



# AWI Quarterly

Summer 2013 Volume 62 Number 3

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## About the Cover

A short-snouted seahorse off the coast of Malta, in the Mediterranean Sea. Exotic in both appearance and behavior, seahorses—fish of the genus *Hippocampus*—are among the most charismatic occupants of the ocean, seemingly sprung from a mythic world set apart from our own. (Indeed, ancient Greek fishermen thought they were the miniature descendants of the mighty horses that pulled Poseidon's chariot.)

But the otherworldly nature of the seahorse has not afforded it protection from humans. Seahorses are traded both live (for aquariums) and dead (as tourist trinkets), but are coveted most of all for their supposedly curative powers. Traditional Chinese medicine holds that seahorse bodies can ease a variety of afflictions, from asthma to impotence. While this medicinal use goes way back, it is the modern ease with which these animals are pulled from the sea and shipped around the world that now threatens their continued existence. Coupled with heavy habitat loss, international trade has caused seahorse populations to plummet. As explained in the feature article on page 6, we must reverse this distressing trend if we hope to keep this “mythical” animal from becoming merely a creature of legend.

Photo by Wild Wonders of Europe, Zankl/Minden Pictures

## AWI Honors Journalist Tom Knudson with the Schweitzer Medal



Tom Knudson's investigation exposed indiscriminate and inhumane killing of red foxes and other animals by Wildlife Services.

Mr. Knudson has been a leader in shedding light on WS' cruel and nonselective practices. His in-depth series on the program, published in the *Bee* in

2012, exposed the federal government's ongoing, taxpayer-funded wildlife killing practices and their devastating impacts on animal welfare and the environment, and examined opportunities for reform.

As Mr. Knudson's articles reveal, WS kills approximately 5 million animals each year in the name of “managing problems caused by wildlife.” It operates with notoriously little transparency, and Mr. Knudson's investigation “found the agency's practices to be indiscriminate, at odds with science, inhumane and sometimes illegal.” The program has largely ignored effective, nonlethal wildlife management options, with serious consequences for animals, ecosystems, and public safety.

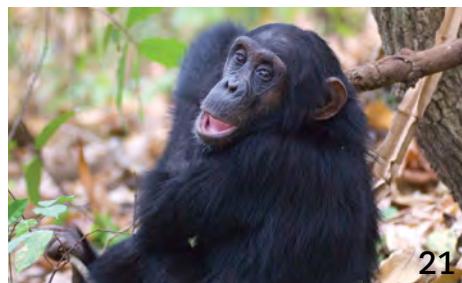
By drawing attention to the myriad problems plaguing WS, Mr. Knudson has raised awareness of the urgent need for a new direction. AWI applauds him for bringing these critical issues into the public eye through his exceptional reporting and is proud to honor him with the Schweitzer Medal. 



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**Above Left:** A dog at a rescue facility in Thailand pulls playfully at a visitor's clothing. (Rosalyn Morrison)

**Top Right:** Members of an elephant family in Kenya. Targeted for ivory, elephants fall victim to the bushmeat trade, as well. (Kenya Wildlife Services)

**Bottom Right:** A wild chimpanzee in Tanzania's Mahale Mountains National Park. (David Schenfeld)



## School Lunch Suppliers to Get Better Education in Humane Handling

THE AGRICULTURAL MARKETING SERVICE (AMS), a USDA agency, is amending its Animal Handling and Welfare (AHW) requirements for companies that supply meat from cattle, pigs, and sheep to the national school lunch program. As of July 2013, such companies are required to adopt the American Meat Institute's *Recommended Animal Handling Guidelines and Audit Guide, 2012 Edition* in its entirety. An individual certified by an AHW training program must conduct humane handling training for a food supplier's employees, and the company must establish an internal AHW steering committee, to be held accountable for animal handling and welfare initiatives. Major beef, pork, and lamb providers for school lunches, including Cargill Meat Solutions, Smithfield Packing Company, and Tyson Fresh Meats, previously were only expected to train employees according to portions of the American Meat Institute's guidelines, and were not required to have an internal committee regulating their company's animal handling and welfare activities. While the AMS program is voluntary, companies that want to provide their products to school lunch programs must follow these guidelines. 

## OIG Report: Skimping on Suspensions for Scofflaw Slaughter Plants

THE USDA OFFICE OF INSPECTOR GENERAL (OIG) has released an audit of inspection and enforcement activities at pig slaughter plants. The May 2013 audit found that inspectors for the Food Safety and Inspection Services (FSIS) do not always enforce humane handling regulations properly. OIG auditors cited 10 instances in which FSIS inspectors did not suspend a plant for egregious violations, which included a pig being stunned improperly with a captive bolt gun, a non-ambulatory hog being moved with improper equipment, and a hog being hit in the head and face with a paddle. In the event that humane handling violations such as these are found, an inspector should suspend a plant without prior notification. In these three incidents, no suspensions were issued even though district officials agreed that the severity of the incidents warranted suspensions. 



COURTESY OF DOVE IMAGING (WWW.DOVEIMAGING.COM)

An industrial hog farm in North Carolina, with massive manure lagoon in the background. Smithfield's sale to Shuanghui International may spawn more of these polluting, inhumane establishments.

## SMITHFIELD SALE RAISES CONCERN

Shuanghui International, a Chinese meat processing company, has agreed to purchase U.S.-based Smithfield Foods, a development that raises numerous concerns. Sale of the world's largest pork producer to a company that is heavily subsidized by the Chinese government is expected to result in less competition and further consolidation in the pork industry worldwide. The company will likely ramp up production in the United States—with associated increases in environmental pollution and animal suffering—to meet the Chinese population's growing demand for meat. Intensification and consolidation of pig farming will result in the replacement of thousands of small family farms with massive animal feeding operations, where pigs are crammed by the thousands into windowless sheds and fed antibiotics to keep them alive. Smithfield has announced that it will raise half of its pigs on feed that does not contain ractopamine, a drug that causes adverse physical and behavioral effects in pigs and has been banned in a number of countries. Given that China does not allow pork from pigs raised with ractopamine to be imported, it seems likely that only Chinese consumers will be receiving ractopamine-free pork and American consumers will continue to be sold pork raised with the drug. 

## Harvard Pulls Plug on Primate Research Center

**IN A STUNNING MOVE**, Harvard University announced in April that it was closing the New England National Primate Research Center (NENPRC). The closure—to be finalized by 2015, with the Center's almost 2,000 monkeys placed at other labs—follows repeated violations of the Animal Welfare Act, which had forced Harvard to convene a committee to review and improve operations at the off-campus facility. The National Primate Research Center system was established by Congress in 1960, and the NENPRC is one of the original seven. The closure of such an important, historical part of the primate experimentation system is significant.

The university claims that this decision was based on a shift in long-term strategies and straitened research funding (despite the fact that the annual cost to keep the Center open over the next five years represented only about a tenth of a percent of the university's 2012 operating costs). The media, likewise, seemed unconvinced by the spin. As Popular Science wrote, "We're pretty skeptical that the animal rights violations and ensuing press had nothing to do with the shutdown, but that's the official word from Harvard."

In fact, industry insiders told AWI that the longstanding animal welfare violations and resulting publicity "played a big role in Harvard's decision," and that the university wanted to "lance the boil" on its reputation caused by NENPRC's record. It became big—and

embarrassing—news for Harvard when the Boston Globe reported last year that the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International, in a highly revealing and unusual move, had suspended Harvard's accreditation.

The closure of NENPRC does not mean the end of all primate experiments at the university. NIH-funded experimentation on monkeys will continue at Harvard Medical School. 

## NIH TO RETIRE MOST OF ITS CHIMPANZEES FROM RESEARCH

On June 26, the National Institutes of Health (NIH) embraced nearly all of the recommendations regarding chimpanzees in research contained in the report of the Working Group of the Council of Councils (see Winter 2013 AWI Quarterly). The announcement by NIH Director Francis Collins, heralded by humanitarians, included plans to retire more than 300 chimpanzees, who represent the vast majority of chimpanzees owned or supported by the agency. NIH will retain, but not breed, up to 50 chimpanzees who may be used in research in the future. Any further NIH-funded research on chimpanzees will be subject to rigorous review in addition to peer-review, and the animals are to be housed in ethologically appropriate facilities. 

## COMPASSION MAKES A DIFFERENCE



AWI is pleased to announce publication of *Compassion Makes a Difference*, the third volume of discussions from the Laboratory Animal Refinement & Enrichment Forum (LAREF), edited by longtime AWI laboratory animal advisor, Viktor Reinhardt. The online forum facilitates the exchange of ideas and the sharing

of personal knowledge and experience by animal care personnel who seek to improve the conditions under

which animals in research are housed and handled.

Though officially retired, Viktor continues to co-moderate LAREF, the discussion group he established more than a decade ago. In compiling *Compassion Makes a Difference*, Viktor selected the most salient questions and responses posted by forum participants during 2010–2012. Separate sections of the book cover issues relevant to cats and dogs, pigs, sheep and goats, rodents, rabbits, primates, and (new with this volume) cold-blooded animals. The book includes a wealth of practical advice for animal care personnel, as well as touching personal anecdotes concerning the caregivers' attempts to provide enrichment to the animals and shield them from needless stress and suffering. 

