

# The Osprey

Newsletter of the Southern Maryland Audubon Society



The Buff-tailed Sicklebill (*Eutoxeres condamini*), a hermit hummingbird, beside one of the flowers to which they are specialized, showing how the flower and recurved bill have co-evolved.

(see article on page 4)

Photo by Christopher Witt, University of New Mexico.

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<http://somdaudubon.org/>

## President's Perch

It's been 10 years since the announcement that the Ivory-billed Woodpecker was rediscovered. On April 28, 2005 the U.S. Department of the Interior, the U.S. Fish and Wildlife Service, and Cornell Lab of Ornithology announced that the largest woodpecker in North America had been rediscovered in Arkansas. The news followed more than a year of secrecy over the exciting news that the bird—thought to be extinct—could still be surviving 60 years after the last confirmed sighting. Kayaker Gene Sparling posted to a chat room his sighting of a large woodpecker at the Big Woods in Brinkley, Arkansas. Several other sightings by reliable experts and a blurry video taken from a canoe-mounted camera seemed to convince the world that Ivory-bills still persisted.

Ivory-billed Woodpecker populations had already declined significantly by the early 1900s due to loss of habitat and hunting by collectors. Cornell Lab's founder Arthur Allen, who had studied the birds in Florida, organized an expedition into the Singer Tract in 1935 along Louisiana's Tensas River. The Singer Tract (named after the sewing machine company that owned the land) was an 81,000 acre piece of ancient forest and the last known place that supported Ivory-bills. From 1937-1939, James Tanner searched for them in the Singer Tract and in other places in the south. At the end of the research period, he estimated about 22-24 Ivory-bills remained in the U.S. and all in the Singer Tract. The National Audubon Society offered \$200,000 for the rights to the Singer Tract to save the woodpeckers. But the Chicago Mill and Lumber Company, who had the logging rights, had no interest in saving the forest and refused the offer. Singer wouldn't intervene and in 1944 bird artist Don Eckelberry found a single Ivory-bill, possibly the last, in a section of uncut timber surrounded by destruction.

Averaging 20 inches in length, the Ivory-billed Woodpecker can be distinguished from the slightly smaller Pileated by the full-width white wing patch in its trailing wing feathers when seen from above. These feathers are also visible in perched birds. Males have a scarlet crest (the females' crest is black) and both have Ivory-bills. The range of the Ivory-bill once extended throughout most of the Southeastern United States and as far north as Illinois, though the bird was never considered abundant. They preferred large tracts of hardwood forest where they could use their chisel-like bill to strip bark to find beetle larvae and other insects in dead or dying trees. Like other woodpeckers, they also excavated their nesting cavity. Their flight was swift and arrow-like, unlike the swooping flight of the Pileated. For such a grand bird, they had a modest vocalization, which was nuthatch-like and resembled "kent, kent, kent." They also produced a loud "BAM-bam" double rap made by striking trees with their bill.

The announcement of a possible rediscovery led experts to head out to try to find more evidence. Equipped with video and sound recording equipment, they trekked into the field to try to relocate the birds using their characteristic field marks and calls. However, no conclusive evidence has been found in the last ten years. Many experts have debunked the original sighting and called it a normal Pileated Woodpecker seen from a different angle than what the observers thought. Although the bird is considered likely extinct, sightings

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continue. In 2005, the Cornell Laboratory of Ornithology announced that searchers had seen an Ivory-bill multiple times in ten months in the Big Woods in Arkansas. Other researchers, connected to Auburn University, reported 13 sightings in 2005 and 2006 along the Choctawhatchee River in Florida's panhandle. Sightings were made by experienced observers, including trained ornithologists.

Some think that conservation efforts should stop protecting the Ivory-bill and shift focus to other species. But the Nature Conservancy purchased large tracts of land around the Big Woods to protect the bird. The conservation values of saving old-growth bottomland hardwood forests reached a wide audience. David Luneau, who recorded the Ivory-bill video said, "People are now reminded that there are species of endangered birds everywhere that need to be protected." If increased awareness helps to reduce urban sprawl to protect habitat for other at-risk species, then the effort was a success.

