

Black Skimmers: Ongoing Investigations into the Decline of an Iconic Coastal Species

David Newstead and Lindsay Brown work for the Coastal Bend Bays & Estuaries Program based in Corpus Christi, Texas. Their bird program focuses on habitat management for colonial nesting waterbirds, and research and conservation of a wide range of migratory shorebirds. Recognizing the importance of full life-cycle stewardship, the program works with partners throughout the flyways that intersect in the Western Gulf.



Described by R.C. Murphy in 1936 as “unworldly...aerial beagles hot on the scent of aerial rabbits” – the Black Skimmer (*Rynchops niger*) is one of the most instantly recognized and uniquely adapted of all the world’s seabirds. It is an iconic coastal species in the Western Gulf of Mexico that can be found there year-round, but their abundance seems to decrease in the area in winter. This pattern suggests the species is a partial migrant – in which some proportion of its population is migratory while the rest are more or less sedentary. More so than some of their closely related tern relatives, the species is declining at an alarming rate in much of its Gulf and US Atlantic range, so understanding where these birds are going, and what threats they may be facing is crucial to figuring out what can be done to help them.



Pacific slope at the Isthmus of Tehuantepec in southern Mexico. The narrow “waist” between mountain

ranges there has been known to be a major highway for many raptors migrating to South America, and this study along with other recent tracking studies confirm it is also heavily trafficked by waterbirds and shorebirds. Another area of importance was the Golfo de Fonseca – encompassing coastlines of El Salvador, Honduras, and Nicaragua – where several birds spent most of the winter in a sprawling complex of aquaculture farms.

Skimmers seem to survive quite well once they reach maturity, suggesting they may be more limited by their reproductive output and the survival of young birds to

In spring 2017, with generous support from US Fish & Wildlife Service’s Region 2 Coastal Program and ConocoPhillips Global Signature Program, we began deploying satellite transmitters on skimmers to finally answer this question. We started by deploying 5g Argos PTT tags on adult birds with the objectives to determine important breeding and post-breeding sites, as well as observe which individuals migrated, and to where they migrate. We captured birds scattered across sites spanning the coast of Texas. After the initial nine tag deployments, five more were deployed at roosting sites following the breeding season.

The data showed that these birds vary considerably in their habits. In the month following the first deployments, some birds moved east along the coast into Louisiana while others moved south into northern Tamaulipas, Mexico, and the rest settled in to nesting sites on small islands in coastal bays of Texas. *Was this transience? Do these birds wander somewhat haphazardly across the coast in no specific direction until they find something they like?* Fortunately, many of the transmitters continue to transmit well into their second year of life so we are finding that – though the movements initially seemed unpredictable – at the individual level they are showing a lot of consistency in the timing of their movements and the locations they roost and go to nest. For example, in April 2018 most of the birds were at just about the very same spot 365 days before!

Perhaps more surprising was what the birds did in winter. Of course we already had a sense that a proportion of the population went elsewhere – likely south – during the winter months. The birds that wintered outside of Texas went much farther than we anticipated though, and all wintered on the Pacific coast between Acapulco, Mexico and Costa Rica. Southward migration was protracted, with major movements starting in August and continuing into November. This new data highlighted the importance of several sites. Most birds crossed from the Gulf to the



Photo by David Newstead

A recently fledged Black Skimmer waiting as the satellite tag is attached.

maturity (“recruitment”). Our program spends a lot of effort on managing nesting sites to provide these and other colonial nesting birds the best chance for reproductive success we can provide. Not knowing what they do for the first couple years of their life until they join the breeding population is a major knowledge gap – we need to know which phase(s) of their life history is most limiting in order to effectively address population declines. Following the 2018 breeding season we deployed six more transmitters to “hatch-year” birds to try to solve this mystery. Preliminary results show the young birds utilizing much the same habitats as adults, though they tend to wander inland to freshwater sources more frequently than adults. Already, several of these young birds have moved south to the Pacific coast. *Will they return next spring? Will they stay in Central America for a couple years (that’s what I’d do!). Or will they join breeding populations in those areas?* The Argos transmitters are giving us new insight into this fascinating species, and helping us forge new partnerships with people working on conservation in Latin America.

Photo by David Newstead