



THE MAINE CHAPTER OF THE WILDLIFE SOCIETY



THE MAINE WILDLIFER

WINTER 2016

HERON TRACKING PROJECT: GPS DATA FOR ALL TO USE AND LEARN FROM *Danielle D'Auria, Maine Department of Inland Fisheries and Wildlife*

This spring, Maine Department of Inland Fisheries and Wildlife (MDIFW) tagged five adult great blue herons with GPS transmitters as part of an ongoing effort to better understand the state's great blue heron population. After a significant decline in the number of nesting pairs on Maine's coastal islands from the 1980s to 2007, MDIFW listed the great blue heron as a Species of Special Concern and began a citizen science adopt-a-colony program called the Heron Observation Network. By marking and following individual adults over several years, MDIFW hopes to learn new information regarding daily movements, habitat use, colony fidelity, migration routes, and wintering locations of Maine's herons.

Students and teachers from schools across the state played an important role in the field work leading up to the tagging of the five herons. The students and teachers set and checked minnow traps, identified and measured the baitfish caught, and placed the baitfish into a bait bin in order to get a great blue heron to regularly feed from it. They also used game cameras to "watch" the bait bins when they were not there themselves. After a heron was accustomed to feeding from the bait bin, MDIFW and researchers Dr. John Brzorad (Lenoir-Rhyne University) and Dr. Alan Maccarone (Friends University) set out an array of

Students from Center Drive School in Orrington dump bait fish into a bin at a potential trap site. Photo by teacher, Nancy Swanson.



modified foothold traps near the bait bin to capture the heron so they could tag it with a GPS transmitter. The use of modified foothold traps has been perfected by Brzorad, and involves watching the set traps from a blind until a heron steps into one of the traps. Once trapped, it is then quickly retrieved by the researchers for processing. The bird is kept calm with a hood over its eyes while researchers take measurements and a blood sample for sexing, and attach the transmitter.

(Continued on page 2)

INSIDE *THE MAINE WILDLIFER*:

The 2016 TWS National Conference.....	4	Presidential Candidates	13
Bats, Biscuits, and BBQ	4	BioBrews.....	14
President's Message.....	6	Meetings.....	15
Trail Cameras	9	METWS Officers and Committees	16
Conservation Affairs Update	11		

(Heron Tracking Project, Continued from page 1)

The transmitters were purchased with help from a grant from the Maine Outdoor Heritage Fund, and represent the cutting edge of telemetry technology and transmit GPS locations via the cell phone network to an open source website (www.movebank.org). The units also collect xyz accelerometry data on behavioral postures that quantify time-energy budgets. Being solar-powered, they are expected to provide years of data for each tagged heron. Fully charged, the units collect 288 GPS points and 360 behavioral (accelerometry) tracings per 24-hr period. The data is available on www.movebank.org for the students, citizens, and conservationists of Maine to use in education and to help make conservation decisions.



Danielle D'Auria and John Brzorad set an array of modified foothold traps around a bait bin, hoping to capture a great blue heron. Photo by HERON volunteer, Joyce Love.

Brzorad and Maccarone have been using these same transmitters since 2013 and have paired nearly 20 birds (great egrets and great blue herons) with school systems in five other states. In Maine, the students involved in this spring's field work ranged in level from grades 1-12 and were from the following schools: White Pine Programs in York, Harpswell Community School (in partnership with Harpswell Heritage Land Trust), Gray-New Gloucester High School, Nokomis High School in Newport, Old Town High School, Haworth Academic

Center in Bangor, and Center Drive School in Orrington. Thanks to their efforts, five great blue herons were trapped and tagged in Orrington, New Gloucester, Orono, and Palmyra:

"Sedgey" is a male trapped in Orrington, adopted by Center Drive School, and was named after the stream on which he was trapped: the Sedgeunkedunk. Sedgey's summer movements showed he nested in a known great blue heron colony in Bradley, 11.85 miles (straight-line distance) from where he was trapped. Sedgey was the first of our tagged herons to fly south for the winter, beginning his journey on September 1st. He first stopped over at the Merrimack River estuary for 19 hours before flying nonstop for 29 hours to southern Georgia. Within 12 hours, he flew to an agricultural area north of Lake Okeechobee in Florida.

"Cornelia" is a female trapped at the New Gloucester Fish Hatchery, adopted by the Gray-New Gloucester High School. She had gotten into a fish rearing raceway at the hatchery, making her an easy capture with a long-handled net. Cornelia's summer movements showed she nested in a known great blue heron colony in Gray. Cornelia spent her post-breeding time in Brunswick and departed Maine on September 23rd. Unlike Sedgey, she stopped more frequently along her journey south to the Great Dismal Swamp area of Virginia and North Carolina. The last location received from her transmitter was on September 29th, which may be due to poor cell phone coverage there.

