

Curly Waterweed

(*Lagarosiphon major*)



Family name: Hydrocharitaceae (Frogbit family)

Common name/s: Curly Waterweed, African Elodea, South African Oxygen Weed



Curly Waterweed (*Lagarosiphon major*) is a submerged aquatic plant known for its rapid growth and invasive potential in non-native regions. In Ireland, it is considered a high-risk invasive species, particularly in lakes, rivers, and canals, where it can form dense mats that outcompete native vegetation and disrupt aquatic ecosystems. The plant spreads primarily through fragmentation, making management challenging.

Control strategies include mechanical removal, herbicide use, and preventative measures to limit the spread. If left unmanaged, Curly Waterweed can significantly impact biodiversity, water flow, and the recreational use of water bodies.

Description - Curly Waterweed is noted for its curly, densely packed leaves and rapid growth, which allows it to form dense underwater mats. The plant's ability to spread quickly and dominate aquatic ecosystems makes it a significant concern for water management.

Key characteristics include:

Size: Can grow to lengths of up to 5 metres, depending on water depth and growing conditions. The plant typically forms dense, tangled mats below the water surface.



Leaves: The leaves are narrow, dark green, and spirally arranged around the stem. They are 1-2 cm long and have a distinctive curled or wavy appearance. Unlike some similar species, the leaves are arranged in a spiral pattern rather than in whorls.

Flowers: Produces small, inconspicuous flowers that are white or pale pink, appearing on the water surface. The flowers are primarily female, as male plants are rare in introduced populations.



Stems: The stems are slender and branched, with a flexible structure that allows the plant to grow in various water conditions.

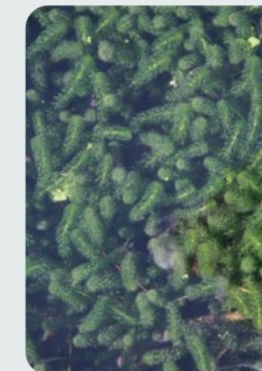


Root: The plant has a fibrous root system that anchors it to the substrate, although it can also grow as a free-floating fragment in some conditions.



Habitat - Curly Waterweed is native to southern Africa but has spread to other temperate regions where it can establish in a variety of aquatic habitats, including:

- **Lakes, Ponds, and Canals:** Frequently found in still or slow-moving water, where it can form dense mats that cover large areas.
- **Rivers and Streams:** Can also establish in slow-flowing rivers and streams, where it may dominate sections of the watercourse.
- **Reservoirs and Ditches:** Thrives in artificial water bodies, such as reservoirs, ditches, and drainage channels, where nutrient levels may be higher.



The plant prefers nutrient-rich waters, ranging from slightly acidic to alkaline conditions, and can tolerate varying depths, although it grows best in clear, shallow waters.

Status in Ireland - In Ireland, Curly Waterweed is considered a high-risk invasive species, particularly in lakes, rivers, and canals, where it can outcompete native aquatic vegetation and significantly alter aquatic ecosystems. Its ability to form dense mats can hinder recreational activities, affect water flow, and reduce oxygen levels for other aquatic life.

Reproduction and Spread - Curly Waterweed spreads primarily through vegetative propagation:

- **Fragmentation:** The main method of spread is through fragmentation, where even small pieces of the plant can root and form new colonies. This allows the plant to spread rapidly through human activities, such as boating and fishing gear, or by water currents.
- **Limited Seed Production:** While the plant can produce seeds, seed production is rare, and most spread occurs through vegetative means.

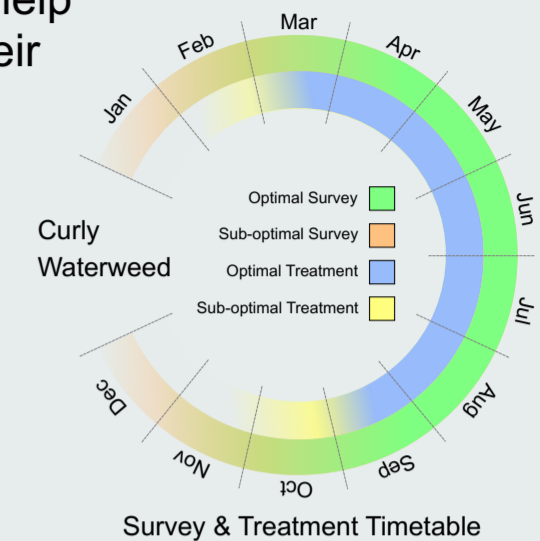
Management and Control - Managing Curly Waterweed can be challenging due to its ability to regenerate from fragments:

- **Mechanical Control:** Cutting, raking, or dredging can help reduce biomass, but care must be taken to remove all fragments from the water to prevent regrowth. Repeated efforts are often needed for effective management.

