

FALL  
2012

# THE EAGLE'S EYE

A Publication of the St. Marks National Wildlife Refuge



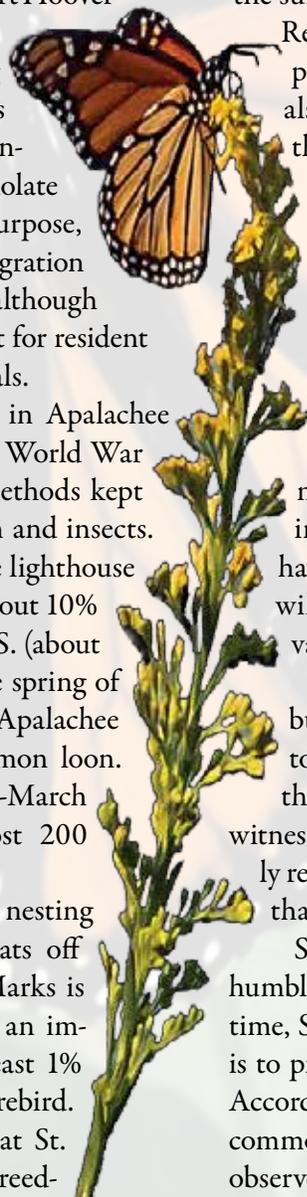
## “St. Marks National Wildlife Refuge – Migration Magnet”

*Supervisory Ranger Robin Will*

On October 31, 1931, President Herbert Hoover signed St. Marks Migratory Bird Refuge into existence as a “refuge and breeding ground for wild animals and birds.” Lands acquired under the Migratory Birds Conservation Act, were “for the use as an inviolate sanctuary or for any other management purpose, for migratory birds.” We have been a migration station throughout our 81-year history, although we now know that St. Marks is important for resident wildlife and endangered plants and animals.

Historically, Canada geese wintered in Apalachee Bay by the hundreds of thousands. After World War II, a change in agricultural harvesting methods kept the geese further north, feasting on grain and insects. Today, the same rich seagrass beds off the lighthouse offer great loafing and feeding areas for about 10% of the redhead duck population in the U.S. (about 100,000 birds). A recent discovery in the spring of 2011 led Dr. Paul Spitzer to declare that Apalachee Bay was a significant area for the common loon. This year, he was at the refuge from mid-March through mid-April and observed almost 200 loons leaving the bay on a single morning.

Dr. Margo Zdravkovic discovered nesting Wilson’s plovers on the exposed sandflats off Lighthouse Road. She reports that St. Marks is the only site in Florida that qualifies as an important breeding area and supports at least 1% of the entire U.S. population of this shorebird. Black-necked stilts were a rare sighting at St. Marks back in the 1970s and ‘80s, but breeding pairs are easily seen in refuge pools during



the summer and early fall. In addition, refuge biologist Joe Reinman now reports fall sightings of 200-300 white pelicans migrating over and through the refuge. He also states that swallow-tailed kites migrate through the refuge in the spring, on their return from Peru and Argentina. The numbers seem to indicate 5% or more kites use the Big Bend and the refuge to rest and feed along their route. Swallow-tailed kites also nest on the refuge during the summer.

David Allen Sibley reports that St. Marks is a “magical place for rails,” and could claim to be the “sora-viewing capital of the world.” Dr. Jack Dozer reported hundreds of thousands of tree swallows migrating through the refuge like mini-tornadoes in the spring of 2005. Large flocks of oystercatchers have recently been observed. Who knows if these trends will continue? This is why birders’ observations are so valuable.

Let’s not forget the marvelous migrating monarch butterfly, which flutters into the refuge in late October to feed upon the fragrant white saltbush flowers along the coast. Visitors come from all over the country to witness the mass of orange and black travelers that magically return to the same mountains in Mexico for the winter that their great-great-great-grandparents used.

St. Marks National Wildlife Refuge began with the humble charge to be a sanctuary for migratory birds. Over time, St. Marks has become much more. Our primary goal is to provide a safe haven for a host of wildlife and plants. Accordingly, our management plans have changed to accommodate many different species. We welcome you to observe and learn while visiting this extraordinary national wildlife refuge where wildlife always comes first. **I**

### ON THE INSIDE

Recreation .....	2, 6, 10
Refuge News .....	3
Science .....	4, 5, 9

Map and Information .....	7, 8, 11, 12, 14
History .....	13
Association .....	15

# OUTDOOR REPORT

Ranger David Moody

Hopefully the 95 degree days with 95% humidity are long gone. Don't worry; black flies and sand gnats will quickly fill in the gap. There are a few ways to counteract these friends of the ecosystem. Mental control is the second safest method of controlling these biting insects. Just think about positive things and keep sweeping your hands across both arms and face in an alternating fashion. The safest method of combatting these probing problems is to physically cover all exposed skin with suspended netting. I say suspended because netting touching your skin is like a blood drilling platform. The last but most effective method of insect control is chemical. These chemicals may be dispensed by spray, or simple dispersion from a cream or oil base rubbed directly on the skin. Oil from some plants is used as natural repellent with mixed results. I mentioned mental control as the second safest method because DEET, the active ingredient in non-natural repellents, melts plastic! A variety of repellents are available in our Nature Store.

Coastal Cleanup has been a St. Marks September tradition for many years. Scouts, civic clubs, friends, and families have teamed up for this fall event. St. Marks again joins Keep Wakulla County Beautiful as a site within the countywide event. We send volunteers to Shell Point

after weigh-in to pick up their t-shirt and lunch. I am a site captain and would like to pre-register groups of three or more so we can get everyone in the field as early as possible. Please call 850-925-6121 to pre-register.

## Fishing and Hunting

Dropping water temperatures start predatory fish scurrying to secure protein for winter. All humans need to do is impale 'bait' (live, dead, or artificial) on a barbed hook proportional to the mouth size of the predatory fish and send it into the water column. There's skill involved in this process so begin your apprenticeship today. Oh yes, when you catch the first fish, repeat the process and remember free advice is worth more than the price you pay.

Quota hunts for white-tailed deer begin in October with the Wakulla Unit Archery Hunt, followed by Panacea Unit Archery Hunt in November, and the Conventional Gun Hunt on both units in December. We allow a total of 640 permits each year to hunters eager to get in the woods. We have a quota limit for the prized gun hunts so we will not have too many hunters in the woods. Apply for a permit at the tax collector's office or online each May. Call David Moody at the refuge for the inside scoop. 

## Volunteer Recruitment and Training

St. Marks depends on our dedicated volunteers. Call the refuge to sign up for our quarterly Volunteer Orientation on September 29, 2012, from 9:00 a.m. to Noon at

Nature's Classroom. The class includes an introduction to the mission of the U.S. Fish and Wildlife Service and St. Marks and how you can help! We'll have a short tour of the refuge. Call 850-925-6121 or e-mail [david\\_moody@fws.gov](mailto:david_moody@fws.gov) to sign up.

