

U.S. Fish & Wildlife Service

National Wildlife Refuge System Southeast Region Inventory & Monitoring Network

Network Update
April 2013

The Inventory and Monitoring Initiative is part of the National Wildlife Refuge System and will directly support the science-based management of the Nation's 554 National Wildlife Refuges and 38 Wetland Management Districts that manage more than 150 million acres of public lands and waters across the United States in all 50 States, several Territories, and the marine environment.

The underpinning legislation guiding the formation of the Inventory and Monitoring Initiative is the National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57). The Act states that the Secretary shall, "monitor the status and trends of fish, wildlife, and plants in each refuge."

The Southeast Region Inventory & Monitoring (I&M) Network is part of the National Wildlife Refuge System I&M Initiative. Our mission is to work collaboratively to assess the status of refuge lands, waters and biota, and support achievement of conservation objectives at multiple spatial scales. We are specifically tasked to work closely with refuges, conservation partnerships such as LCCs and other Service programs to address critical refuge information needs and evaluate effectiveness of conservation strategies on refuges. The Southeast Region I&M Network is staffed with 13 monitoring experts. Staff occupy 2 "zones" that complement southeastern LCC geographies, the South Atlantic Network (eastern), and the Gulf Network (western). Each zone is staffed with a network lead, data manager, and terrestrial, aquatic, plant and coastal ecologists. Staff are stationed strategically at National Wildlife Refuge and partner offices across the geography. The regional network is led by Laurel Barnhill (I&M Chief and South Atlantic Coordinator) and Janet Ertel (Deputy I&M Chief and Gulf Coordinator). The network has hit the ground running on various I&M projects and continues to gain momentum! We hope these occasional Network updates will keep you informed on our progress on I&M projects.



Southeast I&M Network staff locations. *See table on pg. 3 for I&M staff duty stations and contact information.

- South Atlantic Network
- Gulf Network
- Laurel Barnhill (I&M Chief), GA & Steve Holzman (Regional Data Manager), GA
- Janet Ertel (Deputy I&M Chief), MS & Kristine Evans (Asst. Data Manager), MS
- Mike Chouinard (Senior Ecologist), TN
- Lee Holt (Aquatic Ecologist), AR
- Theresa Thom (Aquatic Ecologist), SC
- Meg Goecker (Coastal Ecologist), MS
- Nicole Rankin (Coastal Ecologist), SC
- Forbes Boyle (Botanist), GA
- Tim Fotinos (Plant Ecologist), LA
- David Richardson (Terrestrial Ecologist), MS
- Wendy Stanton (Terrestrial Ecologist), NC



Wendy Stanton, I&M
Terrestrial Ecologist



Meg Goecker, I&M
Coastal Ecologist



Lee Holt, I&M
Aquatic Ecologist

Southeast I&M Welcomes 3 New Ecologists

The Southeast Region I&M Network now stands fully staffed with the addition of 3 new ecologists. Wendy Stanton, South Atlantic Network Terrestrial Ecologist, started in November 2012 and is located at the FWS Migratory Birds Field Office in Columbia, NC. Wendy brings a wealth of refuge experience to this position, previously serving as a refuge biologist in the Southeast (Pea Island and Pocosin Lakes NWRs) for 18 years. Meg Goecker, Gulf Network Coastal Ecologist, also started in November 2012 and is located at Grand Bay NWR in MS.

Meg brings a breadth of experience with coastal ecosystems, including work with several coastal restoration and monitoring projects in the Gulf of Mexico and Australia. Lee Holt, Gulf Network Aquatic Ecologist, started in January 2013 and is located at Cache River NWR in AR. Lee is a former District Fisheries Biologist with the Arkansas Game and Fish Commission and brings extensive experience with Southeastern aquatic resources including Alligator Gar. All will work closely with refuges and partners within their I&M network zone to meet coastal, terrestrial, and aquatic I&M needs.