Determining which species are at risk is an important step to saving them. With that in mind, your help with this year's May count will help determine which species of birds are declining. If you're interested in participating, counts in Maryland will be on May 9. Please visit our web site for more information: <http://somdaudubon.org/event/county-may-counts/>.

For the Birds,  
Michael Patterson

## Our History of Raptor Conservation

The conservation of raptors in Southern Maryland has been a long time concern of SMAS! Due to the effects of DDT, habitat loss and changing agricultural practices and land use planning by local government agencies, the once common Bald Eagle, Osprey, Barn Owl and American Kestrel began to disappear from the landscape.

In the early 1990's our Adopt-an-Osprey Program was started by Steve Cardano with the assistance of fellow Board of Directors member Cora Fulton. Steve would band the nestling Ospreys on the Potomac and Patuxent Rivers and Cora would prepare and mail adoption certificates and photographs for each bird adopted. Cora recalls when someone adopted 10 Ospreys for a retiring co-worker and what a job she had preparing them. And also when she had to send certificates for the first Barn Owls ever adopted through our program in 2002.

In the mid 1990's our Raptor Conservation Committee was created after a request for funding from a local government conservation agency to pay for the supplies to build Barn Owl nest boxes in Calvert County. The mission of the committee is to support the conservation of raptors found in Southern Maryland through our own conservation projects that currently include our historical Osprey platform project, our Barn Owl and American Kestrel nest box monitoring programs as well as supporting other raptor research projects in the region. One such project we support is the

Northern Saw-whet Owl banding station at Point Lookout State Park which is part of Project Owlnet (<https://www.facebook.com/ProjectOwlnet>), which is a cooperative effort of Saw-whet Owl banders from Michigan to Georgia to monitor the fall migration behavior of the smallest non-resident owl that visits us during migration and winter months.

We also work with local Girl Scout and Boy Scout groups, local schools, and government organizations and agencies as well as local business owners and private property owners to sponsor and assist with raptor conservation projects. These projects often include the construction of raptor nesting structures and monitoring of them. For monitoring of these nesting structures, we rely on the help of volunteers to make them successful. If you would like to volunteer or learn how you can be part of one of our raptor conservation projects, or have an idea for future projects, please contact our Raptor Conservation Committee Chairman, Mike Callahan at [raptorsrulemc@gmail.com](mailto:raptorsrulemc@gmail.com).

By Mike Callahan and Andy Brown



Mike Callahan holding an American Kestrel  
Photo by: Lynne Wheeler

### Cool Internet Links!

Watch a bird weave a basket nest:  
<https://www.facebook.com/video.php?v=732357963513234>

Tiny songbird tracked across 1,700 miles of open ocean:  
<http://tinyurl.com/Over-Ocean-Blackpoll>

White-breasted Nuthatch stealing down from an owl nest!  
<https://www.facebook.com/video.php?v=10206145236019041>

Rough-legged Hawk takes off:  
<http://birdnote.org/blog/2015/04/rough-legged-hawk-takes>

A Natural Feast for Hummingbirds: Native plants sustain native birds!  
<http://birdnote.org/show/natural-feast-hummingbirds>

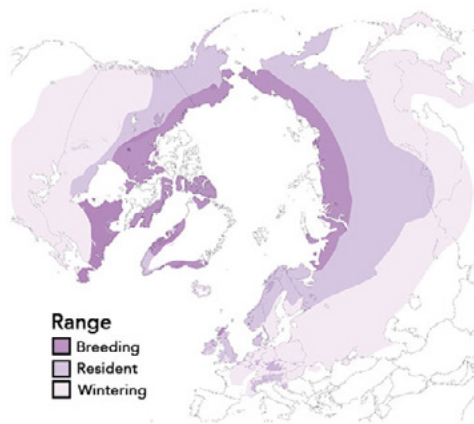
## Goodbye to Hoary (and Lesser) Redpolls

A new paper published this week by a couple of post-docs at Cornell shows no genetic difference among redpolls, despite total genome sampling. It's an oddly titled paper.

Nicholas A. Mason and Scott. A. Taylor. Differentially expressed genes match bill morphology and plumage despite largely undifferentiated genomes in a Holarctic songbird (<http://tinyurl.com/Goodbye-Hoary-Redpoll>). *Molecular Ecology*.

