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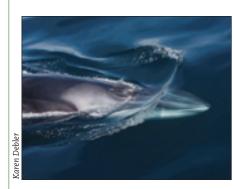
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ABOUT THE COVER

A wary deer peers out from a February forest. As deer flourish in the absence of natural predators, and suburbs extend tendrils into formerly wooded areas, deer-human conflicts inevitably arise. In the past, these conflicts most often have been resolved through culling of deer populations. Immunocontraception drugs offer a way to keep deer populations in check through nonlethal, relatively nonintrusive means. Scientists, citizens, and many animal welfare advocates are increasingly supportive of immunocontraception as a humane method of controlling wildlife populations in lieu of traditional lethal methods. On page 6, AWI examines the benefits of immunocontraception as well as the resistance to such methods by some. On page 28, we tell you about two upcoming conferences that address immunocontraception. Photo by Jon/Flickr.com

PRESIDENT OBAMA CHALLENGES ICELAND OVER WHALING

In July, the Secretary of Commerce certified to President Obama that Iceland was undermining the International Whaling Commission (IWC) and its treaty because of its rogue whaling (AWI Quarterly, Spring 2011). The certification, made under the Pelly Amendment of the Fishermen's Protective Act (22 U.S.C. §1978, as amended), triggered a 60-day countdown for the president to respond—with options ranging from trade sanctions to doing nothing. Iceland has been certified in the past but sanctions have never been imposed.



Endangered fin whales are among the targets of Icelandic whalers.

On September 15, President Obama made his report to Congress. He neither imposed trade sanctions nor did nothing—opting rather for diplomatic actions. In a strongly worded message, the president stated that, "Iceland's actions threaten the conservation status of an endangered species and undermine multilateral efforts to ensure greater worldwide protection for whales. Iceland's increased commercial whaling and recent trade in whale products diminish the effectiveness

of the IWC's conservation program...." He directed U.S. agencies to take definitive steps to "ensure that this issue continues to receive the highest level of attention." Those steps included raising the issue with Iceland at high-level meetings, tying U.S. cooperation in Arctic projects to changes in Iceland's whaling policy, and working with other international bodies to end Icelandic commercial whaling. The full response by the president is available at http://m.whitehouse.gov/ the-press-office/2011/09/15/message-president-congress.

While trade measures would have more directly hurt Iceland's whaling interests, AWI believes that if properly carried out, the President's directives can be impactful. AWI is pressing the relevant federal agencies to act decisively, and we are actively working to identify products from companies associated with Iceland's whaling industry, to enable retailers and consumers to avoid trade in them.

ANIMAL WELFARE INSTITUTE QUARTERLY







Fall 2011

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The Voice of the Dolphins

Above Left: Sabrina at the office. Once a homeless puppy in the Dominican Republic, she lives now with AWI's Mary Lou Randour (Cameron Creinin).

Top Right: Red fox kits. The Refuge from Cruel Trapping Act would make it illegal to trap furbearing animals in body-gripping devices within National Wildlife Refuges (Dominik Hofer).

Bottom Right: A reticulated python. The distinctive scale patterns of this animal help them hide in the wild but make them targets of the skin trade (Pascal Walschots).





A far cry from free range: The United Egg Producers has agreed to phase in "enriched" battery cages for egg-laying hens. As shown here, such cages still don't leave the birds much room to maneuver.

Why Were All of the Eggs Put in One Basket?

THE UNITED EGG PRODUCERS (UEP) and the Humane Society of the United States (HSUS) announced in July that they had reached an agreement to phase in modifications to conventional battery cages over the next 15 to 18 years. The deal marks a surprising shift in position for HSUS, which had been campaigning against all caging of hens. Details of the pact remain under wraps, but it appears that the key component is the adoption of federal legislation mandating various cage changes over time. (Unfortunately, it looks as if the legislation would also include language to preempt stronger state law.) Given that it is an enormous challenge to get any measure through Congress intact—particularly a controversial one—it is curious that successful passage should form a cornerstone of the agreement. If UEP—which represents producers supplying 90 percent of U.S. eggs—sincerely supports change, why not simply require its membership to improve their own animal care standards?

DOWNER CASE HEADED TO THE SUPREME COURT

The U.S. Supreme Court has agreed to hear a case brought by the meat industry challenging California's downed animal law (California Penal Code § 599f). The law was enacted in the aftermath of documented egregious cruelty to non-ambulatory dairy cows at the Westland Hallmark slaughterhouse in Chino that triggered the largest beef recall in U.S. history. Slaughterhouses are prohibited from slaughtering non-ambulatory animals for human consumption and required to immediately euthanize downed animals under the law. After passage, the National Meat Association (NMA) went to court and gained an injunction against enforcement, but last year a federal appeals court vacated the injunction, prompting NMA to seek a hearing before the Supreme Court. The issue at hand is whether the Federal Meat Inspection Act expressly prohibits California's downed animal law—specifically in reference to pigs, as the slaughter of non-ambulatory cattle is already prohibited by federal law.

Roommates Wanted: USDA Tells Labs to Take Primates Out of Solitary

THE NATIONAL MEETING of the American Association for Laboratory Animal Science (AALAS) in San Diego featured a description of the many ways to modify existing caging and employ social introduction methods for nonhuman primates. These were presented in response to the USDA's announcement that lack of caging will no longer be considered an acceptable excuse for research laboratories' failure to provide social housing to monkeys and apes. In addition, there is an increased onus on research facilities with primates to document all unsuccessful attempts to provide social housing. It would appear that now, more than 25 years after the Improved Standards for Laboratory Animals Act mandated "a physical environment adequate to promote the psychological wellbeing of primates," the USDA is finally getting tougher on compliance.

Using Chicken Eggs to Unyoke Rabbits in Research

IN A PRESENTATION at the AALAS meeting, J. Hau from the University of Copenhagen described an interesting work in progress, the replacement of the rabbit with a free-range, free-will chicken as the traditional polyclonal antibody animal model. (Polyclonal antibodies are antibodies from multiple B cells, which are fundamental components of the body's immune system. The antibodies are obtained from the serum of an immunized animal and used extensively in medical research.)

In current experiments, the chickens are immunized via injection or gavage and the antibody is made in the yet-to-be-laid egg. Once the egg is laid, the antibody is collected from the yolk. Ten times more antibody can be obtained from the yolk than from traditional rabbit serum. If the antigen can be administered orally (it is under development as a spaghetti-like food to mimic worms, which the chickens voluntarily consume), no restraint, injections or other stressful procedures would be needed to generate high quality polyclonal antibodies.

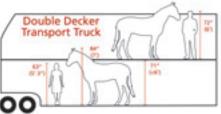
Farm Animal Regulations Established in Ohio

OHIO'S NEW FARM ANIMAL CARE REGULATIONS went into effect in September. Ohio follows New Jersey as only the second state to establish legal standards for the treatment of animals on the farm. The regulations resulted from passage of State Issue 2 in November 2009 that created the Ohio Livestock Care Standards Board. While addressing some of the most inhumane factory farming practices, the regulations fall woefully short of providing an adequate level of welfare for farm animals. For example: 1) use of crates to confine calves and breeding sows is prohibited, but not until 2018 and 2026, respectively; 2) new egg operations are prohibited from confining egg-laying hens in conventional battery cages but are allowed to confine hens in so-called "colony" cages, and all existing egg operations are allowed to continue using the battery cage indefinitely; and 3) tail docking of dairy cattle is banned as of 2018, and pain management is required for dehorning, but tail docking of pigs and sheep is allowed, as is debeaking of chickens.

USDA CLOSES LOOPHOLE IN HORSE TRANSPORT RULES

The USDA has amended regulations designed to reduce the suffering of horses transported for slaughter so as to include horses who are first transported to intermediate collection points. The regulations, first promulgated in 2001 under the 1996 Commercial Transport of Equines to Slaughter Act, prohibit the use of double-deck trailers to transport horses to slaughter, and mandate that such horses cannot travel more than 28 hours without rest and must be provided adequate food and water. Previously, the regulations only applied to horses moved directly to slaughter plants. Shippers therefore circumvented the restrictions for much of the journey by making use of intermediate assembly points such as stockyards or





Double-deck trailers, such as the one shown here, are used most often by slaughterhouse "killer buyers" who want to haul as many horses as possible to slaughter in order to maximize their profits. However, these trailers don't allow the horses to stand in a natural position and coupled with overcrowding can cause tremendous pain and suffering on trips that can take days.

feedlots. Horses en route to such intermediate points were not protected by the regulations.