# Huge Demand Herding Seahorses into Extinction



*With a horse's head, the snout of an aardvark, a chameleon's color changing abilities and independently operating eyes, a monkey-like prehensile tail, and—in males, not females—a marsupial's pouch for the gestation of young, the mythical seahorse is one of nature's most unique animals.*

Increasingly, the characteristics that make seahorses so seemingly exotic, along with their alleged curative powers, have led to their demise—trade in seahorses is a leading cause of population declines of at least 50 percent globally and more than 90 percent in specific populations over recent decades. Given their

small population sizes, low densities, preference for specific habitat types, low mobility, elaborate reproductive behaviors, high rates of juvenile mortality, and extensive prenatal care, seahorses are slow to recover from such exploitation.

Seahorses inhabit coastal ecosystems in temperate and tropical waters throughout the world, with both species diversity and population numbers highest (at least historically) in Asian and Latin American countries, along with Australia, New Zealand, and other tropical island states. The various species range in size from under an inch to more than a foot in height, and live from one to five years. With their unpalatable bony plates and spines, as well as effective camouflage, adult seahorses have few natural predators.

Seahorses pair-bond, with partners participating in daily interactions and elaborate mating rituals before the female deposits eggs into the male's pouch. The eggs, depending on the species, gestate from two to six weeks, until as few as five to as many as 1,500 or more are born live during hours of labor, after which—often within a day—the male is “impregnated” again. Young seahorses are independent from birth; very few

survive to adulthood.

While scientists have learned much about seahorse biology and ecology in the past two decades, much of the basic information about population distribution, range, numbers, trends, and the impact of trade on population viability remains unknown and, consequently, conservation efforts are hampered.

The International Union for Conservation of Nature (IUCN) Red List of Threatened Species includes 38 seahorse species; 26 are listed as “data deficient” (i.e., insufficient information to assess status), 10 as “vulnerable,” one as “endangered,” and one as being of “least concern.” The IUCN identifies bycatch and/or unregulated take as the primary threat to nearly every species.

Precise numbers are difficult to obtain, but the vast majority of the seahorses in trade are used in traditional medicines. Such usage originated in Europe but today is centered in Asia—particularly, China. In addition, several hundred thousand to a million seahorses are traded annually as tourist curios—earrings, key chains, paper weights, and other trinkets—with a similar number of live seahorses obtained for aquariums. Virtually all of these animals are taken as bycatch

from shrimp and prawn trawlers. As demand increases in concert with the booming Chinese and other Asian economies, captured seahorses are retained by fishermen to supplement their incomes.

Though the seahorse trade is centuries old, it wasn't until the mid-1990s that Dr. Amanda Vincent, an expert in the international trade in seahorses and cofounder of Project Seahorse, published the first comprehensive assessment of the trade. Dr. Vincent estimated that, in 1996, approximately 45 tons (or 16 million seahorses) were being used in Asia alone. An estimated 24 million seahorses were traded internationally that year. The main exporting countries were Thailand, the Philippines, India, and Vietnam, while the primary importers were the then-British colony of Hong Kong and the countries of China, Taiwan, Japan, and Korea, with a total of 32 countries engaged in the trade. The United States and Europe were and continue to be major importers of live seahorses, primarily for commercial and private marine aquariums.

Since the mid-1990s, the number of seahorses in trade (domestic and international) has substantially

increased, with estimates ranging from 24.5 million to more than 150 million now consumed annually by some 80 countries. Based on his undercover investigation in China, Kealan Doyle, a marine biologist and founder of Save Our Seahorses, reported in 2012 that 150 million seahorses are used annually in China alone as traditional medicine—seven times the official reported number. Doyle found that a single market in Guangzhou, China, sold 20 million seahorses a year. He visited stores that had, he estimated, 30,000 dead seahorses in bags piled from floor to ceiling—with 6,000 such stores in Hong Kong alone. This level of trade is unsustainable and, according to Doyle, could lead to seahorse extinction within a few decades.

Seahorses—dried, crushed, boiled, powdered, or fermented (initially live or dead) in alcohol—are used alone or in concoctions to treat a litany of conditions, including kidney ailments, stomach pains, baldness, tuberculosis, goiter, wounds, bone fractures, and as an aphrodisiac. In recent years, seahorses have been used as a growth stimulant in children, and by adults as an alternative to Botox treatments. For convenience, manufacturers of traditional medicines in Asia have



RANDALL VAN GURCHOM

incorporated ground seahorse powder into pills, making it more difficult to monitor the number of seahorses in trade. Medicinal products containing seahorses are also available in the United States. While empirical evidence that seahorses have a medicinal value is lacking, adherents of traditional medicine believe that centuries of such use is sufficient proof of the species curative powers—a belief that is leading the seahorse toward extinction.

Inevitably, such out-of-control trade has severe impacts on seahorse populations. In Asia alone, within a 10-year period beginning in the 1990s, seahorse populations had declined by an estimated 50 percent. Since then, scientists have expanded their research into the seahorse trade in Vietnam, Thailand, Malaysia, East Africa, Brazil and elsewhere in Latin America, documenting an expanding global trade. The evidence acquired reveals continued declining seahorse numbers with, in some cases, substantial localized declines if not extirpation.

In 2002 the entire seahorse genus (*Hippocampus*) was listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to permit,



STEPHEN BUGNO

Bowls piled high with the dried bodies of seahorses at a Hong Kong market. The animals are increasingly coveted as traditional medicine cure-alls.

but regulate, the seahorse trade. The Appendix II designation requires exporting countries to ensure the animals are legally acquired and that their removal will not be detrimental to the species in the wild. Recognizing the difficulty in making the required “non-detriment findings” (NDF), an interim, voluntary compromise was agreed to in 2005, whereby trade in wild-caught seahorses at least 10 centimeters (~4 inches) in height would be permitted in lieu of an NDF. It is unlikely that this compromise has benefitted seahorse conservation, as it is only voluntary, may not be adequately enforced, and does not address the significant

amount of unreported trade and other anthropogenic threats to seahorse populations and their habitats.

An analysis of CITES international trade data maintained by the United Nations Environmental Programme – World Conservation Monitoring Centre reveals that over 32 million seahorses (live and dead) were exported by nearly 70 countries from 2004 through 2011. Over 31 million of these animals were captured in the wild. During that period, over 1½ million seahorses were traded live for aquariums, with the rest (the vast majority) traded dead as curios or for traditional medicinal use. These numbers—though huge—represent substantial underestimates of the full scale of the trade, due to reporting deficiencies and also because these data do not include seahorses traded domestically or illegally.

The same database reveals that the United States imported nearly 600,000 seahorses from 2004 through 2011, including over 54 percent imported live. Of those live imports, more than half were captured in the wild with the remainder reportedly acquired from “captive” sources, being designated as either captive-bred, farmed, or ranched according to a CITES classification system. As is the case with many CITES species allegedly from captive sources, it is likely that wild seahorses are captured and illegally traded as captive-bred. In 2011 alone, over 72,000 seahorses were imported into the United States, with over half imported live—nearly 60 percent of those reportedly captive-bred or farmed. Over one-third of known imports were designated as illegal.

The precipitous declines in seahorse numbers have prompted efforts to preserve these unique species. Among the tools being used are the establishment of “no-take” marine protected areas, restrictions on the type and timing of fishing operations, and the development of seahorse aquaculture operations (both *in situ* and *ex situ*), which has led to a reported increase in the proportion of captive-raised seahorses in international trade. Though promising, none of these tools have been able to reverse declining population trends or meet the excessive global demand for seahorses.

Trade is not the only threat to seahorses, as their ocean habitat—primarily mangrove, sea grass, and coral ecosystems—are some of the most endangered in the world. Worldwide, over the past few decades an estimated half of all mangrove habitats have been destroyed; nearly 60 percent of coral reef habitat has disappeared, become degraded and/or fallen under imminent threat; and some 1,400 square miles of sea grass habitat has been lost. Such degradation—caused by coastal development, pollution, dredging, climate change, and destructive fishing practices that include the use of trawls, dynamite and poisons—are just some of the threats to the places seahorses call home.

Considering the cumulative impact of these environmental assaults and the seemingly insatiable human demand for seahorses, this unique and mythical creature with an anatomy as unusual as any creature created by Dr. Seuss, may be extinguished by greed, ignorance and vanity much sooner than predicted. Only time will tell. ♣



With an adroitly unfurled prehensile tail, this potbelly seahorse (*Hippocampus bleekeri*) hangs on off the southern coast of Australia. Worldwide, seahorse populations are slipping.



