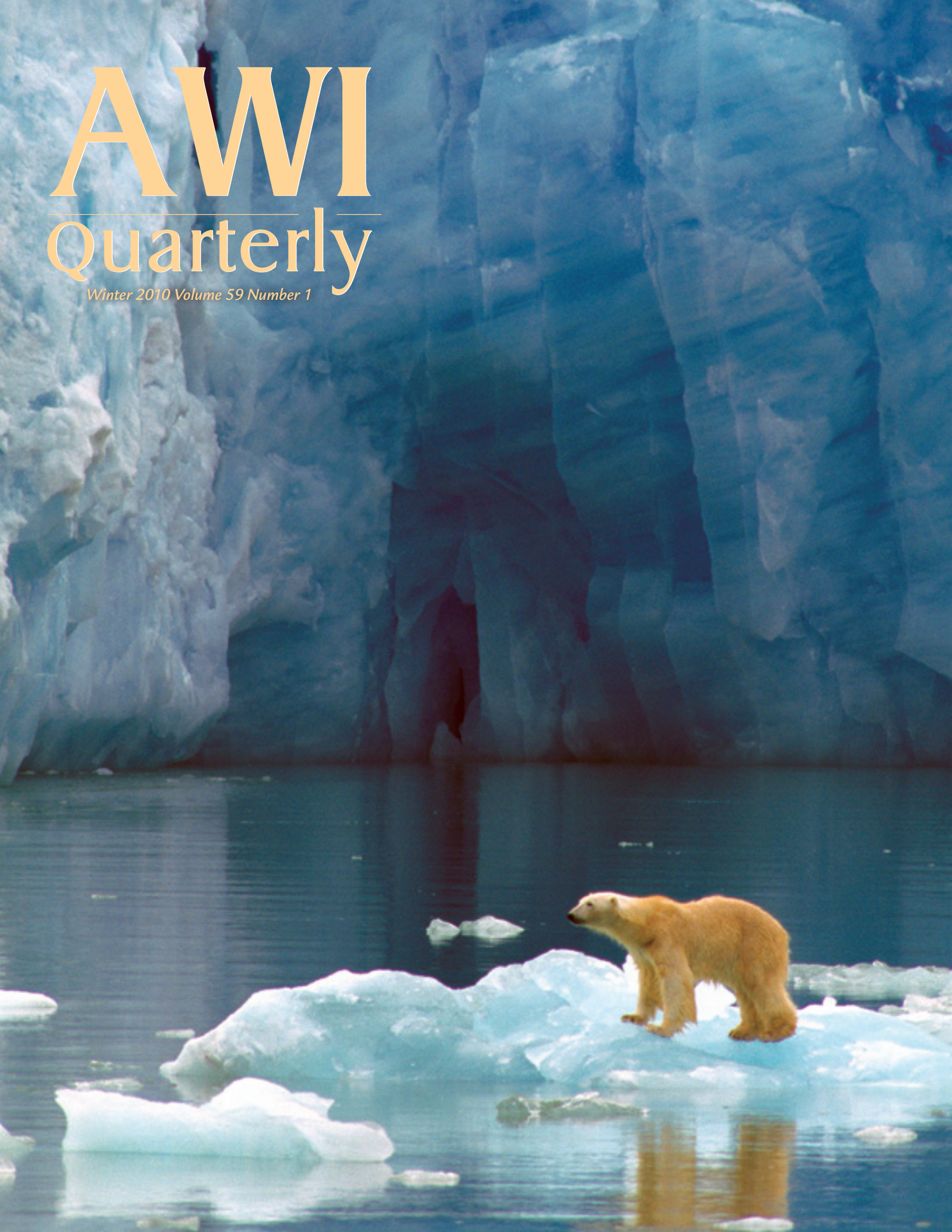


AWI Quarterly

Winter 2010 Volume 59 Number 1



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ABOUT THE COVER

Alone on a disappearing ice floe, an Arctic polar bear stands at the precipice of global warming. With life as he knows it threatened by greenhouse gasses, and resulting rising temperatures and declining sea ice, in addition to international trade in the species and its parts, the earth's largest terrestrial carnivore (called *Isbjorn*, or ice bear, in Norwegian) faces extinction from a world that has sustained him for 100,000 years. See page 10 for information on climate change and page 13 for more on endangered species listings.

Photo by Rinie Van Meurs/ Foto Natura/ Minden Pictures

ENDANGERED INDIANA BATS GET REPRIEVE

In a precedent setting decision, a federal court judge has issued a comprehensive ruling that an industrial wind energy farm in Greenbrier County, WV would kill and injure endangered Indiana bats in violation of the Endangered Species Act (ESA). Plaintiffs in the lawsuit were the Animal Welfare Institute, Mountain Communities for Responsible Energy, and Dave Cowan, a caver and West Virginia resident.



Merlin D. Tuttle/Bat Conservation International/batcon.org

Indiana bats win needed protection on their day in court.

In the first federal ruling involving a wind energy facility and the ESA, Judge Roger Titus encouraged the development of wind energy but said that “wind turbines must be good neighbors.” He ordered defendants Invenegy and Beech Ridge Energy to comply with the ESA by requesting an Incidental Take Permit (ITP) from the U.S. Fish and Wildlife Service. Based on evidence which included testimony from some of the country's leading bat experts, the court found that the proposed 127-turbine wind energy facility, spread over 23 miles of Appalachian mountain ridgelines, could kill more than a quarter million bats over the Beech Ridge project's lifetime. Among these winged victims, the court concluded that “like death and taxes, there is a virtual certainty that Indiana bats will be harmed, wounded, or killed imminently by the Beech Ridge Project in violation of ... the ESA, during the spring, summer, and fall.”

Indiana bats are diminutive creatures under two inches in length and weighing a quarter of an ounce. They are insectivorous and migratory but spend their winters hibernating in caves. As such, the court will allow Beech Ridge to continue to operate 40 turbines, previously erected on-site, from November 16 to March 31, while the bats hibernate, pending issuance of an ITP. The permitting process is intended to minimize the impact of projects on imperiled species through the application of strict and enforceable conditions.

Neither AWI nor its co-plaintiffs oppose the development of renewable energy, but maintain that imperiled species must be protected in the process. Projects such as the Beech Ridge Energy wind facility must only go forward, as the court opined, “in harmony with the goal of avoidance of harm to endangered species.” 🐾

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Above Left: Indo-Pacific bottlenose dolphins are caught in the net of unsustainable international trade practices. (Photo by Eric Cheng/echeng.com); **Top Right:** Staghorn coral, which populate tropical waters, are falling victim to ocean acidification caused by rising ocean temperatures. (Photo by Toh Chay Hoon); **Bottom Right:** A baby orangutan suffered deeply but escaped the cruel fate of some of her fellow travelers in an inhumane shipment (Photo by Dianne Taylor-Snow).

Correction: In the AWI Quarterly Volume 58, Number 4, the article entitled, “Down on the Goose and Duck Farm” states that Cuddledown.com sells down products manufactured from the live-plucking of birds. AWI does not have any evidence to substantiate this claim. Cuddledown does purchase processed down that comes from countries such as Poland and Hungary where live-plucking of birds is done, however we have been informed by the company that it requires its processors to pledge not to buy any down from live-pluck sources.



Sometimes Money Can't Buy Everything

TEXAS REAL ESTATE SCION and former chairman of Perot Systems, H. Ross Perot Jr. has met his match over a white rhino trophy head in a battle with South African wildlife officials. According to reports, the 51-year-old son of billionaire and former U.S. presidential candidate H. Ross Perot Sr., 79, shot the animal in the controlled hunting zone of the Mkhuzo game reserve in KwaZulu-Natal last July, but the bull ran off. Reserve officials later determined the rhino had probably suffered a flesh wound, as no signs of a severely injured animal or carcass were found. International trade in white rhinos is prohibited by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), except for those in South Africa and Swaziland, whose controlled trade is allowed for specific purposes including the export of hunting trophies.

Ezemvelo KZN Wildlife, a governmental organization in charge of wilderness areas and public nature reserves in KwaZulu Province, South Africa, initially sanctioned but then vetoed a follow-up expedition requested by hunting sub-contractor Garry Kelly, who'd accompanied Perot on the initial hunt. Asking for a "second bite at the cherry," attorneys retained by Perot and Kelly argued that their clients, who'd paid a vast sum for the hunt (the "single rhino trophy hunting package" can cost around \$66,000), were entitled to the rhino's head if the animal could be tracked and shot again. They also alleged the follow-up endeavor "was to ensure the wounded animal was... destroyed to spare it further pain and suffering."

Representatives for Ezemvelo determined that their own hunters would shoot the animal if he re-emerged with "a visible bullet wound from Perot's large caliber hunting rifle," and he appeared to be suffering. And if that were the case, Perot would no longer have claim to the head, according to Ezemvelo Chief Executive Bandile Mkhize. 🐾



Steve Cornish

As Zimbabwe's rhino population dwindles at the hands of poachers, sightings such as this may become more rare.

Rampant Poaching May Lead to Expulsion

ZIMBABWE FACES EXPULSION from the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) unless it quickly gains control of rhino poaching within its borders. Twenty-six percent of its rhino population, or 160 rhinos, have disappeared in fewer than three years according to the African Rhino Specialist Group of the International Union for Conservation of Nature (IUCN). This includes 89 percent of Africa's illegally killed and critically endangered black rhinos. The Group, predicting a further 14 percent decrease in Zimbabwe's rhinos if poaching continues unchecked, identifies Zimbabwe and South Africa at the heart of Africa's rhino poaching crisis as demand for rhino horn from Asia skyrockets.

Uncontrolled poaching, including by so-called "farm invaders" who moved into designated sanctuaries with President Robert Mugabe's approval, reported collusion and poaching by government officials, and an abysmal prosecution conviction rate of below 3 percent, are leading to the animals' demise. 🐾

BUSHMEAT ACROSS BORDERS

The illicit bushmeat trade—the sale of wild animal meat—continues to thrive and even escalate despite efforts by scientists, conservationists and health officials to stem the tide.

In October 2009, a 21-year-old student from Cameroon was stopped while attempting to navigate the "nothing to declare" line of customs at Warsaw International Airport. Following a spate of dubious answers to questions about the unusual shape of objects in her suitcase, customs agents eventually uncovered a small, smoked monkey.

Two months later, in a separate incident, Brooklyn federal Judge Raymond Dearie sentenced Mamie Manneh, 41, to probation for smuggling 65 pieces of smoked bushmeat, including primate parts, into the United States in January 2006.

In another incident, in 2008, an African visitor to Washington Dulles International Airport was ultimately

allowed to enter the U.S. without penalties, minus three monkey carcasses discovered in his luggage.

A practice that dramatically impacts the world's ecosystem and threatens the survival of many species—2.2 billion pounds of bushmeat is removed from central African forests alone each year—the trade in bushmeat also poses serious health risks to human handlers and consumers, including parasites and viruses such as Ebola, HIV and yellow fever.

