

Pre-Symposium Courses and Events

Monday, December 1

Mayflower 1 (Lower Level)		Mayflower 2 (Lower Level)	
8:30-5:30 (one hour lunch)	<i>Basic Wildlife Rehabilitation</i> * (Day 1) Karen Bailey	8:00-1:00	<i>Zoonoses</i> Alicia Pruitt
		1:00-2:00	Lunch
		2:00-6:00	<i>Rabies Vector Species</i> ** Barbara Ray

Tuesday, December 2

Mayflower 1 (Lower Level)		Mayflower 2 (Lower Level)	
8:30-5:30 (one hour lunch)	<i>Basic Wildlife Rehabilitation</i> * (Day 2) Karen Bailey	8:30-5:30 (one hour lunch)	<i>Pain and Wound Management</i> Renee Schott

Wednesday, December 3

Street Level, 5th Street Lobby Entrance	
Ohio Wildlife Rehabilitation Field Trip Meet at 9:00AM Return approximately 5:00PM Lunch included	Cincinnati Zoo Field Trip Meet at 9:00AM Return approximately 5:00PM Lunch included
6:00PM - 9:00PM Continental Ballroom (Mezzanine Level) Join the FUN! <i>Welcome Reception Music and Pub Trivia Light Hors d'Oeuvres, Cash Bar Registration with "Build a Badge" and Meet & Greet</i>	

*This program was reviewed and approved by the AAVSB RACE program for 15 hours of continuing education. Participants should be aware that some boards have limitations on the number of hours accepted in certain categories and/or restrictions on certain methods of delivery of continuing education. Please contact the AAVSB RACE program if you have any comments/ concerns regarding this program's validity or relevancy to the veterinary profession.

**This program was reviewed and approved by the AAVSB RACE program for 4 hours of continuing education (as part of the IWRC symposium's 29.5 hours). Participants should be aware that some boards have limitations on the number of hours accepted in certain categories and/or restrictions on certain methods of delivery of continuing education. Please contact the AAVSB RACE program if you have any comments/ concerns regarding this program's validity or relevancy to the veterinary profession.

Thursday, December 4

IWRC Information and Membership Booth, Exhibits/Vendors, and all breaks are located on the Mezzanine

	Continental Ballroom (Mezzanine Level)	
8:30 AM - 9:00 AM	<i>OWRA Meeting and Welcome</i> Becky Crow	
9:00 AM - 9:45 AM	<i>Smart Light/Safe Flight</i> Harvey Webster	
9:45 AM - 10:15 AM	<i>Project Passenger Pigeon: Lessons from the Past for a Sustainable Future</i> Stanley Temple	
10:15 AM - 10:45 AM	<i>The Legacy of the Passenger Pigeon and Its Relevance in 2014</i> Dan Marsh	
10:45 AM - 11:00 AM	BREAK	
11:00 AM - 11:30 AM	<i>IWRC Annual General Meeting and Bylaws Change</i> Kai Williams & Lynn Miller	
11:30 AM - Noon	<i>The True Value of Wildlife Rehabilitation</i> Bob Bills	
Noon - 12:30 PM	<i>Taking Scientific Publications and Conservation Techniques to Aid Our Wild Patients</i> Lynn Miller	
12:30PM - 1:00 PM	<i>Serologic surveillance for raccoon roundworm and risk factors for exposure in wildlife rehabilitators</i> Sarah G. Sapp	
1:00 PM - 2:00 PM	LUNCH	
	Continental Ballroom (Mezzanine Level)	Rue Reolon (Street Level)
2:00 PM - 2:45 PM	<i>Methods for the rescue, rehabilitation, and release of two Costa Rican sloth species: <i>Bradypus variegatus</i> and <i>Choloepus hoffmani</i>.</i> Sam Trull	Panel: <i>Ethics in Wildlife Rehabilitation</i> Adam Grogan, Renee Schott, TBA
2:45 PM - 3:30 PM	<i>Chimney Swift Care</i> Susan Wylie	
3:30 PM - 4:00 PM	Break	
4:00 PM - 5:30 PM	<i>Vaccine Protocols in Mammals</i> Karen Bailey <i>Sepsis in Mammals</i> Karen Bailey	Roundtable: <i>Turtle Shell Repair</i> Damien Oxier
7:00 - 9:00PM	Film Festival <i>Featuring Pelican Dreams</i>	

This program was reviewed and approved by the AAVSB RACE program for 29.5 hours (7.5 hrs max on Thursday) of continuing education. Participants should be aware that some boards have limitations on the number of hours accepted in certain categories and/or restrictions on certain methods of delivery of continuing education. Please contact the AAVSB RACE program if you have any comments/concerns regarding this program's validity or relevancy to the veterinary profession.

Friday, December 5

IWRC Information and Membership Booth, Exhibits/Vendors, and all breaks are located on the Mezzanine

	Continental Ballroom (Mezzanine Level)	Rue Reolon (Street Level)
08:00 - 9:30am	<i>Wildlife Care in Africa</i> Lloyd Brown	Workshop <i>Skunk Rehabilitation</i> Bonnie E. Gulas-Wroblewski (enrichment project portion will continue through early lunch for those who wish to stay)
9:30 - 10:00am	Break	
10:00 – 10:45am	<i>Recruiting and Retaining Dependable Volunteers</i> Bob Bills	
10:45am - 11:30pm	<i>How Birds See: The Importance of Proper Avian Lighting</i> Rachel Avilla	
11:30 -12:30pm LUNCH		
12:30pm - 1:15	<i>Building an Incubator for Baby Wildlife</i> Fae Easton	Workshop <i>Training Our Education Animals with Positive Reinforcement and The Science of Behavior</i> Lara Joseph
1:15 - 2:00pm	<i>Keeping Wildlife Wild: An Investigation of Unnecessary Human-Wildlife Interactions as a Cause of Admission in Minnesota and Wisconsin Wildlife Rehabilitation Centers</i> Mandy Kamps and Renee Schott	
2:00 - 2:45pm	<i>Mayhem and Carnage on the Urban Landscape: Tracking Two Years of Phone Data from Portland Audubon's Wildlife Care Center</i> Lacy Campbell	
2:45pm - 3:30pm	<i>Training Animals To Be Released versus Rehabilitating Animals To Be Released</i> Megan-Kate Ferguson	
3:30 -4:00pm Break		
4:00 – 5:30pm	<i>Compassion Fatigue/Euthanasia</i> Renee Schott	<i>Wildlife Caging Solutions For the Backyard and Beyond</i> Ben Montgomery
6:30 PM - 10:00 PM Rookwood (4th Floor)	Silent Auction and Banquet (Ticket Required)	

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Saturday, December 6

IWRC Information and Membership Booth, Exhibits/Vendors, and all breaks are located on the Mezzanine