## Putting CITES Protections into Practice in West Africa

AWI IS FOLLOWING UP ON the successful efforts to obtain international trade protections for the imperiled West African manatee under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), achieved at the CITES Conference of the Parties in March in Bangkok (see Spring 2013 AWI Quarterly). AWI's graphics team, working in conjunction with the Species Survival Network and a manatee scientist, has developed an educational poster targeted at local coastal communities in the West African range nations. The aim of the poster is to encourage local communities to protect manatees, by highlighting the threats they face, banned activities, and ways to help conserve them and their habitats. French and English versions of the poster are to be distributed across the range states through local conservation networks. ♀

## AWI RALLIES FOR WHALES IN MAINE

AWI was joined by local whale advocates in Portland, Maine, on May 31, 2013, to protest Iceland's expanding commercial whaling program and plan to resume fin whaling. The rally coincided with Maine's International Trade Day, featuring the president of Iceland, Ólafur Ragnar Grímsson, who gave a keynote speech at a noon luncheon. He spent the afternoon touring the recently renovated Port of Portland before attending a reception at the Portland facilities of Eimskip, Iceland's oldest shipping company. Eimskip recently made Portland its only port of call in the United States, with 5,000 containers expected to pass through Portland annually. Eimskip has already begun delivering fish and other products exported to the United States by companies linked to the Icelandic whaling company, Hvalur. Rally attendees armed with inflatable whales and signs lined the route to the port and hundreds of passing cars honked in support. ♀

## SeaWorld Fined Again over Trainer Death

SEAWORLD ORLANDO has again been fined and labeled a repeat offender by the Occupational Safety and Health Administration (OSHA) for continuing to operate a workplace that can "cause death or serious physical harm to employees." The fine is the result of a follow-up inspection OSHA conducted at Shamu Stadium in Orlando on December 11, 2012. In order to protect SeaWorld employees, OSHA had recommended that the company take steps such as "prohibiting animal trainers from working with killer whales ... unless the trainers are protected through the use of physical barriers or the trainers are required to maintain a minimum safe distance." The fine comes as part of the three-year investigation and suit against SeaWorld after the death of trainer Dawn Brancheau, who was drowned by killer whale Tilikum at the park in February 2010. ♀

# NO RESPITE FOR WHALES

The International Whaling Commission (IWC) isn't meeting this year, but the whales themselves are getting no break from whalers. Despite a ban on the international trade in whale meat, Norway received 14 tons of whale products from Iceland in February. That same month, Norway shipped four tons of whale meat to Japan. And in May, AWI exposed sales of Icelandic fin whale meat as pet treats in Japan (resulting in one Japanese company pulling the products from sale). In June, Iceland's whaling company Hvalur, led by Kristjan Loftsson, resumed commercial hunting of fin whales—an endangered species. (See Spring 2013 AWI Quarterly.) As of this writing, Hvalur has already killed over one-third of the 184 fin whales it proposed to slaughter this summer.



JONNY ZWICK PHOTOGRAPHY

A dead fin whale at the Hvalur-owned whaling station in Hvalfjörður, Iceland. Seafood from Icelandic companies linked to Hvalur is sold all over the world, including to unsuspecting U.S. consumers.

Iceland, Norway and Japan all have formal exceptions to the trade ban, and the former two have similar exceptions to the ban on commercial whaling. (Japan's whaling is conducted under a treaty provision allowing for "lethal research.") Such killing and trade in whale products undermine the bans observed by all other parties to the relevant treaties, and U.S. law allows for strong actions against countries that undermine such conservation

agreements. Calls, petitions and direct appeals by AWI and others to U.S. officials to act decisively, however, have largely fallen on deaf ears.

Despite apparent U.S. inaction, our advocacy community has had some measure of success—inducing the Dutch port of Rotterdam to refuse to transship whale meat and helping to get Japan-bound containers of Icelandic whale meat inspected in Hamburg and returned to Reykjavik. Much more could be done to save fin whales, as well as the minke whales that Iceland kills for commercial gain. For example, the United States could impose targeted trade sanctions on Icelandic products associated with Hvalur and its allied companies (a list of which we have provided to the U.S. government).

Meanwhile, Greenland, a territory of Denmark, has gone rogue—whaling without an IWC-approved subsistence quota. Greenland's "subsistence" whaling is marred by widespread commerciality and high levels of wastage, as well as little accounting to the IWC of actual subsistence need. Yet, at the last meeting of the IWC in 2012, Greenland had the gall to ask for an increase to its usual quota—which IWC commissioners voted down. (See Winter 2013 AWI Quarterly.)

Instead of seeking approval for a reduced quota, Greenland has thumbed its nose at the international community by whaling anyway—putting Denmark in an awkward situation. Earlier this year, AWI met with officials from the Danish Embassy in Washington to discuss that country's options. In July, Denmark announced its intention to withdraw from the IWC by year-end if an IWC resolution cannot be found. The simple solution is for Greenland/Denmark to propose a reduced interim quota through a so-called "postal" vote until the next IWC meeting in October 2014, when the issue can be resolved. AWI is appealing to the U.S. government to pursue this common-sense solution. We fear however, that in an attempt to keep the IWC intact, the United States may capitulate to whatever Greenland wants, thereby rewarding bad behavior and setting the precedent of asking for acquiescence after the fact, rather than obtaining prior agreement within the IWC. 

## 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, D.C., 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.

# *Working Through the IWC to Help Whales Steer Clear of Fishing Gear*

*David Mattila*



*Top:* Fishing gear like this can easily ensnare whales and dolphins—a potential deadly hazard. *Bottom:* Trained responders are helping this humpback whale swim free from entangling rope.

**Whales** have been getting entangled in man-made ropes and nets, probably, since the first fishermen began to use these materials to catch fish thousands of years ago. However, before the advent of synthetic materials large whales likely ripped through this gear; any that was carried away with them may have deteriorated before it could become life-threatening. But with the introduction of strong synthetic ropes and nets after World War II, whales were more susceptible to being held by the gear and drowned. Even if they broke free, any gear remaining on the whale (even a single tight wrap of rope) could stay with them for years, sometimes causing a protracted death. Fishermen have certainly released whales if they found them entangled in their gear as, at the very least, they did not want to lose their gear. (Fishermen, in fact, are the only individuals known to have lost their lives while trying to release an entangled whale.)

In 1979, Dr. Jon Lien began the first formal whale release program, in Newfoundland, Canada. His motivation was both to save endangered whales, and to save fishermen the hardship of lost or heavily damaged gear. New techniques were developed in 1984 by the Provincetown Center for Coastal Studies (PCCS) for removing gear from free-swimming whales, and new research techniques have been developed to understand the scope and impact of large whale entanglement.

Extrapolating from fisheries observer records, it has been estimated that 308,000 whales, dolphins and porpoises (collectively “cetaceans”) die each year as bycatch; however, estimates for large whales were recognized to be low. A significant advance was made through the studies of characteristic wounds and scars on surviving whales conducted by the New England Aquarium and PCCS on populations of New England right and humpback whales. Using the data collected by New England researchers and disentanglement teams, it was estimated that the average time that it took an entangled North Atlantic right whale to die, if not rescued, is six months. The cause of death in these cases was often a slow deterioration due to starvation, or chronic infection.

In 2007, Norway brought this serious welfare issue to the attention of the International Whaling Commission (IWC). The IWC is the only global intergovernmental organization dealing with all conservation and management issues related to large whales. For several decades, the IWC’s scientific committee had been investigating the scope and impact of large whale entanglement as bycatch, but this was the first time that the welfare aspects of this issue were brought to the attention of the member countries. As a result, Australia, Norway and the United States convened several meetings and workshops in order to understand the global scope and impact of this problem, see what various countries might be doing, and determine what the IWC might do to resolve it. Two workshops convened the directors of all existing formal entanglement response programs (i.e., Australia, Canada, New Zealand, South Africa, United States), and several consensus agreements were produced.



ECHO/HAWAIIAN WHALE SANCTUARY

*Top:* A team from the Humpback Whale Sanctuary releases an entangled whale in Hawaii. *Bottom:* NOAA, state agency, and nonprofit responders free a young North Atlantic right whale from ropes and wire mesh near Cape Canaveral, FL.



NOAA/THOMAS WINS

Firstly, after reviewing all of the best current information available, it was agreed that this problem occurs anywhere that whales of any species encounter entangling materials (rope, net and certain debris) in the water column. But due to the strength and mobility of whales, and the lack of reporting infrastructure, the vast majority of entanglements occur unobserved and/or unreported. The experts also realized that, while preventing entanglements is the ultimate answer and goal, in the meantime there needs to be a serious initiative to build capacity in most coastal nations—both to help whales immediately and to gather information in order to make progress toward the ultimate goal of prevention.

The response program directors recognized that in addition to conservation, animal welfare, and economics, there is another pressing reason to undertake the capacity building. That is that more and more frequently, due in part to increased visibility on the Internet and through social media, well-meaning but untrained people are attempting to release entangled whales, resulting in many serious injuries and near-fatal interactions. These attempts, as with releases by fishermen, also often leave a small but lethal wrap on the whale, and if any information is gathered, it is of little use toward prevention. Professional disentanglement programs—as they work to release individual whales—place a high importance on gathering information that will ultimately lead to solving the problem.

