

Parrots Feather

(*Myriophyllum aquaticum*)



Family name: Haloragaceae (Watermilfoil family)
Common name/s: Parrots Feather, Brazilian Watermilfoil, Parrot Feather Watermilfoil



Parrot's Feather (*Myriophyllum aquaticum*) is an invasive aquatic plant known for its feathery foliage and ability to form dense mats in freshwater habitats. In Ireland, it is considered a high-risk invasive species, with regulations prohibiting its introduction and spread.

The plant primarily spreads through stem fragmentation, making management challenging. Control measures include mechanical removal, herbicide application, and preventative actions to limit its spread. If left unmanaged,

Parrot's Feather can significantly impact local biodiversity, water quality, and aquatic habitat dynamics.

Description - Parrot's Feather is a perennial aquatic plant noted for its feathery, bright green foliage and ability to grow both submerged and emergent in water bodies. It was introduced in Ireland as an ornamental plant for ponds and aquariums. However, it has become invasive in many regions, forming dense mats that can alter aquatic ecosystems and obstruct water flow.

The plant's rapid growth make it a problematic species in many temperate and subtropical regions.

Key characteristics include:



Size: Can grow up to 30 cm above the water surface when emergent, with submerged growth extending up to 2 metres long.

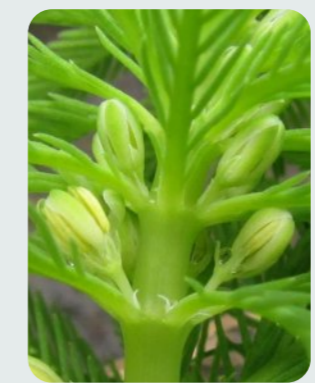
Leaves: The leaves are feathery and bright green, arranged in whorls of 4-6 leaves around the stem.

Submerged leaves are more finely divided, while emergent leaves are stiffer and more robust, measuring 2-5 cm in length.



Flowers: Produces small, white flowers that appear in the leaf axils on emergent stems. Flowering is infrequent and not a primary feature of the plant.

Fruit: A small, dry schizocarp that splits into four nutlets. Typically 1.5–2 mm in length when mature. The nutlets contain tiny seeds, which contribute to its propagation in aquatic environments



Stem: The stems are thick, brittle, and can be up to 5 mm in diameter, allowing the plant to form dense mats on the water surface.

Root: Has a fibrous root system that can anchor it to the substrate, but the plant can also float and root in shallow water.



Habitat - Parrot's Feather is native to South America, particularly in Brazil, Argentina, and Paraguay. In its introduced range, it thrives in a variety of aquatic habitats:



• **Lakes, Ponds, and Canals:** Commonly found in still or slow-moving freshwater, where it can form dense mats that cover the water surface.



• **Rivers and Streams:** Can establish in slow-moving sections of rivers and streams, although it is less common in fast-flowing waters.



• **Wetlands and Ditches:** Frequently grows in marshes, ditches, and drainage channels, where nutrient levels may be high and water levels fluctuate.

The plant prefers nutrient-rich waters with temperatures ranging from 10°C to 25°C, but it can tolerate a wide range of conditions. It grows best in full sun but can also survive in partial shade.

Status in Ireland - In Ireland, Parrot's Feather is considered a high-risk invasive species. It is prohibited under the European Communities (Birds and Natural Habitats) Regulations 2011, making it illegal to introduce, plant, or cause the spread of the plant.

The species poses a significant threat to native aquatic ecosystems, where it can outcompete native species and impede water flow.

Reproduction and Spread - Parrot's Feather spreads primarily through vegetative propagation, as it does not typically produce viable seeds in most regions:

• **Fragmentation:** The main method of spread is through stem fragmentation, with even small fragments capable of forming new colonies.

This allows the plant to spread rapidly, especially through human activities such as boating or fishing gear.

• **Vegetative Growth:** The plant can propagate through runners (stolons), which extend from the parent plant and root at the nodes, forming new plants.

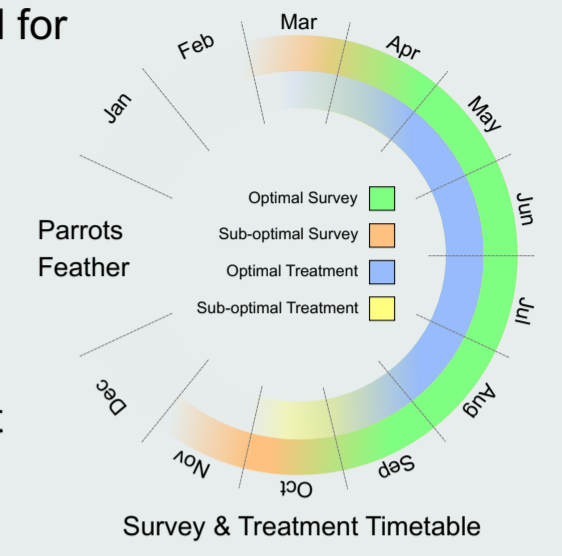
Management and Control - Controlling Parrot's Feather can be challenging due to its ability to regenerate from small fragments and its rapid growth. Effective management often requires a combination of techniques:

• **Mechanical Control:** Manual removal, cutting, or raking can help reduce the plant's biomass, but care must be taken to remove all fragments to prevent regrowth. Repeated efforts are often needed for effective management.

• **Chemical Control:** Herbicides approved for aquatic use, such as those containing glyphosate, can be applied to manage infestations. Multiple treatments may be necessary, and the impact on non-target species and water quality should be considered.

• **Biological Control:** Currently, there are no widely accepted biological control methods for Parrot's Feather.

• **Preventative Measures:** Avoid planting Parrot's Feather in natural water bodies, and ensure that garden waste and aquarium plants are disposed of properly to prevent accidental spread.

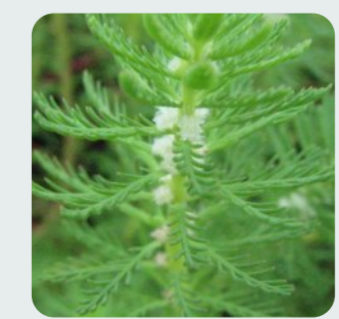


Ecological Impact - Parrot's Feather can have significant ecological impacts, particularly in areas where it becomes invasive:

• **Competition with Native Species:** Forms dense mats that outcompete native aquatic plants, leading to a reduction in biodiversity.

• **Alteration of Water Quality and Flow:** The mats can impede water flow, reduce oxygen levels, and increase sedimentation, negatively affecting fish and other aquatic life.

• **Impact on Recreational Activities:** Can hinder boating, fishing, and swimming by creating dense growth that obstructs water bodies and entangles equipment.



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