I

failed. (At present, the populations of Botswana, Namibia, South Africa, and Zimbabwe are listed in Appendix II.)

Israel’s proposal to list the woolly mammoth, an extinct species, in Appendix II—based on evidence that the trade in woolly mammoth ivory facilitates laundering of products made from elephant ivory—produced mixed results. Although Israel withdrew the proposal given a lack of support, the parties agreed to commission a study on the trade in mammoth ivory and its role in perpetuating the illegal trade in elephant ivory.

CITES implementation was strengthened in several areas, including capacity-building, combating wildlife cybercrime, and creating a database for information on illegal wildlife trade. The parties also agreed to conduct a second international workshop on “non-detriment findings” (determinations by import and/or export countries that a proposed action will not be detrimental to the survival of a species). Non-detriment findings are a cornerstone of CITES implementation to ensure that trade in Appendix I and II species will not harm the species in the wild.

Efforts to convince parties to revisit a previous initiative, co-led by Israel, to reevaluate a CITES resolution on the disposal of live confiscated CITES specimens and to improve the consideration of animal welfare in the handling and care of such specimens fell short, unfortunately, as many parties continue to ignore or downplay this important welfare issue. However, another animal welfare issue that received considerable attention both at the meeting and in the international press, was the laudable decision to ban the export of live elephants from Zimbabwe and Botswana to captive facilities abroad (see page 2).



Some notable species-specific actions agreed to by the parties include: (1) conducting workshops on amphibian trade to evaluate the impacts of current trade levels on species conservation, (2) studying the trade in CITES-listed sharks, (3) distributing guidance for the management of ivory stockpiles, including their disposal, (4) establishing a CITES Big Cat Task Force to examine international trade in the body parts of big cats, (5) developing a joint work program with the Convention on Migratory Species to advance the African Carnivore Initiative (focused on lions, leopards, cheetahs, and wild dogs), (6) preparing studies on the scope of the illegal jaguar trade and on the scope and scale of a songbird trade that is devastating populations worldwide, and (7) convening a technical workshop to consider the conservation priorities and management needs related to the trade in marine ornamental fish.

Progress was made in closing domestic markets for elephant ivory: The CoP directed parties that have not already closed their domestic ivory markets to report on measures taken to ensure they are not contributing to poaching or illegal trade. It also took steps to tackle the illegal trade in rhino horn, directing countries with illegal rhino horn markets to develop demand-reduction strategies. Several countries involved in the illegal rhino horn trade, including China, Mozambique, and Vietnam, were also directed to initiate joint investigations to identify and stop organized crime networks engaged in the trade.

Despite all of the new listings on the CITES appendices and the adoption of pro-conservation decisions and resolutions, AWI was disappointed by decisions on some important issues. The parties adopted a decision that will not substantively change the status quo regarding the breeding of massive numbers of tigers in captivity—often in dreadful conditions—in China, and another that will not stem the ongoing and unsustainable trade in pangolins and their products. A proposal by Costa Rica and other countries to list 104 species of glass frogs (named for their semi-translucent

abdominal skin) failed to secure the required two-thirds support from the parties, missing by only a handful of votes. And despite considerable evidence of continuing illegal trade in live cheetahs, primarily to Middle Eastern countries, several parties, including Kuwait, Oman, United Arab Emirates, Bahrain, and others, claimed that illegal trade of cheetahs had declined due to enforcement efforts and demand-reduction campaigns. Consequently, no meaningful actions were adopted to study or address the cruel and unsustainable trade and its impact on wild cheetah populations. This issue will surely be revisited in the future.

As the CoP drew to a close, the success of the meeting in advancing species protections and strengthening implementation of the convention was celebrated by most delegates, who understand that CITES, while not perfect, can be part of the solution to the current global biodiversity crisis. That crisis, starkly described in the May 2019 report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, requires “transformative change” to conserve and restore global biodiversity. Through ongoing and expanded collaborations involving conservation-oriented countries and organizations to address the survival of species targeted by international wildlife trade, CITES can be part of that transformative change. 🐾



PANGOLIN. 26308EN

AWI Honors Wildlife Law Enforcement Heroes in Geneva

While delegates debated dozens of species listing proposals and other documents during CoP18, wildlife law enforcement officers, attorneys, and forensic scientists continued their efforts to combat wildlife crime in the field, courtroom, and laboratory. The dedicated work of these largely unknown conservation heroes protects the world's wildlife from poachers and criminal syndicates that threaten global biodiversity.

Since 1997, at each CITES CoP, AWI has honored individuals, organizations, and government agencies that have demonstrated excellence in the fight against wildlife crime with the Clark R. Bavin Wildlife Law Enforcement Award. The award, presented at a reception hosted by the Species Survival Network, is named after the late chief of the US Fish and Wildlife Service's Office of Law Enforcement, who pioneered the use of covert investigations, sting operations, and forensic science to identify and prosecute wildlife criminals.

In 2019, AWI, together with CITES Secretary-General Ivonne Higuero, recognized another ensemble of deserving award recipients representing a wide range of specialists required to combat wildlife crime. Tragically, 17 of those recognized lost their lives in defense of wildlife.