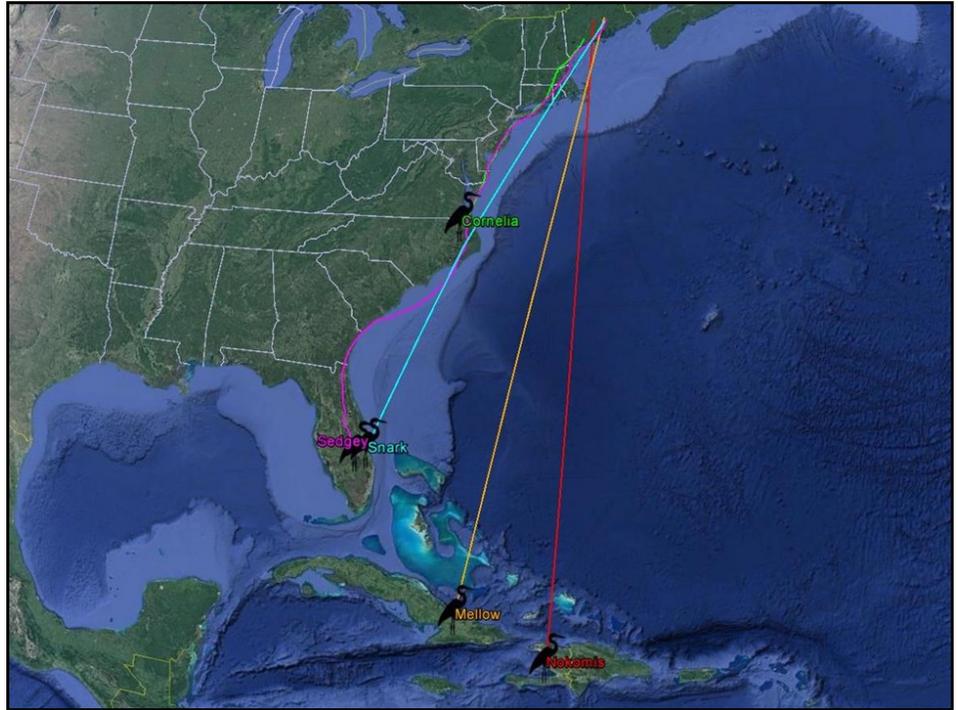
"Snark" is a male trapped in Orrington and adopted by Haworth Academic Center in Bangor. The students chose his name because they had recently read Lewis Carroll's poem, "Hunting of the Snark." Snark's summer movements showed he nested in a known great blue heron colony in Brewer. Volunteers verified Snark at a nest within this colony. The nest was one of the last ones to be active at the end of the season and on July 25th still had 1 young present. Snark's transmitter temporarily stopped transmitting after September 22nd, possibly due to feathers covering the solar panel and preventing the battery to charge. We have since received locations revealing he is now wintering in Vero Beach, FL.

(Continued on page 3)



“Mellow,” equipped with a GPS transmitter, just before release. Photo by Brittany Marinelli.

The current wintering locations of five great blue herons tagged with GPS transmitters in Maine in June 2016. Exact tracks for Snark, Mellow, and Nokomis are unknown due to low voltage of the transmitters during migration.



“Mellow” is a female trapped at Pine Ponds on Orono Land Trust property and adopted by Old Town High School. Mellow’s summer movements showed she nested in a known great blue heron colony in Orono. Mellow’s transmitter temporarily stopped transmitting after October 13th. We have since received locations revealing she is now wintering in Puerto Padre, Cuba.

“Nokomis” is a female trapped in Palmyra and adopted by Nokomis High School. Nokomis’ summer

movements showed she nested in a known great blue heron colony in Newport, which is right behind the Nokomis High School baseball field. Nokomis’ transmitter temporarily stopped transmitting after September 2nd. We have since received locations revealing she is now wintering in rice plantations north of Saint-Marc, Haiti.

MDIFW is currently working to get more students involved in tracking the tagged great blue herons online and using the data generated by the solar-powered backpack transmitters in their classrooms. Students involved will not only learn something about great blue herons, but also make the connection that these birds rely on healthy wetlands, both in Maine and beyond.

For more information on the Heron Tracking Project, including how to follow the great blue herons once they are tagged and resources for educators interested in using the data in their classrooms, visit <http://www.maine.gov/wordpress/ifwheron/tracking-project/>.



“Nokomis” perched on the bait bin prior to being captured. Photo by Nokomis High School teacher, Bill Freudenberger.

THE 2016 TWS NATIONAL CONFERENCE: A STUDENT'S PERSPECTIVE

By Val Watson, University of Maine



As many of you likely know, this year's National Conference for The Wildlife Society was held in Raleigh, NC from October 15-19. The University of Maine sent five undergraduates, and several professors and graduate

students met us at the conference. Over those five jam-packed days, we presented research, networked with professionals and fellow students, and competed in the annual quiz bowl. Here I present an overview of the conference from the perspective of a student going for her first time.

Throughout the entire conference there were several rooms that constantly hosted short presentations of research on an enormous variety of topics, from "Feral Horses and the Western Landscapes" to "Managing Coastal Habitats for Migratory Waterbirds in a Changing Climate," and just about anything in between. For me, that was one of the best parts of the conference. There were so many talks that it was hard to decide which one to attend! As someone just starting out in this field, it was great to be able to see such a wide array of topics and hear about the latest research that's going on in each area. My interests are in environmental education and climate change, and I was thrilled to see those subjects very well represented. I learned a lot about the work that's going on in those areas, and when I went to other talks I tried to think about how techniques from the education-related research could be used to communicate this other research to the general public.