In her letter to federal Judge Raymond Dearie preceding Manneh's sentencing, acclaimed primatologist Jane Goodall said, "As a leader in the global community, the U.S. has a responsibility to uphold and strongly enforce [laws to curb the] devastating impact unregulated consumption of wildlife is having on species populations in Africa." In the case involving Ms. Manneh and the incident at Dulles Airport, the lenient penalties will not deter future illegal bushmeat imports. 🐾

The Vanishing Saola

SAOLA IS A SPECIES OF ASIAN WILD CATTLE discovered in 1992 and considered one of the world's rarest mammals. The species has remained elusive, even after its discovery, and is listed as critically endangered by the International Union for Conservation of Nature (IUCN). Saola are found exclusively in the Annamite Mountains in Vietnam and the Laos Peoples' Democratic Republic, and serve as a symbol of biodiversity for the region. The species numbers in the low hundreds at best and faces many threats, particularly

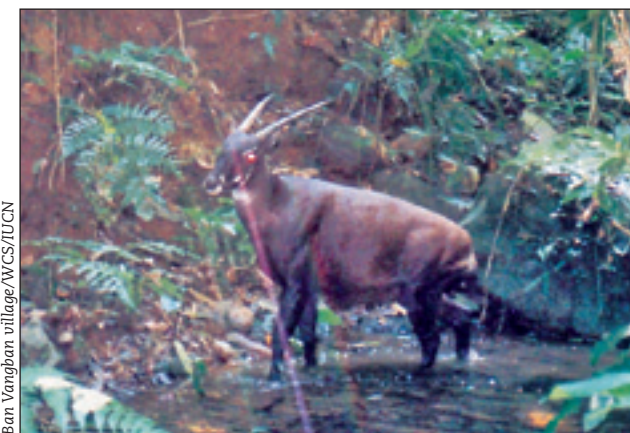
incidental snaring, by far the most formidable to the species' survival.

AWI's wildlife research associate, Serda Ozbenian, is working with a group of five other wildlife conservation professionals to assist saola conservation efforts as part of the Emerging Wildlife Conservation Leaders (EWCL) program. The EWCL Saola Team is seeking to raise public awareness and generate funds for an integrated snare removal and community development project, as well as providing a ranger training workshop in Vietnam to improve snare removal initiatives. The team is working with experts from the World Wildlife Fund in Vietnam and the IUCN Saola Working Group. To assist their efforts, visit <http://apps.facebook.com/causes/savethesaola>. 🐾

EWCL is an initiative that brings together emerging leaders in the wildlife conservation field for capacity-building and intense training, including implementation of a two-year international wildlife issue campaign. EWCL is a collaborative effort between Defenders of Wildlife and the International Fund for Animal Welfare along with multiple wildlife conservation organizations, government agencies and private businesses.



© 1996 by W. Robichaud/WCS



Ban Vangban village/WCS/IUCN

Saola caught on film by an automatic camera-trap in central Laos in 1999.

BIRD STRIKES ON AIRCRAFT - WHAT'S THE RISK?

IT'S HARD TO IMAGINE what the passengers of US Airways flight 1549 experienced in January 2009. Only minutes after takeoff from New York's LaGuardia Airport, an emergency forced Captain Chesley "Sully" Sullenberger to land in the Hudson River. Thankfully, all aboard survived what instantaneously became an international news story dubbed "Miracle on the Hudson."

Unlike most aircraft accidents which involve painstaking investigation to identify the cause of the calamity, in this case the captain's radio transmissions with ground control provided a strong clue as to what caused this accident: geese.

This was not the first aircraft accident attributed to birds and it won't be the last, but it did, thanks to extensive media coverage, highlight the issue of bird strikes on aircraft. Ironically, the very animals who provided man with a dream to fly have become a threat, albeit extremely remote, to aircraft.

Bird strikes to aircraft are a reality. While the vast majority of reported bird strikes are of no consequence to people, failing to cause any aircraft damage or delays, on occasion bird strikes cause damage (in some cases substantial), emergency landings, flight delays, and, though extremely infrequent, aircraft accidents. Some of these accidents end in tragedy such as the 1961 crash of an Eastern

Airlines jet into Boston Harbor after it struck a flock of starlings, killing 62 passengers, or the 1995 crash of a Boeing 707 AWACS aircraft that struck Canada geese after taking off from Elmendorf Air Force Base in Alaska. All 24 on board were killed.

Though tragic, not only are such accidents exceedingly rare, but the risk of a bird striking an aircraft is miniscule. This key fact, not reported by the media in light of "Miracle on the Hudson," is also ignored in various relevant scientific studies.

Though rare, there are many identified causes of bird strikes. A number of the nation's airports are located within migratory bird flyways and/or provide extensive habitat for birds to roost, rest or feed. For example, JFK International Airport in New York is adjacent to the Jamaica Bay National Wildlife Refuge, a renowned birding spot where thousands of birds stop during migration. In addition, some bird populations are increasing, aircraft operations have largely increased over the years, and aircraft engines are quieter which, according to some experts, has reduced the ability of birds to detect and avoid oncoming aircraft.

According to bird strike data compiled by the federal government, more than 369 species of birds have been involved in bird strikes from 1990 to 2007 ranging from

sparrows and starlings to eagles, geese, gulls and herons. Smaller-bodied birds, like sparrows, are often referred to as "feathered bullets" because of the extensive damage they can cause to aircraft engines when ingested while the sheer size of the larger birds, like Canada geese, pelicans, vultures and eagles also pose threats to engines and other aircraft parts if struck. According to government bird strike data the bird groups most commonly involved in bird strikes in the United States are gulls, doves and pigeons, raptors and waterfowl.

NUMBERS

While the sheer number of reported bird strikes, the number of species involved in strikes and a plane landing in the Hudson River are enough to make many question the safety of flying, the reality is that air travel remains extraordinarily safe. Bird strikes, though receiving considerable attention when causing an aircraft emergency, are extraordinarily rare events.

According to government wildlife strike statistics, there were 7,516 reported wildlife strikes (including 7,286 bird strikes) on civil aviation (non-military) aircraft within the United States in 2008. The reported bird strikes resulted in "substantial" damage to 79 aircraft—damage that affects the aircraft's structural strength, performance or flight characteristics and normally requires major repairs. To place these statistics into a national context, according to U.S. Department of Transportation data in 2008 (the latest calendar year available for statistics), there were a minimum of 54,823,492 airport operations (defined as the number of arrivals and departures at U.S. airports of air carrier, commuter/air taxi, general aviation, and local aircraft), providing transportation for 736,470,443 passengers. With a reported 7,516 wildlife strikes, approximately .013 percent of all aircraft takeoffs and landings struck wildlife. The government claims that only one in five (20 percent of) bird strikes are reported. Yet, assuming this is accurate, even if 100 percent of all strikes were reported, this would still mean that less than .068 percent of all aircraft operations struck wildlife.

While the five human fatalities attributed to wildlife strikes in 2008 were unfortunate, considering that nearly 736.5 million people traveled by air via U.S. airports, the risk of being killed as a result of a wildlife strike is nearly non-existent.

Nationally, from 1990 through 2008, there were a reported 87,416 bird strikes on aircraft. Of the 68,653



bird strike reports providing information about damage to the aircraft, 59,047 strikes resulted in no damage, 5,112 resulted in minor damage, 2,455 resulted in substantial damage, 2,015 resulted in uncertain damage, and in 24 instances the aircraft was destroyed. During that 18-year period, there were 1,151,813,266 airport operations (excluding military airports). Based on those statistics, the risk of an aircraft experiencing a bird strike was less than .0076 percent. Again, even if there was 100 percent reporting of all bird strikes, the risk of an aircraft striking a bird would only increase to approximately .0379 percent. Of the 24 aircraft reported destroyed due to bird strikes, 15 were considered small aircraft (2,250 kg), six were



Although events are widely publicized, the actual risk of being injured or killed in aircraft due to bird strikes is miniscule.



Ralph Alsumang

PAYING THE PRICE

Sadly, some six months after the miracle, New York City Mayor Bloomberg, in cooperation with state, federal and airport authorities initiated a massive goose capture and euthanasia campaign targeting upwards of 2,000 geese within five miles of La Guardia and JFK airports. While this effort may have violated state and federal law, in press reports announcing the operation Mayor Bloomberg callously asserted that “there is not a lot of cost involved in rounding up a couple thousand geese, and letting them go to sleep with nice dreams.” Of course this effort, though it may have placated Mayor Bloomberg’s fear of geese causing another aircraft accident, did nothing to reduce the already remote risk of bird strikes on aircraft in the New York metropolitan area.

medium-sized aircraft (2,251-5,700 kg), two were large aircraft (5,701-27,000 kg), and one was a very large aircraft (27,000 kg).

During that period, tragically, 15 people died as a result of bird strikes on aircraft. The estimated number of airline passengers departing from or arriving at U.S. airports over those 18 years, according to government data, was nearly 12.5 billion passengers, reemphasizing that the risk of being killed as a result of a bird strike is extraordinarily miniscule.

RESPONDING TO BIRD STRIKES

Despite the infrequency of bird strikes on aircraft, efforts are being made worldwide to further reduce this remote risk. In the United States, the FAA requires most airports to develop Wildlife Hazard Management plans to identify and mitigate wildlife threats to aircraft. It also has promulgated regulations requiring select aircraft parts, like engines, depending on their size, to be able to withstand the ingestion of small, medium and large-sized birds (up to 8 pounds) without losing a certain percentage of power and thrust, catching fire or failing to contain any engine debris within the engine cowling. While there are presently no engine ingestion certification standards for larger-bodied birds such as vultures, eagles and herons, the vast majority of reported bird strikes involve small birds weighing less than 2.5 pounds.

Airport authorities throughout the country, given their responsibilities for the safety of millions of airline passengers and to avoid legal liability in the case of a crash, also actively work to reduce, eliminate and prevent wildlife strikes. In some cases, non-lethal strategies are used such as airport water management (eliminating temporary or permanent ponds that may attract birds); vegetation management (planting certain species of, or managing the vegetation to, reduce the attractiveness of the airport to birds); sanitation management both on and off airport properties (to reduce availability of potential food sources);



AP Photo/John Thurnacki, Pool, File

At Boston’s Logan International Airport, a Massport wildlife technician fires a non-lethal pyrotechnic round to disperse birds away from runways.

fencing and barriers (preventing wildlife from accessing airports); human management (reducing intentional feeding of birds by cab drivers, airport staff and the public); improved radar to detect flocks of birds traversing the airspace and the use of devices to disperse birds (cracker shells, pyrotechnics, dogs, trained raptors and radio-controlled model airplanes).

Unfortunately, despite the extremely remote risk of a bird striking an aircraft, let alone causing substantial damage or an accident, lethal bird control is also practiced at many airports. Nearly 570 depredation permits have been issued by the U.S. Fish and Wildlife Service allowing the harassment and killing of migratory birds at U.S. airports. Most lethal control efforts, however, are conducted by the USDA’s Wildlife Services program. Wildlife Services personnel provided technical assistance to address wildlife (including bird) management issues at 714 airports and military airbases. Wildlife Services conducted lethal control at 235 airports, employed non-lethal dispersal techniques at 218 airports, performed habitat modification at 158 airports and captured and translocated wildlife at 75 airports. During fiscal years 2007 and 2008, according to data provided by Wildlife Services, 164,918 and 136,890 birds at U.S. airports—including military airports—were killed by Wildlife Services, respectively. At JFK Airport in New York alone, Wildlife Services personnel killed 72,063 gulls, including 63,838 laughing gulls from 1991 to 2002.

Despite its continued use of lethal bird control to address a risk that is, by all measures, extremely remote,



Marc Beaudin/The News-Press

Participating in the airport’s non-lethal bird control efforts, Sky, a young border collie, prepares to scatter birds from the tarmac area at Southwest International Airport in Fort Myers, Fla.

the USDA’s Wildlife Services program continues to develop non-lethal options to reduce the attractiveness of airports to wildlife, to make aircraft more noticeable to wildlife and to more effectively disperse wildlife as necessary to protect aircraft and passengers. Ideally, it should emphasize such non-lethal options and forego future lethal control given the statistical evidence of the remote risk of bird strikes to aircraft.

