



AWI Quarterly

Fall 2012 Volume 61 Number 4

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About the Cover

The mountain lion (*Puma concolor*), also known as puma, cougar, and catamount, is an adaptable animal, historically occupying a variety of landscapes from the Canadian Yukon to the southern tip of South America, including nearly all of the contiguous 48 U.S. states. In fact, among mammal species of the Western Hemisphere, only *Homo sapiens* inhabit a larger range. In the United States, however, that range has been drastically reduced. By the early 20th century, mountain lions were eliminated from nearly all of the midwestern and eastern parts of the country. As human settlers pushed west, they took their fear and animosity toward lions with them. On page 6 of this issue, Lynn Cullens, Tim Dunbar, and Amy Rodrigues of the Mountain Lion Foundation discuss the persecution lions continue to face in many western states, where they are still legally hunted despite great uncertainty as to their numbers and continued viability.

Photo by Matthias Breiter/Minden Pictures

SHOTS IN THE DARK UNDERMINE RED WOLF RECOVERY

Only about 100 or so wild red wolves (*Canis rufus*) are known to exist—all in eastern North Carolina, where a population was reintroduced in 1987 from a captive-breeding program after the species went extinct in the wild. Today, as the wolves attempt a comeback, they face a significant threat from accidental shootings. Red wolves can easily be mistaken for coyotes—which is bad news when you live in a state that just sanctioned the shooting of coyotes in red wolf territory... at night.

As AWI reported previously in the Spring 2012 AWI Quarterly, the North Carolina Wildlife Resources Commission (NCWRC) proposed round-the-clock hunting of coyotes and feral pigs throughout the state, including in the red wolf recovery area. When the public and the U.S. Fish and Wildlife Service (USFWS) cried foul, the NCWRC first indicated it would defer the matter to the state legislature. This summer, however, the NCWRC threw caution (and state procedural rules) to the wind, and approved the proposal as a “temporary” rule.

The decision to intensify coyote killing within the red wolf recovery area is actually a double whammy to the wolves. To prevent red wolves interbreeding with coyotes—another threat to reestablishment of the species—the USFWS sterilizes coyotes that have territories within red wolf habitat. Shooting sterilized coyotes will open the way for unsterilized coyotes to move in.



Jim Liestman

Hunting coyotes at night puts red wolves even more under the gun.

The USFWS announced it was investigating the illegal taking in September and October of two red wolves, both of whom apparently died from gunshot wounds. AWI, Defenders of Wildlife, and the Red Wolf Coalition, with assistance from the Southern Environmental Law Center, have now filed a court challenge seeking to overturn the new rule. If anything needs to be shot down, it is the NCWRC's unfathomable decision to willfully undermine red wolf recovery. 🐾



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Above Left: Burros Valerie and Bernadette were born wild but removed from the range and put up for adoption by the Bureau of Land Management. (Andrea Lococo)

Top Right: A Commerson's dolphin leaps from the water. (Fundacion Cethus)

Bottom Right: Immunocontraception has been used successfully to non-lethally manage elephant and other wildlife populations. Many government agencies, however, still favor bullets over birth control. (Andries)



Rare Species Getting Caught in the Web

CONSERVATION ORGANIZATIONS are warning that the Internet is driving unprecedented levels of illegal trade in wildlife and wildlife parts—\$7.8 to \$10 billion annually, according to the research group, Global Financial Integrity. Cyberspace is seen by traffickers to be a high-profit, low risk medium within which to ply their illicit trade. They are taking cues from other nefarious actors who have found a comfortable home within the relative safety and anonymity of the web: According to the International Fund for Animal Welfare, wildlife criminals are increasingly taking advantage of sophisticated web tools more commonly associated with serious financial criminals, drug traffickers, and child pornographers. For many species, online sales are now the principal threat to their survival. Crawford Allan of the wildlife trade monitoring network, TRAFFIC, told the UK's *The Guardian* that “Rare jewels of the forest can now be caught, boxed and shipped almost overnight just like any other express commodity.” 🐾

The Élan of Extinction: Elite Seek Status Symbols to Die For

ACCORDING TO RECENT SURVEYS, the primary consumers of rare animal parts may not be who we thought they were. Surveys conducted across 15 Asian urban areas by a consortium of wildlife and conservation NGOs and media companies indicate that the heavy trade in wildlife parts in those areas today is being fueled not so much by an older generation seeking traditional medicinal ingredients or raw material for religious icons, but rather by a younger, wealthier set concerned mostly with prestige. In China, according to the surveys, the most typical purchasers of elephant ivory and rhino horn are wealthy urban males, age 25–45. In both China and Vietnam, there is a growing trend among members of this demographic to purchase costly wildlife parts and derivative substances for their investment value and as advertisements of the possessor's wealth (and apparent lack of moral compass). 🐾

LIVE TRADE SHORTENS LIZARD LIVES

Endangered animals are being scooped up in alarming numbers to serve as pets. Many of them, sadly, do not long survive the transition into captivity. A new scientific analysis of the exotic pet trade in the United Kingdom, detailed in an article published in the August issue of *The Biologist*, has found that at least 75 percent of pet snakes, lizards, tortoises and turtles—whose lifespans in the wild range from 8 to a staggering 120 years—die within one year in the home. Stressful, inhumane storage and transport conditions in trade also mean many die before they even get to homes. In a press release accompanying the article, Mark Downs, Chief Executive of the Society of Biology (publisher of *The Biologist*), says: “Most people who purchase exotic pets have no idea of the potential consequences for the individual animal or the whole species, or even their own health. It is important to raise awareness of the issue: the pets we keep in our homes shouldn't be a threat to biodiversity elsewhere in the world.” 🐾



Tim Sirell

A captive bearded dragon. A new survey estimates that 4.2 million reptiles entered into trade in the UK from 2006-2011, and that 3.4 million of these are now dead.



C Slack

SCOTTS REAPS RECORD FINE FOR SOWING TOXIC BIRD SEED

The **ScottsMiracle-Gro Company** was ordered in September to pay \$12.5 million in civil and criminal fines and perform community service in connection with eleven criminal violations of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). According to the Environmental Protection Agency (EPA), Scotts illegally treated its wild bird food products with two unapproved insecticides, Storcide II and Actellic 5E, in order to guard against insect infestation during storage—in effect, poisoning the seed in order to keep it “safe” (for sale, anyway).

According to the EPA press release announcing the fines, “Scotts admitted that it used these pesticides contrary to EPA directives and in spite of the warning label appearing on all Storcide II containers stating, ‘Storcide II is extremely toxic to fish and toxic to birds and other wildlife.’” For two years, Scotts knowingly sold the products to consumers, including a period of six months *after* employees specifically warned management of the dangers. Scotts also pleaded guilty to submitting false documents to the EPA and state regulatory agencies, with intent to deceive.

Along with the \$4 million criminal fine (the largest criminal penalty ever under FIFRA) and a \$6 million civil penalty, Scotts was ordered to complete environmental projects—valued at \$2 million—to acquire, restore and protect 300 acres of land to prevent runoff of agricultural chemicals into nearby waterways, and to contribute \$500,000 to organizations that work to protect bird populations and habitats through conservation, research, and education. 🐾

Sierra Club Condemns Body-Gripping Traps

ON MAY 19, 2012, the Sierra Club national board of directors adopted a new “Policy on Trapping of Wildlife.” The policy is perhaps the strongest statement issued to date by the 110-year-old organization in condemnation of inhumane activities targeting wildlife. The new policy states, “Use of body-gripping devices—including leghold traps, snares, and Conibear traps—are indiscriminate to age, sex and species and typically result in injury, pain, suffering, and/or death of target and non-target animals. The Sierra Club considers body-gripping, restraining and killing traps and snares to be ecologically indiscriminate and unnecessarily inhumane and therefore opposes their use.”

“This is the first time a major national environmental organization has adopted a strong policy against body-gripping traps,” said AWI’s wildlife consultant, Camilla Fox, who served on the task force that developed this policy over the course of 18 months. “The policy provides clear guidance for state and regional Sierra Club chapters and groups to advocate for wildlife based on the best science and practical ethics.”

Fox credited Pulitzer Prize-winning *Sacramento Bee* journalist, Tom Knudsen, with helping to raise Sierra Club board awareness of leghold trapping with a multi-part investigative report on the USDA Wildlife Services predator control program, published in the *Bee* the week preceding the board vote. 🐾

