

Field Notes

News from the Alabama Ecological Services Field Office



A Sentimental Journey: Migratory Birds in Alabama

The Alabama Gulf Coast has always been an attractive destination for tourists and migratory birds alike. A bird migration represents a seasonal journey done by hundreds of species of birds twice every year with some birds traveling thousands of miles. Wintering birds migrate south while breeding birds migrate north. During both northbound and southbound migrations, as well as on key staging and stopover areas, birds select the optimal habitats available to meet seasonal energetic demands depending on their life-history strategy. However, the birds are constrained by weather, sex, age, individual energetic demands, all in the backdrop of human-induced impacts to their habitats.

The U.S. Fish and Wildlife Service (Service) considers migratory birds a trust resource worthy of conservation and protection; both species and their habitats. That's why staff of the Alabama Ecological Services Field Office (AFO) is making some of these conservation priority species of birds a workload priority. In 2013, staff from the Alabama Ecological Services Field Office participated in the North American Breeding Bird Survey, conducting surveys on five routes in Baldwin (two routes) and Mobile (three routes) Counties. Up to 105 survey routes may be completed annually in Alabama. In 2013, the Alabama ESFO surveyed ~5% of all BBS routes available statewide.



An American oystercatcher is one of many birds tracked during migration, photo by Jeff Gleason.



FWS biologist Matt Laschet and Gulf State Park naturalist Kelly Reetz post educational signs, photo by Dianne Ingram.

Surveys are conducted along 24.5 mile designated routes with points located every 0.5 mile along the route for a total of 50 points/route. All birds seen (out to 1/4 mile) and heard (regardless of distance) are identified to species and enumerated during a three minute interval at each stop. In addition to counting birds, we also counted the number of cars passing our points. Also, weather conditions (cloud cover, temperature, wind speeds) are also recorded and surveys are not conducted in rainy or windy conditions.

A participant has to be well-versed on identification of bird songs and calls. Biologist Dianne Ingram is the Alabama Field Office lead on migratory birds. "To participate in bird surveys, we need to be capable of identifying more than 150 species of breeding birds by sight and sound," explains Ingram.

As you can imagine, recognizing a mixture of bird songs is no easy task. There are training tools in place to help out, such as CD's and other software.

However, becoming proficient at identifying birds simply by their calls and songs requires a lot of time studying, practice, experience, and maybe a special knack. "You need to be able to both hear the songs or calls, but also be able to identify the bird by its specific call or song at any one point in time," says Jeff Gleason, an avian ecologist in the AFO. "In addition, you also have to be able to enumerate all of the birds to species-level and keep them all separate spatially to reduce the potential for biasing or inflating the counts."

Another aspect to these surveys is ambient background noise. A data recorder typically assists the primary observer by counting the number of vehicles passing by each of the survey points along the survey route. "Vehicles provide an indicator of both noise and disturbance; the former may inhibit the ability of the observer to hear the bird songs or calls or otherwise distract the observer during the count."

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Surveys typically began at around 5:45 am each day with the first survey completed on 29 May and the last survey completed on 21 June. For all future BBS surveys we will target the last two weeks of May to ensure coverage of the peak singing periods for breeding birds in this area. We cannot conduct the surveys much earlier as the northbound spring migration of birds may overlap in time with Alabama’s breeding birds, thus providing a biased sample.

Over the five survey routes (~1,111 miles driven), we counted 3,261 birds or 13.04 (± 0.68) (SE) birds/point representing a total of 100 species or 6.62 (± 0.17) species/point. In addition, we encountered 1,488 vehicles or 5.95 (± 0.38) vehicles/point. The number of birds, number of bird species, and number of vehicles varied both within and among routes. The Dauphin Island Route (02-140) had the greatest abundance (n = 768 birds) and diversity (n = 67 species) of birds compared to the other routes. Included below is some additional summary information; summed across all survey routes.

Top 10 Species by Abundance	#	% of Total
Northern Mockingbird	311	9.54
Northern Cardinal	277	8.49
Blue Jay	232	7.11
European Starling	186	5.70
Mourning Dove	165	5.06
Laughing Gull	146	4.48
Cattle Egret	132	4.05
Purple Martin	125	3.83
Common Grackle	111	3.40
Eastern Brown Pelican	92	2.82

The biologists are also focusing on beach nesting birds as a priority in the Alabama Field Office. Least Terns are considered late spring and summer nesters on Baldwin and Mobile County beaches, as are American Oystercatchers, and Wilson’s and Snowy Plovers; all species of conservation concern along the Gulf of Mexico coast.