The 2019 Clark R. Bavin Wildlife Award recipients are:

Ross Galbraith, wildlife law enforcement officer for Environment Canada (retired), for his career enforcing wildlife laws in Canada and internationally and for his ongoing work, as a volunteer, supporting Interpol and wildlife law enforcement efforts worldwide.

Julius Kariuki Kimani, senior assistant director and head of investigations for the Kenya Wildlife Service (posthumous), for his efforts to combat wildlife crime and reduce poaching rates.

Limbe Wildlife Center, Cameroon, for its care of seized wildlife and its programs to combat wildlife crime.

Lorena Fernández, attorney general for the environment in Honduras, for her work to improve initiatives to combat wildlife crime nationally and regionally.



II SD/ENB - KIARA WORTH

Anti-Smuggling Bureau of China Customs, for its arrest and prosecution of several major wildlife traffickers and disruption of wildlife crime syndicates globally.

Rameshwar Thakur, deputy director of intelligence and coordination, Wildlife Crime Control Bureau, India, for his coordination of enforcement agencies to combat national and international organized wildlife crime.

Josefina L. de Leon, chief of the Wildlife Resources Division for the Department of Environment and Natural Resources, Philippines (retired), for strengthening efforts to combat wildlife crime.

Dr. Elizabeth Ehi-Ebewele, deputy director and head of the Wildlife and CITES Management Division of the Department of Forestry, Nigeria (posthumous), for improving efforts to combat wildlife crime in Nigeria and West Africa.

Julius Mwandai, senior assistant director and head of investigations, Kenya Wildlife Service (retired), for his leadership in combatting wildlife crime and reducing elephant and rhino poaching rates.

Vivek Menon, cofounder and CEO, Wildlife Trust of India, for his career of championing wildlife protection, training enforcement officers, and combating wildlife crime nationally and internationally.

PAMS Foundation and its cofounder, *Wayne Lotter* (whose relentless pursuit of poachers led to his murder), for supporting and training of rangers and game scouts in Tanzania to strengthen efforts to combat wildlife crime.

Patrick Muhayirwa, Charles Syaira, Jonas Malyani, Pacifique Fikirini, Faustin Nzabakurikiza, Jean Byamungu, Barthelemy Mulewa, Théodore Prince, Liévin Kasumba, Kanawa Sibomana, Ila Muranda, Rachel Baraka, Kasereka Ezéchiel, Freddy Muliro, Hakizimana Chadrack, and Musubaho Maliro Antwi, rangers of Virunga National Park in the Democratic Republic of the Congo, all killed in the line of duty as they fought to protect wildlife. 🐾

VIRGINIA LOWERS BOOM ON ABUSIVE ANIMAL PARK

Stepping in where the US Department of Agriculture failed to act, Virginia Attorney General Mark Herring's Animal Law Unit moved to enforce state cruelty laws and end the abuse of animals by an exhibitor in Winchester, Virginia, that is licensed under the federal Animal Welfare Act (AWA). Despite a long, documented history at Wilson's Wild Animal Park of citations for failing to comply with the minimum standards of the AWA, the USDA failed to take any enforcement action, let alone confiscate animals or revoke the park's license.

From 2004 through January 2018, the USDA cited Wilson's for over 80 deficiencies under the AWA. Following the January 2018 inspection, however, the USDA stopped citing the facility. On August 7, 2019, yet another inspection resulted in no citations, but the next day an animal control officer observed multiple animals without water and insufficient shade. A search warrant was executed by the Virginia State Police, with the assistance of the Frederick County Sheriff's Office and the Virginia Attorney General's Animal Law Unit. They spent two days on the premises, documenting conditions and ultimately seizing 119 animals. They found most of the park's animals had an insufficient amount of food, water, and space; some had filthy, severely matted fur and some exhibited abnormal behaviors. Partial skeletons littered the ground.

At a hearing regarding the seizures, the judge ordered forfeiture of the animals, noting that Wilson's had "cruelly

treated, neglected, or deprived the animal[s] of adequate care." He also ordered the owner of the operation, Keith Wilson, to post a \$300,000 bond and allow inspection of the facility every 90 days for two years. The investigation is ongoing.

EPA TAKES SECOND LOOK AT CYANIDE BOMBS

After significant public outrage regarding the Environmental Protection Agency's decision to reauthorize M-44 "cyanide bombs" to kill predators, the agency reversed course. One week after the initial announcement, the agency said it was withdrawing the interim reauthorization and would reevaluate the safety of the devices.

M-44s, which look like innocuous sprinkler heads, contain a scent lure to draw in species such as coyotes and foxes. When the animal tugs on the lure, the trigger is activated and sodium cyanide is sprayed into the animal's mouth. M-44s have killed hundreds of nontarget animals, including companion dogs and

imperiled species such as bald eagles, grizzly bears, and wolves. In one well-publicized case, a boy was seriously injured and watched his beloved dog die after triggering an M-44 placed near his home in Idaho. (See *AWI Quarterly*, summer 2017.) Shortly after the incident, USDA Wildlife Services suspended (but did not permanently ban) the use of M-44s in Idaho but continued their use elsewhere.

EGGSTATIC: CALIFORNIA CONDOR CHICKS CRACK A THOUSAND

While most news for imperiled species is quite dire this year, North America's largest flying bird is bucking the trend. California condors came frighteningly close to extinction: in 1982, just 22 birds survived in the wild. Those birds were captured and a last-ditch captive breeding effort began in earnest. This summer marked a truly amazing milestone in that extinction prevention effort: the hatching of the 1,000th California condor chick. Even better, that chick hatched in Zion National Park—in the wild where the birds belong.



