

Wood Stork Use of Roadway Corridor Features in South Florida

Services Provided: Wildlife Study

Client: FDOT District 4 /
Florida Atlantic University (FAU)

Location: Okeechobee County, FL

DESCRIPTION OF WORK:

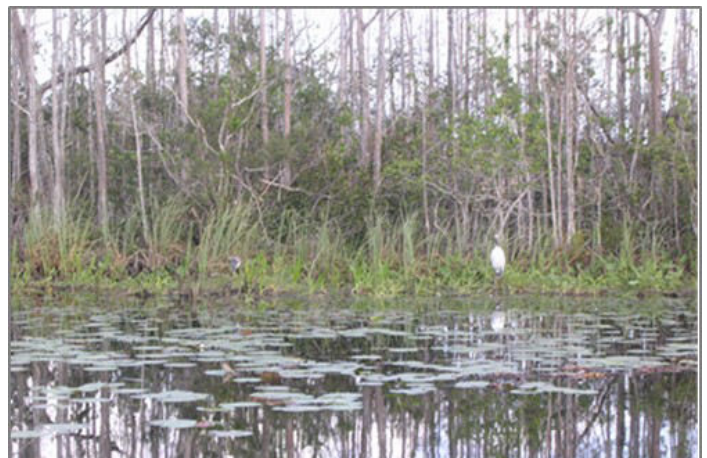
Wood stork nesting colonies are located throughout southern Florida and adult storks often feed (themselves and their nestlings) along road sides or stormwater ponds, suggesting roadway corridors can provide feeding habitat. Alternatively, their presence suggests there are at least some wood storks that do not require optimal foraging conditions. Some roadways seem to have more wood storks than others, which could indicate the surrounding landscape affects corridor use.

These questions are important to the Florida Department of Transportation (FDOT) because under Section 404 of the Clean Water Act, the FDOT is required to evaluate and mitigate for wetland habitat impacts due to roadway improvements. These improvements often affect natural wetlands or existing drainage features within the right of way or in adjacent lands that need to be acquired. In addition, additional wood stork foraging habitat mitigation is often required under Section 7 of the Endangered Species Act. Thus, an accurate estimate of prey items produced in roadway corridors and surrounding wetlands is critical when mitigation requires that "...habitat compensation replaces the foraging value matching the hydroperiod [length of time a wetland remains inundated] of the wetlands affected and provides foraging value similar to, or higher than, that of impacted wetlands" as specified in guidelines of section 404 of the Clean Water Act.

CECOS is assisting Florida Atlantic University (FAU) in a study over two water-years to investigate the characteristics of roadway features that affect their use by wood storks and to quantify the community structure

of wood stork prey produced. This information is needed so that the use of roadway features can be related to the production of wood stork prey items, either to enhance these features (create suitable foraging habitat) or to discourage their use (roadways near nesting colonies). Ultimately, a refinement of the fish biomass estimate in corridors with particular features and surrounding landscapes may be appropriate and these estimates could produce a different estimate of habitat impact and mitigation requirements. This could decrease project costs substantially.

CECOS is currently developing maps and is providing data layers of habitat and roadside corridor features. These initial maps are being ground-truthed. We will then characterize the morphology and related plant community structure of prey sampling sites. Finally, CECOS staff scientists will assist FAU in the refinement of the Suitable Wood Stork Biomass calculations used by the U.S. Fish and Wildlife Service for FDOT projects.



Wood stork using flooded roadway swale