

U.S. Fish & Wildlife Service

National Wildlife Refuge System Southeast Region Inventory & Monitoring Network

Network Update
November 2014

Highlights and Progress in FY14

This past year was another busy and exciting year for the Southeast Region I&M Network as we worked to accomplish tasks within the National I&M 7-Year Plan and provided technical assistance to refuges and conservation partners. Here are a few examples of accomplishments and progress in 2014.

✦ The Regional Refuge Leadership Team approved the Southeast Region ServCat Implementation Strategy to ensure priority refuge legacy documents are archived for all R4 refuges by 2017.

✦ We completed legacy document scanning and upload for nine refuges: Cahaba, Cedar Island, Currituck, Mackay Island, Mattamuskeet, Mountain Longleaf, Pocosin Lakes, SDH Noxubee, and Swanquarter NWRs. Legacy document scanning and upload is on-going for 21 refuges: Alligator River, Banks Lake, Bayou Cocodrie, Big Branch Marsh, Bon Secour, Cape Romain, Cat Island, Clarks River, Coldwater, Dahomey, Grand Bay, Lower Suwannee, Mississippi Sandhill Crane, Pea Island, Okefenokee, St. Catherine's Creek, Santee, Savannah Coastal Complex, St. Marks, Tallahatchie, and Waccamaw NWRs.

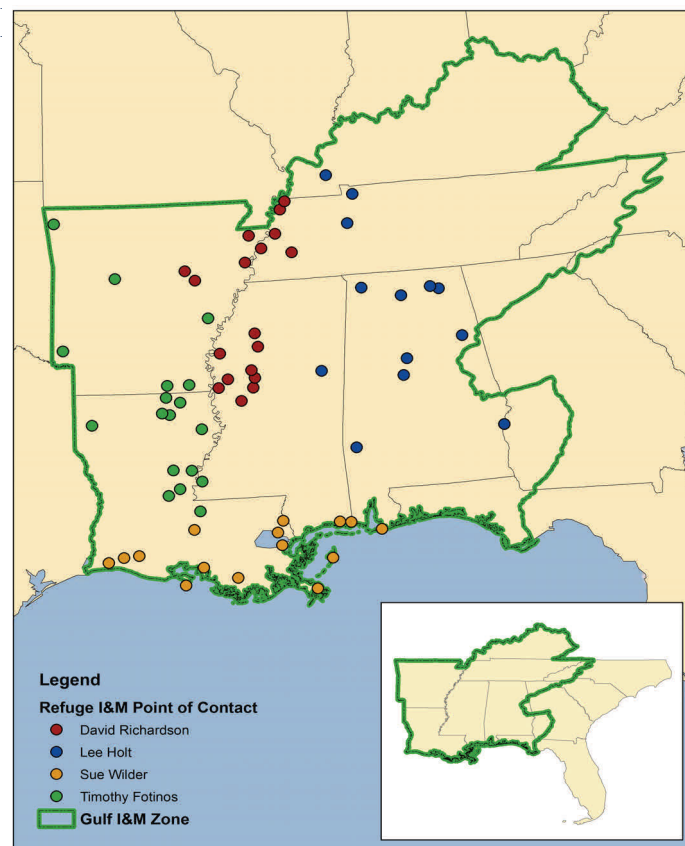
✦ We completed Water Resource Inventory and Assessments (WRIA) for Cahaba River and Cape Romain NWRs and five others are in various stages of development.

✦ We participated on a national team exploring the possibility of using eBird and the Avian Knowledge Network (AKN) to develop station specific bird lists.

✦ We continued to provide inventory and monitoring technical assistance to refuges, LCCs, and partners. We coordinated mobile acoustical bat monitoring at 53 USFWS stations (cross-region, cross-Division) and conducted field work where stations needed help. I&M initiated development and testing of a protocol to monitor the treatment effects on the invasive *Phragmites australis*. We provided support and training to collect data per the Regional Fuel Treatment Effects Monitoring Plan and Field Guide. We worked closely with 18 refuges to collect data from twenty coastal wetland elevation monitoring sites.

✦ We awarded Regional I&M funding (\$261,075) to stations to hire interns and conduct research and management projects.