	Continental Ballroom (Mezzanine Level)	Rue Reolon (Street Level)
8:00AM		
8:30 AM - 9:15 AM	<i>Perceptions of Wildlife Rehabilitation: A survey of responses to pictures and terms.</i> Halley Buckanoff & Kai Williams	Workshop <i>The Veterinarian in Wildlife Rehabilitation</i> Rob Adamski
9:15 AM - 10:00 AM	<i>Post-Release Monitoring of Hand-Reared Songbirds</i> Halley D Buckanoff & Lynn J Moseley	
10:00 AM - 10:30 AM	BREAK	
10:30 AM - 11:15 AM	<i>Bobcat Rehabilitation and Post Release Tracking</i> Tammy O'Neil & Traci Keller	
11:15 AM - Noon	<i>The post release survival and dispersal of rehabilitated juvenile Eurasian badgers (Meles meles)</i> Adam Grogan	Workshop <i>Triage and Euthanasia</i> Renee Schott
Noon - 12:45 PM	<i>The importance of data collection to wildlife rehabilitation</i> Adam Grogan & Lynn Miller	
12:45 PM - 1:45 PM	LUNCH	
1:45 PM - 2:30 PM	<i>Field Rescues: Capturing Raptors in Warehouses and Other Enclosures</i> Ben Montgomery	<i>Captive Rearing Considerations of Mink and Weasels</i> Lisa Fosco
2:30 PM - 3:15 PM		<i>Radiographs – an essential tool for Wildlife Rehabilitators</i> Kim Blomme
3:15 PM - 3:30 PM	BREAK	
3:30 PM - 4:15 PM	<i>Animal Help Now</i> Elena Rizzo	<i>Wound Assessment and Ways to Promote Wound Healing</i> Renee Schott
4:15 PM - 5:00 PM	<i>Wildlife Rehabilitation MD</i> Devin Dombrowski & Rachel Avilla	<i>Medical Issues with Avian Aerial Insectivores</i> Renee Schott

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IWRC SYMPOSIUM ABSTRACTS 2014 (Alphabetical by first name)

How to Design an Effective Project

Adam Grogan, RSPCA Wildlife Department

Many rehabilitators may well find themselves asking questions about the animal in their care and how their treatment of them may affect the animal's condition. They may decide to 'experiment' on their treatment regimes to see if they can improve their release rates, or they may wish to investigate how well the animals fair once they have been released. However the full benefit of such projects is often not realized due to a lack of understanding of project design. This presentation will introduce the principles of project design and the importance of collecting good quality data for a successful project.

The Importance of Data Collection to Wildlife Rehabilitation

Adam Grogan and Lynn Miller

Wildlife rehabilitators receive large numbers of animals every year, but they may not always be aware of the value of the information that each animal represents. Not only can information about each individual animal help in its own rehabilitation, but it can also help in the rehabilitation of others of its own kind when the data gathered are pooled together and analyzed to look for trends. Such analyses can help us make better decisions about the animals we treat. Furthermore, the data we gather on these animals are of interest to conservationists, who may need certain information on particular species; to government officials investigating poaching or other illegal activities; or to those investigating new outbreaks of disease among wild animal populations. This presentation will talk about the importance of data collection, give some examples of why it is important, and how data can be collected so that it can be analyzed effectively.

Roundtable on Wildlife Rehabilitation Ethics

Adam Grogan, Renee Schott, and TBA

Human values and experiences are unique to each of us, and influence our views when considering ethical problems and identifying solutions. Each person's ethical stance dictates their decision making process when trying to determine what is the right thing to do, carry out effective actions, or lay out strategies to avoid ethical obstacles in the future.

Ethical conflict exists in much of our day-to-day life. Often in ethical dilemmas, there are no clear-cut courses of action. In wildlife rehabilitation, the milieu of background and talents of the individuals providing care to animals create several possible solutions to the same scenario all believing theirs to be the right course of action.

This session opens with a short introduction to ethics. A round-table scenario-based discussion follows, using the Wildlife Rehabilitator's Code of Ethics as the guideline. Emphasis will be on the importance of ethics in the decisions made regarding the welfare of the animal in a given situation, versus a utopian viewpoint.

Bio: Adam Grogan has worked with the RSPCA's four wildlife centres to develop a programme of research into wildlife rehabilitation. This programme has concentrated on survival of released animals, but other projects have looked at the effects of captivity on stress or development. Before joining for the RSPCA fourteen years ago, he worked at the Wildlife Conservation Research Unit at Oxford University on a variety of mammalian conservation and research projects. He is still involved in many such projects and is currently vice-chair of The Mammal Society of Britain and Ireland.

Wildlife Caging Solutions For the Backyard and Beyond

Ben Montgomery, MA, Property Manager/Educator, The Raptor Trust, NJ

Reviewing past and present Raptor Trust caging projects, this presentation shows the ins and outs of one method of constructing quality wildlife enclosures. Emphasizing lessons on carpentry for non-carpenters, we examine basic building principles that allow for versatile purposing and easy customization to meet the needs of the diversity of species in your care. And with a mindfulness of the budgetary limitations facing smaller and/or start-up operations, this step-by-step process makes high-end caging an accessible reality for any rehabilitator.

Field Rescues: Capturing Raptors in Warehouses and Other Enclosures

Ben Montgomery, MA, Property Manager/Educator, The Raptor Trust, NJ

Often underappreciated in the rehabilitation industry, off-site rescues are sometimes necessary to help animals in distress. These rescue scenarios come in unlimited variety, but while some are simple, others require far more finesse and technique – such is the case when charged with capturing fully flighted raptors trapped in building enclosures, such as warehouses, barns and the like. This presentation demonstrates proven techniques for safe and successful captures. Learn about the tools of the trade and strategies for using them, as well as tips for managing various situations and obstacles.

Bio: In 2001, I took a summer job at The Raptor Trust. At the time, all I wanted was to be outdoors doing physical work, but I soon found myself totally turned on by all aspects of animal care, non-profit work and community involvement. With a slight detour in 2002, for an internship at the Philadelphia Zoo, I continued to commit my time to the Trust whenever possible. I earned a Bachelor's degree in Ecology from Wheaton College (MA) in 2004, and though employed at an environmental remediation firm, I still spent my weekends volunteering at the Trust. In 2006, and appropriately, on Thanksgiving, the Trust offered a full-time opportunity. Since then, I have been responsible for many of the Trust's non-medical operations, including building and maintaining the aviaries, managing food and non-medical supplies, providing site tours and conducting off-site raptor rescues. In 2010, I earned a Master's degree in Science Education from Fairleigh Dickinson University (NJ), and have since added public outreach and raptor education presentations to my bag of tricks. I have attended a number of national and state conferences in the last two years, and have enjoyed the privilege of speaking at several of them. I am looking forward to participating in future events, and continuing to be involved in the wildlife rehabilitation community.

The True Value of Wildlife Rehabilitation

Bob Bills

Why do we do that? There are those who contend that wildlife rehabilitation has no real effect on wildlife populations and suggest our resources may be better spent on “bigger picture” efforts. This presentation will debunk this theory, examine the many benefits of wildlife rehabilitation, and explain why rehabilitators are in a unique position to have a significant impact on wildlife conservation.