Species Highlights	# Counted	# Point	Total Pts. Detected	% Points Detected
Northern Bobwhite	26	.104	21	8.40
Osprey	5	.02	4	1.60
Red-shouldered Hawk	3	.012	3	1.20
Mississippi Kite	5	.02	4	1.60
Swallow-tailed Kite	2	.008	1	.400
Black Skimmer	2	.008	1	.400
Whimbrel	1	.004	1	.400
Least Tern	15	.06	5	2.00
Pileated Woodpecker	6	.024	6	2.40
Eastern Phoebe	1	.004	1	.40
Eastern Wood Peewee	1	.004	1	.40
Loggerhead Shrike	8	.032	7	2.80
Wood Thrush	2	.008	2	.80
Yellow-billed Cuckoo	3	.012	3	1.20
White-eyed Vireo	38	.152	29	11.60
Red-eyed Vireo	2	.008	2	.80
Brown-headed Nuthatch	9	.036	7	2.80
Common Yellowthroat	16	.064	12	4.80
Pine Warbler	14	.056	13	5.20
Prairie Warbler	1	.004	1	.40
Hooded Warbler	1	.004	1	.40
Summer Tanager	2	.008	2	.80
Blue Grosbeak	3	.012	2	.80
Indigo Bunting	34	.136	28	11.20

“One of our priority actions is to expand systematic, repeatable beach nesting bird surveys into Alabama,” the biologists explain. “Our hope is to tie into other states’ surveys to create a Gulf Coast-wide beach nesting bird monitoring network.”

Ultimately, biologists and researchers envision these data can be used to protect these birds and their vulnerable habitats, which are impacted primarily by development and sea-level rise. Information being collected can assist with decisions on where to post signs alerting beach-goers to avoid nesting areas, as well as necessary steps to potentially improve habitat conditions. Alabama Field Office biologists, along with state and NGO conservation partners, are committed to conserving, protecting, and in some cases recovering this unique part of Alabama’s heritage.

“We are fortunate to have the diversity of breeding, wintering, and staging birds in our great state. I hope the work that our office is doing can make a difference for Gulf Coast birds,” says Ingram.

SHU's are No Longer Just for Feet

by Jeff Powell



Electrofishing with a backpack unit is the preferred method of sampling fish communities in small stream, photo by Jeff Powell.

In an effort to improve water quality, water supply, preserve biotic integrity, and promote restoration efforts for Alabama's critical waterways the Service's Alabama Field Office, the Geological Survey of Alabama (GSA), the Alabama Department of Conservation and Natural Resources (ADCNR), and the Alabama Clean Water Partnership (ACWP) began developing a concept known as the Strategic Habitat Unit (SHU) approach to facilitate habitat restoration and species recovery. The SHU concept was created to promote multi-agency/organizational partnerships for the purpose of addressing long-term habitat and water quality needs for Alabama's 75 federally listed and candidate freshwater species, as well as the greater than 100 recently petitioned freshwater species that occur across the state.

Because of Alabama's globally significant freshwater biodiversity, federally protected and rare species occur in 44 separate watersheds across the state. The group of agencies, organizations, and individuals implementing SHU activities are now joined together in an organization known as the *Alabama Rivers and Streams Network (ARSN)* with a stated mission to "investigate, manage, and develop our water resources in a comprehensive way to minimize their degradation, maximize their availability for all users, and restore and recover aquatic habitats and species."

Approaching this overwhelming conservation challenge through a cooperative, locally-based process is critical to addressing long-term habitat needs of Alabama's imperiled species. However, equally as important, the SHU process ultimately strives to improve the quality of water resources statewide by directing limited dollars and research efforts to targeted restoration efforts inside priority watersheds (aka SHUs). This watershed and community-based

approach improves water resource conditions for Alabama's communities and rare species simultaneously. If successful, substantial long-term cost savings are anticipated by improving water supply, water quality, and decreasing the regulatory burden that conservation can sometimes impose.

During 2012-13, the ARSN has had many successes. Collectively, we conducted approximately 75 fish community and completed over 500 stream crossing assessments; made presentations at more than 15 local and regional meetings and workshops; reintroduced 15 imperiled species in 12 different locations; began development of a new publically available website and online mapper; published a new outreach package; installed 15 roadside sediment retention basins in one SHU that prevented an estimated 30 tons of sediment from reaching the stream; and have plans to remove a large mill dam later this year.