Currently, no horse slaughter takes place in the United States, but a large number of American horses are still being transported to slaughter across the border in Canada and Mexico. AWI is working to secure both passage of the American Horse Slaughter Prevention Act to end the slaughter of American horses, and the Horse Transportation Safety Act to establish an outright ban on the use of double-deck trailers to transport horses.

illustration by Cameron Creinin

Immunocontraception: Ounce of Prevention Proves Better Cure

In this two-part series on immunocontraception, AWI will explore the technology and discuss the politics inherent to its use. In this article, AWI provides background information about immunocontraception. In part two, to be published in the Winter 2012 AWI Quarterly, the politics of immunocontraception will be explored in greater detail.

dientists, citizens, and many animal welfare advocates are increasingly supportive of immunocontraception as a humane method of controlling wildlife populations in lieu of traditional lethal methods (regulated hunting, trapping and poisoning) or translocation. Immunocontraception has been successfully used in more than 85 different wildlife species.

Yet, while immunocontraception offers a nonlethal solution to conflicts between people and wildlife, it remains controversial. Despite proven safety and efficacy, the use of immunocontraception to control deer fertility in urban and suburban areas is particularly contentious. State fish and game agencies are exceedingly suspicious of any wildlife contraceptive used on free-ranging wildlife, and some pro-hunting organizations are attempting to get laws passed that would prohibit states from using wildlife contraception altogether.

To date, immunocontraceptive research and management applications have largely focused on two vaccines: porcine zona pellucida (PZP) and gonadotropin-releasing hormone (GnRH). Because of its use as a non-commercial wildlife contraceptive vaccine, PZP is granted

an "investigational new animal drug" exemption from U.S. Food & Drug Administration (FDA) approval requirements. This exemption allows its use in research and field studies. The regulatory authority for use of PZP in free-ranging wildlife, however, is being transferred from the FDA to the U.S. Environmental Protection Agency (EPA)—which is currently in the process of registering the vaccine for use beyond research.

PZP has been successfully used on wildlife populations such as elephants, horses, elk, and white-tailed deer since the late 1980s. It works by stimulating the body to produce antibodies which neutralize proteins required for egg fertilization. Once administered, it is effective for one or more years in the field. It can be administered via dart, sparing the need to capture and tag animals unless otherwise required by

municipal, state or federal mandates. Research efforts are ongoing to develop a one-shot vaccine with a longer period of efficacy.

GonaCon[™] is a GnRH vaccine developed by the National Wildlife Research Center of the USDA's Animal and Plant Health Inspection Service, and approved by the EPA as a "restricted-use" pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act. Although GonaCon[™] is not a pesticide, the EPA labels it as such due to limitations in regulatory mechanisms to effectively manage immunocontraception vaccines (a limitation that must be resolved).

In order for GonaCon™ to be used in any given state, it must be registered with that state and approved for use by the state fish and game agency. GonaCon™ works by blocking gonadotropin-releasing hormones and thus shutting down the reproductive processes of both males and females, but can cause abortions in certain species, including bison, cattle, deer and goats. Although GonaCon™ can be administered by

dart, for now animals injected with the vaccine must, by policy, be trapped and tagged, which limits its practical application and increases its potential to cause stress in treated animals. Because the vaccine indirectly blocks the production of sex hormones (e.g., estrogen and testosterone), it also affects behavior.

Despite the documented success of immunocontraception use for wildlife, those who oppose this nonlethal technology have been unrelenting in their attacks. Fortunately, their arguments have largely been refuted by the science. The accusation that it does not work has been laid to rest by numerous publications describing various successful projects—including those involving wild horses at Assateague Island National Seashore, and white-tailed deer at the National Institute of Standards and Technology campus,



The early days: Dr. John Turner uses a blowpipe to dart a habituated doe at Fire Island National Seashore, NY, in 1993

Fire Island National Seashore, and Fripp Island. In these cases, PZP has successfully controlled fertility in both individuals and populations.

Additional concerns about threats to sport hunting, genetic integrity of wildlife segments, potential effects on social behaviors, costs, and alleged ecological effects (which are also applicable to lethal control actions but rarely evaluated), have been largely resolved for the PZP vaccine. In deer, many of these concerns are irrelevant given that immunocontraception use has only been proposed for urban and





A March 2007 "before" picture from the PZP study on Fripp Island, SC. At the start of the project, deer were numerous, visible, and in poor condition. By 2010, deer numbers and visibility were reduced, and the condition of the animals improved dramatically.



A captured deer on Fripp Island is measured, blood sampled, and hand-injected with a timed-release PZP preparation.

suburban populations that typically cannot be hunted anyway. In addition, the purported concern from hunting groups over compromised genetic integrity for vaccinated deer is dubious given that hunting itself targets large trophy males and, hence, poses an even greater threat to the genetic integrity of the herd. And after over 17 years of research, there is little indication that PZP substantively affects wildlife behaviors.

Although PZP can extend the breeding season of treated female deer by one to two months, the energy costs are far less than that of pregnancy, parturition, and nursing. Furthermore, the claim that untreated males will expend additional energy attempting to mate with treated females during the expanded breeding season has proven not to be an issue. Nor is there evidence of a link between PZP use and increased deer-

vehicle collisions as a result of an extended breeding season. The PZP vaccine, like GonaCon™, is reversible, which ensures that each animal can be provided the opportunity to contribute his or her genes to the population.

Vaccine cost is a valid issue—

although the overall costs of an immunocontraception program depend on legal and program implementation requirements as well as how the economic argument is crafted. In some places where PZP has been administered effectively, private citizens have picked up the costs of the program. In other places, tax dollars are used or there is a combination of public/private financing. Training volunteers to administer the vaccine, as is done by the Science and Conservation Center in Billings, Montana, will also reduce costs.

Fears over alleged ecological or safety issues—in the event humans or non-target species consume treated animals—are also unwarranted.

Ordinary animal proteins such as PZP cannot pass through the digestive tract and remain biologically active—thus eliminating prospective adverse impacts through the food chain to predators, scavengers, or humans.

Nevertheless, immunocontraception should be used cautiously and should not be applied merely to thin inconvenient animal populations. As with lethal control, the use of immunocontraception can be abused—for example, to reduce seal numbers in order to increase fish available for human consumption. Presumably, however, immunocontraceptive use would be subject to regulatory oversight and administered via management plans.

Some animal protection groups feel that immunocontraception violates the reproductive rights of wild animals. They argue that the use of contraception on wildlife discounts the interests of free-living animals to experience life on their own terms. This is a concern that should be considered, but weighed against the reality of lethal control methods that are currently used. Indeed, management decisions for deer often come down to "darts or bullets."

Though natural regulation is certainly preferable, as the population of certain species (e.g., white-tailed deer) increase, food becomes less abundant, range conditions degrade, mortality rates increase, and human tolerance for wildlife declines. For deer in urban and suburban areas, the default

management method of wildlife agencies has been lethal control. The use of lethal control to kill deer in suburban communities is rising, in fact, as is the inherent suffering of those animals targeted for removal.

Human development has, in many ways, reduced the role of natural factors in self-regulating wildlife populations. Communities are eager for solutions to burgeoning deer populations and deer-human conflicts, including deer-vehicle collisions. Dr. Allen Rutberg of Tufts University admonishes, however, that

diffuse suburban guilt about the destruction we've wreaked on the land and on the wildlife that inhabits it." Acknowledging the need for contraception is the equivalent of acknowledging that we have created a problem for the ecosystem and now need to fix it in a manner that is the least punitive to wildlife.

Controversy over immunocontraceptives is not likely to subside but, given the scientific evidence, it is time to end the petty bickering regarding the ethical, social, behavioral, cultural and scientific arguments



Deer eating corn from a toy wagon at Fire Island National Seashore. Extensive feeding of deer by residents and visitors to Fire Island played a big role in promoting population growth in and around the communities. Limiting such feeding was an important goal of the contraception project there.

"...focusing our frustration and enmity on 'nuisance wildlife' evades our own responsibility for creating these messes to begin with."