Recruiting and Retaining Dependable Volunteers

Bob Bills

Volunteers are the backbone of wildlife rehabilitation and expending the effort necessary to establish an efficient volunteer program is a wise investment. With the amount of time and effort required to properly train volunteers, it makes sense to try to recruit volunteers that are going to be around for the long haul. This presentation will discuss some of the keys to recruiting volunteers willing to make a long-term commitment.

Bio: Bob Bills has a B.S. in Wildlife Management and a wildlife biologist certification. Bob has been involved in wildlife rehabilitation for more than 25 years and served 12 years on the Ohio Wildlife Rehabilitators Association Board of Directors. He has served as OWRA Conference Chair, past NWRA Host Committee Chair and Session Chair. He was clinic director of the Ohio Wildlife Center for eight years. Bob has authored numerous papers on wildlife rehabilitation, wildlife conservation, and avian biology.

Skunk Rehabilitation

Bonnie E. Gulas-Wroblewski Dove Key Ranch Wildlife Rehabilitation, Inc.

The Skunk Rehabilitation workshop is aimed at everyone from beginning skunk rehabilitators to those that have been caring for skunks for years. The course will cover skunk species identification, natural history, age determination, safe handling procedures, examination and diagnostics, conditions commonly encountered and effective treatment protocols, caging, diet, enrichment, and release criteria. Although the presentation will focus on striped skunks (*Mephitis mephitis*), spotted (*Spilogale* spp.), hog-nosed (*Conepatus* spp.), and hooded skunks (*Mephitis macroura*) will also be discussed. Classroom lecture will be accompanied by interactive discussions of case studies as well as a hands-on exercise in enrichment construction* in order to provide participants with the tools they'll need to successfully rehabilitate and release skunks.

Bio: Bonnie E. Gulas-Wroblewski graduated from Yale University with a B.S. in Geology and Geophysics and attended graduate school at the University of Chicago prior to becoming a wildlife rehabilitator at Willowbrook Wildlife Center (IL). After moving to rural Texas, she founded and serves as executive director of Dove Key Ranch Wildlife Rehabilitation, Inc. Bonnie has been a full-time wildlife rehabilitator for ten years, specializing in skunk care for seven years, and holds both Texas and USFWS permits. She also acts as the Texas representative for Skunk Haven and is an international partner of Stichting Het Stinkdier (the Dutch Skunk Foundation).

Turtle Shell Repair Roundtable

Damien N. Oxier, Director Arrowhead Reptile Rescue ODNR Wildlife Rehabilitator

Discussion of procedures and techniques for repairing turtle shell fractures, including topics of selecting repair materials and supplies for immobilization, and the application techniques used. How to perform wound care and infection control, knowing when to use antibiotic therapy. Common mechanisms of injury and frequently seen injuries. Release criteria including when long term rehabilitation is required. Discussion of barriers to care for injured turtles. Euthanasia.

Bio: Damien Oxier has been a veterinary technician and Ohio wildlife rehabilitator specializing in reptiles and turtles since 1996. He is the founder and director of Arrowhead Reptile Rescue, and also sits on the board of directors of the Tristate CART animal rescue team and is a member of the county dangerous wild animal response team.

The Legacy of the Passenger Pigeon and its Relevance in 2014

T. Dan Marsh, Director of the Education and Volunteer Departments, Cincinnati Zoo and Botanical Garden

The widely accepted legacy assigned to the passenger pigeon is one grounded in loss and remorse. While the loss of what was once the most abundant avian species on the planet is profound and the regret associated with this loss is reasonable, it has limited utility to people today. It also has the

danger of framing the perception of individuals so that no other possibility for this species lasting legacy can be envisioned. Join Dan Marsh (Director of Education at the Cincinnati Zoo and Botanical Garden) as he shares a more positive legacy. One in which this extinction event is considered as a turning point in our history that led to broad and systemic wildlife and resource conservation action 100 years ago.

Bio: Dan Marsh began his career at the Cincinnati Zoo and Botanical Garden as a college intern in 1989. Many fun filled years later, he is the Director of Education at the zoo and considers jeCenter. The Zoo's Education Center was the first foray into green design and was the catalyst that led to the zoo's commitment to sustainable building and operational practices. It is also the city's first LEED silver certified building.

Wildlife Rehabilitation MD

Devin Dombrowski, Rachel Avilla The Wild Neighbors Database Project

Wildlife Rehabilitators are limited in time and money. The last thing that we want to think about are the chores of record keeping and reports. Wildlife Rehabilitators MD (WRMD.org) can help alleviate that for you. WRMD is a free on-line medical database designed specifically for wildlife rehabilitators in the United States and Canada. WRMD is currently used in over 110 facilities, 23 states, and 4 countries. We are continually growing and evolving into what our wildlife rehabilitation community needs. We invite all users or potential users to join us in a discussion about what we have planned for WRMD in the coming year and collect ideas and thoughts from our users. We are also happy to help with any other questions about the database.

Bio: Devin Dombrowski has been a wildlife rehabilitator since 2003, working and volunteering at many organizations, including Lindsay Wildlife Museum and International Bird Rescuer. He also develops websites and database applications professionally. Over the past ten years, he has been in a unique position to see both sides of the "record keeping" coin; how to properly develop a database and what the wildlife rehabilitation community needs are. Through those experiences, he has developed Wildlife Rehabilitation MD, a free, user-friendly medical database. His favorite animals are raccoons and coyotes.

Wildlife Emergency App: Lessons Learned from 2014 U.S. Expansion, Continuous Improvements, Rehabilitator Relationships, and Potential for International Application

Elena Rizzo Animal Help Now

Animal Help Now is a nonprofit organization that features a groundbreaking website and free phone app that directs people who have encountered orphaned, injured and distressed wildlife to the nearest, most appropriate help, 24/7. Animal Help Now (online at www.animalhelpnow.org and found in Apple and Android app stores by searching "AnimalHelpNow") features wildlife rehabilitators, hotlines and rescues, as well as humane wildlife control operators and veterinarians who treat wildlife. The app works even when a user has no cell or WIFI access.

Rehabbers appreciate Animal Help Now because we:

- respect rehabbers' privacy by publishing only the contact information they want published;
- allow rehabbers to set the hours during which they prefer to be contacted and block rehabber information from search results when they are closed;
- allow rehabbers on-demand, password protected, control over published information tailored to the needs of rehabbers;
- publish species specialties and limitations according to rehabber preference and license;
- expedite the process of getting animals the help they need;
- decrease the amount of time rehabbers spend doing referrals;
- help educate the public about wildlife emergencies;

- regularly update our data; and
- share the same goal – saving animals' lives!