A California condor in Big Sur. Nearly extinct not long ago, the species is beginning to spread its wings in the wild once more.

DEREK NEUMANN

Scientist Gets Big Grants Despite Glaring Silence on Monkey Restraint

On July 1, 2019, the National Institutes of Health awarded Johns Hopkins University's Veit Stuphorn another major grant to study the neural mechanisms involved in risk-taking in monkeys. In year one of this new five-year grant, Stuphorn will receive \$498,000. This is on top of the \$4.4 million he was awarded in prior years.

As AWI described in the winter 2018 edition of the *AWI Quarterly*, Stuphorn failed to disclose in an October 2018 article in the journal *Current Biology* that he subjects the monkeys to extreme restraint in primate chairs, with bars inserted into their ear canals and electrodes into their brains. A university press release ("Gambling Monkeys Like Big Bets, Study Finds"), which served as the basis for 68 subsequent news articles, made it seem as if the monkeys were voluntarily participating in an enjoyable activity—making choices via eye movements—while neglecting to mention that their eyes were virtually the only thing they *could* move.

Stuphorn and his co-author Xiaomo Chen later issued a "correction" to the paper, in which the experimenters state that it has "come to our attention" that the methods section "did not contain details" about the monkeys' "training and pain management."

In this so-called correction, however, Stuphorn still fails to mention the restraint. Indeed, it is difficult to ascertain what exactly was changed, since Stuphorn and *Current Biology* don't identify the actual revisions. The journal had published a prior Stuphorn article in February 2018, which also did

not disclose any restraint. In this earlier paper, Stuphorn didn't even describe pain management or how the monkeys were trained, and he stated that the monkeys "were group housed prior to training but singly housed during training and experiments." This training lasted 12 months for one monkey and nine for the other.

In July 2016, USDA veterinary inspectors cited Johns Hopkins for singly housing multiple monkeys who were unable even to see another monkey, stating, "Inadequate social enrichment to primates can lead to behavioral problems that may manifest in abnormal and injurious behavior." They noted that monkeys needing extra enrichment, such as those singly housed, did not appear to be getting enough. Stuphorn writes in the October 2018 *Current Biology* paper that "the monkeys in these studies received environmental enrichment provided by Johns Hopkins Animal Services."

In November 2015, *eLife* published another Stuphorn article that failed to disclose restraint, training method, pain management, or water restriction—with which Stuphorn has written he has "years of experience."

Stuphorn claimed that he issued his correction to comply with the ARRIVE (Animal Research: Reporting of *In Vivo* Experiments) scientific publication guidelines, which are intended to "improve reporting of research using animals" and "promote reproducible, transparent, accurate" manuscripts, and which are recommended for authors by *Current Biology*. Yet Stuphorn's correction violates these very guidelines, which state that authors must "provide precise details of all procedures carried out."

All of this raises troubling questions about the scientific enterprise. This sorry episode is not just limited to Stuphorn; top-tier journals, the NIH (the world's largest funder of research), and Johns Hopkins University (the largest recipient of NIH funds in 2018, with \$674 million received) are also implicated. All are evincing a deplorable attitude that the pain and suffering these monkeys endure is of no consequence—a trivial aspect of the research not even worthy of discussion. 🐼

A restrained monkey, with ear bars to immobilize the head and skull cap to insert electrodes into the brain. An illustration is necessary because recent photos from labs that use this form of extreme restraint are not in circulation—perhaps another example of a reluctance to publicize such methods.



Jane Cator (RLAT VT) and Raven Lake (VA) at Western University use a playpen for the university's training rats. The playpen consists of a multi-level pet rat cage furnished with various rat-friendly objects and burrowing soil.

Let's Get Serious About Animal Play

In humans, play is considered to be a sign of happiness and good health, and has long been recognized as an important component of child development. Play continues into adulthood, where it may take the form of board games and sport. Playing is also common among nonhuman animals: We have all seen dogs play fighting, cats chasing laser toys, or rabbits jumping in the air and twisting their body and head in comical ways.

In humans as in other animals, playing not only is enjoyable, but also helps with the development of motor skills, management of stress, strengthening of social bonds, and engagement of creativity and problem solving.

The idea that animal play is important and worthwhile is gaining traction within the biomedical research community. Indeed, the PRIM&R's 2019 IACUC Conference (the acronyms stand for "Public Responsibility in Medicine and Research" and "Institutional Animal Care and Use Committee")—an annual gathering that brings together approximately 600 professionals from state and federal government, industry, and academia—included for the first time this year a session on the importance of play for animals in research.

Panelists Melanie Graham, Debra Hickman, and AWI's Joanna Makowska discussed how allowing laboratory animals to play is first and foremost "fun" for the animals: Their daily routine is broken up with voluntary physical activity and exploration. Moreover, animals will engage in play only when they are feeling well; therefore, play is also a useful indicator of animal welfare, because individuals who are sick or stressed are less likely to engage in play.