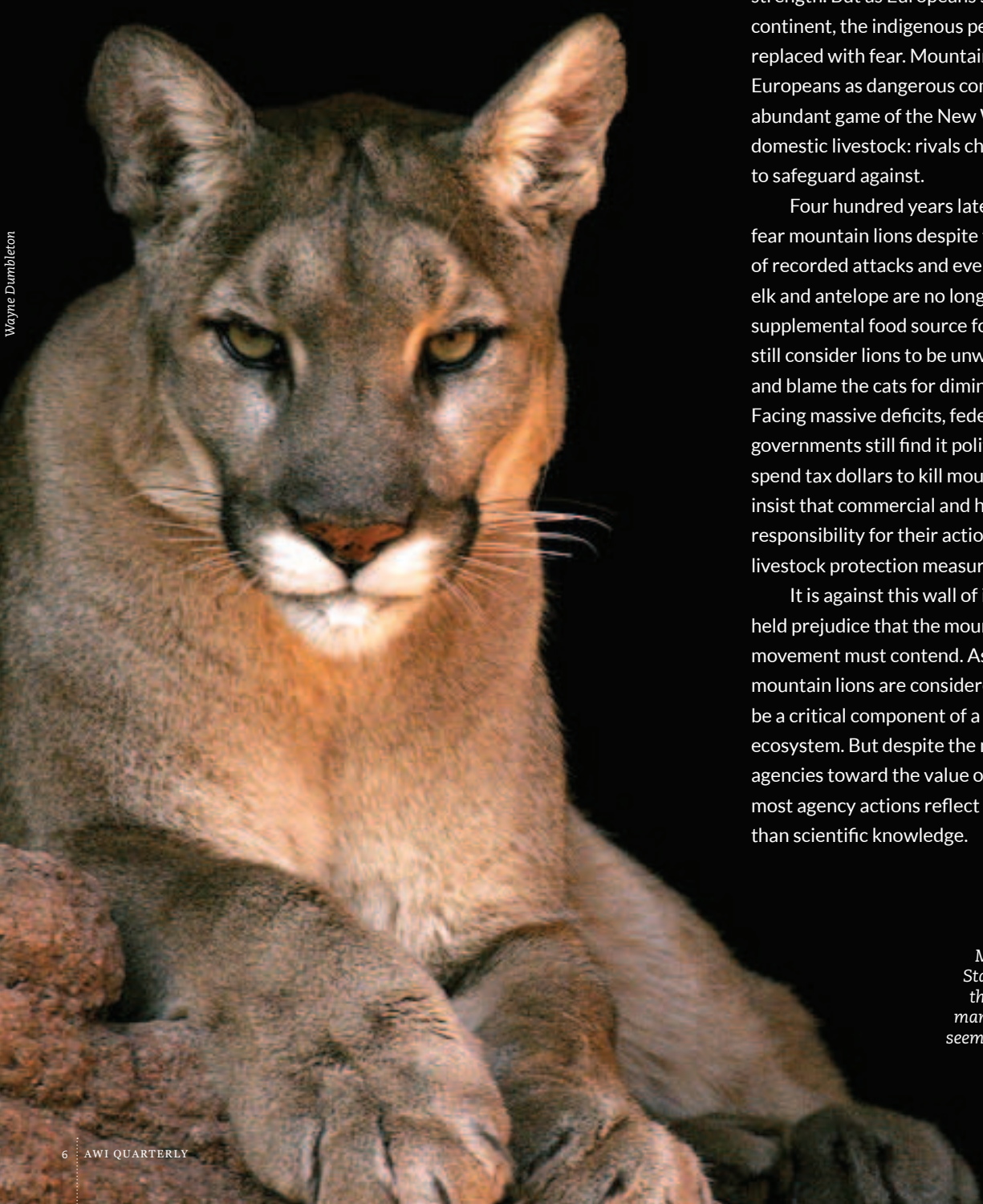


Minnesota Raptor Center

A bald eagle caught and injured by a leghold trap. Body-gripping traps can inflict extreme suffering on targeted and non-targeted animals alike.

FAILING THE AMERICAN LION

BY LYNN CULLENS, TIM DUNBAR, AND AMY RODRIGUES



Wayne Dumbleton

INTRODUCTION

Mountain lions were once acknowledged as great hunters and revered as symbols of bravery and strength. But as Europeans settled across the continent, the indigenous peoples' respect was replaced with fear. Mountain lions were perceived by Europeans as dangerous competitors vying for the abundant game of the New World and threatening domestic livestock: rivals cheaper to eradicate than to safeguard against.

Four hundred years later, many Americans still fear mountain lions despite the minuscule number of recorded attacks and even fewer fatalities. Deer, elk and antelope are no longer truly required as a supplemental food source for people, but hunters still consider lions to be unwanted competition and blame the cats for diminishing game herds. Facing massive deficits, federal, state and local governments still find it politically expedient to spend tax dollars to kill mountain lions rather than insist that commercial and hobby ranchers assume responsibility for their actions and provide adequate livestock protection measures.

It is against this wall of irrational fear and long-held prejudice that the mountain lion protection movement must contend. As an apex predator, mountain lions are considered by many biologists to be a critical component of a balanced and healthy ecosystem. But despite the nods given by state game agencies toward the value of the species in this role, most agency actions reflect traditional biases rather than scientific knowledge.

Mountain lions in the United States face many threats—not the least of which are wildlife management policies that don't seem overly concerned about the species' survival.

"PROTECTING" MOUNTAIN LIONS IN AMERICA

As early as 1684, bounties were being paid to kill lions. The practice became so pervasive that *Puma concolor* was eradicated east of the Rockies by the end of the 19th Century, and reduced to just a few thousand survivors in 11 western states when bounty programs were discontinued in the 1970s. While there is no way to ascertain exactly how many lions died in America under the bounty, we do know that over a 69-year period (1902-1971) at least 45,384 lions were turned in for the bounty in those western states which today still have viable mountain lion populations.

Mid-century, the states decided that lions required protection from unregulated hunters. This may have been in response to diminishing numbers of lions, or perhaps because the demand to kill lions was high enough that dollars could be saved by charging fees rather than paying bounties. The species was placed under the authority of the various state game agencies. It was a case of placing the fox in charge of the henhouse. The protection lions received was from commercial hunters. In season (which in some states is year round) any hunter willing to pay the few bucks needed for a hunting tag could now legally kill any lion. And while the barbaric practice of paying a bounty for dead lions ceased, discrete "Wildlife Services" programs were created to lethally "remove" lions that preyed on domestic livestock or threatened game herds. Once again, tax dollars paid for these kills.

The sad fact is that over the past 40 years of game agency control at least 95,417 lions have been reported killed. Twice as many lions killed in less than two-thirds the time? Maybe *Puma concolor* needs a new protector.

MANAGING MOUNTAIN LIONS FOR HUNTING

All state game agencies (with the exception of California, which claims that it does not manage mountain lion populations) "manage" lions not for the benefit of the species, but to fulfill the desires of hunting constituencies. All (including California, when it determines to take management action with respect to a particular lion) use guns as their primary management tool.

At the turn of this century "enlightened" game agencies started to produce elaborate mountain lion management plans. The documents seem to be created to spin the hunt by linking the plans to science. But as noted by Drs. Ken Logan and Linda Sweanor in their seminal 2001 book *Desert Puma*: "hunting management is a far cry from science."

The plans—hundreds of pages long—characterize the biology and behavior of lions and the management history of

mountain lions in that state. The official documents use catchy phrases like "manage for sustainable population" and tout impressive sounding strategies such as "practicing adaptive management," and "manipulating source-sink dynamics." States justify decisions with excerpts from the scientific studies they like, and omit those they don't. But all the plans boil down to presenting the conditions and parameters under which X number of lions can be killed for sport.

Most states, such as Arizona, are even fairly blatant about their primary objectives:

The Department's goals are to manage predators in a sustainable manner integrating conservation, use, and protection, and to develop the biological and social data necessary to manage predators in a biologically sound and publicly acceptable manner. Overall, mountain lion hunting is meeting the Department's management objective of maintaining an annual harvest of ≥ 250 animals/year and providing recreational opportunities for $\geq 6,000$ hunters per year. Harvest and tag sales have met or exceeded these levels during recent years.

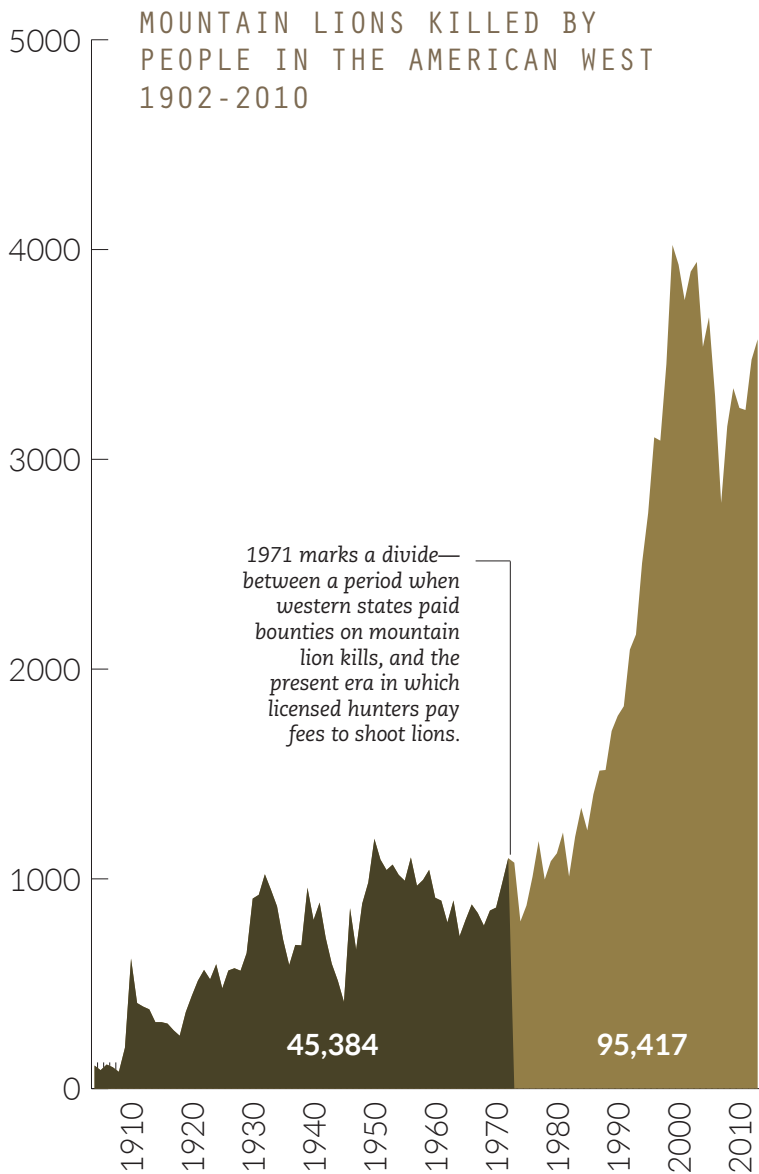
Can state game agencies really achieve sustainable lion populations with ever-increasing mortalities?

Dr. Brian Miller, a cat specialist at the Denver Zoo, has explained that "predators did not evolve with the threat of predation, and thus have slower reproduction rates." He goes on to say that "When maximum rate of reproductive increase is slow, it makes more sense economically to overexploit in the present than to kill limited numbers in a sustainable fashion over the long term. Thus, knowledge of economics leads to unsustainable hunts, which shatters the myth of managing wildlife intelligently over the long-term."

