

Trends in Human — Wildlife Interaction

March 29, 2012

Conference Program



- 7:30 Registration & continental breakfast, view posters
- 8:30 Welcome: Malia Schwartz, RINHS Board of Directors, President
Presentation of the 2012 Golden Eye Award
David Prigmore, presented by David Gregg, RINHS
Introduction and Presentation of 2012 RI Distinguished Naturalist Award
Peter B. Lord, Providence Journal environmental reporter, presented by
Sunshine Menezes, Director, Metcalf Institute for Marine & Environmental Reporting
- 9:00 Introduction:
David Gregg, RINHS, Executive Director
Monte Chandler, USDA Wildlife Services, RI, CT, MA State Director
- 9:25 Michael McBride, Roger Williams Park Zoo
Zoonotic Disease and the Effects of the Human-Animal Interface
- 9:45 Maria A. Diuk-Wasser, Yale School of Public Health
Environmental and Behavioral Determinants of Lyme Disease Risk on Block Island, RI
- 10:05 Cynthia Maynard, University of Rhode Island/USFWS SNEP Coastal Program
Sandy Point Island: Striking a Balance Between Birds and Beachgoers
- 10:25 Break, view posters
- 10:50 Thomas Rawinski, USDA Forest Service
White-tailed Deer are Devouring the Forests of Rhode Island
- 11:20 Christopher Riely & Rob MacMillan, Providence Water
Deer Impacts and Management at the Source of Rhode Island's Primary Drinking Water Supply
- 11:40 Brian Tefft, RI DEM
Rhode Island's Deer Management Strategy
- 12:05 Lunch, view posters
- 12:50 Panel: *Domestic cats, Wildlife Rehabilitation, & Public Health*. Moderator: Malia Schwartz
Meredith Bird, Veterinary Services of Wickford.
Striving for Peaceful Co-Existence Between Bird Lovers & Cat Owners
Chi Chan & Kristin Fletcher, Wildlife Rehab Association of RI.
Demographics of Wildlife Rehabilitation in RI
Scott Marshall, RI State Veterinarian
- 2:00 Bill Betty, *Big Cats in the 'Hood'; Puma concolor in the Urban Woodland Interface in Southern New England*
- 2:20 Break, view posters
- 2:35 Peter Busher, Boston University
Ecology and Management of Beavers
- 3:05 Jessica Blackledge, Eastern Rhode Island Conservation District
Making Peace with Geese
- 3:25 Scott Ruhren, Audubon Society of Rhode Island
Deer, Pulpits and Sex-Changing in the Garden State
- 3:45 Discussion: *What's in the Human — Wildlife Interaction Toolbox?*
Panel: Charlie Brown (RI DEM), Numi Mitchell (The Conservation Agency),
- 4:30 Adjourn: Quonset O Club Lounge opens to encourage additional discussion and networking

Trends in Human – Wildlife Interaction

Rhode Island Natural History Survey
16th Annual Conference
March 29, 2012

GEOSPATIAL ANALYSIS OF MANAGEMENT AREAS IMPLEMENTED FOR PROTECTION OF THE NORTH ATLANTIC RIGHT WHALE ALONG THE NORTHERN ATLANTIC COAST OF THE U.S.

Michael J. Asaro, NOAA's NMFS, Northeast Region Protected Resources
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The North Atlantic right whale is a critically endangered large whale species found off the U.S. and Canadian coasts. The primary human-caused threats are entanglement in fishing gear and collisions with vessels. NOAA's National Marine Fisheries Service has implemented both seasonally and dynamically managed protective zones where right whales occur to reduce these threats; Seasonal Area Management (SAM) and Dynamic Area Management (DAM) for the reduction of right whale entanglements with fishing gear, and Seasonal Management Areas (SMA) and Dynamic Management Areas (DMA) for reduction of vessel collisions. This poster analyzes the presence of frequent concentrations of right whales outside of SAM and SMA zones, represented by spatial and temporal occurrence of DAMs and DMAs. A grid was geospatially applied to locations of DAMs and DMAs from April 2002 through June 2011 and the number of management areas that intersected each 1-minute square was populated. DAMs and DMAs were most highly concentrated along the central Gulf of Maine. Of the 131 DAMs and DMAs implemented, 97 (74.0%) intersected this area, and were primarily implemented from October through February. The results of this analysis will aid in the expansion of management actions for the reduction of vessel collisions with right whales. [poster]

