HAWAII INVASIVE SPECIES COUNCIL FINAL REPORT FY23

Project Title: Ballast Water and Hull Fouling

Project Period: March 2022– March 2023

Content area: Prevention

Applicant: Natalie Dunn

DLNR, Division of Aquatic Resources

Abstract: The State of Hawaii has a unique biological heritage that has inherent, cultural, ecological, and economic value. The islands' geological history and biogeographic isolation provide a rich and distinct biodiversity that is threatened by introduced and invasive species. A report estimated that around 78% of the aquatic non-indigenous marine algae and invertebrate species arrived as hitchhikers in ballast water (BW) and as biofouling (BF). This proposal aims to minimize further introduction through coordinating policy development, outreach/education, biosecurity risk assessments, and monitoring efforts.

The funding from this proposal funded the Ballast Water and Biofouling Planner (Lizzy Monaghan, May 2021-May 2022) and Ballast Water and Biofouling Planning Associate (Sarah Tom, October 2022 – current) positions.

A list of accomplishments in reference to the HISC FY23 Ballast Water and Hull Fouling Project proposal is provided below:

1. A summary of meetings and list of ballast water and biofouling technical input

- Presented on VIDA to federal, state, regional, and partner agencies to raise awareness and gain support.
- Co-chaired/participated in the HISC Aquatic Biosecurity Working Group and led quarterly meetings to drive HISC/CGAPS Joint Strategy.
- Participated in 3 Stony Coral Tissue Loss Disease (SCTLD) Working Groups to address concerns with ballast water transport of SCTLD to the Pacific.
- Educated representatives from 18 different agencies across Hawaii on the potential for transmission of SCTLD to Hawaii corals at the Alien Aquatic Organism Task Force meeting.
- Participated in the 2022 and 2023 Pacific Ballast Water Group Meetings, including presenting on data collected on vessel arrivals and ballast water management.
- Collaborated with Pacific States in creating a dashboard for sharing ballast water related data (PacDash)

2. A status report on relevant policies (i.e. VIDA)

- USCG is re-engaging states in VIDA planning. State engagement meetings will be held to discuss topics related to the USCG enforcement of VIDA policies.
- A supplementary notice for VIDA will be released at the end of this year (2023). We expect to provide comments on this notice on behalf of the State.

- Companion bills HB755 and SB468 were introduced to the 2023 legislature to request the authority for DLNR to regulate discharges other than ballast water or hull fouling incidental to the operation of commercial vessels. The bills did not pass.
- DLNR began drafting language for an Emergency Rule adding additional regulations to vessels travelling from areas affected by SCTLD. The rule is anticipated to be brought before the legislature this year.

3. Summary statistics on ballast water risk assessments

- Risk assessments in 2022 highlighted areas where management may focus: Honolulu and Barber's Point Harbors with the most vessel arrivals (561 and 117) and ballast water discharge in the State; 4% of vessels discharge ballast water; 7% of vessels not in compliance with reporting requirements; and 3 high priority vessels.
- Improved ballast water risk assessment tool by separating regulatory exemptions from safety exemptions and lowering the risk number on vessels that have source water within Hawaii.
- Introduced the SCTLD transmission risk tool to the Ballast Water Reporting Form database to prioritize vessels that are of high risk of introducing SCTLD to Hawaii.

4. A status update of species risk assessments

- Completed an AS-ISK on *Crassostrea rhizophorae* and will be sharing it with partners for review.
- Continued to develop the pre-border database of species of concern.

5. A summary of any rapid response or other surveys conducted

- Received training on how to conduct hull inspections for vessels travelling to the Papahānaumokuākea Marine National Monument.
- Assisted with SNAPS surveys of Kāne'ohe Bay and the Waikiki MLCD.
- Began planning a recreational vessel harbor survey to analyze recreational vessel biofouling awareness, practices, and travel patterns.

6. A status report on ARMS project

- Worked with Bishop Museum and the Kauai DAR team to retrieve ARMS units in Nawiliwili Harbor. No units were located, and they were suspected to have moved in the high swell or currents.
- ARMS project is now considered completed in the field; however, new publications will continue to be released as the Bishop Museum works on analysis.

7. A list of completed outreach documents, materials, and presentations produced.

- Presented on current ballast water and biofouling projects and initiatives at the 2022 Hawaii Invasive Species Awareness Month.
- Presented at 2022 International Conference on Aquatic Invasive Species on "A Hawai'i Perspective on Aquatic Invasive Species Concerns Under the Vessel Incidental Discharge Act (VIDA)".
- Created "StoryMaps" as an interactive and engaging platform for people to learn about ballast water and biofouling on the team website.

- Designed a poster and presented it at the Kupu Environmental Fair to educate early-career managers on the Ballast Water and Biofouling Team.
- Implemented quarterly updates on the Ballast Water and Biofouling Team website to inform stakeholders of vessel statistics and team activities.

Final Report submitted by:

Elizabeth Monaghan, Aquatic Biologist IV Division of Aquatic Resources, DLNR 1151 Punchbowl Street #330 Honolulu, HI 96813

Phone: (708) 955-6459

Email: elizabeth.a.monaghan@hawaii.gov