

Project title: Migratory decisions after crossing an ecological barrier: rebuilding muscles, habitat selection, and stopover duration of spring migrant songbirds

Author: Mariamar Gutierrez Ramirez, PhD candidate, Organismic and Evolutionary Biology

P.I.: Dr. Alexander Gerson

The annual migration of songbirds is an energy-demanding life history stage. During long migratory flights, birds use fat deposits for energy, but they also burn lean tissue resulting in significant reductions in muscle and organ masses which can impose physiological limitations that prolong their journeys. I aim to understand how weather impacts the lean mass and body condition of birds after crossing a significant ecological barrier, and how this consequently affects stopover duration and habitat use. I study wild migrating songbirds after they have crossed the Gulf of Mexico in the spring. I use novel techniques to accurately measure body composition and precisely track migrant songbirds, while also using traditional laboratory analysis to determine the physiological condition of individuals.