BIG CATS IN THE 'HOOD'; *PUMA CONCOLOR* IN THE URBAN WOODLAND INTERFACE IN SOUTHERN NEW ENGLAND

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After a prolonged absence, mountain lions have returned to New England. Populations are recovering in the eastern US and Canada. Sources of repopulation are escaped pets, immigrants from the West or relic populations that survived in eastern Canada. Abundant resources, adequate cover and a

lack of threats from hunters and wolves have made this recovery possible. Evidence exists in nearly every NE state and Canadian province including tracks, a skull, scat, deer kills and a road killed cougar. State wildlife agency employees have publically described their encounters in NE. Catamounts have been observed in nearly every county in the Ocean State. Deer kills have been discovered in several RI communities. Encounters are on the rise as cougars become habituated. Residents in MA & RI - including children- have survived close personal encounters without injury. Public safety, nevertheless, will be an issue. Having the DEM provide accurate and reliable information to the public will be an essential element in any cougar wildlife plan. One hundred fifty million Americans now live in areas where mountain lions are found. Managing nature's perfect predator in the midst of millions of citizens in New England will be a challenge. [oral]

THE CAPE COD ORAL RABIES VACCINATION PROGRAM:

PROGRESS IN CONTROLLING THE RACCOON-VARIANT OF RABIES

Brian M. Bjorklund¹, Ryan J. R. Bevilacqua¹, Monte D. Chandler¹, Timothy P. Algeo², Richard B. Chipman², Karl W. von Hone³, Amy L. von Hone⁴, Lee A. McConnell⁵, and Dennis Slate². ¹USDA, APHIS, Wildlife Services MA/CT/RI; ²USDA, APHIS, Wildlife Services National Rabies Management Program; ³Yarmouth Division of Natural Resources; ⁴Yarmouth Health Division; ⁵Barnstable County Department of Public Health and Environment. 9 Main St., Suite 1-M, Sutton, MA 01590. brian.bjorklund@aphis.usda.gov

USDA-Wildlife Services has collaborated in cooperative oral rabies vaccination (ORV) efforts to prevent the spread of raccoon-variant rabies to Cape Cod, Massachusetts since 2001. ORV baits have been used in both fishmeal polymer coated block and coated sachet formats. Unfortunately, the rabies virus was detected on the Cape in 2004, and intensive and varied control operations were unable to prevent its spread to Provincetown by 2006. During the intervening years of ORV efforts on the Cape, total annual reported rabies cases there declined from a high of 160 in 2005, to fewer than 11 (2007-2011). The experimental use of bait stations over a 3-km² commercial and residential study area during 2006-2008 was implemented to assess their utility as an alternative to traditional ground-baiting in areas of high human density. Due to 2009 cooperator budget cuts, ORV bait stations were deployed throughout the mid-Cape in efforts to conserve baits while achieving adequate vaccination rates. In addition, after several years of favorable rabies surveillance results in the outer-Cape's ORV treatment area, the ORV zone was shifted westward towards the Cape Cod Canal during the fall 2010 ORV baiting as part of ongoing efforts to eliminate the raccoon-variant of rabies from the peninsula. [poster]

MAKING PEACE WITH GEESE

Jessica Blackledge, District Manager – Eastern Rhode Island Conservation District, 2490 Main Road, Tiverton, RI 02878. info@easternriconservation.org

