

CENTER FOR ENVIRONMENT & SOCIETY

# CHESTER RIVER FIELD RESEARCH STATION

2013 ANNUAL NEWSLETTER



Located on Chino Farms, about five minutes from Washington College in Chestertown, Maryland, the Chester River Field Research Station is dedicated to:

- Large-scale restoration of diverse wildlife habitats, especially mid-Atlantic coastal grasslands, Delmarva bays and the Chester River (all suffering from the impact of agriculture and pasturing)
- Designing studies and protocols for sustainable management of these habitats, especially as they interact with on-going modern farming
- Conducting basic and applied research on the flora and fauna that colonize these restored habitats, to learn their natural requirements for survival, growth, and reproduction
- Sustaining the Foreman's Branch Bird Observatory, a year-round avian research and banding station
- Environmental education programs for K-12, undergraduate and graduate students, and people interested in the natural sciences.

# Grasslands Research & Education



## Grasslands Summary

The **Chester River Field Research Station** (CRFRS) completed its 15<sup>th</sup> year of research on the restored grasslands in 2013. We continued to document the importance of providing grassland and early successional habitats for declining grassland bird species. The focus of our work remains the long-term demography study of Grasshopper Sparrows and Dickcissels, but attention was also paid to habitat management and Northern Bobwhite populations in and around the grasslands.

Researching how to restore habitats benefits not only the organisms in and around the study plot (including plants, insects and birds), but also provides opportunities for students to get valuable experience in field biology. Our interns work alongside biologists on a daily basis applying lessons learned in the classroom to studying birds in the field. In addition to scientific skills of using a GPS, handling wildlife and proper record keeping, students gain relevant life lessons in how to live and work as a team.

The number of male territory-holding **Grasshopper Sparrows** fluctuates from year to year due to factors like weather and a changing vegetation structure. A total of 64 males held territories this past summer, quite a bit lower than our average of 87. We believe that each male was paired with a female, but it is difficult to identify all the nesting females due to their secretive nature. Our team found 60 nests between May and August, which is our average. Of the nests found, 32 fledged at least one young and were considered successful.

Dickcissels had another productive year in the grasslands. Eleven males and seven females stayed throughout the summer in the fields. Nest searching proved really

difficult this season and only one nest was found, though we did find recently fledged nestlings. By far the most interesting **Dickcissel** this year was the female we know as MMP (this stands for her color band combination of mauve mauve pink). She hatched from a nest here in the grasslands in 2005 and has returned every year since to breed. She is currently the oldest known Dickcissel in North America

*A female Dickcissel that hatched from a nest here in 2005 has returned every year since to breed.*

and was eight years old when we last saw her this summer. This is even more amazing considering that Dickcissels winter in South America. If we measured from central Venezuela (an approximate midpoint in their winter range) to the CRFRS grasslands, MMP has traveled approximately 44,200 miles on 17 flights between South America and the CRFRS grasslands.



Looking at the bigger picture, beyond our focal species, this summer 913 birds of 39 species were banded in the grasslands. We also recaptured 254 birds that were banded in a previous season.

In addition to studying birds in the restored grasslands, we conducted a second season of avian point counts in a recent planting in an agricultural field. We are trying to measure the response of grassland nesting birds to the creation of grassland corridors, safe from harvest, in the middle of an irrigated crop field. The corridors benefit grassland birds by providing nesting habitat and areas to feed, but the real benefit of this habitat is after the food crop is harvested. These corridors instantly become refuges for birds that were already nesting in the crops and would have nowhere else to go.



## Recent Publications

Lohr, B., S. Ashby and S. M. Wakamiya. 2013. The function of song types and song components in Grasshopper Sparrow (*Ammodramus savannarum*). *Behaviour* 150: 1085-1106.

Anthony, T., D. E. Gill, D. M. Small, J. Parks and H. F. Sears. 2013. Post-fledging dispersal of Grasshopper Sparrows (*Ammodramus savannarum*) on a restored grassland in Maryland. *The Wilson Journal of Ornithology* 125: 307-313.

Small, D. M., M. E. Gimpel and J. G. Gruber. 2013. Variation and extent of eccentric pre-formative wing molt in Field Sparrows. *North American Bird Bander* 38: 49-54.

Small, D. M., M. E. Gimpel and D. E. Gill. 2012. Site fidelity and natal philopatry in Dickcissels. *Northeastern Naturalist* 19: 123-129.

Gimpel, M. E., D. M. Small, J. G. Gruber. 2010. Site fidelity and a Longevity Record of Wintering Hermit Thrushes in Maryland. *North American Bird Bander* 35(2): 1-4.



