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Cornell University
College of Veterinary Medicine

Wildlife Health Cornell **A College of Veterinary Medicine Center of Excellence**

Because we need nature, and nature needs us
Spring 2018

Addressing Wildlife Health in a Rapidly Changing World



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The *Wildlife Health Cornell* Center of Excellence represents an unprecedented approach to the health challenges wild animals face here in the northeast U.S. and around the world - a comprehensive, science-based response by a team of the world's top wildlife and ecosystem health experts. To keep you updated on the exciting things our team is doing around the world, we have recently launched [Wildlife Health Cornell: Blogs from the Field!](#)

Visit blogs.cornell.edu/wildlifehealth to hear first-hand from *Wildlife Health Cornell* scientists as they traverse the globe to promote environmental stewardship, build capacity for sustainable change, and undertake research focused on achieving real-world conservation outcomes.

- Follow our Wild Carnivore Health Specialist Dr. Martin Gilbert as he travels around the world on his quest to secure a future for wild carnivores.
- Learn how we are conducting disease surveillance and developing diagnostic tools to promote the health of wildlife populations in the northeastern U.S.
- Follow our work in promoting sectorally integrative land-use policy to ensure a sustainable future for the people and wildlife of southern Africa.
- And there are more exciting blog posts to come!

For more information on the work of the *Wildlife Health Cornell* Center of Excellence, please visit www.wildlifehealthcornell.org. As in the past, we hope you find this e-newsletter useful and thought-provoking. Please let us know!

- Steve Osofsky, DVM

Jay Hyman Professor of Wildlife Health & Health Policy



© Land of the Leopard National Park

Disease Threat to Critically Endangered Amur Leopard

In a [new paper](#), Wild Carnivore Health Specialist Dr. Martin Gilbert and colleagues describe the first documented case of canine distemper virus in a wild Amur leopard. With only 80 Amur leopards estimated to be left in the wild, infectious disease can have devastating consequences.

Five-Year Strategic Plan

Cornell University's College of Veterinary Medicine released its [2018-2022 Strategic Plan](#) under the theme, *Solving the World's Most Pressing Health Challenges*. We are extremely excited to announce that one of the core initiatives of focus is "Advances in Animal, Human, and Ecosystem Health," which includes the establishment of the *Wildlife Health Cornell* Center of Excellence.



An Inside Look at Hellbenders

Hellbenders are giant aquatic salamanders that inhabit streams in the eastern U.S., and help serve as an indicator of clean, healthy water. *Wildlife Health Cornell* scientists collaborated with award-winning nature videographer David



© Brian Gratwicke, CC BY 2.0

Brown to document the work we are doing to help their declining populations.

Plastic Pollution Killing Coral

Cornell scientists and partners have discovered that plastic trash in the world's oceans causes a frighteningly high (20-fold) increase in the chance of disease in coral. Healthy coral reefs are the foundation of biodiversity in the world's oceans, and this work is helping to drive anti-pollution policy.



Disease Threatens Wild Turkeys

Wildlife Health Cornell scientists and partners have found that Lymphoproliferative Disease Virus could be one of the causes of declining wild turkey populations in New York State.

Why We Need Planetary Health

In an interview with the Brazilian Society of Tropical Medicine, Cornell Planetary Health Scientist Dr. Montira Pongsiri discusses this new field - focused on addressing linkages between human-induced environmental change and public health.



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Poisoned Wild Raptors Saved

A bald eagle and northern harrier poisoned by lead and a rodenticide, respectively, are



expected to make full recoveries after receiving treatment from *Wildlife Health Cornell* veterinarians at the Swanson Wildlife Health Center.

Wildlife-Friendly Beef

Our work with southern African partners to reconcile decades of conflict between the livestock and wildlife sectors continues to progress. *Proceedings* are now available from the "Working towards a Win-Win Solution for Livestock Agriculture & Wildlife Conservation in Ngamiland, Botswana" forum held in partnership with the Government of Botswana.



© M. Atkinson

More in the News

[Going 'Wild': Cornell Veterinary Students Launch New WildLIFE Blog](#)

[One Health Day Puts Spotlight on Need for Environmental Resilience](#)

[Cornell, Community Partners Reflect on Engagement for the Greater Good](#)

[Could This Be Another Big Year for Northern "Invaders"?](#)

["Cattlyzing" Conservation in Southern Africa](#)



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Please consider supporting *Wildlife Health Cornell* by giving online, or contacting Sheila M. Reakes at 607-253-4310 or <smr45@cornell.edu>.

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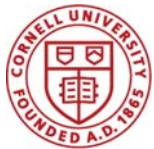
The *Wildlife Health Cornell* Center of Excellence envisions a healthy future for wildlife, people and planet. We strive to develop proactive, science-based approaches for sustaining a healthier world. By improving knowledge, understanding, and capacity at the interface of wildlife health, domestic animal health, and human health and livelihoods, environmental stewardship can be enhanced today, and for tomorrow.

To learn more about *Wildlife Health Cornell*, please contact
Dr. Steve Osofsky at s.osofsky@cornell.edu or visit our [website](#) .

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Cornell University College of Veterinary Medicine

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Wildlife Health Cornell

Wildlife Health Cornell, a College of Veterinary Medicine Center of Excellence, represents an unprecedented approach to the health challenges wild animals face here in the northeast U.S. and around the world – a comprehensive, science-based response by a team of the world's top wildlife health experts. With an emphasis on the types of interdisciplinary collaboration often required to foster real progress along the science to policy and action continuum, *Wildlife Health Cornell* has grown out of a palpable sense of genuine urgency regarding the fate of our planet's wildlife, an increasing understanding of our own dependence on the planet's natural systems, and the recognition that it will take a new generation of colleagues to halt and reverse the trends we face. Our team works around the world to develop a deeper understanding of the relationships between wildlife and human health, and the environment that supports us all.

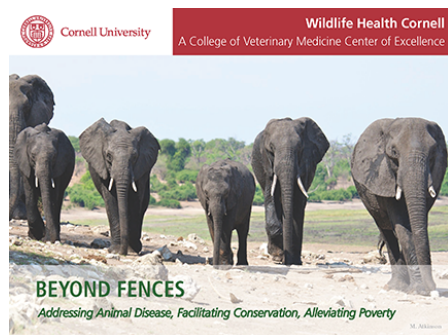
Vision: A healthy future for wildlife, people, and planet

Why: Because we need nature, and nature needs us

Mission: We strive to develop proactive, science-based approaches for sustaining a healthier world. By improving knowledge, understanding, and capacity at the interface of wildlife health, domestic animal health, and human health and livelihoods, environmental stewardship can be enhanced today, and for tomorrow.

Fact Sheets

Beyond Fences: Addressing Animal Disease, Facilitating Conservation, Alleviating Poverty



FINDING ROOM FOR BOTH WILDLIFE AND LIVESTOCK

In today's world of shrinking natural habitats and climate change, transboundary conservation is becoming ever more important to remaining wildlife populations. A transboundary conservation area centered around southern Africa's wildlife-rich Kruger and Zambesi river basins (called KAZA for short) spans an extensive series of parks and reserves, and is home to the largest remaining population of elephants in the world (approximately 250,000).

Southern Africa's economy benefits increasingly from tourists who travel from around the world to view elephants and other iconic wildlife within this vast area. But local wildlife has suffered devastating effects due to a major artificial feature of the landscape

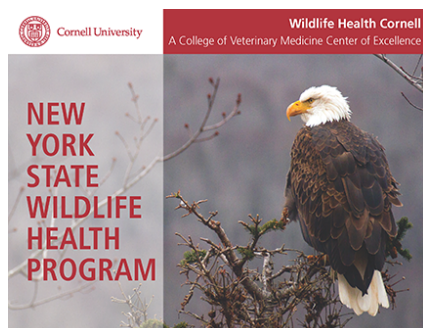
that has disrupted key migration paths and blocked access to seasonally important water and grazing.

IMPACT OF VETERINARY FENCING

Miles and miles of disease-control fencing were erected by governments starting in the late 1950s to separate domestic livestock and large wild mammals out of fear of the commercial ramifications for the beef trade of foot and mouth disease (FMD), a virus that wild African buffalo can carry.

These vast fences have disrupted the migration paths of species such as wildebeest and red hartebeest, resulting in steep declines. In the Kalahari system in western Botswana, wildebeest numbers plummeted from 315,000 to 16,000, and hartebeest from 293,000 to 45,000 in just over two decades.

New York State Wildlife Health Program



OUR GOAL

The New York State Cooperative Wildlife Health Program (WHP) is a partnership between the New York State Department of Environmental Conservation (NYDEC) and Cornell Wildlife Health Lab at the College of Veterinary Medicine's Animal Health Diagnostic Center. We work to safeguard the long-term health of New York State's wildlife populations by integrating the fields of veterinary medicine and disease ecology.

Our laboratories in Albany and Ithaca conduct routine surveillance and research, staff training and data analysis to support NYDEC's mission. We maintain strong relationships with partners in human and domestic animal health to address issues common to all under the One Health philosophy.

RESEARCH

Our research is broadly collaborative and driven by real-world needs. At any given time we may have more than a dozen active projects combining field and laboratory work with a diverse group of colleagues from around the country.

We are undertaking research on moose health in the Adirondacks region, geographic spread of bat rabies, white-tailed deer brain disease, lead poisoning in bald eagles, and chytrid fungus in eastern hellbender salamanders.

DISEASE PREVENTION AND RESPONSE

The WHP identifies emerging threats to wildlife, human, and domestic animal health, conducts

Planetary Health: Safeguarding Both Human Health and the Natural Systems that Underpin It



"Planetary health is the health of human civilization and the state of the natural systems on which it depends" – Report of The Rockefeller Foundation-Lancet Commission on Planetary Health

OUR LIFE SUPPORT SYSTEM: NATURE

By most metrics, human health is better today than at any time in human history. Over the past several decades, life expectancy has soared from 48 years in 1955 to 79 years in 2012. In 1995 there were 21 million deaths in children under the age of five; by 2007 that number was more than halved to 10 million. However, these advances have occurred in concert with a vast degradation of nature's ecological systems on a scale never seen in human history. This is what some have termed the *Environmental Paradox*.

The explanation of this paradox is straightforward and sobering: we have been mortgaging the health of future generations in order to realize economic and development gains in the present. By mining nature's resources at an unsustainable rate, global societies can flourish in the short term, but face significant health impacts from the degradation of nature's life support systems over the longer term.