One of the coolest parts of the conference by far was a networking event at the North Carolina Museum of Natural Sciences. That place is fantastic! The museum covers four stories on two sides of the street, and students, professors, and professionals were allowed in after-hours for a networking event. Not only did we get to make some great (and likely useful) connections,

(Continued on page 5)

BATS, BISCUITS, AND BBQ: MY STORY OF A SUMMER IN THE SOUTH

By Kyle Shute

Living in Maine my whole life, I have spent very little time south of Maine. So when given the opportunity to cross the Piscataqua River and drive another thousand miles south, I was beyond ecstatic. I have traveled to Georgia a few times, but not for a long stay, and never for the purpose of research. So, in May, I packed up my Subaru and started the long drive to Athens, Georgia.

I spent this summer working on a study of bat occupancy and roost selection for the recently listed northern long-eared bat (*Myotis septentrionalis*) and tricolored bat (*Perimyotis subflavus*). As most wildlife biologists know, east coast bats are facing massive declines due to the fungal pathogen White Nose Syndrome (*Pseudogymnoascus destructans*), so learning about their habitats, roost preferences, and distribution is of the utmost importance. There is not a clear answer to the issue of White Nose, so in the meantime we must learn how to best preserve the habitats of these amazing creatures.

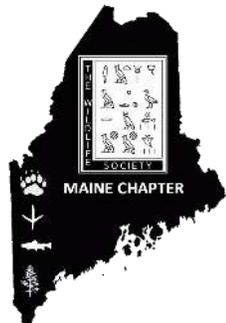
This project took place in a diverse set of geographic areas. Some were very urban, like suburban Atlanta (note: if you find yourself in the area go to Martin's and get a chicken biscuit—you won't regret it). We had to drive through rush-hour traffic in large field trucks on numerous occasions. On these urban projects we worked in the Chattahoochee River National Recreation Area, Kennesaw Mountain National Battlefield, and Ocmulgee National Monument. These experiences were foreign to me because of how urban they were. Interacting with people as much, or more than the bats we were studying was a new experience, but gave wonderful opportunity for public education. The other part of this study took place in the Chattahoochee National Forest, which is in the rural northern part of the state. Our study areas here were such a drastic change. We saw few people at netting sites, and most only when we went into town for groceries, or to steal coffee shop WiFi. This aspect of the project gave me the

(Continued on page 5)

(The National TWS Meeting, Continued from page 4)

but we also were able to explore the entire collection all night. The seniors in our group found this and other networking events especially useful, as they are thinking about graduate school and jobs post-graduation. Networking events like this one also helped us connect with other students in our state and section. We got to know the crew from Unity, and we participated in two impromptu meetings of the Northeast Section to plan this year's Conclave. This year we've decided to take a new approach, with one school hosting but all attending schools pitching in in some way, whether it be finding people to lead workshops or making Quiz Bowl questions. I'm excited to see how it goes.

I was amazed how much we managed to pack into five days. We all learned a ton, and on the trip home we compared notes from the different talks we'd each attended. We also made some great connections, especially in our state and section. I'm excited to go back next year to present my own research and introduce the next round of my peers to the wider wildlife world.



(Summer of Bats, Continued from page 4)

opportunity to see the unbelievably beautiful southern part of the Appalachian Mountain range.

For the readers who aren't bat biologists, field work with chiropterans requires one to be very versatile. We left our field camps at around 7 pm to set up netting sites. The set-up is structured as two mist nets of different lengths stacked on top of each other with a not-so elaborate pulley system to move them up and down. We checked nets every 10 minutes and removed any captured individuals, then took measurements of weight, forearm length, wing condition, and other characteristics. If we were lucky enough to capture a target species, we affixed a radio transmitter to its back and released it into the night. This is where the versatility is key. Being on a night schedule, we usually got home between 3 and 4 am. However, when we had a bat on transmitter, we needed to wake early in the morning and venture out into the Georgia heat to track it to its roost. We conducted vegetation surveys to characterize the roosting habitat of these sites. Sometimes this process was simple and the bat was less than 100 meters from a road, other times it was miles off, or not detectable at all. These were the more difficult days.

My love of bats began only a couple years ago. I applied to this job on a whim after seeing it posted online. It seemed like a long shot. I had no bat experience, it was 1,300 miles away, and I had no idea what a hushpuppy was. When I was offered the position, I immediately started packing. This is an experience that I will never forget, and my passion for bats has only grown from it. I hope that someday I will get the chance to work with bats as part of my career, be that in the south or not. At least if it is in the south I will get the chance to eat all the biscuits and barbecue that I want.



Kyle holding a red bat

PRESIDENT'S MESSAGE BY KARA MOODY, CWB®

Greetings METWS members! It was great seeing some of you at the October meeting. After listening to our presenters speak about various threatened and endangered species projects in Maine, I began thinking more about citizen science and volunteer opportunities. There is a plethora of options for people of all ages to contribute to an array of citizen science programs. Not only are these excellent opportunities to provide meaningful contributions, these programs also offer the ability for those of us who no longer participate in fun field activities to get out there and collect some data! Additionally, many of these programs are great for cultivating the next generation of scientists. To encourage participation, I have compiled an overview of a few volunteer programs available in Maine.

