

# Parrot Feather

*Myriophyllum aquaticum*



Parrot Feather gets its name from bright green, feather-like leaves which are whorled around the stem. It forms thick mats that choke water bodies, impede recreation, and threaten the physical and chemical characteristics of Pennsylvania's lakes and streams.

## Species Description

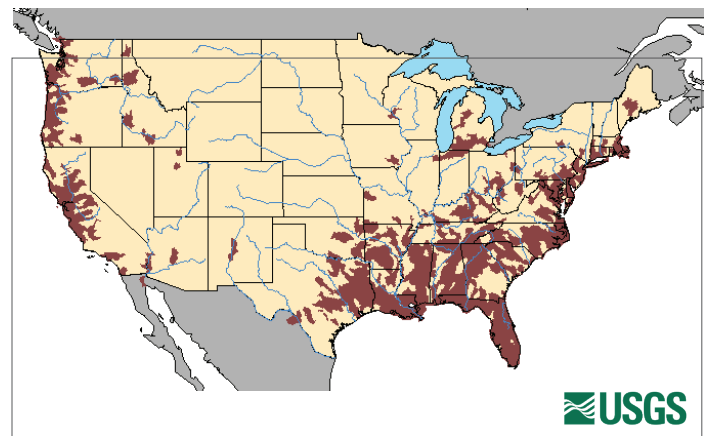
Parrot Feather has both submerged and emergent leaves that can extend up to 30 cm (12 in) above the water surface. Submerged leaves are feathery and reddish, while emergent leaves are bright green. Leaves are often arranged in whorls of four to six around each node of the stem. The emergent green stem, which often looks like a fir tree, is its most identifying characteristic. When emergent stems and leaves are not present, Parrot Feather may be confused with Bladderworts, Hornworts, and other leafy Milfoils.

## Native & Introduced Ranges

While its native range extends throughout most of South America, Parrot Feather was brought to the United States by the aquarium industry as a popular indoor and outdoor garden plant; possibly as early as the 1800s. After it escaped cultivation, most likely by release from an aquarium owner, it spread throughout the United States. In Pennsylvania, Parrot Feather has been found in north and south central and eastern counties.

## Biology & Spread

Parrot Feather has spread throughout the United States due to both human-mediated and natural processes. Human-mediated activities include intentional plantings



by water gardeners, as well as unintentional spread by boating and other recreational activities. Only female plants are known to occur in the United States, therefore new plants grow through root division and plant fragments instead of by seed.

Since Parrot Feather is able to reproduce by fragmentation, bits of plant material stuck on boat motors or equipment can transfer it to new locations where it will form into a new plant. Parrot feather can also be spread by flooding, fragments stuck on birds or animals, and natural dispersal from plant fragments floating downstream.

## Habitat

Parrot Feather prefers shallow, nutrient-rich, and slow-moving water. It is most common in shallow water as a rooted plant, but can also be found as a floating plant in the deep waters of nutrient-enriched lakes. Parrot Feather is adapted to waters with some salt and is able to colonize brackish coastal waterways.

## Impacts

### *Threat to Biodiversity*

While Parrot Feather may provide some cover for aquatic organisms, it has little food value for wildlife, and it severely alters characteristics of the aquatic environment. The dense stands fill the water column and shade out native plants and algae that serve as the basis of the aquatic food web. Large mats of Parrot Feather may trap sediments, causing sediment levels to increase and slow water flow. When these large mats die, their decomposition can create low oxygen conditions which may result in the death of fish and other aquatic organisms.

### *Economic Impact*

The large mats that form in the water column impede navigation and restrict recreational opportunities such as boating, fishing, and other water sports. The decreased recreational and aesthetic value can lead to decreases in surrounding lake property value. The sediment trapped by Parrot Feather can also block irrigation canals and impede water runoff, leading to flooding of adjacent lands.

### *Human Health*

Parrot Feather provides mosquito larva habitat, offering a refuge from predation that may increase mosquito numbers and promote the spread of mosquito-borne diseases such as West Nile Virus.

Photo courtesy of Kerry Dressler, Center for Aquatic Invasive Plants, University of Florida.



Photo courtesy of Alison Fox, University of Florida, Bugwood.org.

## Prevention & Control

Since Parrot Feather reproduces through plant fragments, physical removal and cutting will only increase its spread. The thick, waxy cuticles of the leaves and stems may also prevent the penetration of chemical treatments. Preventing the introduction and spread of Parrot Feather is the best way to protect natural habitats from harm.

- Know how to identify and report Parrot Feather.
- Always check for and remove plants, mud, and debris from boats, trailers, clothing, and equipment before entering a water body and before leaving a water body.
- Drain all water from bait buckets, bilges, and live wells before transporting to new areas.
- Clean all gear and equipment with hot water (140°F or 40° C) or salt water, OR let boats and equipment dry thoroughly for at least five days before entering a new water body.
- When choosing plants for a pond or water garden, purchase from a licensed nursery and choose regionally native or non-invasive plants. Check with your state natural resource agency to confirm which plants to avoid for your region.

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### *References:*

Maine center for Invasive Aquatic Plants & the Maine Volunteer Lake Monitoring Program. 2007. Maine Field Guide to Invasive Aquatic Plants and their common native look alike. Wiedemer, S. & Chan, S. 2008. On the Lookout for Aquatic Invaders: Identification guide for the Pacific Global invasive species database. 2009. Parrotfeather (*Myriophyllum aquaticum*).

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