Then from Noon to 1:00 p.m. join us and other friends of St. Marks for a taco bar lunch! We welcome volunteers, association members, and folks interested in becoming a volunteer or member! Please let us know you will be with us by calling the refuge or e-mailing



*George Fong picking up trash at Coastal Cleanup. Photo Club member David Moynahan*

[robin\\_will@fws.gov](mailto:robin_will@fws.gov).

If you are already a volunteer or want to make this a full day, from 1:00 – 4:00 p.m. we need to get our pollinator gardens ready for fall. We'll group into small teams to clean and enhance the different pollinator gardens.

Butterflies are everywhere and we will be enlarging flowering areas and improving them and recovering native seeds for next year. Wear comfortable clothing, closed-toed shoes and bring gloves, hats, insect repellent and water. Please let us know if you will help by calling the refuge or e-mailing [david\\_moody@fws.gov](mailto:david_moody@fws.gov).

ST. MARKS NATIONAL WILDLIFE REFUGE  
PO BOX 68  
ST. MARKS, FL 32355  
850-925-6121

The purpose of The Eagle's Eye newsletter is to share news about the refuge and encourage people to participate in recreation activities, programs, and events so that they will respect and support St. Marks National Wildlife Refuge.

Butterfly image page 1, graphics and layout design by volunteer and Photo Club member Francie Stoutamire.

LIKE us, keep up with the latest news about St. Marks, post your pictures and tell us about your refuge visit at

<http://www.stmarksrefuge.org>

<http://www.facebook.com/SMSVNWRS>

<http://www.facebook.com/gotoSt.Marks>

Send comments and suggestions to [gail\\_fishman@fws.gov](mailto:gail_fishman@fws.gov)

Printing paid by the St. Marks Refuge Association, Inc.

Printed by Harvest Printing and Copy Center, Inc.

# REFUGE MANAGER'S REPORT

*Terry Peacock*

Tropical Storm Debby dropped 28 inches of rain on the refuge June 24-26. The following flood washed around the Otter Creek Bridge in the Panacea Unit. An engineer inspected the bridge in July and determined that the bridge was sound, but it remains closed until we can repair the road. Check our Facebook page and look for news releases on the status of the road closure. Plan hikes in the Panacea Unit accordingly.

The rain gave us much needed water in the impoundments and in the small wooded wetlands. It also pushed some of our wildlife up onto the dry roadways. Please slow down and be extra cautious when driving on Lighthouse Road or any other portion of the refuge.

The Ultralight release portion of the Whooping Crane Eastern Partnership (WCEP) was given six chicks for migration this year; all should come to St. Marks. There are fewer chicks due to low production at the breeding

facilities. We hope for a better season in 2013. I traveled to Wisconsin in August for a strategic decision-making meeting to help determine what the next five years will look like for WCEP. If you have any comments on this program, please e-mail them to [terry\\_peacock@fws.gov](mailto:terry_peacock@fws.gov).

We have a new face around the refuge. Bill McCarthy came from Arkansas to help get our timber management program up and running. While Arkansas was hotter than Florida this summer, Bill has had to adjust to our wandering alligators. Bill will be with us as our forester through spring 2013, so welcome, Bill.

St. Marks National Wildlife Refuge is partnering with Florida Wildlife Conservation Commission to host its first youth hunt this November. This hunt/education program teaches youth 12-15 how to hunt. We all look forward to being a part of this effort. 



*Road washed out at Otter Creek Bridge  
Photo by refuge staff*

## Notes from Nature's Classroom

*Environmental Education Specialist Lori Nicholson*

This summer we received a grant from the National Conservation Training Center to connect children to nature. We partnered with the Wakulla Senior Center to provide four 2-day summer camps for their students aged 3 to 13. Each camp lasted from 9:00 a.m. until 1:00 p.m. The children spent time outside discovering nature which provided the opportunity to build a lifelong connection to the land they live on. Each environmentally-themed camp included hands-on activities, a citizen science component, a career component, a make and take, and a snack. Children built blue bird houses, bird feeders and more. Each family received a complimentary annual pass to St. Marks at the open house on July 28th.

Teachers are booking dates for October and November field trips. A Bird Sleuth/Flying WILD teacher workshop is planned for early fall. For \$25.00 each participant will receive both activity guides full of ideas for the classroom, special events and more, along with a year's membership to LEEF (League of Environmental Educators in Florida). Quite a bargain!



*Junior Rangers find out what kind of creatures live in the seaweed.  
Photo Club member Lou Kellenberger*

## SCIENCE ON ST. MARKS

**Pond Management** – Refuge biologists try to manage optimum water levels in the refuge ponds according to the season. East River Pool is the main source of fresh water. Other ponds differ in salinity but must be termed brackish, a mixture of salt and fresh water. Generally water levels are kept higher in the summer to discourage heavy growth of grasses and lower in the winter to provide cover and food for migratory ducks. Water control gates are opened in winter to allow tidal flow into Stoney Bayou 1. Water levels ran 2 – 3 feet below normal for the summer of 2012 until rain from Tropical Storm Debby filled the ponds to levels not seen in decades.

**Red-Cockaded Woodpeckers** – By mid-summer 2012 biologist Mike Keys counted 35 occupied territories and 33 potential breeding groups, including 2 groups at Ochlockonee State Park. What started as a great year in terms of newly occupied territories and new breeding groups saw the numbers of fledglings per nest at a historically low level by mid-June. Most fledglings open-roosting in June were surely affected by Tropical Storm Debby's days of drenching rain instead of summer's normal brief, intense thunderstorms.

**Phytoplankton monitoring** – Refuge volunteers collect sea water near the lighthouse and examine samples under microscopes for an ongoing Citizen Science project with the NOAA Phytoplankton Monitoring Network (<http://www.ncddc.noaa.gov/interactive-maps/environmental-monitoring/pmnm/index>.

[http://www.floridainvasives.org/FirstCoast/FCIWG\\_Cactoblastis\\_Cactorum\\_Update\\_2012May\\_Hight.pdf](http://www.floridainvasives.org/FirstCoast/FCIWG_Cactoblastis_Cactorum_Update_2012May_Hight.pdf)). They are looking for minute creatures that affect the health of Apalachee Bay. Tracking specific phytoplankton, particularly harmful species such as *Pseudo-nitzschia* or *Karenia brevis*, could predict a harmful algae bloom that may be unsafe for marine species and humans.

### Other research on the refuge

- The U.S. Geological Survey (USGS) is monitoring water chemistry as well as conducting long-term studies of population trends of ephemeral pond-breeding amphibians, especially mole salamanders.

- The Coastal Inventory and Monitoring biologist based at Cape Romain NWR in South Carolina, is monitoring sea level rise on St. Marks as part of a region-wide network of monitoring stations. Another SET (surface elevation table) sea level monitoring station on St. Marks is operated by USGS out of the Lafayette, Louisiana Wetlands Center as part of a cypress productivity study.

