

# Invasive Species

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“Give A Day For The Bay” workdays recruit citizens to help eradicate invasive plants on public lands all over the Tampa Bay region. Here, a volunteer carries an armload of air potato vines to the disposal pile. Air potatoes are one of the most pervasive invasive plants in the bay watershed.

Photo by Nanette Holland

## Assess the Extent of Existing Marine Bio-invasions in Tampa Bay

**IS-1****ACTION:**

Identify existing invasive species in Tampa Bay and expand current bay monitoring programs to facilitate early detection of new invasives.

**STATUS:**

New action.

**BACKGROUND:**

Research in marine bio-invasions in the United States has focused until recently on the Pacific Coast states and the Northeast. Very little research has been conducted on aquatic invasive species in the Gulf of Mexico, including Tampa Bay. In the first literature survey of Florida invasions, Carlton and Ruckelshaus (1997) found several non-indigenous species in Florida, mistakenly believed by researchers to be native.

This action supports research to identify the numbers, types and relative risks of invasive species found in Tampa Bay. The effort will provide a basic understanding of the types of invasives occurring in the bay, their relative ecological risks, and habitats most vulnerable to invasion. Results of the study can be used to expand existing bay monitoring programs – such as field seagrass monitoring, benthic sampling or fisheries assessments – so they may serve more effectively as an early warning system to track the arrival or spread of invasive species.

TBEP funded a literature and field survey by the University of Florida and the U.S. Geological Survey, completed in 2004 (Baker et al 2004). This work documented 55 known, suspected or likely marine invaders in the Tampa Bay ecosystem. This was the first baywide assessment of marine invasives in Tampa Bay, and serves as an important foundation to guide future education, research and prevention programs.

**STRATEGY:**

**STEP 1** Support research to facilitate a better understanding of the extent of existing bio-invasions in Tampa Bay.

**Responsible parties:** TBEP, U.S. Geological Survey, University of Florida, Florida Sea Grant

**Schedule:** Complete. Literature review and field survey conducted in 2003.

**STEP 2** Incorporate research findings into existing bay monitoring programs to track the movement of existing invasives and provide early warning of new invasives.

**Responsible parties:** TBEP, EPCHC, Pinellas County, Manatee County, FDEP, FWC

**Schedule:** Initiate in 2006

**IS-2**

**Implement a Public Education Program to Enlist Citizen Help in Preventing Marine Bio-invasions**

**ACTION:**

Develop a public awareness campaign highlighting the threats posed by invasive species, and actions residents can take to prevent accidental introductions of plants and animals.

**STATUS:**

New action.

**BACKGROUND:**

Accidental introductions of invasive plants and animals by a public unaware of the potential ecological impacts is a growing problem. Aquarium owners may release unwanted fish, frogs or skinks into local rivers and streams; boaters may take their boat from one waterway to another without cleaning off the hull and propeller; and immigrant communities may import and cultivate plants and animals from their homeland as foods. Recreational boaters are at least partly responsible for the epidemic spread of the zebra mussel throughout the Midwest and Northeast, and Asian immigrants may have imported and released mitten crabs – a traditional food – in the San Francisco Bay system. Homeowners may cultivate invasive plants in their own backyards that can spread unchecked into adjacent wildlands.

An informed public is critically important in preventing introductions of invasive plants and animals. To increase public awareness of the consequences of bio-invasions – and enlist citizen help in preventing new invasions — a campaign called “Eyes On The Bay” is being implemented by the Estuary Program. The campaign will utilize public service messages, videos, printed materials, the Internet, and other tools to provide information about invasive species already in the bay system, as well as those likely to flourish in Tampa Bay.

**STRATEGY:**

STEP 1 Convene an advisory committee to help develop the “Eyes On The Bay” program.

**Responsible parties:** TBEP with various partners including FWRI, Sea Grant, Tampa Port Authority, U.S. Coast Guard, USGS, Eckerd College, The Ocean Conservancy, The Florida Aquarium and Tampa BayWatch

**Schedule:** Complete. Committee was organized in 2002 and met several times to formulate education campaign.

- STEP 2 Support development of a comprehensive public exhibit on invasive species at The Florida Aquarium.
- Responsible parties:** TBEP, The Florida Aquarium and other “Eyes On The Bay” partners
- Schedule:** “Invaders” exhibit opened in 2002 and will remain at the Aquarium in some form for several years.
- STEP 3 Develop and distribute educational materials and tools.
- Responsible parties:** TBEP, with partners listed above and any other collaborators engaged in Invasive Species education.
- Schedule:** Initiated in 2003; continue to expand education programs in subsequent years. Products include an extensive section of the TBEP website devoted to invasive species information (“Eyes On The Bay”); a Divers Alert laminated card with photos and information about marine invaders and a phone number and website to report sightings; development of a middle-school level Teaching Guide to invasives; and a field guide and companion video showing homeowners how to identify and effectively eradicate invasive plants from their landscapes.