For those who travel the United States or the world, there is no need to significantly concern themselves or alter their mode of air travel due to bird strikes. Indeed they have a greater risk of being in an accident driving to work or being struck by lightning than being injured or killed as a result of a bird strike. 🐾

BY THE NUMBERS

Bird strike data for the 10 busiest U.S. airports (based on passenger number) in 2008

Airport	Number of Birdstrikes	Aircraft with Substantial Damage	Number of Human Fatalities	Aircraft Operations	Number of Passengers
Atlanta	55	2	0	978,084	43,737,608
Chicago O’Hare	116	2	0	881,566	33,668,545
Los Angeles	44	1	0	622,506	28,612,013
Dallas/Fort Worth	234	1	0	655,306	27,206,541
Denver	312	2	0	625,844	24,266,328
John F. Kennedy	134	5	0	446,968	23,601,779
Las Vegas	15	0	0	578,946	21,011,949
Houston (Intercont.)	35	1	0	578,288	19,850,397
Phoenix	73	0	0	502,499	19,433,827
San Francisco	53	0	0	388,104	18,101,502

Sources: FAA Wildlife Strike Database (<http://wildlife-mitigation.tc.faa.gov/wildlife/database.aspx>); FAA Air Traffic Activity System (ATADS)—Airport Operations (<http://aspm.faa.gov/opsnet/sys/Airport.asp>)

Climate Talks Run Cold

LAST DECEMBER, REPRESENTATIVES OF 193 governments gathered in Copenhagen, Denmark for the 15th United Nations (UN) Climate Change conference in what marked the largest gathering of heads of state and governments in UN history. The conference signified an important milestone in negotiations aimed at enhancing international climate change cooperation.

Intense deliberations took place over two weeks but participants struggled to reach any solid and meaningful consensus agreements. Wealthy, industrialized nations agreed to raise funds to assist developing countries with climate change mitigation expenses and clean energy development projects, however a standoff between the United States and China, the world's largest emitters of greenhouse gases, threatened to collapse discussions. Many feared a complete breakdown of the process set into motion at the 1992 UN Earth Summit, which led to the development of the Kyoto Protocol on limiting greenhouse gases in 1997. At the heart of the discussions was China's refusal to accept outside monitoring of its pledged emissions limits.

With any accord seeming impossible, on the final day the Obama Administration announced that the U.S., China, India, Brazil and South Africa had reached an agreement. President Obama had reportedly initiated a closed-door meeting that led to the agreement, and this in turn resulted in a wider deal, dubbed the Copenhagen Accord. Disappointingly modest and non-binding, the agreement was highly debated and a group of countries including Venezuela, Bolivia, Sudan and Nicaragua refused to sign.

The Copenhagen Accord is a statement of intent to cooperate in reducing emissions and limit temperature

rise and so to the disappointment of many, the highly anticipated two-week meeting did not produce a tangible and long-term plan for reducing greenhouse gas emissions, such as firm targets for emissions cuts and a firm cap on global temperature rise. The UN Intergovernmental

Panel on Climate Change has stated that in order to effectively stabilize greenhouse gas concentrations and avoid a dangerous global temperature rise of more than 2 degrees Celsius above pre-industrial levels, global emissions should peak by 2015-2020 and a global mitigation of 50 percent by 2050 should be achieved. Other climate scientists advise a more aggressive mitigation of a 45 percent reduction on 1990 levels by 2020.

The International Union for Conservation of Nature (IUCN) has highlighted the dangerous impacts of climate change on wildlife and 10 flagship species forecast to be most disturbed by climate change. The list includes the beluga whale, clownfish, emperor penguin, quiver tree, ringed seal, salmon, staghorn coral, arctic fox, leatherback turtle and koala. It is well known that polar

species are already being hard hit by global warming due to their dependence on disappearing sea ice, however ocean acidification caused by rising ocean temperatures also threatens tropical species such as staghorn coral and clownfish.

The difficulty in reaching a binding resolution highlights the importance of climate change discussions and the desperate need for international cooperation and commitment to meet the challenge of reducing greenhouse gas emissions and rising temperatures. There remains an urgent need to develop an international legally-binding treaty. 🐾



Tom Duffy

An emperor penguin and chicks survey their natural habitat.

Informed Advocacy: Food for Thought and Sustainability

by Chris Darimont

EARLY LAST MAY in the heart of coastal British Columbia's Great Bear Rainforest, an area that safeguards one of the planet's last grizzly bear-salmon strongholds, my team from the Raincoast Conservation Foundation set out to tackle a pivotal conservation problem with applied science, ethics and something we call "informed advocacy."

Against a backdrop of the lowest salmon returns in recorded history, human predators, via sport and commercial fisheries, usurp up to an astonishing 80 percent of the salmon destined for spawning gravels. Potential consequences for bears, who rely on this essential food source, are serious and motivate our work. Hair derived from noninvasive hair-snagging stations provides bear DNA, allowing us to track bear numbers over time and sound early warning bells of decline. Isotope analyses on the same hair estimates how much salmon each bear has consumed, which is critical in linking food use to population and individual health. And finally, hormonal assays, also conducted on hair, provide insight into stress levels, reproductive activity and potential starvation. With an eye toward informed advocacy, these findings are shared with wildlife and fisheries managers as well as the public.

Rare among conservation scientists, our messages transcend concerns about bear populations. We consider not only bear populations that decline in tandem with limited salmon, but also the individuals within populations that

fall victim along the way. Malnourished females can lose their offspring. Larger males, in desperate attempts to prepare for winter sleep, will brave visits to human food sources, often with lethal consequences. A low salmon year might mean financial or recreational hardship for fishermen, but for bears in the wild, it could mean prolonged physical distress.

Enduring our own suffering by inching our way up a mountain that May day, we paused to install a hair-snagging station in an ideal place: plenty of bear food around, and situated in good travel terrain. We could envision a bear or two lumbering down to meet us.

As it turned out, 50 metres above, a female bear raised her nose for a sniff. Her cub, blissfully unaware, skidded into her, nearly knocking her down the steep grade upon us. Her powerful shoulders and robust claws prevented what would have surely been the mishap of the season. Oddly enough, they sat and observed us going about our work.

Out of respect for the bears and their undisturbed environment, we worked at a frenetic pace to finish quickly and move on. These great bears deserve to live a healthy, natural life despite an increasingly uncertain future. 🐾

Chris Darimont is an NSERC Postdoctoral Fellow at the University of California, Santa Cruz and Director of Science at the Raincoast Conservation Foundation in Bella Bella, British Columbia. He believes that, alone, even the best science cannot help animals and the planet. "Engaging the public with moral persuasion," he says, "provides a critical complement." Accordingly, he engages in activities many other scientists shun: grassroots activism, media outreach and compassion towards animals.

Chris' research was made possible through a Christine Stevens Wildlife Award from the Animal Welfare Institute



A bear investigates a non-invasive hair-snagging station in the Great Bear Rainforest.



Photos: Chris Darimont



Caleb Stemmors

Alaska's Kachemak Bay supports various species of marine life including sea otters, seals and porpoises, and is also home to the Cook Inlet beluga whale. In December 2009, NOAA issued notice that the bay would be included in 3,000 square miles of the whales' designated critical habitat.

Status is Not Enough

INFAMOUS FOR HER "TAKE NO PRISONERS" STANCE on wildlife from wolves to polar bears, whales and more, former Alaska Governor Sarah Palin objected in 2008 when the National Oceanic and Atmospheric Administration's (NOAA) Fisheries Service finally gave the Cook Inlet beluga whale—which numbered around 375, down from 1,300 in the early '90s—endangered status under the Endangered Species Act (ESA). Though the first petition for listing had been filed in 1999 by the Center for Biological Diversity (CBD) along with a host of conservation groups, and AWI in a later petition of 2007, Governor Palin perceived the beluga whales' endangered status as "premature" and a threat to Alaska industry.

Despite endangered status in place, by June 2009 beluga whale numbers were still declining and critical habitat, an ESA requisite for an endangered listing, had not been designated. In December 2009, perhaps spurred by the threat of a CBD suit, NOAA issued notice that it intends to designate approximately 3,000 square miles of territory as critical habitat for the Cook Inlet belugas. This includes parts of Cook Inlet (the whale's primary summer habitat), mid-Cook Inlet, the Western shore of lower Cook Inlet, as well as Kachemak Bay on the Eastern side. 🐾

SOLOMON ISLANDS TRADES DOLPHINS TO MALAYSIA

International trade in wild-caught Solomon Islands Indo-Pacific bottlenose dolphins continues with little sign of ending so long as the demand for dolphinarium persists. In December 2009, the Solomon Islands exported nine dolphins to Malaysia, bringing the total number captured and exported in the past 26 months to 55 animals. The Solomon Islands government has reportedly approved annual exports of up to 50 animals and with new dolphin-catching ventures springing up there, controls are desperately needed.

We have repeatedly appealed to the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to intervene because the trade is unsustainable, a concern shared by the scientific community. In June 2007, the International Union for Conservation of Nature (IUCN) futilely advised against an export to Dubai asserting that the issuance of a non-detriment finding, a prerequisite for export, was impossible due to lack of information. In August 2008, a workshop of regional experts determined that the Solomon Island population of bottlenose dolphins was not nearly large enough to sustain the level of export desired by the government. Finally, in June 2009, the Scientific Committee of the International Whaling Commission expressed concern for the trade noting "permitted levels of catch for export are not supported by the scientific evidence." Two months earlier, the trade had been entered into the Significant Trade Review process by the CITES Animals Committee with the Committee recommending "a more cautious" export quota. This is encouraging, though with the glacial pace at which CITES moves, action could come too late for the dolphins. 🐾

CITES

Convention on International Trade in Endangered Species of Wild Fauna and Flora



African Elephant

Destination Doha

IN MARCH, representatives from 184 countries, scientists and advocates will gather in Doha, Qatar for the 15th Conference of the Parties of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

CITES is an international treaty intended to regulate trade in wildlife and wildlife products, including plants and plant products. Such regulation is ostensibly achieved by listing species subject to trade into three appendices. Appendix I contains the most restrictive trade prohibitions and is used for the most imperiled species. Appendix II is intended to permit regulated and sustainable trade by requiring exporting countries to make certain determinations before allowing trade to proceed. Appendix III is used by individual CITES countries seeking assistance in regulating the trade in endemic species. At present, over 30,000 species have CITES “protection.”

Regulation of wildlife trade is of critical importance to prevent the demand for wildlife and wildlife products from decimating wildlife populations. Every year millions of wild species (both live and dead) and their products (wood, jewelry, clothing, souvenirs) are traded internationally. The illicit wildlife trade is an enormous problem that impacts myriad species. With high demand, enormous profits, inadequate enforcement and generally minor penalties, illegal wildlife trade continues unabated.

AWI has participated in CITES since the treaty was first negotiated by a handful of countries in the early 1970s. While it continues to support the treaty, there are serious concerns about its implementation.

For Appendix II species, for example, exporting countries are required to issue a non-detriment finding (NDF) to ensure that trade will not harm the species in the wild. While CITES has adopted broad standards for NDFs and engages in capacity-building to help countries meet their NDF responsibilities, compliance remains questionable at best. Efforts to improve NDF standards

have been opposed as CITES-member countries assert that individual governments should determine their own NDF protocol and procedures. CITES currently does not require NDFs to be in writing, publicly available or provided to importing countries to substantiate the legality of trade.

