TAMPA BAY WATCH

Kids' pages

Are you ready to learn about the bay?

News for the kids of Tampa Bay!

Fall 2020

TAMPA BAY WATCH
Restoring the Bay Every Day

In This Issue:

Mark your calendars!

Project WILD and Aquatic WILD Workshop

Monday, November 20, 9-3

Educators, join us for an informative workshop to learn hands-on activities to bring conservation education into your classroom. This in-person workshop will highlight lesson plans and provide you a copy of Project WILD and Aquatic WILD guidebooks. Reservations are required. $3 each; space is limited.

Click here to register!

Got a Question? Ask a Scientist!

Q Why are there so many white pelicans in Tampa Bay?

Clockwise from top-left: royal tern, short-billed dowitcher, piping plover, whimbrel. Source: Wikimedia commons

A The big, beautiful white pelicans, which usually nest in the northern region of the North American continent, have migrated south to Florida for the winter. However, American white pelicans aren't the only birds to visit sunny Florida in the wintertime. Hundreds of thousands of birds of more than 150 different species head south. Some end their journey in Tampa Bay while others move further south.

Migration is a behavior animals exhibit by traveling from one habitat to another in search of food and better weather conditions. At home, winter approaches and food sources decline. This signals that it's time to visit more temperate and tropical places, like Florida, which boast a year-round supply of food and warmth.

Several areas at the mouth of Tampa Bay serve as critical stopover and wintering sites for a diversity of birds. Starting in September and through November, many species tuck in along the coasts or mangrove islands. Fort De Soto Park is a famous stopover site for Neotropical landbirds (birds that breed in the northern U.S. and Canada and migrate through Florida to Central or South America). Shell Key Preserve, located just north of Fort De Soto Park, is also a site for migrating and wintering shorebirds. The shorebird guest list is extensive and includes species such as warblers, short-billed dowitchers, sanderlings, ruddy turnstones, godwits, various terns, and the threatened piping plover.

Looking at the big picture, migration affects the distribution of prey and predators, aids in cycling and balancing nutrients, helps pollinate and spread seeds, and even influences the behavior of humans. Migrations are critical for healthy ecosystems and, ultimately, a healthy planet.

Sources: National Geographic, baysoundings.com. National Audubon Society, hillsboroughcounty.org, nationalzoo.si.edu, opticbird.com

Expand Your Mind!

Meet & Greet: Migratory Feathered Friends

RED KNOT

Calidris canutus

For red knots, Tampa Bay is merely a pitstop on their journey further south to Australia and southern South America. In the summer, these pudgy sandpipers have a brilliant rusty-orange to red neck, chest, and belly, which is where they get their name. To aid in foraging, their bills have specialized sensory organs, called Herbst corpuscles, to sense differences in pressure within the mud, which means there is a clam or other invertebrate nearby.

Sources: allaboutbirds.org; National Audubon Society; Image ©Peter Clark, Tampa Bay Watch

PAINTED BUNTING

Passerina ciris

There are two breeding populations of painted buntings in the U.S.: the "eastern" and "south-central" populations. The two populations have separate wintering grounds, though both like to be in high grass and thickets. The eastern breeders winter in Florida and the Caribbean, while the south-central population winter in Mexico and Central America. To defend their territory, males will sing songs, and if necessary, start physical fights with other males. Unfortunately, these buntings are often caught and sold illegally outside of the United States, which puts pressure on these populations.

Sources: National Audubon Society, FWC, allaboutbirds.org; Image ©Peter Clark, Tampa Bay Watch

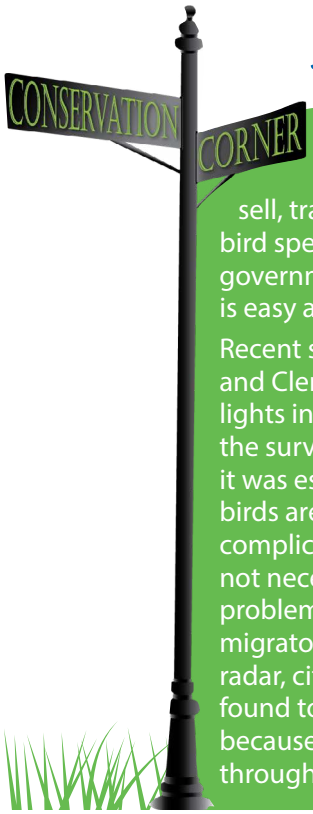
AMERICAN WHITE PELICAN

Pelecanus erythrorhynchos

These pelicans are one of the largest birds in North America, with a wingspan of up to 9-10 feet. In the winter, they favor coastal areas like the Tampa Bay estuary where they can easily forage in the shallow water and rest on sandbars.They forage almost exclusively by day in their wintering grounds, but during breeding season, they hunt nocturnally. When in search of food, they do not dive from the air like brown pelicans. Instead, groups work together to herd fish into the shallows for an easy meal.

Sources: allaboutbirds.org, National Audubon Society; Image ©Peter Clark, Tampa Bay Watch

Our education programs get kids into the bay!



Human Impacts on Migration

Under the Migratory Bird Treaty Act of 1918, it is prohibited to kill, capture, sell, trade, or transport protected migratory bird species without prior approval from the government. However, this doesn't mean that life is easy as a migratory bird.