Allowing laboratory animals to play can also help improve data quality. For example, play strengthens social bonds, thus helping to prevent pair or group breakdown in captive



RAVEN LAKE

environments. This, in turn, prevents confounding results related to potential injury from fighting, chronic stress from living in a tense environment, or single housing of social species. The physical activity involved in social and object play can also prevent unintended divergence from the target clinical population—in other words, the increased activity can help make the animals metabolically more "normal."

Play within laboratories can be encouraged in various ways. Playful interactions between caretakers and animals build trust and facilitate cooperation with routine medical interventions. In rats, a playful handling technique referred to as "rat tickling" improves the welfare of rats as well as the relationship with the human tickler.

Animals should also be encouraged to play with each other and interact with toys. This may be difficult to accomplish for animals housed in small, standard cages. One solution is to give these standard-housed animals regular access to a "playpen" consisting of a large area furnished with interesting objects and toys in which the animals can run around, explore, and play with each other. Some facilities have built permanent communal playrooms behind or above primate cages that animals have access to when a hutch is opened by a caretaker. For rodents, cages designed for larger species, such as ferrets or rabbits, can be furnished with rat-friendly toys and placed within the animal-housing room.

In addition to their importance for animal welfare and research results, play sessions are likely to be the highlight of the day—not only for the animals, but also for the caretakers who get to watch them have a good time. 🐾

A MOUSE IS A MOUSE IS... NOT A HUMAN

Neurobiologists at the Allen Institute for Brain Science in Seattle may have uncovered one of the reasons why 90 percent of drugs that succeed in mice fail in humans. In a study published in the journal *Nature* (Hodge et al., 2019), the scientists analyzed nearly 16,000 neurons from the outermost layer of the human brain. Using new technology, they classified the brain cells not by shape and location (the traditional method) but by the genes they express—how they use DNA to create neurotransmitter receptors and other critical elements of the brain. The scientists then compared the results to those from mouse brains.

They found that neurons long thought to be the same in humans and mice, based on traditional measures, can have vast differences in gene expression. The difference is particularly important for the genes that encode (i.e., produce) receptors for the neurotransmitter serotonin, a chemical involved in depression, sexual function, and appetite. “If the neurotransmitter receptor you’re

hoping to target isn’t used in the same cells in humans that it is in mice, then your drug will hit the wrong circuit,” said study co-author Ed Lein. The study’s findings challenge the use of mouse models for studying psychiatric disorders involving serotonin, and highlight the importance of directly studying human brains.

RATS ENJOY PLAYING HIDE-AND-SEEK

A new study published in the journal *Science* (Reinhold et al., 2019) reported that laboratory rats learned to play hide-and-seek with researchers at Humboldt University of Berlin, in a novel approach to studying the neural underpinnings of decision-making and motivation. Normally, scientists studying these aspects of neurobiology train confined animals to perform tasks (e.g., lever pressing) in exchange for liquid or food rewards. This new “game” approach, which allows rats to retain agency and express “rich, unrestricted behavior,” is also fun—rats were eager to play and made “joy jumps” during the game. In a large room with boxes

and panels that offered cover, rats were trained to alternate between hiding until they were found by the researchers, and seeking researchers who were hiding. Finding and being found were rewarded with playful tickling. Rats quickly grasped the game and played strategically: When hiding (versus seeking), they made fewer vocalizations and chose opaque cover. This story seems like a win for animals and science, too.

THE EPA PLEDGES TO END ANIMAL TESTING

In September, the Environmental Protection Agency announced a plan to reduce and eventually eliminate its reliance on animal testing to assess the danger of chemicals. Currently, the EPA performs, or requires chemical companies to perform, tests on rabbits, mice, rats, and fish to assess chemical toxicity. The EPA has committed to a 30 percent reduction in its funding of, and requests for, toxicology studies involving mammals by 2025, and to cut out nearly all such studies by 2035 (after 2035, chemical safety tests on mammals will require EPA administrator approval on a case-by-case basis). To achieve these goals, the EPA has awarded \$4.5 million to five universities to help develop new non-animal methods, such as in vitro testing or computer modeling. These alternative methods often require fewer resources, are able to evaluate more chemicals in a shorter time, and are as good or better at predicting toxicity compared to current animal models.

In a welcome announcement regarding chemical toxicity testing, the EPA pledged to move away from testing the chemicals on animals and will instead look to reliable non-animal models.



GRIGORENKO



GASKILL LAB

Human Beliefs and Refinements for Animal Welfare: A Case Study on Rat Tickling in the Laboratory

by Megan LaFollette and Dr. Brianna Gaskill

New research out of Purdue University shows that the beliefs of laboratory animal personnel are highly associated with their implementation of welfare-enhancing enrichment techniques. This study focused on the promising welfare-enhancing technique of rat tickling, which mimics aspects of rat rough-and-tumble play. It also relates to a common, well-supported theory in human behavior change research called the “theory of planned behavior.” The theory posits that “intentions to perform behaviors of different kinds can be predicted with high accuracy from attitudes toward the behavior, subjective norms, and perceived behavioral control” (Ajzen, 1991). Looking at the study through the lens of this theory helps explain the frequency with which this behavior is performed and how it might be increased.

In this study, which was funded by an AWI Refinement Grant, 794 individuals from the United States and Canada who work with animals in research completed a single time-point mixed methods online survey. Its results indicated that, as of April 2018, few of these individuals used rat tickling, with 89 percent reporting that they use it never or rarely. Furthermore, although most personnel believed that rat tickling was beneficial for welfare, most also believed that the time required to implement it was a major barrier.