- The U.S. Department of Agriculture has completed a study of cactus moths (*Cactoblastis cactorum*) on St. Marks. The moths, imported in 1989 to control prickly pear cacti in the Caribbean, arrived in the U.S. naturally or in cargo imported from the Caribbean. They are considered invasive and can quickly decimate a stand of native prickly pear. If you are hankering for more information check out <http://www.invasivespeciesinfo.gov/animals/cactusmoth.shtml>, or [http://www.floridainvasives.org/FirstCoast/FCIWG\\_Cactoblastis\\_Cactorum\\_Update\\_2012May\\_Hight.pdf](http://www.floridainvasives.org/FirstCoast/FCIWG_Cactoblastis_Cactorum_Update_2012May_Hight.pdf).



*Carol Miller and Gayla Kittendorf examine water samples under a microscope for the Citizen Science Phytoplankton Monitoring project. Photo Club member Craig Kittendorf.*

**St. Marks National Wildlife Refuge was one of the top 10 selected by Smartertravel.com in their feature on America's Best Wildlife Refuges**  
<http://www.smartertravel.com/photo-galleries/editorial/americas-best-wildlife-refuges-.html?id=149>

*Bring your easel and brush to capture a moment of the ever changing light and colors of the refuge.*

Photo by refuge staff



# SCIENCE ON ST. MARKS

## Titi Takeover! Using Fire to Restore Order in the Swamps

*Fire Forestry Technician Travis Pollard*

Three distinct species of the wetland shrub titi (pronounced “tie-tie”) are found on the St. Marks National Wildlife Refuge, *Cyrilla racemiflora*, *Cyrilla parvifolia*, and *Cliftonia monophylla*. Common names include swamp cyrilla, black titi, buckwheat tree, swamp ironwood, and southern leatherwood. The thicket-forming titi can grow up to 30 feet, with spreading, irregular branches.

Wildfires once limited titi to swamps, pond edges, and shrub bogs. Cool season burning, December-February, marked the early decades of controlled burning in Florida. Winter burns lessened the stress on trees, but did little to halt titi’s spread. Titi spreads primarily through vegetative sprouting from root buds following soil disturbance so the plowed lines helped titi multiply. Wet prairies, also known as herb bogs and seepage meadows, have been hit especially hard.



A variety of grasses and forbs with little or no woody vegetation characterize the wet prairie community, one of the most diverse communities in the U.S., with an average of over 20 plant species per square meter. The Florida panhandle is a hotspot for rare plants of the wet prairie with 25 of the 30 known rare species found here. Twelve of those rare species are endemic to the panhandle. However, the sun-loving plants of many wet prairies have been out-competed by the shrubby titi invaders.

In the late 1980s, fire managers experimented with conducting prescribed burns in April – June to mimic the natural lightning season in the southeast. As a result, burn managers have greater knowledge of when to conduct prescribed burns.

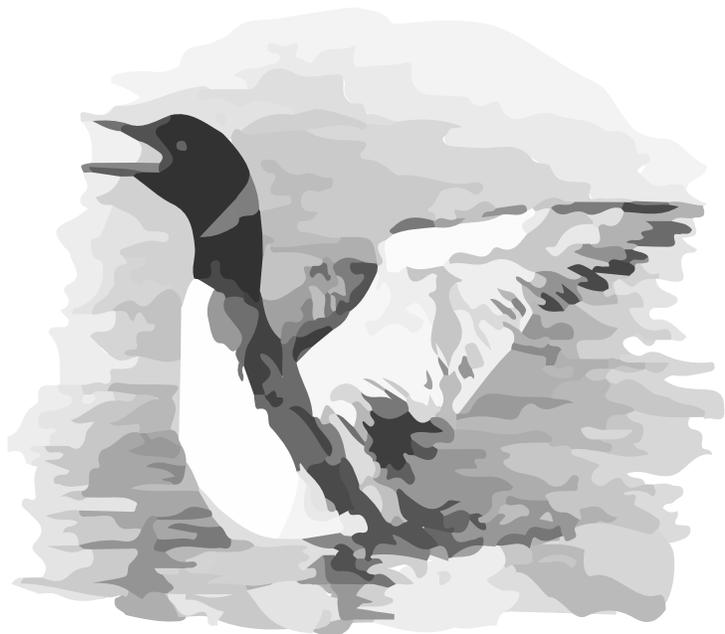
Titi burns extremely well during the drier months of the lightning season and can burn ferociously during periods of drought. Additionally, lightning season burns knock back woody vegetation and stimulate the growth of grasses and forbs. Therefore, growing season prescribed burning is necessary for the grasses and forbs of the wet prairie community to maintain a healthy presence and to keep titi and its shrub bog community at bay. 📷

*In the early days, most prescribed burns were conducted during the cool, winter months and ignited off of dozer lines plowed every 400 yards. Safety concerns were few back then as this old timey photograph shows.*  
*National Park Service Photo*

### Common Loon Study at St. Marks

From March 18 through April 11, 2012, Dr. Paul Spitzer observed migrating common loons from the St. Marks lighthouse observation deck. During this time, he documented 1,021 loons; the two largest counts, 183 on March 30 and 199 on April 5 came on the second morning in a row of clear weather.

With much to learn about common loons wintering on Apalachee Bay, Dr. Spitzer plans to return in 2013 to continue this study. He’ll be looking for volunteer observers to help.



**Don't Miss Out . . .**  
*Ranger Barney Parker*

**First Sunday at the Refuge**

The popular First Sunday at the Refuge series has an exciting fall lineup including programs on botany, blue-birds, and the history of the Florida Trail on the refuge.

The presentations are held on the first Sunday of most months at 2:00 p.m. in Nature's Classroom. Refreshments are provided along with an opportunity to talk informally to the presenters. Some presentations may include a field trip. It's a great way to learn more about the biology, history, and culture of our area. Consult your local newspaper, pick up a flier at the Visitor Center, check our Web site, or call the refuge for information.

Make the first Sunday of the month a refuge day. Relax and rock on the back porch of Nature's Classroom looking over Plum Orchard Pond. Then come inside to enjoy an informative lecture. We'll see you there.



*SMRA Board member Lou Kellenberger addresses the crowd at July's First Sunday Presentation  
Photo Club Member Nick Baldwin*

**First Saturday Digital Photography Class**

On the first Saturday of each month, the refuge presents a free digital nature photography class for adults and families. We'll discuss photography basics, how to get better results from your digital camera using presets, aperture, shutter speed, ISO settings, and composition. Digital photo classes are held in Nature's Classroom adjacent to the Visitor Center. Time and weather permitting, we'll take a photo safari following the class in the electric tram. The tram has seating for 10 people, so sign up early to get a seat. The class is taught by Ranger Barney Parker, former FSU photography instructor. Limit 15 and registration is required.

