December’s Bird of the Month profile concludes the 2020 series with its focus on species of waterfowl that permanently reside in or are seasonal visitors to our state. To assist our members in viewing these birds more readily, efforts are made in the PowerPoint presentation at the monthly meeting to indicate possible locations where they might be observed. Additionally, basic information on the species is shared in the Kite newsletter.

The Egyptian Goose, as the name implies, is a native of Africa that is now a fairly common and permanent resident in Florida. It is believed by some scientists that the species is more closely related to shelducks than to geese. They were originally used as ‘ornamental waterfowl’ in suburban parks, zoos, and aviaries in private waterfowl collections. However, escaped birds have now established permanent populations in Florida, Texas, and California and are primarily found in city parks, golf course communities, and suburban neighborhoods.

Egyptian Geese are stocky in stature with an overall gray and brown body; their wings are brown and rufous with an iridescent green speculum on the rear and a large bold white patch on the leading edge of each wing, usually seen in flight. The head is grayish with a rufous colored patch around each eye. The gray-brown breast has a dark brown central spot, and the neck has a reddish-brown collar. The bill, legs, and feet are pinkish in color.

Although males and females look alike, sexes are distinguished by size, with the female being smaller than the male. The calls are also distinctively different; the male makes a strong but hoarse hissing sound while the female emits harsh trumpeting quacks.

Outside of the nesting season, the birds generally remain in small family groups close to a body of water. Although excellent swimmers, they spend much of their time foraging on land for grasses, tender leaves, grain, plant stems, seeds, and other plant material. In the water they consume aquatic invertebrates, algae, and seeds of aquatic plants. They usually have strong ties to a particular area but will relocate during periods of drought or if predators become abundant.

Nesting typically begins in the spring, but, here in Florida, the birds breed year-round, producing several broods annually. They are monogamous, and pairs form permanent bonds and become extremely aggressive towards others during the nesting season. They attack intruders, driving them out of their territory, even pursuing them in the air.

The nest is often placed on the ground but is sometimes placed in a tree. Five to twelve white to creamy colored eggs are laid and incubated for 28 – 30 days. The precocial chicks are cared for by both parents and fledge in 60 – 75 days; reaching sexual maturity in about 2 years.
Audubon Everglades December 2020 Monthly Meeting and Lecture Program “Preserving and Protecting the Lake Worth Lagoon”

with Reinaldo Diaz, Founder and President of Lake Worth Lagoon Waterkeeper

Tuesday, December 1 at 7PM • Zoom Hosted Presentation

More about Lake Worth Lagoon
Most people think of the lagoon as the Intracoastal Waterway, but before it was thought of that way the lagoon was actually a freshwater marsh more like ARM Loxahatchee National Wildlife Refuge than what we know today. A hundred years ago inlets were dug, allowing the saltwater of the Atlantic Ocean to enter, which turned the lagoon into a coastal estuary with the mangroves and sea grasses that we see today. Since then it has developed into one of Florida’s most important watersheds, home to a massive marine industry of boaters, divers, fishermen, that serves as a base of our tourism industry.

More about Reinaldo Diaz
A first generation Floridian, Reinaldo grew up on the Gold and Treasure Coasts of Florida where he was obsessed with wild animals and the environment. He was attracted to the water and would spend as much time as possible fishing, diving, hiking, paddling, or surfing.

He attended Florida Atlantic University where he studied communication and anthropology hoping to become a documentary filmmaker. But given the opportunity to be a dive master at a local dive shop, he spent the next few years having wonderful underwater wildlife encounters as he explored the ocean depths.

Feeling a call to have an impact on our local environment, Reinaldo went to law school at Nova Southeastern University focusing on environmental law. After graduating, he interned at a local environmental law firm. He then moved to the west coast of Florida, where he became the Calusa Waterkeeper Executive Director. And in 2017 Reinaldo founded the Lake Worth Waterkeeper and became its President. Reinaldo also serves on the Board of Directors of the Everglades Coalition and recently ran for state office.