In turn, use of rat tickling with laboratory rats was positively associated with favorable general beliefs about the technique (e.g., tickling will improve rat welfare and my own mood). Specifically, personnel were more likely to tickle rats if they thought the technique was good (positive attitude), felt they could practically do the technique in the laboratory (perceived behavioral control), and felt subject to professional pressure to provide the technique (subjective norm). They were also more likely to tickle rats if they were more familiar with the technique, generally displayed more positive behaviors towards laboratory animals (e.g., petting and talking to the animals), and generally wanted to provide more enrichment for their laboratory animals.

In conclusion, this research demonstrates the importance of laboratory animal personnel in real-life application of refinements and enrichments for laboratory animals. It shows that even techniques that are well-supported by the scientific literature may not be commonly used. In large part, these techniques may not be used because of practical constraints such as a lack of time and lack of positive personnel beliefs about the technique. This research may indicate that changing these beliefs and decreasing barriers to practical implementation may be necessary to garner widespread implementation of refinements to laboratory animal welfare. 🐾



SENSORSPOT

INCREDIBLE: USDA Secretly Curtails Oversight of AAALAC- Accredited Laboratories



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“ What you have to do to lose your accreditation is basically give them the finger and say we’re not doing that. Otherwise they will work with you for years. ”

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So stated, under oath, veterinarian Peggy Danneman during a 2011 deposition in a whistleblower lawsuit against The Jackson Laboratory. At the time, she was on the board of trustees—the governing body—of the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International.

Nothing appears to have changed since Danneman’s sworn assertion. Despite AAALAC’s mission statement that voluntary accreditation “enhances the quality of research, testing and education by promoting humane and responsible research animal care and use,” the USDA record shows that animal suffering and death has occurred repeatedly for years at accredited facilities.

This situation has taken on added significance recently, because the USDA has secretly changed its inspection system, enabling facilities with AAALAC accreditation to avoid the mandate of the Animal Welfare Act (AWA) for complete annual compliance inspections. Full compliance inspections will now occur only once every three years. The implied justification for this move pushed by industry (not that the USDA has offered any) is that AAALAC accreditation is an indication that the institution is more likely to be in compliance with the AWA—hence, no need for routine, thorough inspections.

An examination of the record, however, demonstrates how far removed this is from reality. AAALAC merely “visits” (AAALAC’s term) its accredited facilities once every three years, and makes clear that such visits are not inspections. They are scheduled in advance, allowing plenty of opportunity for the facility to prepare. But the starkest indication that this new USDA scheme is wrong-headed involves the relationship between AAALAC accreditation and AWA compliance—or rather, the lack thereof.

In 2014, the *Journal of Applied Animal Welfare Science* published a paper from Goodman et al. that found *higher* citation rates for AWA noncompliant items (NCIs) at AAALAC-accredited facilities than at non-accredited facilities. This paper prompted a response from AAALAC, published in *Science* (Newcomer, 2015). AAALAC’s primary argument was that all NCIs are not equal, with many lacking “demonstrable relevance to animal care, health, or well-being outcomes.” Last year, as industry lobby groups touted AAALAC while

pushing for this new USDA policy, they further claimed that NCIs deemed “non-critical” by the USDA do “not pose a direct risk to animal welfare.” This is simply not true.

The USDA defines a “critical” NCI as one that has “had a serious or severe adverse effect on the health and well-being of the animal.” A “direct” NCI is a critical NCI that is *currently* adversely affecting health and well-being. “Non-critical” citations supposedly don’t involve either, with the implication that these non-critical citations shouldn’t be part of the discussion.

But a brief examination of instances involving non-critical citations shows just how hollow this argument is. Examples abound of citations at accredited facilities that the USDA deemed non-critical but nevertheless have caused tremendous animal suffering: A **University of Wisconsin Madison** inspection documented three monkeys who suffered dehydration after their water line became disconnected for days. They required IV fluids; nonetheless, one had to be euthanized. The inspector also found 12 instances of primates escaping enclosures due to hardware failure or human error, resulting in lost portions of tongues and other injuries requiring sutures or amputation of digits. **Absorption Systems**—which has had 16 citations in three separate inspections since 2016—failed to ensure that a study director had an advanced degree or proof of qualifications or training for surgery. Yet the Institutional Animal Care and Use Committee (IACUC) allowed him to conduct an acute surgical procedure on the very first sheep used under the protocol. The sheep died during the procedure. At **Wake Forest University**, a pig died after surgical complications. The necropsy showed a surgical towel had been left in his abdomen; he suffered from acute peritonitis. **Colorado State University** failed to provide any scientific justification for withholding painkillers or anesthetics for a protocol in which dogs and cats could experience unrelieved pain or distress, with the facility writing “N/A” in the space where the justification was mandated. Similarly, at **Cincinnati Children’s Hospital Medical Center**, four separate protocols did not contain any scientific justification for withholding painkillers or anesthetics.