*Opposite top: Dickcissel. Opposite bottom: The 2013 summer field crew and Rachel Field went birding at Bombay Hook. Above top: Female Grasshopper Sparrow on nest. Above: Maren Gimpel and Ashley McAvoy searching for a sparrow nest.*

**Interested in visiting the grasslands?  
Contact Dan Small at  
[dsmall2@washcoll.edu](mailto:dsmall2@washcoll.edu).**

# Grasslands Research & Education

## Native Bees

We completed our second season collecting native bees in the restored grasslands and other habitats around the property. Entomologist **Sam Droege**, of the USGS Native Bee Inventory and Monitoring Lab, continues to spearhead this research in Maryland. Sam helped us set up our monitoring stations and identifies all the bees we collect. Baseline data such as flight times, abundance, and diversity are necessary information for scientists trying to reverse the recent population declines.

Chino Farms was just one sampling location. Other properties and habitats were sampled throughout Maryland in order to create a state-wide database. One easy way for landowners to help native insect populations is to plant lots of native nectar-producing

plants with varied flowering times throughout the growing season. For more information about ways you can help native bee populations please visit <http://www.xerces.org/pollinators-mid-atlantic-region/> or contact your local extension service or native plant society.

## Native Wasps

**Dr. Robert Kula**, a research Entomologist with the USDA Systematic Entomology Laboratory, completed his second and final field season sampling

*We were amazed at the diversity of insects, including beetles, flies and moths that came to the light.*

native wasp populations in the restored grasslands. Dr. Kula was specifically interested in parasitic wasps belonging to the family Braconidae. Wasp species in this



family parasitize other insects, many of which can be detrimental crop pests. We were interested in the role that the restored grasslands might play in harboring these beneficial parasitic wasps. If grasslands and buffers provide a hospitable habitat, planting them near large crop fields could be very beneficial to farmers.

One highlight of the summer was when our crew joined Dr. Kula and his interns for an evening of night trapping for insects. A white sheet was hung up in the grasslands, near a wood lot with a very bright light shining on it to attract insects. Dr. Kula and his crew were interested in what Braconids would come into the light. We were amazed at the diversity of insects, including beetles, flies and moths that were present. We took lots of photographs which were used to identify some species later.



*Left: Looking at insects.  
Above: Augochloropsis metallica.*

## Northern Bobwhite

Northern Bobwhite are a charismatic species dear to many Eastern Shore residents, though rarely heard these days. As bobwhite populations continue to decline around the state and indeed the country, the Center for Environment & Society is taking a leading role on the upper Eastern Shore to fight the trend. We continue to educate landowners about ways they can help quail. Washington College hosted the 3rd Quail Summit on December 20th 2013, featuring **Dr. Theron Terhune** from Tall Timbers

Research Station and Land Conservancy who presented his research on quail populations in the Southeast. Despite the differing regions, many of the results from Tall Timbers studies are instructive for all landowners. The priority of our collaboration with **Tall Timbers** remains finding ways to increase the grassland and early successional habitat that quail rely on. Restoring quail populations will not only please the people, but will also benefit other grassland birds in decline that share the same habitat. For more information on Maryland's quail see the back cover of this newsletter.



## Birds & Habitat Workshop

**Dr. Wayne Bell** (former director of the Center for Environment & Society) and George Radcliffe led the Birds & Habitat Workshop, sponsored by the Youth Division of the **Maryland Ornithological Society** (YMOS) and the Center for Environment & Society. The week-long residential camp is unique in that the participants are both students and educators who together learned basic bird identification skills, the value of contributing their



sightings to the eBird database and habitat associations of common bird species.

The last day of their program was spent with field ecologists Maren Gimpel and Dan Small in the Chester River Field Research Station's restored grasslands. The group learned about the scientific contributions of bird banding, habitat restoration and long-term demography

studies. Everyone was excited to see the birds up close in the hand, especially a Purple Martin. It is always a pleasure for us to share the enthusiasm these new birders have for their surroundings.

Information on this year's workshop and other activities for young birders can be found at [www.ymos.org](http://www.ymos.org).

## Sparrow Songs

**Dr. Bernie Lohr**, our collaborator from University of Maryland, Baltimore County, and his students have nearly completed the analysis of Grasshopper Sparrow songs recorded in 2011 and 2012. The preliminary results suggest an interesting pattern of singing that reveals important information about their reproductive biology. The two song types sung by males show a functional relationship to particular phases of the breeding cycle, and this connection to the bird's reproductive biology may assist with future conservation efforts for the species.