Lion population estimates are highly subjective, variable, and widely viewed as inaccurate. Quota setting rarely reflects the actual status of lion populations. For example, Drs. John Laundre and Tim Clark once reported that hunting quotas in one part of their study area in Idaho were set at their highest levels at a time when research showed that the mountain lion population was at a low point. They concluded that "none of these management approaches offers much security for the long term survival of puma populations, yet they are variously institutionalized in state management programs."



Bert Biehl



More than twice as many mountain lions were killed from 1971 to 2010 than were killed during the previous seven decades by bounty hunters.

EFFECTS OF SPORT HUNTING ON MOUNTAIN LIONS

Since the 1990s, most western states have liberalized lion hunting practices by increasing total as well as female mortality quotas, extending hunting seasons, and reducing lion tags to bargain-basement prices. The risk of over-hunting has been heightened as more hunters seek "trophies" and are able to access remote areas on the growing matrix of roads available to all-terrain vehicles and snowmobiles.

Besides the obvious fact that we might one day lose the North American lion to excessive hunting, the "sport"

also creates an unnatural selective pressure that affects the genetics of mountain lion populations. Multiple studies have demonstrated that excessive or nonselective mortalities can disrupt the dynamics of local lion populations. Changes in age and sex ratios, and the reduction or extirpation of mountain lions in one subpopulation can destabilize a metapopulation.

FALSE ASSUMPTIONS

Often the assumptions that drive mountain lion management decisions are scientifically unsupported. Improving livestock protection and human safety are frequently cited as benefits of hunting. We know, however, that it is impossible for hunters to identify and target those mountain lions who are most likely to come into such situations. Due to hunting, lion populations are getting younger, and younger lions are more prone to conflicts. Hunting is likely increasing the risks rather than reducing them.

Concerns that mountain lions inhibit the growth of game herds in the West are also unwarranted. The health of ungulate herds has much more to do with blocked migratory routes and habitat degradation, fragmentation or loss. Many agency officials have stated publicly that eliminating lions would do nothing to help increase the size of deer herds. But such arguments are usually rejected by those who make the final decisions. According to Dr. Howard Quigley, one of our nation's premier lion researchers, "When elk herds go down our immediate response is to go out and round up the usual suspects, [and] those tend to be the predators."

THE REAL DECISION MAKERS

Game commissioners' final decisions about how many lions will die and where the killing will take place are based less on scientific analysis than on what deer hunters and the rural populace demand. According to Dr. Quigley, "Across the West, commissions are wrestling with this and really turning back some of the advances we've made in managing the cougars."

South Dakota is a blatant example of exactly how little science influences decision-makers. South Dakota extirpated their indigenous lion population in 1906. By 1997 it was estimated that there might be as many as 50 lions residing in the Black Hills region of the state, representing an extremely slow process of re-colonization. Eight years later, South Dakota Game, Fish & Parks (SDGFP) removed the lion from the state's threatened species list and reclassified it as a big game animal. Just two years after that, SDGFP held its first lion hunting season, with a quota of 25 lions or 5 females, whichever came first.

Despite pleas from lion activists and protests by noted researchers, SDGFP biologists have proposed increasing the quota each year. At first, the proposed increases referred to lion population reduction, but lately the focus has shifted to anticipating and satisfying the desires of the state game commission. For three years running (2009-2011), SDGFP officials assumed that the commission would want an increase over the previous year's quota and thereby proposed one. And each year the commission took SDGFP's proposed quota and raised it.

The commissioners have given the same excuses for their actions every year by continually challenging SDGFP's lion population estimate and finding "testimony from hunters and landowners was too compelling to ignore." By 2012 the proposed kill had reached 70 lions or 50 females. 73 lions were actually killed before the three-month (January–March) hunting season closed early.

The commission's even larger proposed quota of 100 lions or 70 females for the 2013 season has been quickly justified by SDGFP biologists on the premise that they miscalculated earlier lion population projections, and now believe that instead of 200 lions, South Dakota has 303:

45 adult males, 87 adult females, 33 sub-adult males, 35 sub-adult females and 103 kittens. Neither SDGFP nor the commission commented on the potential orphaning of kittens if 70 of the state's estimated 87 remaining adult female lions were killed as proposed.

IN CONCLUSION

It seems as if every year the hunting quotas for mountain lions go up and agencies are less certain about the number of lions living in their states, while quite sure that the populations are healthy and growing. High mortality levels are used to justify higher limits the following year. It's a strange and unscientific circular argument: we killed more lions last year, so there must be more lions this year. The science of lion population modeling by state game agencies appears to be based on the premise that lions must be doing okay because hunters are killing so many.

We know that there are fewer lions remaining in the entire United States than there are people living in many of the rural towns that so fear and resent them: surely less than 50,000—and likely several tens of thousands less. It's this vast uncertainty that agonizes conservationists. In the governments' game of sleight of hand, the lion's always the loser. 🐾

Tim Dunbar is Executive Director, Lynn Cullens is Communications Director, and Amy Rodrigues is Biologist and Outreach Coordinator of the Mountain Lion Foundation. Founded in 1986, the Mountain Lion Foundation is a national nonprofit organization protecting mountain lions and their habitat. For more information visit www.mountainlion.org



Lions and Tigers and Backyards, Oh No

ON SEPTEMBER 26, AWI participated in a Capitol Hill briefing on H.R. 4122, the Big Cat and Public Safety Protection Act, which Reps. Buck McKeon (R-NC) and Loretta Sanchez (D-CA) introduced in response to the threats to public safety and animal welfare posed by the private ownership of exotic cats such as lions and tigers. AWI Senior Policy Advisor Nancy Blaney addressed the longstanding nature of this problem; the abuse these animals endure at the hands of

individuals unqualified to meet their complex physical, psychological, and social needs; and the fact that it usually ends badly for the animal. Both H.R. 4122 and S. 3547, introduced by Sen. John Kerry (D-MA), would ban the private ownership of exotic cats except by certain highly qualified facilities, require that current owners register with the U.S. Department of Agriculture, and prohibit owners from breeding their animals or replacing them when they die. 🐾



Martin Heigan

Congressional Recess Leaves Animal Laws in Limbo

WHEN CONGRESS HUSTLED OUT OF TOWN in September, it left a lot of unfinished business. Both the House Agriculture Committee and the full Senate had approved amendments to their farm bills that would prohibit attending or bringing a child to an animal fight. The House bill, however, has not yet come to the floor for a vote. The House Armed Services Committee added the full text of another bill—H.R. 4103, the Canine Members of the Armed Forces Act (see Spring 2012 AWI Quarterly)—to its defense reauthorization bill, which the full House approved in May. The bill's Senate sponsor, Sen. Richard Blumenthal (D-CT), plans to offer the same language as an amendment when the full Senate takes up its version of the bill. Final action on both of these issues should occur during the lame-duck session later this year. 🐾

PUTTING THE HURT ON HORSE SORING

Building on the public outrage accompanying several high profile prosecutions of horse soring, Reps. Ed Whitfield (R-KY) and Steve Cohen (D-TN) introduced legislation to strengthen the Horse Protection Act (HPA). Among other provisions, H.R. 6388 would end the corrupt and ineffectual system of self-policing of horse shows by horse industry organizations, make the act of soring a horse illegal (currently it is illegal only to transport, show, or sell a sored horse), and strengthen penalties under the HPA. 🐾

More Freedom for Wild Corolla Horses

SENS. KAY HAGEN (D-NC) AND RICHARD BURR (R-NC) have introduced S. 3448, the Corolla Wild Horses Protection Act. This bill provides for a new management plan for the free-roaming Corolla wild horses in and around the Currituck National Wildlife Refuge on the Outer Banks of North Carolina. S. 3448 would increase the herd to a more genetically-viable minimum of 110 animals, with a target population of between 120 and 130; provide for cost-effective management of the horses while ensuring that natural resources within the refuge are not adversely impacted; and mandate a less intrusive population control plan for the horses. The House passed its version, H.R. 306 introduced by Rep. Walter Jones (R-NC), earlier this year. 🐾



Martin Griffiths

Wild horses pause for a drink on Corolla Island. New management rules would help the island's horse population stay viable.

NFL's Will Witherspoon Tackles Antibiotic Use on the Farm

ONE OF THE MANY MYTHS about high-welfare, sustainable food is that it's a "niche" market, only for the well off. Tackling the common misconception that making the right food choices is (at best) prohibitively expensive or (at worst) simply irrelevant is one of the challenges of AWI's Animal Welfare Approved (AWA) program. That challenge involves convincing consumers that the industrialized production of "cheap meat" actually comes at significant cost—to animal welfare, the environment, and ultimately our health.

In this respect, Tennessee Titans starting linebacker and 12-year NFL veteran Will Witherspoon is perhaps AWI's "Most Valuable Player." Will is the owner of 500-acre Shire Gate Farm, an AWA-certified operation for grassfed White Park cattle in Owensville, Missouri (profiled in the Fall 2010 *AWI Quarterly*). Over the last year, Will has played a vital role in helping AWI reach new audiences, encouraging them to think about the way we farm and feed ourselves.

One of Will's primary concerns is the link between the rise of antibiotic-resistant bacteria—which evolve in response to the heavy use of antibiotics—and the sub-therapeutic use of antibiotics in intensive livestock farming to promote growth and to counteract the consequences of confining farm animals under overcrowded, stressful and unsanitary conditions. Given the fact that this superbug evolution represents one of the gravest known threats to human health, Will calls it "mind-blowing" that some 80 percent of all antibiotics sold in the United States are used by the livestock industry.