Audubon Everglades invites its membership to the December lecture program to hear about the unique role Reinaldo Diaz plays as our Lake Worth Lagoon Waterkeeper. He will explain the economic and environmental importance of the Lagoon to our region, and the challenges he faces protecting these waters and the wildlife and people it supports.
Profile: Mark Cook

by Kristen Murtough

Audubon Everglades was fortunate to host Dr. Mark Cook as the guest speaker at the February 2019 monthly meeting. I was fortunate this month to have an opportunity to get to know more about his life and research interests and to fill in the spaces between the dates and degrees and job titles in the brief biography that accompanied publicity about that meeting.

Mark grew up in southern England, in a small village outside the old city of Winchester in Hampshire. It’s a beautiful, rural area rich in archaeological treasures. There are ancient burial grounds and many ancient byways, and it is only 40 miles from Stonehenge. You can walk across the countryside freely and enjoy a rich biodiversity - rivers and streams and many different animals and birds. By the age of 9 or 10 Mark knew he wanted to be a scientist, specifically a marine biologist. He enjoyed the original David Attenborough documentaries. His father was a marine biologist. He enjoyed the original David Attenborough documentaries. His father was a marine biologist.

Mark’s first degree was a BS in Marine Zoology from the University of Bangor in Wales. During his undergraduate studies, he took several trips to Africa and, after graduation, spent six months doing volunteer work around the continent. Mark earned a MS in Ecology at the University of Durham in England. His research focused on sea birds, more specifically on the feeding behavior of Atlantic Puffins. He spent 6 weeks on a remote island in the North Sea, studying why the Puffin chicks got so fat and what the ecological significance of that was. Their food source was fat-rich, but it was random, and the parents had to travel miles for it, so they overfed their chicks as an insurance policy for their survival. Mark earned a PhD in Avian Ecology from Glasgow University in Scotland. His interest was in behavior ecology, research to understand the adaptiveness of behavior. He studied the nesting behavior of Black Guillemots on remote and uninhabited islands off the coast of Scotland, and he asked what determined the number of chicks. He watched the interactions between the chicks and their aggressiveness related to the availability of food. His post-doctoral research at the University of California at Berkeley sent him to Puerto Rico, where he studied the incubation strategies of the Pearly-eyed Thrasher. This tropical bird is constrained to incubate early to protect the eggs from developmental abnormalities and microbial infection from the warm humid environment.

While he was in Puerto Rico, a position at the South Florida Water District Management came up. Mark’s real interest was conservation, and this was a chance to work on one of the world’s largest and most complicated conservation projects. He has been here now for about 17 years and is currently the Section Lead of the Everglades Systems Assessment Section of the SFWMD, where he oversees many exciting projects. They include various projects in the Storm Water Treatment Areas (STAs) to remove nutrients from the water before it goes into the Everglades, the Loxahatchee Impoundment Landscape Assessment (LILA), a working, 80-acre model of the Everglades ecosystem at the Loxahatchee National Wildlife Refuge, and the health of seagrasses in the water flowing to the Florida Bay.

I wish I had space here to tell you all the interesting facts I heard from Mark as he told me about his different projects. Wading birds are the sign of the health of the Everglades, and hydrology that supports the prey fish of wading birds is key to the restoration of the Everglades. Mark flies over the Everglades every week, looking where the birds are foraging and nesting and the level of the water in those areas. The relationship of water level to the health of the Everglades is a complicated one. The level of water that is ideal for the prey fish of wading birds is not necessarily ideal for trees, deer, and other mammals. From his observations, Mark sends recommendations for water management to the SFWMD.

Mark and his wife Sabeena live in Jupiter Farms and have two daughters, aged 9 and 11. The family enjoys travelling and were actually on their way back from a camping trip in Yellowstone Park, when I first contacted him about doing a Kite interview. It sounded like a wonderful trip; the family enjoyed the beautiful fall colors and seeing and hearing elk and wolves. In the summer they like to visit the mountains of Utah and Colorado. They have traveled to England and Scotland, and they have spent time at the rain forest lodge that his family owns in Panama.

