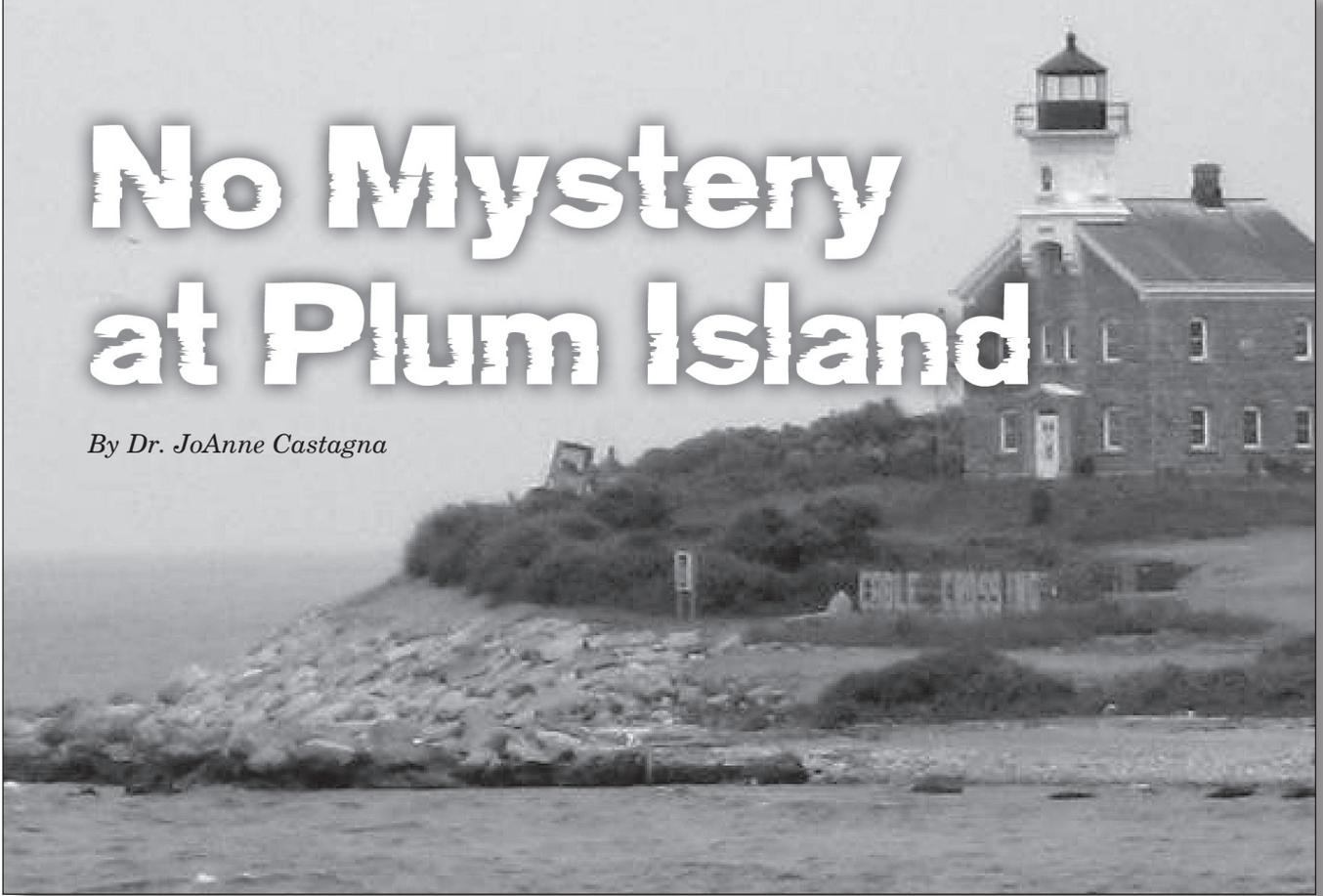


# No Mystery at Plum Island

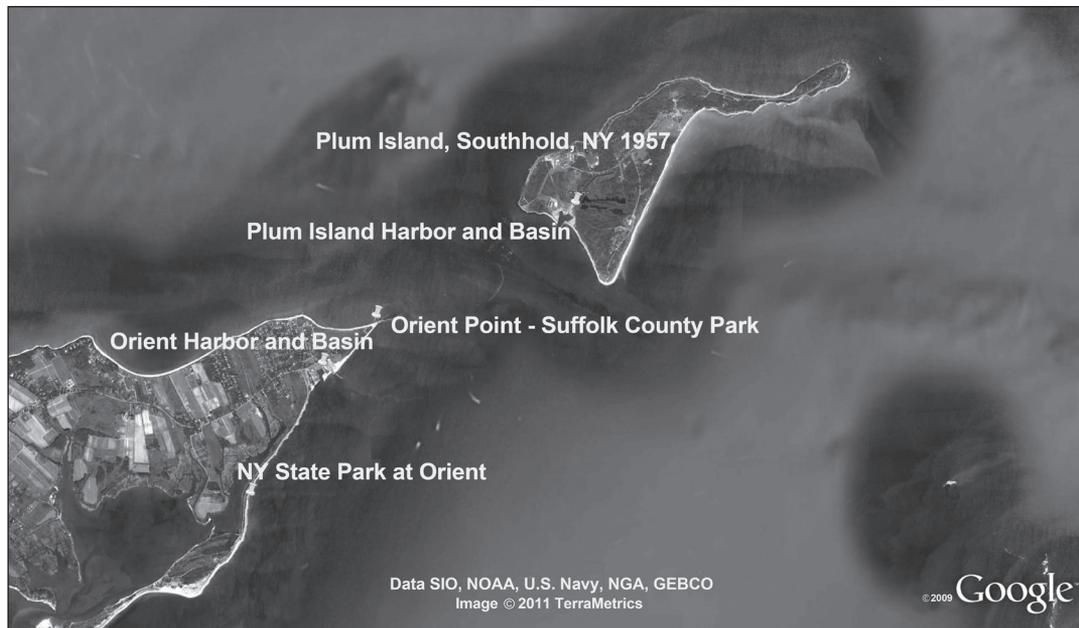
By Dr. JoAnne Castagna



As a child growing up on Long Island, New York, I shared with many other children a curiosity about what was occurring on the mysterious Plum Island, a restricted bit of land just off our northeastern shore. There were stories in the media and in books that the federal government was conducting animal experiments there. My vivid imagination envisioned bizarre operations being performed on animals, resulting in Frankenstein-like

creatures which would then roam the barren beaches of the island on additional arms and legs. Ironically, I was reading *Plum Island*,<sup>1</sup> a novel by Nelson DeMille, when I learned about the work that the U.S. Army Corps of Engineers (USACE), New York District, has been performing on the island for the past decade.

Plum Island has been the home of the Plum Island Animal Disease Center that's been in existence since the



Aerial view of project area

mid-20th century. The center has the important role of performing diagnosis, research, and education to protect America's livestock and food supply from animal diseases. The work by USACE supports important work on the island, preserves the island's rich history and environment, and improves area beaches.

In 2001, the U.S. Department of Agriculture (proprietors of the site at the time) asked USACE to restore the eroding bluff around the island's historic lighthouse. The Plum Island Light, built on a 3-acre plot on the western end of the island in 1869, is no longer operational. Engineers used 17,000 tons of stone to construct an 800-foot rock revetment erosion control structure to stop the erosion of the bluff. Leftover stone was used to rehabilitate two jetties at the entrance to Plum Island Basin. All of the stone for this work was beneficially reused material from the USACE Sag Harbor Breakwater rehabilitation project.

