Aquatic Invasive Species in the Chesapeake Bay

A MARYLAND SEA GRANT BRIEF

Mute Swans

What are Mute Swans?

Mute swans (*Cygnus olor*) were brought to North America from Europe in the 1800s to be displayed as decorative waterfowl in parks, zoos, and private estates. More than 500 mute swans were imported to the Chesapeake region between 1910 and 1912. Feral populations of mute swans became established in Maryland in 1962 when five birds escaped from an aviculture collection

along the Miles River in Talbot County. A feral population also became established in Virginia in the 1970s. Mute swan populations within the Chesapeake Bay watershed have significantly increased since then, with the largest and fastest growing populations found in Maryland. Mute swan numbers increased from 264 to 3,955 between 1986 and 1999 in Maryland. Populations also grew in Virginia and Pennsylvania over the same time period. Along the eastern and western shores of Maryland's tributaries, mute swans prefer to nest on the edges of tidal wetlands. They also nest on inland reservoirs, ponds, impoundments, canals, and dredge-spoil ponds.

Why Are They Harmful to the Chesapeake Bay?

Mute swans primarily feed on submerged aquatic vegetation (SAV), an activity that threatens the health of SAV beds that are a critical part of the Chesapeake Bay ecosystem. What is more, mute swans are non-



migratory, which allows them to feed on SAV throughout the year, damaging these plants during their summer growing season. In contrast, native tundra swans, which migrate to the Bay in winter, consume SAV for only part of the year, which limits the impact.

What Is Being Done to Control Mute Swans?

The Maryland Department of Natural Resources (DNR) has

taken a leading role in the management of mute swans. In 2001 a Mute Swan Task Force recommended that the state establish "Swan-Free Areas," in which mute swans would be removed or excluded from sensitive habitats. Management practices include addling eggs (which destroys them before they hatch) and relocating them. Lethal control is also applied when non-lethal methods are ineffective or impractical.

In 2002 the Chesapeake Bay Program (CBP), in partnership with Maryland Sea Grant, sponsored a workshop aimed at developing Baywide management strategies for problematic invasive species, including mute swans. The Chesapeake Bay Mute Swan Working Group, comprised of natural resource managers, jurisdictional representatives, and federal partners, was appointed in 2003 to develop a Baywide management plan. The goal of this plan is to reduce mute swan numbers within the Chesapeake Bay in order to limit their impacts on natural habitats. This plan complements management plans already developed by the Atlantic Flyway Council (AFC) and Maryland DNR.

What Is Their Status?

By 2009, all but 500 of nearly 4,000 mute swans had been eliminated from Maryland. That year, Maryland DNR formed an advisory group comprised of scientists, environmentalists, animal advocates, and state and federal agency representatives to revisit the Mute Swan Management Plan and determine if the reduction of mute swans should be continued. The decision of the panel was to continue control efforts, and as of 2012, the population in Maryland included fewer than 100 birds.

For More Information

Mute swans in Maryland (Maryland DNR) http://dnr.maryland.gov/wildlife/hunt_trap/ waterfowl/muteswans/index.asp

Mute swans (Chesapeake Bay Program Field Guide) http://www.chesapeakebay.net/fieldguide/critter/ mute_swan

Publication UM-SG-PI-2013-01 September 2013

This brief was written by Jenny Allen and Daniel Strain; it was published by Maryland Sea Grant.

Photograph credit: Paul Boxley, Wikimedia Commons

Maryland Sea Grant 4321 Hartwick Rd., Suite 300 College Park, MD 20740 301.405.7500 www.mdsg.umd.edu



Maryland Sea Grant is jointly funded by the state of Maryland and the National Oceanic and Atmospheric Administration.