

## U.S. Fish & Wildlife Service

### National Wildlife Refuge System Southeast Region Inventory & Monitoring Network

*Network Update*  
*November 2013*

#### Highlights from FY13

FY 2013 was a very busy and productive year for the Southeast Region I&M Network. We are proud to support the good work done by refuges and our conservation partners. Here are a few of the broad accomplishments we are particularly proud of in 2013.

✦ We awarded \$340K in regional discretionary funds and salary savings to support refuge interns and 25 small and large research and management projects at 33 stations.

✦ We were nationally lauded for closely mirroring the National Refuge I&M Initiative Blueprint in implementation. The I&M Network is now fully staffed, with field ecologists co-located on refuges and distributed across the region to implement the I&M vision.

✦ We worked with refuges to populate the national PRIMR, ServCat, and ESA databases. Nearly 1,300 biological surveys

have been captured in the PRIMR database on all Southeast refuges. Over 4,300 refuge documents have been archived in the new ServCat digital archive. The NWRS ESA database of T&E species was populated and validated for all Southeast refuges.

✦ We provided technical assistance to stations, LCCs and partners on all aspects of inventory and monitoring. The R4 Fire Team and Southeast Region I&M Network completed the [R4 Fuels Treatment Effects Monitoring Plan](#) and [Field Guide](#). I&M collaborated closely with the GCPO LCC to expand and refine the LMVJV Forest Management Database and reviewed the South Atlantic LCC indicator species process and selection. We coordinated mobile acoustical bat monitoring at 45 stations in Regions 2, 3, and 4, and completed mussels surveys at

Pond Creek NWR and pilot amphibian surveys at Roanoke River NWR. I&M participated in regional efforts to determine efficient methods to sample gopher tortoises and provided technical assistance to the species at risk effort. We also worked with Ecological Services to develop a Contaminants Assessment Process (CAP) fact sheet.

✦ We continued providing Water Resource Inventory and Assessment (WRIA) information to stations. WRIs for Erwin NFH and Cache River, Lower Suwannee, Okefenokee, and White River NWRs are in progress, Cahaba River NWR is in draft, and Cape Romain NWR is complete.

✦ We worked to accomplish step-down tasks identified in the National I&M Initiative 7-year Plan. We worked with the R4 Migratory Bird Program to

develop a list of surveys where refuge participation is needed and contributed to an eastern node of the Avian Knowledge Network (AKN). We explored the possibility of using eBird and AKN to develop station specific bird lists. We coordinated and trained 18 stations to collect data from 60 RSETs and established permanent vegetation monitoring plots at RSET sites. We also assisted with development of the Migratory Bird Program WHER online database for reporting of wildlife mortality events.



Malacologist Chris Davidson (ES) assisting with the Little River mussel survey on Pond Creek NWR.

#### ServCat Safeguards Refuge Legacy

Southeast refuges have lost scores of documents to catastrophic natural events, computer crashes, and gradual degradation over time. The FWS Service Catalog ([ServCat](#)) is a searchable, secure, centralized online archive built to safeguard and share important unique biological and historical documents and datasets produced by refuges and other Service programs. ServCat records are easily accessible to FWS personnel, increasing efficiency and communication of the great work refuges do. The Southeast I&M Network has already archived >4,300

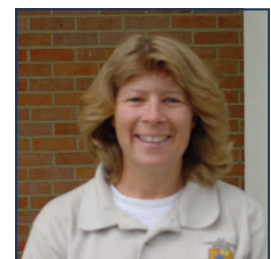
annual narratives, plans, and other records in ServCat. Recently, I&M staff developed and presented a strategy to Refuge Leadership to have I&M staff and I&M-supported refuge interns archive the remaining refuge legacy documents and train refuges to use this new application.

We anticipate completing this process for all Southeast refuges in the next 5 years. Interested in being one of the first refuges to archive all your important records? Please contact your local I&M ecologist. See page 3 for I&M contact information.