Water Resources Inventory and Assessment

An accurate reconnaissance-level water resources inventory and assessment (WRIA) of water quantity and quality on National Wildlife Refuge System (NWRS) lands is essential to identify needs and threats, prioritize work, and to take prescriptive actions. WRIAs are the first and crucial step to understanding the data needs for a targeted water monitoring effort. Since early 2012, Theresa Thom has been working with the Regional Water Resource Team and refuge staff to conduct WRIAs at Cahaba River and Cape Romain NWRs.

The inventory component will gather existing information about each refuge's water features and supply, water quality, water rights, water-related infrastructure, needs



Cahaba River NWR.

and threats. Each assessment will be a narrative document with station-specific information to guide water resource management for that individual refuge. Contact Theresa Thom or Lee Holt for more information.

Theresa Thom, I&M aquatic ecologist, is stationed at the Savannah NWR. She previously worked as Director of the Research and Education Center at Congaree National Park, SC.



Fire Effects Monitoring

In late 2011, I&M Botanist, Forbes Boyle, and Regional Fire Ecologist, Sue Wilder, began the task of revising the Southeast Region's 2006 Fire Effects Monitoring Guide. Based on input from the National Fire Ecology Team, National I&M Initiative, Southeast Region Fire Management Division, and Refuge staff, a revised Field Guide and an Interim Regional Monitoring Plan were developed. Both documents are currently being reviewed both internally and externally and are expected to be available later this year.

The purpose of these documents is to provide technical and planning guidance on fuels treatment

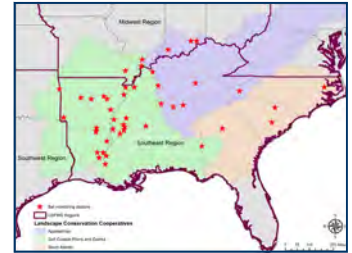
monitoring activities on refuges in the Southeast. The Plan serves as an interim regional monitoring plan until a refuge wide I&M Plan is developed. The revised Field Guide provides information on field methods, sampling design, data collection, storage and reporting fuels treatment monitoring data. Contact Forbes Boyle for details.

Forbes Boyle, I&M botanist, is stationed at Okefenokee NWR. He was previously project manager for the Carolina Vegetation Survey at UNC Chapel Hill.



Mobile Acoustical Bat Monitoring: >40 Stations Strong

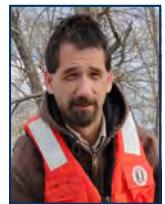
In 2012, the Southeast Region I&M Network initiated an unprecedented coordinated monitoring effort to provide baseline inventories of bat species on refuges, and contribute to assessment of long-term changes in Southeastern bat populations. The Mobile Acoustical Bat Monitoring Project includes survey transects at 45 FWS stations in 3 regions, and collects ultrasonic bat echolocation data via mobile data loggers. Participating stations detected >14,000 bat calls across >2,000 miles of transect during 129 survey nights in 2012. Transects averaged 121 bat detections per night (ranging 7-510), or 6 bat calls/mile. Bat calls will be classified and summarized by species when acoustic classification software is validated. Regional and station-



Stations implementing Mobile Acoustical Bat Monitoring in 2012.

level reports are available at: <https://fishnet.fws.doi.net/region/s/4/nwrs/IM/bats>. Preparations are underway for the 2013 field season. Contact David Richardson or Wendy Stanton for details.

David Richardson, I&M terrestrial ecologist, is stationed at the N. MS Refuge Complex, Grenada. He is a 24 year veteran refuge biologist in the SE Region.



Marsh Elevation Monitoring

In 2012, the Southeast I&M Network installed a network of rod surface elevation tables (RSET) on 18 refuges in the South Atlantic Landscape Conservation Cooperative (SALCC) area to monitor wetland elevation change resulting from sea level rise. This multi-partner project is being coordinated by Nicole Rankin, I&M Coastal Ecologist. This past winter, she provided training to refuge staff on how to collect RSET readings, vertical accretion cores, and porewater salinity measurements at each refuge site.

