

**Title: Ballast water and hull fouling coordinator**

**Organization:** Aquatic Invasive Species Program (DLNR/DAR)

**Award:** \$21,481



Aquatic Invasive Species Program

**Introduction:** The goals of the Aquatic Invasive Species Program of the Division of Aquatic Resources are to prevent the introduction and spread of aquatic invasive species (AIS) in the waters of the Main Hawaiian Islands. The ballast water and hull fouling (BW/HF) coordinator is tasked with developing and implementing strategies relating to AIS risks associated with vessel ballast water and hull fouling, which are considered the strongest vectors for the introduction and spread of AIS.

The total funding need for the BW/HF coordinator for FY12 was \$34,106 (approximately 52% of entire FY funding need) because the position was vacant until December 2011. HISC funds provided 1/3 of the FY12 funding need. This report provides a progress update for tasks completed during Dec11-June12.

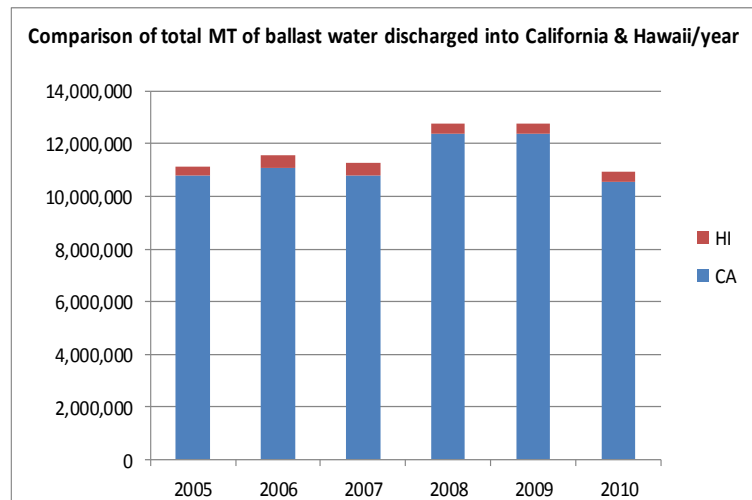
**Achievements in FY12**

**Deliverable 1:** *Processing ballast water reports 1-2 times per week and improve existing ballast water reporting database.*

Ballast water reports were processed regularly to ensure vessels complied with Hawaii's ballast water administrative rules. The majority of vessels were compliant and did not intend to discharge untreated ballast water. Exceptions included unmanned barges. Improving the reporting database was not achieved in this period.

**Deliverable 2:** *Develop draft hull fouling management guidelines, produce recommended guidelines and create relationships with shipping industry and harbor masters.*

Relationships were established with representatives from over 17 different stakeholder groups encompassing Hawaii State, federal and Pacific state governments, maritime shipping industries, recreational boat users and scientists. Information gathered from stakeholder correspondence was combined with an analysis of vessel arrival data downloaded from the National Ballastwater Information Clearinghouse (NBIC), and summarized in a draft report (in prep). This produced a preliminary view of the magnitude of the AIS risk posed to Hawaii by hull fouling, and potential partnerships for management. The analysis also identified gaps in the states understanding of hull husbandry activities in Hawaii and the movement of recreational craft. It was recommended that baseline hull husbandry data be collected for all vessels during 2013 to inform policy options for vessel hull fouling management (including possible regulations), and that the Alien Aquatic Organism Task force be re-engaged. These recommendations were supported by DLNR.



**Deliverable 3:** *Produce reports with yearly ballast water report statistics.*

Ballast water reporting data was obtained for the period 2004-2010 from the NBIC. Preliminary analysis indicates that Hawaii received 1000 vessel entries/year, the majority of which did not intend to

discharge untreated ballast water. It is proposed that this data, including subsequent reports, be collated and presented in a ballast water statistical report at the end of December 2012.

**Other achievement 1: *Strategic stakeholder engagement***

In early 2012, the coordinator attended the Pacific Ballast Water Working Group meeting in Seattle and presented Hawaii's goals for ballast water and hull fouling management. A strategic partnership emerged with Hawaii, Washington, Oregon, California and Alaskan states informally agreeing to work collaboratively on AIS policy development. A possible Memorandum of Agreement is under discussion. The coordinator has been invited to present at the California State Land's Commission 'Prevention First Conference' in October 2012, in the state AIS policy session.

DLNR also submitted comments on and support for biofouling regulations under development in the state of California and in Australia. Engagement with New Zealand also occurred, as their draft biofouling regulations continue to progress. California, Australia and New Zealand are the parties most advanced on vessel biofouling policy and in drafting biofouling regulations.

**Other achievement 2: *National Ballast Water Regulations***

DLNR contributed to the Hawaii Department of Health's 401 certification submission for the US Environmental Protection Agencies' (EPA) 'Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels'. DLNR is also keeping a watching brief on a bill introduced in June titled 'Vessel Incidental Discharge Act' that proposes to unify the U.S. Coast Guard and U.S. EPA regulations governing discharges incidental to the normal operation of a vessel in the navigable waters of the United States. Among other issues, this draft Act would restrict the states' ability to impose more stringent BW rules that would allow the protection of unique and threatened state resources.