Thus, a panel of expert advisors was formed to (1) establish principles and guidelines for entanglement response (“best practices”), (2) develop a strategy and curriculum for building capacity, and (3) advise the 88 countries of the IWC. This panel, its principles and guidelines, and the capacity building plan were formally

endorsed by the member countries at the 2012 IWC meeting in Panama. The principles and guidelines apparently represent the first such internationally agreed upon “best practices” for the rescue of any marine animal. To help carry out this initiative, the United States “loaned” one of the experts (the author) to the IWC Secretariat for two years.

Since the establishment of this initiative, and working formally through the appropriate governments and agencies, over 500 scientists, conservationists, government managers, and others have been engaged in over 20 countries—including Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Korea, Mexico, Norway, Panama, the United Kingdom, and many South Pacific Island countries. The first step is to provide an overview seminar for scientists and governments, followed by detailed training and assistance with setting up entanglement response networks, if requested. These have been conducted for Argentina, Brazil, Ecuador, Mexico and the United Kingdom. Over the remainder of this year, more detailed training is scheduled for Panama and the French- and English-speaking Caribbean. It is hoped that this initiative may become a permanent part of the work of the IWC, as there are many other areas where capacity building is urgently needed (e.g., Africa, Asia, Indonesia, the Middle East, and other parts of Europe and the Americas).

However, even in areas with long-standing effective entanglement response networks, we know that only 1 in 10 entangled whales are reported. Some of these may free themselves (and receive telltale wounds), but others are never seen and/or reported. And so, prevention of

entanglements in the first place is clearly the answer. Fortunately, gathering relevant information and stimulating ideas for prevention are part of both the “best practices” and the capacity-building curriculum. Therefore, as the capacity to respond is expanded, so is the pool of motivated responders who may ultimately come up with the best information and ideas that lead to solving this global conservation, economic, safety, and welfare problem. ♦

• • •

**David Mattila** got started studying whales thanks, in part, to a grant from AWI’s founder, Christine Stevens, agreed to over a cup of tea in 1977. Since then, he has studied humpback whales throughout many of the world’s oceans, worked with Stormy Mayo—now director of the Right Whale Habitat Studies research project at PCCS—to invent techniques to release entangled free-swimming whales (1984), and assisted the National Oceanic and Atmospheric Administration (NOAA) to form the Atlantic Large Whale Disentanglement Network (1996). In 2001 he was hired as research coordinator by NOAA’s Hawaiian Islands Humpback Whale National Marine Sanctuary and, with Ed Lyman, established the entanglement response network there. In 2011 he was loaned (seconded) by the United States to the IWC Secretariat, in order to work on the initiative described in this article.

*For more information on whale entanglement and what is being done within the IWC and elsewhere to address it, please see [www.awionline.org/entanglement](http://www.awionline.org/entanglement).*



DEPARTMENT OF ENVIRONMENT AND CONSERVATION



WHALE RELEASE AND STRANDINGS GROUP

Left: Shellfish pot gear is wound tightly around this humpback whale off western Australia. Right: Wayne Ledwell, director of authorized rescue group Whale Release and Strandings, releases a humpback whale off Newfoundland.



Baguio, Philippines

JONATHAN S. IGARAS

BY ROSALYN MORRISON

**T**HIS past March, I traveled from Bangkok—where I had been attending the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)—to Manila to participate in an undercover investigation on the dog meat trade in the Philippines. Raising awareness on this issue is of utmost importance to me; for two years, I campaigned in South Korea against this cruel trade (See the Winter 2012 AWI Quarterly.), returning home accompanied by Lucy, one of the so-called “dong-gae” dogs commonly raised and slaughtered for meat in South Korea. Lucy is now my constant companion and my ambassador on behalf of South Korean dogs.

I arrived in Manila at 7 a.m. on Friday, March 15. Although utterly exhausted (after having barely slept the past two weeks at the CITES meeting), I was ready for another fast-paced—and incredibly emotional—adventure. From the airport, I took a taxi to the hotel, quickly showered, and then hopped in the bus with Andrew Plumby, the executive director of Network for Animals;

Frank Loftus, videographer from the Humane Society of the United States; and Martin Usborne, a photographer from the United Kingdom.

Despite the interesting company, I soon passed out in the back seat of the bus. Even though it was stiflingly hot, I somehow managed to sleep throughout the bumpy drive to Baguio, a city of about 320,000 people in the northern province of Benguet and six hours (minimum) from the bustling capital of Manila. Baguio is the center of the Philippine dog meat trade and the location of most of the known dog meat restaurants in the country.

The killing and selling of dogs for food is not legal in the Philippines. It was banned in Manila in 1982. A similar ban was enacted nationally in 1998 via the Animal Welfare Act (Republic Act No. 8485). The Act prohibits killing dogs for food with minimum penalties set at 1,000 pesos (equivalent to about US\$22 at the time) and not less than six months in prison. The Anti-Rabies Act (RA 9482), passed in 2007, includes more severe penalties with minimum fines of 5,000 pesos per dog and not less than one year of imprisonment for participating

in the trading of dogs for their meat. Despite the sanctions encoded in the law, however, law enforcement officials have done little to actually end this illicit trade.

Upon arrival in Baguio, we headed for Comiles 2, a restaurant reputed to sell dog meat, where the waitress politely asked us if we wanted pork, chicken, or dog. Frank documented the encounter on film and as a result we have actual evidence, not just rumors,



A member of the investigative team took this picture of a dog meat dish served to a patron at a restaurant in Baguio.

MARTIN USBORNE

that the restaurant sells dog meat. Within a few minutes, another customer—a man who looked to be in his 40s—came into the restaurant and ordered a dish of barbequed dog meat. Martin walked over to take a picture of the customer's dish, and the customer became very defensive, got his food to go, and left the restaurant noticeably upset. The owner of the restaurant became very aggressive, denied selling dog meat, and everyone in the room became very tense. After several minutes of disputing, we abruptly left the restaurant, evidence in hand.

Afterward, we visited a local market and a city veterinarian, and spoke with a man who is building a shelter in the town of Bulakan for dogs rescued from slaughter. A few years ago, dog meat was sold in the open-air markets. On our trip, we did not see any dog meat for sale in the markets, which hopefully is a sign that the trade here is declining. We also stopped at a Korean restaurant to ask if they served dog meat and were pleased to learn they did not.

Sunday, we drove to the town of San Pedro in Laguna province, where multiple dog meat traders are reported to operate. While there, we rescued a two-month-old puppy who was tied on a short chain—persuading the owner to part with her for \$10. She was very dehydrated and hungry, with ticks in her flesh and parasites in her stomach. She will stay in the Philippines for a few months until she is ready to be adopted.

The next morning, Andrew and I met with Ferdinand Manuel from the National Bureau of Investigation (NBI)—the equivalent of the FBI in the United States—to work on coordinating a raid to help save other dogs like our rescued puppy. After our meeting, two colleagues from the Humane Society International joined us at a meeting with Rubina Cresencio, the director of the Bureau of Animal Industry

(a division of the Department of Agriculture) to discuss the best strategies for stopping the trade.

Even though selling dog meat is illegal in the Philippines, half a million dogs are still brutally tortured and consumed every year. Historically, dog meat was associated with celebratory events and rituals of mourning and only affected a small number of dogs. However, over the past quarter century or so, the dog meat trade has rapidly expanded for commercial rather than cultural reasons.

Investigators have documented the existence of at least 25 dog meat restaurants and four slaughterhouses in Baguio, seven dog meat traders in Laguna and Batangas provinces, and two slaughterhouses in Pangasinan province. Unfortunately, there are also many more underground entities involved in the industry throughout the northern provinces.

Stray dogs are rounded up off the street and transported to Benguet and neighboring provinces under extremely inhumane conditions without food or water. Steel cans are forced around their muzzles and their legs are tied behind their backs. Many of the dogs are pets—some are still wearing their collars. According to international animal protection organizations who have engaged in extensive enforcement, nearly half the dogs die before they reach their final destination due to the stressful conditions of the transportation;

at times of extreme heat and overcrowding, as many as 90 percent of the dogs may die. Such startling mortality rates are of no concern to the dog meat traders, as the dead animals are processed along with the live ones. Behind closed doors, dogs are clubbed, throats are cut, and fur is scorched off with a blowtorch—often while the dogs are still conscious.

Top: Mango, a puppy rescued in San Pedro. Bottom: Andrew Plumbly of Network for Animals and AWI's Rosalyn Morrison stand outside the Philippines National Bureau of Investigation HQ. (Courtesy of R. Morrison/Animal Welfare Institute)



*Half a million dogs are slaughtered annually in the Philippines. These dogs bound for slaughter were seized in a raid in Manila, but were later euthanized.*

## HUMAN HEALTH IMPLICATIONS OF THE DOG MEAT TRADE

A regional director of the Philippines National Meat Inspection Commission publicly stated several years ago that consumption of dog meat is “dangerous,” as it is not inspected by the Commission. Consuming dog meat thus puts individuals at considerable risk of infection from harmful bacteria such as *E. Coli* 107 and *Salmonella* (commonly found in contaminated meats), as well as at increased risk of contracting potentially deadly diseases such as anthrax, brucellosis, cholera, hepatitis, and leptospirosis.