OUR GROWING GLOBAL FOOTPRINT

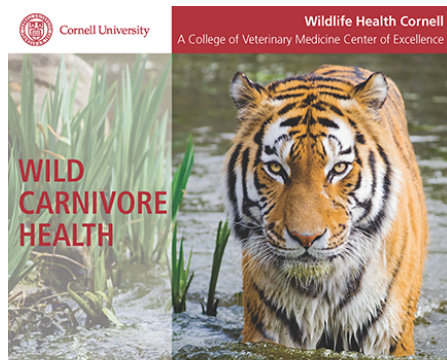
It's become undeniable that human activity is rapidly transforming Earth's natural systems. The global health impacts of accelerating climate disruption, land degradation, growing water scarcity, fisheries depletion, biodiversity loss, and pollution threaten the global health gains of the last several decades and are likely to represent the dominant global health threats of the next century. By altering the composition of the atmosphere, degrading arable lands faster than they can be replenished, overfishing, polluting, changing the chemistry and temperature of our oceans, withdrawing ground water faster than it can be recharged, and dramatically reducing the number and population sizes of species who co-inhabit the planet with us, we are putting the poor and future generations in harm's way.

The combination of exponential growth in the human population with rapid growth in per capita income has led to an extraordinary ballooning of humanity's ecological footprint, and the scale of anthropogenic change to Earth's natural systems is difficult to overstate. Most measures of human impact on ecological systems show similar patterns: a gradual rise in impact over the first part of the

Wild Carnivore Health

Shark Health: Conservation Genetics in Action

Rhino Health: Of Pachyderms and People



BIG CATS, WILD DOGS AT RISK

Placed at the top of global food webs, large carnivores include some of the most iconic and threatened mammals on Earth. With most species requiring vast spaces and plentiful prey, these predators represent the pinnacle of their respective ecosystems. Yet these requirements for space and food, coupled with their prowess as hunters, lead to competition and conflict with people. As wild carnivore populations become smaller and more fragmented, infectious diseases and other health threats are increasingly likely to tip that last domino toward extinction. The Wildlife Health Cornell program is committed to understanding the health threats facing wild carnivore populations, and to developing locally relevant interventions to address them.

DISEASE DYNAMICS

As carnivore populations decrease in size, losses of genetic variability combine with geographic isolation to reduce their capacity to resist outbreaks of infectious disease. Several pathogens, particularly rabies and canine distemper, can infect a wide range of hosts – including domestic dogs and cats as well as small wild carnivores, which help maintain such viruses in circulation as an ongoing threat to endangered wildlife. We are building deeper understanding of the processes and species involved in pathogen maintenance, and are developing innovative solutions such as targeted vaccination of key hosts to ensure the long-term survival of affected big cat and canid populations.



SHARKS IN DANGER

Sharks have inhabited our oceans since well before the dinosaurs. Despite this incredible example of evolutionary success, today we find many of the world's shark species in peril, with ~100 million sharks killed annually (many just for their fins) and with at least a third of the 465 species of sharks now vulnerable to extinction. Losing these top predators will have important consequences for ocean ecosystems.

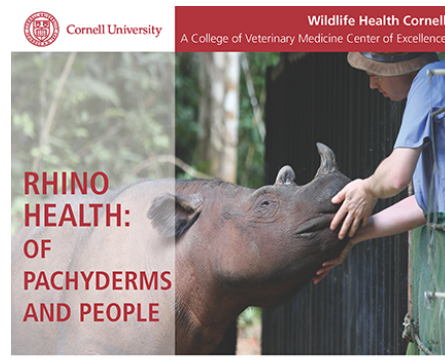
FACTORS IMPLICATED IN SHARK DECLINES

A major driver of global shark decline has been the fin trade, with additional pressure coming from the global trade in shark meat, which has increased steadily since 2000. The decline of large sharks in response to over-harvesting fishing pressure is linked to their low reproductive rates.

High exploitation rates, accelerating habitat loss and changing oceanographic conditions (including acidification related to climate change) have led to concerns about the trajectories of shark populations in general, and of the large sharks in particular, given their critically important role as top predators.

OUR GOALS AND THE ROLE OF GENETICS

Our work leverages modern genomic technologies, new analytical approaches in the field of population genomics, and our extensive collection of shark biopsy fin clips to provide a detailed picture of global shark population structure, diversity, and dynamics. We are gaining an unprecedented picture of historical population dynamics for a group of animals representing one of the planet's longest surviving vertebrate lineages, in the context of both a long history of climatic fluctuations as well as more recent changes brought about by over-fishing.



RHINOS IN PERIL

80 rhinoceroses are ancient beasts, having changed little in the past 30 million years. Some say they are at the end of their evolutionary time, but the world's five species remain remarkably adapted to life on earth – except for their vulnerability at the hand of man.

The highly endangered Sumatran rhino lives in the rainforests of Indonesia and Malaysia. With these forest rhinos numbering at approximately 100 individuals, they are threatened by logging, the oil palm industry and potentially from diseases spread by domestic livestock.

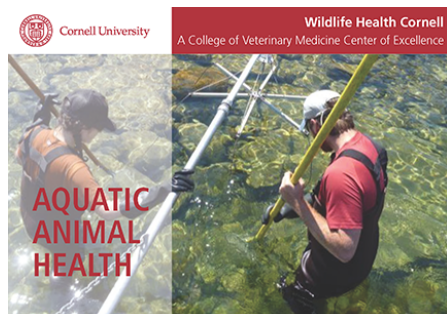
In Africa, rhinos are under intense poaching pressure. The best toxin to counter the current demand for horn is

intensive protection and, when needed, translocation of animals to areas that can be more effectively secured. At the same time, the demand for rhino horn in Asia must be curbed.

HANGING BY A THREAD

Given the significant poaching pressure in Africa, a team from Cornell is helping local wildlife veterinarians and managers develop new methods for rhino capture, anesthesia monitoring and translocation – all critical for

Aquatic Animal Health



VETERINARY TRAINING: PLANETARY IMPACT

For over 40 years we have trained Cornell DVM students in aquatic animal health, particularly as it relates to conservation. *AQUAVET*™ was the first course of its kind in the world focused on helping students to recognize that veterinary medicine has a huge role to play in the health of the oceans, other aquatic environments, and the planet itself. *AQUAVET*™ is available to veterinary students in North America and around the world.

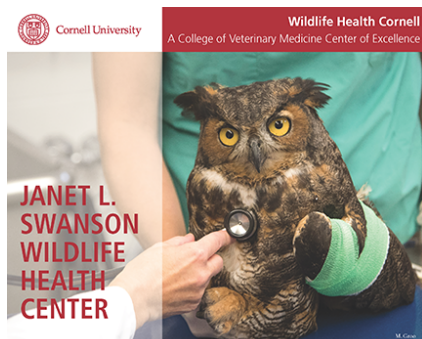
The *AQUAVET*™ program attracts forward thinking students and instructors, producing leaders in the field of aquatic animal medicine – breaching any presumed boundaries regarding what it means to be a veterinarian.

AQUATIC HEALTH SUPPORT

The Aquatic Animal Health Program (AAHP) focuses on the health of all aquatic animals, from invertebrates to marine mammals. Our scientists undertake research, perform diagnostics, teach students, and provide outreach to the public to improve and sustain aquatic ecosystem health – targeting economically and environmentally important issues in fish health in particular. The AAHP offers rapid response fish pathology services to the citizens of New York State (NYS) whenever unexplained fish mortalities or abnormalities are found in the wild.

New York State Department of Environmental Conservation (NYSDEC) biologists bring us live and deceased specimens for testing, and we provide services such as physical exams, tissue biopsies, bacterial isolates, viral culture, and histopathology. We strive to understand what starts and drives epidemics, with a focus on preventing future harm to our fisheries.

Janet L. Swanson Wildlife Health Center



A WILDLIFE HOSPITAL

The Janet L. Swanson Wildlife Health Center is a veterinary hospital dedicated solely to the treatment of ill or injured native wild animals. Based at Cornell University and affiliated with the Cornell University Hospital for Animals, the Swanson Wildlife Health Center serves wild patients that are often brought to us by concerned citizens who come across wild animals in distress.

We also work with a growing network of licensed New York State wildlife rehabilitators who help to rescue and rehabilitate native wildlife.

HEALING THE HELPLESS

Our patients arrive entangled in fishing line, weakened by environmental pollutants, battered by motor vehicles, disoriented from disease, or even injured by people's pets. From chickadees to cottontail rabbits, bobcats to bald eagles – we take them in and work to address the unique situation each patient finds itself in.

Without an owner to look after them, and with a natural instinct to flee or hide, wildlife patients are often critically ill by the time they are rescued and transported to us. While these patients often require intensive care and complex treatments, we work diligently toward a goal of release back into the wild.

Wildlife Health Cornell E-Newsletters

Summer 2018

Spring 2018

Fall 2017

Summer 2017: Introducing *Wildlife Health Cornell*!

To learn more about how the College of Veterinary Medicine is working to save wildlife around the world, subscribe to our new quarterly *Wildlife Health Cornell* e-newsletter [here](#).

For more information about *Wildlife Health Cornell*, please contact Dr. Steve Osofsky at s.osofsky@cornell.edu.

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Cornell University College of Veterinary Medicine

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Critically endangered Amur leopard faces new threat

🐾 Wednesday, January 17, 2018 - 8:51am



Amur leopards in eastern Russia are extremely rare, making threat from disease potentially devastating for the species. Image: An Amur leopard surveys the terrain. Photo courtesy of Land of the Leopard National Park.

A new paper in the *Journal of Wildlife Diseases* describes the first documented case of canine distemper virus in a wild Amur leopard after a two year-old female was found on the side of the road exhibiting severe neurological symptoms.

Amur leopards are critically endangered, with only 80 estimated left in the wild. Most of the population lives in the Land of the Leopard National Park in eastern Russia, where the two year-old female was originally found in 2015.

“As carnivore numbers decline, they face a greater risk from chance events like outbreaks of disease,” said Martin Gilbert, a [Wildlife Health Cornell](#) carnivore specialist at the Cornell University College of Veterinary Medicine and joint lead author on the new paper.

Canine distemper virus (CDV) is well known in domestic dogs. It infects the respiratory system and causes intestinal problems, and in some cases will progress to severe neurological issues like increased tactile sensitivity, convulsions and seizures. The fatality rate is high but varies depending on the species, and survivors often have painful lifelong side effects.

