

Citizen Science: Utilizing iNaturalist to Report Aquatic Invasive Species in the State of Hawai'i

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Aquatic Invasive Species Team







iNaturalist.org

Explore Learn Record

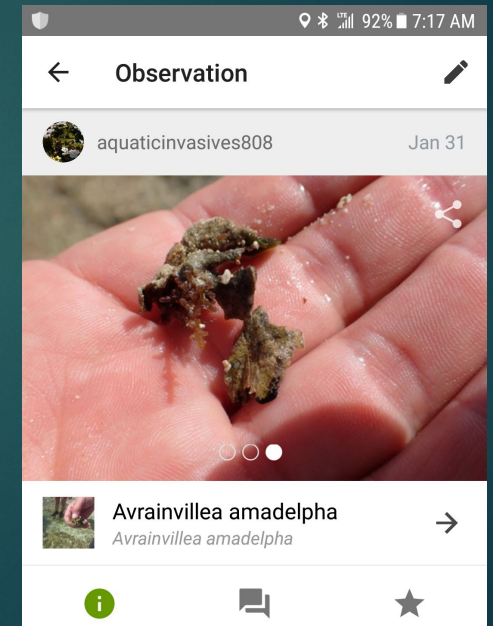
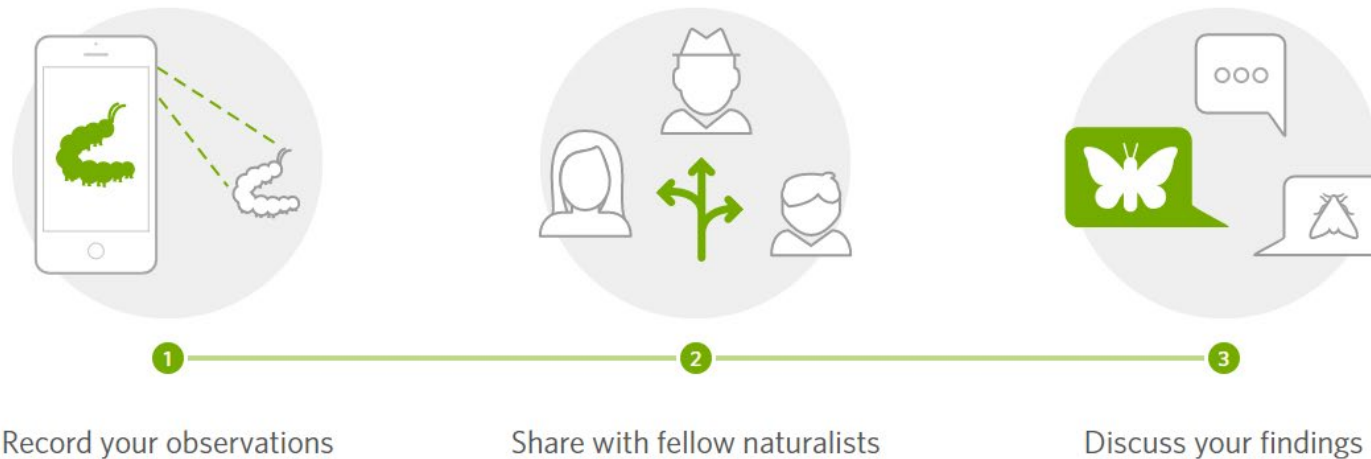
<https://www.inaturalist.org/>

iNaturalist

- ▶ iNaturalist is an online social network of people sharing biodiversity information to help each other learn about nature
- ▶ crowdsourced species identification system
- ▶ organism occurrence recording tool
- ▶ Free to join, Free app!

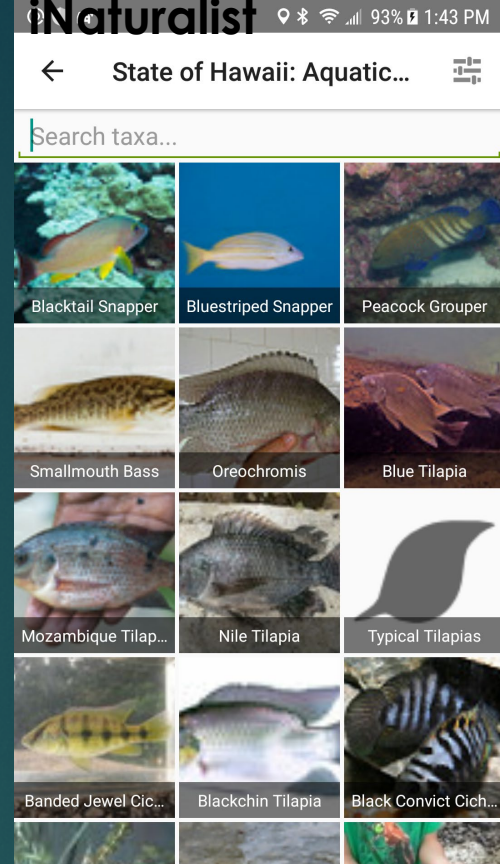
iNaturalist

How It Works



iNaturalist and AIS

- ▶ Join the State of Hawaii: Aquatic Invasive Species (SH: AIS) project
- ▶ Reference our Guide for introduced species
- ▶ Snap a photo and document- make sure to add observations to our project!
- ▶ Location and distribution data helps us directly to manage AIS