Based on his own observations, Dr. Rutberg suggests that "the impulse toward wildlife contraception [as opposed to lethal control] was spawned in part by a kind of over immunocontraception in order to implement and expand the use of this technology to benefit wildlife and communities seeking humane, nonlethal wildlife management strategies.

¹Rutberg, A. (2007). Birth control is not for everyone: a response, Human–Wildlife Conflicts 1(2), 143-144.

NIH "Anticipates" End to Bad Relationship

THE NATIONAL INSTITUTES OF HEALTH (NIH) finally took steps to end the use of Class B dealers by its outside researchers, after years of pressure from Congress and animal welfare organizations and faced with the conclusion of a National Academy of Sciences report that "Class B dealers are not necessary as providers of random source animals for NIH-related research." While this change is most welcome, it has two flaws: NIH "anticipate[s]" that this new policy will be fully implemented "no later than 2015," which is both too uncertain and too long. Moreover, the new policy does not cover cats. In its report on FY 2012 funding, the Senate Appropriations Committee once again expresses an interest in NIH's progress toward requiring that its outside researchers find other sources for dogs and cats. The committee report "urges NIH to set 2015 as the outside target date for completing this process." NIH claims that no similar policy change regarding cats is needed because they are available in sufficient numbers from Class A dealers. In light of this, the committee quite reasonably recommended that NIH take immediate steps to "prohibit the use of Class B cats as well." 🏖

GETTING TRAPPED IN THE SYSTEM

Rep. Nita Lowey (D-NY) reintroduced legislation to end the use of brutal traps on furbearing animals within the National Wildlife Refuge System. The Refuge from Cruel Trapping Act, H.R. 2657, would ban the use of body-gripping traps such as steel jaw leg-hold and Conibear traps on these public lands set aside for wildlife preservation.

Even though steel jaw leg-hold traps have been banned or severely restricted in 89 other nations and in eight states throughout the U.S., they are still allowed in more than half of our nation's 550 refuges. In introducing her bill, Rep. Lowey stated, "The use of steel jaw leg-hold traps and other barbaric mechanisms has no place in National Wildlife Refuges or other public lands. Body-gripping traps are cruel and inhumane, and it is time to end this brutal practice once and for all."



Those who attend dog fights help prop up an illegal enterprise. The Animal Fighting Spectator Prohibition Act would make it a crime not only to stage a dog fight, but to knowingly attend one as well.

Animal Fighting Spectators Support the Savagery

THE FEDERAL GOVERNMENT, in the last few years, has increased coverage of and penalties for animal fighting activities under the Animal Welfare Act, but it is still lacking in one area: the spectator. Spectators are not innocent bystanders; they are active participants in and enablers of these bloody criminal enterprises and should be treated accordingly. Moreover, when a fight is raided, the organizers, promoters, trainers, and owners disperse and blend into the crowd to escape arrest. To address this loophole, Reps. Tom Marino (R-PA) and Betty Sutton (D-OH) have introduced H.R. 2492, the Animal Fighting Spectator Prohibition Act. Their bill makes knowingly attending an animal fight punishable by fines and up to one year in prison. Also, recognizing that exposure to animal abuse—especially the egregious brutality of animal fighting—can desensitize children to violence at an early age, the bill makes it a separate offense, with even higher penalties, to knowingly bring a minor to such an event.

Equine Equity: Horse Slaughter Prevention Saves Money

WHILE ALL THE TALK coming out of Washington is about cutting spending, a few politicians are quietly trying to restore funding for the slaughter of horses for human consumption—which would also necessitate resurrecting an expensive federal inspection program that ended six years ago!

To prevent this, Reps. Dan Burton (R-IN) and Jan Schakowsky (D-IL) reintroduced the American Horse Slaughter Prevention Act, H.R. 2966. Not only would such a ban end the abuse of over 100,000 American horses who are being hauled to Mexico and Canada to be slaughtered for human consumption, but it would also save taxpayers millions of dollars per year. When the inspection program was shut down in 2005, it was costing taxpayers \$5 million a year, almost exclusively for the benefit of foreign interests. Restoring it now would cost much more—and require an increase in federal bureaucracy and regulations as well.

Rep. Burton expressed his belief in "treating all horses as humanely and respectfully as possible." Sharing that sentiment, Rep. Schakowsky said, "Protecting animals ought to be a bipartisan issue and this bill is a strong step in the right direction."

Bill Would Give Class B Dealers the Boot

THE PET SAFETY AND PROTECTION ACT, H.R. 2256 (PSPA), introduced by Reps. Mike Doyle (D-PA) and Chris Smith (R-NJ), prohibits random-source Class B dealers from selling dogs and cats to laboratories for experimentation. Passage of this bill remains critically important despite the recent move by NIH noted on the previous page, as the (somewhat tentative) NIH policy change would not apply to research that is not funded by NIH, or to the supply of dogs and cats by B dealers for teaching and testing. The PSPA would ensure that this corrupt and inhumane practice is finally stopped.

ONE STEP FORWARD AND TWO BACK FOR ENDANGERED SPECIES

In a rare victory for endangered species, the House adopted a floor amendment to the FY 2012 Interior appropriations bill offered by Reps. Norm Dicks (D-WA), Mike Thompson (D-CA), Mike Fitzpatrick (R-PA), and Colleen Hanabusa (D-HI) that strips the bill of language that would have eviscerated a core function of the U.S. Fish and Wildlife Service (FWS). That excised provision would have barred future endangered species listings and critical habitat designations. Among other crises this would have caused, it would have prevented the FWS from acting to save hibernating bats in the United States, who are dying in alarming numbers due to white-nose syndrome. (In fact, the FWS has already determined that two species of bats "may warrant federal protection" and plans to initiate thorough status reviews.)

Unfortunately, wolves did not fare as well. The bill prohibits lawsuits challenging impending new rules to delist wolves in Wyoming and the Western Great Lakes region. The FWS will be publishing a new rule to delist the Wyoming population as soon as the Wyoming legislature approves a deal struck between the state and the federal government. The Department is currently reviewing comments on its proposal to delist wolves in Michigan, Minnesota and Wisconsin, as well.



Back in the crosshairs: The federal government is stripping wolves in Wyoming and elsewhere of protections formerly afforded them under the Endangered Species Act.

AWI Staff Member Gets PAWs on the Ground in Dominican Republic

AWI STAFF MEMBERS ARE DEDICATED to helping animals on the job and off, and many of us engage in various activities for animals after we leave the office. One example of such an extra-curricular activity is the People Animal Welfare (PAW) project that I helped initiate, organize, and in which I participate in Santo Domingo, Dominican Republic. From July 12-14, PAW held a three-day spay-neuter event that succeeded in spaying and neutering 167 dogs and cats.

The need for a spay-neuter program in the Dominican Republic is painfully clear. There are thousands of homeless dogs and cats throughout the country; in addition, those citizens who have pets in their homes often cannot afford health care for them. The thousands of stray dogs who roam throughout the city streets and rural roads create a significant animal welfare concern, with many animals suffering from untreated diseases, wounds, and lacking



Registration desk for PAW patients and their human companions.

proper nutrition. One of the homeless dogs brought into the spayneuter program in July suffered from a deep wound in his snout in which scores of maggots had lodged themselves. Another young dog had been hit by a car the day before. Her guardian initially took her to a neighbor who tried to amputate her broken leg with no anesthetic or proper surgical



Giving TLC to a dog awaiting surgery.

equipment. In addition to being spayed or neutered, many animals also received critical medical treatment.

PAW is a project of Casa de Orientacion y Desarrollo Real (CODR), working in partnership with the Veterinary School at the Universidad Autónoma de Santo Domingo (UASD) and World Vets to provide rabies-spayneuter services to the dogs and cats with and without homes in the Santo Domingo area. CODR is a Dominican non-profit organization founded in 2009 with a mission to facilitate access to higher education for poor students in the Dominican Republic by offering them housing along with a variety of support services and skill training, with a special focus on leadership and community development. UASD is the public university system in the Dominican Republic. World Vets is a non-governmental organization providing veterinary aid around the globe; their work spans 34 countries and six continents.

