

FINAL PERFORMANCE REPORT
South Carolina Project T-32-T-1
South Carolina Department of Natural Resources
October 1, 2007 – September 30, 2008

Project: Restoring Seabird Nesting on Bird Key Stono Seabird Sanctuary

Objective: To restore seabird nesting on Bird Key Stono Seabird Sanctuary using social attraction.

Activity overview: 122 royal tern, 52 black skimmer, and 32 least tern decoys were ordered unpainted and shipped to Huntington State Park. The park's naturalist organized Horry county school children to paint the decoys. May 1 we placed the painted decoys on Bird Key. Primarily they were placed on the Folly Beach side of the island (NE side) where an extensive dune system has accreted but little vegetation has grown. Royal terns were placed approximately 30 cm apart at the top of a dune. Least terns were spaced approximately 1 meter apart, below the royal terns on a flat wide sandy area. To accommodate research goals of a collaborative project with Clemson University studying human disturbance to nesting seabirds, black skimmers were placed at 2 different sites away from other decoys. Black skimmer decoys were placed at sites where the Clemson student saw black skimmer nesting attempts the previous summer. One site was north of the tern decoys and the other site was south. Black skimmer decoys were placed approximately 2 meters apart in 2 separate flocks of 26 decoys each. The sound system was placed near the royal tern decoys. The sound system played black skimmer, least tern and royal tern calls constantly. We built wooden pedestals for the speakers so they would not get covered with the sand.

Five days after placing decoys on the island, approximately 40 black skimmers were roosting with and courting the decoys. Royal terns and least terns were observed roosting with their decoys. Seabirds were frequently seen with the decoys for the next 2 weeks. By the end of May, royal terns and least terns had mostly abandoned roosting with decoys but were seen roosting in the intertidal zone. Black skimmers also were absent near their decoys but were seen near the tern decoys and the sound system. Clemson graduate student checked for nesting effort once or twice a week and DNR personnel maintained equipment every other week. Clemson student observed great horned owl signs. She found decapitated black skimmers and even a black skimmer decoy that appeared to have been attacked by an owl. The decoy had claw marks and around the decoy were bird of prey prints in the sand. Photos of dead seabirds and prints were sent to a bird of prey expert and speculation of an owl was confirmed. A great horned owl feather was also found.

We speculate the great horned owl/s deterred seabirds from nesting on Bird Key in large numbers. Despite this deterrent, 37 black skimmer and 2 least tern nests were recorded. At the end of August we removed decoys and sound system from Bird Key for winter storage. The equipment bought with this grant is in good condition and can be used for many years and at different sites. We plan to investigate ways of capturing and

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relocating the owl and plan to deploy decoys and sound system spring of 2009. Because seabirds were initially attracted to the decoys and sound system in large numbers, we think that this project can be successful with additional work. Other similar projects have successfully decoyed large numbers of nesting birds, and removing owls on seabird colonies in the NE has helped increase reproductive success. If it is not feasible to relocate the owl, we will explore additional sites to deploy this system in 2009.

Significant deviations: None

Estimated Federal Cost (grant level): \$9,432.00

Recommendations: Close grant