Animal Help Now's initial service area was Colorado, where both wildlife and domestic animal emergencies are covered. It then expanded this service to Texas. In 2014 Animal Help Now expanded its wildlife functionality across the entire United States. Animal Help Now can be implemented anywhere in the world. This workshop will cover current functionality, lessons learned in the national expansion, interaction aimed at improving the user experience and better meeting rehabbers' needs, and the potential for international expansion. Animal Help Now was developed with the support and advice of Colorado's wildlife rehabilitation community and is endorsed by the Colorado Council for Wildlife Rehabilitation (www.ccwr-co.org). Animal Help Now works in cooperation with the National Wildlife Rehabilitators Association.

Bio: Elena Rizzo joined the Animal Help Now Team as a Researcher in June 2014, after several months volunteering with the organization. Ms. Rizzo has been rehabilitating wildlife for five years and holds a NYSDEC Class II RVS Wildlife Rehabilitator license. Ms. Rizzo has an extensive background in coordinating public health surveillance programs in the field of communicable disease epidemiology and has a Master's degree in Applied Anthropology.

Building an Incubator for Baby Wildlife

Fae Easton Help 4 Wildlife

Various construction materials for a homemade incubator are discussed and evaluated for ease of use, practicality, durability and economy. Then directions for a professional, utilitarian incubator are given using readily available materials. A picnic cooler is used as the basic box which then has adjustable heat, removable windows and ventilation added. The added heat is from a heating pad without auto turnoff. Plastic plates are used for the circular windows utilizing screen clips to make them removable. Ventilation is provided using PVC pipe drains. The current design has evolved while in use during the baby season using cottontail rabbits as primary inhabitants. Possible adjustments are suggested for other species. Photos and illustrations accompany the article. Some specialized tools are useful but methods of construction using common workshop tools are discussed. Sources for materials are listed at the end of the article.

Bio: Other kids brought injured animals to Fae Easton when she was a pre-teen. Later, service dogs became a great interest and she has been involved in 4-H with kids and their dogs. She has had experience with livestock and when an injured fawn appeared, its care was no problem until a licensed rehabilitator could be found. Questioning that rehabber led to getting a license. After retirement, 2013 was her first year doing small mammals. Research led to incubators. And incubators led to a method of building them. Wildlife rehabilitation can be costly and the instructions for an incubator may help others afford one or more.

Post-Release Monitoring of Hand-Reared Songbirds...

Halley D Buckanoff Valerie H Schindler Wildlife Rehabilitation Center and
Lynn J Moseley Department of Biology, Guilford College

The Valerie H. Schindler Wildlife Rehabilitation Center (VHS WRC) at the North Carolina Zoo, in partnership with faculty at Guilford College, has been conducting a post-release survival study of commonly rehabilitated backyard, non-migratory songbirds since 2009. Seven species of birds were chosen for the study based on admission numbers at the VHS WRC and the potential for re-sighting released birds near feeders or around homes. Birds were banded with USGS issued numbered metal bands and additionally

approval was granted for adhering sequences of colored bands for specific identification of individuals. The methods, materials and preliminary results of the study is reported in this presentation.

Bios: Halley D. Buckanoff, BS, CVT, CWR: Halley is the Lead Veterinary Technician at the North Carolina Zoo's Valerie H. Schindler Wildlife Rehabilitation Center overseeing rehabilitation practices, center operations, and volunteers/interns. She graduated from Lewis and Clark College in Portland, OR with a Bachelor's of Science in Biology. She is a Certified Veterinary Technician with 20+ years of emergency, exotic, zoo and wildlife medicine and husbandry experience. She has completed graduate level course work in animal population management and animal nutrition. She has worked as field biologist mist-netting, trapping, banding, tracking and radio-collaring birds. She became a Certified Wildlife Rehabilitator in 2009 and has been a contract instructor for IWRC since 2010.

Lynn J. Moseley, B.S., Ph.D.: Lynn is Charles A. Dana Professor of Biology at Guilford College in Greensboro, North Carolina. She teaches courses in Ornithology, Animal Behavior, and Vertebrate Field Zoology, among others. She received her Bachelor's of Science degree in Biology from the College of William and Mary, and her Ph.D. in Zoology from the University of North Carolina at Chapel Hill. Her main areas of interest include social behavior and communication of vertebrates, especially birds, and behavioral ecology.

Perceptions of Wildlife Rehabilitation: A survey of responses to pictures and terms.

Halley Buckanoff and Kai Williams

The line between pet and wild animal often appears blurred for the general public. People call expecting advise on how to raise the young squirrel they found and members of the public love to tell stories of 'pet' raccoons and corvids. Wildlife rehabilitators seek to educate the public on the distinctions of wild versus domestic animals. This paper will discuss initial findings from a 2014 survey directed toward the public, wildlife rehabilitators, and related professions. The survey examines human perceptions of an animal as wild, pet, or education ambassador based on a picture or sentence and especially explores if that perception differs between wildlife rehabilitators, vets, agency officials, and the public. Is the image rehabilitators think they are portraying in their actions and words the same as what the public sees?

Bios: Halley Buckanoff (see above)

Kai Williams, MPPA: Kai is the Executive Director of The International Wildlife Rehabilitation Council. In Spring 2013 she completed a Masters degree in Public Policy and Administration at Northwestern University, which further informs her appreciation of policies, ethics, and public facing organizations.

Canine Distemper and Parvovirus in Raccoons

Karen Bailey Kentucky Wildlife Center

Canine distemper and parvovirus can cause significant morbidity and mortality in rehabilitated raccoons. Vaccination is an essential component of managing infectious diseases in any captive situation, including rehabilitation. Although use of vaccines in wildlife is off-label, there is a long history of use of certain vaccines in wildlife with low risk of complications. However, due to risks associated with certain types of vaccines in some species, vaccines should be selected based on similarity of hosts in which vaccine is known to be safe and data from studies that suggest wild animals respond comparably to their domestic counterparts. Vaccine protocol considerations should include many factors including, but not limited to, morbidity and mortality of disease, prevalence rate, risk of exposure, risks associated with the vaccine, and cost. Protocols, types of vaccines, proper handling of vaccines, and common causes of vaccine failure, as well as pathophysiology, clinical signs, and overview of research on these viruses, will be discussed.

Surviving Sepsis in Wildlife Rehabilitation

Karen Bailey Kentucky Wildlife Center

Sepsis is a leading cause of mortality in wildlife patients. Recent advancements in the fields of human and veterinary medicine have led to a better understanding of the pathophysiology of sepsis resulting in improved treatment protocols. Basic principles are comparative across species and are clinically applicable in the rehabilitation setting. Increased awareness and early recognition of systemic inflammatory response syndrome (SIRS), sepsis, septic shock, and multiple organ dysfunction syndrome (MODS) can lead to timely intervention and improved chance of survival. It is important for the rehabilitator to understand that progression of critical illness to multiple organ failure and death may occur secondary to the initial insult such as infection, shock or trauma. Early administration of broad-spectrum antibiotics, aggressive fluid resuscitation and source control are key factors to improving outcome. Focus on protocols that can be applied by the rehabilitator in high-risk neonates and patients with parvoviral enteritis will be discussed.