**Fall Observations**

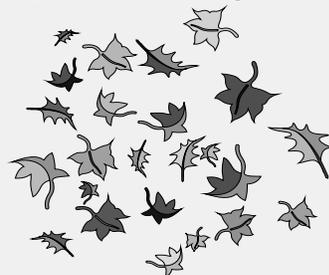
September means bird migration and fall wildflowers. Blue-winged teal and bald eagles return in August and September. Look for juvenile wading birds: all white little blue herons, brown and white mottled white ibis, and tri-colored herons that appear brownish rather than blue. Look for does with their spotted fawns mornings or evenings. Alligators sun on the banks on warm days.



Viceroy, queen, Gulf fritillary, swallowtails, yellow sulphurs, skippers, and monarch butterflies feed on goldenrod, dotted horsemint, and saltbush. Butterflies and dragonflies bobble across the roads. Wildflowers and butterflies peak in October to early November. Monarchs gather on shrubs growing along the coast to feed and rest before continuing their migration.

By mid-November wildflowers and butterflies are fewer. Our fall color is subtle. In the swamps, cypress turn rusty red and maples turn dark red. Sweet gum leaves turn bright yellow. More ducks arrive to the refuge pools and bay. Snakes and other reptiles and amphibians may come onto the warm asphalt seeking warmth before a chilly evening. Red-shouldered hawks perch on snags and northern harriers skim the marshes looking for prey. Bald eagles refurbish their nests. Migrating songbirds flit through the wooded areas. November and December are great months for getting out on the levee roads.

Wildlife management at St. Marks involves protecting and enhancing wildlife habitat for all the animals that use the refuge. Fall brings changing weather to our area. Mammals and birds are most active during the early morning and late afternoon especially on mild days. The Nature Store has a variety of field guides to help identify birds, plants, and other wildlife. Bring binoculars, water, and snacks when you visit the refuge.



## Make the Most of Your Visit to St. Marks National Wildlife Refuge

The refuge Visitor Center is located on County Road 59, three miles south of U.S. Highway 98. Stop in to view the interpretive exhibits, check the wildlife sightings list, purchase entrance passes, and shop in the Nature Store. Restrooms are available here and at the Picnic Area. Visitor Center hours are weekdays 8:00 a.m. to 4:00 p.m. and weekends 10:00 a.m. to 5:00 p.m. The refuge is open from sunrise to sunset.



**Entrance fees** – These federal passes are accepted: America the Beautiful, Senior/Golden Age, Access/Golden Access, Military Pass (1 year free to active military and dependents with valid ID), and the Federal Duck Stamp. All passes can be purchased at the Visitor Center during business hours. Daily, St. Marks Annual, Senior and Military passes are available at the toll booth on weekends.



**Wildlife Observation** – Most wildlife are more active in the early morning and late afternoon on warm days. The 7-mile Lighthouse Road provides several stopping points. All levee roads can be used for cycling and walking, but portions may be seasonally closed. Fall, winter, and early spring are the best times to get outdoors. Maps are available at the toll booth and at the Visitor Center.



**Slow Down!** – The posted limit is 15 MPH around the Visitor Center and 35 MPH on Lighthouse Road. Wildlife, boaters, cyclists, anglers, birders, photographers, and hikers all share the road.



**Pull Over!** – For safety's sake use designated pull-off areas or pull as far as possible off the road when observing or photographing wildlife and be mindful of traffic behind you.



**Picnicking** – Stop at Picnic Pond on Lighthouse Road for a picnic and enjoy the birds and butterflies at the pollinator gardens. No open fires are permitted. Otter Lake on the Panacea Unit also has a picnic area with restrooms.



**Fishing** – Freshwater and saltwater fishing are available in certain areas of the refuge. Crabbing is only allowed in the bay. The saltwater boat ramp near the lighthouse is open during daylight hours. The Refuge Fishing Brochure is available in the Visitor Center and toll booth.



**Hunting** – Hunting is permitted for resident game species on specific dates fall - spring. Hunt brochures are available at the toll booth, the Visitor Center, and online <http://www.fws.gov/southeast/pubs/smkhnt.pdf>. Go to <http://www.fws.gov/saintvincent/hunt-fish.html> for hunting and fishing information on St. Vincent NWR.



**Camping** – There is no public campground on the refuge. A few primitive campsites are only for through hikers on the Florida National Scenic Trail and the Kayak/Canoe trail. Permits are sold at the Visitor Center.



**Trails** – There are 75 miles of marked trails winding through diverse habitats to enjoy. More than 49 miles of the *Florida National Scenic Trail* crosses the refuge. The short, 1/3 mile, *Plum Orchard Pond Trail* behind the Visitor Center is open to foot traffic only and offers an easy walk. *Tower Pond Trail*, 1.5 miles, located near Picnic Pond, winds through slash pine forests, oak hammocks, and salt marsh and is limited to foot and bicycle traffic. *Cedar Point Trail* begins to the west of the saltwater boat ramp and traverses ¼ mile of cabbage palms and red cedars. *Lighthouse Pool Trail* runs along a levee for ½ mile for walkers, bicycles and horses. Be sure to pick up the plant brochure for this trail.

- Loaner binoculars and bird guides are available in the Visitor Center.
- A bicycle pump and tools are available for loan in the Visitor Center.
- Watch for poison ivy, thorny vines, biting insects, and snakes. Do not feed or approach any wildlife.
- All pets must be leashed and under the owner's control at all times.
- Collecting or taking artifacts, natural features, animals, or plants from federal property is illegal!



## SCIENCE ON ST. MARKS

### Little Blue Heron Rookery

In early summer, refuge biologist, Joe Reinman, noticed that little blue herons were building nests in a rookery site off of the Aucilla Tram Road (#105) that has not been used for a few years. Joe closed the road just beyond the Deep Creek (#123) turnoff to prevent disturbing the birds and reopened it after the nesting season. Little blue herons are medium-sized birds, a bit smaller than a tri-colored heron. Adults are dark blue with a reddish-purple neck and a dark tip on their beak and a slight greenish cast to their legs. Little blues usually mix with other wading birds. Juvenile birds are all white or blue and white so they are easy to spot this fall.



*Little Blue Heron by Photo Club member Judy Lyle*

### Swallow-tailed Kite Study

It isn't often that refuge administrators get to leave their desks with their mounds of paperwork, conference calls, and budget concerns to participate in old-fashioned field work. However, Refuge Manager Terry Peacock and Project Leader James Burnett left their offices in mid-June to help Gina Kent from the Avian Research and Conservation Institute capture and fit a swallow-tailed kite with a GPS satellite transmitter.

