Critical Wildlife Area Update: Bird Island, Martin County

April 14, 2016

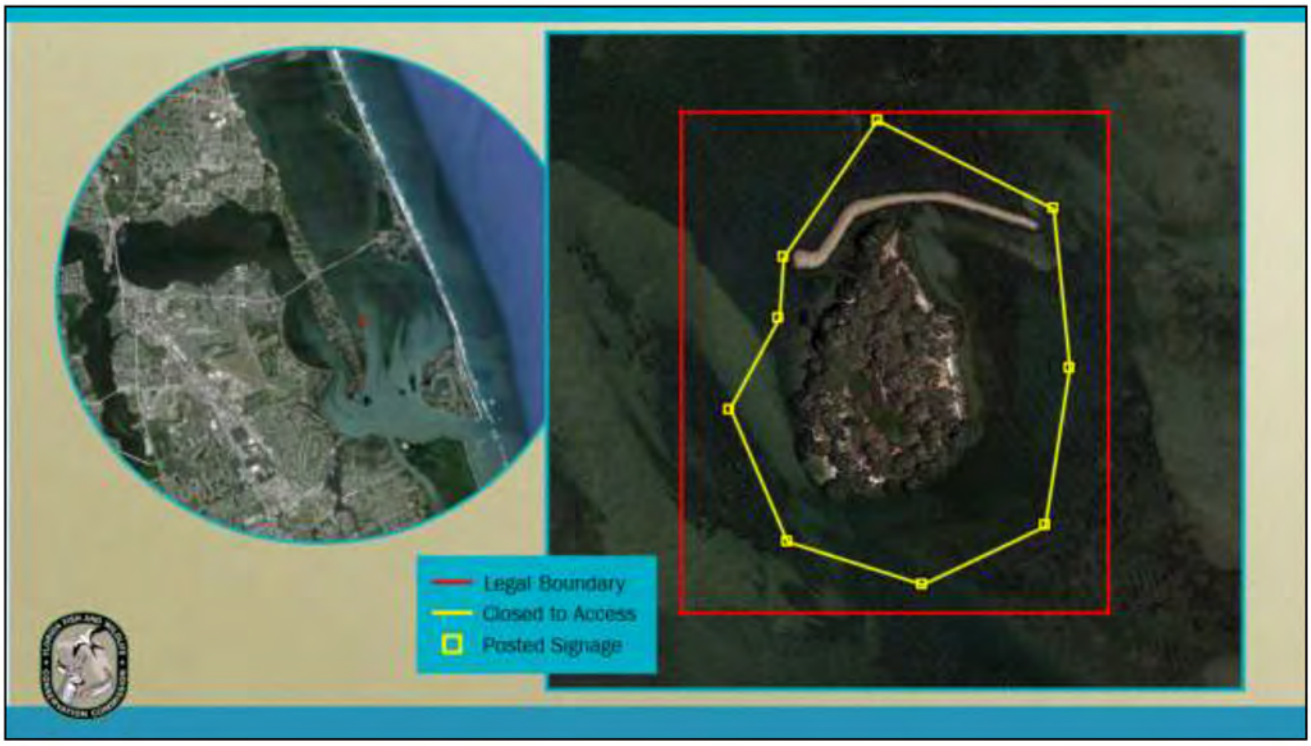
Florida Fish and Wildlife Conservation Commission

Division of Habitat and Species Conservation

Bird Island Critical Wildlife Area (CWA) was established in June 2014 with a year-round closure to protect nesting birds on a spoil island in Martin County, also known as MC2. This was the first CWA established in 20 years. This presentation will update you on the status of the CWA and inform you of its successes to date.