Bio: Karen Bailey is president and founder of Central Kentucky Wildlife Rehabilitation, Inc. in Georgetown, Kentucky. They specialize in neonatal and critical care of orphan raccoons, but accept all native mammals. One of the key components of our mission is to advance wildlife rehabilitation through scientific research and education. She is a licensed wildlife rehabilitator with the Kentucky Department of Fish and Wildlife Resources and possesses a USDA permit. She is also a Certified Wildlife Rehabilitator (CWR) with the IWRC, a Board member of the Kentucky Wildlife Rehabilitators Association, and has a Masters Degree in Business Administration (MBA) from Vanderbilt University.

Radiographs – an Essential Tool for Wildlife Rehabilitators

Kim Blomme, RVT, Wildlife Services Director, Wildlife Rehabilitation Society of Edmonton

An interactive presentation on radiology with main concentration on proper positioning of patients and reading radiographs to assist the wildlife rehabilitator in designing treatment plans based on accurate diagnosis of skeletal injury. We will touch briefly on other internal interpretations but the primary focus will be on the skeletal system. An overview of basic avian and small mammal anatomy will be reviewed and a wide assortment of radiographs will be presented and discussed. Audience will be invited to participate in assisting with identifying areas of concern from obvious to not-so-obvious injuries. As well, issues with improper positioning of patients will identify how diagnosis can go astray and lead to possible misinterpretation of clinical signs. Treatment plans will be influenced based on proper radiographic interpretation and misinterpretation can lead to delays in treatment, increased suffering of patient and poor outcomes. The Wildlife Rehabilitation Society of Edmonton admits 1600 wildlife patients annually and is the most northerly wildlife rehabilitation center in Alberta, Canada. WRSE has admitted over 270 different species of birds and mammals over its 25 year history. Prior to 2012, all radiographs were done off-site by various Edmonton veterinary clinics. Since 2012, WRSE purchased a digital radiograph unit and has found this to be an essential diagnostic tool for our patients who cannot tell us “where it hurts”!

Bio: Kim Blomme is a Registered Veterinary Technologist with 30 years’ experience in a small animal practice in Edmonton, Alberta, Canada. She is the founder of the Wildlife Rehabilitation Society of Edmonton, an urban wildlife rehabilitation center which started 25 years ago on her acreage and has since established itself as an “essential service” to Edmonton and surrounding areas with a population of well over one million people. WRSE admits over 1600 wildlife patients per year and is fortunate to have strong volunteer veterinary support. In 2010, WRSE was able to secure land on a rural property through a partnership with Nature Conservancy Canada where it established its rehabilitation center. At the same time, WRSE was also offered the use of Edmonton’s retired animal control building within the city

of Edmonton and took this opportunity to open a wildlife hospital. Funding from the City of Edmonton allowed for the purchase of a digital radiology machine which has proved its worth many times over. Kim continues to find the field of wildlife rehabilitation challenging and exciting and there is still much to be learned. She would like to share some of her experiences as well as hear about yours!

Mayhem and Carnage on the Urban Landscape: Tracking Two Years of Phone Data from Portland Audubon's Wildlife Care Center

Lacy Campbell Audubon Society of Portland Wildlife Care Center

The Audubon Society of Portland's Wildlife Care Center (WCC) is the busiest Wildlife Care Center in Oregon and the only facility in the Portland Metro area that is available to respond to the public's concerns regarding urban wildlife 365 days a year. The WCC treats over 3,000 injured and/or orphaned wildlife, and responds to more than 10,000 wildlife related phone calls in an average year. Since 2011 we have been tracking phone calls to our center using a standardized data collection form. We collect: time and date, caller identification and contact info, species location, identification and call type. We record call details, advice given and caller satisfaction. We collected and analyzed caller data from 2011- 2013. The dataset was analyzed using a variety of parameters including: temporal (day, week, and month) and spatial distributions (Metropolitan region, national), call type (window strike, cat caught, general natural history etc.), specific species impacted and caller satisfaction. For example we can perform analysis on calls pertaining to window strikes or cat attacks and look at temporal and spatial distribution of calls as well as caller satisfaction to be able to refine our outreach to the public. This information will be very valuable in documenting how humans and wildlife interact on our urban landscape, how to identify and prioritize existing and emerging threats to wildlife and help us better target and engage the public through educational outreach and materials.

Bio: Lacy Campbell started her career with wildlife at the age of 14 at the Tracy Aviary in Salt Lake City first as a volunteer but transitioned to being a Bird Show trainer and then an aviculturist. She moved to Portland, OR in 2007 where she completed her BS in Organismal Biology at Portland State University. She has been with the Audubon Society of Portland since 2010 and the Wildlife Care Center Operations Manager since 2012. She is interested in conservation biology, avian ecology and wildlife diseases and passionate about helping people understand and live with the wildlife around them.

Training Our Education Animals with Positive Reinforcement and The Science of Behavior

Lara Joseph The Animal Behavior Center

This workshop will dive into the fundamentals of training education animals within the wildlife rehabilitation and education community using positive reinforcement and applied behavior analysis. It will define the use of reinforcers, identifying them, and approaches in training new behavior and modifying existing behavior concerns such as aggression, abnormal repetitive behaviors, and fear. The workshop will cover the side effects and dangers of using aversives and force to control behavior. In this workshop I will cover picking the right candidates for education animals for programs and training interactions that can be presented with animals that should be on exhibit vs on programs. Also covered will be what is involved in putting a training team together and setting it up for consistency and success.

Bio: Lara is the owner of The Animal Behavior Center, LLC in Ohio. She presents workshops, travels, lectures, and consults focusing on positive reinforcement interactions and modifying behavior through applications in behavior analysis. She is also the Director of Avian Training for a wildlife rehabilitation center where she focuses on taking stress out of animal environments. Lara is a professional member of The Animal Behavior Management Alliance and The International Association of Avian Trainers and Educators. She is also a member of and writes for The American Federation of Aviculture and The Pet Professional Guild. For more information visit her website at TheAnimalBehaviorCenter.com.

Captive Rearing Considerations of Mink and Weasels

Lisa Fosco Toronto Wildlife Centre

This presentation will discuss successful methods for raising mink and weasels in a captive environment. These species are unique in their natural behaviors and in their general care. Topics will include growth and development, behavior and enrichment, diet, housing, medical concerns and release criteria. Natural history considerations will be emphasized.

Lisa Fosco is a wildlife biologist and a licensed veterinary technician that has been rehabilitating wildlife for over 25 years. Lisa spent many years as a home rehabilitator and has been managing large scale wildlife centers around North America since the early 1990s. She also spent several years specializing in endangered species in an effort to focus her skills on wildlife conservation and preservation. Lisa was an IWRC skills instructor for 14 years and worked to teach professional wildlife medicine and rehabilitation worldwide. She has taught in 9 countries and on 3 continents. She is presently the Wildlife Rehabilitation Manager at the Toronto Wildlife Centre.

