

Comprehensive Shorebird Surveys on Front Beach

Habitat within Cape Romain NWR

FY 2011

PROJECT DESCRIPTION

Cape Romain NWR is in need of ongoing surveys for populations of 16 shorebird species at the Refuge which are in decline. Long term shorebird surveys are few in South Carolina and the data obtained from the surveys of Dodd and Spinks 1998, Clemson University graduate study 1999-2002, Phil Wilkinson 2001-2003, Doreen Cubie 2001-2004, and Mary Catherine Martin 2007-2010 within the Cape Romain NWR are the most comprehensive by far. These surveys are available on the South Atlantic Migratory Bird Initiative website and have been used by the S.C. Department of Natural Resources and the U.S. Fish and Wildlife Service for flyway population estimates. The surveys conducted to date have been invaluable in determining high use roosting areas and population trends in order to better manage for shorebirds and need to continue in order to help determine population trends within the Atlantic Flyway. Additionally, the surveys would help Refuge management determine areas that may need to be closed to minimize disturbance. Funding for this project would enable the continuation of the existing front beach/high tide roost surveys on the Cape Romain NWR through September 2012.

OBJECTIVES AND ALTERNATIVES

The management objective of the shorebird surveys at Cape Romain NWR is the production of essential data that would allow for the best management decisions for shorebird habitat as addressed in the Cape Romain NWR Comprehensive Conservation Plan. Specifically, the surveys would help refuge management determine high-use roosting areas and population trends within the Refuge. In addition, the surveys would help Refuge management determine areas that may need to be closed to minimize disturbance. The fundamental objective for this project is the collection of data which may reveal changes in shorebird populations at Cape Romain NWR and high-use areas within the Refuge. This data may also be beneficial in detecting larger flyway population fluctuations that need to be examined more closely.

The management alternatives to this project would include a.) Not conducting shorebird surveys whatsoever or b.) Conducting point counts from

watercraft. The complete omission of shorebird surveys at Cape Romain NWR would be detrimental to management capabilities, especially given that the refuge is internationally recognized as a very important location for migrating and resident shorebird species. Conducting point-surveys via watercraft would provide some useful information to refuge management and other entities, but clearly would be incomplete in coverage. Point-counts would not be as helpful in management decisions, such as determining which areas of beach habitat to close prior to the shorebird nesting season. Only comprehensive surveys can show how shorebirds and seabirds will react and adjust to sea level rise and loss of habitat.

METHODS AND PROTOCOLS

Protocol for these surveys follows the high tide roost survey methodology used by Marsh and Wilkerson in 1991 and Dodd and Spink in 1998. The designated survey sights (all Refuge islands – front beach habitat) will be surveyed during a three day window. The surveys will be carried out when tides are 5.6 or higher for greatest concentration of birds from the foraging areas. The survey times will be 2 hours before and after high tide. All birds will be counted by species and GPS coordinates recorded

DATA MANAGEMENT

All data is collected into an Excel spreadsheet. Monthly surveys are entered into the ISS (International Shorebird Survey) eBird site and to the SAMBI site.

DATA ANALYSIS / MODELS

The data is available for use by anyone. No analysis by Cape Romain NWR is expected. Current data collected on the surveys carried out from 2007 to present are being used in a graduate GIS project to analyze and map high use areas on the Refuge. This graduate project is being designed to allow for future data to be included.

ACCOMPLISHMENTS AND MANAGEMENT IMPLICATIONS

This shorebird survey is the only long-term survey of its type in South Carolina. In FY 2011 the survey

continued, monitoring the use of Cape Romain NWR by all species of shorebirds. The information provided by the survey will assist in steering management decisions at CRNWR in regards to shorebird habitat. The information will also be able to be used for other purposes such as species listing by the U.S. Fish and Wildlife Service or by other entities such as the South Carolina Department of Natural Resources. This project is ongoing through 2013.

PARTNERS

- South Carolina Department of Natural Resources
- Sewee Association

SOURCES OF SUPPORT

- Funding and personnel support from the Sewee Association
- Equipment and personnel support from U.S. Fish and Wildlife Service
- Personnel support from the South Carolina DNR

MORE INFORMATION

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