#### Fire Program and I&M Join Forces

The Southeast Region I&M Network is now fully staffed with a new Service cross-programmatic relationship. Sue Wilder, R4 fire ecologist, has joined forces with the I&M Network to serve as joint I&M coastal ecologist and R4 fire ecologist. Sue brings a wealth of refuge experience both in fire and coastal ecology. Sue has worked for the Service for >12 years and is stationed at SE Louisiana Refuges in Lacombe, LA. Her fire ecology duties include serving as Regional Burned Area Response Coordinator and Resource Unit Leader on the Southern Area Incident Management Team.

Before joining the Service, Sue worked as a research ecologist with the USGS National Wetlands Research Center in Lafayette, LA and served on the Joint Fire Science Board for 5 years. Sue now serves Gulf Network refuges as coastal ecologist while continuing to serve as regional fire ecologist.



Sue Wilder.

### Mussel Survey on Pond Creek NWR, AR



Threatened rabbitsfoot mussels discovered in the Little River in SW Arkansas.

The Little River in southwest Arkansas runs alongside Pond Creek National Wildlife Refuge. The river is home to the highly-endangered Ouachita Rock Pocketbook mussel, *Arkansia wheeleri*. This September, the Southeast Region I&M Network supported malacologists, Chris Davidson (Arkansas Ecological Services Field Office) and Tony Brady (Natchitoches National Fish Hatchery) to survey between Millwood Lake and the OK/AR border. The South Arkansas Refuge Complex, Southwest and Southeast I&M

teams, and Red River National Wildlife Refuge provided additional assistance. The team assessed approximately 36 miles of river during the 10-day survey, resulting in delineation of several dozen mussel beds. Davidson and Brady also collected mussel species to begin determining species community composition. Thirty-four species of mussels were documented during this survey, including one live Ouachita Rock Pocketbook, providing evidence the species is still present in Arkansas above Millwood Lake. Contact [Tim Fotinos](#) for more details.



Ouachita rock pocketbook.

### Amphibian Community Monitoring at Roanoke River NWR, NC

There is a growing concern about the worldwide decline of amphibian populations and in particular localized extinctions. Amphibians are commonly recognized as good indicators of ecosystem health and change due to their dependence on various wetland habitats and sensitivity to environmental stressors. Most refuges lack baseline data on amphibian species composition and standardized monitoring data on the effects of management actions on amphibian species distribution, diversity, community structure, function, and composition. In 2013, an amphibian community monitoring pilot was initiated at Roanoke River NWR located in northeastern North Carolina.

Southeast Region I&M Network staff worked closely with the National Park Service Southeastern Coastal Network (SECN) and refuge staff to



Marbled salamander at Roanoke River NWR.

conduct the pilot study using the SECN amphibian monitoring protocol and to evaluate the use of this protocol for other southeast refuges. Preliminary results documented 13 species of amphibians and 11 species of incidentally observed reptiles. Once data analysis has been completed, a final report of the findings and any suggested recommendations needed to adapt the SECN protocol for use on refuges will be produced and distributed. For more information, please contact [Wendy Stanton](#).

### I&M Supports Refuge Interns

This summer, the Southeast Region I&M Network supported 8 refuge biological interns across the region (50% of salary). This was done to help support the monitoring efforts already occurring on refuges as well as to target support for additional efforts that contributed to regional monitoring needs.

It was a gratifying action for several reasons. First, it was a way for I&M to help contribute to our next generation of biologists, scientists, and conservationists by providing excellent field experience and mentorship. Second, it helped refuges in a tight time to retain the interns that they had recruited and hired to support their biological programs. Third, the interns helped with several projects specifically of

interest to the I&M Network.

Interns at 4 refuges performed additional bat survey transects to allow a statistical assessment of seasonal variance to inform the multi-region survey protocol. Interns at 5 refuges located and uploaded historic refuge biological documents to the new FWS Service Catalog (ServCat) system. Other experiences included MAPs breeding bird banding, wood duck banding, water infrastructure inventory, RCW fledge and banding checks, nesting surveys and cavity inserts, amphibian community monitoring, RSET vegetation sampling, and moist-soil seed, plant growth, and abiotic condition sampling.

For more information, please contact [Janet Ertel](#).