State of Hawaii: Aquatic Invasive Species Project

Stats

Totals

234

Observations »

36

Species »

65

People »

iNaturalist

Most Observed Species



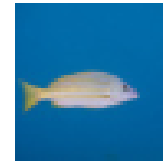
Peacock Grouper

41 observations



Blackchin Tilapia

25 observations



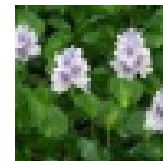
Bluestriped Snapper

21 observations



Blacktail Snapper

20 observations

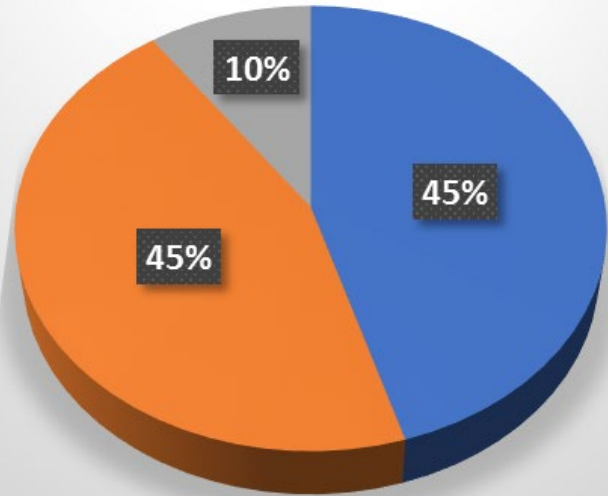


Common Water Hyacinth