In July, at a briefing co-hosted by AWI for Members of Congress and their staffs, Will discussed the impacts of the misuse of antibiotics and their proper role in the health and welfare of animals raised for food. Will and two other panelists—Michael Blackwell, the former dean of the College of Veterinary Medicine at the University of Tennessee, and Frank Reese, who raises heritage poultry on pasture in Kansas as part of the Good Shepherd Poultry



Alexandra Alberg, AWI

Will Witherspoon on Capitol Hill, warning of the dangers of antibiotic overuse in industrial farming and urging Congress to pass the Preservation of Antibiotics for Medical Treatment Act.

Ranch cooperative—urged passage of the Preservation of Antibiotics for Medical Treatment Act (PAMTA), introduced in the House of Representatives by Rep. Louise Slaughter (D-NY), and in the Senate by Sens. Dianne Feinstein (D-CA) and Susan Collins (R-ME). PAMTA would phase out the routine non-therapeutic use of antibiotics in farm animals in order to maintain the effectiveness of these drugs for treating sick people and animals. 🐾

GOOD EGGS COME TO CAPITOL HILL

AWI's **Animal Welfare Approved** products continue to experience increased demand across the country. One recent request was from the National Democratic Club in Washington, D.C., which now purchases pasture-raised eggs from Carole Morison, a farmer whose rebellion against the industrial system was featured in *Food, Inc.* After she stopped raising meat chickens for Perdue, Carole and her husband Frank developed a successful, independent, pasture-based egg operation with a flock of Rhode Island Red hens in Pocomoke City, Maryland. 🐾

Mass Death of Cattle Onboard Ship Bound for Russia

MORE THAN 1,000 BREEDING DAIRY CATTLE of 3,400 cattle shipped from Galveston, Texas, to Russia in August died during the voyage or shortly after arrival. Another 200 animals, too ill to be offloaded, remain unaccounted for and are feared to have been dumped at sea. The deaths have been attributed to a breakdown in manure removal and ventilation systems, causing the animals to suffocate on ammonia fumes. Officials from the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA-APHIS) would have been responsible for inspecting the vessel prior to departure, and AWI is pressing the USDA for answers as to what went so terribly wrong.

To animal welfare advocates familiar with this type of disaster, an occurrence involving U.S. cattle was inevitable. Two years ago, large numbers of animals—many of them pregnant dairy cattle—began leaving the United

SLOW MOVEMENT TO END DAIRY CATTLE TAIL DOCKING

On July 23, the National Milk Producers Federation Board of Directors approved a resolution opposing tail docking of dairy cows in their industry guidelines, recommending the practice be phased out by 2022. Tail docking is the commonly performed procedure of partially amputating an animal's tail. Tail docking of cattle is already outlawed in both California and Rhode Island, is being phased out for dairy cows in Ohio, and is opposed by the American Veterinary Medical Association and the American Association of Bovine Practitioners. Although none of the reasons given for tail docking dairy cattle have been proven in any scientific literature, it is still widely practiced within the industry. Besides potentially causing both short-term and chronic pain and discomfort, tail docking can cause significant stress to cattle during the fly season, as such animals cannot use their tails to prevent flies from landing on and biting them. While AWI appreciates the dairy industry's resolution to phase out tail docking, 10 years is simply too long for cattle to continue enduring this unnecessary and inhumane procedure. 🐾



Rosselkhozmadzor

Misery at sea: debilitated cattle lie caked in manure. Perhaps a third or more of the cattle on board died en route or were later euthanized.

States to establish breeding herds in Turkey, Russia and Kazakhstan. Last year alone, about 100,000 cattle were shipped from the eastern U.S. coast on sea voyages lasting more than two weeks. During transport, many stressful experiences—including inadequate ventilation, loud noises, motion sickness, and heat stress—severely impact animal welfare and make the animals more susceptible to illness and disease.

In early 2011, AWI and the World Society for the Protection of Animals submitted a rulemaking petition to USDA-APHIS. The petition requested that internationally-recognized "fitness to travel" requirements be written into U.S. animal export regulations to lower the risk of morbidity and mortality on long journeys. To date, the USDA has not responded to the petition. AWI is working with a member of its international advisory committee to investigate the shipments and identify ways to better protect animals subjected to long-distance transport by sea. 🐾

AWI Presents at International Scientific Conference

AWI'S MELISSA LISZEWSKI presented research on hen welfare at the 46th Congress of the International Society for Applied Ethology (ISAE), held in Vienna, Austria, from July 31 to August 4. The congress—themed "Quality of Life in Designed Environments?"—featured presentations exploring such topics as positive emotions, intra- and interspecies relationships, behavioral indicators of welfare, mutilations, and behavioral development. 🐾

Will Harvard Primate Laboratory Change Its Modus Operandi?

By Michele Cunneen

MULTIPLE SERIOUS AND DISTURBING Animal Welfare Act citations by USDA veterinary inspectors at Harvard's New England Primate Research Center (NEPRC) were reported in the Spring 2012 *AWI Quarterly*. In June, according to *The Boston Globe*, the Association for Assessment and Accreditation of Laboratory Animal Care International put Harvard on probation.

In March, the dean of the Harvard Medical School (HMS), Dr. Jeffrey S. Flier, requested a review of the management and care of animals in experiments by a seven-member independent panel composed of industry experts in primates, animal program overhaul, business functions, and laboratory animal medicine. In early August, the review panel's executive summary, including eight recommendations, was released and immediately accepted by the dean. The recommendations are as follows:

- Appoint an Attending Veterinarian and a biosafety officer dedicated to the NEPRC as part of a general move towards permanent, stable NEPRC leadership by individuals with the knowledge, experience and communication skills necessary to build a cooperative, collegial team.
- Create a comprehensive multi-level training and career development program, including a team-based work model to enhance organizational development and increase optimal staff interactions and cross-disciplinary accountability.
- Assess critically the structure, charge, scope and composition of existing NEPRC committees and consider the need for new approaches to internal oversight and governance.
- Encourage broad-based identification of and open communication about problems, and active involvement in problem solving. This should be accomplished through review and revision of existing policies as well as employee education and training.
- Establish a NEPRC-specific IACUC [Institutional Animal Care and Use Committee] subcommittee as part of a general move towards improving the interface between the IACUC and the NEPRC.
- Ensure the continued involvement of the IACUC in the review and approval of NEPRC animal care standard operating procedures prior to implementation.

- Define the IACUC's responsibilities to reflect clearly its oversight, as opposed to management, responsibilities.
- Identify and empower an experienced advocate for NEPRC within the senior leadership of HMS to ensure consistent HMS support for NEPRC.

While the panel is all industry insiders, some members are well known for their frankness and ability to turn around programs. The problem is that the concerned public—whose taxes fund the hundreds of millions of dollars in federal grants each year that support research on animals at the facility—cannot tell whether the message has been received. The public is privy only to the review panel's summary, not the details concerning who may have been responsible and/or why this pattern has continued for many years. Individual names need not be released, but it would be useful to know what chain-of-command issues; human resource policies; patterns of discipline, promotion and retention; inadequate training; inattention; and/or lack of resources led to this situation.

Just fixing the compliance committees will not fix Harvard's problems. The answer is a committed, caring staff at all levels who are empowered to use their expertise in primates on a daily basis to assist the research staff in doing their jobs while ensuring the primates are handled, anesthetized, and monitored for health and welfare issues at a level the public expects and good science dictates. The basic breakdown in staff training, empowerment, and culture of care will not be solved via these recommendations unless there truly is a cultural change. There are talented people at Harvard's primate facility who can make this change, if they are supported in this process. 🐾



Sini Merikallio

Harvard's NEPRC includes housing for more than 1,800 monkeys. Primate species at the facility include rhesus (shown here), cynomolgus and pigtail macaques; squirrel and owl monkeys; marmosets; and tamarins.

Wild Burros

Tough Survivors Face Harsh Landscape and Hostile Management

by Andrea Lococo

It's easy to fall in love with Bernadette, Valerie and Wee Willy, three wild burros, adopted earlier this year from the Bureau of Land Management (BLM). Their charismatic personalities and occasional, delightful brays are enough to put a smile on anyone's face. Yet, their stories paint a picture of broken promises to animals whose historical significance rivals that of their wild horse cousins.

Modern burros are descendants of wild African asses. Their domestication, estimated to have occurred perhaps as many as 8,000 years ago, was the beginning of a tale of grueling use and abuse that continues in many parts of the world today. They arrived in North America with the Spanish explorers more than 500 years ago, but even their journey to the New World was fraught with maltreatment. Burros and horses were hoisted in hammocks on small ships with only their hind feet touching the floor. At sea, water and food frequently became scarce, particularly when calm winds lengthened voyages. In order to conserve water in times of need, animals were thrown overboard. This callous practice presaged the dreadful fate of countless burros centuries later in their new home.

These gentle "beasts of burden" helped to explore and settle early America. In 1896, the popular western chronicler, Charles F. Lummis, praised the burro's extraordinary

contribution to the settlement efforts: "Two-thirds of the New World would hardly have been civilized yet, without him [the burro]." Sure-footed, adaptable, and well-suited to arid environments, burros labored in mines and fields, towing people and equipment, hauling ore, wood and water, pulling plows and water wheels, and guarding sheep. Most closely associated with miners and prospectors, burros were ever-present as they trudged into inhospitable territories in search of mineral treasures. Capable of surviving on little water, the service of burros to pack all sorts of commercial merchandise long distances over difficult terrain proved indispensable. At least it did for a time.

Eventually prospectors died or quit, and modern transportation technologies like the "iron horse" supplanted the need for the "iron burro." When their usefulness was exhausted, once again burros were tossed out, not to flounder at sea, but to fend for themselves in a remote, harsh desert environment. Victims of abandonment, but no longer subject to servitude, burros reverted to natural, wild behavior and adapted well to their new free status.

Their populations flourished, much to the chagrin of ranchers who perceived them as competitors of livestock for valuable forage and water. Sport hunters preferred bighorn sheep, mule deer and pronghorns to burros, and resented the burros' presence, despite evidence that



competition between the species was and remains, for the most part, minimal. Consequently, hunters, like ranchers, wanted them gone.