The fact that these incidents—which quite obviously had serious and severe effects on animal health and well-being—

were deemed non-critical is a clear indication that the USDA is underreporting critical/direct NCI. But even if we indulge the pretense that these egregious incidents can be swept under the rug and limit ourselves solely to NCIs the USDA *did* designate as critical or direct (as the industry would have us do), the numbers are still damning: From January 1, 2016, through July 31, 2019, of 92 registered research facilities with critical and/or direct citations, 60 were AAALAC accredited. Of 24 facilities with two or more separate inspections having critical and/or direct citations, 17 were AAALAC accredited. All nine facilities with three or more separate inspections having critical and/or direct citations were AAALAC accredited.

Here are just some of the examples taken from inspections of these facilities, all of which also have a history of USDA fines:

At the **University of Washington** (\$10,893 USDA fine in 2011 and warning letter in 2014), a June 2019 inspection documented a monkey dying after surgery. He had not been fasted properly but surgery proceeded anyway, with a one-hour “abbreviated” fast. The monkey went into respiratory arrest during the recovery period. During CPR, he vomited and aspirated food, and later died. A November 2018 inspection found that a monkey died after the chain on an improperly installed enrichment device became entangled with his jaw. An April 2017 inspection documented that during a one-week period, more blood was removed than was approved from four monkeys. Moreover, unapproved blood draws were performed on a monkey who had already been identified as anemic (he was pale, with altered respiration). A January 2017 inspection documented an 8-year-old monkey who died from dehydration; the water line had been disconnected, but no one had noticed until this monkey was found lethargic during “unrelated rounds and treatments.” He died during veterinary

treatment. Daily care logs indicated that the water bottles had been checked twice per day in the days prior to the death; clearly, that couldn’t be the case.

A June 2019 inspection of a **Covance** dealer site in Alice, Texas, (\$31,500 USDA fine in 2016) documented 25 monkeys who were not fed for six days, resulting in two requiring euthanasia. In September 2016, the USDA documented three monkeys who had suffered limb fractures that had been undiagnosed, and apparently unobserved, for days. A May 2019 inspection at Covance’s research site in Madison, Wisconsin, documented two instances of non-repairable orthopedic injuries in monkeys, requiring euthanasia. A May 2016 inspection documented a monkey who had diarrhea and baldness, collapsed twice and was given fluids by a technician, yet there was no documentation showing that the monkey was being treated for baldness or diarrhea, and he had not been seen by a veterinarian for over two weeks. An August 2017 inspection of Covance’s breeding site in Denver, Pennsylvania, documented multiple dogs suffering from not receiving adequate veterinary care, including a female beagle with an orange-sized mammary mass, and another with a bleeding paw wound. (Despite eight dogs described as not receiving adequate veterinary care, the USDA deemed this a single *non-critical* citation.) Insects/insect larvae were found in feed in all buildings, with some areas having insects in over 50 percent of self-feeders. Mold was also observed.

A June 2019 report at **Vanderbilt University** (\$8,156 USDA fine in 2010) documented multiple instances of major changes to protocols without IACUC approval, including 14 pigs used when 12 had been approved, and 23 gerbils used in a pilot study where only 10 had been approved. Anesthesia protocols involving the gerbils were not approved. Of the 23 gerbils used, 17 died, but none were reported to the IACUC. A September 2016 report documented a rabbit kicking his hind legs and screaming loudly during anesthesia induction; Vanderbilt proceeded with the surgery, and five hours after the surgery the rabbit’s legs were noted as “paralyzed.” Vanderbilt failed to contact a veterinarian until the next day. A galago (small nocturnal primate) recovered sooner than expected from general anesthesia after a 12-hour study procedure that included a craniotomy. Awake after this highly invasive and painful procedure, the galago became agitated and aggressive after researchers gave him a post-surgical injection—but they failed to give him the required painkiller. For eight hours, Vanderbilt failed to contact a veterinarian and allowed this animal to suffer. The veterinarian who finally examined him stated that there were no health or well-being issues.

At **Oregon Health & Science University** (\$11,676 USDA fine in 2012), a June 2019 inspection documented that a lab





group was using poor sterile technique for surgery on a ferret. The pilot surgery resulted in unexpected anatomical complications necessitating euthanasia. The euthanasia method was not approved. The same lab group had a ferret in restraint for training and skull cap care, yet the ferret had a “strong, foul” odor, with pus oozing from the skull cap, while another ferret was rubbing his head cap on a mattress, indicating distress. Neither of these ferrets had been reported to the attending veterinarian. An August 2018 report documented a young monkey who had been trapped by PVC pipes on a perch. After exhibiting neurological symptoms, the monkey was euthanized. Another monkey did not receive painkillers or antibiotics the morning after surgery. A February 2018 report documented a juvenile monkey dying after becoming trapped behind a cage. A baboon fractured his hand, caused by a guillotine door. A January 2016 report documented a monkey dying after entrapment in the chain of an obsolete enrichment device.