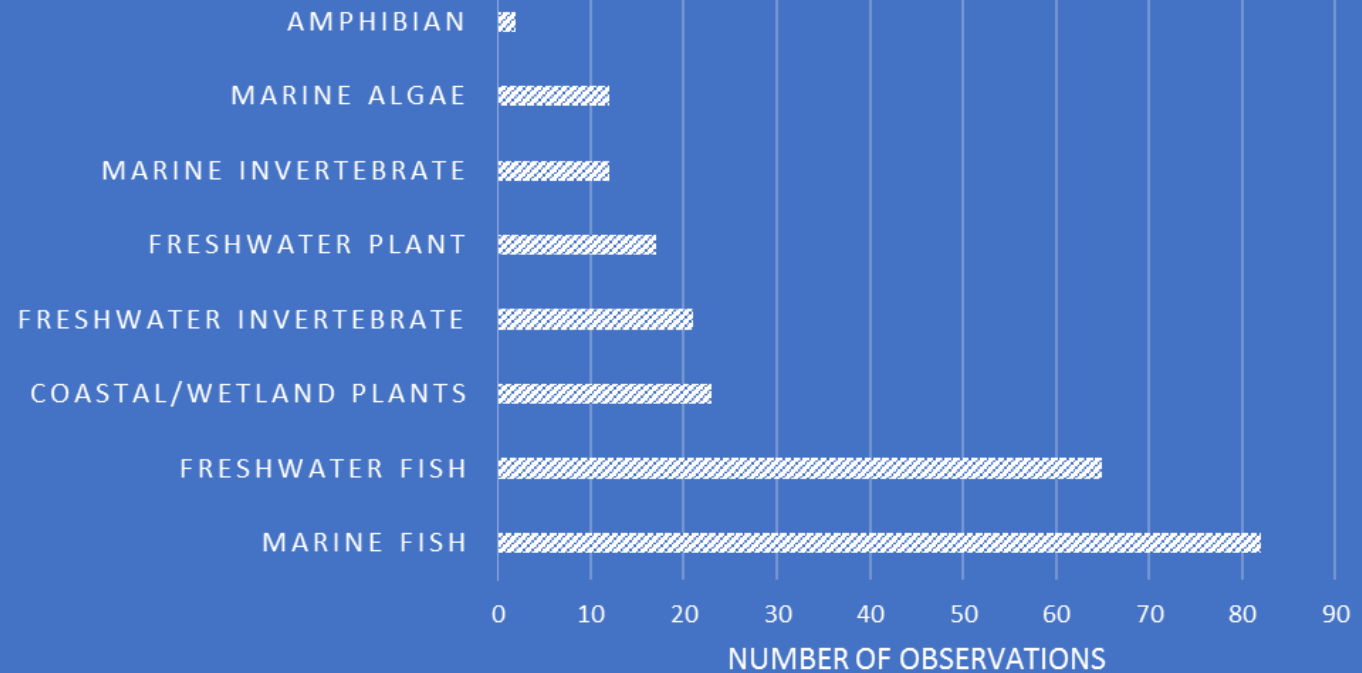
15 observations

iNaturalist

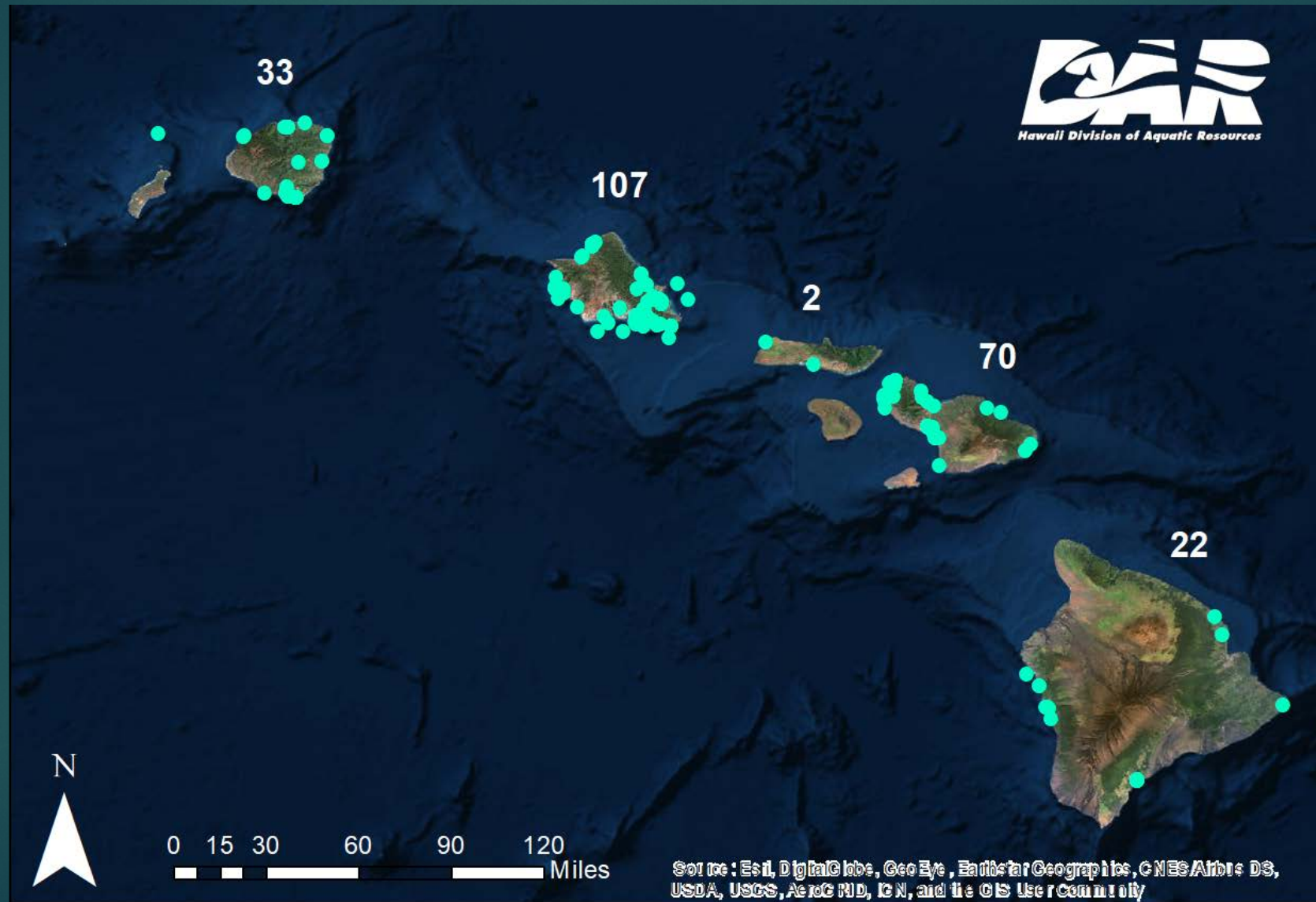
SH: AIS Project Observation Composition



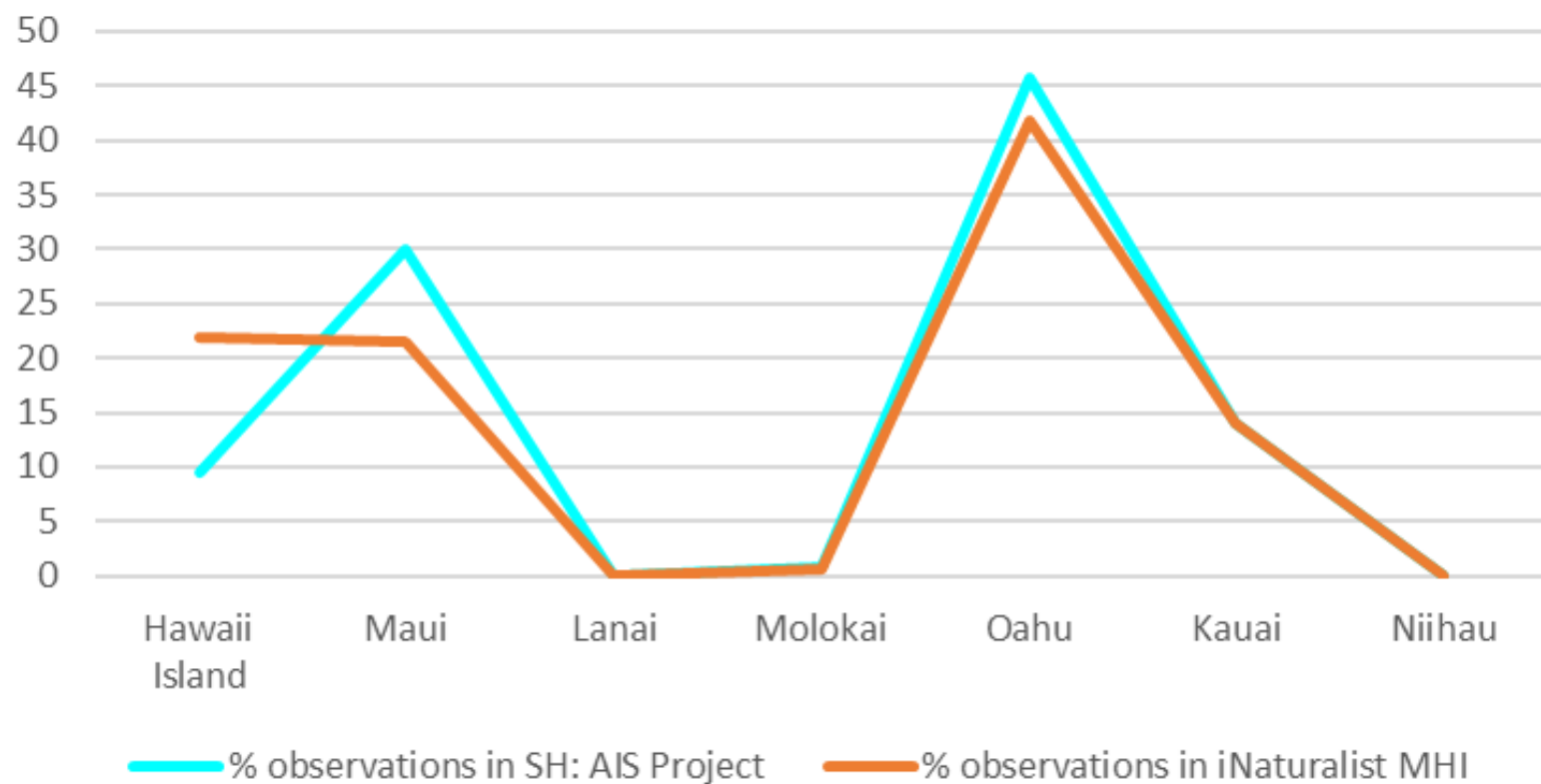
■ marine ■ freshwater ■ coastal/ wetland plants