We are extremely proud of these accomplishments and look forward to many more over the next year. Stay tuned

Recovery Progresses for Red-cockaded Woodpecker

by Eric Spadgenske

The red-cockaded woodpecker continues to make recovery progress in 2013. The small, but rapidly expanding, population at Enon and Sehoy Plantations had a 24% increase in Potential Breeding Groups in 2013. There were 40 fledglings produced from 24 nests in 2013 – more than any year since monitoring began in 2007.

One of only two known populations of this endangered bird on private land in Alabama, the success of Enon and Sehoy Plantations was recently highlighted at the Southern Range Translocation Cooperative meeting in Tallahassee Florida.



A male red-cockaded woodpecker in Alabama, photo by Eric Spadgenske.

Our partners with the National Forests of Alabama also continue to make strides in recovery of the endangered red-cockaded woodpecker. In an effort to continue their growth, three of our National Forest Districts (Conecuh, Shoal Creek, and Talladega) are slated to receive a total of 13 pairs of RCWs this year. These juvenile birds have been carefully monitored since eggs were laid last spring at their respective donor populations at Eglin Air Force Base and Fort Benning. This translocation effort, orchestrated by the Southern Range Translocation Cooperative, will culminate later this fall on a late night of painstaking work by biologists who have carefully selected and prepared new homes for these birds. Success will be measured by the number of these birds that become breeders in their new populations next spring.

Turtles Ahoy!

Alabamians Working to Make Beaches Safer for Nesting Sea Turtles

Throughout the years, Alabamians have embraced the thought of sea turtles nesting on their beaches. Starting each spring, Loggerheads, Kemp's ridley's, and occasionally green sea turtles swim to the shore, come on land, and lay their eggs beneath the sand. Most folks in Alabama take great pride in these sea turtle nests. They've become a part of our culture, and they are a draw for tourists who put money into the economy.

"I love coming to the beach and teaching my daughters about endangered sea turtles nesting in our area," says Christie Cowart of Mobile.

Between May and November, Share the Beach volunteers actively search for sea turtle nests in Orange Beach, Gulf Shores, and Dauphin Island, so they can mark the buried eggs with neon tape. The nests are also marked with a sign, indicating it is protected by the Endangered Species Act. It's a way to keep humans away from the fragile nests.

"Our agency works closely with Share the Beach to protect these treasures of the Gulf Coast. It's a good feeling to see more and more nests pop up on our beaches. It means we're making progress," says U.S. Fish and Wildlife Biologist Dianne Ingram.

But recently, volunteers with Share the Beach have made some disheartening discoveries. They found clear evidence that humans have been tampering with a few of the nests. Several incidents occurred in Orange Beach. "It appears that a curious teenager decided to take a closer look at a nest," explained Mike Reynolds, Director of Share the Beach. "The screen protecting the nest was raised by four inches. It looks like



Biologists say this sea turtle nest was disturbed by a human, photo by Skip Beebe.

someone dug into the nest and covered it back up."

Another prankster printed out a recipe of turtle soup, and tacked it onto a stake attached to a tarp set up by Share the Beach. Whether it's in so called "good fun," or it's indeed malicious, disturbing a sea turtle nest is against the law. Penalties include a civil fine of up to \$25,000 and a criminal fine of up to \$100,000 for an individual and up to \$200,000 for an organization. Individuals convicted of criminal offenses could also face up to a year in prison.

Nest-tampering isn't the only problem facing these species. It seems female sea turtles are steadily running into road blocks in their attempts to nest. This year, volunteers have noted more evidence than usual that sea turtles have crawled between heavy wooden beach chairs, through rows of tents and dodged piles of debris all left out overnight by beach-goers.

The evidence also shows most times the turtle went back into the water without nesting. For example, two times in early August, volunteers found two sea turtle crawls which indicated that females were searching for a spot to nest when they ran into the furniture. The turtles apparently went back into the water without nesting. While so called "false crawls" can happen naturally, artificial lights, flashing cameras, presence of people on the beach at night, and obstructions also cause false crawls. For a federally threatened species such as the loggerhead sea turtle, any

interruption to nesting is a concern for officials.

"It's a real let-down when you see something like that happen," says Ingram.

"Something as simple as a beach chair left out overnight can prevent a protected species from nesting."



The crawls in this picture show a turtle bumped into these beach chairs while attempting to nest, photo by Skip Beebe.