Maine Bumble Bee Atlas

The Maine Bumble Bee Atlas (MBBA) project is a 5-year (2015-2019) statewide survey of Maine's bumble bee fauna. This project is coordinated by the Maine Department of Inland Fisheries and Wildlife



(MDIFW) in partnership with the University of Maine at Orono and Farmington. MBBA engages volunteer citizen scientists from around the state to help survey and document the diversity, distribution, abundance, and habitat use of bumble bee species in Maine. During each year of the project, training workshops are held across the state in which attendees are trained in a standardized survey and data collection protocol, and project staff present on bumble bee behavior, ecology, conservation, and identification. The next training workshops will be scheduled for spring 2017. For more information, visit the project website at

<http://mainebumblebeeatlas.umf.maine.edu/>

or email Beth Swartz at beth.swartz@maine.gov.

The Heron Observation Network of Maine

In 2009, the MDIFW initiated an effort to track great blue heron colonies and the number of nesting pairs in Maine. The MDIFW began a volunteer colony monitoring program known as the Heron Observation Network (HERON). Volunteers for HERON monitor great blue heron colonies by visiting known



current or historic nesting locations at least once during the breeding season and record species, number of active and inactive nests, and number of nestlings or fledglings (if present). Volunteers for this project are always needed as there are many heron colonies in the state that have not yet been adopted. If you are interested in adopting a colony, or want to find out more about HERON, visit

<http://www.maine.gov/wordpress/ifwheron/tracking-project/>

or email danielle.dauria@maine.gov.

Further details on HERON are also contained in the article "Heron Tracking Project: GPS Data for All to Use and Learn From" by Danielle D'Auria beginning on the first page of this newsletter.

Mountain Birdwatch

Mountain Birdwatch (MBW) is a program designed by the Vermont



Center for Ecostudies that monitors songbirds breeding in the montane fir and spruce forests of the Northeast. MBW data provide the only region-wide source of population information on these high-elevation breeding birds. MBW's primary focus is Bicknell's thrush, but this project also tracks nine other high-elevation avian breeders, red squirrels, and the conifer

(Continued on page 7)

(President's Message, continued from page 6)

seeds that these avian nest predators eat. MBW trains citizen scientists to conduct annual counts along survey routes throughout the mountains of New England and New York. Volunteers with MBW hike to designated points along trails to count birds during the pre-dawn chorus. There are currently five survey areas located in Western Maine. Further information on MBW is available at:

<http://vtcostudies.org/projects/mountains/mountain-birdwatch/>

To learn more about becoming a MBW volunteer, contact Steve Faccio at sfaccio@vtcostudies.org.

Cadillac Mountain Hawk Watch

The Hawk Watch on Cadillac Mountain is a collaborative effort between Acadia



National Park's Interpretive Division and the Bird Ecology Program at Schoodic Institute. Volunteers collect data on the fall raptor migration passing over Cadillac Mountain in Acadia National Park. One-time volunteers are welcome, and the mountain summit can be accessed by hiking, biking, riding the free Island Explorer bus, or driving. For more information on the Cadillac Mountain Hawk Watch visit

<http://www.schoodicinstitute.org/what-we-offer/citizen-science-opportunities/hawk-watch-cadillac-mt/>

Interested volunteers should contact Alicia Fortier at 207-288-1329 or alicia_fortier@nps.gov.

Maine Amphibian Monitoring Program

The Maine Amphibian Monitoring Program (MAMP) is a joint effort between Maine Audubon and the Maine



Department of Inland Fisheries and Wildlife. It is also part of a larger national effort, the North American



Amphibian Monitoring Program (NAAMP), which coordinates similar surveys in more than 25 states (<https://www.pwrc.usgs.gov/naamp/>). MAMP was one of the first participants in NAAMP and remains one of its most successful partners, with over sixty routes across Maine, most of which are run every year by volunteers. Every spring and summer, volunteers drive their individually assigned route three times, recording the diversity and intensity of calling frogs and toads. Some vacant routes still exist, with new volunteers especially needed in northern Maine. Participants are provided training materials to assist them with the identification of each of Maine's nine species of frogs and toads. Those interested in participating should contact Maine Audubon's Susan Gallo at 207-781-2330, ext. 216 or visit

<http://maineaudubon.org/wildlife-habitat/amphibian-monitoring/>

Maine Amphibian and Reptile Atlas Project

From 1986-1990, the MDIFW, in cooperation with Maine Audubon and the University of Maine, conducted the Maine Amphibian and Reptile Atlas Project (MARAP). During this time, over 250 volunteers from around the state contributed approximately 1,200 records of observations of amphibians and reptiles. MDIFW continues this atlas work and maintains a comprehensive database on the distribution of Maine's 34 amphibian and reptile species. There is much still to learn regarding the distribution and ecology of Maine's herptofauna, and the MDIFW encourages the public to share their photo-documented observations by submitting a [MARAP reporting form \(PDF\)](#). Any observations of the four state-listed reptiles, Eastern Box Turtle (endangered), Blanding's Turtle (endangered), Spotted Turtle (threatened) and Black Racer (endangered), should be submitted to the MIDFW immediately.

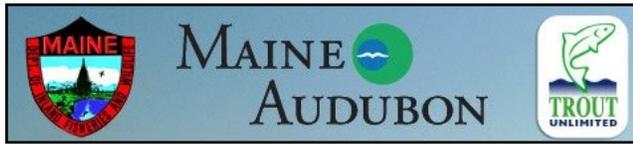


Email: phillip.deMaynadier@maine.gov

or call 207-941-4239.