Location of Observations included in SH:AIS Project

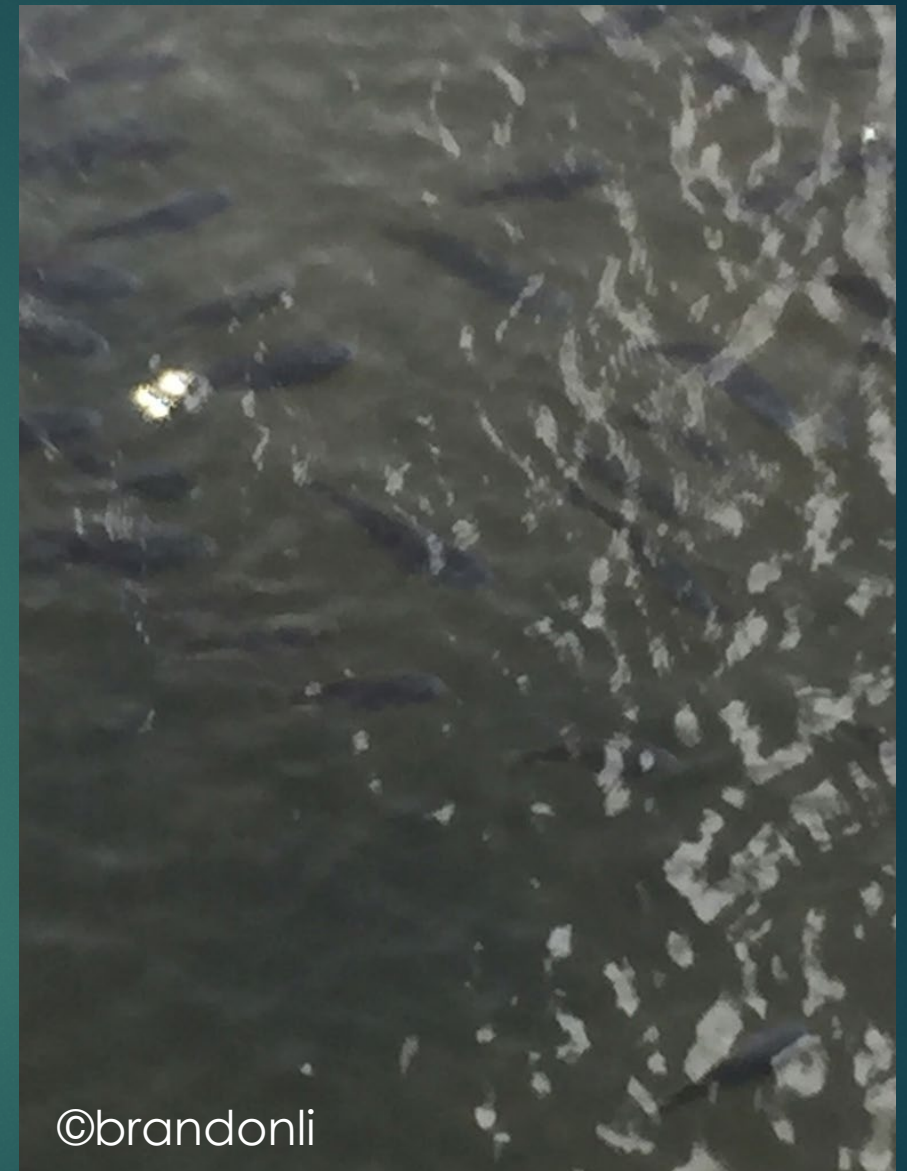


Percent of Observations by Island

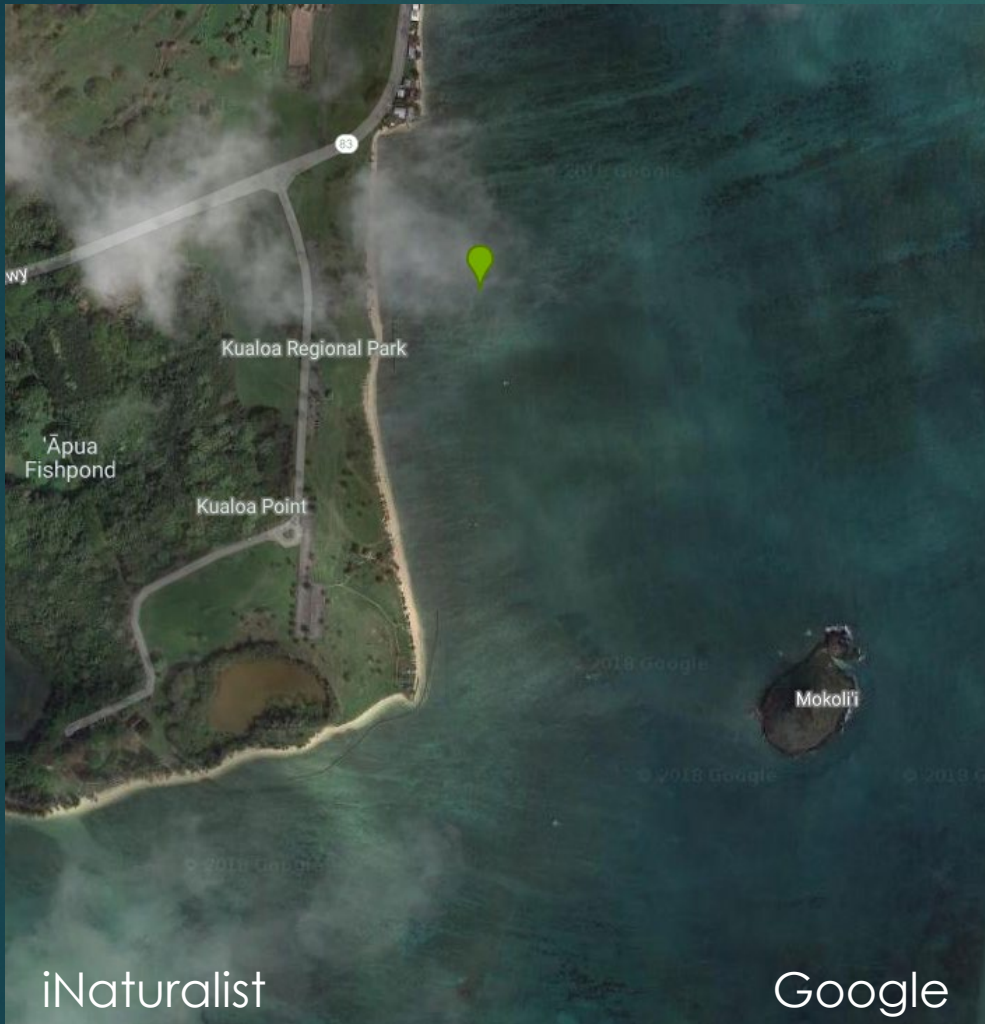


Limitations

- ▶ Presence Only Data
- ▶ Sometimes unable to verify species
 - ▶ Difficult to distinguish between similar species
 - ▶ Hard to get clear photos of species in water