*Top: A male Northern Bobwhite. Above: Dan Small shows a hummingbird to participants of the YMOS workshop.*

# Foreman's Branch Bird Observatory

## Foreman's Branch Summary

2013 marked the 16th year that Foreman's Branch Bird Observatory (FBBO) has been banding in its current location on Chino Farms. We continue to strive toward our goals of monitoring migratory birds, assisting collaborators and providing training for college students and educational experiences for visitors.

A total of 3,873 birds were banded during spring migration from March through May. This is over 400 birds more than were banded in 2012, but right in line with the eight year average of 3,856. During fall migration, between August and November, 9,578 birds were banded. This is well below both last year's record breaking high of 12,621 individuals and our eight year average of 10,947. In the summer months, FBBO director **Jim Gruber** and **Bird Clarke** banded 321 individuals at the station. Maren Gimpel monitored nest boxes around the farm and banded an additional 246 birds (mostly nestling Eastern Bluebirds

and Tree Swallows). Combining these totals and the summer grassland banding, a total of 15,093 birds were banded throughout the year. Many birds return year after year to breed or spend the winter in our area. We recaptured a total of 4,200 birds, out of which 1,600 were birds that were originally banded in a previous season or calendar year. We captured 125 different species, 2 races and one intergrade (a hybrid between two identifiable subspecies groups) during the banding year, which is below our long-term species average of 130.

Education continues to be an important focal point at the banding station. Banding demonstrations are an excellent way to engage people with nature, and we enjoyed hosting both high school and college classes as well as members of the community. In addition to training two Washington College interns during the year, we gave banding

demonstrations to visiting bird clubs including those from Kent County, Anne Arundel County, Caroline County and the Tri-county (Worcester, Wicomico and Somerset) (all of Maryland)



and the West Chester bird club from Pennsylvania. We gave 78 banding demonstrations to 320 visitors this year. Everyone learned concepts about migration, species identification and differences among bird families, but probably everyone's favorite part of the day is seeing birds up close in the hand and then getting to let them go.

Our main current collaboration continues to be with **Dr. Jory Brinkerhoff** of the University of Richmond, who is studying how birds may be vectors of tick dispersal. We have collected thousands of ticks from the birds we band for Dr. Brinkerhoff's lab. He and his students are identifying the ticks and tracking which species of birds are more likely to have ticks. Preliminary data were presented at the 2013 annual meeting of the Wilson Ornithological Society, and a detailed scientific paper is in progress.

*Above: Jim Gruber shows a trainee how to hold birds. Left: Black-billed Cuckoo. Opposite top: Christie Phebus bands a sparrow. Opposite: Painted Bunting*



# Foreman's Branch Bird Observatory

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Weather patterns can have a major impact on both the numbers of individual birds as well as species captured. Our lower totals for the year are most likely due to weather, not an alarming drop in the actual number of birds. When banders open the nets each day, they know generally what to expect in their location for that season, but every once in a while a species gets caught that surprises everyone. This fall we caught a hatching year Painted Bunting, (see the Standout Captures section for more details). While numbers are not our primary goal at the station, it is interesting to see changes in captures of species from year to year. Here are a few species we captured in record number this year, (the number in parentheses is the previous high): Black-billed Cuckoo 7 (2), Yellow-bellied Sapsucker 9 (7), Traill's Flycatcher 156 (154), Swamp Sparrow 416 (383) and Black-and-white Warbler 115 (107), Bay-breasted Warbler 6 (4), Carolina Wren 157 (133) and Eastern Bluebird 193 (182).



In personnel news, FBBO banders **Maren Gimpel** and **Dan Small** travelled to Braddock Bay Bird Observatory in Rochester, New York to attend an evaluation session of the **North American Banding Council (NABC)**. This group provides training, resources and evaluations in bird banding techniques at various skill levels. Maren and Dan were certified at the bander level in 2009 and this year earned certification as bander trainers. This means independent reviewers determined them to have the exceptional experience, knowledge, skill and demonstrated teaching ability to train and certify others to band birds. Congratulations Maren and Dan!

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## Standout Captures

Only one of our banded birds broke a longevity record during 2013. American Goldfinch 2300-92041 was banded as an after second year (ASY) male on February 19th, 2004. ASY means the bird was at least one year old at the time. When we last captured him on May 12, 2013, he was 10 years and 11 months old.



On October 27th, 2013, we captured a hatch year **Painted Bunting** of undetermined sex. It was the first for our station, the first for Queen Anne's County and only the third Painted Bunting banded in Maryland. Amazingly, Jim Gruber was the bander of the second Painted Bunting in Maryland when he ran a station at Eastern Neck National Wildlife Refuge in Rock Hall, Maryland in the early 1990's.