Such deficiencies are exemplified in the trade of wild-caught bottlenose dolphins from the Solomon Islands. Despite repeated warnings from scientists of a lack of population data and consequently the inability to prepare a credible NDF, the Solomon Islands has exported four shipments of dolphins since joining CITES in 2007. Efforts to convince importing countries to reject the shipments have largely fallen on deaf ears and the CITES Secretariat has also refused to act to prevent this trade.

In 2009, the CITES Animals Committee voted to subject the Solomon Islands dolphin trade to Significant Trade Review—a process to investigate wildlife trade that may be inconsistent with the treaty. Unfortunately, this process can take several years to reach its conclusion during which the trade in question can proceed.

Transparency is also a problem within CITES. While its meetings permit active participation by non-governmental organizations, many CITES documents, such as NDFs and Secretariat correspondence to member countries, are not easily accessible.

While these deficiencies are unlikely to be resolved in Doha, debates on dozens of proposals affecting a variety of animal and plant species along with interpretation of the treaty itself are imminent. AWI's Susan Millward and D.J. Schubert will be there to advocate strengthening the treaty and to promote proper protections for species imperiled by trade.

Bobcat Listing Under Threat Again

The U.S. is proposing removal of the bobcat (*Lynx rufus*) from Appendix II of CITES—a listing it has held since 1977. The species remains listed due to similarity of appearance with other, more imperiled species including the Iberian and Eurasian lynx. Previous delisting attempts have failed primarily due to these similarity concerns which remain valid today. The Iberian lynx is the most endangered felid in the world with only 84-143 adults remaining in Spain and Portugal. The Eurasian lynx has a broader range but is reportedly declining in one-third of its 37 range states.

The U.S. claims that 89 percent of the trade involves bobcat skins which can be reliably distinguished from other lynx species. Considering the large variations in pelt color/spotting patterns within and among lynx species, this claim is unproven. Other features such as the size of ear tufts, number of dorsal spots and length of legs are also all relative and cannot reliably be used to differentiate species pelts or parts. Indeed, according to officials from the U.S. Fish and Wildlife Service Forensics Laboratory, skin pieces from Iberian and Eurasian lynx species are so similar to bobcat skin that they cannot be distinguished even with forensic laboratory analysis.

The remaining 11 percent or 42,611 specimens traded from 2002-2006 were not full skins and therefore not readily identifiable to species. If only a fraction of these specimens were from Eurasian or Iberian lynx, the implications could be severe and not surprisingly, the International Union for Conservation of Nature (IUCN) cites the illegal skin trade as being the primary threat to these species. According to a 2008 survey of European range states, there is illegal trade in lynx species—104 specimens in the last few years alone. European authorities are concerned that delisting the bobcat would lead to more skins on the market, creating poaching incentive and further illegal trade.

The U.S. proposal provides little evidence to substantiate claims that bobcats are well managed. Since counting bobcats is difficult due to their secretive behavior, few U.S. states have accurate population estimates. Consequently, claims that bobcat populations are stable or increasing in all states, except Florida, are speculative at best. Conversely, bobcat kill data obtained by AWI reveals that kill rates have increased by 200 to nearly 2600 percent in a number of states over the past decade. Yet these states, none of which have accurate population estimates, continue to misleadingly claim that bobcat populations are stable or increasing.

AWI urges parties to oppose the proposal to remove the bobcat from Appendix II.



Craig O'Neal

Bobcat

Tigers on the Brink

Sweden (on behalf of the European Union) has proposed a revision of a resolution pertaining to the conservation of tigers (*Panthera tigris spp*) and other Asian big cat species. Despite decades of effort to conserve the world's remaining tiger populations, the species is nearing extinction, down from approximately 100,000 in 1900 to just 3,402 today. Threats include habitat loss, reduction in prey, conflicts with humans and poaching for skins, meat, bones and other parts for medicinal products.

Captive breeding is also a threat to wild tiger survival. In 2007, China had 5,000 captive tigers, a number that is likely higher today. While often raised in squalid conditions and displayed to tourists, owners are hoping to cash in if the Chinese government repeals its 1993 ban on the domestic trade in tiger products. Despite that ban and the prohibition on international trade, there is increasing evidence that tiger products from captive operations are entering the illegal commercial trade. Should the ban be lifted, extinction of wild tigers would follow due to significant demand for tiger products, inability to distinguish between captive and wild tiger parts, and inadequate law enforcement.

CITES parties have repeatedly taken action at both international and national levels but such actions appear to have had little impact upon the threats facing these species, necessitating the Swedish proposal. While CITES cannot address every threat to wild tigers and their habitats, it can and must stop illegal trade in tigers and their parts if the species is to survive in the wild. Range countries must conserve tigers and their habitats, adhere to CITES decisions and significantly improve law enforcement operations.

AWI urges parties to support the revised resolution on tigers and Asian big cats.

Polar Bear Debate to Sizzle in Doha

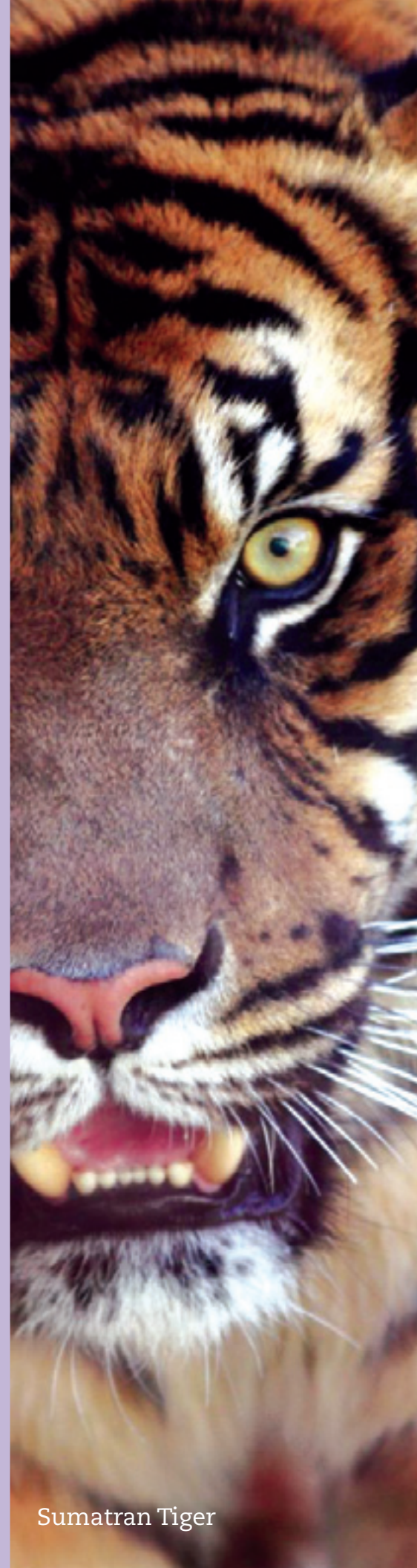
As the desert begins to warm for summer outside, CITES participants will be engaging in what is sure to be a contentious debate over a U.S. proposal to move the polar bear (*Ursus maritimus*) from CITES Appendix II to Appendix I. The polar bear is projected to decline in number, in some areas precipitously, as a consequence of continuing loss and deterioration of sea ice due to global warming.

As sea ice declines, this ice-dependent ursid will not be able to adapt to a terrestrial-based life as polar bears rarely capture prey on land, resulting in increased mortality and reduced reproduction. Increasing conflicts with humans on land will also end in polar bears being killed as "nuisance" animals. Some experts report that the polar bear will not survive the complete loss of sea ice which climate models predict may occur in 30 years.

While global warming is the principal threat to the polar bear, international trade in the species and its parts contributes to the myriad threats afflicting this species. From 1992-2006, an estimated 31,294 polar bear specimens (bodies, trophies, live animals, parts, pieces, and derivatives) were exported from range states. Approximately two-thirds of those specimens are believed to be from wild bears with 3,237 items commercially exported. The majority of specimens were exported from Canada while 73 countries, led by Denmark, the United States and Japan reported imports.

Considering the burgeoning threat to polar bears from global warming, human-bear conflicts, the inability of polar bears to adapt to a more terrestrial existence, declining population sizes and the species' low reproductive potential, polar bears clearly qualify to be uplisted from Appendix II to Appendix I due to projected future population declines. An uplisting will not affect existing aboriginal hunts or the domestic trade in bears, their skins or other parts.

AWI urges parties to support the proposal for an Appendix I listing of the polar bear.



Sumatran Tiger

Elephants and the Ivory Trade: Center Stage Again

After weeks of lengthy debate among African elephant range states during CITES' Conference of the Parties 14 (CoP14) in 2007, many thought a compromise had been reached: CITES would avoid another elephant ivory trade proposal for nine years in exchange for permitting a one-time sale of stockpiled ivory from Botswana, South Africa, Zimbabwe and Namibia to China and Japan. The intent was to use the nine years to fully assess how a one-time sale of ivory affected elephant poaching.

Unfortunately, this intent was not clear in the agreed-upon language and Tanzania and Zambia have introduced proposals to downlist their elephant populations from Appendix I to II, and to allow for trade in elephants and their parts including one-time sales of government-owned ivory stocks. In contrast, Kenya and its allies have submitted a proposal to tighten the 2007 agreement to prohibit elephant downlisting and one-time ivory sale proposals for a 20-year period.

Between 1979 and 1989, more than 600,000 African elephants (*Loxodonta africana*) were killed for their ivory, cutting the continent's population by half to 600,000. Tragically, poaching continues with an estimated 38,000 elephants killed annually to supply the demand for ivory, primarily from the Far East. The 23.2 tonnes of poached ivory that has been seized since June 2007 from several countries highlights the severity of the problem—an under-representation since the majority of illegally traded ivory goes undetected.

Tanzania and Zambia contend that their elephant populations no longer qualify for Appendix I listings. In 2006, the elephant population in Tanzania contained 137,000 elephants while Zambia's population, in 2008, numbered approximately 26,400.

With the severity of elephant poaching today at levels commensurate with 1980s levels when CITES prohibited all ivory trade, approving additional one-time ivory sales is at best premature and at worst will facilitate expanded elephant poaching throughout Africa. Many experts opposed the 2007 one-time ivory sale based on concerns it would stimulate an increase in illegal trade and poaching. They are now being vindicated. According to analysis of data of elephant product seizures from 1982 through 2009 compiled in the Elephant Trade Information System (ETIS), elephant poaching has increased since CoP14 and continues to increase with an "exceptionally sharp increase" of seizure cases since August 2009. Once all 2009 seizures are verified, TRAFFIC, a wildlife trade monitoring network that analyzes the ETIS data, predicts that 2009 will have been "a pivotal year in terms of escalating illicit trade in ivory." This evidence may demonstrate that the one-time sale of ivory approved in 2007 and carried out in 2008 has led to an escalation in elephant poaching.

The ETIS results provide sufficient justification for more forceful implementation of the "action plan for the control of trade in African elephant ivory" including the urgent need to close unregulated and illicit domestic ivory markets in Africa and to enhance and improve national wildlife law enforcement campaigns.

Considering the ongoing crisis with illicit domestic ivory markets, inadequate law enforcement in many range states, governmental corruption and evidence that one-time ivory sales increase elephant poaching, Kenya's proposal is warranted and reflects a precautionary approach to conservation integral to the implementation of CITES.