(Continued on page 8)

(President's Message, continued from page 7)



Brook Trout – Remote Pond Survey Project and Coastal Stream Survey Project

Maine has the most extensive distribution and abundance of brook trout throughout their native range within the U.S. The wild brook trout waters in Maine represent a unique and valuable resource; however, we need to know where these waters exist so they can be protected and managed accordingly. The Remote Pond Survey Project is a collaborative effort between Maine Audubon, the Maine Department of Island Fisheries & Wildlife, and the Maine Council of Trout Unlimited. Volunteers for the Remote Pond Survey Project identify previously-undocumented wild brook trout populations in remote Maine ponds. For more information about this project, visit

<http://www.tumaine.org/brooktrout.htm>.

The Coastal Stream Survey Project is also a collaborative effort among the abovementioned entities, as well as the Sea Run Brook Trout Coalition. As part of the Coastal Stream Survey Project, volunteer anglers collect data on wild brook trout in Maine's coastal rivers and streams. Currently, the distribution and life history of coastal brook trout in Maine is not well understood. The status of coastal brook trout populations in Maine is uncertain, as there has never been an intensive survey of these populations. Data collected by volunteers is provided to biologists to inform future fisheries management decisions. Visit

<http://tumaine.org/coastalstreamsurvey.htm>

to learn more about the Coastal Stream Survey Project.

For more information or to sign up as a volunteer, contact Leah Bevins at 207-781-2330, ext. 207 or lbevins@maineaudubon.org.

Signs of the Seasons

Signs of the Seasons is a program that is organized through the University of Maine Cooperative Extension. This program is focused on documenting the local effects of global climate change. Participants in the Signs of the Seasons program are trained to observe and record the phenology (seasonal changes) of common plants and animals living in their own communities — a citizen science project that fills a gap in regional climate research. Volunteers across Maine and now New Hampshire record the growth of milkweed, the nesting of robins, and more. Trainings for the Signs of the Seasons program will resume starting March 2017. For information visit

<https://extension.umaine.edu/signs-of-the-seasons/>

or contact Pamela Doherty at 207-832-0343 or pamela.doherty@maine.edu.



Vital Signs

Vital Signs is a program managed by the Gulf of Maine Research Institute. Anyone with an interest in learning and contributing to scientific research is invited to join the Vital Signs community. This group consists of Maine students, educators, citizen scientists, and professional scientists from New England and beyond. The Vital Signs community works together to collect, analyze, and share critical environmental information about Maine's ecosystems. A few examples of the wide array of Vital Signs projects include documenting red pine scale, searching for hemlock woolly adelgid, identifying key intertidal species to assess climate change impacts, searching for the invasive broadleaved pepperweed, documenting evidence of New England cottontail, and much more. Information on the Vital Signs program, including a complete list of volunteer opportunities, is available at



<http://vitalsignsme.org/>

For additional information on the Vital Signs program call 207-228-1624 or email vitalsigns@gmri.org.

(Continued on page 9)

(President's Message, continued from page 8)

Southern Maine Volunteer Beach Profile Monitoring Program

The Southern
Maine Volunteer
Beach Profile



Monitoring Program is a collaboration among local volunteers, participating municipalities, and scientists, resulting in 15 years of data on the status of one of Maine's most vital and valuable natural resources. Comparing profile lines recorded at different times makes it possible to measure changes in the distribution of sand on the beach. Tracking these changes over long

periods provides the Maine Geological Survey with data to identify seasonal, annual, and long-term trends in beach erosion and accretion. This data is used to inform beach management decisions at the local and state level. Every month volunteers monitor the changes in sand movement along 12 beaches from York to South Portland. To learn more about the Southern Maine Volunteer Beach Profile Monitoring Program, visit

<http://www.seagrants.umaine.edu/extension/beach-profile-monitoring/home>

or contact Jacob Aman at 207-646-1555, ext. 112 or via email at jacobaman@wellsnerr.org.

THE EXPANSION OF CAMERA TRAPPING FOR RECREATION AND RESEARCH By Dana Valleau, CWB

My use of motion-activated cameras has followed the expansion of their use for both recreation and research. I first started using a trail camera in pursuit of white-tailed deer. The goal was to determine when deer were using certain trails and areas on my woodlot and to focus my hunting efforts accordingly. The first cameras I had used 35 mm film that I had to remove and develop to see what had been captured. Care had to be taken to not expose the film when removing it from the camera. My first efforts were disappointing with many failures due to short battery life. The trigger to take photos was slow and inconsistent so photos didn't capture any animals. One memorable set I had out for two months (the batteries were still good!) only captured one photo of one deer. While



Image from June of 2016

Bobcat image captured January of 2016



providing some interesting information, the first cameras did not seem worth the effort it took to keep them running. With the advent of compact digital cameras, my friends and I decided that we could make a trail camera with one. All it took was a relatively inexpensive digital camera, some internet research, a little practical know-how, and a few parts such as a motion sensor and a waterproof ammo box. The homemade cameras actually worked pretty well and hinted at the great potential for trail cameras to be a much more effective tool.