Painted Buntings are widespread in the southeastern United States and the Gulf Coast states, but are rare visitors north of North Carolina. A few do turn up, especially in the fall and winter. Danny Bystrak, of the US Bird Banding Laboratory, provided us with the numbers of Painted Buntings banded north of Maryland. There are 4 records from Ontario, 5 from Maine, 3 from Massachusetts, 1 from Connecticut, 1 from New York, 1 from Pennsylvania and 5 from New Jersey.

# Foreman's Branch Bird Observatory

## Foreign Recaptures in 2013

One of the most exciting aspects of banding birds is capturing a bird that has already been banded in another place. Foreign recaptures are uncommon: we had 14 among the 15,000 or so birds we handled in the past year, eight of which were **Northern Saw-whet Owls**. We get a higher percentage of these owls because we targeted them specifically during our nocturnal owl banding season by broadcasting their calls over a loudspeaker system. Of the eight owls we caught, 5 had been banded elsewhere in Maryland where there is a high concentration of owl banding stations. Some came from only 15 miles away, either north in Cecil County or south in Caroline County. These records show that the owls are using a similar route through the Delmarva Peninsula each season. Other owls came from Goochland, Virginia and Valhalla, New York.



2013 brought us 6 other foreign recaps, double the number we had last year. Yellow-shafted Flicker 1573-08439 was banded in **Ontario** in 2008 and has been wintering in our area every year



since. A **Swamp Sparrow** banded in 2011 in Pylesville, Maryland was captured here on April 4 2013. We also captured a **Red-winged**

**Blackbird** that had been banded in Fort Edward, New York, the year before, as well as a **White-throated Sparrow** that had been banded at Long Point Bird Observatory in Port Rowan, Ontario. By far the most exciting foreign retrap of the year was the **Black-and-white Warbler** from Massachusetts. See the details on that amazing story on

page 9. Lastly, in mid-September we captured a banded **Common Yellowthroat**, but as of the time this story went to press we had not heard about its origins. For more details on these captures please see the FBBO annual report.

## Black-and-white Warbler: frequent flier

There are many pieces of information that can be gleaned from handling a bird a single time. How old is it? What sex is it? How many of that species are in the area? What time of year are they present? Capturing a bird a second time can provide more data, such as where it has been.

Often, someone only a few miles from FBBO finds a bird we've banded, but it is rather exciting when a bird is recovered from farther afield. We have banded nestling Ospreys that were later found in Trinidad and Ecuador. A Northern Waterthrush banded at FBBO was later captured by another bander in Newfoundland and released back into the wild.

At FBBO we band birds on their left legs, so on May 8th, when we took a **Black-and-white Warbler** out of the net with a band on its right leg, we had a hunch it had an interesting story. Back at the banding lab, we checked our records and confirmed that we had not banded this bird. We took all

To schedule a visit please contact Jim Gruber (jgruber2@washcoll.edu).



# Foreman's Branch Bird Observatory

our usual data: wing length, fat, age, sex, weight and sent the bird back on its way.

When we turned in the band number to the Bird Banding Laboratory, we were amazed at what we learned. This bird was banded at the Manomet Center for Conservation Sciences in Massachusetts, about 400 miles north; but, what was almost unbelievable was that the bird was banded in May of 2003- and hatched in 2002- this bird was just shy of its 11th birthday!

Since this bird was captured in the spring in Massachusetts, it must have bred there or possibly even further north (they breed throughout much of eastern

Canada). Black-and-white Warblers spend the winter throughout the southeastern United States, the entire Caribbean and as far south as northern South America.

To be conservative, perhaps this bird was breeding in eastern Massachusetts and was spending the winter in Honduras. One way, that trip is about 2,000 miles and this bird made the trip twice each year. When we captured this bird, he was making his twenty-second flight and had probably flown almost **45,000 miles**.

There are many threats to wild birds. Birds are killed by cats, they die striking windows, they are blown out to sea by storms, they



get eaten by hawks and they get hit by cars. There are so many ways for birds to die and the fact that this bird defied all those odds is truly amazing.