Although nowhere in the paper does it actually mention species status, the upshot is that there is one circumpolar "genome," which means one species (they sampled Lesser Redpolls in Europe, too). Differences in physical appearance are the result of the expression of different genes from the entire suite that all the redpolls possess.

As the Lab blog <http://tinyurl.com/From-Many-One> post discussing the study puts it, "The new research suggests all the Common-Hoary confusion over the years may have been justified."



The three current species of redpoll—Common, Hoary, and Lesser—stretch around the Arctic in a continuous swath that isn't necessarily apparent from a normal map projection. Adapted with permission from [Mason and Taylor 2015, \*Molecular Ecology\*](#).

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## Give Female Birds an Extra Boost! By Jane Kostenko

Just as humans need calcium for good bone health, so do female birds!

During egg-laying season, female wild birds benefit from getting extra calcium in their diets. An easy and inexpensive way to provide this to your wild birds is to keep chicken egg shells as you use them. Rinse the shells thoroughly and let them air dry. When you use your oven, simply put the shells

on a baking sheet and put them in the oven as it is cooling off. Remember, you're not trying to bake the shells, only to help safely sterilize them.

I have never used the microwave to sterilize egg shells, but several websites give the following directions: Place the shells on a microwave-safe towel or plate and microwave on high for 1.5 to 3 minutes.

Once you've sterilized your shells and they have cooled, crush the shells into small pieces and simply add the pieces to your regular seed. We put them out on platform feeders with black oil sunflower seeds and watch the birds eat the crushed shells.

Birds of both sexes actually benefit from chewing egg shells year round, I also read, since the gizzards of birds helps grind up their food and egg shells serve that purpose.

Here's a great website that discusses this topic:

<http://lansingwbu.blogspot.com/2015/03/feeding-egg-shells-to-birds.html>

## Birding and conservation groups call on Canada, U.S. to preserve boreal forest

Eilís Quinn  
Eye on the Arctic  
March 25, 2015

Birding and conservation groups launched a campaign last week calling on the Canadian and U.S. governments to preserve at least half of the boreal forest.

"The importance of boreal forest habitat for birds will only increase in the future; climate change has already begun pushing bird ranges further north, making the boreal forest an important refuge -- a 'Noah's Ark' for birds," Jeff Wells, senior scientist for the Boreal Songbird Initiative and International Boreal Conservation Campaign, said in a news release.

Besides preserving bird habitat, The Boreal Birds Need Half campaign is looking encourage sustainable development in the remaining areas. It also says industrial activities in the forest should take place only with consent from the affected indigenous communities.  
Habitat threats

The boreal forest stretches from Alaska to the region of Labrador in Atlantic Canada. Billions of birds use the forest as their breeding ground.

But many of the 300 bird species that make their way to the forest each year are in decline, such as the Canada Warbler, mainly due to loss of habitat says the Boreal Songbird Initiative.

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The campaign is currently endorsed by The Boreal Songbird Initiative, Ducks Unlimited, National Audubon Society, Bird Studies Canada, the Canadian Parks and Wilderness Society, the Cornell Lab of Ornithology, Environment for the Americas, Nature Canada, Nature Needs Half, Birdzilla, and Wild Bird Centers of America.

Campaign organizers hope businesses as well as individuals will sign on to endorse the campaign.

“When you see broad support from the scientific community, bird organizations, and everyday citizens, it makes a compelling case for increased boreal forest protection,” said Kevin Smith, national manager of boreal programs for Ducks Unlimited Canada in a news release. “In addition to protecting 50 percent of the boreal forest, sustainably managed development in the remaining areas will be essential to striking the right balance between ecological health and economically healthy communities.”

This story is posted on Alaska Dispatch News as part of Eye on the Arctic, a collaborative partnership between public and private circumpolar media organizations. <http://www.adn.com/article/20150325/birding-and-conservation-groups-call-canada-us-preserve-boreal-forest>

## Hummingbird Evolution Soared After They Invaded South America 22 Million Years Ago

By Robert Sanders, Media Relations | April 3, 2014  
BERKELEY

A newly constructed family tree of the hummingbirds, published today in the journal *Current Biology*, tells a story of a unique group of birds that originated in Europe, passed through Asia and North America, and ultimately found its Garden of Eden in South America 22 million years ago. volcano hummingbird.