PAW was fortunate to have the facilities of the UASD Veterinary School. There were four operating tables in an air-conditioned surgery room, a room for intake of animals, another for pre-op preparation, and then a very large recuperation area. Compared to many sites in which spayneuter campaigns such as this are conducted in developing countries, these facilities were luxurious.

Capturing the essence of a spay-neuter campaign with all of the details of sound, smell, touch, and sight seems impossible. Dozens of animals of various sizes and in varying conditions are waiting outside in the sun, under trees; others are reluctantly waiting to go into pre-op, some are flipped over on their backs, being shaved before their surgery, others are on their backs on the operating tables, all four legs splayed out and tied, veterinarians and vet techs surrounding them. It is very hot and humid in Santo Domingo in July. At times the electricity falters and we all hold our collective breaths, but then start breathing again as we hear it kick back in.

The large recuperating area is filled with 30 crates of various sizes. Some dogs are in the crates, recovering. Others are lying on the floor, on makeshift beds, receiving the attention of volunteers, vet techs, and vet students. Dogs whose body temperatures are still too low are being wrapped in blankets and rubbed vigorously; others are receiving post-surgical medications. While this is happening, the homeless dogs who live on the Veterinary School campus roam in and out of the various rooms, curious and unaware that "they are next."

As a psychologist I had limited professional skills to offer. I just did whatever I could to help—which included holding dogs while they receive shots (Chihuahuas have very tiny veins), cleaning up accidents, caring for dogs in recovery, helping process dogs during registration, and offering back massages to the vets who were standing up all day over operating tables. As one of the organizers of the event, I also was responsible for keeping lines of communication open between the vet team and the volunteer team—which was at times a challenge to my still-not-adequate Spanish language skills. Fortunately, we had Carlos Diaz and Juan Carlos Florentino—first-rate translators who were part of the CODR team headed by Hardy Florentino.

Working with the World Vets team was an experience I will remember in vivid detail. Headed by Dr. Karen Allum of Pennsylvania, the team included vets and vet students from Texas, New Mexico, Michigan, Illinois, Pennsylvania and

South Carolina. Although they had not worked as a team before the July event, they worked seamlessly together. In fact, the staff of the Veterinary School assumed that they had been together for many years.

The end goal of PAW is to create a sustainable spay-neuter program in the Santo Domingo area of the Dominican Republic (and once established in Santo Domingo, to expand to other areas in the country). The July campaign was the first important step. The PAW team of CODR, World Vets, and UASD plan to continue working together to conduct other campaigns once or twice a year. Of equal importance, there is an ongoing training process in which Dominican vets and vet students are learning the latest spay-neuter techniques.

There are always some dangers of participating in one of the spay-neuter campaigns. For example, we were advised to receive up-to-date rabies vaccinations. The greatest peril, however, if the reader will excuse the bad pun, is not in being "bitten," but rather "smitten." The latter befell me.



Dr. Michael Deutsch of World Vets performing surgery with Dominican veterinary student looking on

I returned home, not only feeling that I was part of something important, but also with a lively, big-eared puppy who was living homeless at the Veterinary School. I knew it was a mistake to name her (Sabrina, see photo page 3) when I started playing with her at the school in July, a clear sign that I had succumbed. For me, for Sabrina, and for many of the other 166 dogs and cats, this story has a happy ending. We want to bring more happy endings to more dogs and cats in the Dominican Republic in the future.

SKINS OF SUFFERING

FASHION TREND FALLS HARD ON REPTILES

IN THE FASHION WORLD, accessories are a

must to accentuate the style from top-name designers. The color, texture, and pattern of a purse, belt, or shoes are considered essential for celebrities and other fashion-conscious people when striving for that perfect, coordinated look. In 2011, fashion shows from Milan to New York took on an exotic look as snake skin once again became all the rage. While some designers opted for snakeskin prints, those more ethically challenged opted for the real thing-the skins of snakes and lizards dyed into a rainbow of colors and manufactured into an array of garments and accessories sold by the likes of Gucci, Versace, Chanel, Georgio Armani and others.

Our early ancestors used animal skins to stay warm and protected. In modern industrial societies, animal skins are used more often not as a survival aid but as a decorative flourish. Turning animal skins into fashion statements has become big business, involving millions of dollars and, sadly, billions of animal lives.

Many are aware of the suffering endured by foxes, minks, seals, and other furbearers exploited by the fur industry. Until recently, however, few have been exposed to the cruelty inherent in the reptile skin trade. While snakes and lizards slaughtered for the skin trade are unlikely to generate the human empathy reserved most commonly for more charismatic species, the vicious cruelties of the trade are hard to ignore. In recent years, Karl Ammann, a documentary filmmaker, and Bryan Christy, an investigative journalist and author of *The Lizard King*, have obtained videotape footage and eyewitness accounts of reptile slaughter for the skin trade that would disturb even the most ardent ophidiophobe.

International trade data reveal that a significant number of reptiles exploited by the skin trade are wildcaught—collected from jungles, forests, agricultural lands, or rivers and streams to begin days, weeks, or even months of suffering as they await their fate. Others are reportedly "captive-bred," but according to experts, many of these animals are actually wild-caught and then illegally laundered in trade as captive-bred. Large lizards such as monitor lizards are captured live. Their front and back legs are tied behind their backs and they are thrown into bags or other containers for transport to the local market, skin buyer, or slaughterhouse. Snakes, including cobras, pythons, boa constrictors, and a variety of rat and water snakes, are extracted from their wild homes and stuffed in sacks or wooden boxes, potentially going weeks or months with no food or water before sale or slaughter.

As documented by Ammann and Christy, reptile slaughterhouses are often dark and dingy facilities with little concern given to sanitation or the welfare of animals. The bound lizards are strewn about the floor while workers attempt to hit each on the head with a steel bar in an attempt to kill them or at least knock them unconscious. Others are grabbing the lizards—some of whom are clearly still alive—and systematically removing their skins before discarding their flayed bodies in a heap.

Snakes, similarly, are struck with a steel bar. The workers aim for the head but don't always hit the



Accessories to a crime: There is nothing glamorous about torturing and killing animals like this monitor lizard for the sake of luxury handbags and boots.

target. The snakes are then hung by their heads and a hose is used to fill each with water; to make it easier to peel off their skin. As depicted in Ammann's documentary, The Medan Connection, some snakes are still alive as their skins are peeled from their bodies; head to tail. Most of the skins, once processed, are sold and exported—mainly to Europe to be manufactured into garments, shoes, wallets, watchbands, and other fashion accessories.

It is unconscionable to believe that such cruelty is permitted purely to make high-end fashions and accessories for those who think wearing real snake skin is macho, exotic, or sexy. To make matters worse, with virtually no meaningful regulation of the trade in reptile

skins—even for species subject to international protections under, for example, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)—this trade is threatening the very existence of an increasing number of species. Considering the myriad other threats to these animals, including habitat loss and fragmentation, pollution, climate change, disease, capture for the pet or venom trade, and killing for food or out of fear (whether or not they are poisonous), the extirpation of many species is certain unless dramatic actions are taken to expeditiously reduce or eliminate these threats.

Though snakes and other reptiles worldwide are exploited for the skin and pet trade, the international

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An albino Burmese python conservation community has recently focused its attention on Southeast Asia. In April 2011, officials from several countries gathered in Guangzhou, China, to discuss the Asian snake trade. Reports prepared for the meeting documented what many feared: Asian snake species are in dire trouble due to largely unregulated and unsustainable captures to feed the international pet and skin trade industries.

According to Dr. Mark Auliya, a German biologist and expert on the snake trade contracted by CITES to facilitate the Asian snake trade workshop, "sound data on the population status are not available for any of the species impacted by trade or other threats." Moreover, Dr. Auliya states that, despite our having extensive knowledge of species and their global distribution, "the

ecological and biological attributes of species in wild populations are largely unknown." Even for CITES-listed species such as the reticulated python, equatorial spitting cobra, Pacific boa, and monocled cobra—species for which trade is ostensibly "sustainable," without causing harm to wild populations—species-specific biological and ecological data are lacking, and trade is either known to be detrimental or the impacts are simply unknown.

