

# News Release



## *Pacific Region*

## *Oregon Coast National Wildlife Refuge Complex*

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### **Study Examines Effects of Fireworks on Seabird Nesting**

Preliminary results of a U.S. Fish and Wildlife Service study show that a 2011 municipal fireworks display at Depoe Bay, Oregon, impacted a nearby seabird nesting colony while a municipal fireworks display in Bandon, Oregon, did not affect a nesting colony there.

The biggest difference between the two events and their impacts on federally protected seabirds was distance of the fireworks displays from nesting colonies. The Depoe Bay display was 0.62 miles from the Pirate Cove colony, while the Bandon display was 1.36 miles from the colony at Coquille Point. At the Pirate Cove colony, eight Brandt's cormorant nests were abandoned the day after the Independence Day fireworks display, held July 3, 2011, and another was abandoned the next day, totaling nearly 5 percent of the colony's nesting population. By the day after the display, one of 11 pelagic cormorant nests also had been abandoned. "Seabirds play an important role in the marine ecosystem and they are sensitive to human disturbance, especially during the nesting season," said Roy Lowe, project leader of the Oregon Coast National Wildlife Refuge Complex. "Because seabirds are protected by the Migratory Bird Treaty Act, the Service is charged with monitoring and protecting their populations. Any human action causing birds to abandon their nests could constitute a violation of the Act. When the colonies are on a national wildlife refuge, as they are in these two locations, they receive even further protection."

After receiving public complaints that the seabirds near Depoe Bay were being disturbed during fireworks displays, the Service undertook the study in 2011 to determine if municipal fireworks displays on the Oregon coast were impacting nesting seabirds by causing them to take flight and abandon their eggs and chicks. Service biologists examined responses of nesting seabirds to municipal firework displays at the Pirate Cove Rock and Coquille Point seabird colonies, which are both within the Oregon Islands National Wildlife Refuge and Oregon Islands Wilderness. For comparison purposes, two other colonies were studied as control sites where no fireworks occur within five miles. The biologists conducted nest monitoring and daily counts of seabird species, including Brandt's, double-crested and pelagic cormorants, western gulls, and black oystercatchers on days before, during, and after the fireworks displays at the study and control colonies. They also conducted aerial photographic surveys for each colony. In addition, staff used night vision camera equipment that recorded still-frame and video images to examine bird behavior prior to and during the fireworks display.

Preliminary results of the study documented that the fireworks displays resulted in alarm flights of nesting and loafing seabirds, and some nest abandonment at the Pirate Cove colony in Depoe Bay, but little to no disturbance at Coquille Point in Bandon. The Service's study will be scientifically peer-reviewed before being finalized but based on the preliminary finding, the agency is recommending that the Depoe Bay fireworks launch site be moved to a location further from Pirate Cove Rock to prevent future disturbance or nest abandonment. One such option is Fogarty Creek State Park. Because the Bandon fireworks display did not appear to result in disturbance or nest loss, the Service is recommending that the City of Bandon continue to launch fireworks in an easterly direction over the Port of Bandon. The decision to allow the Depoe Bay fireworks event to continue near Pirate Cove Rock will be made by the Oregon Parks and Recreation Department, which has permitting authority for fireworks displays on OPRD-managed properties.

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