Tracking Down the Swallows

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Every fall, millions of tree swallows arrive in Louisiana to begin their winter roosting period. The pint-sized creatures roost in the protective shelter of the sugarcane fields until they are forced to relocate at harvest time. What researcher Caz Taylor wants to know is, where do they go?



Flocks of tree swallows swoop near their roosting area in a Louisiana sugarcane field. (Photo by Dave McNamara, WVUE-TV)

A population ecologist and assistant professor in the Tulane <u>Department of Ecology</u> and Evolutionary Biology, Taylor and graduate student Andrew Laughlin began fieldwork on the migratory patterns of tree swallows this October, when the swallows first appeared in Louisiana. Specifically, they want to focus on the winter ecology of tree swallows, a topic that has often been overlooked in the bird breedingâ?"focused research world.

Taylor and Laughlin use different methods to track the swallows throughout the year. First, they collect feathers that the birds molt every year immediately after breeding, completing a chemical analysis to figure out where that bird spent the breeding season. Second, they will use geolocators, small devices attached to the swallow that periodically log data of the swallow's travels, providing the researcher with a travel record of the swallow upon its return to the breeding grounds. To monitor short distances during the winter roosting season, Taylor and Laughlin use radio transmitters to monitor the movement of individually radio-tagged birds.

Lastly, weather radar is used to give progressions every 10 minutes of movement of the massive roosts during the winter roosting season. Using the radar, Taylor says, "You can see which way the birds are generally headed."

Taylor emphasizes how every aspect of the research is still very new. For example, geolocators small enough to fit a tree swallow have only appeared in the last few years. Despite the fact that the study is still in its early stages, Taylor and Laughlin hope that their research will demystify the winter roosting cycle and annual movements of a tree swallow's life.

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