CITES parties are required to issue "non-detriment findings" (NDFs) to authorize the export of any CITES Appendix II-listed snake species (e.g., oriental rat snake, central Asian cobra, Papuan python). Nonetheless, the fact that basic biological and ecological information about the species—the very information needed to determine

whether trade is detrimental—is largely unknown, demonstrates that such NDFs are either not being made or are without merit. At a minimum, some information about population size and trends, habitat quality and quantity, productivity, mortality rates, and threats must be available to make a credible NDF. Indeed, of the nearly 325 Asian snake species included in the International Union for the Conservation of Nature Red List of Threatened Species, only 37 are considered to have stable populations. The population status of nearly all of the remainder is listed as "decreasing" or "unknown"—evidence, according to Dr. Auliya, of just how little we know about these species.

Notwithstanding the fact that exporting countries don't have sufficient data on the status of their snake populations and/or how the skin or pet trade is impacting these populations, trade continues largely unabated, including into the United States and the European Union. For these species, CITES is a toothless treaty—failing to restrict trade in them even though they are listed in its appendices and thus marked for protection.

Indeed, the number of CITES-listed snake species in international trade is staggering. According to a wildlife trade database managed by the United Nations Environment Programme World Conservation Monitoring Centre, in 2009 alone over 61,400 live animals and approximately 756,441 skins and skin pieces from nine of the CITES-listed Asian snake taxa were exported just from Indonesia, Malaysia, and Vietnam. This trade included 614,074; 86,896; and 31,515 skins

and skin pieces from CITES-listed python, cobra, and rat snake species, respectively. According to import data obtained directly from the U.S. Fish and Wildlife Service, the United States is a leading importer of live snakes and other reptiles, snake skins, and reptile skin products. For example, in 2010, the United States imported over 7,940 live snakes and 301,851 skins/ skin pieces and shoes from eleven particular CITES-listed Asian snake taxa. The suffering inherent to that amount of trade is incalculable—as is the likely impact to the ecology of those wild areas from which the snakes were captured. (See chart for additional snake import data.)

For those species not listed under CITES—including the copperhead rat snake, cave racer, Bocourt's water snake, spine-bellied sea snake and hundreds of others—capture, killing, and trade is unrelenting, and international demand for their skins and for the pet trade is likely contributing to their decline. In its comprehensive report for the workshop, Cambodian officials described the dismal status of snake species inhabiting the Tonle Sap Lake

ecosystem, conceding that the Bocourt's and Pufffaced water snakes "will be extinct in the near future" due to Cambodia's inability to stop the capture or killing of these species for crocodile feed, the live snake trade, and the skin trade.

While some governments have established export quotas for certain snake species or have banned wild-caught snake exports altogether, it's not known if the quotas are being adhered to, what amount of illegal trade is occurring, and/or whether wildlife law enforcement efforts are sufficient to stop illegal trade. For most countries exporting snakes, there are virtually no restraints on the trade, as conservation has taken a back seat to short-term jobs and revenue.

Snakes don't enjoy the popularity of pandas, tigers, elephants, or whales and continue to be—undeservedly the subject of scorn and fear by billions of people worldwide, yet they have intrinsic and extrinsic values that are incalculable.

Considering the enormous
ecological value of reptiles—
consuming rodents who can adversely
impact agricultural production
and transmit disease to humans—
such short-sighted policies pose a
direct threat to a country's ecology,
agricultural output, and public health.

A northern

water snake

While addressing the many existing threats will take concerted actions by individual governments, it is appalling that the vanity of those who purchase snakeskin products continues to contribute to species imperilment and to the immense suffering of so many millions of individual animals. Consumers can avoid contributing to this exploitation and suffering by choosing never to purchase such products. In time, consumer compassion and tougher laws may help undermine the culture of lawlessness and cruelty inherent to the reptile skin business. 🏖

2010 U.S. Imports of Select CITES-listed Asian Snake Taxa Statistics obtained from the U.S. LEMIS Database

Taxa	Total	Live	Skin/Skin Pieces/ Shoes/Garments/Trim	Other*
CANDOIA (genus of boa)	802	792	-	10
CERBERUS (genus of water snake)	2,669	-	2,669	-
DABOIA (genus of Old World viper)	4,875	175	1,655	3,045
NAJA (genus of cobra)	10,773	47	10,635	91
OPHIOPHAGUS (king cobra)	125	25	-	100
PTYAS (genus of rat snake)	10,204	4	10,078	122
PYTHON	288,944	6,901	276,814	5,229

 $^{^{\}ast}$ "Other" includes venom, skeletons, museum and scientific specimens, and trophies.



The U.S. Fish and Wildlife Service's "Buyer Beware" exhibit at Boston's Logan Airport seeks to warn travelers about importing products made from protected animals.

Worldwide, poorly regulated trade in reptile skins flourishes.

IWC63: The Good, the Bad, the Even Worse

"THAT WAS THE WORST MEETING that I have ever attended" commented a senior member of the U.S. delegation to the International Whaling Commission (IWC), upon departing the 63rd IWC meeting. Held in July on the British Isle of Jersey, the event must have been exceptionally bad to trigger such a comment, considering the long experience of this delegate. It was.

This was expected to be a cooling off year, sandwiched between last year's IWC62—where a disastrous "Future of the IWC" proposal that would have overturned the nearly 25-year-old commercial whaling moratorium was

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AWI's D.J. Schubert led a meeting of international NGOs to talk strategy ahead of this year's IWC meeting in Jersey.

defeated (Fall 2010
AWI Quarterly), and
next year's IWC64—
that will involve
the contentious
reestablishment of
five-year "Aboriginal
Subsistence Whaling"
quotas. As for cooling
off, it turned out to be
anything but.

Prior to IWC63, two issues generated most of the attention. The United States and

New Zealand proposed a "Resolution to Maintain Progress on the Future of the IWC"—ostensibly intended to build off goodwill created during past negotiations to reform the IWC. However, for some countries and many NGOs, still raw over the previous year's battle, the draft resolution was interpreted as if the prior "Future of the IWC" proposal was being resuscitated—thus adding to the distrust of the two proposing countries. Ultimately, the controversy led to the resolution's withdrawal.

Conversely, a proposal from the U.K. to substantively reform IWC procedures received high praise from many countries and NGOs. They felt that such reform was urgently needed to ensure that the IWC remained relevant—particularly in light of a high-profile vote buying scandal involving Japan at the 2010 meeting.

Before the debate on the U.K. proposal, however, there were accusations (fallacious, as it turned out) that the U.K. had purposefully delayed issuing visas to certain delegates from pro-whaling countries to ensure a vote disparity between whaling and anti-whaling nations. Indeed, as the meeting commenced, while the commercial whaling nations (Japan, Iceland, and Norway) were well represented, many of their allies were missing. In total, some 24 countries were not paid up on their IWC fees and were either absent, or present but barred from voting until their arrears were cleared—victims perhaps, of the increased scrutiny concerning vote-buying and Japan's inability, consequently, to brazenly purchase their presence.

After the Scientific Committee—which continues to do stellar work despite the escalating intrusion of national politics into its discussions—provided a report on some of its deliberations, the U.K. reform proposal was put up for debate. This proposal contained many positive elements to modernize IWC operations, including a new payment system (to guard against future vote-buying), new reporting requirements, and provisions to improve transparency. Poland, the current E.U. President, began to introduce the U.K.-prepared document on behalf of the E.U., only to face an objection claiming that the E.U. was not a member of the IWC and therefore the proposal was invalid. This dustup forced the meeting to close so that the commissioners could meet privately to determine how to proceed.

The following morning, the U.K. presented its own modified proposal—albeit stripped of language that would have provided greater opportunities for civil society participation in IWC deliberations. Though many governments supported this change, Japan, Iceland, Norway and Denmark continue to oppose any increased opportunities for participation by NGOs—despite NGO expertise on nearly every issue of relevance to the IWC. As a result, the IWC treaty remains one of the few multi-national environmental agreements that provide no meaningful avenue for civil society to contribute constructively to the debate.

Despite this unfortunate setback and after considerable debate, the weakened U.K. proposal was adopted by consensus. Fortunately, many of the important elements, including the new payment structure, remained—prompting some NGOs to declare the decision as the most substantive made by the IWC since its vote to approve the commercial whaling moratorium in 1982.

At the start of the final day of the meeting, with nearly 20 agenda items remaining, there was a need to move expeditiously. It soon became apparent however, that expeditious action was not on the agendas of some delegates.