As time passed, the political controversy escalated. Ranchers, along with government officials responding to the demands of the livestock community, declared war on the animals. They were shot, poisoned, and driven over cliffs to their deaths. Once highly valued for their backs and brawn to carry heavy loads, burros were now rounded up for their bodies to be butchered and processed into dog food.

Pro-burro advocates attempted to stop the massacre, but with limited success. For example, in California, a law was passed in 1939 to make it illegal to capture or kill burros for animal food, but did not prevent their carcasses from being processed into meat for human consumption, nor did it prohibit shooting burros for “sport.” In 1953, an amendment outlawed killing wild burros for any reason, and four years later the California legislature declared the animals to be property of the state. Unfortunately, this concern for burro welfare did not extend to other states, and for years the animals were afforded no federal protections whatsoever.

Finally after enormous public outcry over the mass slaughter of both wild burros and horses, Congress passed the 1971 Wild Free-Roaming Horses and Burros Act (WFHBA), which acknowledged the animals’ historical and cultural significance and the integral role they play in natural ecosystems. The law was intended to provide the animals protection where they were then found on public lands under the jurisdiction of the BLM and the U.S. Forest Service. However, this protection did not extend to other federally managed lands. Nothing could be a better example of the consequences of this legal exclusion than the animals’ plight on National Park Service (NPS) lands, where they were considered an “exotic” species and targeted for removal. Thousands of wild burros inhabiting the Grand Canyon region had already been killed earlier in the 20th century, and in 1979, NPS officials proposed shooting the few hundred remaining burros.

What made the heartless policy and proposal even more repugnant was the fact that a legendary burro served as a much-loved symbol of the Grand Canyon. Immortalized as *Brighty of the Grand Canyon* in a 1953 book by award-winning author Marguerite Henry and in the 1966 film of the same name by filmmaker Stephen Booth, the story recorded the life of Bright Angel, who lived and roamed

freely on the North Rim of the canyon from around 1892 to 1922. Brighty, as he was known, helped to haul water to the first tourist lodgings on the North Rim for a reward of pancakes. He assisted in the dangerous construction of the first Kaibab suspension bridge across the Colorado River at the bottom of the canyon and even toted Teddy Roosevelt’s packs during a hunting excursion. In the Grand Canyon Lodge on the North Rim, there is a life-size bronze statue of Brighty by sculptor Peter Jepson. According to folklore, rubbing Brighty’s nose brings good luck.

Whether Brighty’s nose was as polished then as it is now is unknown, but the Park Service’s shooting proposal triggered a daring rescue attempt by animal advocate, Cleveland Amory, to airlift the burros out of the canyon and out of harm’s way. Thankfully, the high-profile operation proved successful and helped to focus media exposure on wild burros who had not received the same level of attention as had wild horses. Even after all this, the Park Service remains relentless in pursuing its zero tolerance policy for wild burros. How burros can be protected as “wild” on one side of an artificially drawn boundary and “exotic” on the other makes no sense. Yet, our elected and governmental officials have failed to see the folly and animal welfare implications of such arbitrary policies.



Rylee Isitt

Once seen as dependable beasts of burden, burros were later viewed as a dispensable burden on the land. Many were slaughtered to make way for hunters and ranchers.



In point of fact, however, wild burros have fared only minimally better on lands where they are entitled to protection. In 2000, the BLM stated its goal of reducing wild burro populations by nearly 80 percent from their 1971 numbers—a little over 14,000 animals, after thousands had already been killed prior to passage of the WFHBA—to a high population target (referred to as an “appropriate management level,” or AML) of a mere 2,923 animals.

Of the original 54 Herd Areas (HAs) identified in 1971 as places where burros lived in the wild, four were transferred to the Park Service in their entirety as part of the East

Mojave National Preserve. As they were now on NPS land, these burros were denied legal protection. In 18 more HAs, all burros were slated for removal. Lands transferred to the Park Service and the zeroing out of Herd Areas due to other management considerations translate into approximately a 45 percent reduction in wild burro habitat.

Today, wild burros are managed in only 31 Herd Management Areas (HMAs)—areas within HAs where the burros are to be managed and allowed to remain. Most of these HMAs are considerably smaller in acreage than their originally designated HAs, as evidenced by the chart below.

Wild Burro Statistics Fiscal Year 2012

Location	BLM Herd Area (HA) Acres	Total HA Acres	BLM Herd Management Area (HMA) Acres	Total HMA Acres	Estimated Burro Pop. as of February 2012	High Appropriate Mgmt Level (Pop. Target)	Numbers of HMAs
Arizona	1,704,861	3,225,868	1,437,787	2,213,263	2,759	1,436	6
California	2,049,091	2,474,327	1,138,408	1,292,311	581	478	6 ^a
Nevada	2,439,185	2,552,170	2,135,718	2,199,253	1,425	814	16 ^b
Oregon	474,396	499,457	474,396	499,457	35	25	1
Utah	332,104	374,910	166,719	188,633	217	170	2
Total	6,999,637	9,126,732	5,353,028	6,268,417	5,841^c	2,923	31

^a 2 of which have 0 burros; ^b 1 of which has 0 burros; ^c includes 824 currently outside existing HMA boundaries

Since 1971, wild burros have been evicted from millions of acres of public lands, and now the BLM would have the public believe that more than 6 million acres of land can support less than 3,000 wild burros.

To make matters worse, several herds are isolated and managed at such low numbers that the burros' health and long-term genetic viability are seriously compromised. For example, there is only one burro herd in the entire state of Oregon, with a paltry AML of 25 animals. Two of only six remaining HMAs in California, Lee Flat and Piper Mountain, have AMLs set at unsustainable levels of 11 and 82 animals respectively—but no wild burros exist in either area, regardless. Wild burros and our national heritage are literally vanishing right before our eyes.

Wild freedom for these animals, who can live 40–50 years, is frequently short-lived. Concerns about reckless management fall on deaf ears as the BLM continues to remove hundreds of wild burros from their home on the range each year. Bernadette and Valerie, both only three years old when captured, were held at taxpayer expense for more than a year and a half before they found an adopted home. During that time, the inadvertent introduction of a male burro into holding with females resulted in Wee

Willy being born a few months after Valerie was adopted. Of additional concern is the BLM's apparent failure to even record Bernadette's and Valerie's removals on its public information website where the agency lists such actions. In fact, BLM's record-keeping has been the subject of numerous inquiries by advocates, who have uncovered several deficiencies and omissions over the years.

Just as wild horses should be celebrated for their proud splendor, wild burros deserve to be respected for their dignified grace and amazing resilience. Looking into the soulful eyes of these three intelligent animals spotlights the traitorous treatment that they and their kindred have suffered at human hands. We can find loving homes for them, but their real homes, just like their equine cousins, are in the wild with their own kind. Making that happen depends on the voices of people who care. As former BLM director, Boyd Rasmussen, one of those pro-burro voices, stated quite simply in 1967: "They belong." 🐾

Andrea Lococo is a wildlife consultant for AWF, and senior lecturer in the Department of Philosophy, at the University of Louisville.



Left: The author with Bernadette and Wee Willy.
Right: Wee Willy. His wild burro mother, Valerie, gave birth to him on a private farm after Valerie was adopted.
Photos courtesy of Andrea Lococo

CONFERENCE EXPLORES PROMISING PROSPECTS FOR WILDLIFE FERTILITY CONTROL

The Wild Horse Symposium and 7th International Conference on Fertility Control in Wildlife was held in Jackson Hole, Wyoming, from August 29 to September 1. Researchers from around the world discussed recent scientific, regulatory, and practical developments in the use of contraceptives to manage wildlife populations in place of traditional lethal methods and as disease-managing tools.

A diverse number of species were discussed, including horses, coyotes, rats, elephants, bison, kangaroos, deer, and even endangered species living in zoos. Several of these species, although cherished in some parts of the world, are seen as pests in others, especially given the expansion of human settlements and resource extraction enterprises into wildlife habitat.

In the United States, deer who stray into roadways and forage in suburban gardens are deemed a nuisance and sometimes culled—even within National Parks—and wild horses are primarily managed by roundups and removals from rangelands, which cost taxpayers millions of dollars and inflict stress and injury on the horses. Meanwhile, kangaroos in Australia have proliferated to the point where locals clamor for sharpshooters to kill them with high powered rifles.

In the midst of this, researchers are working to apply humane solutions to human-wildlife conflicts and improve wildlife fertility control to maximize animal welfare. These humane solutions, when applied, are meeting with great success. Yet in spite of this, wildlife fertility control continues to be very rarely used. So why is there still such disconnect between advances in fertility control and the will to use this technology in wildlife management?

Unfortunately, in most cases, it costs money to initiate fertility control programs. The perception of costs is skewed, however, because it focuses on the short-term budget, not the long-term success of non-lethal control. Conversely, lethal control often generates up-front revenue, whether this involves trophy hunting of African elephants, slaughtering kangaroos in Australia to produce hides for foreign markets, or selling licenses in the United States to hunt deer.

The potential effect on hunting license revenues may be one reason state fish and game agencies in the United



Aaron Armendariz

Yellowstone bison, such as this one, who migrate outside the park are often shot to control the spread of brucellosis. Contraception of bison who may be carriers of the disease could allow them to live.

States resist the use of wildlife contraception—and why representatives from such agencies were conspicuously absent from this year’s fertility conference. Some states are even amending their constitutions to ensure that hunting is declared the preferred method of management—not only protecting revenue but reinforcing a cultural preference for hunting—even over more effective solutions.

