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Fishers Perspectives in Maunalua Bay

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Effects of invasive algae removal in Maunalua Bay

The Huki Project in Maunalua Bay is a large-scale coastal restoration initiative that seeks to clear invasive alien algae (IAA) from Maunalua Bay. This project is a response to the recent stable state shift from a native seagrass (*Halophila hawaiiana*) and limu dominated habitat to one overrun by invasive algae. They are generally considered harmful to Hawaiian nearshore ecosystems. However, they provide habitat for crustaceans, molluscs, and marine worms, all of which are prey for larger invertebrate species and predatory fishes. Fishes depend on a variety of environmental factors currently provided by invasive algae such as prey availability and shelter during larval stages. As primary users of the bay, local fishermen can readily observe changes in nearshore ecosystems and this knowledge has only recently been incorporated into scientific studies of Maunalua Bay. In order to understand changes in the bay, measurements of fish population diversity, abundance, and biomass were taken across the Paiko area, literature of regional seagrass and invertebrate communities were examined, and fishermen perspectives were surveyed. Compositional shifts in invertebrate assemblages correlated with mudweed removal have been observed, evidenced by distinct communities across habitat types. Fish biomass was very low, with average biomass at 0.57 g/m2 during daytime observations and 0.64 g/m2 during a single night observation. Fishermen identified ‘o‘io and papio as primary target species. Most fishermen (89%) thought that fish populations are decreasing. We recommend further research into the ecology of local marine flora and fauna, along with greater collaboration with the fishing community in Maunalua Bay.