Dog meat is further linked to the spread of rabies—a disease that kills approximately 10,000 dogs and 300 people in the Philippines annually. Evidence shows that the rabies virus can be present, and therefore potentially transmitted to humans, throughout all stages of the dog meat industry—sourcing, trading, slaughtering, butchering, and meat preparation—impeding efforts toward eradicating rabies in the region. The World Health Organization has noted that “controlling trade in and [the] movement of dogs” along with the promotion of mass dog vaccination campaigns is key to dog rabies control and the disease’s eventual elimination. In order to pursue this goal, the Philippine government included a prohibition regarding the trade of dog meat in the 2007 Rabies Act and stated a nationwide goal of eradicating rabies by 2020—a target



NETWORK FOR ANIMALS

that cannot be achieved unless the dog meat trade is shut down.

There are, however, developments that seem to indicate the beginning of a positive change. The Wildlife Division of the NBI recently raided nine restaurants. Additionally, Network for Animals took the lead on conducting a slaughterhouse raid in the town of Malasiqui, about 50 miles south of Baguio, by providing resources such as surveillance and funding for the management of the raid. On December 5, 2012, with the cooperation of local authorities, seven dog meat traders were arrested, 22 dogs were rescued, and 49 dog carcasses were confiscated. (As of press time, a trial date for the arrested traders has not yet been set.) While the local police were involved in the raid, enforcement needs to be initiated by domestic law enforcement rather than international nonprofit organizations in order for such successes to continue on a regular, widespread basis.

The illegal dog meat industry in the Philippines causes harm in many ways, from the extreme physical and mental suffering of hundreds of thousands of dogs to the significant costs to human health. In order to successfully eradicate the trade in dogs for human consumption, mechanisms of enforcement need to be established at the provincial, municipal, and village levels to ensure that such a cruel industry has no ground on which to stand.

It is also crucial to work with local

communities to raise awareness of the risks that the dog meat industry poses to both human health and animal welfare, and for local law enforcement officers to be adequately equipped with the skills, knowledge and motivation to enforce existing laws. The objective is to have the Philippine Department of the Interior as well as local governments ensure that the national ban is consistently and aggressively enforced in the dog meat regions of the country in order to demonstrate a serious commitment to ending this inhumane industry.

## ON TO THAILAND

After a week in the Philippines, I flew to Phuket, Thailand, to visit Soi Dog Foundation (SDF) and meet its founder, John Dalley. The week before I arrived, SDF conducted three raids and saved 520 dogs from unimaginable suffering. Even though the dog meat trade is illegal in Thailand, dogs are frequently rounded up off the streets—90 percent of them estimated to be pets—and smuggled across the Mekong River into Vietnam, where the dog meat trade is rampant due to a common belief that it has warming properties that aid in maintaining health and recovering from illness. The main consumers of the meat are wealthy Vietnamese businessmen who can afford its high price.

The Thai Veterinary Medical Association estimated that in 2011

half a million dogs were being smuggled into Vietnam annually to be slaughtered. Following increasing pressure by SDF and others, the number is currently far less than this, though many dogs are now being slaughtered locally and the meat smuggled instead. Hence, despite the national ban, the illegal trade in Thailand is worth approximately 1 billion Thai baht a year—over US\$30 million. The Thai government does not have the necessary funding to adequately protect its dog population from the illegal meat trade. The Department of Livestock Development is charged with sheltering and providing for the dogs rescued from the trade, yet it currently has no budget for this (since dogs are not considered livestock animals in Thailand).

In Thailand as in other places, the dog meat trade is conducted with callous cruelty; dogs are packed for days in small cages, and many die before they reach their final

destination from heat exhaustion or asphyxiation. In many places where dog meat is consumed, including Thailand, there is a common belief that dog meat is more tender if it is permeated by adrenaline just prior to slaughtering. As a result, dogs are intentionally killed slowly so as to increase their intense fear and stress. Dogs are boiled alive, beaten to death, hung, or skinned alive for their meat. Tragically, even dogs rescued from such a horrific end are not guaranteed a life of recovery and health. Dogs in Thailand are not routinely vaccinated. According to SDF, a full 70 percent of the rescued dogs end up dying from disease, as well as injuries and starvation.

In June, CNN.com prominently featured articles covering the dog meat trade in Thailand and Vietnam. We are very glad to see this issue finally gaining mainstream global attention. While it is important to raise international awareness on the illegal dog meat trade in these



COURTESY OF R. MORRISON ANIMAL WELFARE INSTITUTE

countries, we also want this to take root as a solid, locally-based campaign. Citizens of these countries need to put political pressure on their governments from within in order to ensure compliance with their own national bans on the trade.

Please help raise awareness on the dog meat trade in the Philippines, Thailand, and Vietnam by sharing this story with family, friends, and colleagues. For more information, visit: <http://www.awionline.org/dogmeat>. 

*Top: Rosalyn with Gregg Tully and John Dalley of Soi Dog Foundation (SDF). Bottom: Rosalyn gets a little love from some of the rescued dogs awaiting adoption at SDF.*



COURTESY OF R. MORRISON ANIMAL WELFARE INSTITUTE

## Horse Slaughter: Progress and Setbacks

THERE IS NOW A SENATE VERSION of the Safeguard American Food Exports (SAFE) Act (S. 541), thanks to Sens. Mary Landrieu (D-LA) and Lindsey Graham (R-SC). Like its House companion (H.R. 1094), this legislation would ban horse slaughter operations in the United States, end the current export of American horses for slaughter abroad, and protect the public from consuming toxic horse meat. Sens. Landrieu and Graham also sponsored a successful defunding amendment to the Senate's FY 2014 Agriculture Appropriations bill, prohibiting the U.S. Department of Agriculture (USDA) from inspecting horse slaughter plants; without such inspections, the plants cannot operate. Reps. Jim Moran (D-VA) and Bill Young (R-FL) succeeded with a similar amendment in the House Appropriations Committee.

Sentiment against horse slaughter is also growing within the Obama administration. For the first time, the president's FY 2014 budget included defunding language, and USDA Secretary Tom Vilsack told reporters in March that Congress needs an alternative to slaughter for handling "unwanted" horses. (See Spring 2013 AWI Quarterly) Nevertheless, and despite opposition from local officials, USDA has given the green light to the opening of two horse slaughter plants (in New Mexico and Iowa) by issuing "grants of inspection." In making this decision, the department ignored the many animal welfare, food safety, human health, and environmental concerns that have been raised. A lawsuit has been filed on the grounds that USDA failed to conduct an environmental review as required under the National Environmental Policy Act. 

## Enhancing Animal Fighting Enforcement

ATTENDING ANIMAL FIGHTS and bringing children to such spectacles would become federal offenses under the Animal Welfare Act as a result of provisions in the farm bills of both chambers of Congress. (There are some differences in the House and Senate provisions.) Other discrepancies between the two versions of the farm bill are significant and make a long and difficult conference likely, with Congress slated to produce a new bill by the end of September. 



TONY DUCKLES

The Safeguard American Food Exports (SAFE) Act aims to protect Americans and American equines by putting horse slaughter permanently out to pasture.

## SHELTER ANIMALS DESERVE BETTER

Rep. Jim Moran (D-VA) has reintroduced his nonbinding resolution, H.Res. 208, expressing opposition to the use of gas chambers to euthanize shelter animals and calling on states to ban the practice and allow euthanasia by injection (EBI) only. Gas chamber use in animal shelters is inhumane, dangerous to shelter workers, and more expensive than EBI. The issue itself is a grim byproduct of the fact that, of the 6–8 million animals in shelters each year, half go unadopted. While progress has been made in increasing adoptions and decreasing the number of animals turned in to shelters (e.g., by improving spay/neuter rates), much work remains to be done. 

## Seeking Funds to Save Bats

AWI JOINED 44 OTHER ORGANIZATIONS on a letter asking Congress to provide \$7.5 million in funding to the many agencies responding to white-nose syndrome (WNS), the disease that is decimating North America's bat populations, including several endangered species. As of June 2013, the disease was known to be present in 22 states and five Canadian provinces, and has already killed at least 5.7 million bats. The letter acknowledges the support Congress has provided since the outbreak started and notes that progress has been made in understanding the basic science of WNS, but asserts that robust funding is sorely needed for resource management and disease containment, prevention, and treatment. AWI also addressed this issue in testimony it submitted to the House and Senate Interior appropriations subcommittees. 