Wildlife care in Africa

Lloyd Brown Wildlife Rescue of Dade County, IWRC

Wild animals on the continent of Africa face challenges of human encroachment and habitat destruction and poaching. There are a few organizations in Africa that are dedicated to helping the animals that can be rescued and to preserving the animals in the wild. This past August and September of this I traveled to Rwanda, the Democratic Republic of Congo, Tanzania and Kenya to visit a few of these groups. Their work ranges from caring for wild Mountain gorillas in the wild to raising and caring for orphaned chimpanzees. From orphaned elephants to rhinoceros.

Bio: From his career in the US Army to his working on animal rescue projects in other countries, Lloyd Brown has lived and worked all over the world. He has worked with international groups like Vier Pfofen, Humane Society international, International Fund for Animal Welfare (IFAW), Veterinary Care and Human Services (VCHS). He also works in the rehabilitation of marine mammals with Marine Mammal Conservancy (MMC) and Veterinary Care and Human Services. He runs a small rehab center in south end of Dade County, Florida, where he rehabs wild animals native to south Florida. He is a firefighter, paramedic and Technical Rescue Technician for Miami Dade Fire Rescue

What's in a day? Try a triage shift at the Cape Wildlife Center, MA.

Lynn Miller, CWR, PhD Director of Wildlife Rehabilitation, Cape Wildlife Center

Triage can be thought of as the process of evaluating your wildlife patient and deciding on the best course of action. Your initial examination will help with the decisions that must follow; euthanasia, stabilization and care, veterinary intervention, wait and see. Over the past 100 years, emergency medicine in both the human and veterinary field has evolved, often because of traumatic injuries, from, in the case of humans, battlefield injuries. As rehabbers, the cases we admit range from lead toxicosis, vehicle impacts, window strikes to orphans representing both common and endangered species. They all arrive dehydrated to some degree, often in pain and always in distress. We have learned many valuable lessons from the medical and veterinary fields so that we can support our patients professionally and effectively. At the Cape Wildlife Center, we are able to offer many triage options, incorporating many treatment possibilities that can be applied by all rehabbers. This presentation will explore basic triage techniques, developing a subjective, objective, assessment, and plan (SOAP) and the initiation of care based on our daily practices and lessons learned.

Taking scientific publications and conservation techniques to aid our wild patients.

Lynn Miller, CWR, PhD Director of Wildlife Rehabilitation, Cape Wildlife Center

New scientific discoveries are being made constantly. But how can we as rehabbers benefit from this vast array of knowledge and data? This presentation will explore this question with some of the ways we at the Cape Wildlife Center have benefited from advances. We will explore a nugget of information, maybe something that will benefit a wild patient, and show how to develop an SOP. We will also explore how conservation techniques can turn a total loss into something else. Take a road killed or mortally wounded female turtle loaded with eggs. She was simply trying to find an appropriate place to lay her precious cargo when the driver of the car aimed for her across the median of the country road. Two scientific papers support this claim that people willingly place their own and other lives in danger to maim and kill turtles! That potentially total loss can be turned around with harvesting the eggs and either burying them yourself, or artificially incubating them. Your SOP will guide your next actions depending on the status of the species involved. These questions and others will be explored as we rehabbers join forces with the conservation and scientific communities to mitigate the losses we are experiencing in so many species.

Bio: Lynn began life in New Zealand, but her passion for wildlife and conservation led to Summer School at Jersey Wildlife Preservation Trust and a stint at London Zoo. During a holiday in France, she met a gorgeous French Canadian chap, which led her life to Quebec. While attending McGill University's MacDonald College, Ste-Anne-de-Bellevue, near Montreal, she began working with birds of prey at the Macdonald Raptor Research Centre. Of course, the raptor specialty did not deter people from bringing in ducklings, song birds, herons and pigeons. The mistake was to take these birds to her home, or was it? That was 25 years ago. Since then, Lynn founded Le Nichoir in 1994, became an IWRC instructor some 7 years ago, joined the IWRC board, and is now the current president of IWRC. She also completed her PhD in Environmental Toxicology. Lynn is currently the Director of Wildlife Rehabilitation at Cape Wildlife Center in Barnstable, MA an HSUS facility.

Keeping Wildlife Wild: An Investigation of Unnecessary Human-Wildlife Interactions as a Cause of Admission in Minnesota and Wisconsin Wildlife Rehabilitation Centers

Mandy Kamps Wisconsin Department of Natural Resources and Renee Schott Wildlife Rehabilitation Center of Minnesota

Every year hundreds of thousands of wild animals are brought into wildlife rehabilitation centers across the world. As human populations grow and contact with wildlife increases, wildlife rehabilitation centers are often called upon to assist injured, sick, orphaned, and falsely presumed orphaned wild animals. Despite education efforts by wildlife rehabilitation centers, a high number of wild animals present to centers because of unnecessary human interaction. With the recent help of electronic databases and standardized terminology, wildlife rehabilitation centers can not only identify trends in their own center's annual activity, but comparisons can be made with other centers in their state, region, the entire United States, or even the world. Admit data from 2008 to 2013 from the two largest wildlife rehabilitation centers in Wisconsin, Bay Beach Wildlife Sanctuary and Wisconsin Humane Society, were compared with that of The Wildlife Rehabilitation Center of Minnesota, the largest rehabilitation center in Minnesota. Both states are in the Midwest, with similar seasonal conditions and wildlife species. We selected causes of admissions related to unnecessary human interactions and hypothesize that admit trends from both states will be similar in species, numbers of admits, time of year, and relative closeness to urban areas. Our data can help identify where more public education is needed in regards to species natural history, wild animal protections and regulations, and how to successfully co-exist with wildlife. Keeping unnecessary wildlife out of rehabilitation centers not only decreases the burden on state agencies and local nonprofits, it will help keep wildlife wild.

Bio: My name is Mandy Kamps and I live in Wausau, Wisconsin. I am an IWRC board member and the chair of the States and Provinces Committee. I have a bachelor's of science degree in biology with minors in captive wildlife management and conservation biology, and a master's degree in natural resources (wildlife) both from the University of Wisconsin Stevens Point. Currently, I work as the wildlife rehabilitation/captive wildlife program manager for the Wisconsin Department of Natural Resources. I strive to work within the wildlife rehabilitation community to promote networking and collaboration, encourage continuing education, and support wildlife research opportunities.

Training animals to be released vs. rehabilitating animals to be released

Megan-Kate Ferguson, Curator of Animal Development and Training, Cincinnati Zoo & Botanical Gardens

Is there a time a place for training rehab animals? How much teaching or training should be put into a larger mammal for release? What is the best way to "teach" an animal to be prepared for reintroduction into the wild? Let's look at animals that have been trained for release, hand reared, or worked with extensively prior to re-introduction into the wild. How successful were they and why? How much is too much? A great and tragic example of "training" and animal for reintroduction into the wild was Keiko the Orca Whale. Why wasn't it successful? What went wrong? What could have been done differently? Let's discuss other organizations that do "teach" their animals to be wild such as the Sepilok Orangutan Rehabilitation Centre or the David Sheldrick Wildlife Refuge. They have both successfully reintroduced elephants and orangutans back into the wild or into "wild" groups. What makes them successful and why?