Rhode Island's lands, waters and native species are drastically impacted by the estimated 5,000 – 10,000 resident Canada Geese that call Little Rhody home. Stripping of cover crops on farmlands, nutrient and bacteria loads in water bodies, competition with native wildlife and direct and indirect physical and economic hazards resulting from contact with geese are all increasing at alarming rates. And yet, these are a mere handful of the current and potential problems we face. In order to assist landowners, Rhode Island's Conservation Districts entered into cooperative agreements with the USDA- Natural Resources Conservation Service in 2011 and 2012 to provide educational workshops to anyone interested in learning about resident Canada Goose history, biology, behavior, risks and mitigation techniques available to them. Workshops were open to the public with a special focus for farmers and other landowners eligible for technical or financial assistance through NRCS. Also included are three field trainings on implementing the GeesePeace population stabilization method (an egg treatment method recognized as humane by PETA, the US Humane Society, etc.) and leading volunteers in locating nests and implementing GeesePeace egg treatment on over 15 properties in Eastern District. [oral]

WILDLIFE REHABILITATION IN RHODE ISLAND

Chi Chan, DVM, MPH & Leslie Uhnak, BA.

The Wildlife Rehabilitators Association of Rhode Island

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The Wildlife Rehabilitators Association of Rhode Island (WRARI) has been providing medical care and rehabilitation to injured and orphaned wildlife since its inception in 1993. In 2011, 2282 animals were brought to our Wildlife Clinic in Rhode Island. Most of those animals were admitted with injuries of unknown origin. Of the 232 adult mammals and birds with known causes of injuries, 95% were associated with the human population (hit-by-car or window strikes; 61.6%; attacked by pets (cats: 20.7%; dogs: 3.0%)). Less than 5% of the injuries were due to natural causes (attacked by predators). Of the 1655 juvenile animals admitted, 18.5% arrived with injuries, while the majority of the remaining cases were considered "orphaned". Species distribution, as well as our outcome statistics, will be presented. A brief summary of interesting cases will be discussed. [oral]

ENVIRONMENTAL AND BEHAVIORAL DETERMINANTS OF LYME DISEASE RISK ON BLOCK ISLAND, RHODE ISLAND

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Lyme disease is a rapidly emerging zoonosis, with more than 30,000 confirmed cases in 2009. After the withdrawal of the vaccine in 1999, public health strategies to prevent Lyme disease concentrated on personal protective measures and methods of reducing the abundance of the ticks in the environment. Studies assessing the effectiveness of behavior modification often lack a measure of exposure to the vector tick *Ixodes scapularis*. We studied the relative effectiveness of different protective behaviors in avoiding exposure to tick-borne pathogens after adjusting for differential exposure risk. The study included 212 participants in a 2000-2005 longitudinal study on risk factors for tick borne diseases on Block Island, RI. Participants attended biannual serosurveys and completed a self-administrated questionnaire asking about personal protective measures. We used a high-resolution satellite image to estimate landscape metrics linked to tick exposure. Comprehensive tick checking and the density of lawn-shrub edge were associated with an increase in the odds of developing positive Lyme serology. These results confirm the effectiveness of some protective measures, once controlling for differences in exposure. They can guide future designs for case control or cohort studies to more accurately identify risk factors for tick-borne infection. [oral]

THE NANTUCKET GRAY SEAL: A CASE OF REVERSE HARASSMENT

Lanni Hall¹, Allison Rosner¹, Todd Nickerson², & Mendy Garron¹.