These early hummingbirds spread rapidly across the South American continent, evolved iridescent colors – various groups are known today as brilliants, topazes, emeralds and gems – diversified into more than 140 new species in the rising Andes, jumped water gaps to invade North America and the Caribbean, and continue to generate new species today.

“Our study provides a much clearer picture regarding how and when hummingbirds came to be distributed where they are today,” said lead author Jimmy McGuire, a UC Berkeley associate professor of integrative biology and curator of herpetology (reptiles and amphibians) in the campus’s Museum of Vertebrate Zoology.

There are now 338 recognized hummingbird species, but that number could double in the next several million years, according to the study’s authors, who come from UC Berkeley, Louisiana State University and the universities of New Mexico, Michigan and British Columbia.

“We are not close to being at the maximum number of hummingbird species,” McGuire said. “If humans weren’t around, they would just continue on their merry way, evolving new species over time.”

### ***Hummingbird Ancestors Arose In Eurasia 42 Million Years Ago***

For more than 12 years, McGuire and his colleagues collected DNA data from 451 birds representing 284 species of hummingbirds and their closest relatives, ultimately sequencing six nuclear and mitochondrial genes. They used the data to arrange the living groups in a family tree, and concluded that the branch leading to modern hummingbirds arose about 42 million years ago when they split from their sister group, the swifts and treeswifts. This probably happened in Europe or Asia, where hummingbird-like fossils have been found dating from 28-34 million years ago.

Somehow, he said, hummingbirds found their way to South America, probably via Asia and a land bridge across the Bering Strait to Alaska. They left no survivors in their ancestral lands, but once they hit South America about 22 million years ago, they quickly expanded into new ecological niches and evolved new species represented by nine distinct groups known today as topazes, hermits, mangoes, brilliants, coquettes, mountain gems, bees, emeralds, and the single-species group Patagona (the Giant Hummingbird, Patagona gigas).

About 12 million years ago, the common ancestor of the bee and mountain gem hummingbird groups made the jump into North America, which at the time was still separated from South America by a few hundred miles of water. Once these hummingbirds had “prepared the ground” by initiating co-evolution with North American plants, McGuire said, they were later followed several times by other hummingbird lineages, including representatives of the mangoes and emeralds, and then by many more species when the Isthmus of Panama formed connecting South and North America about 4 million years ago.

About 5 million years ago, hummingbirds invaded the Caribbean, and did so five more times since. One of these groups, the bee hummingbirds, which originated in North America, participated in the Caribbean invasion, and even re-colonized South America alongside existing lineages. This group experienced the highest diversification rates of any hummingbird group – 15 times that of the lowest, the topazes – which is on a par with that of classic examples of rapid adaptation to a new environment (adaptive radiation).

The genetic analysis shows that the diversity of hummingbirds continues to rise today, with the origination rate of new species exceeding extinction rates. And despite the fact that they feed primarily on nectar and tiny insects, some places contain more than 25 species in the same geographic area.

“When it comes to vertebrate animals, hummingbirds are about as diverse as they come,” he said.

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## From Herps To Hummingbirds

McGuire, a herpetologist whose main interest is the evolution of reptile and amphibian diversity in Southeast Asia, became interested in hummingbird flight by accident while a graduate student at the University of Texas at Austin. While there he collaborated with Robert Dudley, an expert on hummingbird flight and now a fellow UC Berkeley professor of integrative biology, and Dudley's student, Doug Altshuler, now at the University of British Columbia. They wanted to understand how hummingbirds are able to live at high elevations, including at over 15,000 feet in the Andes Mountains, despite the reduced air density, which makes flying harder. Such a study required, however, that they understand how the various species are related, and McGuire volunteered to do a genetic analysis to construct a phylogeny (the equivalent of a genealogy but for species).

One unanswered question, he said, is how hummingbirds got a toehold in South America at all, since today they are dependent on plants that coevolved with them and developed unique feeding adaptations.

"It is really difficult to imagine how it started, since hummingbirds are involved in this coevolutionary process with plants that has led to specializations we typically associate with hummingbird plants, such as tubular, often red flowers, with dilute nectar," he said. "They drive the evolution of their own ecosystem. The evolution of hummingbirds has profoundly affected the evolution of the New World flora via codiversification."