Photography has become important to Mark. It started as a way to communicate to the public about the Everglades and educating them about conservation through his photos. Mark likes to get in the public view and considers it part of his job. The communication side of his work interests him, and he shares his videos and photographs widely and welcomes invitations for interviews on the radio. I thoroughly enjoyed our interview and am grateful for his generous sharing of his exciting research areas. I encourage you to check out his beautiful photography on Instagram: @Lightswitchaddict and on Facebook: Mark Ian Cook - Wildlife and Scientific Photography.
When getting out in nature, there are several rules to follow. These rules not only protect wildlife, but they also increase the probability of your seeing more wildlife and seeing it closer.

Remember that most wildlife have a keen sense of hearing. Please keep your voice low. Even if you are just out for exercise, remember that many of the other people are trying to observe and perhaps photograph the many inhabitants of the Refuge. If you see someone pointing a camera, remember that they may have been following something for a long time. Be respectful and stop your conversation or talk in whispers. Approach slowly so as not to frighten anything. Most photographers are more than happy to help you see something if you are respectful.

Never try to get too close to wildlife. Remember the rule of thumb: extend your arm and hold up your thumb. If the animal can be seen around your thumb, you are too close. If you see animals heading towards you, STOP. Step to the other side of the trail and let THEM decide if they want to approach you. If you stay quiet and do not make a lot of movement, you will be surprised how close to you they will get. I have had a family of deer walk right past me when I have stepped to the side of the trail and stopped talking.

Remember, pets are not allowed on any of the interior Refuge trails. Believe it or not, the scent trail a dog or cat puts on the trail is similar to that of the natural predators of the wildlife. If you bring your pet where they are not allowed, their scent will bother wildlife. The trails are part of wildlife's home. You do not want to be uncomfortable in your home. Give the wildlife the same courtesy. Leashed pet walking is allowed only along the Refuge perimeter, starting from the end of Lee Road, off the boat ramp parking lots, on the designated levee pathways.

With the Refuge Visitor Center closed, it is a little harder to get help finding animals. Until it reopens, my suggestion is this: seek out the other people on the trails. You can maintain proper social distancing and still get information. You will be surprised by how many people will be willing to help you.

Want to go? The Arthur R. Marshall Loxahatchee National Wildlife Refuge is Palm Beach County's wild heart of nature, the northernmost part of the Florida Everglades. Managed by the U. S. Fish and Wildlife Service of the U. S. Department of the Interior, this is the real deal, where you can observe and identify native animals and plants in their own biodiverse habitats. You will find over 50 miles of walking, photography, biking, and canoe/kayak trails to explore, including a 4/10 mile accessible boardwalk trail loop through the largest protected cypress tree wetlands community east of Lake Okeechobee. For advance planning of a visit within CDC guidelines, go to the Refuge website. See you out there!
During the second World War, newly developed radars installed for detecting the movements of enemy forces repeatedly picked up signals of flying objects moving in formation under cover of darkness. Signals would expand outward in concentric rings, before vanishing into nothingness.

Pilots sent out to investigate couldn’t find the source, and when ornithologist David Lack suggested that the signals might be caused by flying birds, military leaders didn’t believe him—they didn’t think birds flew at night, especially in numbers large enough for radar could detect. A lore caught on: The strange echoes must be “radar angels” sent by fallen soldiers, calling from beyond the grave.

We’ve often failed to appreciate the scale and significance of movements on our shared planet—of wildlife, and of humans, too. Up until the mid-20th century, leading researchers claimed that migration had played such a minor role in human history that the people who lived on different continents had evolved there. Today’s policymakers similarly underestimated the pace of human movements when, in the initial stages of pandemic, some claimed they had successfully stopped the deadly spread of novel coronavirus by closing borders, seemingly unaware that seven million people had already left the city of Wuhan, China before it was locked down. It was only after borders around the world slammed shut that it became clear that our global movement patterns—combined with leaders’ slow or limited responses—made scrambling efforts to stop the microbe’s global dispersal ultimately futile. Now national borders must be tightly managed, with only varying degrees of success at containing the spread, in unprecedented ways.

