

Taxonomic Expertise for Aquatic Invasive Species Research in Honolulu Harbor as a Component of Collaborative Tropical Surveys

DLNR/ HISC Contract No. 54725

The extent of nonindigenous species (NIS) invasions in coastal marine ecosystems has become increasingly evident in recent years. The number of NIS has been increasing rapidly, primarily associated with transfers by shipping into ports and harbors. This project was originated by invitation from the Smithsonian Environmental Research Center (SERC) to compliment their proposal to the National Sea Grant Program, "Aquatic invasive species research: invasive species in key tropical U.S. ports—extending standardized surveys for islands and continents" for San Juan, Puerto Rico; Honolulu Harbor, Hawaii; Belize City, Belize; Panama City; and Indian River Lagoon. Bishop Museum biologists met with Smithsonian staff and arranged with Hawaii's DLNR-DAR to support the project, in attendance were the Aquatic Invasive Species Program Supervisor and the Coordinator. It was determined that a field vehicle, boat, and two field technicians would be included. Sites were established in Honolulu Harbor for the field deployment of the Smithsonian fouling panels and wooden blocks. Permission to use the designated sites was obtained from the State and private entities associated with these sites. The test panels were deployed in March 2006 at selected sites in Honolulu Harbor and were retrieved at the end of July 2006. Initial taxonomic determinations were made with the assistance of DAR personnel at the Anuenue facility. All specimens were packed and sent to the Smithsonian Environmental Research Center where they are still being identified. Specimens will be returned and deposited in the Bishop Museum upon completion of taxonomic identification.

In the meantime a list of all the reported introduced and cryptogenic species known from the Hawaiian Islands was compiled as a background document to compare with the actual specimens collected. This compilation is in two forms: a list with notation as to whether the species were introduced or cryptogenic and an excel database of the same information which can be rapidly searched.

(Prepared by L. G. Eldredge)