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***Other Activities in FY12***

**Other activity 1:** Recently it became apparent that Japanese tsunami marine debris (JTMD) is a vector that can contribute to the introduction and spread of non-indigenous aquatic species which have the potential to become invasive. JTMD has begun arriving on the mainland US and to date a dock covered in AIS beached in Oregon. DAR is engaging in this issue due to the potential of JTMD arriving in Hawaii and has been invited to participate in an AIS JTMD subject matter expert group. This group will develop a regional protocol for AIS response activities relating to JTMD incidents.

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***Additional Information***

Funding for the ballast water and hull fouling program in FY13 has been secured jointly through HISC and Department of Fish and Wildlife Service. Continuation of the program through FY14 is not secured and may require full funding from HISC. The development and implementation of management options for vessel biofouling in Hawaii is forecast to be a long term (5 year) project.

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***Contact Information***

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Data analysis for vessels operating in Hawaiian ports

VESSEL TYPE	AVERAGE NUMBER OF ANNUAL ARRIVALS	AVERAGE NUMBER OF UNIQUE VESSELS	AVERAGE ENTRIES PER INDIVIDUAL VESSEL
Container	417	43	9
Passenger	237	25	9
Tanker	168	97	1
Other	98	34	2
Ro-ro	95	42	2
Bulker	39	35	1
General Cargo	25	22	1
Unknown	4	0.5	8
Reefer	1	1.5	1
Combo	0.1	0.1	1

Table 1: This table provides a comparison (by vessel type) of the average annual arrivals, unique vessels and entries/individual vessel for those vessels that entered Hawaiian ports and submitted ballast water reports during 2004-2010. Number of reports is used as a proxy for number of vessel arrivals.

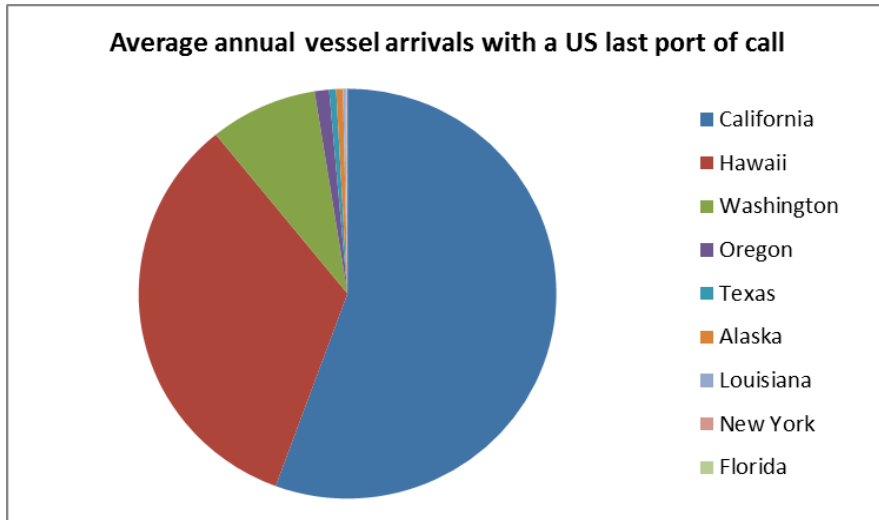


Figure 1: 68% of the average annual vessel arrivals into Hawaii during 2004-2010 came from a U.S. port. This figure shows the states from which Hawaii received vessel arrivals, and the volume.

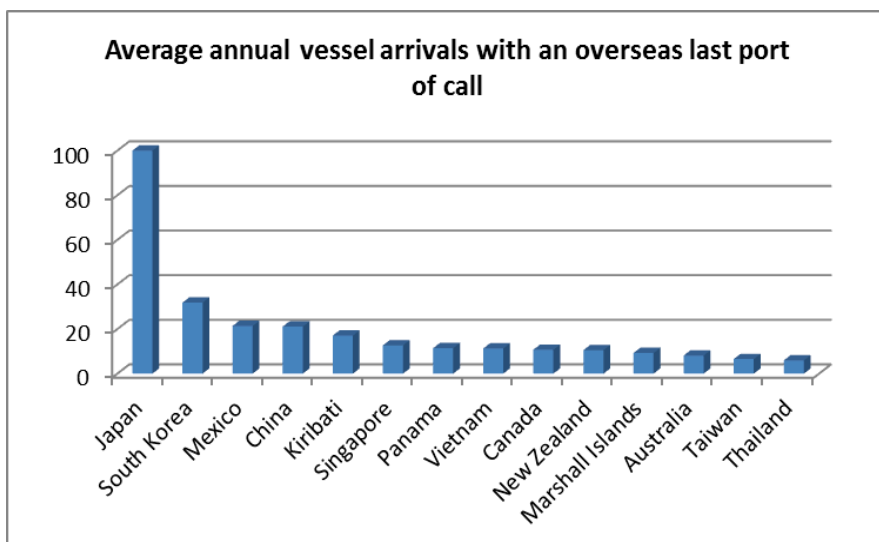


Figure 2: The remaining 32% of average annual vessel arrivals into Hawaii during 2004-2010 came from an overseas port. This chart shows the 15 last ports of call from which most vessels arrived, but during 2004-2010 Hawaii was connected to over 40 different countries.