Before the day's meeting began, Japan, Norway, Iceland and their allies gathered outside the room. The purpose of this pre-meeting huddle would soon become clear. After debate over a joint proposal by Argentina and Brazil to establish a South Atlantic Whale Sanctuary (SAWS)—a proposal repeatedly made in previous IWC meetings—Japan threatened to walk out if any vote proceeded on said proposal. When a vote was requested by Argentina and Brazil and called for by the Chair, Japan and its allies promptly left the room as planned.

The sudden departure of several dozen countries led to another delay, as commissioners met to attempt to

settle the question over whether the requisite quorum still existed: should the count include the number of countries attending the meeting or only the number of countries actually in the room at the time of the vote?

By the time this kerfuffle ended, lunch, tea time, and dinner had all passed and many delegates had already departed for home. After an interminable nine-hour delay, the meeting recommenced to review a document drafted by a small committee established to find a way beyond this



AWI's long-held observer status at IWC meetings affords us an opportunity to attend proceedings and also interact with delegates in the margins. Here, AWI's D.J. Schubert and Susan Millward and Campaign Whale's Andy Ottaway share a lighter moment in an otherwise maddening meeting.

latest obstruction triggered by Japan. That document simply put off discussing the definition of quorum and a vote on the SAWS proposal until IWC64 in 2012. The remaining agenda items were also put off until next year and the meeting—mercifully—ended.

Now that a few months have passed, the meeting might be considered a partial success given the adoption of the reform proposal. Unfortunately, IWC63 will also be remembered for wasting time, money, and carbon, as trust and goodwill built during the past few years evaporated and dysfunction—intentionally manufactured by Japan and its whaling allies—returned to form. If such antics continue in the future, the IWC may well implode. On the other hand, if the U.S. and other like-minded countries opposed to commercial whaling decide to use their collective political and legal influence to end whaling, this dying industry might finally be placed into the trash bin of history.

Alaskan Officials in Hot Water

A FEDERAL GRAND JURY indicted Maggie Ahmaogak, the former executive director of the Alaska Eskimo Whaling Commission (AEWC), in September. She is accused of diverting approximately \$475,000 of AEWC funds for her personal use, and is formally charged with wire fraud, money laundering, theft and misapplication of funds from an organization receiving federal grants. The AEWC, a nonprofit organization formed in 1976 to preserve subsistence bowhead whale hunting traditions, is largely funded by federal tax money. Ahmaogak served as the AEWC executive director for 17 years before her ouster in 2007 when the financial irregularities were uncovered. She faces up to 20 years in prison and a \$250,000 fine for each count of the indictment. Ahmaogak's replacement, Teresa Judkins, was also indicted in July for taking \$100,000 of the Commission's money for personal use.

Meanwhile, Arne Fuglvog, a top fisheries advisor in Alaska Senator Lisa Murkowski's office, pleaded guilty in August to a 2005 violation of a federal commercial fishing law and could face 10 months in jail and a \$50,000 fine. He would also turn over his \$100,000 profit from the incident to the National Fish and Wildlife Foundation to improve fisheries in coastal areas of the Gulf of Alaska. Fuglvog served for years on the North Pacific Fishery Management Council in Alaska before moving to Washington in 2006, and was a leading candidate in 2009 to head NOAA's National Marine Fisheries Service.

Branches of the Nile: Iconic Crocodiles Actually Two Species

THROUGH GENETIC SEQUENCING of living and mummified Nile crocodiles, scientists have proven that the formidable African reptiles are actually two distinct species—Crocodylus niloticus, who lives up to the Nile croc's reputation in size and aggression, and Crocodylus suchus, a smaller, more docile and less abundant species. Nile crocodiles have long been harvested for their skins to make purses, watch bands and other apparel. Unregulated trade of crocodile skin, in

AMERICAN EEL MAY (SOMEDAY) GET FEDERAL PROTECTION

The U.S. Fish and Wildlife Service (FWS) recently reported that the American eel, a fish found in freshwater systems in the eastern U.S., may be at risk of extinction, and thus warrants federal protection under the Endangered Species Act (ESA). These eels live a complex multi-phased life—born in the Sargasso Sea region of the North Atlantic Ocean before spending years traveling to freshwater rivers and marine estuaries, where they may remain for 10-25 years before returning to the ocean to spawn, deposit their buoyant eggs, and perish. A number of threats such as climate change and invasive parasites are significantly diminishing subpopulations of American eels. It may take years for the FWS to get through its backlog of ESA listing petitions and make a determination on the eel. Whether American eels can survive the wait remains to be seen. 🗳



A Nile crocodile (Crocodylus niloticus) in South Africa. Scientists have found C. niloticus to be genetically distinct from the smaller, less aggressive C. suchus. This could be a factor in conservation strategies

addition to numerous other environmental threats such as loss of habitat and hunting for bushmeat have diminished C. suchus, pushing them into the drier interiors of the West African continent. The two species are very similar in outward appearance—meaning both must be protected to ensure C. suchus is not further jeopardized.

On a Wing and a Prayer: Hope for Thorny Skates in US Waters

by Trevor Smith

AROUND THE WORLD, intensive commercial fishing operations are driving many marine fish stocks to the brink of collapse. Sharing in this plight is a little-known bottom dwelling marine species, the thorny skate (Amblyraja radiata). Thorny skates are one of seven skate species endemic to the waters of the northwest Atlantic Ocean, and their populations in Canada and the United States have declined precipitously over the past 40 years. Over this time, fishing efforts for skates in U.S. and Canadian waters have surged to satiate a burgeoning appetite for skate wings on the international seafood market. In Canada, thorny skate populations persist at perilously low levels, but the species is even more imperiled in the United States, where population numbers have declined unremittingly since the mid-1970s and are currently at historic lows.

The current U.S. federal regulatory scheme has proven woefully inadequate to promote rebuilding of thorny skate populations. Since 2003, thorny skates have been designated a "prohibited" species in U.S. waters under the Skate Fishery Management Plan. Despite the prohibition on possessing or landing thorny skates, however, population numbers continue to decline, and according to recently published reports, bycatch mortality and illegal landings continue to jeopardize the species' survival.

Accordingly, thorny skates are assessed as "Critically Endangered" in U.S. waters by the International Union for Conservation of Nature (IUCN). In Canada, where the IUCN assessed the species as "Vulnerable," a directed skate fishery continues to capture and kill thorny skates.

In August, in an effort to turn the tide on the fate of thorny skates in the northwest Atlantic, AWI petitioned the National Marine Fisheries Service to add them to the list of federally protected species under the Endangered Species Act. The petition, if successful, would provide thorny skates with more stringent protections and regulations afforded by the Act and, potentially, critical habitat designation as well.



Thorny skates are distinguishable from other skate species by a signature ridge of thorns that extend down the midline of their backs and tails. Intensive fishing of thorny skates has placed them in peril.

What is Winging?

Skate "winging" is a routine practice among commercial and recreational fishers and is egregiously inhumane. With notable parallels to shark finning, many skates, while still alive, have their wings cut off and their amputated bodies discarded into the ocean. De-winged skates and de-finned sharks who are tossed back alive ultimately share the same demise—excruciating pain, followed by suffocation, starvation, and/or predation.

This year, in response to the growing public outcry denouncing shark finning as inhumane and biologically reckless, President Obama signed into law the Shark Conservation Act. The law not only strengthened the 2001 federal ban on shark finning in U.S. waters, but also reflects a glint of hope that public awareness and tenacious advocacy on behalf of skates can spur a future ban on winging. 🗳

Trevor Smith is a second-year law student at Florida State University. While interning at AWI, he authored AWI's Endangered Species Act listing petition for the thorny skate.

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Scientists Study Bryde's Shales in Gulf of Thailand

While other baleen whales have been extensively studied, the Bryde's (pronounced "broo-dus") whale remains a bit of a mystery. The comparatively scant attention the whales have received from scientists is due in part to the fact that they are not easy to track. They are rarely photographed. Sleek and fast, they are primarily fish eaters and can dive a thousand feet, often staying down for 5 to 15 minutes. They generally travel alone or in groups of two or three. They prefer tropical and subtropical waters, but other details-concerning their movements, where exactly they mate and just how many exist-are sparse. The total population of Bryde's whales today is estimated at about 90,000.

