

DAR Ballast Water and Hull Fouling Project, FY08

DAR implemented recently adopted Hawaii Administrative Rules, Chapter 13-76, relating to Non-Indigenous Aquatic Species. The unintentional introduction of alien aquatic species within the ballast water of ocean-going vessels is an internationally recognized threat to native ecosystems. The goals of these rules are to minimize the introduction and spread of alien aquatic species through ship ballast water into waters surrounding the Hawaiian Islands. The rules include guidance relating to the exchange of vessel ballast water prior to entry into the State, record keeping, and reporting of such activities. Compliance is being verified by reviewing required ballast water reporting forms sent in 24 hours prior to a vessel's arrival. This information enables the State to better assess the potential risk that an incoming vessel might contain alien species in its ballast water holds. Rules have been successful in allowing us to work with the shipping industry on ballast water management and limit the amount of ballast water discharged here.

DAR has been working with the Alien Aquatic Organism Task Force (AAOTF) to develop a comprehensive plan for preventing the introduction and dispersal of alien aquatic organisms found on the hulls of vessels into state waters. The Task Force includes representatives from state and federal agencies, shipping industries, the scientific community and non-government organizations. The State is in the process of reviewing and conducting studies, as well as looking at how others are managing this vector to get a clearer understanding of how to address the hull fouling issues in Hawaii. Currently, the State is addressing hull fouling events that would be considered high risk in introducing alien aquatic organisms to Hawaii. This includes following up on unexpected arrivals of vessels and working with the Navy to have their decommissioned vessel cleaned of aquatic invasive species before calling port in Hawaii.



Inspection of a ship's hull.

Rigorous aquatic alien species inspections are required of all vessels entering the Papahānaumokuākea Marine National Monument. This helps maintain the biosecurity

of the largest conservation area in the Country and the largest protected marine area in the World. This includes underwater inspections of the hulls and sea chests, inspection of scientific gear and reviewing their ballast water management plans.

Adapting new technologies aid in monitoring of aquatic invasive species. The use of a remotely operated vehicles and underwater pole cameras has been utilized to conduct underwater inspections. They are used to overcome many security and almost all safety issues when conducting underwater inspections. The State now has the capacity to keep divers out of the water when there are issues relating to water quality and/or the physical dangers of diving under large vessels or in a harbor habitat.

To fill the gap of early detection of aquatic invasive species, a capacity for early detection in the field teams of DAR was established. This included training on identification and collecting techniques of marine invertebrates and algae, and the acquiring of resources for documentation, identification, and preservation of unknown species.



A remotely operated vehicle for carrying out hull inspections where safety or security issues affect a diver's ability to do inspections.