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During the summer of 2010, NOAA's National Marine Fisheries Service (NMFS) was notified of human interactions with gray seals in Nantucket, Massachusetts. A video posted by the public on YouTube showed a large, adult gray seal coming onto the beach with unusually bold behavior to chase fish being reeled in by surfcasters at a popular fishing location. A site visit by NMFS officials and subsequent observations concluded that one animal in particular was "harassing" fishermen and the general public. A targeted outreach plan was developed to address public safety concerns arising from documented interactions with the seal. On October 1, 2010, a stranded gray seal was stranded on a beach on Cape Cod as being lethargic and with a severe injury to one eye. The animal was collected and after assessment, was humanely euthanized. Photo identification of a unique scar on the animal's left flank confirmed it was the same animal as previously documented on Nantucket. Necropsy revealed that the animal had been shot in the head at close range. The NOAA's Office of Law Enforcement investigation is ongoing. This poster will discuss actions taken by NMFS and continuing efforts on Nantucket to address gray seal and human interaction issues. [poster]

MANAGEMENT OF INTERACTIONS BETWEEN HARBOR PORPOISE AND COMMERCIAL GILLNET FISHING GEAR THROUGH THE HARBOR PORPOISE TAKE REDUCTION PLAN

Amanda Johnson, Michael J. Asaro, & Kate Swails, NOAA's NMFS,
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Abstract: The Harbor Porpoise Take Reduction Plan (HPTRP) is intended to reduce interactions between commercial gillnet fishing gear and the Gulf of Maine/Bay of Fundy stock of harbor porpoises. The Gulf of Maine component manages commercial sink gillnet gear or gillnet gear capable of catching multispecies through time and area regulations in management areas from Maine to Rhode Island. Measures include area closures as well as the use of acoustic deterrent devices (pingers). The Mid-Atlantic component manages commercial gillnet fishing through time and area regulations from New York through North Carolina. Measures include area closures and gear specification requirements for large and small mesh gillnet gear, in which fishermen set gear that is less likely to result in harbor porpoise entanglement. Takes of harbor porpoises have increased in recent years due to compliance issues and potential shifts in harbor porpoise distributions. In response to the recent increase in bycatch, in 2010 a number of modifications to the HPTRP were implemented. New measures included expansion of seasonal and temporal requirements within HPTRP management areas, incorporation of additional management areas, and the establishment of a consequence closure area strategy within select management areas with historically high levels of harbor porpoise bycatch. [poster]

DEER IMPACTS AND MANAGEMENT AT THE SOURCE OF RHODE ISLAND'S PRIMARY DRINKING WATER SUPPLY

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Providence Water is the City-operated utility providing drinking water to about 600,000 people, or two-thirds of all Rhode Islanders. Within the larger watershed, the Water Resources Division actively manages about 12,500 acres of forestland surrounding the Scituate Reservoir and five smaller tributary reservoirs. The goal of the forestry program is to maintain woodlands that provide clean water and are resilient to large-scale disturbances that could impact water quality. A major challenge watershed managers now face is the threat to forest regeneration posed by white-tailed deer herbivory. Foresters had long suspected that overabundant deer were significantly impacting regeneration (especially hardwood species) and a 2009 study confirmed these observations. Providence Water considered various options and in 2010 embarked on a deer management program including controlled hunting. Administered in partnership with the RI DEM, the hunting program covered about 3,000 acres during its second season and will continue to evolve in subsequent years. Managing human dimensions of the deer issue with public

officials, local residents, hunters, and other stakeholders is an important element. Working with partners has proved to be a valuable strategy in addressing deer-human conflicts in this high conservation value forest located at the edge of Rhode Island's urban-wildland interface. [oral]

SANDY POINT ISLAND: STRIKING A BALANCE BETWEEN BIRDS AND BEACHGOERS

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Sandy Point Island is a small barrier beach island in Little Narragansett Bay. It was donated to the Avalonia Land Conservancy, Inc. in 1982 to be managed as a nature preserve. While the land trust has made valiant efforts to protect the island's resources, the popularity of the island as a recreational destination has made striking a balance between humans and wildlife a significant challenge. Sandy Point is a breeding site for the federally threatened piping plover, state threatened least tern, and the American oystercatcher, a species of concern. It is also a staging area for the federally endangered roseate tern and the extensive flats provide a feeding ground for a variety of shorebirds and seabirds, including the red knot, a candidate species for federal protection. Sandy Point also boasts the highest number of mating horseshoe crab sightings in eastern Connecticut, and has constituted 60% of all horseshoe crabs tagged as part of the Project Limulus monitoring program in the past 3 years. The USFWS has recently partnered with Avalonia to monitor and protect the island's birds and educate the public to reduce human-wildlife conflict. This has led to a marked increase in breeding success and increased public awareness and consideration for the island's resources. [oral]