# PROTECTING STATE SHARK FIN BANS

The **Shark Conservation Act (SCA)** of 2010 combats the heinous practice of shark finning—cutting off a shark's fins and discarding the body, often still alive, into the sea—by requiring that sharks in U.S. waters be landed with their fins naturally attached. Eleven U.S. states and territories also have laws that combat shark finning. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) has proposed a rule to implement the SCA. While implementation is needed (and overdue), NMFS has indicated that it will interpret the SCA so as to preempt the more stringent state bans on the sale and possession of shark fins. NMFS claims that these bans interfere with the underlying U.S. law, the

Magnuson-Stevens Act (MSA), despite the fact that the state and territorial laws address the shark fin trade only within their own borders, and the MSA expressly states that it is not to be “construed as extending or diminishing the jurisdiction or authority of any State within its boundaries.” AWI has submitted comments generally supporting the NMFS proposed rule but urging that it not be allowed to undermine state efforts to protect sharks. Over 40 members of the House of Representatives have also asked NMFS to “withdraw the preemption provision in the proposed rule.” For more detailed information on shark finning, visit [www.awionline.org/shark-finning](http://www.awionline.org/shark-finning). 

## Keeping Companion Animals Out of Labs

**COMMITTED TO CLOSING** the abuse-ridden pipeline that supplies dogs and cats to laboratories, Reps. Mike Doyle (D-PA) and Chris Smith (R-NJ) have reintroduced the Pet Safety and Protection Act (H.R. 2224). This legislation would prohibit the use of random source Class B dealers as suppliers of dogs and cats for use in experimentation. Dealers within this system, which Rep. Doyle labeled “an unmitigated disaster,” are notorious for violating the Animal Welfare Act’s standards for acquisition and animal care. While few such dealers remain—and several of them are under investigation—Rep. Smith noted that “closing them down once and for all will give people greater confidence in our research programs and go a long way toward reducing animal cruelty.” 



*The Pet Safety and Protection Act would help ensure companion animals don't end up in experiments.*

## WHAT YOU CAN DO

Please ask your representative to cosponsor the Pet Safety and Protection Act (H.R. 2224) and H.Res. 208—calling for an end to gas chamber euthanasia in shelters, and ask your senators to cosponsor the Safeguard American Food Exports (SAFE) Act (S. 541). You can contact your legislators by calling 202-225-3121, by visiting [www.awionline.org/takeaction](http://www.awionline.org/takeaction), or sending letters as follows: For representatives: Honorable (full name), U.S. House of Representatives, Washington, D.C. 20515; for senators: Honorable (full name), U.S. Senate, Washington, D.C. 20510.



AWI's Congressional Directory for the 113<sup>th</sup> Congress provides information on how to contact members of Congress, House and Senate committees, and other government officials. It is a valuable and convenient tool to have when helping us advocate on important animal protection measures. To order a copy, visit [www.awionline.org/directory](http://www.awionline.org/directory) or call 202-337-2332. The cost is \$8.00.

# LYME DISEASE? DON'T FEAR THE DEER

Lyme disease is endemic to the northeastern and northcentral United States. In 2011, as reported by the Centers for Disease Control, there were a total of 24,346 confirmed cases of Lyme disease. The blacklegged ticks that transmit the etiological agent of the disease, the spirochete *Borrelia burgdorferi*, are often linked to deer—which consequently triggers demands for deer kills.

The fact that “deer tick” is another common name for the blacklegged tick is largely responsible for this enduring association. When it comes to transmission of Lyme disease, however, deer may be more innocent victim than vector. Indeed, many efforts to reduce the incidence of Lyme disease by substantially reducing deer numbers have not worked, as the ecology of Lyme disease has proven to be a complex tale woven with a variety of animals, predator-prey dynamics, habitat structure, tick biology and ecology, and more.

During its two-year life span, the blacklegged tick exists in a larval, nymphal, and adult form. Ticks become infected during the larval and nymphal stages, during which time they engorge on blood from previously infected host animals—primarily the white-footed mouse and eastern chipmunk—known to be effective carriers for *B. burgdorferi*. While adult ticks do often feed on larger animals (including deer), such animals are not particularly effective hosts for the disease. A number of studies, including a 2012 study from the National Academy of Sciences, found no significant correlations between deer density and human cases of Lyme disease. In fact, according to a 2010 study published in the journal *Nature*, the key to controlling Lyme disease (and many other diseases) may lie not with eradication—but, rather, abundance.

When it comes to Lyme disease, there are other hosts for the tick, including gray squirrels, raccoons, and even some lizards. However, these animals are not competent “disease reservoirs,” meaning they don’t do a good job of providing the pathogens

with safe harbor and a helping hand into the next generation. Thus, they act to dilute the potential for the disease to survive and spread.

The study singled out opossums, in particular, as beneficial. When ticks hitch a ride on opossums, opossums respond by eating them—with great gusto. And these oft-overlooked mammals (who do better in more intact habitats) have robust immune systems that effectively quash the disease. Hence, a plethora of opossums means more *B. burgdorferi* end up at the end of the line without a ride.

In a post appearing on a New York Times blog, the lead author of the *Nature* study, Dr. Felicia Keesing of Bard College, along with Dr. Richard Ostfeld of the Cary Institute of Ecosystems Studies, summed it up by saying that “in many Lyme disease zones, reducing the deer herd is unlikely to substantially affect tick abundance. Reducing mice is more likely to be effective. This is best accomplished by allowing natural predators like weasels, coyotes, foxes, and owls to do the job. And the best way to increase their numbers is to maximize the size of forest patches.” 

A white-tailed deer. Recent studies suggest that deer are not the real culprit when it comes to spreading Lyme disease.



## Turbines and Toxic Ammo Endanger Condor Comeback

**THE CALIFORNIA CONDOR** is one of the world's rarest bird species. Poaching, lead poisoning (from eating animals containing lead shot), and habitat destruction combined to bring about their extinction from the wild by 1987. The species was reintroduced to California in 1991, with an estimated 226 total living in the wild today. However, lead poisoning and death from wind turbines serve as serious threats to the species.

Although California hunters are legally required to use nonlead bullets when hunting in the condor's habitat, recent studies indicate that the population is still in danger from the toxic metal that hunters leave behind in animal carcasses consumed by the condors.

AWI advocated in support of A.B. 711—a bill to prohibit the use of lead ammunition throughout California—which passed the state Assembly and is pending in the Senate, where it has been approved by the Natural Resources and Water Committee and is now under consideration by the Appropriations Committee.



GEORGE KATHY KLINICH

A California condor (with wing tag) perched on a rock in the Grand Canyon. The condor's precarious population could get a boost from a bill before the California Senate to outlaw lead ammo in that state.

Unfortunately, the condors also face another threat: wind turbines. In May—despite federal law prohibiting the harassment or killing of endangered species—federal wildlife officials announced that they would not prosecute the developer if an endangered California condor is struck and killed by turbine blades at a proposed wind farm owned by Alta Windpower Development in the Tehachapi Mountains, about 100 miles north of Los Angeles. 

## USFWS EMBRACES CHIMPANZEES, ABANDONS WOLVES

As we go to press, proposals have been published in the Federal Register by the U.S. Fish and Wildlife Service (USFWS) that portend an enormous impact on the future of the affected species. The first calls for the removal of the gray wolf (*Canis lupus*) from the list of threatened and endangered species under the Endangered Species Act (ESA). The second proposal is for the listing of all chimpanzees (*Pan troglodytes*) as endangered under the ESA. Currently there is a “split-listing” of chimpanzees—with wild ones considered endangered, but captive individuals classified as threatened and subject to commercial exploitation.

If the proposal on chimpanzees is adopted, a much more thorough vetting process will be required before captive chimpanzees can be used for experimentation or other purposes. In addition, we anticipate that it will

encourage a greater understanding of the precarious state of chimpanzee populations. “Our hope is that this proposal will ignite renewed public interest in the status of chimpanzees in the wild,” stated USFWS director Dan Ashe. He also noted in a blog post that “it is in our nature to protect and conserve this iconic species.”

The wolf, conversely, has been thrown to the hunters. USFWS proposes to downlist the gray wolf, despite the agency’s acknowledgement that the wolf is “an integral component of the ecosystems to which it typically belongs,” and that “the ESA requires that we recover listed species such that they ... are no longer in danger of extinction now or in the foreseeable future.” Yet, the very act of downlisting will once again expose the gray wolf to the same threats that led to its virtual extermination by hunters, ranchers, and the state game agencies that represent them and continue to loathe the wolf.

To submit comments in defense of the gray wolf and in opposition to their downlisting, please visit AWI’s website at [www.awionline.org/graywolf](http://www.awionline.org/graywolf). 



# USING DNA TO PUT POACHERS AWAY

Modern DNA technology is helping to protect African wild animals from the most ancient of criminal abuses—poaching for bushmeat.

by BILL CLARK

LONG BEFORE elephant ivory carvings became fashionable, and before crocodile skin handbags and colorful tropical pet birds were stylish, people exploited wild animals as a source of food. Many ancient societies tried to limit the exploitation by imposing restrictions and taboos, and even religious prohibitions, but some people persisted nevertheless, and many wild species were forced into extinction as a consequence. For Americans, the classic example is the passenger pigeon, which numbered more than 3 billion around 1800, but was simply hunted and eaten to extinction by 1914.