*Opposite top: Male Yellow-shafted Flicker. Opposite bottom: Northern Saw-whet Owl. Above: Black-and-White Warbler.*

## Top Ten Table — 2013 Spring and Fall Migrations

*The 10 most commonly banded species at Foreman's Branch Bird Observatory during migration periods.*

### Spring 2013

Species	Total
Red-winged Blackbird	646 (5)
Gray Catbird	393 (1)
Common Yellowthroat	359 (4)
American Goldfinch	302 (2)
White-throated Sparrow	279 (3)
Brown-headed Cowbird	161 (7)
American Robin	140 (9)
Swamp Sparrow	85 (10)
Indigo Bunting	82 (8)
Song Sparrow	81

### Fall 2013

Species	Total
Song Sparrow	1,184 (2)
White-throated Sparrow	1,175 (1)
Indigo Bunting	903
Ruby-crowned Kinglet	488 (6)
Common Yellowthroat	471 (7)
Swamp Sparrow	329
Field Sparrow	312
Slate-colored Junco	312 (4)
Gray Catbird	309 (8)
Blue Grosbeak	275

\*Numbers in parentheses indicate last year's rank within the table

# Volunteers & Citizen Science

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## Thank You Anne!

Volunteering at Foreman's Branch Bird Observatory is a family affair for Washington College alumna **Anne O'Connor**. She first heard about us from her brother, Bill Snyder, who was our first regular volunteer (and profiled in our 2011 newsletter). Anne brought her son Brennan (then 6) as a way to spend some family time together while getting some fresh air and learning about birds. In those early years, Anne watched the proceedings and started learning the birds and our methods. Her volunteering was almost an accident. One day we got busier than expected and she asked if it would be helpful if she acted as a scribe. She'd been around so long she needed almost no instruction and she's been the regular scribe every Sunday since then! The scribe's job is to record all the banding data and Anne is well-suited for this as she has very neat handwriting! More recently, she has been learning to extract birds from nets. Coincidentally, Anne grew up on the farm adjacent to the banding station, but now lives in Rock Hall with her husband and son. Her smile, good humor and tidy penmanship are a welcome addition to our Sundays. We really appreciate your help, Anne.



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## Christmas Bird Count



The 8th annual **Chesterville Christmas Bird Count (CBC)** was held on December 22nd 2013. CBCs are conducted under the auspices of the National Audubon Society and are one of the best known citizen science projects in the country. CBCs are early winter bird censuses conducted all over the world by thousands of volunteers who spread out over 15-mile diameter circles to count every bird they find. This year in our circle, 23 participants found 100 bird species for a total of 88,770 individuals despite less than pleasant conditions of light rain and sometimes strong winds. By far the most interesting bird of the day was a Snowy Owl. Although usually very rare in our part of the country, Snowy Owls came south in unprecedented numbers in the winter of 2013-2014 and were seen throughout Maryland and as far south as Florida.

The 2014 Chesterville CBC will be held on December 21<sup>st</sup>. For more information on Christmas Bird Counts both locally and nationally please see [www.audubon.org](http://www.audubon.org) or contact Maren Gimpel at [mgimpel2@washcoll.edu](mailto:mgimpel2@washcoll.edu).

*Top: Anne O'Connor as scribe.*

*Above: Snowy Owl outside of Galena in Kent County.*



Be sure to check out our facebook page ([www.facebook.com/CRFRC](http://www.facebook.com/CRFRC)) for daily updates and photos!

## Chesapeake Semester Camps at Chino

In early September, the eight students on this year's Chesapeake Semester program spent a weekend camping at Chino Farms. The 16-credit experiential study of the Chesapeake Bay gets students out of the classroom and off campus to explore the Bay from many angles.

Their first "journey" entitled "a sense of place and history" provided an orientation to the geography and history of the Chesapeake region. During their time on Chino, Associate Professor of Anthropology **Dr. Bill Schindler** took the students foraging in search of wild foods and led discussions on what early peoples ate and how their foods were prepared. The

students' camp dinner included duck, rabbit, squirrel and plants such as prickly pear cactus and cattail roots. A highlight for many was extracting bone marrow from a cow femur (see picture above). Student **Kelly Dobroski '16** cracked open the femur "using brute force and stone tools. I was shocked with the amount of force which was required to access the buttery liquid," she said. The experience also made an impression on environmental studies major **Riley O'Brien '16**: "This trip shed some light on how life was lived in Chesapeake Bay before European colonists arrived and drastically altered the landscape."



## Flocking to the Grasslands

How did **Ari Rice**, who is from Illinois and attends school in Wisconsin, make his way to Maryland for the summer? Through the time-tested college alumni network, of course. **Jared Parks** spent many years coordinating the grassland restoration project at CRFRS, but since 2007 has worked as a land protection specialist at the **Eastern Shore Land Conservancy (ESLC)**. He is a Lawrence University graduate and was contacted by a former professor who was inquiring about internship opportunities for a current student (Ari). Jared explained that though he no longer worked at CRFRS, he would be happy to make the introductions. At left, Jared (right) and Ari (left) pause during a bird walk Jared led for ESLC.