MANAGING INTERACTIONS OF PILOT WHALES, COMMON DOLPHIN, AND ATLANTIC WHITE SIDED DOLPHIN IN COMMERCIAL TRAWL FISHERIES THROUGH THE ATLANTIC TRAWL GEAR TAKE REDUCTION TEAM AND STRATEGY

Mark Minton & Allison Rosner, NOAA's NMFS, Northeast Region Protected Resources Division. 55 Great Republic Drive, Gloucester, MA 01930.
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NOAA's National Marine Fisheries Service convened the Atlantic Trawl Gear Take Reduction Team (ATGTRT) to develop consensus recommendations for a take reduction strategy to reduce the serious injury and mortality of pilot whales, common dolphins, and Atlantic white-sided dolphins from interactions with various Atlantic trawl fisheries. In December 2008, the ATGTRT developed the Atlantic Trawl Gear Take Reduction Strategy that identifies research needed to address these marine mammal interactions in trawl fisheries, as well as related education and outreach activities. The ATGTRS includes a monitoring component to track the status of the various marine mammal stocks of concern and the implementation of the Strategy. NMFS, in

cooperation with industry, developed a guide, which includes voluntary measures to reduce marine mammal interactions in Atlantic trawl fisheries. [poster]

DIVERSITY AND ENVIRONMENTAL IMPACT OF KARYORELICTID MICROBES IN INTERSTITIAL BEACH SAND COMMUNITIES OF R.I.

Bailey Munro, Adam Silva & Linda A. Hufnagel, URI, Department of Cell and Molecular Biology, 119 Morrill Bldg, Kingston, RI. lhufnagel@uri.edu

The *Karyorelictea* belong to the Phylum Ciliophora (unicellular eukaryotes characterized by the presence of cilia and nuclear dimorphism) and are common in marine interstitial environments. They may be useful as indicator organisms for impacts of human activity on beach habitats. Rapid growth, high turnover rates and short generation times allow immediate responses of karyorelictids to changes in environmental conditions; thus, karyorelictid diversity and abundance measurements may be useful in detecting effects of human activity on the sandy littoral zone. The overall goals of our project are to characterize the diversity and abundance of karyorelictids in Rhode Island's beach sands, and to develop a DNA bar-coding system that can be used to rapidly identify and quantitate karyorelictids in sand samples. So far, we have identified sites in Newport, RI, where karyorelictids can be routinely identified and collected, established methods to extract ciliates from sand from these beaches, learned to recognize karyorelictids by their unique morphology and behavior, and begun to document their anatomy and behavior using videomicroscopy. We are now developing a simple coring method for collecting and quantitating karyorelictids from different layers of sand, and establishing staining methods, suitable for karyorelictids, to provide information needed for species identification. [poster]

AGGRESSIVE BEHAVIOR IN CANADA GEESE *BRANTA CANADENSIS* FORAGING ON NATURAL VERSUS HUMAN-FED DIETS

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Canada Geese (*Branta canadensis*) often congregate in large groups and can be the dominant fauna at urban lakes and ponds where their presence is often encouraged by supplemental feeding by well-meaning citizens. Municipalities spend considerable effort to mitigate the damage caused by these nuisance flocks, including instituting no-feeding campaigns that focus on the consequences of diet change and the poor nutritional content of supplemental food. However, supplemental feeding may also affect goose behavior, leading to detrimental changes in behavior patterns. In this study we observed flocks of resident Canada Geese feeding in several locations in Roger Williams Park to measure changes in aggressive behaviors exhibited when being fed by humans versus when foraging naturally. Biting was the dominant aggressive behavior in