The leopard likely contracted the virus from domestic dogs or wild carnivores in the area, such as foxes or raccoon dogs, as there are too few leopards left to maintain the circulation of CDV themselves, write Gilbert and his co-authors. Infections are known to spread quickly among social species like lions, with an outbreak in 1994 linked to the death of over 1,000 lions in Serengeti National Park in Tanzania. Although the virus may spread more slowly between solitary species like leopards, [modeling has shown](#) that even low rates of transmission greatly increase the likelihood of extinction of the ecologically similar Amur tiger.

“With such a limited breeding population, even a small number of deaths from disease can be the difference between the survival of a population or extinction,” said Gilbert.

The Amur leopard already faces habitat loss and prey depletion. The paper suggests that currently the most effective way to combat CDV is to employ traditional conservation approaches like protecting their habitat, establishing additional populations elsewhere and reducing hunting of the big cats in general. In the future as Gilbert and his colleagues learn more about the ecology of CDV, they intend to address whether approaches like vaccination may also play a role.

Gilbert conducted this research with the Wildlife Conservation Society, which is based in the Bronx Zoo, and Land of the Leopard National Park. Land of the Leopard National Park is a 650,000-acre national park in Primorskii Krai, Russia that accounts for approximately 70 percent of the big cat’s natural habitat. The Amur tiger, lynx and leopard cat also live there.

The paper, “Canine distemper virus in a wild Far Eastern leopard (*Panthera pardus orientalis*),” [can be read in full online](#).

By Melanie Greaver Cordova

Martin Gilbert also conducts fieldwork with Wildlife Health Cornell aimed at conserving highly threatened populations of wild snow leopards. You can assist this research by helping fund a trip to Kyrgyzstan or Tajikistan. Using a One Health approach, Gilbert not only studies the snow leopards themselves but works to improve the health of the species upon which they depend.



Cornell University College of Veterinary Medicine

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Dean Warnick unveils new Strategic Plan at State of the College address

🐾 Wednesday, November 29, 2017 - 11:10am

Dr. Lorin D. Warnick, the Austin O. Hooey Dean of the College of Veterinary Medicine, unveiled the College's new strategic plan to the community in his annual State of the College address on November 29.

Developed with input from every corner of the College, the strategic plan represents the views and voices from faculty, students, staff, alumni and friends. Under the theme, *Solving the World's Most Pressing Health Challenges*, it charts a course for the next five years and focuses on six concepts:

- Education innovation and career readiness
- Business and entrepreneurship
- Transformative Research
- Advances in animal, human, and ecosystem health
- Health begins here (focusing on diversity, wellness and professional development)
- Strengthening our foundation (focusing on infrastructure and communication)

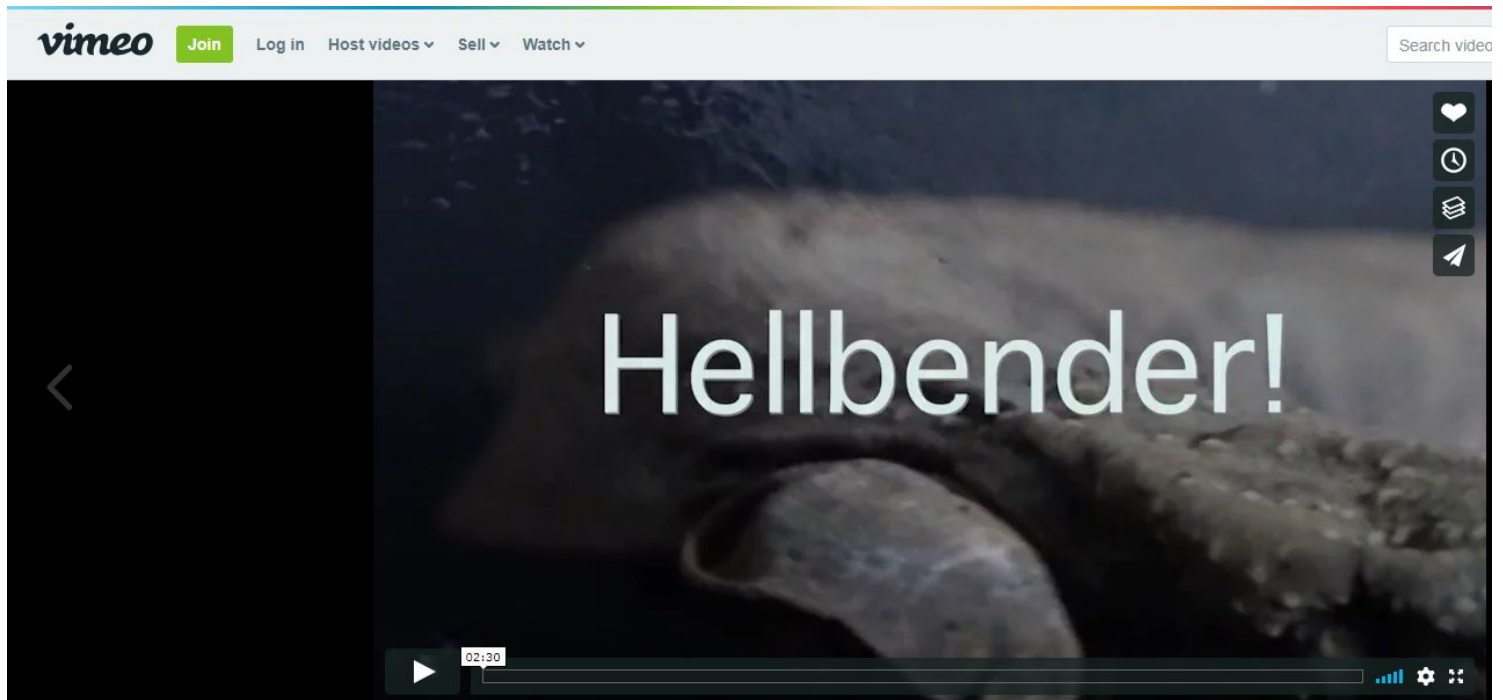
Warnick introduced the plan with a pertinent reminder: "Global and professional challenges require innovative, timely, and bold approaches to advance animal and human health, and to ensure a thriving veterinary medical profession. Our strategic plan offers such a vision."

This vision involves new approaches to education, including new models for structuring clinical rotations; a student competency dashboard; increased endowed scholarship funds, new internal faculty grant programs; and the establishment of the Cornell Center for Veterinary Entrepreneurship & Innovation.

It also focuses on focusing on 'Radical Collaboration' research in areas such as infection biology and genome biology; expanding the MPH program; and establishing Wildlife Health Cornell. The College states a commitment to ensuring that diversity, wellness and professional development are key priorities moving into the future.

[Read the rest of the new CVM Strategic Plan here.](#)





Hellbender!

5 months ago | More



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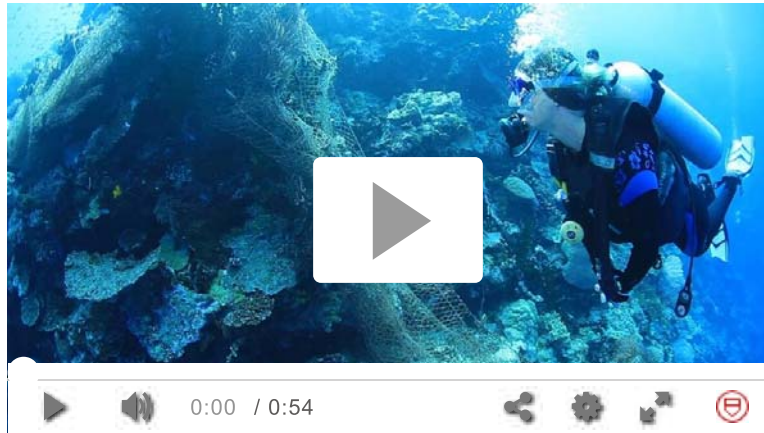
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CORNELL CHRONICLE



Cornell researchers are hoping their findings that plastic trash intensifies disease for coral will help drive public policy toward reducing pollution.

Oceanic plastic trash conveys disease to coral reefs

By Blaine Friedlander | January 25, 2018

For coral reefs, the threat of climate change and bleaching are bad enough. An international research group led by Cornell University has found that plastic trash – ubiquitous throughout the world’s oceans – intensifies disease for coral, adding to reef peril, according to a new study in the journal *Science*, Jan. 26.

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☎ (607) 793-5769 (tel:%28607%29793-5769)

“Plastic debris acts like a marine motor home for microbes,” said the study’s lead author, Joleah Lamb, a postdoctoral research fellow at Cornell. She began collecting this data as a doctoral candidate at James Cook University in Australia.

“Plastics make ideal vessels for colonizing microscopic organisms that could trigger disease if they come into contact with corals,” Lamb said. “Plastic items – commonly made of polypropylene, such as bottle caps and toothbrushes – have been shown to become heavily inhabited by bacteria. This is associated with the globally devastating group of coral diseases known as white syndromes.”



Kathryn Berry/James Cook University

An empty, plastic rice bag is nestled between corals.

When plastic debris meets coral, the authors say, the likelihood of disease increases from 4 to 89 percent – a 20-fold change. The scientists estimate that about 11.1 billion plastic items are entangled on reefs across the Asia-Pacific region, and that this will likely increase 40 percent over the next seven years.



Joleah Lamb/Provided

A thick blanket of plastic debris covers the beach in Sulawesi, Indonesia, near where scientists conducted inspections of coral.

Coral are tiny animals with living tissue that cling to and build upon one another to form “apartments,” or reefs. Bacterial pathogens ride aboard the plastics, disturbing delicate coral tissues and their microbiome.

“What’s troubling about coral disease is that once the coral tissue loss occurs, it’s not coming back,” said Lamb. “It’s like getting gangrene on your foot and there is nothing you can do to stop it from affecting your whole body.”

Lamb and colleagues surveyed 159 coral reefs from Indonesia, Australia, Myanmar and Thailand, visually examining nearly 125,000 reef-building corals for tissue loss and disease lesions. The number of plastic items varied widely, from 0.4 items per 100 square meters (about the size of a two-bedroom Manhattan flat) in Australia, to 25.6 items per 100 square meters in Indonesia. This is significant given that 4.8 million to 12.7 million metric tons of plastic waste are estimated to enter the ocean in a single year, Lamb said.