In spite of the social, political, economic, and cultural barriers, animal welfare supporters and scientists working on this research are hopeful. Where once wildlife fertility control efforts were confined to the United States, today groups in South Africa, Belgium, the Netherlands, United Kingdom, New Zealand, Australia, Canada, and China have mounted serious research programs aimed at evaluating the potential of wildlife fertility control as a viable alternative to lethal methods. And while some U.S. states are attempting to impede the use of fertility control in wildlife management, others are allowing contraceptive use under experimental permits. Hopefully, the growing body of evidence that wildlife contraception can be an effective and humane way to keep wildlife populations in check will outweigh the notion that killing is the only way to “manage” such populations down to size. 🐾

Detecting Hellbenders Using eDNA in Samples of Stream Water

By Zachary H. Olson and Rod N. Williams

THE EASTERN HELLBENDER is a large, aquatic salamander that historically occurred throughout much of the eastern United States. Research has suggested that once abundant hellbenders, which eat crayfish and live under rocks in cool, clear streams and rivers, have experienced sharp declines across their range. We suspect that habitat degradation, illegal collection, disease, and probably angling mortality factor into the declines. But, hellbenders are difficult to monitor, making it challenging to link declines to specific causes. This uncertainty in turn makes it difficult to know how to address the declines with appropriate conservation actions.

The most effective method to collect information about hellbenders involves teams of biologists flipping large rocks in the water to find them. Not only is this work labor intensive, time consuming, and logistically challenging, it is potentially dangerous for researchers and hellbenders. We needed another option to help us monitor hellbenders in the wild, and a Christine Stevens Wildlife Award allowed us to adapt an exciting new method from the field of non-invasive genetics to determine where hellbenders occur simply by collecting stream water.

This new method is made possible by detecting hellbender DNA directly from the environment. We know that DNA works like a chemical alphabet that spells out a huge book describing how cells should behave. We also know that if we sift carefully through that book we can find sections that make species unique, and even other sections that make individuals different.

To cheaply view those small differences of interest instead of reading through the whole DNA book, scientists developed tiny bookmarks called “molecular markers”—those discreet locations on the DNA sequence that can identify a particular species or individual. The field of non-invasive genetics traditionally has combined the use of these molecular markers with DNA collected from items such as shed feathers, hair, or feces. A few years ago, scientists in France coined the term ‘environmental DNA’ (or eDNA) to describe a new method in non-invasive

genetics that allowed them to detect bullfrogs from wetlands simply by collecting water samples.

eDNA studies involve 3 main steps: (1) water is collected from a body of water (a cup to more than a gallon of water have been used), (2) any DNA or cells are separated out of the water using a sterile filter or gravity, and (3) researchers use specially designed molecular markers to probe all of the DNA and cell contents collected from the water to find those small differences that are the hallmark of their study species. If the molecular markers can find those small differences, the scientists know that DNA from their study species was present.

We developed a molecular marker that is specific to hellbender DNA, and sensitive enough to allow us to detect hellbenders even where they occur at very low abundances—and with much less effort than traditional sampling. We also found that we might be able to broadly predict how many hellbenders occur in a section of stream using eDNA. It is our hope that this new method will allow scientists to identify where hellbenders still occur, piece together the causes of their decline, and target those causes with much needed conservation action. 🐾



Todd Pierson

Undisturbed and barely detectible: the eastern hellbender in the lower right of this photo blends in with the surrounding rocks.

LISTENING TO COMMERSON'S DOLPHINS

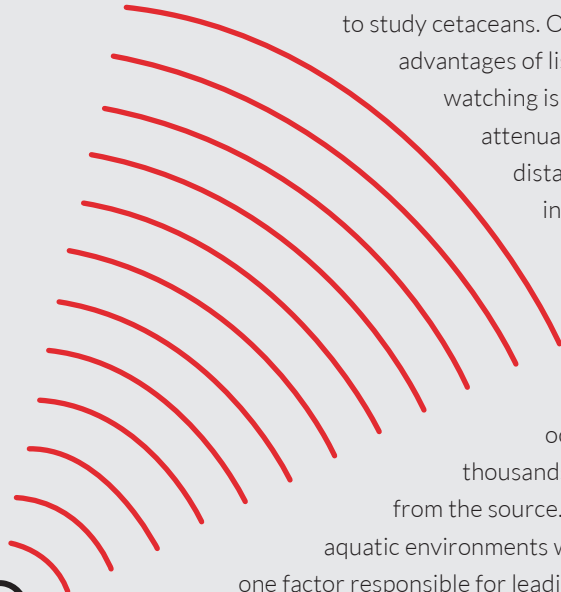
BY MARÍA VANESA REYES, MIGUEL IÑÍGUEZ AND MARIANA MELCÓN

IN RECENT YEARS, there has been a considerable increase in the use of passive acoustic techniques to study cetaceans. One of the main advantages of listening over watching is that light in water attenuates within a shorter distance than sound. For instance, even in clear waters, visibility rarely exceeds 30 meters, while low frequency sounds in the ocean can be heard thousands of kilometers away from the source. This feature of aquatic environments was probably at least one factor responsible for leading cetaceans, over millions of years of evolution, to develop a sophisticated hearing and sound production system. Cetaceans tend to rely mostly on hearing as their primary sense for almost every aspect of their lives.

However, the efficiency of sound propagation can also be disadvantageous for cetaceans. Over the last decades, the increase in aquatic human activities has introduced many sources of noise that include recreational activities, tactical sonar, dredging, construction, oil exploration and drilling, and geophysical surveys. This noise, like the sounds produced by cetaceans, can be propagated over large regions. The result seems clear: man-made noise has the potential to interfere with the cetacean's ability to detect relevant sounds, leading to changes in behavior and/or impairment of hearing.

Commerson's dolphin (*Cephalorhynchus commersonii*) is one of the four species of the genus *Cephalorhynchus* that only inhabit the Southern hemisphere. Its distribution is restricted to the coastal waters of Argentina, Chile, and around the Islas Malvinas/ Falkland Islands and Kerguelen Islands. These dolphins prefer shallow waters and also live in estuaries. They are fast, active swimmers and are often seen bow-riding and surfing on waves. They are very inquisitive and social animals.

Commerson's dolphins, like all toothed cetaceans, produce high-frequency sounds. The sound travels through the water, reflects off objects and returns as echoes that provide dolphins with an acoustic image of their environment. This use of echolocation allows the dolphins to recognize their environment, find prey and avoid obstacles.



An inquisitive Commerson's dolphin eyes the photographer. Under water, Commerson's and other dolphins rely far more on sound waves than vision to hunt and navigate their surroundings. Increasingly, anthropogenic ocean noise muddies the aquatic acoustics.

Bahía San Julián, province of Santa Cruz, Argentina, is an area used by Commerson's dolphins to breed, give birth, socialize, forage and rest. However, as in other areas of Argentina, dolphins in Bahía San Julián are also exposed to motorized nautical activities that include dolphin watching, artisanal fisheries, and various other uses of small ships, boats and personal watercraft.

Since 2011, researchers at Fundación Cethus have used passive acoustics to study Commerson's dolphins in Bahía San Julián. A hydrophone is deployed from a platform (a boat or a pier), enabling us to record dolphins' vocalizations and ambient and anthropogenic noise.

The main question that motivates this research is whether the noise generated by nautical activities in Bahía San Julián has an effect on Commerson's dolphins' behavior. The first step, therefore, was to analyze the sounds emitted by the dolphins to better understand what "normal" vocalizations are like. In a second phase, we wanted to categorize the types of man-made noise that occur in the study area to better understand the possible consequences of the noises for the dolphins. Finally, we want to evaluate effects of this anthropogenic noise on Commerson's dolphins.

During the first year of research, we were able to collect enough data to start characterizing Commerson's dolphins' vocalizations. Currently we are preparing a first manuscript about the acoustic repertoire of Commerson's dolphins in Bahía San Julián.

In addition, we acquired data necessary to study the potential effects of anthropogenic noise on Commerson's dolphins in the area. Preliminary results show that boat noises in the proximity of echolocating animals overlap with their high-frequency sounds called "clicks." This overlap may prevent dolphins from detecting relevant sounds, such as

the echoes reflected off prey. Thanks to financial support from AWI and the Whale and Dolphin Conservation Society, it was possible for us to present our results to an Acoustic Communication course of the Graduate School SNAK, Institute of Biology, University of Southern Denmark.

During fieldwork we also offered lectures to elementary school students about cetaceans, the threats they face, and the work carried out by Fundación Cethus in Bahía San Julián. We consider it very important to share the knowledge generated by our research with the local community to raise people's awareness of the need to conserve these dolphins.

This is the first time in Argentina that passive acoustics have been used to identify potential effects of anthropogenic noise on cetaceans. However, more data is needed for a complete evaluation of the potential effects of vessel noise on Commerson's dolphins. Our aim is to extend this study to other areas inhabited by the dolphins but with more boat traffic, in order to compare different circumstances and gain better understanding of the impact of anthropogenic noise, as well as possible strategies used by Commerson's dolphins to compensate. 🐾

María Vanesa Reyes, is a PhD student in Biological Sciences, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, and has worked as a volunteer with Fundación Cethus since 2005. Miguel Iñiguez is the founder and president of Fundación Cethus, an organization established in 1992 to study, disseminate information about, and conserve the dolphins and whales in Argentine waters. He is also the IWC Alternate Commissioner of Argentina, a position he has held since 2003. Mariana Melcón holds a PhD degree in Animal Physiology, University of Tübingen, Germany, and is currently a Postdoctoral Scholar at the Marine Physical Laboratory of the Scripps Institution of Oceanography at the University of California, San Diego. She is a mentor, acoustic consultant, and has worked with Fundación Cethus since 1998.



Fundación Cethus

María Vanesa Reyes records Commerson's dolphin vocalizations. Analyzing the sounds dolphins use to communicate and locate underwater objects may help scientists ascertain the effects of anthropogenic noise on dolphin behavior.



Jenny Varley

iwc64: awi cries foul over abuse of subsistence hunt quotas

THE 64TH MEETING of the International Whaling Commission (IWC), held in Panama City, Panama, represented a challenge for the Contracting Parties: to overcome the difficulties that led to the disruption of the IWC's 63rd meeting, and to do so without agreement on what constitutes a quorum and without a chair.