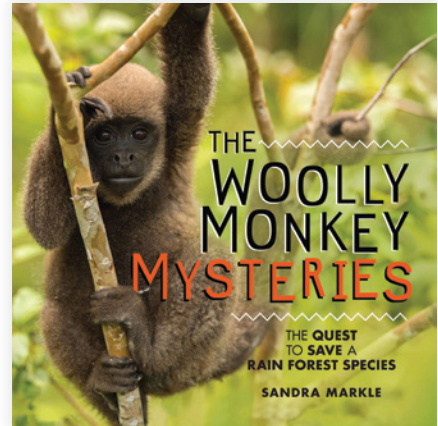
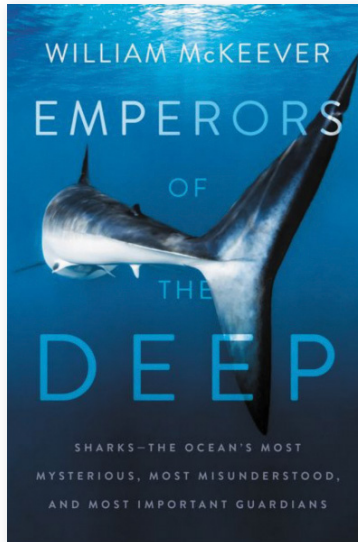
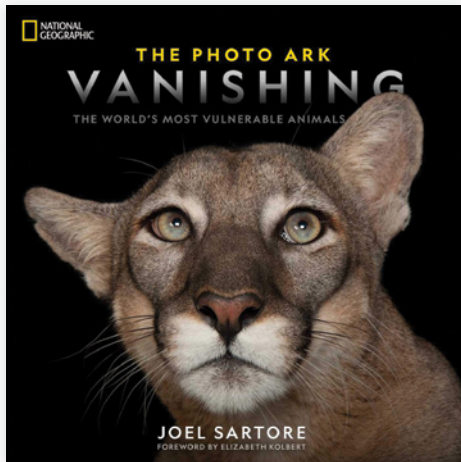
The last administrative complaint filed against a research facility for failure to comply with the AWA was September 2016, against **SNBL USA**. The complaint described 38 monkey deaths. Weeks later, a November 2016 inspection documented multiple monkey deaths as well as stereotypical behavior (see *AWI Quarterly*, winter 2016). In response to the complaint, SNBL signed a consent agreement on December 2, 2016, mandating a \$185,000 fine, 30-day dealer license suspension, and an order to cease and desist from violating the AWA. Yet a May 2017 inspection of SNBL documented 40 guinea pigs with open wounds and substantial swelling caused by irradiation; only 10 of the guinea pigs were provided painkillers. A monkey suffered two broken bones in his arm arising from the protocol, possibly from restraint, but SNBL waited 20 hours after observing the trauma before contacting a veterinarian. The monkey was euthanized. Despite this disturbing record, AAALAC continued to accredit

SNBL USA until it was sold in September 2018.

Clearly, AAALAC accreditation does not equate to AWA compliance. And yet, the USDA’s new system will exempt accredited research facilities from the full annual compliance inspections mandated by law. Instead, for each of the first two years, accredited labs will have a greatly abbreviated “focused” inspection of either the records, the physical facilities, or the animals—who, at accredited labs, could end up being inspected by USDA veterinarians only once every three years.

A couple of years ago, the USDA proposed to reduce oversight of accredited facilities regulated under the AWA. The department received more than 35,500 comments on this proposal—the vast majority opposed. The USDA withdrew the proposal and announced that it “will not recognize third-party inspections and certifications.” Flying in the face of that announcement is the USDA’s decision to reduce oversight of accredited labs.

Industry will no doubt claim that the USDA’s risk-based inspection system will still result in closer monitoring of problem facilities like the University of Washington and Oregon Health & Science University. But such a defense—as well as the USDA’s secret adoption of this new system—ignores this fundamental truth: AAALAC accreditation simply does not ensure animal welfare compliance. As the years-long USDA record shows, accreditation did not prevent significant animal suffering and death at multiple labs. No amount of industry or USDA spin can obviate this incontrovertible fact. In short, the USDA cannot be allowed to “give the finger” to animal welfare, compliance with the law, and public accountability. 🐾



THE PHOTO ARK VANISHING

Joel Sartore / National Geographic / 400 pages

Joel Sartore is a gifted wildlife photographer. Fifteen years ago, events in his personal life meant he could no longer travel internationally to photograph wildlife in their natural habitat. So he turned his lens to what in many cases are the last animals of a species held in captivity in various zoos.

Since then, he has created a stunning photographic record of the extinction crisis, dubbed the Photo Ark, images from which he shares daily, accompanied by conservation messages, with his 1.4 million Instagram followers. These photos have now been compiled into a coffee table photography book called *The Photo Ark Vanishing: The World's Most Vulnerable Animals*. The book is divided into four chapters: Ghosts (extinct, or extinct in the wild), Disappearing (critically endangered), Fading (endangered), and Dimming (vulnerable).

Every image in the book is of an animal against a white or black background, drawing into stark relief the reality that these animals are so far from their natural habitat.

Many, though not all, will wink out in captivity. The short text accompanying each image identifies the causes of the species' decline—threats ranging from climate change and habitat destruction to the pet and folk medicine trades—and often notes how many individuals remain. Sartore also includes commentary on the extent of the extinction crisis, hails species conservation efforts around the world, and includes an urgent call to action to prevent more loss.

The book is gorgeous and tragic, a far more visceral experience than Douglas Adams and Mark Carwardine's *Last Chance to See*, published in 1990, which chronicled their travels to view some of the last wild members of several species—some of which are now featured in Sartore's book.

It is important to note that while a select few zoos and captive breeding facilities play key roles in preventing extinction and recovering species, most serve no conservation benefit. In-situ conservation is preferable and most zoos provide woefully inadequate facilities and care.

