

## Discovery of *Gracilaria salicornia* at Pala 'au, Molokai.

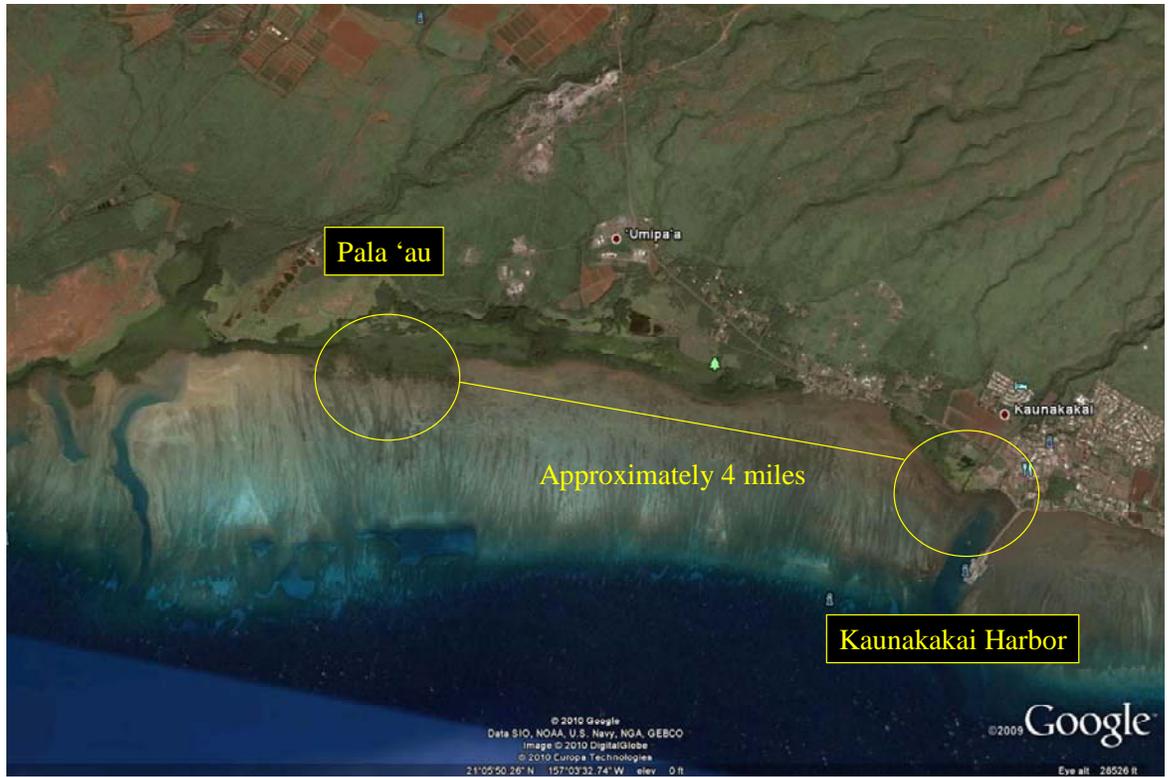
GPS: 21.09858 -157.08173



The Aquatic Invasive Species Team conducted a survey for *Gracilaria salicornia* along Molokai's southwestern coast line at a location named Pala 'au. The survey was conducted on April 16 during a negative tide. The distributional survey was conducted due to speculation of a population. Unfortunately *G. salicornia* and *Acanthophora spcifera* were identified during this survey. The AIS team observed a high level of biomass of *G. salicornia* within the root system of the *Rhizophora mangle*, Red Mangrove population. Surveys suggest that *G. salicornia* is found sparsely within the coral rubble areas of the reef flat and extremely dense biomass is found within mangrove populated areas.

The AIS team gave *G. salicornia*, the highest level of biomass ranking, a three within the dense mangrove forest. Observations suggest that this invasive algae and mangroves have some degree of symbiotic relationship. The unique root system of the mangrove provides *G. salicornia* with a substrate to attach and proliferate upon. This newly discovered *G. salicornia* population is approximately four miles away from the Kaunakakai Harbor. Surveys at one time suggested that the Harbors population was the western boundary of the species distribution. Currently this newly documented Pala 'au population of *G. salicornia* is the most western boundary population.

Further distributional surveys are needed to be conducted along the southwestern coast of Molokai. The AIS team fears that there may be similar undiscovered populations of *G. salicornia* in areas similar, surrounding or near Pala 'au. Field observations suggest that in areas where mangrove populations are dense and extend out towards the reef crest are the areas that *G. salicornia* become established in. These areas seem to function as traps that incubate spreading *G. salicornia* fragments into healthy populations. Areas that fit this description are the areas that have the greatest potential of having the presence of this alien algae species.



Circled areas represent *G. salicornia* populations.