An added stressor for some at the Panama meeting was the fate of anticipated proposals for renewal of all the aboriginal subsistence whaling (ASW) quotas for natives in the United States, St. Vincent and the Grenadines (SVG), Greenland, and the Russian Federation. Others were anxious to pass a proposal for the establishment of a South Atlantic Whale Sanctuary, the same proposal that had prompted a mass walkout by the pro-whaling bloc the previous year, resulting in chaos and the quorum confusion (involving whether those who remained in the room could form a quorum and thus vote in the absence of those who bolted).

Fortunately, while some of the outcomes could have been better, the meeting did not repeat last year's fiasco and much was accomplished. The main reason for the success was the person who eventually stepped in as chair—Switzerland Commissioner Bruno Mainini. True to his country's reputation, Mr. Mainini was everything needed in a good chair: neutral, punctual and efficient.

By mutual agreement, the quorum issue was set aside and the meeting progressed to the still-pending sanctuary proposal by Brazil, Argentina, South Africa, and Uruguay. Sadly, it failed to gain the necessary three-quarters majority, with opposing votes predictably coming from Japan, Norway, Iceland, and their allies. After a short discussion on the "Future of the IWC," reports came from the chair of the Scientific Committee on the status of various populations of whales currently protected from commercial whaling—including some still targeted in

lethal research whaling by Japan, commercial whaling under objection by Norway, and under reservation by Iceland. Of particular interest is the apparent decline in numbers of southern hemisphere minke whales—the species targeted by Japanese whalers in Antarctica—and the situation with regard to western North Pacific gray whales.

AWI highlighted the perilous state of western North Pacific gray whales in its Summer 2004 *AWI Quarterly*, due to past overhunting and now to proximity of their feeding grounds to major oil and gas operations off Sakhalin Island, Russia. With only about 140 animals remaining, these critically endangered whales face a very uncertain future. Of recent interest is telemetry evidence showing some of the whales moving around the Pacific Rim to the shores of North America. One animal was even tracked from Sakhalin to the traditional eastern North Pacific gray whale breeding lagoons in Baja California, Mexico, and back to Sakhalin. An additional 14 animals have been matched with sightings in Mexico and Russia, suggesting the eastern and western North Pacific gray whales are not such separate populations. This has huge conservation implications for the Sakhalin animals, as well as the gray whales the Makah Tribe of Washington state seeks to hunt.

The issue of ASW was introduced at the end of the first day of the IWC plenary meeting, with reports on the previous week's meeting of the ASW subcommittee and from the chair of the Scientific Committee on the status of whale stocks subject to subsistence hunts. This allowed for countries to start staking out their various positions, particularly with regard to whether the Bequian people of SVG actually qualify as indigenous and whether the blatant commerciality of the Greenland hunts justifies the current quotas, let alone an increase as requested by Denmark on behalf of its autonomous dependent territory.

AWI had prepared reports for the meeting on both these issues, which we distributed to delegates to aid in the discussions. The first report detailed the humpback whaling conducted in SVG and the reasons against renewing the quota, principally because the whaling is not conducted by aboriginal/indigenous peoples, there is a strong commercial element to the hunt, and hunting techniques are decidedly inhumane (see page 24).

The second AWI report focused on the commerciality of Greenland's hunt and was presented jointly with the

Whale and Dolphin Conservation Society (WDCCS). WDCCS visited in 2010 and AWI visited in the fall of 2011 to investigate the sale of whale products in tourist restaurants. A telephone/email survey conducted by AWI in June ahead of the meeting revealed that the majority of its tourist restaurants offer whale meat from Greenland's ASW quota to tourists, and further confirmed that "native food tourism" is actively promoted by the government and is taking hold in the territory. Disembarking cruise ship passengers and other tourists are invited to dine on barbecued whale, whale burgers, and whale with tagliatelli and tomato sauce. Travel companies also advertise tours that include whale meat served in Greenlanders' homes, in camps, or at lodges.

The ASW quota renewal requests were introduced as two separate proposals—one by Denmark on behalf of Greenland natives, and the second by the United States, Russian Federation and SVG, with the latter bundled into a single proposal to be decided on an all-or-nothing basis. This proposal for six-year quotas (2013–2018) asked for 336 bowhead whales from the Bering-Chukchi-Beaufort Seas (for U.S. and Russian natives), 744 eastern North Pacific gray whales (for U.S. and Russian natives) and 24 western North Atlantic humpback whales (for SVG natives). AWI strongly opposed this strategy of bundling proposals, designed to ensure that the more doubtful requests (SVG and Makah) were protected by those considered more unassailable (Alaska and Russia). The Makah have been barred from engaging in any whaling since a 2003 ruling by a U.S. federal appellate court, pending compliance with domestic legal requirements. As such, a quota issued now could not be acted upon, anyway.

*AWI Marine Animal Consultant Sue Fisher and Executive Director Susan Millward at the IWC meeting in Panama City, Panama.
Photo by Kate O'Connell, AWI*



After the joint proposal was introduced, countries lined up to speak in favor and against it, with many countries opposing the Bequian request on the grounds—as outlined in the AWI report—that the hunt does not qualify as a subsistence hunt. Japan, Iceland, St. Kitts and Nevis, St. Lucia, and other pro-whaling countries supported the proposal while others were conflicted—supporting the U.S. and Russian parts of the proposal while opposing the Bequian component. After much discussion, the debate ended and the proposal was put to a vote. The countries voted in line with their statements, with those expressing conflict falling on either side. When the dust settled, the

proposal passed with more than the necessary three-quarters majority. Of the 12 Latin countries, only Mexico and the host country of Panama had supported the proposal. Monaco and India abstained. In explaining its yes vote, Mexico took issue with the package approach, saying that it didn't want a precedent to be set and demanding that it not happen again. An almost audible collective sigh of relief emanated from the U.S. delegation, though not from its NGOs, including AWI—which was appalled that the United States would help shield blatant abuses of the IWC convention in order to secure its own bowhead quota.

Humpback Whaling in Bequia, St. Vincent and the Grenadines

The IWC's Failed Responsibility

Since the Caribbean nation of St. Vincent and the Grenadines joined the IWC in 1981, whalers on the Grenadine island of Bequia are reported to have struck and landed 29 humpback whales and struck and lost at least five more. While this constitutes a small removal from a population of whales estimated to number over 11,000, it does not excuse the IWC's three decades of inattention to many problems with the hunt, including the illegal killing of at least nine humpback whale calves.

Humpback whaling in SVG commenced in 1875 as a primarily commercial activity. In the 1970s, the focus of the operation changed from whale oil for export to meat and blubber for domestic consumption, and a small scale artisanal hunt continued in Bequia despite the IWC's ban on hunting North Atlantic humpback whales. In 1987, the IWC accepted SVG's assurances that the Bequian whaling operation would not outlast its last surviving harpooner and granted SVG an ASW quota. Since then, the IWC has renewed this "temporary" quota six times, including doubling it in 2002, two years after the harpooner died. The IWC as a whole has accepted 30 years of infractions, non-compliance with IWC regulations, and excuses from SVG that the IWC does not tolerate in any other ASW hunt. The following are some of the primary issues:

Whaling in Bequia is not conducted by aboriginal/indigenous peoples and does not have a long and unbroken history as a subsistence hunt.

SVG has never properly substantiated Bequia's cultural and nutritional needs for hunting humpback whales.

SVG hunters use techniques (including cold harpoons and speedboats) that are inhumane.

Flensing and distribution of whale meat is poorly controlled and chaotic; products intended only for subsistence consumption on Bequia are sold on the main island of St. Vincent and to tourists.

SVG has a poor record of providing samples, photographs and data needed by the IWC.

Bequian whalers repeatedly targeted mother/calf pairs, a practice banned by the IWC.

AWI's detailed report on SVG whaling can be obtained online at awionline.org/content/whaling, or by contacting us.



The meeting continued with the introduction by Denmark of its proposed Schedule amendment on behalf of Greenland for an increase to its subsistence quotas of bowhead, fin, minke, and humpback whales. Greenland responded to AWI's findings on the commercialization of the Greenland hunts by claiming that revenue from the sale of whale products was used to purchase whaling equipment. They justified the sale of whale meat by saying that because it did not maximize profits, it was not the same as commercial whaling. After a discussion, the item was held over until later in the week, at which time Denmark immediately asked for a vote. After hearing two speakers—the European Union opposing and United States supporting—the chair moved to the vote. The proposal failed, with all EU and Latin countries opposed and the pro-whaling nations and the United States in favor. In explaining their vote, Ecuador and others opposing the quota increase said that the commerciality of the hunts—as evidenced by the work of AWI and WDCC—brought the alleged need for more whales into question.

With ASW issues resolved, the next major issue was the announcement by South Korea that it intends to resume scientific whaling on western North Pacific minke whales to obtain “more data on stock structure and abundance estimates,” and its urging of expedited completion of the Revised Management Procedure—the method used to calculate numbers of whales that could be taken from each stock sustainably if the moratorium were ever to be lifted. This led to a cacophony of opposition from the conservation-minded countries and the usual support from those promoting whaling. Monaco summed it up best by stating that scientific whaling is obsolete—a sad legacy of a 60 year old instrument, that cetacean science has moved on significantly since, and that there is no reason whatsoever to obtain data through lethal means. Subsequent to the meeting, various reports emerged from sectors of the South Korean government, first reversing its announcement, and then reaffirming it. In response, AWI drafted a letter to the South Korean president, co-signed by several groups (including ones based in South Korea), opposing any attempts to resume scientific whaling.