AWI urges parties to oppose Prop 4 (Rev 1) and Prop 5 and support Prop 6.



African Elephant

Chad Rosenthal



Dusky Shark



Scalloped Hammerhead Shark

Biting into Shark Protection

The U.S. and Palau have proposed an Appendix II listing for the scalloped hammerhead shark (*Sphyrna lewini*) and the following lookalike species: great hammerhead (*Sphyrna mokarran*), smooth hammerhead (*Sphyrna zygaena*), sandbar (*Carcharhinus plumbeus*) and dusky (*Carcharhinus obscurus*) sharks. The fins of all five species are very similar and indistinguishable once removed from the body. Shark fins are in high demand, especially in Asia, where they are used to make the delicacy “shark fin soup.” Due to the lucrative shark fin trade prompting the desire to land and collect as many fins as possible, fishermen often cut off the fins and throw the rest of the living animal back into the sea to endure a slow and painful death. A CITES Appendix II listing for these species would place much needed controls on their trade.

Scalloped hammerheads are listed as globally endangered on the International Union for Conservation of Nature (IUCN) red list. The wide-ranging species is a coastal and semi-oceanic shark that inhabits the warm temperate and tropical seas of the Atlantic, Pacific and Indian Oceans. The species tends to aggregate in large schools making it a particularly vulnerable target, one which has experienced steep declines as a result of the high demand for its fins. Recent genetic studies have indicated the existence of multiple segregated subpopulations, and declines of up to 98 percent have been reported in some populations.

Other sharks proposed for Appendix II listings are also targeted for their fins. Oceanic whitetip sharks (*Carcharhinus longimanus*) are prized for their large fins rather than their less desirable meat. Although widely distributed, the species is caught in large numbers as bycatch and available data shows that populations are severely depleted with declines of 99 percent in some areas. Catches are unmanaged throughout its ranges. The species is classified as vulnerable globally by the IUCN and critically endangered in the Northwest and Western Central Atlantic.

The spiny dogfish (*Squalus acanthias*) is a small, highly migratory shark found in temperate and boreal waters worldwide. The species’ habits and biological traits, including its tendency to travel in large aggregations segregated by sex and size, late maturation, longevity and low reproductive capacity make it the most vulnerable shark species to exploitation. The meat of the species is regularly consumed, particularly in Europe as fish and chips. Although naturally abundant, this demand has driven fisheries to target aggregations of mature females because they are larger than the males, causing drastic changes in demographic structure and a 75 percent decline in biomass of mature females in the Northwest Atlantic. Despite the drastic declines and continued demand for the meat of this species, few conservation measures exist to help control fishing pressure or rebuild the species.

The porbeagle shark (*Lamna nasus*) is a large, wide-ranging coastal and oceanic species that inhabits temperate and cold-temperate waters worldwide. The species is targeted for its high value meat and has a low reproductive capacity, making it vulnerable to over-exploitation. Porbeagle shark populations have experienced drastic declines as a result of high catches by both target and bycatch fisheries. Unregulated longline fisheries are the biggest threat to the species and have caused the over-exploitation of the North Atlantic populations.

The Food and Agriculture Organization of the United Nations (FAO) has expressed its support for the proposals to list the scalloped hammerhead, the porbeagle and the oceanic whitetip shark. The FAO opposed previous listing proposals for sharks at the last CITES Conference of the Parties so its support of these proposals signifies recognition that stricter trade controls are desperately needed.

AWI urges parties to support and vote in favor of all shark proposals.

Bluefin Tuna facing Crisis

Monaco has proposed an Appendix I listing for northern or Atlantic bluefin tuna (*Thunnus thynnus*), which would afford this fish the highest protections under CITES. The species, divided into the Eastern and Western populations, is found in the North Atlantic Ocean and Mediterranean Sea. The proposal is long overdue, with both stocks facing certain extinction if current levels of harvesting continue. The Western population is near collapse with more than a 90 percent probability it is at less than 15 percent of its equivalent historic level. The Eastern population is in worse condition having suffered more than an 82 percent decline between 1970 and 2007. This fish is the most valuable of the tuna species in the international marketplace with single specimens selling for many thousands of dollars. A cessation in the international trade of the species is not only justified under CITES listing requirements but is an immediate necessity to ensure the survival of the species.

The International Commission for the Conservation of Atlantic Tunas (ICCAT), the principal body responsible for regulating catches of tuna, has failed to address the impending crisis. ICCAT has consistently set total allowable catch limits far in excess of scientific recommendations and has failed to act when actual catches were several times higher. With quotas for this slow growing and late to mature species set above scientifically prescribed sustainable levels, rampant under-reporting of catches, increasing consumer demand and inadequate enforcement of infractions, the situation is at a crisis.

The Food and Agriculture Organization of the United Nations (FAO) agrees. Its Ad Hoc Expert Advisory Panel preliminarily concluded that “the available evidence supported the proposal to include Atlantic bluefin tuna in CITES Appendix I” and that “an Appendix I listing would be likely to reduce the bluefin catches from both component populations.”

AWI urges parties to vote for an Appendix I listing. The species cannot wait any longer.

Corals, a Beetle and Humphead Wrasse in Need

Sweden has proposed an Appendix II listing (on behalf of the European Union) and the U.S. for over 30 species of Pink and Red corals (*Corallium spp. and Paracorallium spp.*). Found in tropical, subtropical and temperate oceans worldwide, these corals are primarily threatened by international trade as whole colonies, branches, polished stones, jewelry, powder, pills and liquid. The U.S. is the largest consumer of precious corals, importing them mostly from China, Taiwan and Italy. Corals mature late, grow slowly, have very long life spans and low fecundity. These characteristics make them extremely vulnerable to overexploitation, with the species in the Mediterranean Sea and Pacific Ocean experiencing particularly rapid declines. Because some of the species' populations have remained at historically low levels for almost 20 years, controls on trade are desperately needed.

Bolivia has proposed inclusion of the Satanas beetle (*Dynastes satanas*) under Appendix II. This species of rhinoceros beetle has very limited distribution and is endemic to the rainforests of Bolivia. It has reduced and fragmented habitat and is further threatened by illegal international trade in both live and dead specimens for collectors.

Indonesia has submitted a resolution to limit international trade and improve monitoring of trade in humphead wrasse (*Cheilinus undulates*), which is listed on Appendix II. The species is a large, slow growing and long-lived fish which inhabits coral reefs throughout the tropical Indo-Pacific region. This wrasse is listed as endangered by IUCN and populations are decreasing due to the loss of coral reef habitat, illegal, unregulated and unreported fishing and lack of international management. Illegal exports from Malaysia and Indonesia to Hong Kong have been reported and appear to be a considerable part of the trade. Similarly, the species has been found in China, despite the lack of records reported to CITES of any imports.

AWI urges parties to support the corals and beetle proposals and the humphead wrasse resolution.



Humphead Wrasse



Red Coral



Nile Crocodile

Amphibians and Reptiles Under Debate

Five species of tree frogs (*Agalychnis* spp.) have been proposed for an Appendix II listing by Honduras and Mexico. They are the blue-sided tree frog (*A. annae*), red-eyed tree frog (*A. callidryas*), Morelet's tree frog (*A. moreletii*), misfit leaf frog (*A. saltator*) and gliding tree frog (*A. spurrelli*). All of the species inhabit the canopy of the subtropical and tropical forests in Central and South America. They face multiple threats including habitat destruction from logging, pollution, global warming, fragmented distributions and the devastating fungal disease chytridiomycosis. Tree frogs are also harvested and exploited for the international pet trade with demand from the U.S., Europe and Japan. Although commercial exports of tree frogs are prohibited in most range states, importing countries may not be aware of the regulations making a CITES listing critical.

The inclusion of Kaiser's spotted newt (*Neurergus kaiseri*) in Appendix I has been proposed by Iran, where its distribution is limited to four streams. Listed as critically endangered by IUCN, the species, numbering fewer than 1,000, is threatened by habitat loss and drought as well as illegal collection of adults during the breeding season for the international pet trade.

Four species of iguana have been proposed for Appendix II listing by Guatemala and Honduras because of threats from illegal domestic trade and trade of live specimens to the U.S. and Europe. The Guatemalan spiny-tailed iguana (*Ctenosaura palearis*) is listed as critically endangered by IUCN with a severely fragmented estimated population of fewer than 2,500. All three

species of the proposed Honduran iguanas are listed as critically endangered by IUCN: the Baker's spiny-tailed iguana (*Ctenosaura bakeri*), the Roatan spiny-tailed iguana (*Ctenosaura oedirhina*) and the Honduran paleate spiny-tailed iguana (*Ctenosaura melanosterna*).

Israel has proposed the transfer of the Ornate dabb lizard (*Uromastix ornate*) from Appendix II to Appendix I. The species is in high demand in the pet trade in North America, Europe and Japan and is highly threatened by illegal collection, population fragmentation, and habitat degradation and loss. It is particularly vulnerable to overexploitation due to late maturity and low fecundity.

A downlisting from Appendix I to Appendix II is proposed by Mexico for the Morelet's crocodile (*Crocodylus moreletii*) and by Egypt for the Nile crocodile (*Crocodylus niloticus*). Morelet's crocodile is native to Belize, Guatemala and Mexico and is threatened by illegal harvest and trade and habitat loss and degradation. The proposal by Mexico does not provide evidence that sufficient precautionary measures are in place to control the illegal trade, therefore a downlisting could stimulate further illegal harvest and trade. Similarly, the Nile crocodile is also threatened by illegal trade of live specimens, leather products and whole skins, along with illegal hunting. The species is greatly depleted in Central and Western Africa. It is clearly premature for either of these species to be downlisted as neither country has demonstrated that adequate measures have been taken to control illegal trade in the species.

AWI urges parties to support the proposals for tree frogs, iguanas and the newt and oppose the crocodile proposals. 🐾

At-a-glance CITES guide to Select CoP 15 Proposals

Number	Proposal	AWT's Recommendation
Proposal 2—Bobcat	<i>Lynx rufus</i> —Deletion from Appendix II	Oppose
Proposal 3—Polar bear	<i>Ursus maritimus</i> —Transfer from Appendix II to Appendix I	Support
Proposal 4—African elephant	<i>Loxodonta africana</i> —Transfer the population of the United Republic of Tanzania from Appendix I to Appendix II with an annotation allowing trade of trophies for non-commercial purposes and a one-off sale	Oppose
Proposal 5—African elephant	<i>Loxodonta africana</i> —Transfer of the population of Zambia from Appendix I to Appendix II for exclusive purposes of allowing certain trade	Oppose
Proposal 6—African elephant	<i>Loxodonta Africana</i> —prohibit future proposals for population downlistings or trade for 20 years	Support
Proposal 8—Morelet's Crocodile	<i>Crocodylus moreletii</i> —Transfer from Appendix I to Appendix II with a zero quota for wild specimens	Oppose
Proposal 9—Nile crocodile	<i>Crocodylus niloticus</i> —Transfer of the Egyptian population from Appendix I to Appendix II	Oppose
Proposal 10—Ornate dabb lizard	<i>Uromastix ornata</i> —Transfer from Appendix II to Appendix I	Support
Proposal 11—Honduran iguanas	<i>Ctenosaura bakeri</i> , <i>C. oedirhina</i> and <i>C. melanosterna</i> —Inclusion in Appendix II	Support
Proposal 12—Guatemalan spiny-tailed iguana	<i>Ctenosaura palearis</i> —Inclusion in Appendix II	Support
Proposal 13—Tree frogs	<i>Agalychnis spp.</i> —Inclusion in Appendix II	Support
Proposal 14—Kaiser's spotted newt	<i>Neurergus kaiseri</i> —Inclusion in Appendix I	Support
Proposal 15—Hammerhead, sandbar and dusky sharks	<i>Sphyrna lewini</i> , <i>S. mokarran</i> , <i>S. zygaena</i> , <i>Carcharhinus plumbeus</i> , <i>C. obscurus</i> —Inclusion in Appendix II	Support
Proposal 16—Oceanic whitetip shark	<i>Carcharhinus longimanus</i> —Inclusion in Appendix II	Support
Proposal 17—Porbeagle shark	<i>Lamna nasus</i> —Inclusion in Appendix II	Support
Proposal 18—Spiny dogfish	<i>Squalus acanthias</i> —Inclusion in Appendix II	Support
Proposal 19—Northern bluefin tuna	<i>Thunnus thynnus</i> —Inclusion in Appendix I	Support
Proposal 20—Satanas beetle	<i>Dynastes satanas</i> —Inclusion in Appendix II	Support
Proposal 21—Pink and Red coral	<i>Coralliidae spp.</i> (<i>Corallium spp.</i> and <i>Paracorallium spp.</i>)—Inclusion of all species in the family in Appendix II	Support
Doc 43.2—Tigers and other Appendix I Asian big cat species	Revision to resolution on conservation of and trade in tigers and other Appendix I Asian big cat species	Support
Doc 51—Humphead wrasse	Additional management measures needed to combat illegal, unreported and unregulated fishing	Support