Through our blinkered view of mobility, the negative aspects of movement often capture society’s attention, and not just this year. In the Bible, for example, the movements of insects inspire outsized fear: They are expressions of divine punishment and harbingers of apocalypse. Wild species that range into new habitats are often similarly characterized as unwanted invaders. Meanwhile, in our political cultures, human migrants are irrationally blamed for all manner of social ills and their arrival reflexively framed as a kind of catastrophe.

It’s true that movement can be disruptive and unsettling, and fear can be justified in a year when even a trip to the grocery store feels perilous. But misunderstanding the scale of movement and only focusing on its risks makes it easy to lose sight of its broader meaning and importance.

Mobility allows many species to adapt to environmental variation. That’s why migratory behavior has evolved more frequently in creatures exposed to mutable conditions, such as insect-eating birds breeding in highly-seasonal climates, compared to those that are buffered from change, such as those feeding on forest seeds and plants available year-round. Ecosystems, too, depend on the biological connections of creatures on the move. More than 90 percent of the trees in rainforests, for example, rely on the movements of birds and other animals to disperse their seeds.

Our mobility, as with birds’, is fundamental to our biological resilience. It’s why the development of the human body is not robotically controlled by genes but sensitive to external cues, from climate and diet to the micro-environments around our genes, allowing our bodies to thrive in a wide range of conditions, from the arid heights of the Tibetan plateau to the tropical rainforests of Brazil. Our capacity to cooperate across geographic barriers relies on the cultural connections forged by people on the move, injecting genetic and cultural diversity into otherwise insular societies. We were built to move.

One day, whether it takes months or another year or more, the pandemic will wane. As life begins to return to normal, the tremors of a world on the move will seem ominous. But even though the pandemic inspires justifiable fear of the deadly effects of roving biota, we can remember the broader life-affirming value of movement in history and nature persist. Scientists saw this when, two decades after the war, they revisited the radar angels and tracked the echoes to a stand of trees covered with starlings. As they watched, the starlings lifted into the air as one, then settled again on trees situated in a concentric circle around those they’d left, just as the ghostly radar signals had indicated. Their branches, vibrating with movement, teemed with life.
There are two ways to join Audubon Everglades:

**FRIENDS OF AUDUBON EVERGLADES MEMBERSHIP:**
All your membership dues and contributions are put to use supporting local conservation projects and educational programs in Palm Beach County. You will receive 12 issues of the Kite newsletter, priority for some special trips and discounted rates at some events and vendors. Join using the PayPal link off our website or by mailing the attached membership application. The Audubon Everglades Kite newsletter is available by email only.

**NATIONAL AUDUBON SOCIETY MEMBERSHIP:**
includes membership in Florida Audubon and Audubon Everglades plus one year of the Audubon magazine. Join online here.

Your NAS membership does not grant you the special privileges and discounts available to members of Friends of Audubon Everglades. If you choose to join us through National Audubon Society, please also consider becoming a Friend of Audubon Everglades to support local conservation and education initiatives.

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Yes, I want to become a member of **FRIENDS OF AUDUBON EVERGLADES**
Join now using PayPal. Go to AudubonEverglades.org/membership to complete the application.

Or, complete this form and mail your check to: Audubon Society of the Everglades, PO Box 16914, West Palm Beach, Florida 33416-6914 (make checks payable to Audubon Society of the Everglades)

Please check one:  
☐ $25 (Single)  ☐ $20 (Student)  ☐ $20 (Senior)  ☐ $35 (Household)  ☐ $75 (Patron)

Please feel free to give above the membership amount with a contribution of $_______________

☐ New Member  ☐ Renewal

Name ________________________________

Email ________________________________

Phone ________________________________

Address _________________________________________________________________

City _______________________________________ ZIP ________________________

State _______________________________________ ZIP ________________________

*If you selected Household or Patron Membership, please provide the names of all members living at the same address. (2 adults and children under age 18)

Household/Patron Additional Names ____________________________________________

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