# Chino Farms & Washington College

## BioBlitz

On April 27, 2013 the first ever BioBlitz was held on Chino Farms. The Center for Environment & Society, CRFRS and the **Maryland Biodiversity Project** teamed up to sponsor the event. A **BioBlitz** is an intense one day event where a specific area of land (in this case the entire Chino property), is divided up into sections and participants find and document as many living things as possible. Our two goals for hosting the event were: to increase our knowledge about the natural environment on the farm; but more importantly, to get like-minded people together out in the field to learn from one another, whether they are professionals or undergraduate students.



Fifty-six entomologists, herpetologists, ornithologists, botanists and seasoned naturalists teamed up with students to spend a fun and productive 24 hours in the field. The Blitz was a great learning experience for all involved, especially for the Washington College students who stayed up late and woke up early to spend part of the day exploring the property. Washington College's **Nathan Nazdrowicz** and **Jim White** (Delaware Nature Society) showed students how to search, find and identify frogs, salamanders, snakes and turtles.



By the end of the day more than 800 species were identified. In addition, many hundreds of insects were collected and are still in the process of being identified. We estimate that overall more than 1,000 species of animals, plants, and insects were found during the Blitz. This is an impressive number considering that many insects and plants aren't active or blooming until later in the summer when there are warmer temperatures. At least two new county records were established: a Henry's Elfin butterfly and a Common Sanddragon dragonfly were spotted, which is impressive considering butterflies and dragonflies are relatively well-studied species. Many of the harder to identify non-descript insects no doubt will count as new county records as well.

Records from the Blitz and other cumulative lists and photographs of species found throughout Chino Farms, can be found at the Maryland Biodiversity Project's website at this link: [Marylandbiodiversity.com/chino](http://Marylandbiodiversity.com/chino).

*Top: Students observe a Snapping Turtle at the BioBlitz.  
Bottom: Amanda Peters '15 with an Eastern Worm Snake.  
Opposite top: Students collect arthropods for their study of species richness. Opposite bottom: Katherine Wares '14 holds a Marbled Salamander.*

## Faculty Focus

The CRFRS, FBBO and other areas on Chino Farms continue to be a fantastic resource for Washington College faculty and students. In September, **Dr. Nathan Nazdrowicz**



and **Nancy Weibell**, lecturers in Biology, brought students out from Ecology (BIO 206) for two lab sessions. 64 students investigated seed dispersal in both meadow and forest habitats. In a second lab, they calculated arthropod species diversity in grassland habitats of low and high plant species richness.

Assistant Professor of Biology **Dr. Jennie Carr** came to FBBO four times with two different classes this year. The banding station was an ideal place for a field trip for the 10 students taking Ornithology (BIO 294), who were treated to views of birds in the hand, had discussions about avian behavior and migration and reviewed bird songs as we walked on net runs. Dr. Carr also brought two lab sections (31 students) of Biology: Diversity

and Adaptation (BIO 100) to the banding station. Students studied the differences in bill shape, wing shape, and plumage coloration among a variety of birds.

Associate Professor of Biology **Dr. Rosemary Ford** brought 14 students from Plant Biology (BIO 211) to explore the grasslands in fall 2013. Students collected and identified flowering plants and dried fruits which were pressed for their collections.

Assistant Professor of Environmental Science and Biology, **Dr. Robin Van Meter** and student **Katherine Wares '14** began exploring some of the more remote areas of the property in search of Marbled Salamanders at the end of the year. These salamanders are restricted to woodlands with Delmarva Bays for most of their life cycle. For her Senior Capstone Experience, Katherine is studying how water quality affects the distribution of Marbled Salamanders. We look forward to seeing the results of her study next year.

**Dr. Michael Kerchner**, Associate Professor of Psychology, visited the grounds of FBBO with the students in his Comparative Psychology

(PSY 319) class. They observed ground-feeding birds to experience developing an ethogram, which was used to collect data in the field and to generate experimental hypotheses.

**Dr. Martin Connaughton**, Associate Professor of Biology, brought students from the Chesapeake Semester class Natural Science of an Estuary (CRS 240) to the farm for a lesson on habitat fragmentation and species diversity. They spent time in mature hardwoods counting plant species and comparing the diversity there to an area on a field edge.

We are thrilled to provide these habitats so students can see their classroom lectures come to life. We hope both students and professors alike continue to take advantage of the opportunities we can provide for experiential learning and getting out into the field.