But city officials in Gulf Shores and Orange Beach aren't taking these issues lightly. They are working closely with the Service to improve efforts to educate the public on tampering, beach trash, lighting, and other things that may hinder a nesting sea turtle.

Together, officials hope to come up with a pro-active strategy, so the beach can be turtle-ready for the next season. "City officials are onboard for helping these turtles. These creatures are an important part of our Alabama culture," says Ingram.

Working Together for the Dunes

At Gulf Shores Plantation, a wooden boardwalk has always been the gateway between condominiums and the sandy white beaches of the Fort Morgan peninsula. As vacationers happily cross the boardwalk to reach the Gulf of Mexico, they are able to view sand dunes, which act as valuable beach mouse, sea turtle, and shore bird habitat. For years, residents have been co-existing with wildlife habitat...enjoying nature's gifts and working with the U.S. Fish and Wildlife Service to help stop their extinction.



Beach mouse biologist Bill Lynn lends a scout a helping hand, photo by Denise Rowell.

But in 2004, Hurricane Ivan wiped out that boardwalk, along with sand dunes on the beach. When it was rebuilt, it sat too low on the flattened beach. As the dunes began to rebuild, they didn't have any vegetation, making them unstable. Soon, winds covered the boardwalk with sand. Many vacationers and snow birds had no access to the beach. "We have a lot of elderly and disabled people who rely on that boardwalk. But when the sand overtook it, access to the beach was cut off," explained Boardwalk Committee Chairman Robert Bush. "Mothers couldn't even push strollers over the thick sand."

Bush, a Kentucky native, was tasked with solving the sandy problem facing the boardwalk. He met up with Fish and Wildlife Biologist Bill Lynn to figure out the proper way to fix the problem without disturbing beach mouse habitat. "We quickly realized we both wanted the same thing," said Lynn. "He wanted to stabilize the dunes to keep the sand from ruining the boardwalk. I wanted to keep them stable for beach mouse habitat."

So with the help of the Baldwin County Soil and Water Conservation District (BCSWCD), North Baldwin Center for Technology, Locust Grove Baptist Church, and Boy Scout Troop 369, Bush kicked off a project to help keep those dunes intact. Volunteers spent the first week of April getting their hands dirty, digging deeply into the sand, and planting native dune vegetation that will help hold the dunes together. "Dunes provide important habitat for beach mice, sea turtles, and migratory birds," explained Lynn. "But they also create a natural line of defense against storms and help protect property. Stabilizing these dunes is a win-win situation for both wildlife and people."

Conservationists with the BCSWCD were able to purchase the dune plants through a grant provided by the U.S. Fish and Wildlife Service. Volunteers arrived with more than 8,000 plants, including Sea Oats, Sea purslane, and panic grass. Joey Koptis is BCSWCD's District Conservationist: "Our mission

is to help people help the land. It's a good opportunity for folks to see that conservation doesn't just happen in farms or forests. We can also protect our natural resources on the beach."

Thirteen year-old Austin Reynolds travelled with his Boy Scout Troop to Alabama all the way from Elizabethtown, Kentucky. Wiping the sweat off his brow, Reynolds said he was proud to make the trip to the Gulf Coast. "I am glad to do my part to help," said Reynolds. "It's hard work, but it's also a lot of fun."

The Boy Scouts weren't the only ones getting hands-on experience in conservation. A class of 16 from the North Baldwin Center for Technology also got to work. "It's good to get the kids out of the classroom and into the field," said Agri-Science Teacher Allan Williams. "It's nice for them to do a project where they can come back years from now and show their children."

Long-term results are exactly what Bush has in mind. Once the vegetation is planted, the committee will monitor the dunes and implement a fertilization program in order to boost growth. He knows the project will require maintenance and commitment for years to come. For now, Bush is beaming with pride as he watches the community come together. "I'm so tickled. It's a good feeling to know that you have involvement and people want to help."



Boy Scouts get a first hand lesson on dune planting, photo by Denise Rowell.

Deputy Headed for Prestigious Leadership Training



Dan Everson is the AFO Deputy Field Supervisor; photo by USFWS.

The Alabama Field Office Deputy Field Supervisor Dan Everson was recently selected for the U.S. Fish and Wildlife Service's Advanced Leadership Development Program (ALDP).