Updated Point of Contacts - Gulf Zone



Refuge I&M Plans Are Underway

The new policy on Inventory and Monitoring Plans (IMP) is now available (701 FW2) and Southeast Region I&M staff are prepared to assist refuges in IMP development. Eight refuges (ACE Basin, Big Branch Marsh, Dahomey, Eufaula, Upper Ouachita, Harris Neck, Okefenokee, and Pee Dee NWRs) are currently working directly with an I&M ecologist tasked to guide and assist them through the process. Refuge staff are encouraged to check out the new IMP Google site with process, guidance, and tools to help understand IMPs. (<https://sites.google.com/a/fws.gov/r4-implans/>). In

addition to considering local refuge needs, I&M staff have been reaching out to Ecological Services, Migratory Bird and Fisheries Divisions to solicit input on monitoring information needs that refuges could strategically fulfill. Southeast Region I&M also coordinated with other regional I&M Networks to become familiar with their procedures. All this is intended to smooth the process for Southeast refuges. More progress on IMP development for these first eight refuges will appear in the Spring 2015 Update. For additional information, please contact [Janet Ertel](#).

Species Highlight

Species: Dune Blue Curls
(*Trichostema species 1*)

Image: J. Koches/USFWS

Location: Cape Island,
Cape Romain NWR

Range: Endemic to barrier
islands of NC and SC



South Atlantic Coastal Wetland Elevation Monitoring



Wetland elevation monitoring on Lower Suwannee NWR

In the South Atlantic, the Coastal Wetland Elevation Monitoring project (CWEM; formerly SET monitoring) is entering its third year of monitoring this fall. Refuge staff have been doing a great job collecting this important data, and fifteen of the twenty sites have been sampled four or more times to date. The sampling effort of twice/year per site will continue this year.

In FY15, Southeast I&M will be coordinating with Southwest I&M to write a FWS CWEM protocol and associated standard operating procedures. These

documents will follow the approved I&M Protocol Handbook and go through a formal review process.

The baseline vegetation inventory report for this project is close to completion! This report summarizes the data collected from each refuge within the South Atlantic geography during the spring and summer of 2013. The report will be available for download from the FWS Service Catalog: refuge code #34503.

For more information, contact [Nicole Rankin](#) or [Forbes Boyle](#).



Vegetation sampling at Savannah NWR

Water Resource Inventory and Assessment Web Application

The Water Resource Inventory and Assessment (WRIA) Application effort is a nationally coordinated initiative that informs planning and conservation science at refuge, regional, and landscape scales to support the mission of the USFWS. This collaborative WRIA Application comprises a centralized database, a GIS function, and a web application that will collect, store, and retrieve water resource information from the entire National Wildlife Refuge System (NWRS). Water resource information includes geospatial data, existing baseline information on water rights, water quantity, water quality, water management, threats to water supplies (including potential climate change impacts), and other water resource issues. This information can be queried to answer specific questions about



Water control structure at Savannah NWR

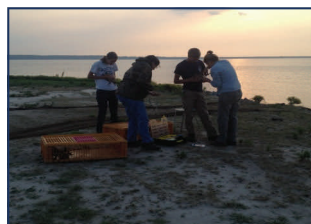
NWRS water resources at regional or national scales. The long term goal of the WRIA effort is to provide up-to-date, accurate data on Refuge System water quantity and quality in order to identify trends, track needs and threats, manage, acquire, and protect adequate supplies of water.

For more information about the WRIA Application, please contact [Theresa Thom](#) or [Mike Higgins](#).

Wood Duck Banding on Pocosin Lakes NWR

Data obtained through bird banding programs provide biologists valuable information about survival rate, life-span, productivity, population growth, and changes in populations. Unlike many duck species, wood ducks are cavity nesters and are not as easily observed in the breeding grounds. The biological data monitored through wood duck banding is essential for detecting changes in populations and development of hunting regulations for this species. During the summer of 2014, four college interns and SCA volunteers participated in wood duck banding projects on Pocosin Lakes NWR. The project was kicked off with a mandatory two-day FWS Rocket Net Safety Training

course for refuge and state biologists, and presented by Supervisory Migratory Bird Biologist John Stanton and Refuge Biologist Dennis Stewart. I&M ecologist [Wendy Stanton](#) continued the training for college interns and SCA volunteers in safety, proper bird handling and extraction from rocket nets, identifying age, sex, and attaching leg bands on captured wood ducks.