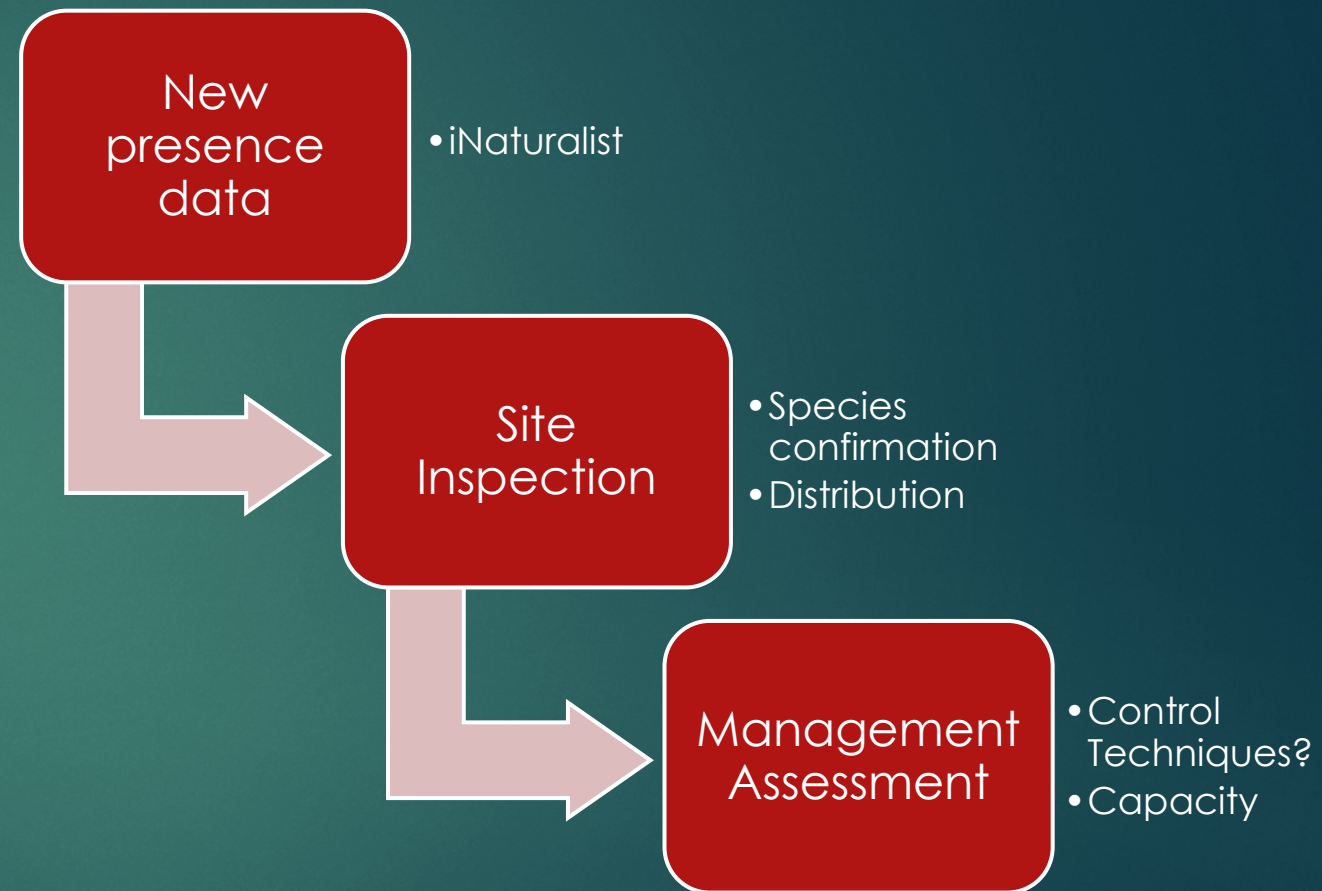