Author: Carol Rizkalla

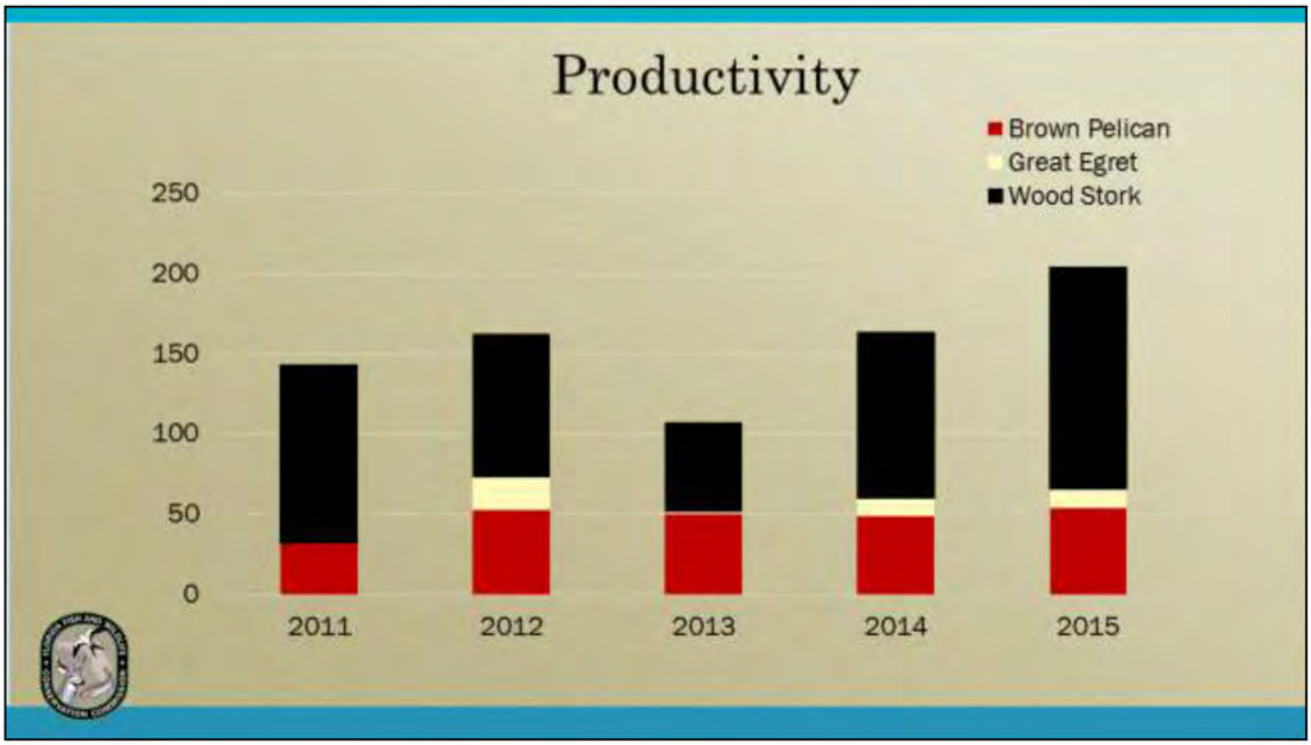
Report date: April 14, 2016



Bird Island is located within the Indian River Lagoon near the town of Sewall's Point. The CWA was established with large boundary (red line) surrounding the island. The yellow line indicates the area closed to public access. Yellow squares depict the location of posted signage. This in-water posted buffer protects birds nesting or foraging in the mangroves at the edge of the island from disturbance by boaters; on the west side of the island, the boundary accommodates commercial fisherman that use the area. The CWA is closed year round as nesting occurs throughout the year.

Installing signs in water requires a permit from FWC's Boating and Waterways Office. With the acquisition of necessary permits, signs were installed around the island in January 2015 in cooperation with Martin County. Bird numbers are lower at this time of year, so disturbance was kept to a minimum.

An invasive plant known as balsam apple previously blanketed the interior of the island, and aggressive management has occurred the past two years. In 2015, volunteers with FWC and Martin County removed the nonnative vine and also planted buttonwood trees and mangroves (to shade out the vine). Norway rats, a likely nest predator, are also removed from the island each year. Management is performed outside of the peak nesting season, when fewer birds are present on the island and are more tolerant of disturbance.



Bird island is an very important nesting site for a number of imperiled and protected species. The numbers of birds nesting and the productivity (numbers of young produced) varies from year to year because of many factors. Staff and partners will monitor nesting productivity to assess the long term benefits of the CWA and habitat management. While it is too early to detect a trend, the observed nest productivity appears to have increased in the last year. One of the primary factors that affects nest productivity is disturbance. When adults are disturbed, they fly from their nests, leaving eggs or young birds exposed to heat and predation.

This graph represents 5 years of the highest count of chicks and juveniles in any given month for brown pelicans, great egrets, and wood storks. The count in 2015 represents a 25% increase over the previous year. Notably, more than 130 young wood storks were observed in July. It appears the benefits of improved habitat and decreased disturbance led to more young successfully leaving the nest than in previous years.

In addition to the most abundant nesters, two American oystercatchers (a species of special concern) hatched on the island. Bird Island is the only known nesting site for oystercatchers in Martin County.

In 2012, one pair of roseate spoonbills (a species of special concern) nested for the first time in Martin County on Bird Island. For the past two years, two pairs have nested on the interior of the island and were only confirmed by seeing a flash of pink feathers sitting in the branches.

In addition to Bird Island CWA in Martin County, the Commission approved another CWA, called Second Chance, in Collier County in 2015. Staff will be working with partners to monitor that CWA. We are investigating possible modifications to a number of existing CWAs as well as exploring the potential for establishing new CWAs in areas where wildlife are at significant risk.