During the summer breeding season, swallow-tailed kites soar over open forests near marshes, rivers, and streams along the southeastern Atlantic and Gulf coasts. These birds feed primarily on insects, usually on the wing, and rarely flap their wings during flight. In late summer, the kites will head back to their winter home in South America.

An active kite nest was located near Port Leon Road. A great-horned owl was placed near the nest site to draw in the kite. Due to injuries the owl cannot be released and is used for research purposes. Once captured in a mist net, the kite was fitted with the transmitter. Blood and feather samples were taken and a numbered band was fitted to the bird's leg. Data from this study will help scientists learn more about land use and migration of the graceful swallow-tailed kite.



*This satellite image shows the movements of the recently radio-tagged Swallow-tailed Kite during the week of July 3. Courtesy Avian Research and Conservation Institute*



*James Burnett prepares to remove the hood and release the kite. Photo by Refuge Manager Terry Peacock*

**Changes to the Observation Deck Trail at Headquarters Pond**

Work begins in late November to replace the existing steps on the observation deck at Headquarters Pond with a ramp. This is part of a project to make the short trail from the parking lot accessible to people with disabilities. The trail will be widened and a smooth surface added.

The Florida State University chapter of the Florida Association for the Education and Rehabilitation of the Blind and Visually Impaired (F.A.E.R.) is collaborating with

St. Marks in this effort. Katie Strack, F.A.E.R. president, said, "F.A.E.R. is excited and tremendously grateful to St. Marks for allowing us to contribute to this great project and the difference it will make for all St. Marks trail-traveling visitors."

Refuge volunteers, Linda Ives and Christine Barnes, were instrumental in initiating this project. A Recreational Fee Grant from the FWS Southeast Region (entrance fees at work to improve the visitor's experience) will partially pay for signs, ropes, posts, and possibly some audio messages. The project will be completed in 2013.

**Florida Trail Near Spring Creek** 

Boardwalks in a ½ mile section of the Florida National Scenic Trail in the Spring Creek area have been removed. Until new boardwalks are built, use these detours:

- Hikers traveling East to West: exit the trail at Spring Creek Highway (CR 365) and hike north 1.5 miles to Jack Crum Road (CR 375). Walk 4 miles west on Jack Crum Road to Purify Bay Road (paved and signed) and hike south 1.5 miles on Purify Bay Road to the trail intersection (Purify Bay Trail Head located nearby).
- Hikers traveling West to East: exit at Purify Bay Road (unpaved), hike 1.5 miles north to Jack Crum Road (CR 375), go east on Jack Crum Road 4 miles to Spring Creek Highway (CR 365). The trail intersects Spring Creek Highway ½ mile south of Jack Crum Road.



*Robin Will and the group from F.A.E.R. discuss ways to interpret the view from the Headquarters Pond overlook for people with visual impairments. Photo by F.A.E.R.*

**Animal in brief**

**Alligator** – *Alligator mississippiensis*, a reptile

**Lives in** – freshwater wetlands of the southeastern coastal plain

**Eats** – almost anything it can catch; primarily fish, turtles, birds, snakes, hogs, deer, and small mammals

**Age** – can live 35 to 50 years in the wild

**Interesting fact** – hundreds of black dots around the alligator's jaws each house a nerve or 'pressure receptor' that detect the slightest movement in the water to alert the gator to a possible meal.

**You should know** – since they can't regulate their body temperature alligators go underwater to escape extreme temperatures. Once on the edge of extinction, protective laws allowed alligators to increase. An adult alligator is an efficient predator but a baby alligator is a tasty morsel for wading birds, raccoons, bobcats – and other alligators. They may look like a log but they can move extremely fast on land and in the water when necessary. If you encounter an alligator on a trail or on the road stop and wait until it decides to move. Never approach a gator and keep pets and children away from the water. Remember those sensitive nerves . . . .



*Note the numerous black dots around the gator's mouth. Photo Club President Tom Darragh*

# RECURRING EVENTS

See the Full Events Calendar on the next page for more specific information

## First Sunday at the Refuge

Presentations on the biology, history, and culture of our area begin at 2:00 p.m. on the first Sunday and last about an hour. Refreshments are provided along with an opportunity to talk informally with the presenters. Check our Facebook page, St. Marks Refuge Association Web site, and local newspapers, or call the Visitor Center for more information.



## Fall Birding Tours

Share an adventure behind the gates with extraordinary birder and naturalist Don Morrow. Learn about the birds and other wildlife that call the refuge home. Don introduces you to the many migratory and resident birds of St. Marks. Keep your eyes open for alligators, deer, bobcats, and raccoons. Meet at the parking lot at the Visitor Center to be transported in an enclosed bus. Tours leave at 9:00 a.m. and 1:00 p.m. Bring snacks, beverage, binoculars, camera, and field guides. Limit 25 per tour. Registration required.

## Tots on Trails and Families in Nature

These popular programs are designed to acquaint children and families with the natural world. Join Ranger Heather Bevis and refuge volunteers to learn about the plants and animals of St. Marks National Wildlife Refuge. Each meeting features different topics and programs. *Tots on Trails* meets on the second Thursday at 11:00 a.m. Activities for pre-school children last about 45 minutes. *Families in Nature* meets on the fourth Saturday of each month between 11:00 am and 2:00 p.m. Programs are designed to engage the whole family. Registration required.



## Digital Photography Class

The digital nature photography class is held on the first Saturday of each month. Adults and families are welcome. The class includes the basics of photography, explanation of terminology, and composition. A photo safari follows if time and weather permit. The tram has room for ten, so sign up early. The class is taught by Ranger Barney Parker, former FSU photography instructor. Limit 15. Registration is required.

## St. Marks Photo Club

Digital photography has made this popular hobby perfect for every age. The St. Marks Photo Club meets on the third Saturday of every month at 9:00 a.m. Meetings may involve reviewing member photos, a technique or software seminar, or a photo safari. Rest assured that whatever is on the agenda, having fun will be a definite by-product! This enthusiastic group welcomes new and accomplished photographers. After a morning of exploration, join club members for a hearty meal at a local restaurant. Contact President Tom Darragh at 850-556-3477 or thomasd@talstar.com for information.



*Behind the Lighthouse*  
Photo Club member Francie Stoutamire

## September to December 2012 Full Events Calendar

Call the refuge at 850-925-6121 for more information and to make reservations. Unless otherwise stated, public programs are held in Nature's Classroom adjacent to the Visitor Center.



### SEPTEMBER

**Saturday, September 1** – Digital Photography Class

– License-Free Saltwater Fishing Day, courtesy of FWC.

**Sunday, September 2** – First Sunday at the Refuge. Dr. Lorán Anderson will speak on the plants of St. Marks and the surrounding area. It's always a treat to hear Dr. Anderson, so you won't want to miss his presentation.

**Monday, September 3** – Labor Day Holiday –Visitor Center open

**Thursday, September 13** – Tots on Trails

**Saturday, September 15** – Coastal Cleanup. St. Marks joins Keep Wakulla County Beautiful for this annual event to remove trash and debris from beaches, lakes, rivers, and ponds. Call Ranger David Moody to sign up.