In 2007, officials from the U.S. Department of Homeland Security (current proprietors of the island) were so pleased with the Corps' work that they asked USACE to replace a bulkhead and perform needed sand dredging in Plum Island Harbor, a body of water around the island, and Orient Harbor, a body of water on the northeastern end of Long Island. The dredging supports the important work being performed on the site and improves area beaches. The ferries that carry workers to the island were hitting the bottom of Plum Island Harbor; so in 2008, USACE dredged approximately 17,430 cubic yards of sand from Plum Island



**Restored bulkhead on Plum Island**

Harbor. This year, an additional 9,925 cubic yards were dredged to create and reinforce a previously constructed dune on the island and to build a sand stockpile for emergency use if the dune erodes. Restoring the dune protects a freshwater wetland on the island that serves as a recharge area for the main well field that supplies the island with all of its fresh water.

The dune also acts as a barrier and prevents the ocean salt water from mixing with the wetland's freshwater ecosystem. In 2008, 46,000 square feet of the dune were graded and planted with beach grass. This year, an additional 13,250 square feet were graded and planted. In addition, fencing was placed on the dune to help prevent sand erosion.

USACE also dredged approximately 14,835 cubic yards of sand from Orient Harbor, using this sand to restore two Long Island beaches—Orient Beach State Park and Orient Point County Park. There are plans to dredge an additional 10,000 cubic yards. These beaches need the sand because they experienced serious beach erosion from storms. The sand is being used to stabilize utility poles that were weakened and blown inward and to protect roadways that suffered erosion. The sand will also build up beaches, providing additional recreational area for the public during summer beach seasons. 

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**Footnote:**

<sup>1</sup>Nelson DeMille, *Plum Island*, Grand Central Publishing, New York, New York, 1997.



**Sand dune seeded to protect island wetland**