

Swainson's Warbler Geolocator Project April 2019 Update



Of the 3 male Swainson's Warblers tagged at Palmetto Island State Park last year, one of our warblers returned to Louisiana first! This particular male was captured and tagged with the geolocator on July 6, 2018 at the Park. A geolocator is a lightweight electronic archival tracking device, used in bird migration research to map migration routes, identify important staging areas, and sometimes provide additional ecological information. A geolocator periodically records ambient light level (solar irradiance) to determine location. We don't know how old he is, but we do know that he's made his migratory journey at least 1 time before.

Data indicates that he returned to the park on March 30, 2019 and was recaptured by Erik on April 6, 2019, exactly 9 months after his initial tagging capture. He wears a little band in order to be identified if captured again. He no longer wears the geolocator and it cannot be reused. The unit's battery dies sometime after 9 months and so about 1 year is its' maximum lifetime.

In total, 10 male Swainson's Warblers were tagged with geolocators in Louisiana. 3 at Palmetto Island, 6 at the Frenchtown Road Conservation Area near Baton Rouge and 1 at the Acadian Park Nature Station in Lafayette. 2 of the 3 birds tagged at Palmetto Island have returned and been recaptured. The 3rd bird is still MIA, but not considered a loss. 3 of the 6 from Frenchtown Road have returned.

Swainson's Warblers are rarer than the Prothonotary Warbler also found at Palmetto Island. "Rarer" meaning in relation to numbers and distribution. The thought is that these warblers are probably 'specialist' in terms of habitat. They are also found in the Atchafalaya Basin area.

Erik explained to me that these birds are not easy to catch. A special song is played, tricking the males into thinking that another male has invaded his territory. The females are rarely caught. They also don't take to nesting boxes like the Prothonotary Warblers do. They prefer the dense understories, more like oaks or other hardwoods and thick with vines like muscadines. While they prefer a dryer habitat than the Prothonotary Warblers (*cypress-tupelo swamp*), they still like it to be wet. Palmetto Island's bottomland hardwood forest habitat is probably ideal, because to date, it is the only place known in Vermilion Parish that supports this little warbler.

Not all the data has been analyzed. This is what Erik told me so far. Like the Prothonotary Warbler, Swainson's Warblers spend the summers in Louisiana to breed and raise their young. Looks like sometime in the Fall they begin to travel South from LA (across the Gulf of Mexico) to escape our cold wet winters. They usually begin a major migration at night. Erik suspects that they go to Central America or the Western Caribbean for the winter. He hopes to get more data from the geolocator as it continues to be analyzed. The Prothonotary Warblers goes to Colombia when it leaves LA.

This project is also in collaboration with Vitek Jirinic, PhD student in Phil Stouffer's lab at LSU.

Louisiana Bird Observatory (LABO) conducts bird banding open to the public almost every month at Palmetto Island State Park. The long term return rate data collected at these regular bird bandings has helped inform this geolocator project. LABO is part of the Baton Rouge Audubon Society (BRAS), who is a chapter of the National Audubon Society.

Erik sent a sincere thank you to Friends of Palmetto Island for supporting and participating in the Swainson's Warbler project by donating the funding to purchase a geolocator.



Erik Johnson – is the Director of Bird Conservation for Audubon LA (a state office of the National Audubon Society) He shared the information below via text and Facebook. April 9 at 6:36 PM ‘Swainson's Warbler geolocator update: This graph shows the light intensity measured by the geolocator over the course of a day. On this day, the bird was likely day-migrating over the Gulf of Mexico and then dropped into woods at 1:25pm CDT (= 18:25 UTC). Assuming it departed the previous night at sundown, it would have flown about 19 hours non-stop! This shows the day of it's return across the Gulf. They-axis is light intensity measured by the geolocator. The bird was airborne for the first half of the day and then dropped into the words around 2pm. Looks like it crossed the gulf on Oct 11 and returned on the afternoon of March 30’