# Washington College Interns

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## Student Internships

We had the good fortune of having Eastern Shore native **Christie Phebus '15** intern with us during both the spring and fall banding seasons at FBBO. Christie is an environmental science major and a biology minor. Christie spent the spring season learning the bird species and the basics of extracting birds from mist nets. When she returned in the fall, she built upon that foundation improving her skills and learning to collect morphometric data by banding and processing birds. She was a great help throughout the fall season, especially on those busy late October days. “Banding at the station is extremely hands on, informative and exciting; these internships have given me a true passion and appreciation for birds (especially warblers),” said Christie.



**Kathy Thornton '13** interned at FBBO in the spring and joined us for the summer in the CRFRS grasslands. Kathy double-majored in environmental studies and history, minored in biology and had a concentration in Chesapeake regional studies. She spent the summer advancing the banding skills she learned at FBBO and also learning to find cryptic nests of a variety of grassland birds. Kathy said, “I was very excited about this internship because it gave me experience in field biology studying birds and other wildlife. In our spare time, we also got to explore the farm, the Chester River, and other wildlife areas to learn more about the birds, amphibians, and plants in the area. It is a perfect summer internship for anyone who loves biology and ecology! I would do it again in a heartbeat.” After graduating, Kathy stayed a part of the team and started a full time position at CES as Program and Intern Coordinator at the end of the field season.

**Ashley McAvoy '13** spent her summer in the restored grasslands. A double-major in environmental studies and hispanic studies, Ashley learned to identify birds, how to band birds, read color bands through spotting scopes and to find nests. According to Ashley, “the best part of working out in the grasslands was finding a nest. After waiting what seemed like forever in the boiling heat it was awesome to finally find the nest. I found it really incredible just how hidden and tiny these nests were tucked away in all that grass.” Through a previous internship with the U.S. Environmental Protection Agency, Ashley gained experience in the communications and outreach side of environmental work, so she was glad to add field research to her resume. Ashley wanted exposure to the many facets of environmental work to help her decide what career path she ultimately will choose.



# Washington College Interns

In addition to the interns from Washington College, **Ari Rice (Lawrence University) '15** interned with us this summer. Ari, from Northbrook, Illinois, is a biology major with an anthropology minor. Being a life-long birder, passionate naturalist and experienced field technician, Ari hit the ground running finding and mapping Field Sparrows and conducting transect surveys for breeding birds. Ari's passion for dragonflies was infectious and we all learned to identify many new species this summer. Because he had a great summer, he had a hard time picking his favorite part, "it was a tough contest between catching a dozen or so bobwhites on my last day, seeing my lifer Clapper Rail at Bombay Hook NWR, hearing a fantastic chorus of frogs and katydids on nights after big thunderstorms, and just about every time I found a Grasshopper Sparrow nest."

