



Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Water lettuce (456)

Relates to: **Weeds**



Photo 1. Irrigation canal choked with water lettuce, *Pistia stratiotes*.



Photo 2. Small colony of water lettuce, *Pistia stratiotes*.



Photo 3. Close-up of leaves of water lettuce, *Pistia stratiotes*, showing the rosette formation and the characteristic pattern of the veins.



Photo 4. Flower, water lettuce, *Pistia stratiotes*.



Photo 5. Close-up flower, water lettuce, *Pistia stratiotes*.



Photo 6. Single plant, water lettuce, *Pistia stratiotes*, showing the feathery roots.

Summary

- Widespread. Asia, Africa, North, South and Central America, Caribbean, Europe, Oceania. In many Pacific islands.
- Invasive free-floating freshwater weed. Major weed of lakes, dams, ponds, irrigation channels, and slow-moving waterways, forming mats that prevents water travel, destroys rice paddies, and kills native biodiversity.
- Plants, with grey-green leaves, single or connected by short stems, up to 60 cm long. Leaves, fan-shaped, 2.5-15 cm, 6-15 obvious veins, on short stalks, covered in soft white hairs trapping air bubbles for buoyancy. Flowers, clustered on small fleshy stalks. Fruit, many-seeded green berries, sink, later germinating in the shallows. Roots, numerous and feathery

- Spread: rapid vegetative reproduction; seed, by boats and fishing nets; use as aquatic ornamental.
- Biosecurity: high risk of introduction via aquarium trade; On Global Invasive Species Database of alien invasive species (IUCN, 2020). Noxious weed in South Africa and parts of USA. Available on internet.
- Biocontrol: weevil, *Neohydronomous affinis*, released in Africa, PNG, USA; moth, *Spodoptera pectinicornis*, reported in Thailand.
- Cultural control: check nutrient levels (important); floating booms; manual removal (rakes), leaving on shore to dry for 2 months; mechanical harvesting, chopping, returning as a spray.
- Chemical control: in Australia: glyphosate; 2,4-D; carfentrazone-ethyl. In Fiji, MCPA.

Common Name

Water lettuce; it is also known as Nile cabbage, or floating aroid.

Scientific Name

Pistia stratiotes. It is a member of the Araceae.

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Adapted from Water lettuce (*Pistia stratiotes*) (2018) Weeds of SE Qld and Northern NSW. Lucidcentral. (<https://www.lucidcentral.org/editors-pick-animal-and-plant-identification-keys/key-to-weeds-of-se-qld-and-northern-nsw/>); and additional information from CABI (2019) *Pistia stratiotes* (water lettuce). Invasive Species Compendium. (<https://www.cabi.org/isc/datasheet/41496#tosummaryOfInvasiveness>); and *Pistia stratiotes* L., Araceae (2013) Pacific Island Ecosystems at Risk (PIER). (http://www.hear.org/pier/species/pistia_stratiotes.htm); and from *Pistia* (2020) Wikipedia. (<https://en.wikipedia.org/wiki/Pistia>). Photo 1 USDA APHIS PPQ - Oxford, North Carolina, USDA APHIS PPQ, bugwood.org. Photo 2 Karen Brown, University of Florida, Bugwood.org. Photo 3 Troy Evans, Great Smoky Mountains National Park, Bugwood.org. Photo 4 Leslie J. Mehrhoff, University of Connecticut, Bugwood.org. Photo 5 Shaun Winterton, Aquarium and Pond Plants of the World, Edition 3, USDA APHIS PPQ, Bugwood.org. Photo 6 Graves Lovell, Alabama Department of Conservation and Natural Resources, Bugwood.org.

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