### Coastal Refuge Vegetation Surveys

As part of the South Atlantic marsh elevation monitoring project, Southeast I&M Network staff performed vegetation monitoring in association with RSET sites on coastal refuges within the South Atlantic LCC. This summer, Wendy Stanton, Forbes Boyle, Nicole Rankin, Theresa Thom, and refuge staff established permanent vegetation monitoring plots at all 60 RSET benchmarks (20 sites) on refuges in Florida, Georgia, South Carolina, and North Carolina. They used the Carolina Vegetation Survey Level 5 protocol (<http://cvs.bio.unc.edu/methods.htm>) and set up three 10X10 meter plots per site to determine vegetation composition and structure. The primary purposes of Level 5 plots are to assess compositional richness (i.e.,



Vegetation monitoring at Pinckney Island NWR.

number of species) across multiple spatial scales (smallest scale = 0.01 m<sup>2</sup>; largest scale = 100 m<sup>2</sup>), document tree and shrub density, and describe abiotic conditions (e.g., soil nutrient/texture, disturbance history) within the plot. They worked in cypress-gum swamp forests, pocosins, oligohaline marsh, and salt marsh wetlands documenting over 450 species occurrences. For more information about this project, please contact [Nicole Rankin](#) or [Forbes Boyle](#).



## Endangered Species Database

The Southeast Region I&M Network has contributed to a national effort to develop a comprehensive list of species classified under the Endangered Species Act (ESA) that currently occur/have historically occurred on National Wildlife Refuges. The Natural Resource Program Center (NRPC), home of the National I&M Initiative, compiled ESA-species listed in refuge Comprehensive Conservation Plans and the national Threatened and Endangered Species System (TESS) database. Refuges were asked to review the list, make

any necessary corrections, and note if species were currently monitored. The ESA species database was reviewed by all Southeast region refuges, and corrections/additions were submitted to the Ecological Services division. These efforts inform I&M monitoring priorities and enhance the TESS database system for tracking of Endangered Species. The ESA database can be found at <http://ecos.fws.gov>. For more information, please contact [Steve Holzman](#) or [Kristine Evans](#).

## New SE Region I&M Website

Great news! We are excited and proud to launch the [Southeast Region Inventory & Monitoring \(I&M\) Network website](#).

This website features information about the Southeast Region I&M Network including current abiotic, biotic, and data management efforts; staff locations and contact information; recent accomplishments; and reports and publications about inventory and monitoring projects. Water resource

inventory and assessments, hydrogeomorphic analyses, and marsh elevation monitoring are a few of the current abiotic monitoring efforts highlighted on the site, while amphibian inventory pilots, aquatic invasive species monitoring, mobile acoustical bat monitoring, and vegetation assessments are examples of our biotic efforts.

For more information about the website, contact [Nicole Rankin](#).

## Wildlife Health Event Reporter

The Division of Migratory Birds has partnered with University of Wisconsin-Madison and the Southeast Region I&M Network to launch a Southeastern agency node of the Wildlife Health Event Reporter (WHER). WHER-ATS (Agency Tracking System) is a web-based data system that allows users to jointly collect, store, and share wildlife mortality and morbidity events real-time, including an auto-alerting system for outbreaks. Randy Wilson, MS Migratory Bird Office, has led this effort and is working with USDA



WHER web-based data system.

Wildlife Services to develop an Avian Mortality Handbook to guide refuge staff through handling a mortality event. Field tests of the handbook and WHER-ATS tracking system will take place this year. WHER can be found at: <http://www.whmn.org/wher/>.

## eBird and your Refuge Checklist

Refuge birders are increasingly providing data to Cornell's eBird database. By recording every species and accurately estimating the number of individuals observed in eBird, birders are contributing to an unprecedented and valuable dataset comprising millions of records. These records feed into the Avian Knowledge Network (AKN), allowing us to create real-time refuge bird checklists. Although eBird data has some limitations, it has great internal review, allowing reviewers to

follow up on questionable sightings and obtain available documentation. As more and more historical data is entered into eBird, we can begin to see changes in arrival/departure dates for migratory species and shifts in species' range and distribution. An example eBird bar chart for Merritt Island NWR can be seen at: <http://tinyurl.com/minwr-ebird>. There are also smartphone apps for "on the fly" eBird entry. For more information, please contact [Steve Holzman](#).

### U.S. Fish & Wildlife Service National Wildlife Refuge System Southeast Region Inventory & Monitoring Network

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

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