Gracilaria salicornia

Red algae

Threat Scores

1. Ecological Impact
    - Competes with native reef algae species by forming dense mats and inhibiting growth; reproduces quickly in Hawai'i
    - Threatens reef corals and native benthic communities in Hawaii and elsewhere
    - Reduces marine species diversity and alters marine community structure
2. Invasive Potential
    - Spread over 5 kilometers from its point of introduction on O'ahu since it was introduced in 1978
    - Fragmentation or vegetative propagation is a common mode of reproduction and may be an important mechanism for algal propagation
    - Any sort of physical disturbance can generate fragments including wave action, fish grazing and human disturbance, and once these propagules are generated they most likely disperse through currents and other hydrodynamic events such as large swells
    - For G. salicornia the smallest (0.5 cm) fragments grow the most showing that pieces of tissue as small as 0.5 cm are viable as propagules (Smith Hunter and Smith 2002)
3. Geographic Extent
    - Locally pervasive
4. Management Difficulty
    - Manual removal to control, but fragments regenerate
    - Multidisciplinary approach required

Geography and Habitat

1. Native: Indo-Pacific, native to the Philippines
2. Introduced: Hawai'i
3. Habitats
    - Marine, coral reefs, intertidal zones, benthic
    - Submerged substrates

Invasion Pathways

1. Ballast water and sediments
2. Stocking in open water
3. Natural spread
4. Whole plants - intentional

Non-Native Locations

1. 152- Hawaiian Islands

Sources

1. Molnar, Jennifer et al. 2008. Assessing the global threat of invasive species to marine biodiversity. Frontiers in ecology and the environment. Vol. 6, No. 9, pp. 485-492.
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3. http://hawaii.edu/reefalgae/invasive_algae/rhodo/gracilaria_salicornia.htm
4. http://www.issg.org/database/species/ecology.asp?si=1026&fr=1&sts=
5. http://hbs.bishopmuseum.org/invasives/images/Gracilaria%20salicornia.jpg