Polar Bear



Oceanic Whitetip Shark



Tree Frog

COURT RULING OFFERS NO RELIEF FOR CIRCUS ELEPHANTS

Nearly one year after the groundbreaking lawsuit for elephant mistreatment brought against Ringling Bros.' parent company Feld Entertainment, Inc. (FEI) went to trial, the U.S. District Court for the District of Columbia has ruled that it lacks jurisdiction to address the claims of mistreatment brought by AWI and its co-plaintiffs due to a lack of sufficient standing. An overwhelming amount of evidence establishing the severe physical, emotional and behavioral harm inflicted upon endangered Asian elephants by the circus was revealed over the course of the six-week trial held early last year. Testimony of elephant mistreatment was not only elicited from plaintiffs' witnesses, but from circus witnesses as well. Kenneth Feld, Chief Executive Officer of FEI, admitted under oath that "all" of the elephant handlers "strike" the elephants with bull hooks, and Gary Jacobson, general manager of the circus' breeding farm in Florida, testified that most of the female elephants are kept chained by two legs least 16 hours a day, and some are chained 23.5 hours a day at FEI's "Center for Elephant Conservation." Had the Court addressed the merits of the case and found against FEI, the circus could have been prohibited from continuing to engage in its current bull hook and chaining practices. AWI and its co-plaintiffs plan to appeal the federal court ruling to the U.S. Court of Appeals for the District of Columbia Circuit. 🐾



North60 @ flickr.com

A Canada lynx huddles in the Maine snow. Its unlawful trapping violates the Endangered Species Act.

Battle to Protect Canada Lynx Continues

AT LEAST 47 CANADA LYNX have been illegally trapped in Maine over the past decade and despite a designation as threatened on the federal endangered species list, a court has declined to accord lynx adequate protection from illegal trapping under the Endangered Species Act (ESA). In August 2008, AWI and the Wildlife Alliance of Maine (WAM) brought suit against the Maine Department of Inland Fisheries and Wildlife (IF&W) in an effort to change Maine's trapping rules to prevent the unlawful trapping of Canada lynx. This past December, the U.S. District Court for the District of Maine ruled that Maine's current regulatory scheme for trapping furbearing animals is resulting, and will continue to result, in trapping of Canada lynx in violation of the ESA. However, the court declined to provide protection to the lynx by ordering a permanent injunction to further restrict traps in Maine's lynx habitat pending the decision by the U.S. Fish and Wildlife Service (FWS) as to the issuance of an incidental take permit. IF&W has applied for such a permit under section 10 of the ESA, which would require that the agency implement mitigation measures to better protect lynx from indiscriminate traps. AWI and WAM have appealed the ruling to the First Circuit Court of Appeals and sent a letter petitioning the FWS to invoke its enforcement authority against IF&W for ongoing violations of the ESA. 🐾



Phillip Jones

Hounds and beagles like this one are among the breeds of dogs typically used in research laboratories.

APPROPRIATIONS PROCESS

NIH Under Pressure

RESPONDING TO THE NATIONAL ACADEMY OF SCIENCES report on Class B dealers (see *AWI Quarterly Summer 2009*), both the House and Senate reports accompanying the bills funding the National Institutes of Health (NIH) for fiscal year 2010 express a desire to end the use of Class B dealers as a source of animals for research funded by the NIH. More forceful than the House, the Senate language “expects the NIH to phase out, as quickly as possible, the use of any of its funds for the purchase of, or research on, dogs or cats obtained from [Class B dealers].” It also tells NIH that it “should not award any new grants or contracts that involve such animals and should immediately begin supporting alternative sources of random source animals from non-Class B dealers.” Despite their differences, we expect both chambers to hold NIH accountable for taking immediate steps to end the use of Class B dealers by its grant recipients.

Bats Hit Home Run

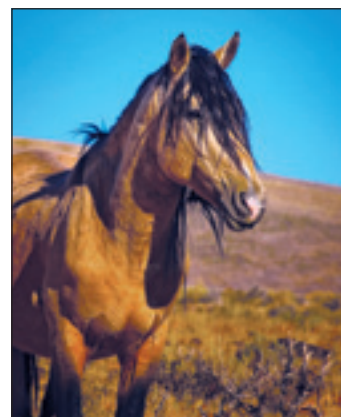
THE DEPARTMENT OF THE INTERIOR appropriations bill is good news for animals on two fronts. Through an amendment offered by Sen. Frank Lautenberg (D-NJ), it provides an additional \$1.9 million for research and

monitoring of the deadly White-nose Syndrome (WNS) in bats which is decimating Northeastern bat populations in record numbers (see *AWI Quarterly Summer 2009*).

Stay of Execution

THE INTERIOR BILL ALSO PROVIDES a temporary reprieve from the Bureau of Land Management’s (BLM) proposed policy of killing healthy, unadopted wild horses and burros in its care. Congress has prohibited BLM from using funds for that purpose or for selling wild horses and burros to others to be killed and used in “commercial products.”

Similarly, as it has done in past Agriculture Appropriations bills, Congress has prohibited the Department of Agriculture from using any of its fiscal year 2010 funds for the inspection of horses at slaughter plants. Without such inspections, no horse slaughter plant can operate in the U.S. But this, too, is just a temporary fix—it lasts only for the fiscal year and does not prevent the shipment of horses to slaughter outside the U.S., so passage of the Prevention of Equine Cruelty Act (H.R. 503 and S. 727) is still urgently needed. 🐾



Jeffrey Edwards

A wild stallion reflects the spirit and color of a brisk northern Nevada day, having thus far escaped government efforts for an untimely fate.

SHARK BILL MOVES FORWARD

On November 19, the Senate Commerce, Science and Transportation committee passed the Shark Conservation Act of 2009 (S. 850; see *AWI Quarterly Summer 2009*). It now awaits action by the full Senate. The House of Representatives passed its bill, H.R. 81, in March. 🐾

Poison-Free Poultry

AWI SUPPORTS Representative Steve Israel’s Poison-Free Poultry Act of 2009, H.R. 3624, introduced September 22, 2009. H.R. 3624 bans roxarsone, an arsenic compound used as a growth-promoting additive to poultry and swine feed, which poses a threat to environmental quality and public health, including an increased risk of cardiovascular disease, neurological defects, diabetes and cancer. Farmers who use roxarsone for their animals and consumers of contaminated product are both at risk. In addition, the dangerous levels of arsenic in chicken manure ultimately contaminate crops, waterways and the land. Not only are the environment and public health threatened when roxarsone is added to poultry and swine feed for fast growth and to combat intestinal parasites, but animal welfare is compromised as well. Animals who innocently eat feed laced with drugs to make them grow unnaturally fast are prone to disease and crippling physical abnormalities. In addition, humane husbandry coupled with prevention, not drugs, is the antidote for intestinal parasites. Low stocking density, rotation of pasture, pasture management and composition, nutrition, multi-species management and breeding strategies can increase resistance to parasites. It is reckless to add a known carcinogen to animal feed. By ending this unnecessary and dangerous practice, H.R. 3624 will protect farmers and consumers from a known toxin, ensure that arsenic-contaminated animal waste does not threaten the environment, and improve the treatment of poultry and pigs.



Representative Steve Israel (D-NY)

“Nobody should have to wonder if their chicken dinner is secretly carrying a carcinogen,” said Rep. Israel. “Roxarsone is an unnecessary and dangerous arsenical that we don’t need in our food and that we don’t want in our food. It’s time we stop big factory farms from trying to make their chicken pink by exposing us all to a toxin.” 🐾

STEPS TAKEN TO END SNAKE TRADE

On December 11, 2009 the Senate Committee on Environment and Public Works approved S. 373, a bill “to include constrictor snakes of the species Python genera as an injurious animal” under the Lacey Act, thus prohibiting them from being imported into the U.S. or shipped in interstate commerce. These snakes pose a threat to public safety and can cause immense harm to U.S. ecosystems. The House Judiciary Committee reported H.R. 2811 in July. The Senate bill is stronger because the committee amended it to cover more species. Additionally, in a surprise move on January 20, Interior Secretary Ken Salazar announced that the U.S. Fish and Wildlife Service (FWS) will publish a proposal to list nine large constrictor snakes (the same ones covered under the Senate bill) as “injurious wildlife” under the Lacey Act. This administrative action will take a number of months to implement, so work on the bills before Congress should continue. 🐾

YOU CAN MAKE A DIFFERENCE

Letters from constituents are invaluable. Help support these humane bills by contacting your Representative.

- H.R. 3907, Pet Safety and Protection Act
- H.R. 503, Prevention of Equine Cruelty Act
- H.R. 3623, Poison-Free Poultry Act

Letters to your Representative should be addressed to:
The Honorable (Full Name)
United States House of Representatives
Washington, DC 20515

- Ask your Senators to support these bills:
- S. 373, Ban on python trade
 - S. 850, Shark Conservation Act of 2009
 - S. 727, Prevention of Equine Cruelty Act

Letters to Senators should be addressed to:
The Honorable (Full Name)
United States Senate
Washington, DC 20510

For assistance, please see our action center:
www.awionline.org/takeaction.

Stunning and Slaughter of Poultry: Evolving Consensus

by Mohan Raj, BVSc MVSc PhD

Poultry do not have muscular diaphragms.

Consequently when birds are hung upside down for shackling purposes, abdominal organs compress their hearts. Additionally, compression of leg bones by metal shackles is an extremely painful procedure. Since inversion and shackling are unavoidable using an electrical water bath stunning system—a universal method of poultry slaughter—those concerned with the welfare of these birds, including legislators, have until recently been compelled to accept these painful and distressing practices.

In 2009, the UK's Farm Animal Welfare Council (FAWC)—an independent governmental advisory body—reported on the welfare at slaughter of white meat animals (poultry species) and recommended that current systems of pre-slaughter inversion and shackling associated with water bath stunning should be phased out (www.fawc.org.uk/reports.htm).