As human society became more sophisticated, so did the bushmeat dealers. Some people still think of bushmeat poaching as a somewhat innocent activity pursued by a few rural people keen to put a bit of meat on the family table. But that's hardly the case anymore. Bushmeat poaching has become a financially profitable international criminal industry that strip-mines many wildlife habitats of every animal that can be caught. Bushmeat syndicates traffic in enormous volumes of meat, enjoy spectacular profits, and are protected by some of the best lawyers money can buy. Credible studies indicate that the bushmeat industry consumes about 2 million tons—that's 4,000,000,000 pounds of meat from wild animals—each year in Africa alone. By comparison, U. S. consumers eat about 13 million tons of beef annually.

The Kenya Wildlife Service (KWS) has been reasonably successful in suppressing the bushmeat trade in Kenya for many years. Vigorous patrols out in the bush, coupled with ongoing monitoring of the markets and quick response

to information from the public, have resulted in many bushmeat poachers and dealers going to prison. KWS is absolutely serious about enforcing the national prohibition on bushmeat, as one fellow learned just a few months ago. Acting on a tip, KWS tried to intercept him at a road block—but the bushmeat dealer (with more than 200 pounds of zebra meat in his car) stepped on the pedal and tried to run through the road block. KWS gave chase, shot out his tires, collared the dealer and hauled him off to court. "Two years in prison at hard labour" the judge said.

The dealer went to prison because KWS had admissible evidence. The zebra meat still had the animal's striped skin attached. Even the defense attorney had to admit it was the meat of a protected wild animal.

Most bushmeat dealers, however, are smarter than that. These days, the big commercial meat dealers tell poaching gangs that they must cut away all "morphologically identifiable" parts—that is, cut away the skin, hooves, bones, organs and anything else that a biologist can identify as belonging to an animal from a particular species. The dealers tell the poaching gangs that they must deliver red meat only, without even a stray hair attached.

With all the identifiable parts removed, it is impossible for even an expert to make a visual species identification of simple red meat. Knowing this, the defense attorneys for the bushmeat dealers can confidently challenge evidence in court. "Your honour, we insist that the prosecution prove to us that the meat they have seized from my client is giraffe, a protected wild animal, and not goat, which is not protected by law."



GIRAFFE/JUSTIN JENSEN; SNARES/KWS; ZEBRA/KWS

There's only one sure way to irrefutably distinguish between the red meat of giraffe and the red meat of a goat: DNA analysis.

"DNA technology has become a powerful tool that can quickly and reliably be applied to meat specimens to determine the species being analyzed," says Prof. Samuel Wasser of the University of Washington Center for Conservation Biology. Prof. Wasser is a prominent DNA expert who works closely with INTERPOL to identify the source of seized contraband ivory. "Used properly," he adds, "this cost-effective tool greatly empowers African nations in the fight against this serious transnational organized crime, which not only jeopardizes their wildlife and ecosystems, but also the health of humans who come in contact with these products."

Before KWS had a laboratory to conduct that analysis, bushmeat dealers slipped off the hook because the principal evidence required for a conviction would not hold up in the courtroom. Now, with a new DNA lab, it can.

The effort to create a DNA forensics laboratory has spanned four years and has brought together the support of many people and organizations—including the Animal Welfare Institute—who want to get bushmeat trafficking stopped. The Kenyan lab, located inside the KWS headquarters compound in Nairobi, is the result of generous efforts by NGOs in Europe and the United States, industry, universities, and government agencies, all pitching in to assemble the bricks and mortar, acquire numerous items of technical laboratory equipment, and provide training for the KWS technicians assigned to work in the lab.

"Kenya Wildlife Service is truly grateful for the wonderful support the conservation community has provided in helping us to create this new lab," said William Kiprono, director of KWS. "Assembling it all is a very challenging exercise, and we have benefitted from a good number of experts who helped us achieve a remarkable accomplishment." The director explained that creating a DNA laboratory is complicated enough: There are precise architectural requirements, and several rooms in the lab had to be situated in the proper sequence. It was necessary to identify and acquire precisely the right equipment (everything from centrifuges, to a thermocycler used to amplify DNA, to shelves of chemicals and vials). The technicians had to be trained to use everything with exceptional care. Beyond that, the facility also needs to be recognized as a *forensics* laboratory—meaning it must be certified by the courts as an acceptable place for storing evidence used in a criminal prosecution, and the procedures for DNA analysis must comply with the legal requirements imposed by the country's rules of evidence. One slip-up and a case can get thrown out of court.

Fortunately, the Kenyans have some experienced partners who have gone through these challenges before, and are willing to help with the new lab. Foremost among these is Prof. Gila Kahila Bar-Gal of the Hebrew University

Above Left: Giraffes—like this one silhouetted against an orange African sky—are among the most heavily targeted by the bushmeat trade. Middle: Thousands of snares recovered by de-snaring patrols around the Ithumba area of Tsavo East National Park, Kenya. Right: Zebras, another frequent target of poachers.

of Jerusalem. Gila has been a key ally for the Israel Nature and Parks Authority (INPA) for many years, using DNA evidence to prosecute poachers successfully. The real litmus test of Gila's competencies came when INPA rangers served a search warrant on a man believed to be a bushmeat poacher. The rangers emptied a good quantity of meat out of the man's freezer and hauled it off to Gila's lab. Gila made her analyses and confidently announced the meat came from a mountain gazelle (*Gazella gazella*), an animal that is legally protected in Israel.

As INPA and Gila discovered, however, the man with the illegal meat was a lawyer. Conviction of a crime, including poaching, meant he'd be disbarred and forbidden from practicing law. So he fought like a demon and pulled every string within grasp. He was convicted anyway, so he appealed and the case went all the way to the Supreme Court of Israel. In Israel, expert witnesses can be called to appear before the Supreme Court, and Gila had to stand before a bench of skeptical justices and explain why she was certain that the meat seized by the INPA rangers was gazelle, and no other species. She had to explain how DNA analysis works, and why she was absolutely confident there was no mistake. She had

to respond to the cross-examination and hostile challenges of defense attorneys. She had to convince the justices "beyond reasonable doubt." And she did!

The Kenyans are benefitting from this experience and Gila is coaching the lab technicians not only in how to use all of this sophisticated laboratory technology properly, but also in how to present and defend their work in a courtroom. It is not enough just to collect all the required evidence. The technicians must also be able to stand firmly against the highly vigorous grillings and challenges and ridicules they will encounter from defense attorneys, and convince the magistrates that their evidence is reliable and incriminating, and their procedures are correct and comply precisely with the rules of evidence.

It will be no easy task. The bushmeat trade is a very profitable business, and so can hire the most high-powered defense attorneys. Bushmeat is profitable because it is acquired cheap and sold at a premium. A simple wire snare can snag any animal in the African bush, including an elephant. Depending on how the snare is set, the animal is either tethered to a particular site until killed by the trapper, or the animal is strangled. Either way, it's a lot cheaper to acquire a few pounds of meat this way than to invest all the land, time, cost and effort required to raise livestock.

Although use of snares is the most common inexpensive method for killing wild animals, it is not the only way. The hunters also use steel-jaw traps, guns, arrows, poisons, deadfalls and many other methods. All of them are cruel, and all of them are cheap.

Often, the meat is mixed with high-priced beef—a type of consumer fraud that carries with it the risk of transmitting serious sickness. Consumers may think they're buying government-inspected beef, but in actuality, they're buying uninspected bushmeat. And uninspected bushmeat has been the source of deadly diseases such as Ebola, monkey



Ivory, poison-tipped spears, and other recovered contraband at Ithumba. The bicycles, fitted with racks, are used to haul heavy loads of bushmeat out of the park.  
KENYA WILDLIFE SERVICES



pox, SAPS (Severe Acute Respiratory Syndrome) and others. HIV/AIDS has its origins in wildlife, and many scientists feel the disease jumped to humans from contact with bushmeat infected with Simian Immunodeficiency Virus (SIV).

Not all of this meat stays in Africa. A recent study coordinated through French Customs at Paris Charles de Gaulle Airport targeted 29 incoming flights from Africa over a 17-day period and found 134 passengers were carrying bushmeat in their luggage. Together, they were carrying nearly five tons of bushmeat—and whatever pathogens that bushmeat may have carried.

Another recent study, this one in the United States, looked more closely at health-related issues, using samples of some bushmeat seized at JFK Airport in New York that was sent to a laboratory. The lab found simian foamy virus, something the Centers for Disease Control and Prevention is working to keep out of the United States. Simian foamy virus is a serious threat principally because—like HIV/AIDS—it is a retrovirus, capable of invading a living cell and initiating a process known as “reverse transcription.” Essentially, this process copies the cell’s DNA in reverse and starts to replicate. The organ’s immune system does not recognize these viral copies as being invasive, and so does nothing to suppress them. Unimpeded, the virus grows and infects. Bushmeat trafficking, thus, is a direct threat to human health worldwide.

