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Patuxent Wildlife Research Center

Island restoration, sea level rise, and waterbirds in Chesapeake Bay

- ***The Challenge:*** For several decades, the US Army Corps of Engineers, along with numerous state and federal partners, have been creating and restoring islands with dredged materials from navigation channels in the Bay. Natural resources management goals have guided restoration plans for these islands since the mid 1990's. The USGS Patuxent Wildlife Research Center has been the only USGS science research presence on the large (1700 acres) Poplar Island restoration project; Patuxent has been monitoring wildlife populations effort since 2002. Six species of breeding waterbirds of "special concern" to the states and region have been studied as they have colonized the restored site. This island is now a key habitat for waterbirds because sea level rise and erosion have eliminated many potential nesting islands in the Bay.

- ***The Science:*** The role of the USGS is to (1) provide technical advice on habitat creation or modification to enhance conditions for migratory birds; (2) monitor breeding colony development by the key waterbird species (osprey, least and common terns, snowy and cattle egrets, American black duck) and (3) evaluate their nesting productivity over the years.

- ***The Future:*** All the species of special concern have colonized the site in relatively large numbers since 2002-2003. Nesting productivity has been average for ospreys and egrets. American black duck numbers are slowly increasing as wetlands habitats develop more fully. However, predation by red foxes and great horned owls have limited the nesting success of both least and common terns. In 2009, success was relatively good for both of these terns after removal of three adult owls from an adjacent island. The success of most waterbirds will depend upon maintaining predator management, requiring, close cooperation with the US Fish & Wildlife Service and the US Dept. of Agriculture (Wildlife Services).

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