In addition to the problems associated with inversion and shackling, there are other welfare concerns associated with electrical water bath stunning systems. Further pain and distress is caused to birds:

- who are forcefully removed from their transport containers, and in particular when birds are tipped or dumped on conveyors;
- who may receive electrical shocks before being stunned (pre-stun shocks);
- who may miss being stunned adequately and then reach the neck cutting machines;
- who may be immobilised, rather than stunned, by the use of inappropriate electrical parameters;
- who may recover consciousness during bleeding; and
- who may enter scald tanks while conscious.

Accordingly, there is a drive within the European community to phase out the use of electrical water bath stunning. In fact as far back as 1982, the FAWC reported that many of the welfare concerns above would be eliminated if poultry were killed in their transport crates using controlled atmosphere methods.

At that time carbon dioxide was utilized for stunning pigs in some EU slaughter plants, so this gas was suggested as an alternative to electrical water bath stunning. However the induction of unconsciousness with gas mixtures is not immediate. Bird welfare advocates wanted an alternative to water bath stunning, but one that was not distressing to the individuals. The problem is that all vertebrates have well developed chemoreceptors to detect and respond to carbon dioxide; they find this gas extremely aversive and given an

Shackled chickens, inverted during the slaughter process, suffer painful leg bone, diaphragm, heart and lung compression. An electrical water bath stunning procedure and unconsciousness follow. The process can be flawed, however, and birds such as the one at right remain fully awake during all procedures such as the neck cutting machine.



Photo courtesy of Adam Parascandola—United Poultry Concerns

alternative, avoid an atmosphere containing it. While the welfare issues of water bath stunning were fully accepted, no one wanted to replace this system with a new set of problems such as stressful induction of unconsciousness.

Inert gas such as argon or nitrogen is a potential alternative to the use of carbon dioxide. Stunning or killing with inert gases, especially argon, has been studied largely in poultry and pigs. Animals, including birds, do not have chemoreceptors to detect inert gases and therefore do not show any aversion during initial exposure to hypoxia/anoxia induced with nitrogen, argon or their mixtures.

It is worth mentioning that studies involving humans indicated that the induction of unconsciousness with inert gas (nitrogen) is free from distress. Scientific literature suggests that human volunteers described their experience with the inhalation of nitrogen as a “euphoric way of losing

When assessing the welfare of CAS, it is therefore crucial to look at the comprehensive slaughter process. Aside from improper stunning of birds, a large concern about electrical water bath stunning...relates to inversion and shackling of live birds. CAS eliminates all of these welfare concerns.

consciousness.” Therefore it is suggested that use of hypoxia/anoxia is far more humane than the other gas mixtures containing carbon dioxide. Some reports suggest that Controlled Atmosphere Stunning (CAS) is not humane because of the distress that will be caused by the feeling of being unable to breathe just before the bird becomes unconscious. From the points above it can be seen that this concern only relates to carbon dioxide stunning.

However, exposure of poultry to argon or nitrogen results in convulsions manifested as wing-flapping after the loss of consciousness. This wing-flapping has been interpreted by some as a sign of distress. On the contrary it demonstrates the success of this method in inducing

unconsciousness. The wing-flapping occurs when depression of activity in the brain extends to the part that governs motor functions and consciousness. Basically this wing-flapping—or anoxic convulsion as it should more properly be called—has no welfare implication; in fact the onset of these convulsions could be used as an indicator of the loss of consciousness.

There have been a number of studies in recent years assessing the potential welfare benefits of CAS. Some reports make much of the fact that electrical stunning induces unconsciousness in milliseconds whereas CAS is a more gradual process. When a bird passes through a water bath which delivers the correct amount of current across the brain, this method of stunning is most efficient. However the variation in bird size, the problems of birds evading the water bath and the variation in current

delivered by the bath all reduce the process' efficiency. Even if the industry figures on the efficacy of the process are accepted, with the billions of birds processed each year the small percentage that are reportedly not effectively stunned may equal millions of birds. When assessing the welfare of CAS, it is therefore crucial to look at the comprehensive slaughter process. Aside from improper stunning of birds, a large concern about electrical water bath stunning—as discussed previously—relates to inversion and shackling of live birds. CAS eliminates all of these welfare concerns.

From the points discussed above, CAS has the potential to deliver much higher welfare at slaughter than electric water bath stunning. Inevitably, our lack of knowledge and understanding of science frequently leads to misconceptions. But those that doubt the efficacy and welfare benefits of CAS will find more than enough published, and peer reviewed evidence, to confirm that this is the route we should take for the humane slaughter of poultry. 🐾

Mohan Raj BVSc MVSc PhD is a reader in farm animal welfare for the Department of Clinical Veterinary Science at the University of Bristol, United Kingdom.

Reference: Gregory, N.G. “Recent concerns about stunning and slaughter”; Meat Science 70 (2005) 481-491



Mike Suarez

These AWA cattle have daily access to pasture and fresh air in one of the industry's most stringent approval processes.

Retail Milestone for Animal Welfare Approved

AS WE HOPE YOU KNOW, all animals in AWI's Animal Welfare Approved (AWA) program are raised on pasture or range in compliance with stringent standards. Though available via farms, farmers' markets, community supported agriculture, co-ops and buying clubs, AWA products can be found in a growing number of retail outlets, including Harris Teeter, Publix, Sprouts, Dean & DeLuca, Schnucks, Earth Fare and more than 180 Whole Foods Market locations in 28 states. If you don't see the AWA seal, ask for AWA products by the specific farm or group of farms. For a complete list of where AWA products can be found, visit www.AnimalWelfareApproved.org. 🐾

Please note, Animal Welfare Approved is an independent certification program and finding the seal in a retail outlet does not mean that other products were raised to the same high standards.

Farm Animal: Friend or Foe

THOUGH SEVEN STATES have passed legislation to phase out common industry practices that confine farm animals in a manner that does not allow them to turn around freely, lie down, stand up and fully extend their limbs, AWI remains concerned that these laws will not actually end the use of cages and crates. Nevertheless, industrial agriculture is reacting and in November 2009 passed "Issue 2" in Ohio which creates an industry-dominated Livestock Care Standards Board to maintain the cruel status quo. Furthermore, the ballot language was intentionally misleading to deceive unsuspecting voters into believing it was a pro-animal initiative. Advocates for farm animals must clearly call for an end to the use of cages and crates as well as individual and indoor confinement. 🐾

CRUELTY TO CALVES

Vermont-based **Bushway Packing Inc.** has been suspended from slaughtering days-old male dairy calves for veal. These animals are so young they are unable to stand on their own. Investigative video HSUS released in November shows several appalling images including a worker attempting to skin a live calf in front of a USDA inspector (responsible for enforcing federal humane law) and the plant's co-owner shocking calves with electric prods in a vain attempt to force them to stand. Bushway received four suspensions for humane slaughter or handling violations in 2009 demonstrating that reform is urgently needed to prevent such abuse. Though state and federal officials have launched an investigation to end the most egregious cruelty, AWI calls for a ban on the slaughter of downer calves for food with a humane euthanasia requirement, a ban on the transport of calves under 10 days of age and escalating monetary and administrative penalties for violations of humane law. 🐾

Position Announcement: Laboratory Animal Advisor

THE ANIMAL WELFARE INSTITUTE is accepting applications for the full time position of *laboratory animal advisor*.

Requisites for the position include a genuine reverence for living creatures; the facility to express compassion for animals kept in research laboratories and educational institutions; not to be *categorically against* research with animals; and not to be *categorically in favor* of research with animals.

Additionally, candidates must have several years of experience with traditional and refined housing and handling practices of at least one nonhuman primate species and at least one non-primate species commonly found in research laboratories.

Respondents must be familiar with the professional and scientific literature pertaining to the housing and handling of animals assigned to research and teaching projects, and have published several professional or scientific articles (a copy of one article must accompany the application). He/she must publish articles on species-adequate housing and stress-mitigating handling of animal species commonly found in laboratories.

The *laboratory animal advisor* may visit animal research facilities and provide advice on species-adequate housing and stress-mitigating handling of animal species typically found in laboratories. The candidate must also be comfortable representing the Animal Welfare Institute at professional and scientific meetings.

At three-month intervals, two annotated databases on Environmental Enrichment and Refinement for Animals in Research Institutions shall be managed and updated.



Marko Savic

A laboratory mouse uses cardboard tubing and bedding material for nesting.

Comments shall also be written on federal draft regulations and professional draft guidelines on housing and handling of animals kept in research laboratories.

No specific academic or professional diplomas are required to apply for this position, and candidates may specify salary expectation.

A cover letter, resume, and above-referenced supporting material (an original and two copies of each) should be mailed by May 1 to:

Cathy Liss, President
Animal Welfare Institute
900 Pennsylvania Ave. SE
Washington, DC 20003

The position will be available on Sept. 1. 🐾



A Voice for Animals High School Essay Contest

THE HUMANE EDUCATION NETWORK'S 20th annual "A Voice for Animals" high school essay contest runs February 1 through March 31. The contest gives students the opportunity to express concerns about animal welfare and present solutions.

Co-sponsored in part by the Animal Welfare Institute and the Palo Alto Humane Society, prizes totaling \$6,500 will be awarded for essays that best promote the humane

treatment of animals. Students should examine the mistreatment of one animal species or one cause of animal suffering, in addition to suggesting a course of action for the problem(s).

The contest is open to all eligible high school and home-schooled students, regardless of country of residence. For complete details, rules and regulations, visit www.hennet.org or call (650) 851-8140. 🐾

Effects of Increased Interaction between Research Rodents and Their Handlers

Does Touch Lower Anxiety Levels in Both, Producing More Conclusive Test Results?

At the University of Notre Dame we have a system in place that allows the principle investigators to utilize our trained laboratory animal technicians and registered veterinary technicians to perform routine animal procedures such as blood sampling. As such, staff is often called upon to take blood samples for a variety of experimental protocols. Mice and rats in these experiments are handled minimally by laboratory animal technicians, yet these are the people who take the blood samples.

Because it has been documented that handling rats is a stressor and that plasma glucocorticoid levels increase within 2-3 minutes of capturing an animal, we feared that the parameters measured during experiments, such as blood chemistries, heart rate, blood pressure, and drug or test component interactions, were being skewed by the stress associated with the handling of the animals. We were also concerned that anxiety caused by blood sampling

had a negative impact on the well-being of the animals. Our goal in this study was to show if an increase in human interaction would improve the quality of life for the rodents, because they would not experience high levels of anxiety during routine experimental procedures.

We chose two rodents most commonly used in our facility, the C57Bl/6 female mouse and the LOBUND-Wistar male rat. Studies have revealed that mammals develop social and adaptive skills during the adolescence period of development. In view of that, animals used were obtained from in-house breeding colonies and placed in the experimental groups at weaning age, 3 weeks of age for the mice and 4 weeks of age for the rats. Animals were taken from several litters and randomly placed in control and experimental groups. A total of 12 mice and 12 rats were used, six of each species for the experimental animals and six for controls.

Experimental animals were handled five times per week for three-minute periods (a total of 15 minutes a week excluding cage changing). Control animals were handled only during routine cage changes, biweekly for mice and once weekly for rats. At scheduled times throughout the day, handling was done by a trained undergraduate student and me, a registered veterinarian technician and laboratory animal technologist. Handling consisted of initially grasping the animal by the base of the tail to remove the animal from the cage. They were then held for three minutes in the handler's palm. Animals were petted and allowed to roam around on the handler's palm and arm. Observations were noted at the following times:

1. as we first entered the cubicle room (rats only as the mice were on a ventilated rack in an open room);
2. as we removed the cage from the rack;
3. as we removed the cage top from the cage;
4. as we reached into the cage; and
5. as the animals were being held.