(Continued on page 10)

(Continued from page 9)



Long-tailed weasel image captured December of 2015

Commercially available digital trail cameras changed everything. As the availability of dependable digital trail cameras at reasonable prices increased, they became widely used by hunters. The demands of the hunting market have been instrumental in driving the development of better cameras. When I bought my first digital trail camera, it was off-season, but I set it up anyway and captured images of a gray fox. I had suspected one was in the neighborhood, but I had only seen tracks and wasn't sure about my identification. I was hooked. I now keep several cameras out year round, almost entirely for recreation. I have documented 17 species of mammals utilizing my wood lot with camera traps, and every time I pull a memory card it's like Christmas morning under the tree.

Similar to hunters, wildlife researchers have rapidly recognized the benefit of using motion-activated cameras for gathering data. You might have noticed that every recent issue of *The Wildlife Professional* features several references to, and images from, camera traps. From the focused work on rare, threatened, and endangered species by agency and academic researchers (snow leopards come to mind) to the citizen science efforts to document wildlife use in their local natural areas, the expansion of camera trap use is providing an amazing amount of data. Documenting species occurrence, population dynamics, habitat use, behavior, and species interactions are among the topics that can be studied with the use of camera traps. A

recent book, *Candid creatures: how camera traps reveal the mysteries of nature*, by Roland Kays and published by Johns Hopkins University Press, is a beautiful piece of work that summarizes research from 153 different research groups. It demonstrates how important camera trapping work has been for expanding our knowledge of many species of wildlife from the most common to the rarest species on Earth.

My camera use has now expanded to research use as well. I am part of a golden eagle trapping project run by Todd Katzner, a research wildlife biologist at the USGS. The project is made up of over 250 baited camera sites in 16 eastern states. To date, this project has demonstrated that golden eagles are much more common and cover a much wider range in the eastern U.S. than previously thought. Other data has also been gleaned from analysis of the photos. One unanticipated finding from the golden eagle survey has been the documentation of eastern spotted skunks in the more southern regions of the study area, a species that has been poorly documented within its presumed range. An interesting facet of camera trapping is that while a study can be focused to target specific species, the camera will capture anything that happens by. One hurdle of this, however, is disseminating data on incidental observations. For instance, researchers across Maine and other areas are capturing images of focal species for other camera studies and research projects. The question becomes how can camera trapping researchers coordinate and collaborate to share images. A featured article in the latest volume of *The Wildlife Professional*, "A community effort to document wildlife" highlights a solution to this issue, eMammal, which was built in 2012 by a team from North Carolina, the University of Missouri, and the Smithsonian Institute. This on-line tool is being used by both researchers and the public and appears to be a part of the solution.



Golden eagle from February of 2016

METWS CONSERVATION AFFAIRS 2016 FALL UPDATE

BY ROD KELSHAW

Autumn could be my favorite time of the year in Maine. The crisp, clean air, foliage, beautiful weather for end of the year field work, and lack of biting insects. The migrating bird species departures and arrivals offer daily benchmarks for marking the changing seasons. Fall also kicks off the initiation of semiannual, reoccurring tasks for the Conservation Affairs Committee (CAC). I am not sure if everyone is aware that November 8, 2016 was election day. There was not much fanfare, and it seemed to come and go without much excitement. It turns out that the President-elect is a businessperson from New York, he has a big building named after him...who was it again; Rockefeller I think.

Anyway, as power shifts and elected officials come and go, the CAC will try and stay up-to-date and keep the METWS membership informed on policy, rule, regulation, and law changes that affect wildlife on state and national levels. In early 2017, we will begin by sending an informational letter to select Maine State Legislature joint standing committees to let them know who METWS is and how we can be of service to them when making decisions regarding wildlife. The CAC will also monitor the thousands of proposed bills upcoming in the Maine State Legislature, narrow down the list by title, research the bill text to determine if it is a topic we should become involved with, and put the remaining proposed bills through the "Go-no-Go" process to determine the final list of bills to follow through the legislative process and act on them as appropriate.

If you are a METWS member and want to be a member of the CAC, please email me with your contact information; Rodney.kelshaw@stantec.com

ALSO, I was delinquent getting my Spring 2016 update ready for the newsletter, so here is the fun portion that some of you might enjoy.

Many of us have the opportunity to travel for work and leisure, and we find ourselves in interesting locations across Maine, the country and beyond. Since this article is for the METWS, I will focus on Maine. Whether you are traveling for work or taking a drive to a new birding location, do some pre-trip investigation and see what

else is out there that you might have driven by 1,000 times. Here is a list of sources you can use to seek out new and interesting sites. If you do take this opportunity, please consider sharing your experiences in the METWS newsletter. It would be fun to see what our membership is up to, and you might help someone find a new site to visit.

The Maine Atlas: in the front of the book there are lists and locations for sand beaches, nature preserves, parks (municipal, state and national), fish and wildlife management areas, hiking trails, unique natural areas, scenic waterfalls, canoe trips, lighthouses, and historic forts.

Explore Maine: contains trail systems, ways to travel and scenic highways.

<http://www.exploremaine.org/>

Visit Maine: this website pretty much has it all from sites to places to stay.