EMPERORS OF THE DEEP

William McKeever / HarperOne / 320 pages

William McKeever's *Emperors of the Deep: The Ocean's Most Mysterious, Most Misunderstood, and Most Important Guardians* highlights the significance of sharks to the oceans' delicate ecosystems and reveals the horrendous threats jeopardizing their continued existence.

The book begins with a description of how movies and the media have created a culture of mass hysteria and fear toward sharks by focusing on the extreme and very unfortunate incidents that have resulted in human fatalities. McKeever then illustrates the mismatch between the hype and the actual risk by revealing the statistically significant data on shark attacks—leading to a conclusion that if sharks intentionally targeted humans, the number of incidents would be vastly higher. Having shown that the probability of harmful interactions between humans and sharks is very small, McKeever offers evidence supporting other theories behind many of the more sensationalized attacks.

After establishing the context that sharks do not routinely target humans, the author weaves his very personal stories with fascinating biological facts about several species of sharks, portraying sharks in a more humane light, with intriguing characteristics and habits. He then does a superb job of identifying and explaining many of the factors currently contributing to the devastation of shark populations around the planet. McKeever also exposes the connections between the shark finning industry and human indentured servitude.

McKeever provides several examples of devastating impacts to other ecosystems when a species is removed, and he leaves the reader with a sense of urgency that action is needed. The book concludes nicely with a sense of hope and suggestions for actions everyone can pursue to help make a difference. From cover to cover, *Emperors of the Deep* will captivate your attention, inspire you to think about sharks very differently, and convince you that sharks need our help.

— Robert Tomiak, Vice President, Monitor Caribbean

THE WOOLLY MONKEY MYSTERIES

Sandra Markle / Millbrook Press / 40 pages

Performing noninvasive studies of wild animals can be tricky. The task becomes even more challenging when the subject of the study mainly lives in the canopy of the rainforest—nearly 100 feet above ground. *The Woolly Monkey Mysteries* takes readers on a journey to Manu National Park in the Amazon Basin, where camera traps are installed to learn more about an elusive species: the woolly monkey. How many woolly monkeys are there? What role do they play in protecting the rainforest? Scientist Ruthmery Pillco Huarcaya seeks answers to these questions and more.

The lives of these elusive monkeys have long been a mystery. Through the story, we learn that these magnificent animals act as the gardeners of the rainforest. Their diet consists mainly of fruit from the rainforest canopy, but they are unable to digest the fruits' seeds. Their waste spreads fruit seeds, which eventually grow into young trees. As the story notes, woolly monkeys are considered a keystone species because they are so vital to the rainforest's ecosystem.

As with most studies, learning more about a species leads to even more questions about them. How is climate change impacting their range? How are they affected by rainforest fragmentation? These remaining questions point to of the importance of continuing such research, as ensuring the survival of this species is critical to the survival of the rainforest.

A former elementary school teacher, author Sandra Markle uses innovative techniques to intrigue readers. QR codes in the book take readers to sound clips of the monkeys vocalizing and videos from the study, while informative graphics and beautiful imagery allow readers to step into the shoes of a scientist studying woolly monkeys.

The Woolly Monkey Mysteries would entertain readers of all ages but would be particularly enjoyable for elementary-school-age children interested in learning about wild animals.

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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JAPAN SELLS SEI WHALE MEAT IN VIOLATION OF CITES

Having failed to persuade the International Whaling Commission (IWC) at its September 2018 meeting to overturn its longstanding ban on commercial whaling, Japan left the IWC on June 30, 2019, after nearly seven decades of membership. On July 1, Japan announced commercial whaling quotas authorizing the annual slaughter of 25 sei whales, 187 Bryde's whales, and 171 minke whales.

The IWC's underlying treaty, the International Convention for the Regulation of Whaling, is not the only international agreement of which Japan and its whaling interests have run afoul, however. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) prohibits international trade in parts and products of all large whales for commercial purposes. International trade includes landing specimens caught on the high seas (beyond the jurisdiction of any country). Since 2002, Japan has hunted more than 1,500 sei whales on the high seas of the North Pacific under the guise of research and sold more than 18,000 metric tons of their meat and blubber on its domestic market.

AWI and its allies prepared a legal analysis of the trade for the October 2018 meeting of the CITES Standing Committee,

and AWI attended the meeting to press its case. The committee ruled that this commercial use of sei whales did indeed violate the treaty and instructed Japan to take remedial measures. Japan responded by ending the high seas component of its sei whale hunt (reducing the take of sei whales from 134 to 25). It has continued, however, to allow the sale of thousands of tons of illegally imported meat.

At the 71st meeting of the CITES Standing Committee in August 2019, AWI presented new information on the extent of this market. Our surveys show that illegally landed sei whale products are sold by around 75 percent of Japanese whale meat vendors and are widely available online. Sei whale is also served by 40 percent of Tokyo restaurants that offer whale meat.

In response, most Standing Committee members insisted that Japan should confiscate and dispose of remaining stocks of sei whale products. The next step is for Japan to report on its management of sei meat and blubber to the Standing Committee at its 2020 meeting. AWI will continue to argue that Japan will not be compliant with CITES until it confiscates and disposes of all sei whale products landed before 2019. 🐾