- **Chemical Control:** Herbicides that are approved for aquatic use may be applied to manage infestations, although the impact on non-target species and water quality must be considered.

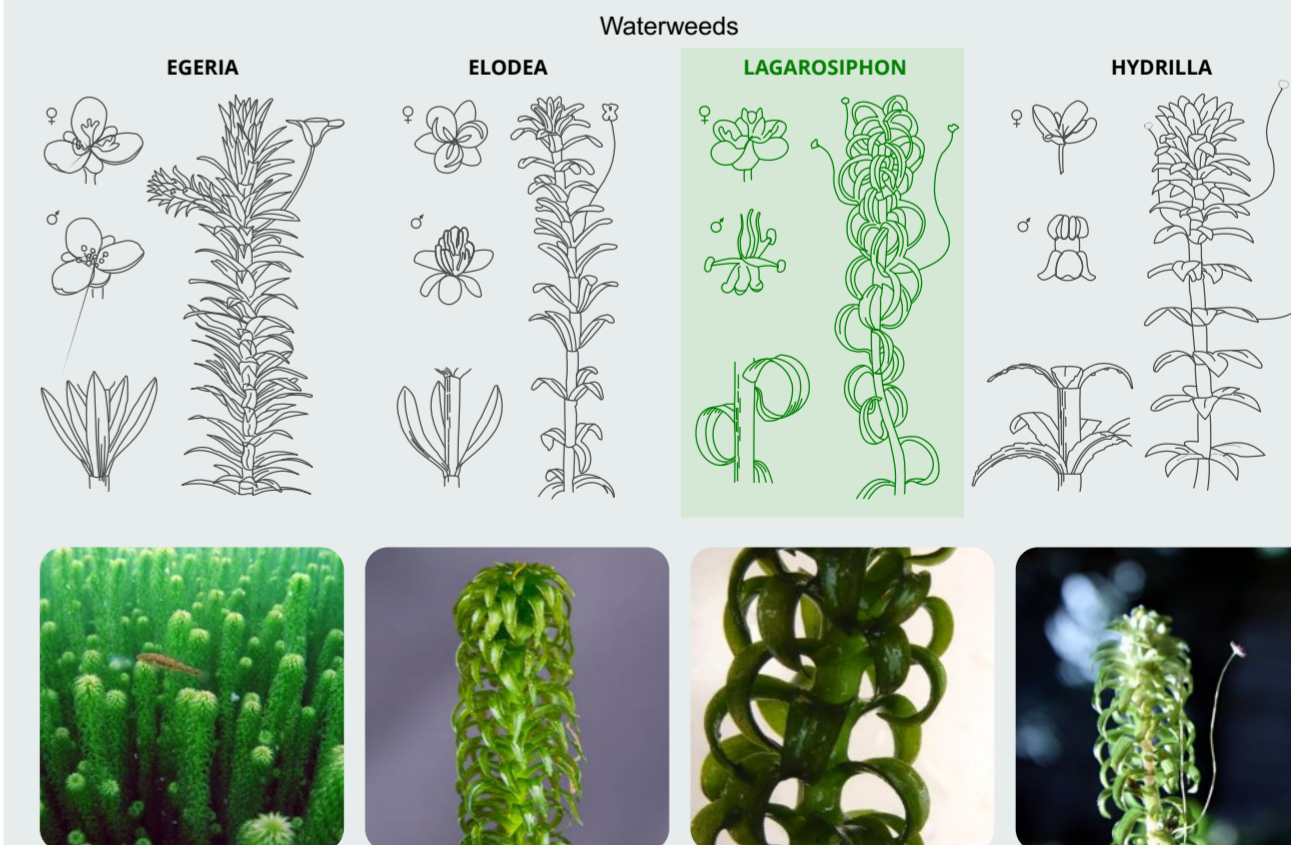
- **Biological Control:** Some methods, such as introducing grass carp, may help control Curly Waterweed, but their use must be carefully regulated to prevent other ecological impacts.

- **Preventative Measures:** Cleaning boats, fishing gear, and equipment before moving between water bodies can help prevent the spread of plant fragments.



Ecological Impact - Curly Waterweed 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 Flow and Oxygen Levels:** The mats can impede water flow and reduce dissolved oxygen levels, affecting fish and invertebrate populations.
- **Impact on Recreational Activities:** Can hinder boating, fishing, and swimming by creating dense underwater growth that entangles equipment and restricts movement.



For further information and free advice, please contact:
Japanese Knotweed Control Ltd.



Email: mail@jkc.ie
Tel: +353 (0)86 250 8805
Web: www.jkc.ie