**Saturday, September 15** – St. Marks Photo Club

**Saturday, September 22** – Families in Nature

**Tuesday, September 25** – Scallop Season Closes!

**Saturday, September 29**

– National Public Lands Day – FEE FREE.

– Volunteer Orientation, 9:00 a.m. to Noon at Nature's Classroom. Call 850-925-6121 or e-mail david\_moody@fws.gov to sign up.

– Taco Bar Lunch, Noon to 1:00 p.m. for volunteers, Association members, and folks interested in becoming a volunteer or member! Call e-mail robin\_will@fws.gov.

– Help the Pollinators! 1:00 – 4:00 p.m. get our pollinator gardens ready for fall. Call or e-mail david\_moody@fws.gov.

### OCTOBER

During October, visit the St. Marks Photo Club's exhibit, Birds of St. Marks, 2nd floor at the Main Leroy Collins Leon County Library

– Monarch butterfly tagging begins

**Saturday, October 6** – Digital Photography Class

**Sunday, October 7** – First Sunday at the Refuge. Bluebird enthusiast Glenda Simmons tells how to attract eastern bluebirds to your back yard. It's a matter of the proper habitat, nesting boxes, food, and water. These colorful birds eat mainly insects but occasionally fruit and berries. It's not too soon to plan a place for bluebirds in your yard.

**Monday, October 8** – Columbus Day Holiday. Visitor Center open

**Tuesday, October 9** – Saturday, October 13 – Wakulla Unit Archery Hunt for permitted hunters

**Thursday, October 11** – Tots on Trails

**October 7 – 14** is National Wildlife Refuge Week, come hike, bike, canoe/kayak, take photos, fish, and look for butterflies, birds, and flowers on your favorite refuge

**Sunday, October 14** is a FEE FREE day to celebrate National Wildlife Refuge Week

- THE BIG SIT! – Birders of all levels can participate at the Lighthouse Observation Deck from 7:00 a.m. to 5:00 p.m. to count as many birds as possible that can be seen (or heard) from one location. The Big Sit! is an annual, international, noncompetitive birding event hosted by Bird Watcher's Digest

**Monday, October 15** – refuge pools are closed to boats

**through March 15, 2013** to protect over-wintering birds

**Saturday, October 20** – St. Marks Photo Club, Whooping Crane Pen Workday.

**Saturday, October 27** – 24th Annual Monarch Butterfly Festival and Families in Nature. Come and learn all about monarchs and their incredible migration story. Watch butterflies being tagged and be tagged yourself. Learn how to benefit all pollinators which are necessary for our food. Take a walk with a butterfly expert who will teach you how to identify butterflies. We'll have grilled hotdogs and Bradley's sausage dogs for sale. St. Marks National Wildlife Refuge is a Migration Magnet!

**Wednesday, October 31** – **Happy 81st Birthday St. Marks!**

### NOVEMBER

**Saturday, November 3** – Digital Photography Class

**Sunday, November 4** – First Sunday at the Refuge. Go behind the gates (virtually) of St. Marks on the Florida National Scenic Trail with Dale Allen who brought the trail to St. Marks in the 1980s. This is your chance to learn about the early days of locating and building the trail. Find out about the different hikes available into the St. Marks backcountry and discover the beauty of perhaps the most remarkable stretch of Florida National Scenic Trail in Florida.

**Tuesday, November 9** – Saturday, November 10 – Panacea Unit Archery Hunt for permitted hunters

**Thursday, November 8** – Tots on Trails

**Saturday, November 10** – Fall Birding Tours

**November 10 – January 6, 2013** – St. Marks Photo Contest opens. Entry forms will be available after October 30 under the Photo Club tab at [www.stmarksrefuge.org](http://www.stmarksrefuge.org) or pick them up at the Visitor Center.

**November 10 – 12** FEE FREE Days in honor of Veteran's Day. Visitor Center open.

**Saturday, November 17** – St. Marks Photo Club, 9:00 a.m. & annual Outdoors for the Holidays Celebration from 10:00 a.m. – 3:00 p.m. Join Photo Club members for free cookies and cider and one free holiday photo; free e-Tram rides; and kids' crafts.

**Thursday, November 22** – Visitor Center closed for Thanksgiving

**Saturday, November 24** – Families in Nature

### DECEMBER

**Saturday, December 1** – Digital Photography Class,

**Sunday December 2** – First Sunday at the Refuge. "Owls and other Night Birds at St. Marks" with Don Morrow. Owls aren't the only birds that come out at night. Don will tell about birds of the night and share their habits, how to identify them, and where you are likely to find them. Linger afterward for a short twilight field trip with Don.

**Friday, December 7 – Sunday, December 9** – Wakulla Unit Gun Hunt for permitted hunters

**Saturday, December 8** – Fall Birding Tours

**Saturday, December 8 – Monday December 10** – Mobility-impaired Person Gun Hunt for permitted hunters in the Buckhorn Creek area of the Panacea Unit.

**Thursday, December 13** – Tots on Trails

**Friday, December 14** – Sunday, December 16 – Panacea Unit Gun Hunt for permitted hunters only

**Saturday, December 15** – St. Marks Photo Club

**Saturday, December 22** – Families in Nature

**Tuesday, December 25** – Visitor Center closed for Christmas

**Wednesday, December 26 – Sunday, January 6, 2013**

Small Game and Hog Hunt. Write or call refuge for a permit.

# ST. MARKS REFUGE - THE EARLY YEARS

*SMRA Board member Gayla Kittendorf*

Reports written during the first eight months described the refuge as “a narrow strip of coast land from the town of St. Marks to the Aucilla River...” It included 35,000 acres of land and water spread over Wakulla, Jefferson, and Taylor Counties, roughly half the size it is today. The most common winter avian visitors were ducks and Canada geese. Geese were seen throughout the refuge, drawn to the shorter, finer grass which sprouted in areas burned by turpentiners and summer wildfires. They also favored holes which had been burned by summer fires over those which had not been burned. Of the ducks, lesser scaup were the largest group, with “sometimes up to several thousand” feeding in the shallow Gulf waters.