<http://visitmaine.com/>

Maine Birding Trail:

<http://www.mainebirdingtrail.com/>

Maine Ice Age Trail:

<http://iceagetrail.umaine.edu/>

The Ice Age had a profound effect on the Maine landscape. This effect is very pronounced in the Down East region, where a vast sheet of glacial ice sculpted Cadillac and surrounding mountains, carved out the Sommes Sound fjord, and left spectacular sand barrens. The Ice Age Trail is comprised of the finest



(Continued from page 11)

and most accessible of these features. It follows the margins of the last great North American continental ice sheet and coincides with many Down East tourist attractions.

Maine Beer Trail: possibly the most important site and map to have access to on a trip.

<http://mainebrewersguild.org/maine-beer-trail/>

National Park Service National Register of Historic Places:

<https://www.nps.gov/nr/research/>

U.S. Department of Transportation Federal Highway Administration list of Scenic Byways:

<http://www.fhwa.dot.gov/byways/>

National Wilderness Areas:

<http://www.wilderness.net/NWPS/advSearch>

EcoSystem Indicator Partnership: a website and phone application that directs you to research sites within the Gulf of Maine and beyond.

<http://www.gulfofmaine.org>

Scale Solar System: Aroostook County: University of Maine at Presque Isle (UMPI) built a 40 mile (64.6 km) long model of the solar system, at a scale of 1 mile equaling the distance from earth to sun (1:93,000,000). It extends along Route 1, between the UMPI campus and the Houlton Information Center at the end of I-95. The model has ten major components, those being the sun and the nine planets from Mercury to Pluto, with moons for Earth, Saturn, Jupiter (4) and Pluto.

The model serves as an educational resource and tourist attraction. All planets, except Pluto, are visible from the road. Educational information on the planets are found in the brochure, available at the Information Center in Houlton. The small models are mounted on tall - ten foot high above ground level - posts to be viewed from the car, with the planets included within a 1-foot (3.048 dm) diameter semicircular structure to better show the tilt of the planets.

The planets are exhibited as three-dimensional models. The two largest planetary models, Jupiter and Saturn, measure 4-5 feet across (1.22 - 1.52 m). The two mid-sized planets, Uranus and Neptune, measuring 21-22 inches (53 - 56 cm), require rather substantial monuments.

<http://pages.umpi.edu/~nmms/solar/index.htm>.



"Mushroom Grapevine" and Lane's Island Preserve in Vinalhaven by Mao Lin

MAINE TWS CHAPTER NEWS

www.wildlife.org/maine-chapter

PRESIDENTIAL CANDIDATES

SABRINA MORANO

Having grown up in the Hudson River Valley of northern NY, I learned from a young age the importance of conserving and protecting our natural resources. My parents were very involved in local environmental issues, which encouraged me to pursue the study of Natural Resource Conservation at the University of Massachusetts Amherst for my undergraduate degree. I have always had a strong interest in wildlife conservation and desire to travel, which motivated me to participate in a short course on community wildlife management in Kenya, and spend a semester learning about Italian language and culture in Siena, Italy, during my time as an undergraduate. From those experiences I developed an appreciation for the importance of understanding different cultures and perspectives, especially in relation to natural resource conservation. After graduation I was fortunate enough to travel a bit throughout the US and work on a variety of wildlife research projects, the majority focused on large mammal ecology. To further build upon my knowledge of natural systems I attended the graduate program in Ecology, Evolution and Conservation Biology at the University of Nevada Reno. I recently completed my doctoral degree which focused on the mechanisms by which landscape and climate interact to affect habitat use and demographic processes of mule deer in the western US. However, I'm more broadly interested in population ecology of mammals; particularly how changes in landscape composition and climate influence movement, resource use and population dynamics. I am also interested in the



(Continued on page 14)

PRESIDENTIAL CANDIDATES

SARAH SPENCER

Sarah is an Assistant Regional Wildlife Biologist with the Maine Department of Inland Fisheries and Wildlife based in the Jonesboro Regional Office. Previously, she was a Forester/Associate Wildlife Biologist with the James W. Sewall Company. In addition to her current responsibilities, her background includes working with landowners, large and small, to manage and monitor forestland and conduct ecological inventories. Prior to 2011, Sarah studied seabirds, monitored waterfowl population and disease, and sampled and identified invertebrates in Maine; she also monitored sparrows, swallows, shorebirds, saltmarsh vegetation and non-native invasive plants in the northeastern U.S. She grew up on a small woodlot in central Maine and holds a B.S. in Wildlife Ecology from the University of Maine, as well as a M.S. in Wildlife and Fisheries Conservation from the University of Massachusetts, Amherst. In her free time, Sarah enjoys gardening, fly fishing, hunting, and exploring places she's never been. She has been a member of The Wildlife Society since joining the University of Maine Student Chapter in 2002 and Chair of the Membership Committee of the Maine Chapter since 2014. If elected, her focus will be to continue to revisit the Chapter's Strategic Plan in an effort to keep the Chapter relevant for the membership and focus on the Chapter's Mission.



MAINE TWS CHAPTER NEWS

www.wildlife.org/maine-chapter

(Candidate Morano, continued from page 13)

implications of societal and cultural values on natural resource management, and how to better incorporate multiple stakeholder perspectives to inform conservation actions.

During my time at the University of Nevada I was able to participate in both the local and national chapters of The Wildlife Society. I greatly appreciate the community of wildlife professionals within the organization. I also realized the importance of having professional societies in which to share ideas and connect with others in the discipline, and would like to help foster these opportunities in the future.