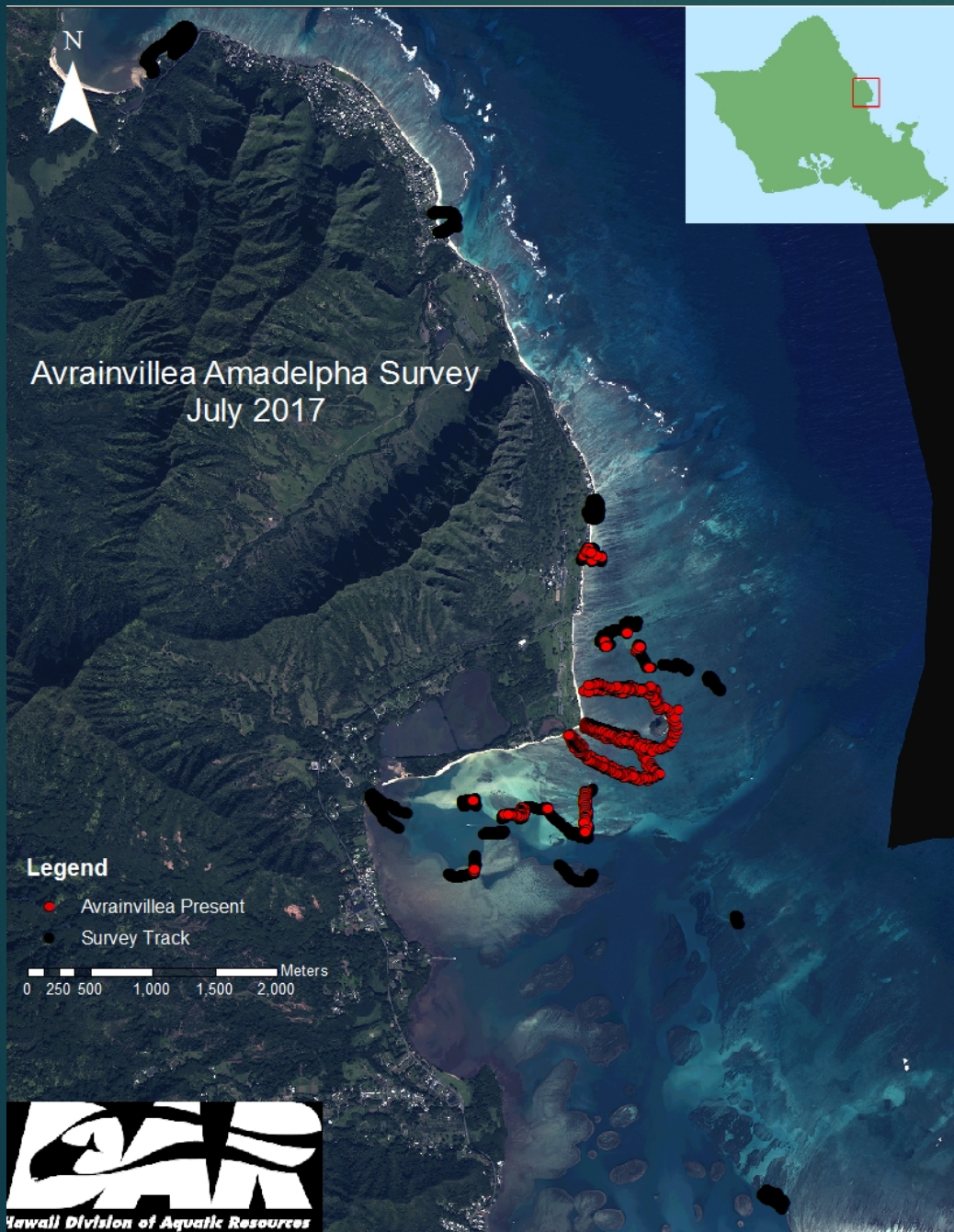


Avrainvillea sp.