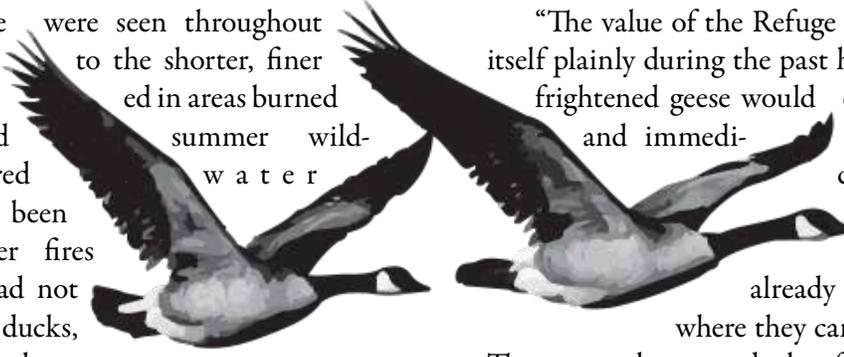
Most animals seen on the refuge back then were similar to what we see today. Skunks, however, which have not been seen here for several years, were abundant. They destroyed black diamond terrapin nests and feasted on the eggs. Another interesting observation concerned the alligators, which we now take for granted. “Alligators are not

very plentiful on this area as a whole, having been previously trapped and hunted very close. It is very seldom that a large one over four feet long is noted, with the protection afforded them they should come back quickly.” A big difference from today, when 6 – 10 foot long alligators are not uncommon!

“The value of the Refuge to the Canada geese showed itself plainly during the past hunting season...it was noted frightened geese would come into the refuge grounds and immediately land and seem entirely content and without apparent fright. They seem, therefore, to have recognized already the convenience of a place where they can rest and feed unmolested...”

There were also more ducks of various kinds present during the past winter, evidently for the same reason—intense protection...Quail are also numerous in the northeastern part of the area and protection will help them considerably.”

“In conclusion, more Canada geese were noted on the refuge and were tamer than ever before, due primarily to protection...Animals are fairly numerous and with protection should show considerable increase during the next few years.”



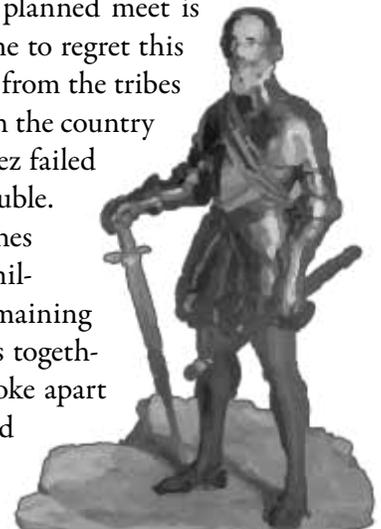
---

## Spanish Explorers

An Apalachee town at the confluence of the St. Marks and Wakulla Rivers had existed long before Panfilo de Narvaez stumbled upon it in September of 1528. He was not welcomed, indicating that the natives had had previous clashes with whites.

Narvaez had permission from the Spanish Crown to settle and rule the land of Florida. His ships landed near Tampa Bay in April 1528. He soon decided to march his army of about 300 men and 40 horses along the Gulf coast after directing his ships to sail up the shoreline. Exactly where the land and sea forces planned meet is unknown, but most historians agree it was in the vicinity of St. Marks. Narvaez came to regret this decision. The soldiers had little knowledge of how to ‘live off the land’ and stole food from the tribes along the way. Although the Spanish were better armed, the natives were familiar with the country and ambushed men sent out to forage or hunt. The soldiers dreaded this duty. Narvaez failed to connect with his ships. Without supplies and the means to leave, Narvaez was in trouble.

By September, the men were starving. Dozens of soldiers had been killed in ambushes or died of disease. Narvaez determined to leave Florida. While the work was unfamiliar to most, the men felled trees and built five crude rafts. They slaughtered the remaining horses for food and braided rope from their manes and tails. They sewed their shirts together for sails. Less than half of the original soldiers set sail for Mexico. Soon a raft broke apart and most of the men drowned. Storms and starvation took their toll; Narvaez did not survive. Only four men lived, including Alvar Nuñez Cabeza de Vaca, who later published his account of the arduous journey.



# ST. MARKS REFUGE - PHOTO CLUB

Photo Club member George Burton



The Photo Club Mission Statement says it all:

*"To be open to all photographers interested in nature photography. We strive to enhance the outdoor experience for the community through education and field sessions with respect for the environment and wildlife. We will adhere to the ethical practices for nature photographers in addition to the policies of the St. Marks NWR and the U.S. Fish & Wildlife Service."*

The St. Marks NWR Photo Club is fiercely protective of this beautiful wild place. We are usually somewhere on the refuge from the misty pre-dawn through that last golden light, hanging out of our vehicles or on a trail with all manner of lenses, flash units, camera supports and gadgets. We are refuge ambassadors helping visitors identify plants and animals as well as letting them know the correct methods and the best time to approach wildlife and when to give the animals space so that we can all be SAFE!



*Not Birders! It's the photo club all aiming for the best sunset picture. Photo Club member Mike Robertson*

Most Photo Club members are also refuge volunteers. In April we helped at the Panhandle Lighthouse Challenge by directing parking, helping cook and sell food, manning the Photo Club information table, and sharing the colorful history of the St. Marks Lighthouse.

Photographs by club members, *Beauty of St. Marks NWR*, were featured at the Tallahassee Senior Center over the summer. The show moves to the Leon County, Leroy Collins Public Library in October.

Instead of meeting in October we'll prepare the

Whooping Crane Pen for the arrival of the flock led by Operation Migration. It's a muddy, physical, rewarding workday. Please plan to join us.

The Club looks forward to our Outdoors for The Holidays celebration on November 17th. We'll offer free cookies and cider and tea and chili for small donation; one free holiday photo; free e-Tram rides; and kids' crafts. Plus take the opportunity to do some holiday shopping in the Nature Store. The Blue Goose will be on the loose charming young and old

alike.

The St. Marks Photo contest runs from November 10 through January 6. Enter your best shots because the best in show winner will appear on the St. Marks specific pass. Entry forms will be available under the Photo Club tab at [www.stmarksrefuge.org](http://www.stmarksrefuge.org) or pick them up at the Visitor Center after October 30. Look for a children's contest in the spring of 2013.

The Photo Club meets on the third Saturday of every month. For questions, contact Club President, Tom Darrah at 850-556-3477 or [thomasd@talstar.com](mailto:thomasd@talstar.com). 

## Nature Store Buzz

Nature Store Manager Betty Hamilton

The store is chock full of good things to give to others or for yourself. We have two new colorful brands of earrings; Sienna Sky and Adagio feature nature-themed designs.

Customers say our wildlife t-shirts are the best. We'll stock a selection of hats, t-shirts and other items for the Monarch Butterfly Festival.

Jane Tallman of Tallahassee makes beautiful ceramic tiles of hummingbirds, owls, cardinals, butterflies, blue crabs and more. They have a hanger and a cork backing and can be used as a trivet or hung on a wall.

One shelf of children's books cost only \$3.99 each. We have a great array of temporary tattoos, stickers for all ages, and mini activity books, all for \$1.50 each.

Around the beginning of November our holiday inventory will start arriving. Check with us first for your holiday gifts. We will give a discount to those who make purchases on November 17th, during the Outdoors for the Holidays event.