Bio: Megan-Kate Ferguson has a background in domestic and exotic veterinary medicine, wildlife rehabilitation, pet nutrition, enrichment, animal behavior and training. The last 7 years has been focused solely on enrichment, training and behavior with domestic and exotic animals. From working with private owners, SPCA, rescues, AZA facilities, BLM, nonprofit, private zoos, rehabilitation, and parks I've had the opportunity to work in many diverse facilities and an even more diverse group of people. I have also had many incredible opportunities to travel with my work. I have lived in 4 countries and 7 different states. I have now settled in Kentucky and working at the Cincinnati Zoo & Botanical Gardens where I am the Curator of Animal Development and Training. Here I train all the animals and the staff. I teach the staff how to develop positive relationships with their animals and help provide each animal with appropriate enrichment and training.

How Birds See: The importance of proper avian lighting

Rachel Avilla Wild Neighbors Database Project

We all know that birds can see "better" than mammals, but how? It is common knowledge that raptors can see things well from far away, but did you know that all birds can see UV light also. Birds can process images more rapidly than mammals, too. Birds are the most visually-oriented creatures of all vertebrates and have one of nature's most sophisticated visual systems. Their vision has evolved due to life under the sun – an environment far different from that of the modern human whose habitat is inside a home or building. This class will present insight about how and what birds see and how birds use light.

Topics Include:

- How and what birds see
- What birds use light for
- Why most indoor lighting is inadequate
- How lighting can affect behavior, diet, screaming, phobias, and sleep cycles
- The role of UV in avian vision
- Characteristics of the ideal avian light

- Current options for avian lighting
- Which bulbs to use and which to avoid

Bio: Rachel started her wildlife career 12 years ago at Bird Rescue Center in Santa Rosa, California. The following year she joined Lindsay Wildlife Museum's program. Since then she has been a volunteer, intern, supervisor, volunteer manager, husbandry specialist, aviary and pen designer/builder, consultant and more. Her focus has been mostly on improving management of husbandry in high volume facilities to give better care to the most numerous species, house finches and corvids in particular. She is co-founder of The Wild Neighbors Database Project and is spreading the word about their first major project Wildlife Rehabilitation MD "WRMD.org." In March, 2013, she left Lindsay Wildlife Museum and became the manager at Belize Bird Rescue. where she rehabilitated parrots and other neotropical birds. Now back in the states, she is visiting and helping centers integrate WRMD into their daily operations.

Medical Issues with Avian Aerial Insectivores

Renee Schott DVM Wildlife Rehabilitation Center of Minnesota

Avian aerial insectivores (ie swallows, swifts, and nightjars) are an incredibly specialized group of animals. Catching all their food on-the-wing and remaining in flight for extended periods of time (in some cases, up to two years!), means these species must be close to 100% perfect upon release. In many situations, an aerial insectivore must be euthanized where another songbird species may be releasable. In a case-based format, various medical issues, along with prognosis and treatment, will be discussed.

Wound Assessment and Ways to Promote Wound Healing

This interactive seminar will cover the stages of wound healing on the cellular level and the types of wounds most commonly encountered in wildlife rehabilitation. We will then look at pictures of various wounds to correlate how the stages of wound healing look in real life on different species. Finally, we will discuss specific ways to enhance the body's own wound healing process.

Compassion Fatigue/Euthanasia Roundtable

Euthanasia is one of the most difficult topics rehabilitators have to deal with. Once the decision to euthanize has been made, determining the most appropriate method of euthanasia can be confusing. During the even we will also discuss compassion fatigue, which is a form of secondary PTSD that affects EVERYONE who works in wildlife rehabilitation. Bring your questions, comments and experiences to this evening roundtable that will include veterinarians as well as experienced rehabilitators. We will discuss some guided topics as well as your questions.

Veterinary Workshop B: Triageing the Wildlife Patient

Wildlife rehabilitation veterinarians deal with an enormous array of medical problems in their patients. At admission, it is important to efficiently determine which patients will not recover so they can be humanely euthanized, saving them from unnecessary suffering. In a case-based, interactive format, this seminar will discuss how to triage spinal injury patients as well as many other common wildlife patient presentations. The goal of the presentation is to help veterinarians learn which patients have the best chance of being released and which should be euthanized on admission.

Bio: Renée is currently a full-time staff veterinarian at the Wildlife Rehabilitation Center of Minnesota (WRC), one of the largest rehabilitation centers in the country. She has been involved in wildlife rehabilitation for over 11 years and has worked at wildlife rehabilitation centers across the country. Renée is passionate about wildlife rehabilitation medicine and sharing her knowledge with others; over 50 veterinary students come to WRC each year to learn more about wildlife medicine. Additionally, Renée is involved in teaching courses at the University of Minnesota-College of Veterinary Medicine,

teaches veterinary technicians at Argosy University, is a course instructor for IWRC and is on the National Wildlife Rehabilitators' Association's Board of Directors.

Veterinary Workshop A: "But I am a dog and cat vet!? What do I do with a mute swan?!"

Dr. Robert E. Adamski, Jr., BVMS, New England Wildlife Center

This lecture and interactive educational session will focus on providing first opinion practice companion animal & farm/large-animal medicine practitioners, veterinary technicians and their staff with the knowledge to provide basic competent triage and emergency care for injured, ill and orphaned wildlife found in their community. It will cover the following topics; state & federal laws and regulations, wildlife medicine triage, emergency care & stabilization of common wildlife cases, euthanasia options as well as resources on how to coordinate with your local wildlife rehabilitation community and access wildlife management resources in your community at the local, state and federal level. As veterinarians we took an oath which stated we would endeavor to undertake "the prevention and relief of animal suffering..." therefore members of the public often expect veterinarians as a profession to aid all animals regardless of whether they are domesticated or wild. This symposium session is designed to help answer a common problem veterinarians encounter and often feel inadequately prepared to successfully deal with. The problem is there and you will be forced to deal with it whether you like it or not. Why not learn how to deal with it successfully? This session will be interactive and utilize scenario-based training & questions to reinforce the knowledge taught in the lecture portion. It will provide useful tips and tricks of the trade when dealing with common wildlife species and problems. It will offer insight to resources at both the local, state and federal level you can call on to help deal with wildlife problems. The goal of the session is to provide an introduction to wildlife medicine so as to enable you to know how to deal with common wildlife emergencies with the resources, staff and skills already available to you as part of your daily practice. It will enable you as a veterinarian and your practice to act as a valuable resource for your community by aiding injured, ill and orphaned wildlife until such time they can be transferred to the care of your local wildlife rehabilitation community.