The whales, however, are a familiar sight to Thai fishermen and villagers along the upper Gulf of Thailand. Many fishermen and others, in fact, revere them. According to Dr. Kanjana Adulyanuosol of Thailand's

Marine and Coastal Resources Research Center (MCRC) in Samut Sakhon Province, "Many Thai people respect the whales as 'gods of the sea'—owing perhaps to their huge size and mysterious life history." She adds that "In some areas, if a dead whale is found, the body is buried following a Buddhist ceremony similar to that conducted for humans. In the past, when the skeletons of the whales were found, people brought them to deposit in the temples or government institutions. About a hundred whale skeletons, both Bryde's and Omura's whales, are kept in Buddhist temples and institutions-including a 100-yearold specimen in Nakhon Si Thammarat Province in southern Thailand."

Dr. Adulyanuosol and Mr.
Surasak Thaongsukdee, her colleague at the MCRC, seek to solve some of the mystery surrounding the Bryde's whale. Since 2003, the Department has conducted boat surveys, photo identifying the whales and observing

behaviors to learn more about their habitats and feeding grounds. Generally, however, only a few whales—four or five yearly—show themselves. Dr. Adulyanuosol and her colleagues were delighted, therefore, in early 2011 to see a large pod of about 35 individuals in the upper Gulf, including seven pairs of mothers and calves.

The researchers speculate that the sudden influx has to do with an unusual abundance of the anchovy, sardine and mackerel upon which the Bryde's whales prey-though the whales may also be consuming small crustaceans. The scientists (as well as a host of whale watchers who descended on the area) have gotten a good view of the whale's feeding behaviors: "A single whale or a group of whales commonly perform lunge feeding within 3-20 kilometers off the coasts, where the water depth is about 10-15 meters. In some cases they feed in very shallow areas

about 5–6 meters deep. They also performed bubble-net feeding." In 2011, MCRC staff observed several instances of mating behaviors, as well as a mother with a very young calf—leading them to believe that the Bryde's both breed and give birth in the Gulf.

The research center hopes to further study the whales' migration patterns and behaviors, as well as do satellite tagging and genetic studies. Thai scientists have collaborated with Japanese and Taiwanese researchers to do molecular work on Bryde's whale bones, and are currently analyzing the data for publication. Not all of their output is so technical; recently the MCRC published Little Enden and the Happy Sea, an online children's book about a Bryde's whale calf's journey to find a place where all animals and people could live well together. (The book is in Thai, but the Center will publish an English version, as well.)



By taking advantage of the unique opportunity in the Gulf of Thailand to observe so many Bryde's whales in one place, the MCRC scientists hope to discover and communicate new information concerning this elusive species, and thereby increase public awareness of the need to protect them and their habitats.

Birds hover nearby to capture some of the bounty as a Bryde's whale—mouth agape—lunges for prey. Thai scientists are also reaping rewards as this little-studied whale gathers in big numbers in the Gulf of Thailand.

PROJECT NIM Highlights Heartbreaks of Chimpanzees in Captivity



PROJECT NIM, a documentary film directed by James Marsh, is the story of scientist Herb Terrace and his experiment—initiated in December, 1973—to teach sign language to a chimpanzee named Nim. It is also a gut-wrenching tale of what we humans do to chimpanzees in captivity.

Early in the film, Terrace talks about his research project as if it was the first to examine chimpanzees' acquisition of American Sign Language (ASL). Yet, in 1967,

scientists Allen and Beatrix Gardner began research with an infant chimpanzee, Washoe, in a procedure called "cross-fostering." The purpose of the research was to see what human behaviors—including communication with a gestural language—Washoe would acquire when treated exactly like a human child.

The humans who raised Washoe all used ASL while around her. The Gardners' research showed when young chimpanzees were treated like human children, raised in a stable human environment, and immersed in ASL, they acquired and used signs in patterns that resembled those of human children.

The Gardners' project was never mentioned in Project Nim, even though by the time Terrace had begun his project the Gardners were well on their way to replicating their own findings with other cross-fosterling chimpanzees, Moja and Pili. Later, two other chimpanzees, Tatu and Dar, also acquired signs in the Gardner's laboratory. In systematic and rigorous experiments the Gardners and later Roger and Deborah Fouts showed that the chimpanzees gave new information to humans, signed to other chimpanzees when no humans were around, and taught signs to each other.

In Project Nim, Terrace claims that Nim was simply imitating his trainers. One of the problems with Terrace's study, however, is that he failed to replicate the Gardner's rich cross-fostering environment with a stable family of caregivers. Instead, as the documentary clearly shows, a parade of caregivers moved through Nim's life, as he moved from place to place. In studies of human children we know this type of treatment adversely affects attachment and social relationships, which are manifested in communication—the very behavior that Terrace was studying. This is apparent in the film as Nim becomes aggressive and upset when yet another caregiver leaves his life.

Another problem is that in Terrace's project, Nim spent his days in a classroom with trainers drilling him on signs, which is nothing like the conversational style in which young children acquire words or that the cross-fostered chimpanzees used to acquire signs. In post-Terrace days, research showed Nim also behaved in conversational ways when treated like a conversational partner.

The sad part of this story is that Terrace ultimately dumped Nim like many, many other chimpanzees kept as pets or used in entertainment or research. Nim finds himself in Oklahoma at the Institute for Primate Studies, then in biomedical research at the Laboratory for Experimental Medicine and Surgery in Primates, and then alone at an animal sanctuary. The film contains disturbing but accurate footage of a "knockdown"— rendering a chimpanzee unconscious with an injection for a procedure.

In Ellensburg, Washington, at the Chimpanzee & Human Communication Institute (CHCI) on the Central Washington University campus, the remaining adult cross-fosterlings live in sanctuary. Human caregivers continue to use signs and researchers continue sign language studies. The research that continues today with the cross-fostered adult chimpanzees shows they use their signs in spontaneous, appropriate, and conversational ways with their human caregivers and each other. They initiate conversations, respond to questions, and clarify misunderstandings.

The public visits CHCI to learn about the research. Visitors have a life-altering experience when they witness the chimpanzees signing; when they see the chimpanzees sign "shoe," asking to see their shoes; when they see the chimpanzees flipping through magazines, naming the pictures; when they see the chimpanzees sign "chase" to one other, initiating a game; when they look in the eyes of a chimpanzee and realize there is a thinking, feeling being in there who has something to say. Visitors wonder about the hundreds of chimpanzees today and in the past infected with diseases, shot into space, drugged for procedures, and kept alone in 5x5x7 foot cages when being subjected to an experimental protocol. They wonder about the fate of free-living chimpanzees encroached upon and slaughtered by humans. The sign language studies have incredible potential to teach people greater respect for our next of kin.

Terrace's conclusions threatened all that can be learned and all that can be gained both for humans and the treatment of captive chimpanzees through sign language studies with chimpanzees. Unfortunately Project Nim may serve to increase that threat. At the same time viewers of the film may leave the theater deeply affected, as was I. This film reminded me of the unpleasant reality of my work with chimpanzees. I live each day signing with three chimpanzees, my dearest friends (that is the pleasant part). Yet no matter how many nice things I do for them, even though my research is noninvasive, even though I take the chimpanzees on their own terms and care very, very deeply for them, I still keep them incarcerated. I keep them from something very basic, yet very important—freedom. The most moving part of the film is when Nim loses his.

There is no alternative to this situation for a chimpanzee in the United States. Adult chimpanzees cannot safely be kept in a home environment. We also cannot send them back to the jungles of Africa. Captive U.S.-born chimpanzees don't know the culture and lifeways in the jungle any more than I do. One home-reared chimpanzee, Lucy, was sent to Africa as an adult. She appeared very unhappy in her new home, and ultimately was killed by a poacher.

The movie is timely, as our treatment of chimpanzees in the United States is currently being reconsidered. The U.S. Fish and Wildlife Service has initiated a status review to determine whether reclassifying all captive chimpanzees from threatened to endangered under the Endangered Species Act (ESA) is warranted.



Loulis, now 33, shares a moment with a friend at the Chimpanzee & Human Communication Institute. As an infant, Loulis was adopted by Washoe, a chimpanzee who was taught sign language. Loulis was the first chimpanzee to learn sign language directly from others of his species.