both types of diets, and we found a significant increase in the total number of aggressive behaviors exhibited by geese when being fed by humans (1228 vrs 80). Geese being fed by humans also exhibited significantly more bites, threats and charges. Our results demonstrate increased levels of intra-specific aggression among geese being fed by humans, information that can help inform public education efforts that are an integral part of no-feeding campaigns. [poster]

WHITE-TAILED DEER ARE DEVOURING THE FORESTS OF R.I.

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Overabundant white-tailed deer pose a great threat to the health and sustainability of Rhode Island's forests. We are already seeing deer-induced tree regeneration failure across thousands of acres in the state, especially in areas closed to hunting. These severely deer-impacted forests are disintegrating before our eyes, and are essentially dying. At risk are the myriad values that healthy, productive forests provide. This presentation will illustrate deer impacts in forests, and explore the human dimensions of this challenging management issue. There is no magic wand that can be used to solve the problem. Mitigating the threat will require interdisciplinary cooperation and coordination among professionals, with heavy grassroots-level involvement by stakeholders. In the spirit of ecosystem management, our challenge is to understand socio-ecological systems, and to manage these systems in a manner that best integrates the needs of wildlife, plants, and people. [oral]

WHALE WATCHING IN THE NORTHEAST REGION

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Abstract: The Northeast United States (Maine to Virginia), is host to one of the most popular whale watching areas in the world. Currently approximately 35 whale watching companies operate within the Northeast Region, providing critical economic support to their local communities and serving approximately 1.2 million passengers each year¹. Under the Marine Mammal Protection Act (MMPA), activities must be conducted in a way that does not harass, or interrupt the natural behaviors of the whales being watched or put these animals at risk of injury from vessel strike. In the Northeast region, a code of voluntary guidelines including distance and speed reduction zones exist to help whale watching vessels minimize risk to the animals and keep from violating the MMPA. This poster will discuss the current whale watching guideline regime, as well as other innovative, incentive-based educational programs

developed for the whale watching industry, such as the Whale SENSE program, that have been implemented in order to foster compliance with the whale watching guidelines and therefore protect large whales from potential negative impacts associated with viewing activities. [poster]

DEER, PULPITS AND SEX-CHANGING IN THE GARDEN STATE

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Protection and restoration of native herbaceous species are influenced by many factors including herbivores. At long-term forest study sites in Morristown National Historical Park, New Jersey, deer herd estimates have ranged between 60-100 animals per km². Before wildflower restoration could begin, test plots were set up in 1997 to evaluate deer effects on selected herbaceous species as well as the practicality of restoration within this landscape. Groups of nine native herbs were planted inside and outside ten deer enclosures. At another section of MNHP, four populations of *Arisaema triphyllum* (Jack-in-the-pulpit) were divided into protected and unprotected patches. *Arisaema triphyllum* was chosen because it is a common native woodland herb that deer are not supposed to eat. Effects of heavy deer browsing on plants in both sites have been both obvious, such as overnight removals and ongoing consumption, to subtle, long-term life history changes. There has been low survival and no reproduction by plants outside the enclosures. *Arisaema triphyllum* populations demonstrate sex expression patterns that do not match patterns in other locations. Still, after years of observation it has been revealed that more than deer could be affecting the recovery of the native herbaceous layer in this forest. [oral]

MANAGEMENT OF INTERACTIONS BETWEEN LARGE WHALES AND COMMERCIAL FISHING GEAR THROUGH THE ATLANTIC LARGE WHALE TAKE REDUCTION PLAN