Observations were noted as “no reaction,” “curious exploration,” or “random movements” for the first three time points. For time points four and five, observations were noted as “no reaction,” “curious exploration,” and “attempts to avoid or escape handler.”

Over the first four weeks, it was obvious that the rats were acclimating to the frequent handling. The animals approached the front of the cage as the top was removed. It was not necessary to remove the rats by the base of the tail as they would readily climb into the handlers' palms. During sample taking, these rats were easily restrained as they did not struggle. The control group did not anticipate the removal of the cage top nor did they climb into the hands of the handler. They were more difficult to restrain as they would not relax as those who had been handled did.

The experimental mice, though slower to acclimate to frequent handling, became much calmer over time. They would actively seek the handler as the cage top was removed and climb on the handler's palm without the need to grasp them by their tail. During restraint for blood sampling, they were easily scruffed and, like the rats, did not struggle while being restrained.

To quantify our observations, we measured corticosterone (the glucocorticoids present in mice and rats) at day one, day 28, day 63, and day 101. We also recorded body weights and pack cell volumes (PCV) for each animal on those days. Blood samples were taken by trained laboratory animal technicians with assistance from a student.

In a previous experiment, we took only one blood sample from each of the mice and rats to test the corticosterone levels and found no significant difference between control animals who were not handled and experimental animals who had been handled. It was concluded that because the bleeding procedure is done with minimal restraint, the time it took to obtain the sample was less than the time it takes for the activation of the hypothalamus/pituitary/adrenal axis (HPA axis). Without HPA activation, there would not be a spike in the corticosterone levels. However, we then hypothesized that the hormonal reaction would be a delayed response that would be detected with a second bleed 20 minutes after the initial bleed. For the rats this was accomplished by taking samples at T=0 and T=20. However, for the mice, the amount of blood required to analyze corticosterone levels at both time points would have resulted in too high a blood loss. Therefore, we used the data from the original experiment as our T=0 time point for the mice. To have a T=20 minute time point, we first did a sham bleed on the mice to simulate the bleed at the initial time point, T=0.



Laboratory technician Bridget Filipowski handles one of the rats in the study.

This was accomplished by handling the mice in the exact manner as if they would be bled: We restrained them, touched their cheek with the lancet and held a hematocrit tube to their cheek for 30 seconds. We then did the 20-minute response test by actually taking a sample at the 20-minute time interval.

Analysis of the results for rats was unexpected. All of the animals maintained their normal PCV level, gained weight at the same rate, and did not show a significant difference in the corticosterone levels at either time point. Analysis of the results for mice also showed that the control and experimental animals did not differ in weight gain or PCV levels. However, corticosterone response to blood collection was significantly lower in handled mice (mean = 588 ng/ml) than in not-handled mice (mean = 818 ng/ml). This indicates that the regularly handled mice had acclimated and no longer were stressed when they were handled by a person.

Although the experiment revealed a reduction of corticosterone response in mice only, it does not reduce the importance handling has on rats. Rats are always more easily handled during cage change than mice, and typically display more interest in and less fear of the care staff. Additional handling of the rats further reduces their anxieties during procedures which was evident in the reduction of struggling during restraint.

We conclude that handling experimental animals more often than only at the time their cage is changed is beneficial to both animals and technicians. Animals experience less anxiety and are more easily handled. This in turn makes the collection of samples less stressful for technical staff because animals are not struggling against restraint, nor are they trying to bite their handlers. 🐾

—Kay Stewart RVT, RLATG, CMAR, Associate Director
Freimann Life Science Center, University of Notre Dame

Illustration by Cameron Creinin



The Magic of Touch: Healing Effects of Animal Touch and Animal Presence

By Annie and Viktor Reinhardt

Animal Welfare Institute

ISBN: 978-0-938414-89-6

83 pages; One copy free to research institutions and health professionals; All Others: \$7

WHILE IMPLICATIONS OF TOUCH in interpersonal relationships among animals and humans has been debated for decades, Annie and Viktor Reinhardt's assiduous research into the subject makes a provocative, yet thoughtful case for its value in *The Magic of Touch*.



With four decades of combined work in ethological research and information gathering, and numerous books on improving lives for animals in research, the authors temper results of hard scientific data with personal wild and captive animal experience. The result of their findings, which includes contact among and between non-human animal species and humans, is a primer for improving mental and physical health and healing, and a

strategy for mediation and harmony in the 21st century. "Social animals," they maintain, "which include humans, are biologically adapted to transmit life-affirming energy to other individuals through touch and their mere presence."

In addition to scientific and personal observations, the Reinhardts substantiate their findings with photographs that document *The Magic of Touch* in its infinite variety. If there is any question about the sentience and interconnectedness of species, and their collective ability to transcend challenges through touch, this book has the answer, inspiring readers to practice and profit from *The Magic of Touch* in their own lives. 🐾

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.



AWI's Educational Brochures

WHILE THE LUCRATIVE AND ILLICIT bushmeat trade in Africa, South America and Asia—the sale of wild animal meat—continues to explode across borders, including into the U.S., the effect on species survival and the world's ecosystem mounts each year. Our "Bushmeat" brochure describes the intricacies, impact and repercussions of the bushmeat trade, including serious declines in wild mammal populations and the health risks to human facilitators that include Ebola, yellow fever and HIV.

AWI's "Humane Education" brochure provides an alternative to harming animals in the classroom—animals slated for "educational" purposes such as dissection and anatomy lessons. While only a handful of states currently have dissection choice laws in effect, most schools will accommodate students who request another option. Our brochure explains what some of these options are. Also included are details on how animals are prepared and sold by the biological supply industry. 🐾

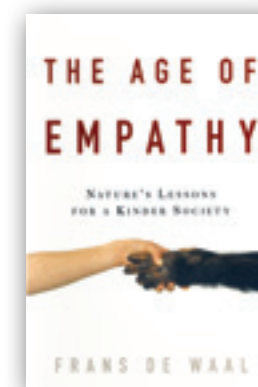
The Age of Empathy: Nature's Lessons for a Kinder Society

By Frans de Waal

Harmony Books

ISBN: 978-0-307-40776-4

291 pages; \$25.99



THE TOPIC OF EMPATHY is certainly timely given the conflicts of our modern world. In *The Age of Empathy*, Frans de Waal asks us to consider the role of empathy in political and social issues ranging from Hurricane Katrina to the global economic crisis. Conservative politicians and businessmen have sometimes used "survival of the fittest" arguments as a rationale for capitalist greed, but de Waal argues that our evolutionary history provides a basis for compassion rather than selfishness. Indeed, de Waal uses a mixture of scientific findings and anecdotes to provide fascinating evidence that empathy is deeply embedded in the evolutionary history of humans as well as many nonhuman animals. Numerous animals display emotional contagion, concern for others, and perspective-taking—the key components of empathy. Chimpanzees save the lives of other chimpanzees, capuchin monkeys share food with fellow monkeys, and elephants care for injured herd members.

As compelling as these examples are, any in-depth examination of a single aspect of human (or nonhuman) nature necessarily comes at the expense of ignoring other aspects of our shared nature. De Waal's discussion is thus heartwarming but limited in scope, revealing only the glowing side of our nature while largely ignoring the darker side. Although he acknowledges that greed and selfishness are part of our nature, de Waal asserts that empathy and compassion must balance them if we are to overcome the challenges facing society. He also focuses relatively little on the long-standing arguments of critics who don't accept the notion of empathy in nonhuman animals. This is unfortunate since we can really only understand the significance of studying empathy by fully placing it in proper context.

Despite these weaknesses, *The Age of Empathy* is an intriguing and worthwhile read. Rather than lulling us into a warm and fuzzy sense that we are inherently good, however, I hope this book inspires us through a heightened awareness of the empathy in others. Perhaps through this awareness, we will act with greater empathy and compassion toward the other beings with whom we share the planet. 🐾

—by Maureen S. McCarthy, M.S.
University of Southern California

Why Suffering Matters: Philosophy, Theology, and Practical Ethics

By Andrew Linzey

Oxford University Press

ISBN: 978-0195379778

224 pages; \$29.95

THE VERY TITLE OF ANDREW LINZEY'S book is likely to evoke an emotional response, but *Why Animal Suffering Matters* makes a rational, ethics-based case for treating animals humanely. With well-supported arguments, it debunks the twin ideas that emotion is all there is to support the proposition that animal suffering is wrong, and that there are "no rational grounds for objecting to our current treatment of animals."

The author juxtaposes "differences" and "morally relevant" differences, and examines those between animals and humans that humans use to justify exploiting animals. He doesn't deny that differences exist, but he demonstrates

that "the moral conclusions drawn from [them] are almost entirely mistaken....The differences so often regarded as the basis for discriminating against animals are... the grounds for discriminating in favour of them."

At the end of the book, Linzey summarizes his position trenchantly: "...the world would be a better... place if we worked on the assumption that the infliction of suffering on all sentient beings, both human and animal, should be regarded as morally unacceptable and proscribed by law. We need to reject the institutionalization of animal suffering." To his adherents, Linzey has provided the tools for making this case on moral, ethical and rational, rather than emotional, grounds. To his opponents—and society at large—he has given the opportunity to reconsider their treatment of animals and the rational basis for changing their behavior. 🐾





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Twentieth Anniversary of "The Bangkok Six" Smuggling Case

THE SIX INFANT ORANGUTANS, packed into small crates labeled "birds," were covered in vomit and feces. A Thai veterinarian who examined the baby primates said that they had been drugged, were starving, dehydrated from lack of water to drink and were suffering from otitis media, conjunctivitis, pneumonia, intestinal parasites, ringworm, anemia, and fear. They screamed whenever a human went near them. Two of the older ones appeared to have had some of their teeth removed, probably to prevent them biting. They had been in the crates about 24 hours and because



Dianne Taylor-Snow

Ollie, a tiny survivor of a group of infant orangutans, suffered a harrowing journey. He finds solace in the arms of a sanctuary worker.

there was no indication on the crates of the right side up, one crate had travelled upside down. All the animals in that crate later died.

This was an account from Leonie Vejjajiva, operator of a sanctuary in Thailand, regarding the illegal shipment of baby orangutans uncovered at the Don Muang Airport in Bangkok in February 1990. "The Bangkok Six," as the case became known, received international attention. Matthew Block, an importer and dealer in primates principally for the laboratory supply trade and then CEO of Worldwide Primates, Inc., was implicated for his involvement in the thwarted smuggling attempt. Thanks to the stalwart efforts of Dr. Shirley McGreal of the International Primate Protection League, Block was prosecuted. After pleading guilty to felony conspiracy to violate the Lacey Act and the Endangered Species Act, he was sentenced to 13 months in federal prison and fined \$30,000. While this wasn't Block's only run-in with the federal government related to his involvement in the primate trade, it certainly received the most attention.

Today, 20 years later, one has to wonder if people are aware of Block's sordid past or if they choose to ignore it. Because of his felony conviction, Block cannot be licensed as an importer by the U.S. Fish and Wildlife Service so the names of his mother and wife are used instead. Block is still the face of Worldwide Primates; he certainly appears to be the one most actively engaged in representing the company. We are unable to determine details of primate sales to non-governmental research facilities, but we do know that Worldwide Primates has been awarded government contracts—including more than \$2.4M from the Department of Defense since 2000. This past year alone, Worldwide Primates imported more than 1,000 primates. 🐾