*Join the Blue Goose  
in the Nature  
Store at the 2012  
Outdoors for the  
Holidays.  
Photo by refuge staff*



# ST. MARKS REFUGE ASSOCIATION

## SMRA President's Message

*Betsy Kellenberger*

Fall approaches and activities at the refuge are picking up! Speaking of picking up, the refuge will take part in Wakulla County's Coastal Cleanup Day on September 15. Entrance fees are waived on National Public Lands Day, September 29, so it's a perfect time to visit the refuge.

The annual Monarch Butterfly Festival will be held on October 27. Attendees will enjoy educational booths, capturing and tagging of butterflies, kid's activities, wildlife tours, and photography opportunities. Join the fun as we welcome the monarchs!

SMRA held an Ice Cream Social in July after the First Sunday program at Nature's Classroom. Everyone, members and prospective members, made their own sundaes with delicious vanilla ice cream and a choice of sweet toppings. More member events are planned for the fall. Watch our Web site and Facebook pages for current news about event dates.

If you aren't a member of the St. Marks Refuge Association, consider joining. Through our volunteer-run Nature Store, member dues, and donations we support environmental education, biological programs and visitor services at the refuge and we maintain funds for land acquisition, future St. Marks Lighthouse restoration, and whooping cranes. We support the St. Marks NWR Photo Club which meets monthly and is open to anyone interested in nature photography. We also sponsor The Eagle's Eye newsletter. Members receive the newsletter and 10% off in the Nature Store. Don't forget the Nature Store when choosing gifts for the coming holidays!

Recently, the association was awarded an Every Day Capacity Building Grant from the National Environmental Education Foundation. We've used the funds to purchase a computer, printer, member/fundraising software, and board training. By taking advantage of opportunities like this, the association can expand our mission of promoting better understanding, appreciation, and conservation of the natural history and environment of the St. Marks National Wildlife Refuge. We hope you'll join or renew your membership soon.

## New Development Committee Starts Work

*SMRA Board member Paul Hamilton*

The main goal of the non-profit St. Marks Refuge Association is to raise funds to support refuge activities. The need to plan for and build a stronger financial future for the association and refuge recently led the board to create a Development Committee, which has begun working on several fronts. Through the guidance of board member Lou Kellenberger, the association has established an Endowment account at the Community Foundation of North Florida, which should eventually provide greater and more stable support for refuge projects. In addition, we will be seeking donations from individuals and businesses for two targeted funds: transportation scholarships for environmental education programs, and internships involving work with at-risk species overseen by refuge biologists. We will also publicize opportunities to make memorial and honoraria donations, and to include the refuge in estate plans. You'll hear more details about these efforts starting in the fall.



### St. Marks Refuge Association Membership Application

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_

Email \_\_\_\_\_



Individual / Family	\$25
Senior (over 62)	\$20
Non-Profit Group	\$50
Corporate Support	\$200
Life	\$250
Patron	\$1000

Please make checks payable to St. Marks Refuge Association. Mail completed form and check to St. Marks Refuge Association, Inc., PO Box 368, St. Marks, Florida 32355. Materials can also be dropped off at the refuge Visitor Center. St. Marks Refuge Association, Inc. is a 501(c)(3) non-profit organization and donations are tax-deductible to the extent allowed by law.

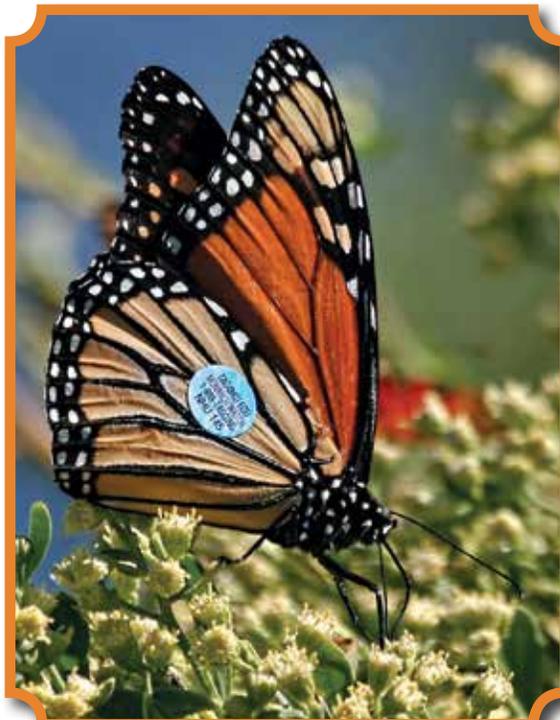
ST. MARKS NATIONAL WILDLIFE REFUGE  
 PO Box 68  
 ST. MARKS, FL 32355  
 (850) 925-6121  
 WWW.FWS.GOV/SAINTMARKS  
 WWW.STMARKSREFUGE.ORG

**Monarch Project**

*David Cook, Monarch Tagging Coordinator*

Since 1999 volunteers at St. Marks have counted over 32,000 monarchs and tagged and released over 20,000. The best year was 2006 with 5276 counted and 3257 tagged. So far the lowest year, 375 counted and 409 tagged, was 2008. Last fall we counted 2040 and tagged 1588.

Monarch Watch advises that with the warmest spring in 117 years of record keeping and the warmest 12 months ever recorded in the U.S., plants and insects made early appearances. Monarchs arrived 2-3 weeks early over most of the northern breeding range. This could mean the last big migration this decade. Climatologists predict hotter summers with strong droughts ahead and that won't be good for monarchs.



*This monarch dining on a cluster of saltbush flowers was tagged near the St. Marks Lighthouse. Photo Club member Sandra Muldrow*

We'll be tagging at St. Marks this fall, to intercept those flying along the coast, and you are invited to help. We start at the lighthouse before dawn to count the monarchs on their overnight roosts, then capture as many as we can to tag and release. Regardless of how many monarchs we find, a St. Marks sunrise is a real treat!

For the last few years we've begun the tagging project in mid-October, but the last 2 years I think we missed a couple of big "pulses" in early October. This year I plan to start by October 6 or September 29. We'll meet on subsequent Saturdays at least through November 17, perhaps later.

I send schedule updates and other monarch-related information to my e-mail list. Contact me if you'd like to be added or if you have any questions - david.cook@myfwc.com or 850-921-1021. I hope to see you early some morning this fall!



*Fawns are little  
 Across the road they  
 skitter  
 DRIVE 35  
 Don't hurt this cute critter*

*Spotted fawn by Photo Club member Nick Baldwin*

Come to the Monarch Butterfly Festival on October 27th for talks and walks about this iconic butterfly and other pollinators. You can help by planting flowers and shrubs they use for feeding and as host plants for caterpillars. Our Nature Store has several gardening books and identification guides. Check these online resources:  
<http://www.fws.gov/pollinators/>  
<http://www.monarchwatch.org>, and  
<http://www.pollinator.org/>