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The Atlantic Large Whale Take Reduction Plan (ALWTRP) was developed to reduce the serious injury and mortality of large whales due to incidental entanglement in U.S. commercial gillnet and lobster trap/pot gear from Maine through Florida. In general, the ALWTRP consists of a combination of regulatory and non-regulatory programs, including broad gear modifications, time-area closures, expanded disentanglement efforts, extensive outreach efforts in key areas, gear research, and an expanded right whale surveillance. The ALWTRP was first implemented in 1997 and has been modified on several occasions since. NOAA's National Marine Fisheries Service (NMFS) is presently considering additional modifications to the ALWTRP to reduce the potential for entanglements and minimize adverse impacts if entanglements

occur. NMFS, as well as its partners, have conducted extensive whale and gear research to support management-related issues under the ALWTRP. Although much progress has been made over the years, more research is needed to further support management. Thus, NMFS has identified and prioritized a number of important research gaps to assist funding programs. Coordination between research and management is critical in order to effectively reduce the serious injury and mortality of large whales in commercial fisheries. [poster]

SHRUBLAND BIRD USE OF POWERLINE CORRIDORS IN R.I.

Linda Vanderveer & Jeff Peterson, Vanasse Hangen Brustlin, 10 Dorrance Street, Suite 400, Providence, RI, 02903. lvanderveer@vhb.com

Shrublands have long been an integral part of the New England landscape, supporting many species of birds and other wildlife. Current anthropogenic practices such as development and fire suppression have reduced the amount of shrubland in the region. Breeding Bird Survey (BBS) data indicate that many shrubland birds are experiencing population declines in the Northeast, due in part to this habitat loss. Transmission line corridors represent one of the few remaining sustained sources of shrubland vegetation in the region. Rather than creating a human-wildlife conflict, these managed habitats have proven critical to supporting populations of breeding shrubland birds. We conducted breeding bird surveys in 2005, 2007, and 2010 along two existing transmission line corridors in Rhode Island. We recorded 75 species, including 20 species that are identified as shrubland breeders. Ten of these shrubland specialists have been identified in BBS data as experiencing statistically significant population declines in southern New England between 1966 and 2006. Our surveys suggest that a number of declining shrubland bird species use transmission line corridors in Rhode Island for breeding, underscoring the importance of this habitat. [poster]

RHODE ISLAND NATURAL HISTORY

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POSTER PRESENTERS

Michael Asaro – Geospatial Analysis of Management Areas Implemented for Protection of the North Atlantic Right Whale along the Northern Atlantic Coast of the United States

Brian Bjorklund – The Cape Cod Oral Rabies Vaccination Program: Progress in Controlling the Raccoon Variant of Rabies

Chi Chan – Demographics of Wildlife Rehabilitation in Rhode Island

Lanni Hall – The Nantucket Gray Seal: A Case of Reverse Harassment

Amanda Johnson – Management of Interactions Between Harbor Porpoise and Commercial Gillnet Fishing Gear through the Harbor Porpoise Take Reduction Plan

Mark Minton – Managing Interactions of Pilot Whales, Common Dolphin, and Atlantic White Sided Dolphin in Commercial Trawl Fisheries through the Atlantic Trawl Gear Take Reduction Team and Strategy

Bailey Munro & Adam Silva – Diversity and Environmental Impact of Karyorelictid Microbes in Interstitial Beach Sand Communities of Rhode Island

Ashley O'Connor – Aggressive Behavior in Canada Geese *Branta canadensis* Foraging on Natural Versus Human Fed Diets

Allison Rosner – Whale Watching in the Northeast Region

Kate Swails – Management of Interactions Between Large Whales and Commercial Fishing Gear through the Atlantic Large Whale Take Reduction Plan

Linda Vanderveer – Shrubland Bird Use of Powerline Corridors in Rhode Island

ORGANIZATIONAL DISPLAYS

Rhody Native™
Personal Taxidermy Collection of Harvey Perry
Wildlife Rehabilitators Association of RI