McGuire hopes to continue hummingbird studies with his colleagues, exploring how they've adapted to a diverse variety of ecological niches and, in particular, how they tolerate reduced oxygen availability at high elevations.

"Everything about hummingbirds is extreme," said McGuire, who initiated work on the current phylogenetic analysis as an assistant professor at Louisiana State University before joining the UC Berkeley faculty in 2003. "They have this incredible hovering flight, with wing beat frequencies of 60 times per second, which is nuts. They have the highest metabolic rate for their size of any vertebrate; they are little machines that run on oxygen at a high rate. They also have the largest hippocampal formation in the brain of any bird, which is tied to spatial learning, presumably because they visit the same flower clusters over and over again, and must remember where and when they most recently slurped the nectar from individual flowers. It is amazing that evolution can take an animal to such extremes."

In addition to Dudley and Altshuler, other coauthors are Christopher C. Witt of the University of New Mexico, Albuquerque; J. V. Remsen, Jr., of Louisiana State University, Baton Rouge; Ammon Corl of UC Berkeley; and Daniel L. Rabosky of the University of Michigan, Ann Arbor.

The work was funded by the National Science Foundation (DEB 0330750, 0543556, 1146491).

Southern Maryland Audubon Society

## ADOPT-A-RAPTOR

Foster Parents Needed!!



The Southern Maryland Audubon Society supports raptor conservation and research projects in the Southern Maryland area through the "Adopt-A-Raptor" Program. The program currently includes four species: **Osprey, Barn Owl, American Kestrel and Northern Saw-whet Owl.** Each bird is banded by a licensed bird bander with a serially numbered metal band, in cooperation with the U.S. Bird Banding Laboratory. A limited number of birds are available for adoption each year!

**"Adopt-A-Nest" now available for Osprey, Barn Owl & Kestrels!**

### **Adoptive "parents" will receive:**

A certificate of adoption with the bird's band number, and location and date of banding.

Information on the ecology and migration patterns of the species

Any other pertinent information that may become available

### **Your support helps provide:**

- Barn Owl Nest Boxes
- Osprey Nesting Platforms
- Kestrel Nest Boxes
- Mist Nets or Banding Supplies

Complete the form below to "Adopt-A-Raptor" with the Southern Maryland Audubon Society

Mail completed form to: *Melissa Boyle, Adopt-a-Raptor, 10455 Point Lookout Rd. Scotland, MD 20687*

Name: \_\_\_\_\_  
as it should appear on Adoption Certificate

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I wish to adopt:

\_\_\_\_\_ (# of) Osprey, \$10 each / \$25 per nest

\_\_\_\_\_ (# of) Barn Owl, \$25 each / \$50 per nest

\_\_\_\_\_ (# of) Northern Saw-whet Owl, \$30 each

\_\_\_\_\_ (# of) American Kestrel, \$35 each / \$75 per nest

Amount Enclosed: \_\_\_\_\_

*Make checks payable to: Southern Maryland Audubon Society*



## Upcoming Events

May 9 – SATURDAY – All day

### COUNTY MAY COUNTS

Calvert, Charles, Prince George's, St. Mary's Counties  
Help is always appreciated from all: backyard birders, beginners, new members. This is a great way to learn! Data and information help save our birds. The county coordinators for you to contact are as follows:

Calvert: Sue Hamilton (410-586-1494, [Ldsquaw0@gmail.com](mailto:Ldsquaw0@gmail.com) )

Charles: George Jett (410-741-9129, [gmjett@verizon.net](mailto:gmjett@verizon.net) )

Prince George's: Fred Fallon (301-249-1518, [fwfallon@earthlink.net](mailto:fwfallon@earthlink.net) )

St. Mary's: Patty Craig (301-872-5670, [walelu67@yahoo.com](mailto:walelu67@yahoo.com) )

Barn Owls & Breakfast, Charles County  
Youths especially welcome!

Mid-May to early June. The exact date to be determined, it all depends on the owls! Watch our Osprey newsletter and website for date and details.