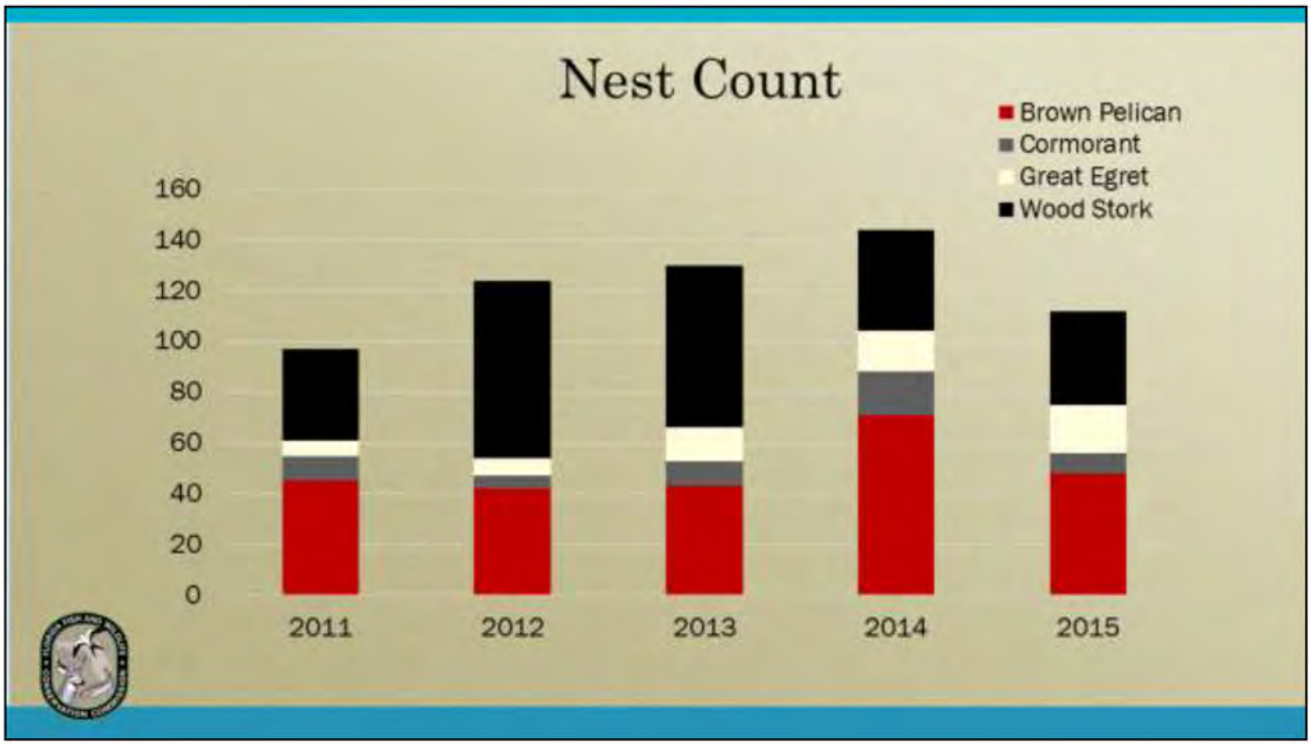
The following slides are considered back-up material and are not anticipated to be part of the actual presentation

Species Observed Nesting/Resting

Nesting	Resting
Brown pelican (SSC->UL)	Magnificent frigatebird
Wood stork (FT)	Reddish egret
Anhinga	Laughing gull
Double crested cormorant	Ring necked gull
Roseate spoonbill (SSC->T)	Spotted sandpiper
American oystercatcher (SSC->T)	Solitary sandpiper
Yellow-crowned night heron	Least tern (T)
Black-crowned night heron	Caspian tern
Great egret	Sandwich tern
Great blue heron	Forster's tern
Little blue heron (SSC->T)	Royal tern
Tri-colored heron (SSC->T)	Sanderling
Snowy egret (SSC->T)	Willet
White ibis (SSC->UL)	Belted kingfisher
Cattle egret	Fish crow
Green heron	Osprey
Black vulture	Turkey vulture

1st column are species which have nested on the island

2nd column are species which have rested on the island



This graph shows nest counts for the four most abundant species over the past 5 years during the month of April: brown pelican, double-crested cormorant, great egret, and wood stork. Nest counts are conducted by observers in a boat circling the island, and interior nests are not visible. Thus, the impact of vegetation management in the interior of the island is not yet known. Counts of wading birds across South Florida in 2015 indicated reduced nesting effort; the decline observed at Bird Island for 2015 is consistent with the declines seen across the state. Nevertheless, as previously shown, the nest productivity was actually 25% higher than the previous year.