What we do to chimpanzees in this country is inexcusable and must end now. By supporting endeavors to end inappropriate experimentation on chimpanzees, we can begin to swing our relationship with our next of kin in a new direction, one that treats them with respect and compassion and embraces our similarities.

> -Mary Lee Jensuold, Ph.D. Director, Chimpanzee & Human Communication Institute Member, AWI Board of Directors

> > Friends of Washoe: www.friendsofwashoe.org

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THE IMPACT OF THE MARKETPLACE ON FARM ANIMAL WELFARE

Humane treatment of farm animals is of increasing importance to consumers, according to a tracking poll conducted to help the food industry keep up-to-date on evolving consumer trends. In another study conducted by

COMPASSION

researchers at Kansas State University, a majority of consumers said they favored mandatory labeling of pork produced on farms using gestation crates and of eggs produced using battery cages, and that they would pay more to receive this information on a package.

America is a capitalistic, free-market society, and businesses—including animal farming operations—must ultimately satisfy consumers in order to survive. That is the point being made by agricultural economists Bailey Norwood and Jayson Lusk in their provocative new book, Compassion by the Pound:

The Economics of Farm Animal Welfare

(Oxford University Press, 2011). They remark, however, that consumers drastically underestimate the extent to which farm animals are raised in intensive confinement. They further note that finding crate-free pork and free-range poultry remains difficult for most consumers, and therefore "... observed choices in the market-place do not reveal people's values for improved animal well-being."

To illustrate the role of marketplace economics in overall production and in the lives of individual animals, Norwood and Lusk conducted a series of experiments including mathematical calculations and in-person auctions with typical consumers. In one exercise they estimated the effects of hypothetically reducing one person's consumption of six animal food products—beef, chicken, milk, veal, pork and eggs—on total production of the products. The impact varies due to differences in the elasticities of supply and demand for the various foods, with the result that cutting out one egg has more of an impact than giving up one pound of any of the meats.

The economists also looked at the potential impact of changes in consumption on the lives of animals. This

exercise, referred to as the "Ethical Eating Assessment Tool," is designed to inform individuals regarding the impact of dietary choices, based on one's own personal views about farm animal welfare. In the provided example—using standards based on the assumptions and beliefs of one of the authors (Norwood)—welfare at the level of the individual animal was most affected in a positive direction by reducing consumption of veal, followed by eggs and pork. The decision

to decrease consumption of milk, beef and chicken, however, was estimated to have a negative impact on dairy cows, cattle and chickens, given the author's belief that even under the conditions in which they find themselves, these animals were still better off being born into the system than not being born at all.

Another experiment looked at the economic costs of eliminating confinement systems for specific farm animals (sows and egg-laying hens) versus the amount of money consumers are willing to pay for the change. This study used, as an example of a shelter-pasture system, AWI's Animal Welfare Approved program—which the

economists describe as providing "superb care," better than "virtually any other labeling scheme." In the case of both pork and eggs, consumers were willing to pay more than the cost of making the change. Projected price increases from eliminating the confinement systems were modest, only \$0.35 for a dozen cage-free eggs and \$0.065/lb. for crate-free pork or \$0.11/lb. for shelter-pasture pork.

This leads one to ask—if consumers want the change and they are willing to pay for it, why are farmers still using cruel confinement methods? It turns out that the consumers in Norwood and Lusk's research were educated regarding various production systems and their impact on the well-being of farm animals, while the average American consumer is not. Because most consumers are not informed, they don't choose products from more animal-friendly systems when given the chance.

If consumers want an alternative to factory farming they must communicate their desire to farmers, and then back it up by being willing to pay a slightly higher price for it. Giving consumers more complete information, according to the book, is an essential step in this process.

Demon Fish: Travels Through the Hidden World of Sharks

by Juliet Eilperin Pantheon ISBN: 978-0375425127 320 pages; \$26.95

AS THE WORLD is starting to open its eyes to the impacts of over-fishing and over-exploitation of the ocean's resources, Juliet Eilperin has authored a superb chronology of humankind's cultural association with sharks. Her book—appropriately titled "Demon Fish"—captures the emotions of fear, respect and awe that have prompted the human perspective on sharks to evolve from that of "sharks as semi-gods"



to that of "sharks as money-making commodities." Eilperin articulates how modern attitudes have resulted in lucrative industry ventures, from shark-finning for shark fin soup to shark sport-fishing off the U.S. coastlines. These activities threaten to devastate entire populations of shark species that pre-date human existence by about 400 million years. While offering a somewhat bleak outlook for the future of sharks, Eilperin also

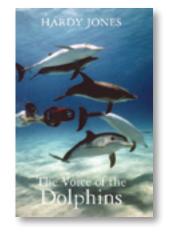
shares heartwarming success stories of many selfless individuals and organizations that have dedicated their efforts to making a positive impact on shark conservation through their actions, advocacy, and awareness campaigns.

—Rob Tomiak, P.E., contributing author

The Voice of the Dolphins

by Hardy Jones CreateSpace ISBN: 978-1456377533 256 pages; \$15.95

HARDY JONES, a legend among marine mammal advocates, has finally penned a memoir of his 30-plus years working



to help dolphins. The book is a humble and honest account of his transition from a promising career as a CBS journalist to filmmaker, investigator and dolphin advocate. He vividly relates his first magical encounters with wild dolphins in the Bahamas, which led to a PBS documentary film, called simply Dolphin. This and countless other award-winning films Jones has made for PBS, National Geographic, Discovery Channel and others have done much to shape attitudes about wild dolphins and their homes. From the beauty and majesty of free dolphins, the story turns to documenting the brutal horrors of Japanese drive hunts, starting with Iki Island and his own role in breaking the story of the slaughters to the world in 1978.

Hardy further documents dolphins dying in purse seine nets and delves into the problems associated with marine pollutants—describing the consequences of marine contaminants in dolphins and, ultimately, humans. His moving account of his own brush with death from multiple myeloma, a disease he associates with pollutants in fish he once ate, is touching. The way Hardy responds to this incurable disease will probably increase the admiration the reader will have acquired already for this gentle and dedicated man.

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.



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Mark Your Calendars: Two Key Conferences Address Fertility Control in Wildlife

WE ARE PLEASED TO ANNOUNCE

important back-to-back meetings on wildlife contraception to be held in Jackson Hole, Wyoming, from August 28–31, 2012. The two forums are open to scientists, wildlife agency managers, animal welfare representatives and the general public. The first, on August 28, is a Wild Horse Symposium sponsored by the Annenberg Foundation. It is followed by the three-day 7th International Conference on Fertility Control in Wildlife, from August 29–31.

Tentative agenda topics for the wild horse meeting include Economics of Wild Horse Fertility Control on Public Lands, Regulatory Status of Immunocontraceptive Vaccines for Wild Horses, Using Immunocontraception to Manage Wild Horse Sanctuaries, and Options for Accessing and Delivering Contraceptives to Wild Horses and Burros. The second conference will cover, among other topics, Population Level Effects of Fertility Control, Sociopolitical Issues in Wildlife Fertility

Control, Development of Fertility
Control Tools, Wildlife Management
Applications of Fertility Control,
Fertility Control in Captive Wildlife, and
Development of Delivery Systems.

AWI eagerly anticipates this international fertility control conference as it represents a new pinnacle in recognizing birth control as a humane, effective, publicly acceptable tool for management of wildlife. AWI's founding president, Christine Stevens, was a strong proponent of wildlife birth control, and for decades AWI has supported it by providing funding, encouraging field research, and educating wildlife managers, biologists, politicians and the general public about its viability. In 1978, we gratefully acknowledged in the pages of our magazine the stalwart efforts of Sen. John Melcher, who secured Congressional support for up to \$750,000 from the U.S. Department of Agriculture for research into animal birth control the first time that federal funds were made available for this purpose.



Two residents of Assateague Island, MD—where immunocontraception has been used to keep wild horse populations in check. The humane use of wildlife contraception will be on the agenda at a pair of conferences in Jackson Hole, WY, this coming summer.

As the meetings will surely highlight, immunocontraception has proven safe and successful. There is a critical need to overcome political hurdles and expand utilization now of this humane method of wildlife management.

For further information, or to register for either or both events, please visit www.wildlifeconference7.org. We look forward to seeing you there!