The scientists forecast that by 2025, plastic going into the marine environment will increase to roughly 15.7 billion plastic items on coral reefs, which could lead to skeletal eroding band disease, white syndromes and black band disease.

“Our work shows that plastic pollution is killing corals. Our goal is to focus less on measuring things dying and more on finding solutions,” said senior author Drew Harvell, professor of ecology and evolutionary biology. “While we can’t stop the huge impact of global warming on coral health in the short term, this new work should drive policy toward reducing plastic pollution.”



Yui Sato/Provided

Joleah Lamb surveys the coral at the Great Barrier Reef in Australia.

Coral reefs are productive habitats in the middle of nutrient-poor waters, Harvell said. Thanks to the symbiotic relationship between corals and their solar-powered algae, “this miracle of construction creates the foundation for the greatest biodiversity in our oceans,” she said. “Corals are creating a habitat for other species, and reefs are critical to fisheries.”

Said Lamb: “This study demonstrates that reductions in the amount of plastic waste entering the ocean will have direct benefits to coral reefs by reducing disease-associated mortality.”

RELATED STORIES



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(/stories/2017/02/underwater-seagrass-meadows-dial-back-polluted-seawater)

Co-authors of the paper, “Plastic Waste Associated with Disease on Coral Reefs

(<http://science.sciencemag.org/cgi/doi/10.1126/science.aar3320>),” include Evan Fiorenza ’17, now a graduate student at the University of Washington; Courtney Couch, Ph.D. ’13, now a postdoctoral researcher at the University of Hawaii, Manoa; Bette Willis and Lisa Kelly of James Cook University; Robert Howard and Douglas Rader at the Environmental Defense Fund; James True, Prince of Songkla University; Thailand; Awaludinnoer Ahmad, The Nature Conservancy; and Jamaluddin Jompa, Hasanuddin University, Indonesia.

Funding was provided by the National Science Foundation, the National Oceanic and Atmospheric Administration, The Nature Conservancy, the Environmental Defense Fund, the World Bank, the Australian Research Council and Cornell’s Atkinson Center for a Sustainable Future.

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Emerging disease threatens wild turkey populations

🐾 Friday, November 17, 2017 - 3:44pm



Turkey

Wild turkeys are a conservation success story in New York state. Due to overhunting and loss of forest habitat to small farms, turkeys disappeared for over 100 years until a small population wandered over the border from Pennsylvania into Western New York in the 1940s. Over the next decade the New York State Department of Environmental Conservation (NYSDEC) repopulated turkeys across the state through both captive breeding and relocation of birds from successful flocks. After recovering to a high of around 300,000 birds in 2001, the population has been progressively declining over the past ten years to only 160,000 birds. Thanks to research by Cornell University College of Veterinary Medicine, SUNY College of Environmental Science and the NYSDEC, we may now know one of the reasons why: Lymphoproliferative Disease Virus, or LPDV.

LPDV can cause tumors to form in the spleen and liver of infected young turkeys, and was first discovered in the United States in 2009 by a team of researchers at the University of Georgia. Realizing the dangers LPDV posed to New York's turkey population, The Cornell Wildlife Health Lab (CWHL) partnered with the NYSDEC to begin a wildlife disease surveillance.

NYSDEC biologist Joe Okoniewski, who specializes in examining wildlife for signs of diseases and toxins, devised an ingenious plan for finding out if New York turkeys were infected. Every year hunters submit the feet from their birds so that the state can collect information on harvest numbers, sex and age. He realized that the small amount of bone marrow remaining in these turkey legs could be tested for the virus. The CWHL partnered with the NYSDEC to collect turkey legs and shipped them to the University of Georgia for a rapid survey.



The group quickly realized that the virus was wide spread in New York, with every county testing positive. In addition, tests from other states concluded the virus had spread to 17 states. It was puzzling though, since newly introduced diseases don't typically spread so far so fast, and few birds were showing up sick with tumors. In fact, most of the infected birds appeared to be perfectly healthy. ([Molecular Surveillance for Lymphoproliferative Disease Virus in Wild Turkeys {*Meleagris gallopavo*} from the Eastern United States](#)).

Next the group teamed with Katrina Alger and Chris Whipps at the SUNY College of Environmental Science and Forestry, to study the ecology and possible origins of the virus. Alger examined over 2,500 wild turkey legs from healthy hunter submitted birds and found 81 percent of the adult female birds were infected with LPDV, and more than half of all wild turkeys tested in New York carried the virus. By comparing the similarities between the virus samples that she recovered and tracing bird movements from the old repopulation project, Alger also determined that it was likely humans moved the virus around undetected decades ago. ([RISK FACTORS FOR AND SPATIAL DISTRIBUTION OF LYMPHOPROLIFERATIVE DISEASE VIRUS \(LPDV\) IN WILD TURKEYS \(*MELEAGRIS GALLOPAVO*\) IN NEW YORK STATE, USA](#)).

Based on this cooperative approach, it doesn't seem that LPDV is in fact "new," highly lethal, or solely responsible for the recent declines in the turkey population. However, similar viruses in domestic chickens and turkeys can suppress the immune system and make birds vulnerable to other infections.

By Jennifer Peaslee



New medicine field could help handling endemic and emerging infectious diseases

Publicação: 7 de November de 2017

According to Dr Montira Pongsiri, Planetary Health is a new insight on our planet's health and could help preventing future threats



We may have mortgaged our future by reaching our current health and development levels

According to the article "[The need of a systems approach to planetary health](#)", published this October, Planetary Health was introduced to better understand and approach the ways human impacts affect the populations' health through their impacts on natural systems. Planetary Health offers new ways to: produce an useful evidence base that characterizes complex global environmental and human health relationships; conduct transdisciplinary research with end-users, creating the potential for solutions for transformative change.

To know more about the subject, the Brazilian Society of Tropical Medicine

communication team interviewed Dr. Montira Pongsiri, who served on The Rockefeller Foundation-*Lancet* Commission on Planetary Health. Dr. Montira is currently a Senior Research Associate at Cornell University, and she previously worked at the U.S. Environmental Protection Agency where she developed and led a research initiative on biodiversity and human health that studied the links between anthropogenic stressors, biodiversity changes and infectious diseases transmission.

BSMT: What is meant by planetary health and how different is it from global health and tropical medicine?

Dr. Montira Pongsiri: Simply put, planetary health is the health of human civilisation and the state of the natural systems on which it depends. Planetary health says that we must pay attention to the state of the natural systems upon which human health depends. Unless we dramatically change the way we currently live and impact our natural systems such as our oceans, rivers, forests, and climate, we risk the health of human civilization. We have exploited our natural systems to attain our health and development in the present. In short, we have mortgaged the future in attaining our health and development. While we have made measureable gains in health and development over the last 50 years – increase in life expectancy, significant decline in under age-5 mortality rates, dramatic decline in the percentage of the global population living in extreme poverty – we are experiencing unprecedented global environmental changes (dramatic increase in water and energy use, deforestation, extreme water shortages, climate change with rise in global greenhouse gases, loss of biodiversity) which threaten to reverse these gains and which threaten our prospects for sustainable development. Therefore, urgent, integrated, transformative actions and solutions are needed now to protect present and future generations. Planetary health focuses on increasing understanding of environmental change-human health relationships; and, mobilizing the evidence base on linked environmental change-health relationships to inform integrated policy solutions which address environmental sustainability together with human health and development.

SBPC 70 anos



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NEWSLETTER

The Rockefeller Foundation-Lancet [Commission on Planetary Health](#) assessed the scale of the risks to human health posed by multiple global environmental changes which we, humanity, are driving. The Commission made the case that we need to address global health and global health practice differently, in a way which integrates an understanding of how our underpinning Earth systems influence the broader determinants of health. Planetary health is different because it starts with the premise that our health depends on the state of natural systems. Importantly, there is agreement that global health can be improved and the course of sustainable development pursued in a positive way if the drivers and consequences of global environmental changes are understood, reflected in policy and planning, and responded to.

Planetary health provides a cohesive, coherent organizing framework for implementing the 2030 Agenda through an integrated approach to planning for achieving health, environment, and sustainable development goals together.

Planetary health presents the opportunity to take multisectoral, systems-based approaches to produce a useful evidence base characterising complex, global and local environmental change and human health linkages in context; and, through multisectoral partnerships, to apply evidence-based strategies to reduce, and perhaps even prevent risks to human health.

BSMT: How do the environmental impacts caused by man damage the health of the population?

Dr. Montira Pongsiri: Let me give you a few examples of the types of environmental change-health relationships which fall under the planetary health framework. This is not exhaustive. Some effects from global and local environmental changes directly affect human health. Climate change leads to extremes in temperature and higher temperatures which cause heat stress and other temperature related illness and death. People living in the Tropics will be especially at risk. By 2050, half of the world's population will reside in the tropics. Rising temperatures and humidity will make the world's tropics increasingly unliveable by pushing more people to the thresholds of their physical tolerance.

Some health effects from environmental change are ecosystem-mediated. For example, higher concentrations of atmospheric CO₂ can lead to significant reductions in the amount of zinc, iron and protein in grain crops like rice and wheat, which has important implications for nutritional security. Another example of an ecosystem mediated effect is the risk of vector-borne diseases like malaria. Forest loss and land cover change (e.g. road development) can lead to changes in the abundance, composition and/or distribution of disease-carrying mosquito vectors which can affect the risk of transmission of disease to people. Then, there are the indirect health effects from global environmental changes like coral reef destruction and urbanization processes which are more difficult to characterize and quantify, but which, over the long term, may be among the most important.

BSMT: We have experienced a series of epidemics, new diseases being discovered and others reemerging at a frightening speed. Can we say that they would be consequences of disorganized population growth, unbridled deforestation, climate change and even global economic development?

Dr. Montira Pongsiri: More than half of all recognized human pathogens are zoonotic, and almost all of the most important human pathogens are either zoonotic or originated as zoonoses before adapting to humans. The emergence of epidemics is related to food/agricultural systems, and they occur especially in areas where there is environmental disruption and where there is increased overlap between people and infectious agents. So, we need to consider the system in which disease emergence occurs – the drivers of change, their impacts, and feedback relationships. This means improving our understanding of how ecological factors as well as behavioral factors play a role in disease emergence. This kind of systems-based understanding can help us to address the upstream drivers of environmental change rather than just the health consequences.

BSMT: How could the creation of this new field of medicine “planetary health” contribute to avoid such impacts?