Bio: Robert Adamski is a veterinarian with a special interest in wildlife who currently works at the New England Wildlife Center in Weymouth, MA. This non-profit wildlife rehabilitation facility has a caseload of 900-2000 wildlife cases annually. It sees over 250 different species of animals including amphibians, reptiles, avian species and mammals from all over eastern Massachusetts. He acts as a mentor/supervisor for dozens of college interns every year as part of the center's educational mission. Rob graduated from the University of Glasgow School of Veterinary Medicine in Scotland, UK. In addition, he completed year-long internships at both the Western College of Veterinary Medicine in Saskatoon, Canada as well as the National Aquarium in Baltimore, MD, USA concentrating on wildlife, zoo and exotic companion animal medicine.

Methods for the rescue, rehabilitation, and release of two Costa Rican sloth species: *Bradypus variegatus* and *Choloepus hoffmani*.

Sam Trull, Wildlife Manager, Kids Saving The Rainforest in Costa Rica; Founder/Director of The Sloth Institute Costa Rica

The unique morphological and ecological characteristics of sloths, described by scientists as unusual mammals, places them among of the most difficult wildlife species to rehabilitate. Widely distributed throughout Costa Rica, both *Bradypus variegatus* and *Choloepus hoffmani* are listed as "Least Concern" by the IUCN. However, very little is known about their population density, ecological needs, behavior, social systems, life history, and conservation concerns. Sloths are common patients at rescue centers across the country, but due to a lack of basic scientific knowledge, they are notoriously difficult to rehabilitate and release back to the wild. Kids Saving The Rainforest (KSTR) wildlife rescue clinic in

Manuel Antonio, Costa Rica, regularly receives injured and orphaned sloths. The most common causes of injury are electrocution and dog attacks; injuries of unknown origin also account for a significant percentage of the patients. Rehabilitating injured adult and orphaned sloths requires quick medical attention, knowledge of their unique morphological characteristics, and special attention to their behavioral and dietary needs. Housing that most closely resembles their natural environment and provides sunshine, breeze, and appropriate locomotory opportunities is important for minimizing stress. Wild foods must be collected daily while attempting to provide captive diet items when appropriate or necessary; in addition, food must be presented in a natural manner. Orphans require around the clock care, and a very specific diet. Adults should be released near where they were found, whereas orphans require a much longer training process with gradually increasing opportunities for independence and complex enclosures for adequate enrichment.

Bio: Sam's passion for working with animals started as a teenage volunteer at the Duke Lemur Center, Durham, North Carolina, where she worked for over a decade while completing a degree in Zoology from North Carolina State University and a Masters of Science in Primate Conservation from Oxford Brookes University in the UK. After expeditions to Madagascar, West Africa, and Central America, Sam settled in Costa Rica as the Wildlife Manager at Kids Saving The Rainforest, where she cares for orphaned and injured wildlife. Sam is also the Founder/Director of The Sloth Institute and is the photographer at Primatology.

Serologic surveillance for raccoon roundworm and risk factors for exposure in wildlife rehabilitators.

Sarah G. Sapp^{1,2}, Lisa N. Rascoe³, Patricia Wilkins³, Sukwan Handali³, Elizabeth B. Gray³, Mark Eberhard³, Dana M. Woodhall³, Susan P. Montgomery³ and Michael J. Yabsley^{2,4}

Affiliations: ¹Department of Infectious Diseases and ²Southeastern Cooperative Wildlife Disease Study, Department of Population Health, College of Veterinary Medicine, University of Georgia, Athens, GA; ³Centers for Disease Control and Prevention, Atlanta, GA; and ⁴Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA.

Baylisascaris procyonis, the raccoon roundworm, is a zoonotic parasite and a cause of severe neurologic disease in >130 wildlife species. Many of the ~30 diagnosed human cases were fatal or resulted in severe neurologic complications; however, nearly all were in children who likely ingested large numbers of parasite eggs in raccoon feces. We hypothesized that healthy adult at-risk individuals may have asymptomatic infections that resulted from accidental ingestion of low numbers of eggs. Wildlife rehabilitators have frequent contact with raccoons and their feces so we collected serum samples from 273 wildlife rehabilitators from 33 states and 3 Canadian provinces. These samples were tested for antibodies to *B. procyonis* using a recombinant RAG1 antigen western blot assay. In addition, study participants filled out a questionnaire on their wildlife and raccoon contact and PPE use to assess possible risk factors. Overall, 19 participants (7%) were positive for antibodies to *B. procyonis*, of which, 13 (68%) had actively rehabilitated raccoons in the past year. All 19 positive individuals had conducted rehabilitation in areas where *B. procyonis* is present or suspected to be present in raccoons (i.e., 12 U.S. states and one Canadian province). Use of PPE was variable, but most participants reported frequent use of gloves and hand-washing. In summary, antibodies to *B. procyonis* were detected in adult healthy wildlife rehabilitators. Currently, we are administering a questionnaire to wildlife rehabilitators to assess knowledge of *B. procyonis* and use of PPE to better understand the educational needs of this community.

Bio: Sarah Sapp is a second-year PhD student at the University of Georgia in the Department of Infectious Diseases. Her research interests include zoonotic diseases and parasitology, especially in the context of spillover from wildlife to people. In collaboration with the Centers for Disease Control and UGA's Southeastern Cooperative Wildlife Disease Study, she seeks to study the public health implications and epidemiology of the raccoon roundworm, *Baylisascaris procyonis*.

Bobcat Rehabilitation and Post Release Tracking

Tammy O'Neil and Traci Keller, Lake Metroparks Wildlife Center, Kirtland, Ohio

The bobcat was one of 71 species on Ohio's first endangered list in 1974. A project was initiated by the Ohio Division of Wildlife (ODW) in 1997 to monitor the bobcat's status through surveys and investigations. Due to an increase in the amount of verified sightings in the state, bobcats went from being classified as endangered to threatened in Ohio by the ODW in 2012. The Ohio Division of Wildlife entrusted the care of two orphaned, female bobcat kittens to Lake Metroparks Wildlife Center for release back into the wild in 2013. Currently, the field of wildlife rehabilitation does not conduct enough post-release studies. The information rehabilitators can learn from every post-release study, allows the field to make improvements regarding management guidelines and triage protocols. This information can only help increase an animal's survival in the wild. The Wildlife Center collaborated with the Ohio Division of Wildlife to determine a release site and a long term monitoring program post release. This presentation will cover in detail the triage and safety protocols established for bobcats. Additionally, we will discuss how we revamped an enclosure to meet the needs of the bobcats and the importance of record keeping through data, photos and videos. Lastly, we will share the results discovered while tracking the bobcats from May 2014 through November 2014.

Bio: Tammy O'Neil is the Wildlife Care Manager for 20 years. She has a Bachelors Degree in Zoology from Kent State University and currently pursuing a Master Degree in Environmental Management from Green Mountain College. She has taught at past OWRA, NWRA and IWRC conferences. She also taught a Wildlife Rehabilitation 101 class at Lakeland community College for 8 years. Tammy also served as a past OWRA board member and is currently on the Disease Committee.

Traci Keller is the Senior Wildlife Care Specialist for 15 years. She has a Bachelor Degree in Biology from Cleveland State University. She has presented at past OWRA conferences. She is currently on the Communication Committee for OWRA.