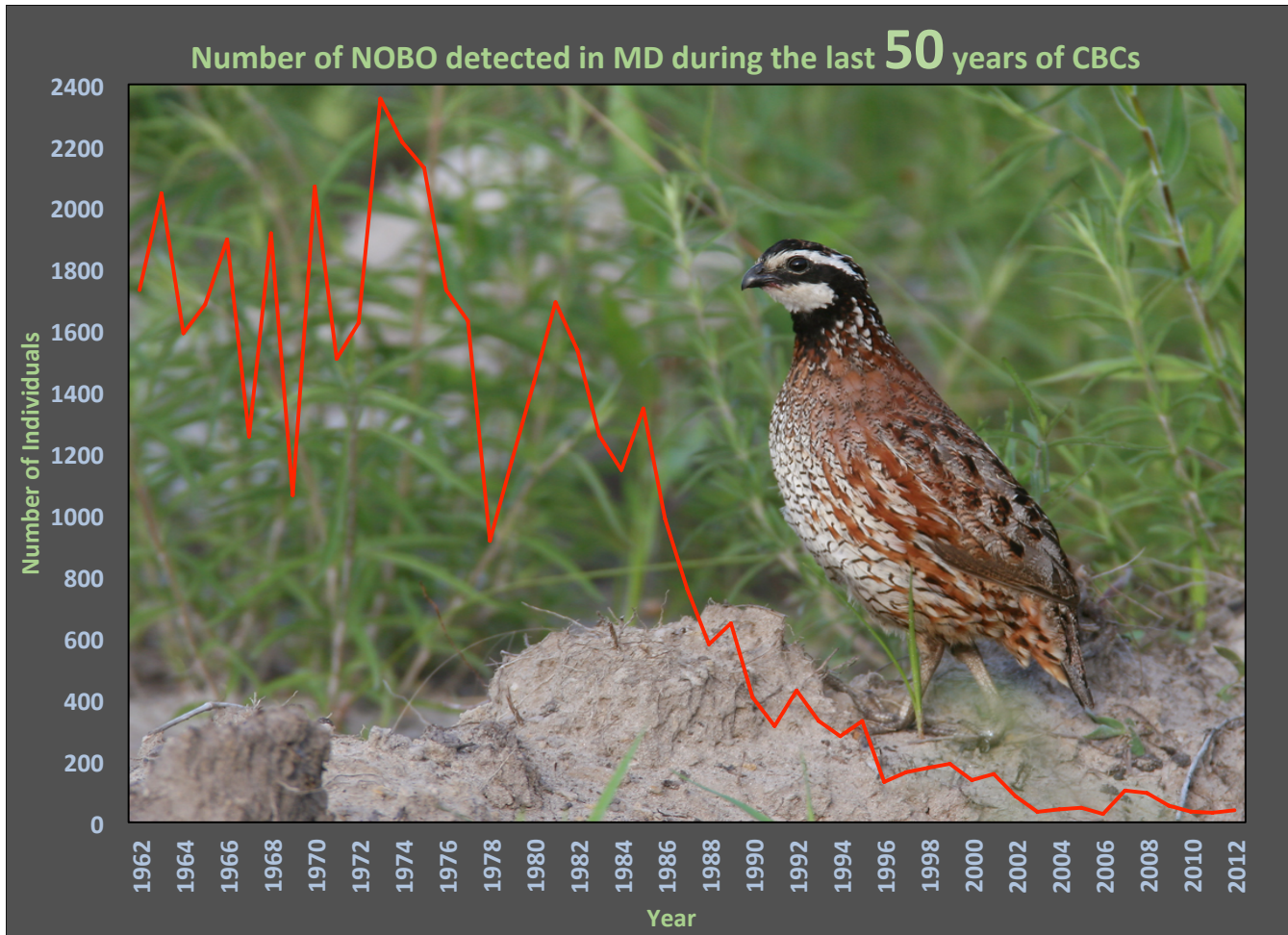


**Bird Clarke (Gunston Day School) '16** volunteered over several weeks this summer at FBBO contributing to a project that monitors breeding birds through banding. Birdie found us through her mother, Wendy Mitman Clarke, who works in the Washington College office of College Relations and Marketing. She trained with FBBO banding director Jim Gruber to learn the basics of bird banding which for her was eye-opening. "I never knew that a cardinal has a beak strong enough to crush aluminum, or that a towhee's eye will turn blood red as it ages or how to tell the difference between a phoebe and a pewee." She plans to further her interest in birds by taking ornithology at Gunston next year (which happily usually involves a field trip to FBBO).



The Center for Environment & Society is dedicated to providing excellent, challenging, and inspiring experiential internship opportunities. For more information on our internships or to apply please visit our website: [www.washcoll.edu/centers/ces](http://www.washcoll.edu/centers/ces) or call our office (410) 810-7161.

# CRFRS 2013 Newsletter



This graph illustrates data collected by citizen scientists during Audubon’s annual Christmas Bird Counts in Maryland. It’s no secret that Northern Bobwhite populations have been in precipitous decline for the last several decades and this chart is a striking depiction of how drastically the population has crashed in the last 50 years. A mere 384 bobwhite were found throughout Maryland on all the CBCs since 2006 and 56% of these sightings have been on Chino Farms during the **Chesterville CBC**. Habitat loss is the most critical of all the problems facing bobwhite and other grassland birds. Private landowners need to join forces with county, state and federal land managers to increase grassland and shrub-scrub habitat throughout the state, particularly on the Eastern Shore where much of the land remains rural. Photo by Bill Hubick.

The Center for Environment & Society at Washington College supports interdisciplinary research and education, exemplary stewardship of natural and cultural resources, and the integration of ecological and social values. By managing precious resources over the long term, we can preserve the natural world and opportunities to study it, for generations to come. One of our most important goals is to provide research opportunities for students. The Center awards 10-12 competitive internships each year, with many students choosing to work at the Chester River Field Research Station at Chino Farms.

Funds are needed to support a variety of programs and research projects. Gifts may be earmarked for the Center, the Field Research Station, or the Bird Observatory. Please contact Jenifer Emley at [jemley2@washcoll.edu](mailto:jemley2@washcoll.edu) or 410-810-7161. Thank you.



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