Dr. Montira Pongsiri: As mentioned, planetary health presents the opportunity to take a multisectoral, systems-based approach to 1) understand the complex interconnections between the condition of natural systems and human health and 2) to develop strategies to reduce and perhaps even prevent risks to human health – **by improving our stewardship of our natural systems**. This is a departure from traditional global health and medical practice. This is also the opportunity.

BSMT: How can the population help planetary health?

Dr. Montira Pongsiri: Actions are needed at multiple levels – by individuals, households, communities and governments – to address environmental changes affecting health and sustainable development. Community health workers and health care providers can play an

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Dr. Alberto Novaes



important role to increase awareness of critical environmental change-health relationships. Increasing awareness can help individuals and their communities reduce their health risks from changing environmental conditions.

BSMT: What is the role of doctors, researchers and journalists in the study and practice of planetary health?

Dr. Montira Pongsiri: We need integrated actions and solutions now. What's really exciting about planetary health is that it can enable us to work together differently – in the ways that we produce science, and in the ways we apply that science to improve decisions and policies on the ground. For researchers, this means that we should design research studies which start with a known policy need, then carry out that research with end-users like policymakers and health practitioners who can help accelerate the application of scientific understanding to solve problems. Journalists and teachers can improve understanding of the critical interconnections between global and local environmental changes and human health. Increased awareness can help reduce risks at individual and community levels. The key is working together in new ways based on the recognition that the environment and health are **should be addressed together**.

BSMT: Do we still have time to save Planet Earth?

Dr. Montira Pongsiri: We have agency, and there are solutions within reach. The Rockefeller Foundation-*Lancet* Commission report outlined just some of the solutions:

- Nearly 30% of all food produced is not eaten. Almost 30% of the world's total agricultural lands is used to produce food that is never eaten! We must reduce the exploitative use of our finite land resources, and we must reduce food waste.
- We can invest in ecosystem-based strategies to increase disaster resilience. For example, restoring wetlands, coral reefs, and mangroves can protect coastlines from the damaging effects of extreme events at much lower cost compared to engineered solutions. There are economic co-benefits to these investments as well.
- We cannot address planetary health without addressing our underlying resource use. There will be an estimated 10-12 billion people on earth by the end of the century. This growth will be accompanied by greater demands for resources. Increasing access to modern family planning can help reduce population growth. There are co-benefits of providing modern contraception such as reducing maternal mortality.
- We can move towards a more circular economy, where we reduce waste and increase recycling – essentially, this means using limited resources much more efficiently than we currently do.
- We need to account for health in development policy decisions so that it becomes standard practice to assess, monitor, and plan for likely health impacts of land use, planning and other policy decisions which affect natural systems.
- And finally, related to the governance challenge just described, we need to carefully consider taxes and subsidies so as to disincentivize practices related to adverse health impacts.

1 comentário

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Em nenhum momento defendi (e nem defendo) uma redução nos gastos com saúde. Meus colegas (ditos economistas ortodoxos), pelo que [...]

Atividades no dia 08 de Julho e no Congresso Nacional

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Está neste momento sendo discutida, em uma Comissão Especial da Câmara dos Deputados, a aprovação do Projeto de Lei Nº 6.299/2002, relacionado [...]

Internet app could help controlling diseases, says Dr. Clair J. Standley

We think this tool proves it is possible to have a user-friendly tool able to put the best scientific evidence in the hands of those who actually use information to enhance disease control



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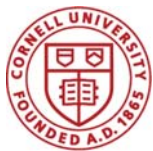
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Collateral damage: Manmade toxins threaten raptors

🐾 Friday, January 26, 2018 - 3:48pm



A juvenile bald eagle undergoes an exam at the Janet L. Swanson Wildlife Health Center after being found suffering from lead poisoning. Photo by the Cornell University College of Veterinary Medicine.

Two local raptors made unexpected recoveries this month after exposure to common and deadly manmade toxins—lead and rodenticide.

“These two cases represent extremely fortunate birds,” said Sara Childs-Sanford, chief of service at the [Janet L. Swanson Wildlife Health Center](#). “Many, many more die in the wild without anyone knowing.”

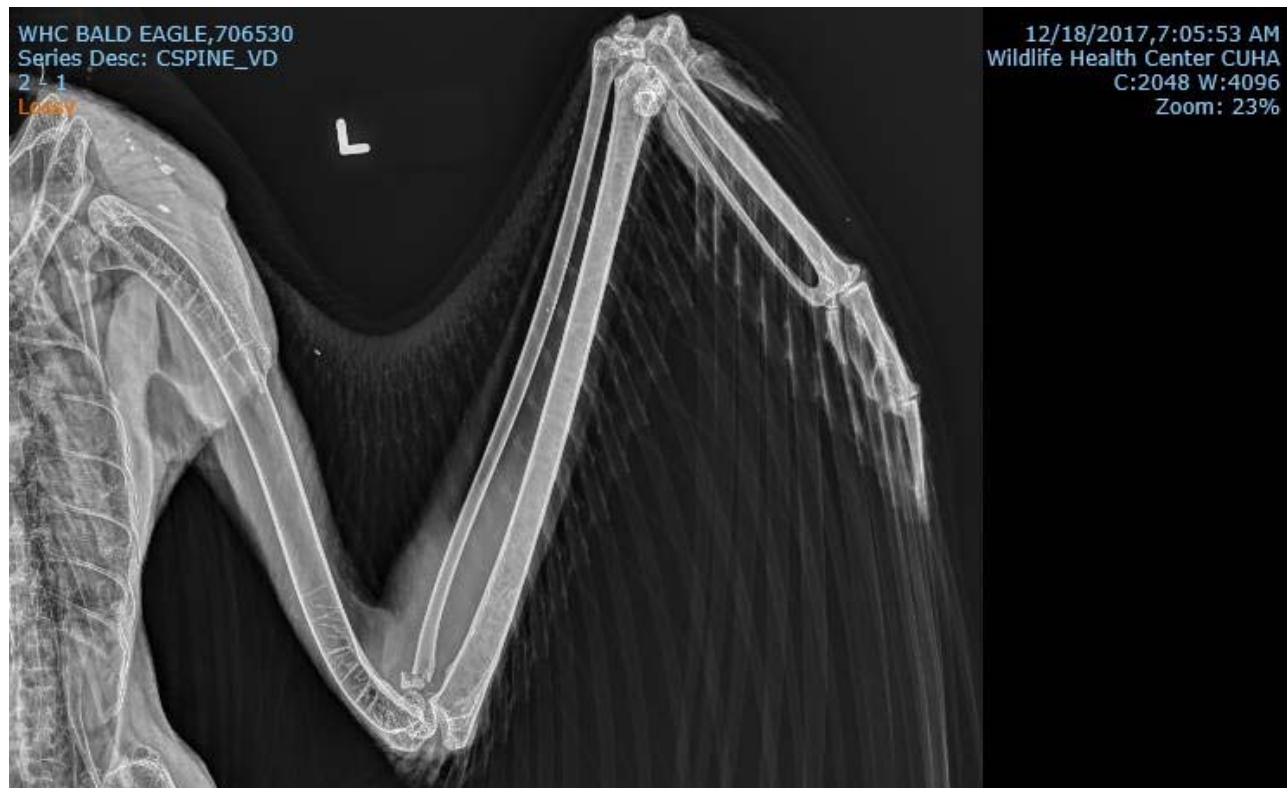
The patients, a bald eagle and a northern harrier, were found lethargic and unable to fly, each suffering from acute poisoning from different manmade contaminants that nearly cost them their lives.

Lethal lead

A DEC officer in Onondaga County noticed the sickened bald eagle on the side of the road and brought him to the Wildlife Health Center. There, doctors discovered he was suffering from high lead levels in addition to a wing fracture. Lead is toxic to both humans and animals. It disrupts healthy organ function and can cause seizures, comas, and even death.

The poisoned bald eagle most likely ingested lead by eating an animal shot with lead ammunition. Lead can affect a victim's mental state and movement, meaning it is possible that the eagle's wing fracture happened after his exposure. "Even normal activities such as catching food and navigating flights and landings can be compromised by lead toxicity," said Childs-Sanford.

In March of 2017, the federal government lifted a ban on the use of lead ammunition and fishing tackle on federal lands and waters in an effort to increase hunting, fishing, and other recreational opportunities in national parks. "Legislation regarding the use of these toxic substances by people has a major impact on the frequency and severity with which they affect wildlife," said Childs-Sanford. "This will certainly result in a surge in lead toxicity affecting the wildlife in these vast natural areas."



X-ray of the juvenile bald eagle's wing. Image courtesy of the Janet L. Swanson Wildlife Health Center.

Rodenticide's deadly reach

The adult northern harrier, also known as a marsh hawk, was found on the Syracuse University campus after a bystander saw a red-tailed hawk attack it. When it arrived at the Wildlife Health Center, doctors discovered a low red blood cell count and a poor ability to clot at the blood sampling site, leading to a diagnosis of anticoagulant rodenticide toxicity.

Northern harriers prey on small mammals, and the hawk likely caught one that had ingested rodenticide. In order for some rodenticides to be effective, pests must eat them over a period of time, increasing the number of poisoned prey for harriers.

“If we had not given him the antidote to the toxin in time, he definitely would have died,” said Childs-Sanford.



Northern harrier receives treatment at the Janet L. Swanson Wildlife Health Center. Photo by the Cornell University College of Veterinary Medicine.

Lucky survivors

The Cornell clinicians expect both the eagle and hawk to make complete recoveries. The hawk will finish his month-long antidote course with a licensed wildlife rehabilitator, who will then release him back into the wild. The Wildlife Health Center also discharged the eagle to a rehabilitator, where he'll stay until his wing fracture heals.

The DEC classifies both the bald eagle and northern harrier as threatened in New York state. While these birds might have a happy ending, most of the cases involving these toxins do not survive, such as [the bald eagle found in Washington, D.C. last year](#). The rapid diagnosis and immediate treatment made them part of a fortunate minority.

“We expect to continue to see a rise in the number of cases affected by toxins in the environment,” said Childs-Sanford, “and of the small number that are found, not all of them are fortunate enough make it to a wildlife hospital for diagnosis and treatment.”



Lateral xray of the northern harrier. Image courtesy of the Janet L. Swanson Wildlife Health Center.