Data will be collected by refuge staff quarterly the 1st year, biannually the 2nd and 3rd year, and annually thereafter. Nicole will enter the data into a regional database for storage and analysis.



RSET installation at Pinckney Island NWR.

This information will be used in conjunction with RSET data collected from sites maintained by the NPS, NERRS, and USGS to better examine landscape-scale changes resulting from sea level rise. Contact Nicole Rankin for details about this project.

Nicole Rankin, I&M coastal ecologist, is stationed at Cape Romain NWR. She previously worked as a fish biologist with the USFWS Warm Springs Fish Technology Center.



PRIMR Coming to SE Refuges

Ah yet another acronym! PRIMR, short for “Planning and Review of Inventory and Monitoring on Refuges” represents one of the first big steps of the National I&M Initiative. Think of it as a “survey of surveys” - the premise is that for I&M to be most effective, we first must have a handle on what surveys are occurring on refuges across the nation. The Southeast I&M Network is out in front of this national effort and has already cataloged 898 surveys on 79 refuges through a series of refuge visits. These visits have been critical and help I&M staff get to know the refuges they serve, and we offer a huge thank you to the refuges we have already visited. PRIMR is now offered through a web-based platform on ECOS (<https://ecos.fws.gov/ecos/>) with the intent that refuge staff will eventually be able to track and update survey efforts. We expect to complete all



PRIMR web-based platform on ECOS: <https://ecos.fws.gov/ecos/>

PRIMR visits by summer 2013, and will provide a summary report of our findings. Contact Steve Holzman or Kristine Evans for more information about the PRIMR database.

Steve Holzman, I&M Data Manager is stationed at Athens, GA ES. He is a 17 year veteran GIS and IT specialist in the SE, Pacific, and Pacific SW Regions.

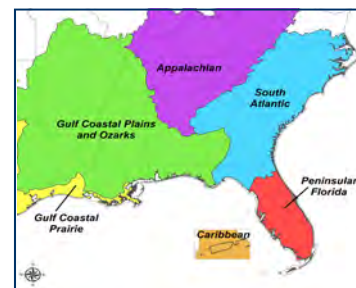


Kristine Evans, Asst. Data Manager is stationed at MS State Univ. She previously coordinated a large-scale bird monitoring program at MSU.



I&M Links Refuges to LCCs

The Southeast Region I&M Network was designed to work closely with Service programs and conservation partnerships such as Landscape Conservation Cooperatives (LCCs), with mutual objectives of a focused landscape-scale approach to Strategic Habitat Conservation. We collaborate with 6 LCCs in the Southeast Region to provide refuge contribution and insight to LCC projects and to communicate LCC tools and technologies to refuges. This includes working cooperatively with LCC staff on special projects and subteams to provide technical expertise on issues that will directly



Landscape Conservation Cooperatives in the Southeast region.

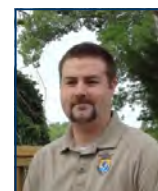
impact refuges such as sea level rise, vulnerability of species to climate change, and development of conceptual habitat models. Contact Laurel Barnhill or Janet Ertel for more information.

National Wetlands Inventory Data

The FWS National Wetlands Inventory maintains a comprehensive standardized classification of most wetlands areas across the U.S. Tim Fotinos, I&M plant ecologist, recently reviewed the National Wetlands Inventory data and confirmed that all but one refuge in the Southeast Region have wetlands maps, that can be viewed via the NWI interactive “Wetlands Mapper” site

at: <http://www.fws.gov/wetlands/Data/Mapper.html>, and downloaded to a shapefile/geodatabase for local GIS use. Contact Tim Fotinos for details on this review.

Tim Fotinos, I&M plant ecologist, is stationed at Red River NWR in LA. He previously worked with the National Parks Service I&M program in FL.



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

<https://fishnet.fws.doi.net/regions/4/nwrs/IM>

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

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April 2013

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<u>Gulf</u>			
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David Richardson	Terrestrial Ecologist	North Mississippi Refuges, Grenada	david_richardson@fws.gov