But like the drug pushers, gun runners, and ivory dealers, the bushmeat traffickers have little concern for the



KENYA WILDLIFE SERVICES

Uncontrolled hunting and poaching are causing waterbuck numbers to decline. IUCN lists the defassa (shown here), one of two recognized subspecies, as “Near Threatened.”

consequences of their crimes. It's the profits they're after. That 4-billion-pound bushmeat industry likely produced the equivalent of about \$10–12 billion annually. And every penny of that is illegal, so the money must be laundered. And the dealers and butchers need to falsify their business records. (And nobody pays tax on this stuff anyway.)

“Illegal trafficking in bushmeat certainly is one of the most serious of wildlife crimes,” said David Higgins, manager of INTERPOL’s Environmental Crime Programme. “It imposes criminal damage on ecosystems. It imposes serious threat to human health. It violates many animal welfare and veterinary laws. It is intimately tied to multiple financial violations. And it commonly is linked to common crimes such as fraud and conspiracy.”

“Bushmeat trafficking is a world-wide problem,” he acknowledged. “But it appears to be impacting most heavily in Africa. Because of that, we’re grateful that KWS has agreed to make its new DNA forensics lab available to wildlife agencies in other African countries that seek to use DNA evidence in the prosecution of their own bushmeat cases.”

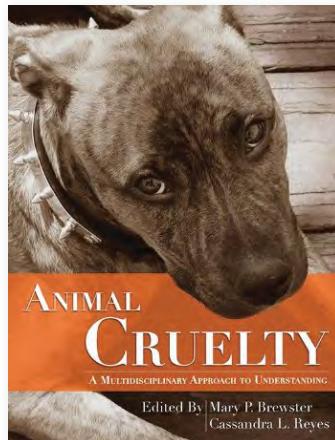
*Bill Clark is an honorary pilot-warden for the Kenya Wildlife Service with more than 30 years’ experience in wildlife law enforcement, including work with INTERPOL, Israel Nature and Parks Authority, and KWS. He is the primary author of the 1989 proposal which included all elephants on CITES Appendix I (full legal protection from commercial trade), and a recipient of the 2010 Clark R. Bavin Wildlife Law Enforcement Award.*

## Animal Cruelty: A Multidisciplinary Approach to Understanding

edited by Mary P. Brewster, Ph.D., and Cassandra L. Reyes, Ph.D.  
Carolina Academic Press  
ISBN: 978-1611630725

The various contributors to the seventeen chapters of *Animal Cruelty: A Multidisciplinary Approach to Understanding*

address all critical aspects of the subject: history, related legislation, special types of cruelty, its link to other types of violence and crime, theories used to explain animal cruelty, the role of the media, and emerging issues. The breadth and depth of the topics covered establish it as a basic comprehensive text for undergraduate and graduate students in a variety of disciplines, including criminal justice, criminology, psychology, law, sociology, and animal studies. Moreover, it is especially well-suited for use in

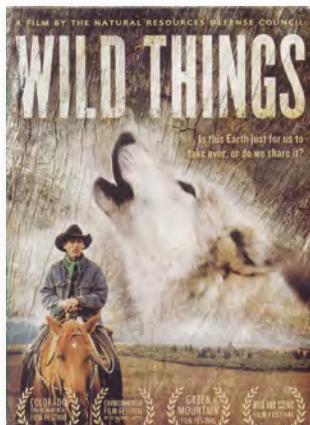


classes covering such topics as deviant behavior, animal law, violent crime, veterinary studies, and abnormal psychology.

AWI's Dr. Mary Lou Randour contributes a chapter on "The Psychology of Animal Abuse Offenders." She applies the vast literature (bolstered by robust empirical findings and theoretical formulations) on the origins and characteristics of aggressive and anti-social behavior to foster an understanding of the psychology of animal abuse offenders. Randour

proposes that animal-directed violence is another form of interpersonal violence, a type of anti-social and aggressive behavior, and should be understood and examined using that theoretical and empirical framework.

This comprehensive volume gives the study of animal cruelty—in all its many forms and from a variety of angles—a much firmer footing to establish and assert that animal cruelty is a type of violence that requires responses from policymakers, researchers, and educators. ♣



## WILD THINGS, a film by the Natural Resources Defense Council

*Wild Things* examines the U.S. Department of Agriculture's Wildlife Services (WS) program and its devastating impacts

on native carnivores. Each year, WS kills thousands of predators who are viewed as threats to livestock, employing inhumane methods that are poorly grounded in science—at a substantial cost to taxpayers. This approach to wildlife management is outdated and ineffective, and it interferes with the critical role that native carnivores play in maintaining ecosystem health.

The secretive program has long kept its brutal practices—which include the use of steel-jaw leghold traps, poisons and snares—out of the public eye, evading accountability to the American taxpayers. *Wild Things* reveals the problems plaguing WS' lethal predator control operations, including adverse impacts on animals, the environment, and public safety. Former WS insiders describe the program's capitulation to private interests and the mismanagement that has left it plagued with a profound lack of transparency and a culture of cruelty.

Despite these alarming revelations, *Wild Things* brings hope as it sheds light on emerging alternatives to lethal predator control. The film introduces cattle and sheep producers who have adopted humane practices that allow them to both protect livestock and make peace with native carnivores. Ranchers, scientists, legislators and former WS employees share their perspectives on the value of humane, ecologically sound livestock protection measures and the importance of progress. *Wild Things* presents a poignant picture of the need for reform within WS and demonstrates that humans, livestock and native predators can—and must—learn to coexist. ♣

# BLACKFISH

*Blackfish* is a documentary film that tells the story of Tilikum—the now infamous orca, or killer whale, who dragged, shook and eventually drowned SeaWorld of Orlando trainer Dawn Brancheau in February 2010. Director Gabriela Cowperthwaite uses interviews with former SeaWorld trainers and employees, scientists, news reports, court testimony, victims' friends and family, as well as eyewitness accounts of other human-whale incidents to paint a sad and dark picture of the marine park industry. The film, titled after the Native American moniker for orcas, depicts how trainers were misled about Tilikum's history—he killed two other people before Ms. Brancheau—and about other orca attacks on trainers. It clearly shows how SeaWorld deceives the public with claims that orcas

live longer in captivity (they don't), that flopping dorsal fins are normal (they aren't), and that the parks' animals are in families (they are artificially grouped for convenience and may well be stressed and harmed by it).

*Blackfish* reveals how animals have been obtained from the wild—one interview with a former captor is particularly emotional as he describes how the remaining wild orcas would hover close and vocalize to young animals who

had been recently trapped and removed from the pod. Trainers tell similar stories about captive mother orcas grieving and wailing after a youngster had been removed and sent to another park. The film shows how, despite several close calls and even deaths caused by captive orcas—including one of a young Spanish trainer rammed and crushed by a SeaWorld orca just two months before Ms. Brancheau's death—SeaWorld failed to protect its employees, putting profits before safety. The investigation of the Brancheau incident by the Occupational Safety and Health Administration is covered in the film, with details on how the agency successfully sued SeaWorld for failing to protect its workers. Trainers now are not allowed to get into the water during shows with orcas. SeaWorld has appealed. Again, bottom line appears to be everything. *Blackfish* shows just how low that bottom line can go. ♣



AWI has updated three of its most popular brochures. All three are free and can be ordered in print form or downloaded as PDFs from our website at [www.awionline.org/content/animal-welfare-publications](http://www.awionline.org/content/animal-welfare-publications).

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## NAS Says Science (and Scrutiny) Scarce in BLM's Wild Equine Management

A SCIENTIFIC COMMITTEE assembled by the National Academy of Sciences' (NAS) National Research Council has completed a two-year study on the Wild Horse and Burro Program of the federal Bureau of Land Management (BLM). The committee's published report, *Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward*, is severely critical of the way BLM manages these equines on the range, and calls for major changes. Many of the committee's recommendations, in fact, mirror reforms long called for by AWI and other horse advocates.

AWI's D.J. Schubert testified before the committee and submitted a detailed written analysis of the BLM's less-than-logical modus operandi—singling out in particular BLM's inscrutable, opaque and unscientific approach to determining existing wild horse and burro populations, as well as how many wild horses and burros are “appropriate” in order to maintain ecological balance (referred to as “Appropriate

Management Levels,” or AMLs). The scientific committee similarly looked askance at the BLM's haphazard methodology in these areas.

The NAS report further faults the BLM program for failing to pursue cost-effective and safe alternatives to roundups. Immunocontraceptives such as porcine zona pellucida and GonaCon are mentioned as effective and immediate tools that the BLM should consider in place of the current brutal and destabilizing roundups to remove horses deemed in excess of capacity. (For more on these two contraceptives and how they can be used to non-lethally manage wildlife populations, see “Immunocontraception: Ounce of Prevention Proves Better Cure” in the Fall 2011 AWI Quarterly.)

All in all, *Using Science to Improve the BLM Wild Horse and Burro Program* provides ample evidence that the BLM has been ignoring both law and science in its pursuit of policies that favor corporate livestock grazing interests over the interests of wild horses and burros. AWI will work with members of Congress and the administration to ensure that this NAS study prompts immediate and long-term changes in how wild horses and burros are managed on public lands. ♣