© heather- iNaturalist

MarineGeo HIMB- May 2017
iNaturalist- December 2017



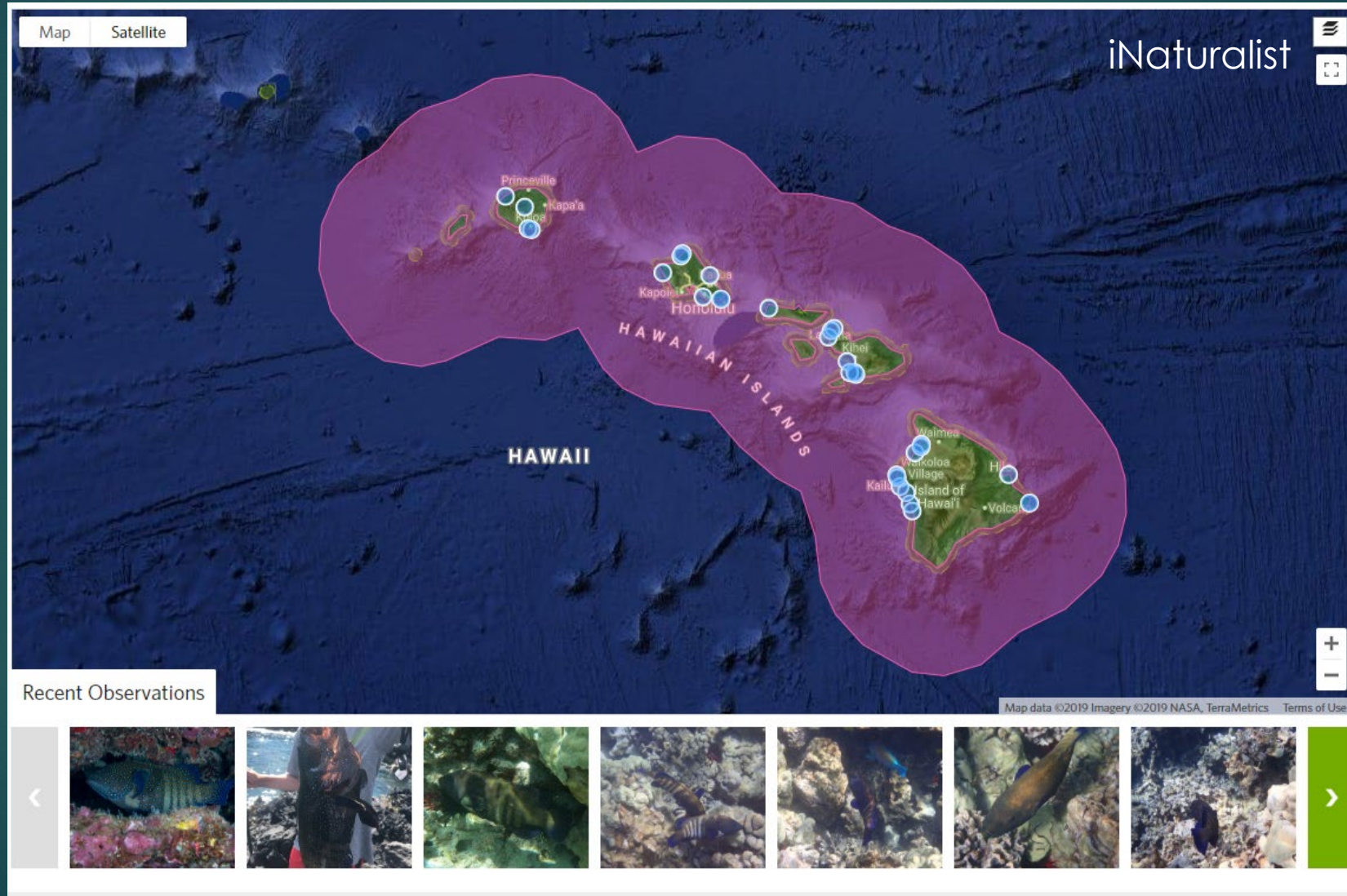
Rapid Response

- ▶ Eyes of the Reef
- ▶ dar.ais@hawaii.gov



DLNR/Division of Aquatic Resources
Aquatic Invasive Species

Free Data Storage



iNaturalist to GBIF

- ▶ iNaturalist shares the findings you report with scientific data repositories
- ▶ Global Biodiversity Information Facility (GBIF)
 - ▶ allows anyone, anywhere to access data about all forms of life on our planet Earth.

The screenshot displays the GBIF website interface. At the top, navigation links include 'Get data', 'Share', 'Tools', and 'Inside GBIF'. Below these, the text 'GBIF | Global Biodiversity Information Facility' is followed by the headline 'Free and open access to biodiversity data'. A green navigation bar contains links for 'OCCURRENCES', 'SPECIES', 'DATASETS', 'PUBLISHERS', and 'RESOURCES'. A search bar is positioned below this bar. Further down, there are links for 'WHAT IS GBIF?' and 'ABOUT GBIF UNITED STATES'. The main content area features a large image of a yellow flower with a blue center. Below the image, the species name 'Avrainvillea amadelpha (Montagne) A.Gepp & E.S.Gepp, 1908' is displayed, along with its basionym 'Udotea amadelpha Montagne, 1857'. A tab labeled 'OVERVIEW' is active, showing '84 OCCURRENCES' and '2 INTRASPECIES'. Below this, a section titled '5 OCCURRENCE RECORDS WITH IMAGES' displays five thumbnail images of the plant. At the bottom, a world map shows '42 GEOREFERENCED RECORDS' with yellow dots indicating the locations of the records. The GBIF logo is visible in the bottom right corner.

Mahalo,
Questions?

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