By Melanie Greaver Cordova

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One Health"

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**Wildlife-Friendly Beef:
Working towards a Win-Win Solution for Livestock Agriculture
& Wildlife Conservation in Ngamiland****A DVS-hosted Workshop, in collaboration with AHEAD****Maun, Botswana, November 8-9, 2017**[Download Workshop Proceedings \(PDF\)](#)

In November 2017, Botswana's Department of Veterinary Services (DVS), in collaboration with Cornell University's AHEAD (Animal & Human Health for the Environment And Development) Programme, hosted the above-mentioned workshop. Additional support was provided by The Rockefeller Foundation and the Atkinson Center for a Sustainable Future.

Close to 80 participants attended the forum, including technical experts from both the wildlife and livestock sectors, farmers and farmers association representatives, and stakeholders from the private sector and civil society organisations based in Botswana and further afield. The aim of this inception workshop was to begin to evaluate what would be needed to implement commodity-based trade (CBT) of beef – a value chain-focused approach for producing beef that can be sold in regional and international markets. CBT, an approach largely compatible with wildlife conservation, offers real prospects for improved market access for small-scale cattle producers living in FMD-endemic zones such as Ngamiland, as well as a genuine opportunity to alleviate long-standing tensions at the livestock / wildlife interface.

Basis for the meeting:

In Botswana, wildlife conservation and livestock production are often in conflict due to the prevalence of animal diseases – especially foot and mouth disease (FMD) – that can be transmitted between wildlife and livestock. This situation restricts market access and constrains the success of livestock owners in Ngamiland who share the land with wildlife. In addition, attempts to meet international standards related to "freedom from disease" under currently applied policies for addressing FMD have had significant negative repercussions for free-ranging wildlife, largely related to disease control fencing.

Fortunately, new beef value chain-based approaches, known as commodity-based trade, have now been developed. Furthermore, in 2015 the international sanitary trade standards adopted by the OIE (World Organisation for Animal Health) were amended to remove certain restrictions on the trading of beef derived from areas where wildlife maintains FMD viruses. All of this provides a timely opportunity to rethink Ngamiland's approach to FMD management.



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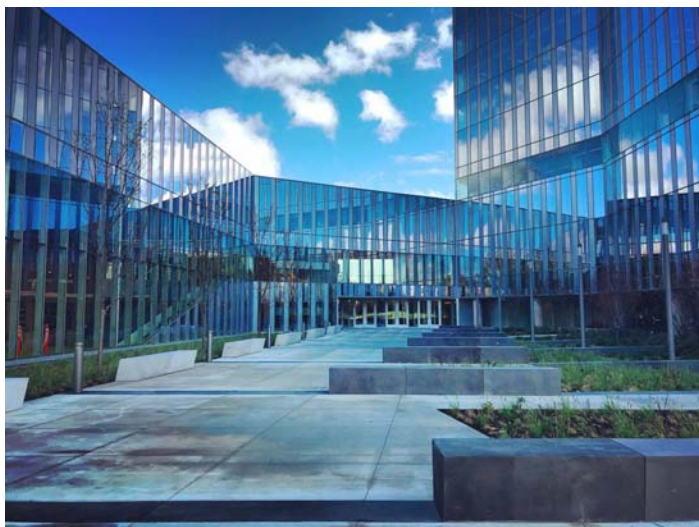
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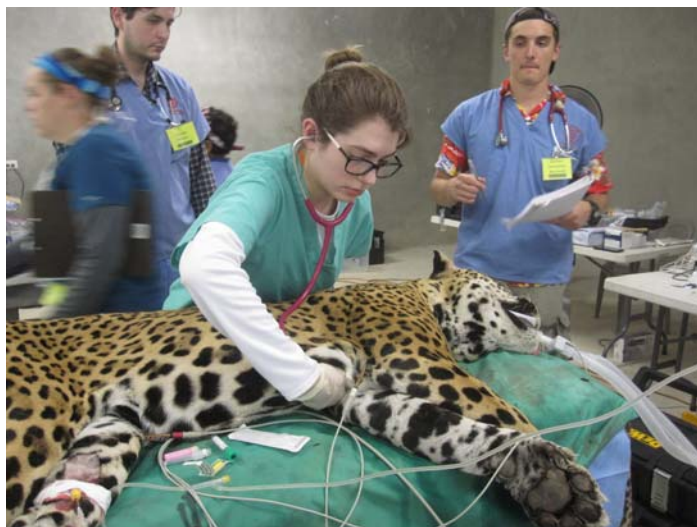


THE EMBRYONIC LIVES OF SPOTTED SALAMANDERS

At the end of March, large numbers of spotted salamanders had migrated to vernal pools in Ithaca. Since the migration, Jonathan Gorman (21') has been checking up on the salamanders and their offspring to watch their development. Keep reading to see photos and learn more. [CONTINUE READING](#)



Cornell trains leaders and innovators in the field of wildlife health. Read about the Doctor of Veterinary Medicine (DVM) Curriculum, the Janet L. Swanson



WildLIFE is a blog run by vet students at Cornell University College of Veterinary Medicine. Founded in 2017, WildLIFE aims to provide [Subscribe](#) current

Wildlife Health Center, Zoo and Wildlife related student organizations and events, grant-funded international travel, and many more opportunities for students to explore wildlife health.

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The staff at the [Janet L. Swanson Wildlife Health Center](#) are available 24/7 to discuss wildlife emergencies. Please call us at 607-253-3060 and follow the prompts to the Wildlife Center.

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Welcome to the WildLIFE blog!

WildLIFE is a new, student-run resource for prospective applicants and current veterinary students to share and learn about the amazing opportunities in zoo and wildlife medicine at Cornell University College of Veterinary Medicine. This field is wild!

We've compiled information about the DVM Curriculum and overviews of many of the zoo and wildlife opportunities at the College. Through Expanding Horizons, Engaged Cornell, AQUAVET, the NY State Diagnostic Lab, personalized research projects, and more, Cornell veterinary students are gaining experience across many different areas of zoological and wildlife medicine. This is your chance to read first-hand accounts written by current veterinary students about their amazing experiences! We also maintain an updated list of lectures, symposia, and other events happening on campus that might pique your interest.

Stay tuned on Wednesdays for regular posts of original content by our students! Click "Featured Posts" in the top menu bar to read all of our students' posts.

THE CHEETAH CHRONICLES: AN INTRODUCTION

BY [MCM358](#) [JUNE 20, 2018](#) [FEATURED, UNCATEGORIZED](#)

Rising third year veterinary student Elvina Yau is in Namibia, Africa conducting research on cheetah

THE EMBRYONIC LIVES OF SPOTTED SALAMANDERS

BY [JONATHAN](#) [JUNE 6, 2018](#) [FEATURED, UNCATEGORIZED](#)

nutrition. Over the next few weeks, she will be contributing a series of posts called The Cheetah Chronicles about her unforgettable experience! Check out Elvina's personal blog at Elvina The Explorer!

[CONTINUE READING](#)



At the end of March, large numbers of spotted salamanders had migrated to vernal pools in Ithaca. Since the migration, Jonathan Gorman (21') has been checking up on the salamanders and their offspring to watch their development. Keep reading to see photos and learn more.

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SEA TURTLES: AN OVERVIEW

BY MCM358 MAY 23, 2018 FEATURED, UNCATEGORIZED

Though sea turtles are not in our backyard here in Ithaca, NY, they are of concern when we venture to warmer weather during the brutal Northeast winters, as well as spring and summer breaks. Third year veterinary student Lauren Jacobs shares her knowledge on the 7 species of sea turtles, and how can we contribute to their conservation.

[CONTINUE READING](#)

SEA TURTLE CONSERVATION IN COSTA RICA

BY MCM358 MAY 9, 2018 FEATURED, UNCATEGORIZED

With one of the highest rates of biodiversity in the world, Costa Rica is a fascinating place to visit, especially if you are interested in wildlife. Get a glimpse of their sea turtle conservation project through veterinary student Victoria Albano's recount of her experience at Ostional's National Wildlife Refuge!

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LUNCH LECTURE: "WHAT CAN WE REALLY DO ABOUT EMERGING AMPHIBIAN DISEASES"

BY JONATHAN MAY 7, 2018 EVENTS

DINNER LECTURE: MYCOPLASMA GALLISEPTICUM IN THE WILD BIRDS OF NY

BY JONATHAN MAY 6, 2018 EVENTS



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DINNER LECTURE: AQUATIC PATHOLOGY

BY JONATHAN MAY 5, 2018 EVENTS

ZAWS & Pathology Club present:

AQUATIC PATHOLOGY:

Case Presentations with Dr. Rod Getchell,
Dr. Timothy Wu, and Dr. Esther Crouch

MONDAY MAY 7TH
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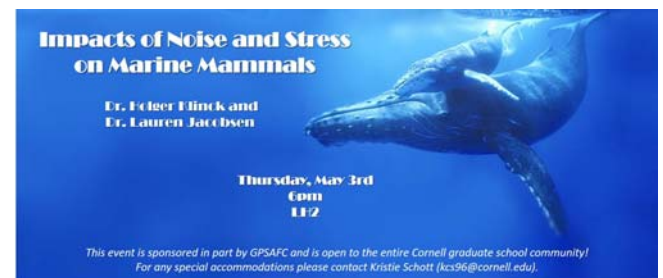


Sponsored by GPSAFC and open to the entire graduate community.
Contact kcs96@cornell.edu for accommodations needed to attend this event.

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DINNER LECTURE: "IMPACTS OF NOISE AND STRESS ON MARINE MAMMALS"

BY JONATHAN MAY 2, 2018 EVENTS



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SEMINAR: "CREATING AWARENESS AND SUPPORT AGAINST POACHING OF BLACK RHINOS AND OTHER WILDLIFE IN NAMIBIA"

BY JONATHAN APRIL 27, 2018 UNCATEGORIZED

LUNCH LECTURE: "SAVING SPECIES THROUGH SCIENCE: THE CASE OF THE AFRICAN PAINTED DOG"

BY JONATHAN APRIL 27, 2018 EVENTS



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 **Cornell University**
College of Veterinary Medicine

Baker Institute Seminar Series

Tuesday, May 1st, 2018
12:00 pm

Thaw Lecture Hall, Baker Institute
235 Hungerford Hill Road

“Saving species through science: the case of the African painted dog”

Jennifer Yordy
Graduate Student
Adam Boyko Lab
<http://www.k9dna.org/people/jdyordy>

Hosted by Dr. Scott Coonrod

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LUNCH AND DINNER LECTURES: TWO EVENTS WITH DR. JEFF WYATT

BY JONATHAN APRIL 26, 2018 EVENTS

SPOTTED SALAMANDER MIGRATION

BY MCM358 APRIL 25, 2018 FEATURED, UNCATEGORIZED

Veterinary student Jonah Marion helped fellow veterinary students experience first-hand the wonders of the spotted salamander migration. Learn about this phenomenon, and consider it for your next adventure!