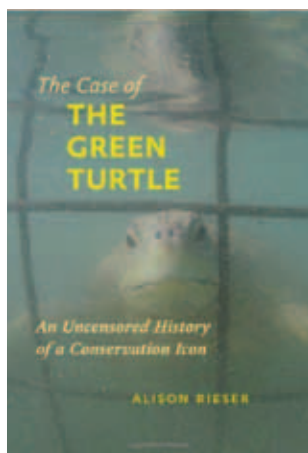
Other important issues from the meeting included the consensus passage of a resolution—introduced by Germany on behalf of European nations—on the degradation of the marine environment with respect to impacts on cetaceans



Jenny Varley

A gray whale off the Baja California coast. Gray whales are included in the ASW quota for Russian natives. Members of the Makah Tribe of Washington state seek to hunt these whales, as well.

and humans. Monaco failed to gain sufficient support for a resolution on the management of highly migratory cetaceans in the high seas. The resolution highlighted the fact that only 38 cetaceans are listed in the IWC Schedule, and invited parties to collaborate with the UN General Assembly in relation to the “significant unregulated catches of highly migratory species of cetaceans” that continue to take place, “with a view to contributing to the conservation efforts of the IWC.” The meeting concluded by addressing more mundane but equally important issues relating to discussions of the work of the finance and administration committee, movement to biennial meetings, and the establishment of a bureau. Mr. Mainini’s tenure as chair came to an end with the consensus appointments of Saint Lucia Commissioner Jeannine Compton-Antoine as chair and Belgium Commissioner Frédéric Chemay as vice-chair of the Commission for the next two years. 🐾



The Case of the Green Turtle: An Uncensored History of a Conservation Icon

by Alison Rieser
The Johns Hopkins University Press
ISBN: 978-1421405797
352 pages; \$45.00

When it comes to charismatic ocean species, sea turtles share the spotlight with magnificent marine mammals. However, the seven threatened and endangered species of sea turtles swimming the oceans are more than simply conservation icons. They are oceanic canaries, informing us of coastal and pelagic habitats under siege, of anthropogenic pressures affecting their global abundance and distribution.

Green turtles once numbered in the hundreds of millions. Today, breeding populations worldwide are greatly reduced, primarily due to degradation of nesting habitats, overexploitation of eggs and adults, marine pollution, destructive fishing practices, and nest predation.

Although indigenous peoples have utilized green turtles—the “edible turtle”—for thousands of years, the harvest of adult green turtles increased greatly with the European conquest of the New World. Sailors prized green turtles as food, as they could be kept live onboard until slaughter, providing a welcomed alternative to salt pork and other preserved staples. Eventually, the demand for green turtle meat and calipee to make soup resulted in the development of an active fishery in the Caribbean Sea and other areas.

Renowned sea turtle conservationist Archie Carr and others raised the alarm as they observed very high harvest rates of eggs and adults on and near important nesting beaches. In his book, *The Reptiles*, Carr wondered whether “the green turtle may become one of the first marine vertebrates to be successfully cultured for food.” This led to a larger question: would a green turtle fishery enhance or undermine conservation efforts? Although Carr later became a fervent opponent of green turtle farming, the seed had been planted, and efforts began to make green turtle farming a viable industry. This initiated a 20-year debate, in face-to-face meetings and correspondence, at conferences and workshops, and in legislative halls and courtrooms, as to whether green turtles would be saved or harmed by allowing them to be “the buffalo of the sea.”

Alison Rieser, a professor of ocean policy in the Department of Geography at the University of Hawaii at Manoa, has captured this colorful, frank, and important debate in *The Case of the Green Turtle: An Uncensored History of a Conservation Icon*. Professor Rieser pored through countless unpublished letters and meeting records, interviewed numerous participants, and reviewed the scientific and management literature to bring forth a detailed and candid history of this critical chapter in green turtle conservation.

In the United States and much of Europe, green turtles transitioned over the past several decades from food to beloved species. This transition was triggered in part when conservationist Tom Harrisson decided it was time to “depopularize luxury products made from turtles.” Carr took this idea to heart, to make people “think twice, maybe three times, before they ever ordered another bowl of turtle soup.” And although Carr once believed that green turtle farming would aid in turtle conservation, he came to believe that any increase in demand would put unacceptable pressures on wild populations. The details of this epic battle to conserve a species declining worldwide are the theme of Professor Rieser’s excellent book.

In August 2012, the National Oceanic and Atmospheric Administration published a notice in the Federal Register initiating a status review of the Hawaiian green turtle in response to a petition to “identify the Hawaiian population of the green turtle (*Chelonia mydas*) as a Distinct Population Segment (DPS) and delist the DPS under the Endangered Species Act (ESA).”

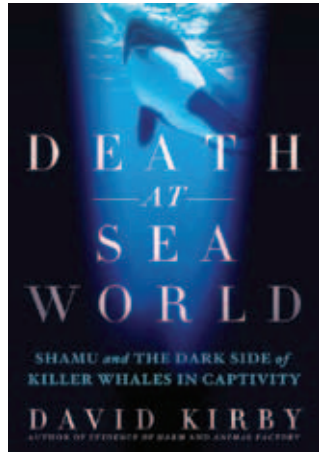
It seems that the “edible turtle” is now in danger of becoming food once again. For conservationists interested or active in promoting sea turtle conservation, *The Case of the Green Turtle* is required reading. 🐾

Review by Dr. Robert Schmidt. Dr. Schmidt is on the faculty in the Department of Environment and Society at Utah State University, and is a member of AWI’s Scientific Committee.

Death at SeaWorld: Shamu and the Dark Side of Killer Whales in Captivity

by David Kirby
St. Martin's Press
ISBN: 978-1250002020
480 pages; \$26.99

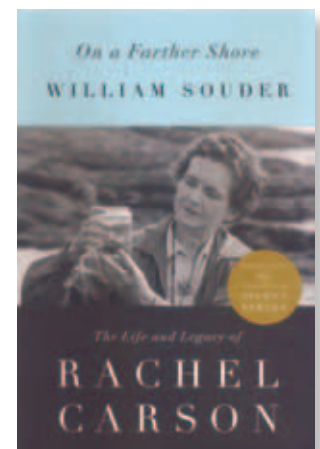
Semi-biographical, this book centers on the subject of keeping orcas in captivity for human entertainment. It is full of carefully researched facts and statistics, and meticulously details whale-human incidents and red flags that preceded the now infamous killing of SeaWorld orca trainer and performer Dawn Brancheau by the orca Tilikum in February 2010. Though Kirby has written a serious book that tackles a complex and heady subject, he artfully engages the reader from the start by centering his work on the lives and careers of two principal characters, marine scientist Dr. Naomi Rose and ex-SeaWorld orca trainer Dr. Jeff Ventre. Though coming from very different backgrounds—Rose, an academic turned activist for the Humane Society of the United States, and Ventre, a former SeaWorld trainer/performer turned MD—both work independently to end orca captivity, for the sake of the orcas and their handlers. Rose uses science and activism to take on the captive orca industry while Ventre, with his inside knowledge of SeaWorld operations and his respected persona, provides a powerful, reasoned voice that must be the nemesis of his former employer. SeaWorld, as one might imagine, does not fare very well in the book. It is portrayed as a corporate, profit-grabbing bully that indoctrinates its workers to be yes-men or else. Kirby uses information from Ventre, other former employees, and court documents from the Brancheau case to expose SeaWorld's allowance of poor and unsafe worker conditions, patronization of the public, and total disregard for the whales as anything other than dispensable commodities. 🐾



ON A FARTHER SHORE: THE LIFE AND LEGACY OF RACHEL CARSON

by William Souder
Crown
ISBN: 978-0307462206
512 pages; \$30.00

September marked the 50th anniversary of the publication of Rachel Carson's *Silent Spring*, a revolutionary exposé on the calamitous effect of unleashing DDT and other pesticides indiscriminately on the environment. Many are familiar with the fallout that followed publication of *Silent Spring*, as the chemical industry launched a vitriolic campaign to discredit Carson and preserve its bottom line. Largely forgotten, however, is that prior to *Silent Spring*, Rachel Carson was already famous, having penned *The Sea Around Us*—a scientific paean to life in the oceans that stood atop *The New York Times* Best Sellers List for nine months and won the National Book Award. William Souder's new Rachel Carson biography, *On a Farther Shore*, seeks to reintroduce Carson to the world. With the gift of a great storyteller, Souder offers an intriguing portrait of the slight, unassuming individual who helped catalyze the modern environmental movement. 🐾



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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Capturing Wild Belugas: US Aquariums Swim Against the Tide

ALMOST TWO DECADES AGO the U.S. aquarium industry—facing mounting public distaste with the practice—ceased importing healthy wild-caught cetaceans for commercial display. Since then, people across the globe have come to realize that no aquarium can replicate the wild habitat these animals need and their importance in healthy marine ecosystems. Many countries have banned the capture, import and/or keeping of whales or dolphins in captivity.

Sadly, here in the United States, Georgia Aquarium and its partners, SeaWorld and Shedd Aquarium, want to go against this tide of public opinion by importing 18 wild-caught Russian beluga whales for commercial display. They were complicit in the capture of these animals, who come from a population that is still recovering from years of hunting. The removal of such a large number of animals from the same area may result in the disruption of social groups and the loss of important genetic material and learned behaviors passed down through generations. Yet the Aquarium claims that the purpose of the import is conservation and education.

Meanwhile, just across the border in a Niagara Falls, Ontario, aquarium at least 40 belugas are languishing in reportedly appalling conditions. AWI asserts that if Georgia Aquarium and its partners really believed in beluga conservation, they would have offered to take some of these animals rather than support the capture and lifelong confinement of wild and healthy individuals from thousands of miles away.

When concerned citizens protested, Georgia Aquarium blocked their emails and removed negative comments from its Facebook page. NOAA held a public hearing on the issue, at which AWI testified. The Aquarium reportedly paid people to wait in line so as to fill the room and deny access to others.

Georgia Aquarium needs to get the message that cetacean capture and captivity is outdated and inhumane. Please write the Aquarium's president asking him to abandon the plan to import the Russian belugas:

Mr. David Kimmel
President and Chief Operating Officer
Georgia Aquarium
225 Baker Street, NW
Atlanta, Georgia 30313