Currently I'm living in Old Town, ME, and have a position as a research and teaching associate within the Department of Wildlife, Fisheries, and Conservation Biology at the University of Maine. Having recently returned to the east I am looking forward to expanding my research focus to include conservation issues concerning the Northeast, and getting to explore more of Maine's natural areas with my husband and our two dogs. I have been very impressed with the community of ecologist in Maine and the passion of the people working to manage and conserve the states varied natural resources. I am excited to connect with and learn from their diverse experiences and to provide opportunities for continued networking and sharing of ideas.

BIOBREW: BIOLOGISTS & BREWS

BY KATELIN CRAVEN AND KARA MOODY

Biologists and Brews was off to a great start in Bangor on November 10th with 10 people getting together at Mason's Brewing Company to enjoy some good beer and even better company. We had a diverse group of people from Maine IF&W, Tetra Tech, TRC, University of Maine Orono, and Unity College in attendance. The general consensus among attendees in Bangor is that it was a success and that we should do it again, so stay tuned for another date for Biologists and Brews (Bangor Area) in February! We want to encourage more people to join us next time, particularly students. Students may benefit from meeting with local biologists in a relaxed and social setting to learn about what is going on with wildlife in the area, hear about possible volunteer opportunities, ask questions about career paths, and meet a possible mentor.

The Biologists and Brews trend continued in Southern Maine with a social hour at Novare Res Bier Café in Portland on December 5th. Unfortunately, this outing coincided with our first snow of the season, so

attendance was a little sparse. However, we had a diverse turnout as well, with Maine Audubon, Maine IF&W, TRC, and Tetra Tech represented. We are planning to organize another Biologists and Brews event in the Portland area in February. In addition to the Portland and Bangor area socials, we are also planning to have a Biologists and Brews event in the Augusta area in January!

These outings proved to be great opportunities to catch up with people you haven't seen in a while and meet some new friends. There is often not enough time for socializing and networking at the fall and spring meetings of the Maine Chapter of The Wildlife Society, so having socials throughout the year will help us all stay connected. It was wonderful to hear what people had been up to over the summer with research and projects. Thanks to everyone who came to these gatherings! We are looking forward to more socializing in the future. Cheers!

MEETINGS

SAVE THE DATE!

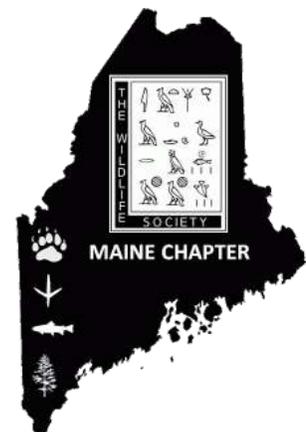
Adapt. Adopt. Advance: Resiliency in Natural Resource Management.

March 8-10, 2017 at the Cross Insurance Center in Bangor

The Maine Chapter of The Wildlife Society, Maine Division of Society of American Foresters, New England Society of American Foresters, and the Northeastern Forest Pest Council are hosting “**Adapt. Adopt. Advance: Resiliency in Natural Resource Management**”. This conference will focus on a series of panel presentations, field trips, and indoor workshops that highlight current research and give resource professionals the tools necessary to successfully manage all our forest resources. The program is a half day Wednesday and all day Thursday with a myriad of excellent breakout sessions. Friday incorporates a half day of indoor and/or field trips as attendees travel home.

Along with plenary speakers and other scheduled events, METWS will be organizing a series of 6 panel themes that will target current wildlife-related research expected to be of interest to conference participants. Panel topics are oriented towards issues related to the influence of our changing environment on wildlife and habitats comprised of the following: birds; herptiles; mammals; invertebrates; rare species and rare natural communities; and impacts of forestry practices on wildlife. Individual panels will consist of a moderator and up to 4 speakers. Each session will span a 90-minute period and coincide with other ongoing NESAF and NEFPC presentations to allow conference attendees to choose personal topics of interest.

A complete agenda with registration will be posted at www.nesaf.org.



MAINE TWS OFFICERS

President

Kara Moody



kmoody
@trcsolutions.com

President Elect

Katelin Craven



katelin.craven
@tetrattech.com

Secretary/Treasurer

Laura Berube



laura.berube
@stantec.com

Board Member

Steve Pelletier



steve.pelletier
@stantec.com

Board Member

Sarah Boyden



sarah.boyden
@maine.gov

Past President

Mao Lin



maotenglin
@gmail.com

Univ. of Maine Student Representative

Val Watson



valerie.k.watson
@maine.edu

Unity College Student Representative

Maddie Crane



mcrane13
@unity.edu

COMMITTEE CHAIRS & SUPPORT STAFF

Audit

Wende Mahaney
wende_mahaney
@fws.gov

Awards

Cathy Elliott
cathy.elliott
@umext.maine.edu

Certification

Jerry Longcore
jnlongcore
@myfairpoint.net

Conservation Affairs

Rodney Kelshaw
rodney.kelshaw
@stantec.com

Membership

Sarah Spencer
sarahmargaretspencer
@gmail.com

Nominations/Elections

Sarah Boyden
sarah.boyden
@maine.gov

Programs

Justin Sweitzer
jsweitzer
@normandeaup.com

Webmaster

MaryEllen Wickett
maryellen.wickett
@maine.gov