Banding wood ducks at sunrise

2014 Mobile Acoustical Bat Monitoring Update

The Mobile Acoustical Bat Monitoring (MABM) effort across Regions 2, 3, and 4 was extremely successful in 2014. This was the 3rd year of this monitoring project. Fifty-six stations completed their routes at least one time this year. This includes 9 refuges piloting new 2014 mobile acoustical surveys in AL, OK, LA, MS, and TX. Over 20,000 individual call files have been classified to species. Preliminary data analysis indicates that we should have the ability to examine population trends of the more commonly detected species. The MABM project is anticipated to compliment the North American Bat Monitoring Program (NABat) which is



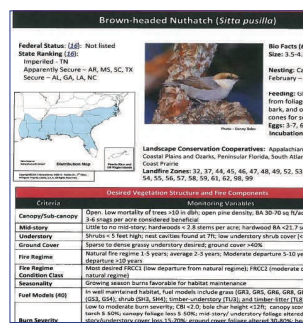
A Rafinesque's Big-eared bat in an old house

being developed to examine bat populations across the entire United States using a similar protocol. A short webinar is being planned in early 2015 to provide a more comprehensive update of regional MABM data and how this monitoring will merge with the national initiative as well as explore other opportunities to complete baseline inventories of bats at field stations. For more information, contact [David Richardson](#).

Fire Species Profiles Available

Fire is a fundamental process that has shaped much of the landscape and influenced species adaptations across the southeastern United States for millennia. There are many examples of habitats that have been structured by fire in our region, including the once vast longleaf pine ecosystem that historically stretched from the Coastal Plain of Virginia to east Texas. FWS resource managers understand the importance of fire as a tool to manage habitat for the benefit of the many fire-adapted plants and animals that depend on burning to stimulate reproduction, restore nutrient loads, maintain and create structure, and control invasion of fire-intolerant species. However, because there are so many known benefits, it is often difficult to decide exactly 'what' to monitor to track how habitat is improving. Recently, a team composed of individuals from the Southeast Region I&M Network, National Wildlife Refuge System, and Fire Management Division worked together to develop Fire Management Species Profiles for a range of fire-dependent animals and plants typical of open pine habitats in the South.

These Profiles provide habitat management objectives that are specific, measurable, achievable, and relevant to use of prescribed fire as a management tool for habitat maintenance and improvement. Species that have Profiles include: Bachman's sparrow, brown-headed nuthatch, Henslow's sparrow, little bluestem, painted bunting, pine snake, and wiregrass. Each Profile includes an extensive literature review and reference citations regarding life history traits of the species. These documents can be accessed via the online Service Catalog (ServCat) and searching for reference code #28356. For more information, please contact [Sue Wilder](#) or [Laura Housh](#).



Example Fire Species Profile for brown-headed nuthatch

The Contaminant Assessment Process (CAP) for Refuges

The Contaminant Assessment Process (CAP) is a standardized and comprehensive approach to identify and assess potential or perceived threats to Service lands from environmental contaminants such as agricultural runoff or oil and gas activities. In addition, CAPs are intended to document baseline conditions so future impacts can be measured and to prioritize management actions to address current environmental impacts. Region 4 I&M Network staff are working with Environmental Quality personnel from the Service and various ES Offices to identify and prioritize R4 Refuges for initial or follow-up CAP work. This year, six refuges in R4 are undergoing the CAP. Many refuges across R4 have already undergone the CAP and have a report of the findings available through the CAP on-line tool at ECOS on the Service intranet site (<https://ecos.fws.gov/>). Here you will find a full summary of the contaminants information for all refuges that have completed a CAP. Ultimately, these



Inspecting an abandoned oil well on refuge land. Nationwide, over 5,000 oil and gas wells exist on refuge land.—Steve Hillebrand

CAPs will help Service personnel identify and monitor contaminated areas and assess the vulnerability of Service lands to spills and impacts from hazardous substances. Additional CAP assistance or information can be found by contacting the Environmental Quality Coordinator ([Greg Masson](#), Southeast Region USFWS), or one of the R4 I&M Aquatic Ecologists, [Theresa Thom](#) or [Lee Holt](#). There is also a convenient fact sheet about CAP available at <https://fishnet.fws.doi.net/regions/4/nwrs/IM/Shared%20Documents/Fact%20Sheets/EnvironmentalQualityCAP%20fact%20sheet.pdf>.

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<http://www.fws.gov/southeast/IMNetwork/>

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