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Being Relevant - A Challenge for The Association Zoos & Aquariums (AZA), Zoo Veterinarians and Students Considering a Zoo Career

Tuesday, May 1
Noon in Lecture Hall 4 (LH4)



ASSOCIATION
OF ZOOS &
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SAFE
SAVING ANIMALS
FROM EXTINCTION



Join Jeff Wyatt, an AZA Accreditation Commissioner and Seneca Park Zoo veterinarian, sharing his "Behind the Scenes" perspective for veterinary and conservation biology students interested in pursuing a career at a zoo or an aquarium.

Contact Mary Nasr mn549@cornell.edu with questions.

TRANSFORMING HEALTH AND PROTECTING THE ENVIRONMENT IN BORNEO

Improving Loggers' Lives,
Saving the Rainforest and Orangutans

Tuesday, May 1
5:00 pm in Lecture Hall (LH4)



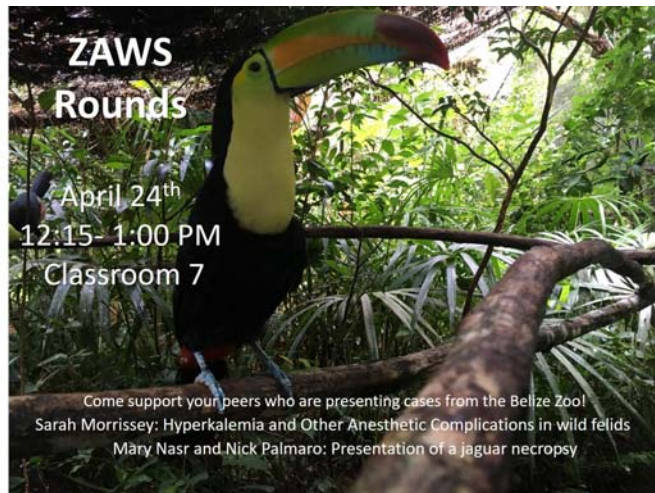
Join Jeff Wyatt, a University of Rochester and Seneca Park Zoo veterinarian, sharing an integrated ONE HEALTH - planetary health success story improving public and goat herd health, reversing poverty, and saving 3,000 orangutans in Borneo's Gunung Palung rainforest.

Contact Mary Nasr mn549@cornell.edu with questions.

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LUNCH PRESENTATION: ZAWS ROUNDS

BY JONATHAN APRIL 23, 2018 EVENTS



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UPDATE: MEGAVERTEBRATE ANESTHESIA LECTURE CANCELLED

BY JONATHAN APRIL 18, 2018 EVENTS

LECTURE CANCELLED

DINNER LECTURE: REPRODUCTIVE AGING IN FEMALE CHEETAHS AND NAKED MOLE RATS

BY JONATHAN APRIL 12, 2018 EVENTS



[CONTINUE READING](#)

MY SUMMER WITH THE WILDLIFE HEALTH PROGRAM

BY MN549 APRIL 11, 2018 FEATURED

Go on an adventure in our own backyard here in New York State as Bryan Clifford describes the many projects that he assisted in while working with the NYS Wildlife Health Program. From working with hellbender salamanders, white tailed deer fawns and timber rattlesnakes in the field, to conducting necropsies at the Animal Health Diagnostic Center, Bryan describes how he learned that being a wildlife veterinarian doesn't just involve field work and hands-on animal experience, but also relies on research, surveillance, and field biologists.

[CONTINUE READING](#)

DINNER LECTURE AND LAB: TURTLE SHELL REPAIR

BY JONATHAN APRIL 9, 2018 EVENTS, UNCATEGORIZED

DINNER LECTURE: "LET'S DRINK TO CONSERVATION — HOW COFFEE CAN HELP PEOPLE AND THE PLANET"

BY JONATHAN APRIL 8, 2018 EVENTS



CONTINUE READING

What: Tropical Biology and Conservation will host Dr. Amanda Rodewald, the Director of Conservation Science at the Cornell Lab of Ornithology and Garvin Professor in Natural Resources who has worked extensively with bird and biodiversity conservation in Latin American agroecosystems.

Pizza and beverages provided from 5:00-5:15 PM, the talk begins at 5:15 PM and a discussion follows.

When: April 11, 5pm

Where: Emerson Hall, room 135

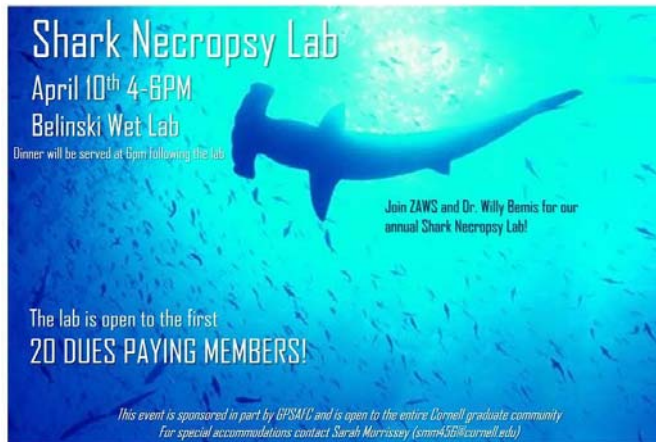
CONTINUE READING

EVENT: SHARK NECROSCOPY LAB

BY JONATHAN

APRIL 4, 2018

EVENTS



What: ZAWS will host their Shark Necropsy Lab, led by Dr. Willy Bemis, Professor of Ecology and Evolutionary Biology here at Cornell. Dr. Bemis studies the anatomy, development, and evolutionary relationships of fossil and living fishes including sharks, lungfishes, coelacanths, bowfins, sturgeons and paddlefishes. This lab is only open to 20 DUES PAYING MEMBERS.

When: April 10th, 4-6 pm

Where: Belinski Wet Lab

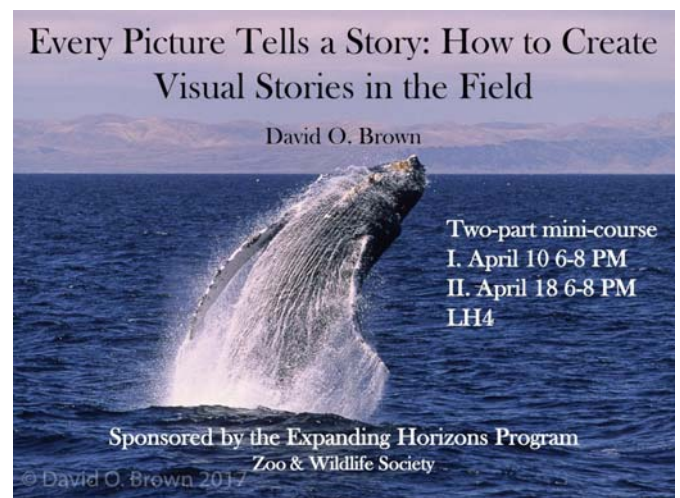
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EVENT: “EVERY PICTURE TELLS A STORY: HOW TO CREATE VISUAL STORIES IN THE FIELD”

BY JONATHAN

APRIL 4, 2018

EVENTS



What: ZAWS be hosting David Brown, an award-winning cinematographer, to teach a course in wildlife photography/cinematography and visual storytelling, including its importance in wildlife conservation. The course will be taught in two 2-hour sessions. To get the most out of the course you should attend both lectures, but if you can only attend one that is okay.

When: April 10th and April 18th, 6-8pm

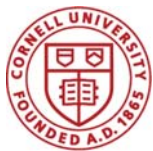
Where: Lecture Hall Floor, the vet school

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Cornell University College of Veterinary Medicine

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One Health Day puts spotlight on need for environmental resilience

🐾 Friday, November 3, 2017 - 10:14am



In honor of [International One Health Day](#), two Cornell University College of Veterinary Medicine experts explain why there needs to be greater global effort to halt climate change, reduce toxins, and stop the irrevocable loss of the biodiversity.

Alexander Travis is the associate dean for international programs and public health at the Cornell University College of Veterinary Medicine. He says only focusing on a short-term perspective will hurt our own health, and the health of future generations.

Bio: <https://www2.vet.cornell.edu/research/faculty/alexander-j-travis-vmd-phd>



Travis says:

“For any person who cares about their own health, or the health of their children, they must start caring about halting and reversing climate change, reducing the toxins we pump into the environment, and stopping the irrevocable loss of the biodiversity that sustains us. We cannot continue to blithely look for short term economic or health gains and think that we will not ultimately pay with our own health, or that of those we hold dear.

“One Health is the paradigm that highlights the connections between humans, animals and the environment. Planetary Health goes a step further and considers the economic, demographic, social and political drivers of change to these relationships, as well as the feedback from these changes on human health.”



Gen Meredith is an expert in public health intervention planning and health assessment, and the associate director of the [Cornell University Master of Public Health](#) program. She says public health is poised to help restore balance.

Bio: <https://www2.vet.cornell.edu/research-departments/faculty/gen-meredith-otr-mph>

Meredith says:

“As the global population grows and human innovations abound, the world becomes a smaller yet more complex place. Nowhere is free of health-related ailments that are driven by multiple factors that include people and animals, and

how we are interacting with or are affected by the environment. Within the past year alone, concern about transboundary infectious disease outbreaks, food safety and security, and the impact of climate change on health has been omnipresent in the news.

“The field of public health seeks to mitigate the ill-effects of globalization through interventions tailored to the specific challenges. Notable public health interventions may focus on diagnostic and screening tools, vaccination practices, and water quality standards, among many others. As a whole, public health speaks to a collective commitment to disease prevention, health promotion and the preservation of life within healthy communities and takes a systems-perspective to consider and address the factors that influence these outcomes.”

CORNELL CHRONICLE



From left, Randi Lynn Quackenbush of the Food Bank of the Southern Tier; Gen Meredith of the College of Veterinary Medicine; David Pelletier, professor of nutritional sciences and Cornell in Washington program director; Justin Lee '15; Dr. Monika Safford, M.D. '86, of Weill Cornell Medicine; Dr. Michael Berlin of Cayuga Medical Center, and Provost Michael Kotlikoff.