Leader: Mike Callahan (240-765-5192, [raptorsrulemc@gmail.com](mailto:raptorsrulemc@gmail.com) )

A different kind of B&B! Come and enjoy breakfast before helping our Raptor Conservation Committee chair Mike check a Barn Owl nest box, and hopefully band nestling owls. This trip takes place on private property in southern Charles County. The location and directions will be given when you contact Mike to register and reserve your spot. This event fills up rapidly. There is a small fee involved to cover the cost of food. Please bring your own reusable plate, mug, and utensils.

June 7 – SUNDAY – 1:00 p.m. – 4:00 p.m.

### ANNUAL MEETING

Sotterley Plantation, St. Mary's County  
44300 Sotterley Lane, Hollywood, Maryland 20636

Potluck Lunch. . . . . 1:00 – 2:15  
Welcome . . . . . 2:15 – 2:30  
Award Presentations . . . . . 2:30 – 3:00  
Bird Walk. . . . . 3:00 – 4:00

We are very excited to be able to have our annual meeting at this beautiful historic St. Mary's County location. The meeting will be located at the open air Riverside Pavilion. Secluded and located on a bluff overlooking Sotterley Creek and the Patuxent River, the Pavilion is surrounded by majestic trees and water views. This will be one of

our loveliest meeting venues and best bird walk due to the habitat and nature trails this location provides.

Directions: From Maryland Route 235 go north onto Maryland 245, Sotterley Road. Turn right onto Sotterley Lane. Follow signs to the Riverside Pavilion, parking is available.

June 11 – THURSDAY – 9:00 p.m.-11:00 p.m. FREE EVENTS  
FIELD TRIP

Flag Ponds, Calvert County  
"NIGHTIME HORSESHOE CRAB ADVENTURE AT FLAG PONDS"

Leader(s): Andy Brown and Melissa Boyle  
([melissaboyle3@gmail.com](mailto:melissaboyle3@gmail.com) , 443-340-3035)

The horseshoe crab is one of nature's miracles, and their eggs fuel the amazing migration of shorebirds! Want to see horseshoe crabs spawning on the beach by moonlight? Join us for this unique chance at water's edge. Bring flashlights, and wear comfortable walking shoes that can get wet. Meet at the gate to Flag Ponds. RSVP to Melissa (see above) by June 8.

June 23 – TUESDAY – 9:00 a.m. – 1:00 p.m.  
FIELD TRIP

Patuxent River Park – Jug Bay, Prince George's County  
"OSPREY BANDING TRIP"

Leader(s): Melissa Boyle ([melissaboyle3@gmail.com](mailto:melissaboyle3@gmail.com) , 443-340-3035) and Greg Kearns.

Join us for our annual Southern Maryland Audubon Society Osprey Banding Trip at Jug Bay. Do not hesitate to sign up for this event if you have never been lucky to experience this truly beautiful park and see Osprey chicks up close and personal. The parks naturalist, Greg Kearns, is one of the best in his field and provides a very entertaining, fact-filled and fun outing. This opportunity is limited to 15 participants! Youths Welcome (younger than 12 with adult). Cost is \$18/ person, payable the day of the trip. RSVP to Melissa (see above) by June 19.

## WELCOME, NEW MEMBERS!

Christopher Aballe, Clinton  
Jim Butler, Huntingtown  
Marianne S. Chapman, Hollywood  
Sol & Mary Costin, Brandywine  
Ellen Deemer-White, Brandywine  
David Hill, Mechanicsville  
Heather Hartman-Jansen, La Plata  
Wilhelmina Schultz, Huntingtown  
Cynthia C. Jones Shoemaker, Marbury  
Patricia Staples, Fort Washington  
Karen Taylor, Camp Springs  
Ron Watt, Port Tobacco

**EDITOR:** Tyler Bell E-mail: [jtylerbell@yahoo.com](mailto:jtylerbell@yahoo.com)

The deadline for the Osprey is the fifth of each month. Please send all short articles, reports, unique sightings, conservation updates, calendar items, etc. to the above address.

### 2013-2014 Officers

President, Michael Patterson (301-752-5763)  
Vice-President, Bob Lukinic (301-283-6317)  
Secretary, Lynne Wheeler (301-743-3236)  
Treasurer, Will Daniel (240-518-8006)