The program offers participants an opportunity to explore leadership in the USFWS and includes three phases: focusing on self, group, and the organization. A major component of ALDP is participation in out-of-town detail assignments, including a 30-day job swap and a 60-day developmental detail. Building relationships and developing personal and professional leadership skills are just a few of the program's objectives. Our staff will miss Dan while he is gone. But we wish him the best of luck during this rewarding venture!

Meet the Biologist: Karen Marlowe

I've been with the USFWS since 1985. I began my career in the Office of Management Authority in the International Division working on both domestic and international permits for protected species (CITES, ESA, Marine Mammal, Migratory Bird, Injurious Wildlife).

Then, I spent 18 years in the Pacific Islands, first as an Endangered Species Recovery Biologist, responsible for developing recovery plans and recovery projects for several hundred endangered and threatened species in Hawaii, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa, and later as the Assistant Field Supervisor for Endangered Species, responsible for all aspects of the Endangered Species Program in the Pacific Islands (listing, recovery, section 7, section 10). In these roles, I developed, coordinated, wrote, and edited listing packages, critical habitat proposals, section 7 consultations, habitat conservation plans, and recovery plans for Pacific Island endangered species and trained Fish and Wildlife Biologists on staff in all of these areas.

I also became the office's Field Response Coordinator for Oil Spills and Natural Resource Damage Assessment specialist.

In 2009, I moved to Alabama and am stationed remotely in the Birmingham suboffice of the Alabama Field Office,



Karen Marlowe, photo by USFWS.

where I handle a number of the office's endangered species section 7 consultations and projects in central and

AFO Biologist Gets New Role

Fish and Wildlife biologist Bruce Porter has a new role in the Alabama Field Office. He has been promoted to Transportation Liaison. Porter's new duties include reviewing state and federal highway projects, and working closely with the Alabama Department of Transportation. His previous work involving the gopher tortoise has been transferred to Fish and Wildlife biologist Josh Rowell.



AFO biologist Bruce Porter is now our transportation liaison, photo by USFWS.

northern Alabama. I am the Department of the Interior's Case Manager for the Anniston PCB NRDAR case, an ongoing investigation into the damages to natural resources that resulted from the production and release of PCBs and other contaminants from the world's largest producer of PCBs (Monsanto). I also serve as the coordinator of the Alabama Bat Working Group and am responsible for coordinating our White-nose Syndrome activities and coordinating with wind energy proponents.

Alabama Sturgeon Gets Road Map to Recovery

The U.S. Fish and Wildlife Service's recovery plan to recover the Alabama sturgeon is now available. The Alabama Sturgeon was listed as endangered on May 5, 2000, due to over-fishing, and loss of habitat from navigation development and water quality degradation. The sturgeon is only found in the Mobile River Basin.



The Alabama sturgeon (Scaphirhynchus suttkus), photo by Paul Johnson, ADCNR

The Alabama Sturgeon is one of the rarest fish in the nation and may be close to extinction. Its historic range encompassed all major rivers in the Mobile Basin, below the Fall Line, including the Alabama, Tombigbee, and Cahaba River systems. Recent

collections are restricted to the lower Alabama River below R.F. Henry Lock and Dam to the confluence of the Tombigbee River and in the lower Cahaba River near its confluence with the Alabama River; however, records are extremely rare. The last capture of an Alabama Sturgeon was on April 3, 2007, by biologists with the Alabama Department of Conservation and Natural Resources.

“Monitoring and protecting sturgeon habitat in the Alabama River and its tributaries are among the recommendations in the Alabama Sturgeon Recovery Plan, which will hopefully help bring the sturgeon back from the brink,” said Cindy Dohner, the Service’s Southeast Regional Director.

“The conservation goals discussed in this recovery plan were developed in partnership with the Alabama Department of Conservation and Natural Resources, other state agencies, and universities.”

The recovery plan's primary recovery objectives are to prevent extinction of the sturgeon by establishing a captive broodstock population and producing fingerlings for population augmentation in areas that continue to sustain the species, and improving habitat in the Alabama River through operational changes at Claiborne and Millers Ferry Lock and Dams.

The Alabama Sturgeon Recovery Plan provides a framework for the recovery of the sturgeon so that protection under the Endangered Species Act is no longer necessary. A recovery plan includes scientific information about the species and provides criteria and actions necessary for downlisting to threatened or removal from the Federal list of Endangered and Threatened Wildlife and Plants. Recovery plans also help guide the Service's recovery efforts by describing actions necessary for the species' conservation. You can find a link to the complete plan at <http://www.fws.gov/daphne/>

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