Cornell, community partners reflect on engagement for the greater good

By Daniel Aloï | October 23, 2017

Provost Michael Kotlikoff led a panel of faculty and community partners Oct. 20 to discuss collaborative work and community efforts that engage students in addressing local and global public health challenges, including issues of food insecurity and health equity.

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Dr. Monika Safford, M.D. '86, the John J. Kuiper Professor of Medicine at Weill Cornell Medicine, discussed lessons learned from working with communities, relating them to the mission of the new Cornell Center for Health Equity, which “at its fundamental core is a community partnership,” she said.

As a diabetes researcher at the University of Alabama, Birmingham, she worked with communities in impoverished areas of the state that had stated a need for diabetes programs. Hearing the concerns of diabetes patients led to trials addressing related health issues: pain management and high blood pressure.



Jason Koski/University Photography

Gen Meredith speaks during the panel discussion.

“The first important lesson is to listen to the communities about what their priorities are,” she said. “Another lesson is: Use what’s there. Rather than coming in and telling people what you think the solution is ... look around at existing partnerships on which you can build.”

With that, she introduced Dr. Michael Berlin, a residency program director at Cayuga Medical Center (CMC) in Ithaca, “which has been a really important teaching site for our medical students,” she said. “It’s oversubscribed; we actually have to turn a lot of students away because they love the experience so much.”

CMC proposed a rural health residency program last summer. “There’s a tremendous shortage in rural areas of primary care physicians so they came to us” and Weill Cornell Medicine was glad to help, she said.

“Our interaction with the community is really embedded in our mission,” Berlin said, “to provide the highest quality health care in partnership with the community. Cayuga has partnered with Cornell for many years, and we view ourselves as an extension of the classroom in that role.”

Gen Meredith, who helps lead Cornell’s Master of Public Health (MPH) program, is a lecturer in population medicine and diagnostic sciences at the College of Veterinary Medicine. She said public health depends on the intersection of environmental, human and animal health and is undercut by issues of equity and sustainability, which the MPH program is working to address.

“We know that the best public health happens at the confluence of research, community engagement and the collective innovation that can happen,” she said. “We’re recognizing the absolute depth and breadth of public health across Cornell University, in research, in teaching and also in public engagement.” The MPH initiative supports “transdisciplinary teaching, engagement and research, hopefully to impart some real impact,” she said.

Randi Lynn Quackenbush, advocacy and education manager of the Food Bank of the Southern Tier, a longtime Cornell partner, said 14 percent of Tompkins County residents “may not know where their next meal is coming from.” Working with its partners, the agency’s efforts to combat food insecurity across six counties include addressing the social determinants of hunger, helping reduce food-related chronic diseases, providing weekend food backpacks for kids and building community advocacy to lead policy change. The food bank and the MPH program are looking to provide transformative learning experiences for students working hand in hand with the community.

David Pelletier, professor of nutritional sciences and director of the Cornell in Washington (CIW) program, said engagement is an important part of the global health minor available to all students, with core courses “and most importantly, spending eight weeks in a low-income setting ... and interning with an organization there. Then the students come back after that experience and take a capstone course which I teach, which helps them to integrate what they’ve seen and experienced in the field with the academic knowledge they’ve acquired previously.”

About 500 students have taken the minor in its first 10 years. To deepen training for careers in public health, a major in global and public health sciences was started four years ago, he said, incorporating partnerships with Cornell Health’s Skorton Center for Health Initiatives, Cornell Cooperative Extension of Tompkins County and Cornell in Washington to help provide internships.

“Several organizations have hosted Cornell students over the years,” he said, including partners in Zambia, Tanzania, India and the Dominican Republic.

He introduced CIW alumnus Justin Lee '15, “who now is one of our partners in D.C.,” Pelletier said.

A research assistant for the Bipartisan Policy Center’s legislative affairs unit, Lee said: “What I do every day in Washington can be traced directly to my experience as a CIW student back in the fall of 2013,” interning with the White House Office of Legislative Affairs. “The experience allowed me to take what I’d learned in a classroom at Cornell and take that to a setting where people were working on these solutions every day. It’s really important to say my experience at CIW was not unique.”

After an audience member commented on how engagement work engenders enthusiasm in students, Kotlikoff said: “I personally think this is Cornell’s secret sauce – from the very beginning. It was Andrew Dickson White and Ezra Cornell – it was an individual that was interested in knowledge and the highest level of academic achievement, and an individual who essentially said ... we need to utilize that information in a way that helps society. And that’s what has led to the breadth of Cornell, which you don’t see in any other Ivy League institution. This combination of absolute excellence and a commitment to impact is what really makes Cornell what Cornell is.”

The panel, “Community Engagement: Collaborative Partnerships Addressing Complex Social Issues,” was a Trustee-Council Annual Meeting event.

STORY CONTACTS

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Could this be another big year for northern “invaders”?

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Jennifer Peaslee

January 19, 2018



By Russ - snowy owl on wing, Cupsogue beach, CC BY 2.0, via Wikimedia Commons

Irruption – nope, it’s not a misspelling or a made up word. The definition of an irruption of a natural population is to undergo a sudden upsurge in numbers especially when natural ecological balances and checks are disturbed (*Merriam-Webster.com*). Lemmings are one of the most well-known examples, with an every 4-year boom and bust cycle. In New York, we’re looking to see if this may be another year of epic “invaders” from the north – but of the Snowy Owls that prefer to snack on lemmings, not the lemmings themselves.



(C)2008, Bert De Tilly, tous droits réservés By Bert de Tilly (Own work) [CC BY-SA 3.0, via Wikimedia Commons]

CWHL (<https://cwhl.ahdc.vet.cornell.edu>) receives samples for diagnostic testing and disease surveillance in NYS year round, averaging 1500 per year. Of these annual cases, approximately 1080 are birds, and usually 3-5 are Snowy Owls. In the winter of 2013-14, the number jumped to 24 Snowy Owl submissions, an increase of about 500%, which coincided with the largest Snowy Owl irruption in almost 100 years. So far this year, the CWHL has examined 10 Snowy Owls, so it remains to be seen if this will be another big winter for our visitors from Canada.



In 2013-15 CWHL worked with [Project SNOWstorm](https://www.projectsnowstorm.org/) (<https://www.projectsnowstorm.org/>) to examine birds that came into New York, collecting samples and looking for causes of death or injury. Project SNOWstorm also uses state-of-the-art science and technology to track Snowy Owl movements and monitor bird health. The GPS tracking and data sharing efforts cross state and country borders from far northern Canadian territories down the east

coast of the US and into the Midwest. Owls are fitted with solar powered transmitters and can be followed online! Get to know them [here](https://www.projectsnowstorm.org/) (<https://www.projectsnowstorm.org/>).



During 2014 and again in 2016, we confirmed 2 Snowy Owl deaths from pigeon [herpesvirus \(/terms#Herpesvirus\)](#), which was likely transmitted from a pigeon meal. Our lab at the [Animal Health Diagnostic Center \(https://ahdc.vet.cornell.edu\)](https://ahdc.vet.cornell.edu) has worked with our virologists to develop a DNA based test for the virus, making it a useful diagnostic tool when testing raptors for the disease. (If you have a case you would like tested, please contact the CWHL for questions about submitting samples).

Also at Cornell, Snowy Owls can get treatment for injuries or illness at our [Janet L. Swanson Wildlife Health Center \(http://www.vet.cornell.edu/hospital/Services/wildlife/\)](http://www.vet.cornell.edu/hospital/Services/wildlife/), and anyone can report a Snowy Owl sighting (or find one) on the Laboratory of Ornithology's [eBird \(http://ebird.org/content/ebird/\)](http://ebird.org/content/ebird/) website.



Injured Snowy Owl being examined by Dr. Sara Childs-Sanford with help from veterinary technician Alice VanDeMark at the Janet L. Swanson Wildlife Health Center January 2018

Want to know more about Snowy Owls, the heaviest North American owl? You can find information about their life history and habits, listen to a recording and learn to identify them on the Lab of Ornithology's [All About Birds](https://www.allaboutbirds.org/guide/Snowy_Owl/lifehistory) (https://www.allaboutbirds.org/guide/Snowy_Owl/lifehistory) website.



Links

[Snowy Owl Rides on a Small Ice Floe](https://www.youtube.com/watch?v=bpojDpZ4m7Y) (<https://www.youtube.com/watch?v=bpojDpZ4m7Y>)

WHAT WE DO

ABOUT THE CWHL (/CORNELL-WILDLIFE-HEALTH-LAB)


WILDLIFE HEALTH PROGRAM (/RESOURCE/NYSWHP-PROGRAM-OVERVIEW)


NEWS (/NEWS)

RESEARCH (/RESEARCH)

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MORE WILDLIFE HEALTH AT CORNELL

Wildlife Health Cornell Center of Excellence (<https://www2.vet.cornell.edu/departments/centers/wildlife-health-cornell>)

Wildlife Health Cornell Blog (<https://blogs.cornell.edu/wildlifehealth/>)

Janet L. Swanson Wildlife Health Center (<https://www2.vet.cornell.edu/hospitals/janet-l-swanson-wildlife-health-center>)

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A healthy future for wildlife, people, and planet

BEYOND FENCES

Post by Erin Nicklow courtesy of Science@CornellVet



Buffalo, Chobe National Park, Botswana – © M. Atkinson

For generations, international trade practices have dictated that rural southern Africans cannot protect nearby wildlife and, at the same time, farm cattle because of animal disease concerns. If they wanted to export their beef, their choices have been stark: either get rid of wildlife like buffalo, or put up environmentally damaging veterinary cordon fences. These fences cut-off migratory pathways that wildlife depend on to access grazing and fresh water during different parts of the year. [...continue reading →](#)

Posted in Beyond Fences and tagged Africa, African cattle, AHEAD, Atkinson Center for a Sustainable Future, Botswana, elephants, Kavango Zambezi Transfrontier Conservation Area, KAZA, Steve Osofsky, Wildlife Health Cornell on December 13, 2017 [<https://blogs.cornell.edu/wildlifehealth/2017/12/13/wildlife-friendly-beef-cattlyzing-conservation-in-southern-africa/>] by admin.

Hosted by [CampusPress](#)