Recent studies from institutions like the Cornell and Clemson ornithology labs show that bright lights in highly urbanized cities have an effect on the survival of migrating birds. In a 2014 study, it was estimated that as many as 988 million birds are killed every year in the U.S. due to complications with city lights. Interestingly, it's not necessarily the size of a city which causes the problem, but a city's location along important migratory routes. By using satellite imaging and radar, cities like Chicago, Houston, and Dallas were found to have a high rate of bird mortality simply because of the large number of birds that pass through those cities during migration.

City lights are so fatal because they distract birds from their journey, which causes them to become disoriented, and it often leads to deadly collisions with tall buildings and windows. The good news is that some cities have started to take action toward migratory bird conservation. New York City is implementing initiatives to turn out lights on taller buildings during the fall and spring migration seasons in efforts to reduce collisions. Additionally, various universities across the U.S. are working to provide migratory bird "forecasts," like BirdCast, to help cities better understand when birds will be passing through so that temporary measures can be put in place to give migrating birds a better chance of survival.

Sources: *U.S. Fish and Wildlife Service, wildlife.org, birdcast.info; Image source: Wikimedia Commons*

Fun Facts about Migrating Birds

- Arctic terns have the longest migration in the world, flying over 25,000 miles a year between the Arctic and Antarctic poles.
- American white pelicans must provide about 150 pounds of food to nourish a chick from birth until it's ready to forage on its own.
- The French name of the painted bunting, *nonpareil,* means "without equal," in reference to the bird's brightly-colored plumage.
- Bar-headed geese fly the highest of any migratory bird, regularly reaching altitudes five and a half miles above sea level when flying over the Himalayas.
- In the weeks leading up to migration, birds achieve what's called "hyperphagia" by bulking up on food to store fat, which they'll then use as energy on the long journey.

Sources: nationalgeographic.org, allaboutbirds.org

Did You Know...

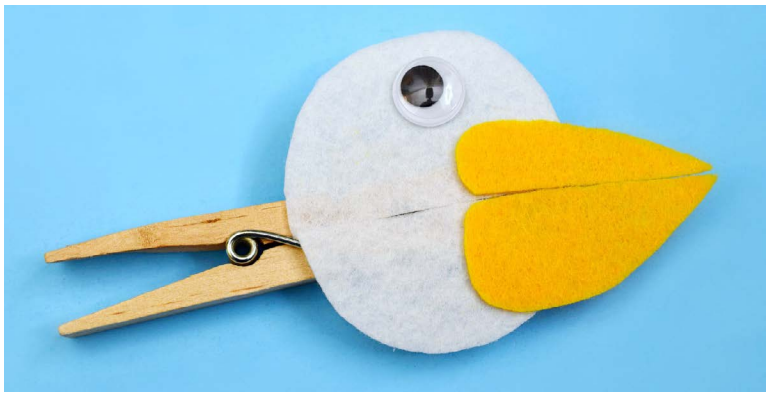
Some pigeons (as well as fish and humans) have been found to store magnetite—a magnetized rock—in their beaks (and noses) which help to sense magnetic fields.

Exactly how birds navigate during migration is still not fully understood. Scientists have determined that birds use a combination of several techniques including the sun, the stars, Earth's magnetic fields, and even key landmarks.

Source: Smithsonian Science Education Center, allaboutbirds.org, opticbird.com. Image source: Wikimedia Commons

Explore! Discover!

Fun Activities!



Clothespin Pelican Puppets

Materials:

- Clothespins
- Glue
- Scissors
- Googly eyes
- White construction paper or felt
- Yellow construction paper or felt

Instructions:

1. Cut an oval shape—roughly the size of an egg—out of the white construction paper. Cut the oval shape in half, into two equal pieces. This will be the head of the pelican.
2. Cut a smaller, teardrop shape from the yellow construction paper. Cut the teardrop shape in half lengthwise. This will be the pelican beak.
3. Glue the white ovals to the clothespin, straight edge along the pin.
4. Glue the two halves of the beak, the yellow shapes, to the white shapes. When pinching the clothespin, the "beak" will open up.
5. Add the googly eyes.

Variations: this fun and simple craft can be modified to make puppets of many different migrating birds! By using different colored paper/felt, or adding craft feathers, you can create a set of clothespin bird puppets!

Source: asthebunnyhops.com

Unique Beaks Foraging Game

Materials:

- Clothespins, tweezers, toothpicks, or other household items to resemble bird beaks
- Various candies or snacks (M&Ms, gummy worms, peanuts, chips, etc.) to mimic different types of bird diet
- Cups or bowls for collecting candies
- Stopwatch or other timing device

Instructions:

1. At a table, spread out the various candies and snacks to create a bird "foraging ground."
2. Distribute the different bird beaks (tweezers, clothespins, etc.) to each child.
3. Instruct participants that they will have 30 seconds to collect as much food as possible from the foraging ground.
4. After 30 seconds, discuss what strategies worked best/worst for collecting food. Which food items were the easiest to collect? Was there competition when food became scarce? Did certain beaks collect food more efficiently?

This is a great and easy game to discuss beak adaptations and the problems migrating birds face regarding food availability during migration.

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Restoring the Bay Every Day

Kids' Pages is a quarterly newsletter supplement to the *Bay Watch Log.*

Please get your kids involved and sign them up to be a member today! Email **membership@tampabaywatch.org** or visit tampabaywatch.org.

Cover masthead artwork drawn by Sarah Kelly, one of Tampa Bay's talented youth artists.

Estuary EDventures
Tampa Bay Watch
Education through Restoration