

Eel-Grass

(*Vallisneria spiralis*)



Family name: Hydrocharitaceae (Frogbit family)
Common name/s: Eel-Grass, Straight Vallisneria, Tape Grass, Water Celery



Eel-Grass (*Vallisneria spiralis*) is a submerged aquatic plant known for its long, ribbon-like leaves and ability to form dense underwater meadows. It is popular in aquariums and can spread rapidly in suitable freshwater habitats, primarily through runners. In Ireland, it is mainly used in water gardens, with some potential for escape into natural water bodies. Management strategies include mechanical removal, herbicide application, and preventative measures to avoid accidental introduction. While Eel-Grass provides valuable habitat for aquatic life, it can become problematic if it forms dense stands that outcompete native plants and disrupt water flow.

Description - Eel-Grass is a perennial aquatic plant that grows in freshwater environments. The plant forms dense underwater meadows that provide important habitat for aquatic life. It is popular in the aquarium trade due to its decorative appearance and hardiness. It has also been introduced to other regions, where it can spread rapidly and become invasive under suitable conditions.

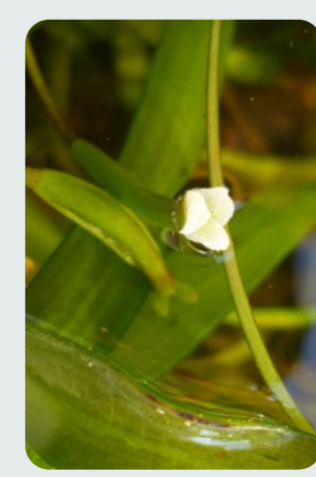
Key characteristics include:



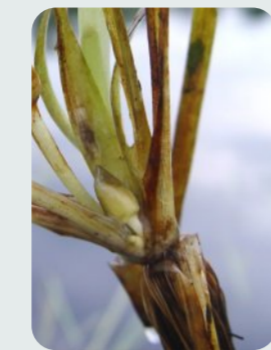
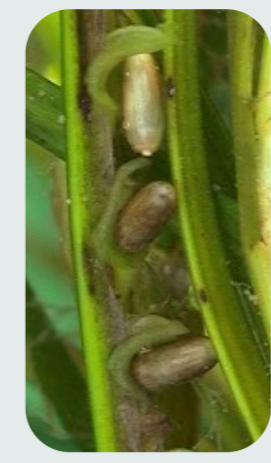
Size: The leaves can grow to lengths of 30 to 100 cm, depending on water depth and environmental conditions, and are typically 0.5 to 1.5 cm wide.

Leaves: The leaves are long, linear, and ribbon-like, with a smooth texture and a distinctive spiral twist at the base. They are bright green to dark green, and grow in clumps that emerge from a basal rosette.

Flowers: Produces small, white flowers that float on the water surface, attached to the plant by long, thread-like stalks. The male and female flowers are separate, with male flowers detaching and floating freely to reach the female flowers.

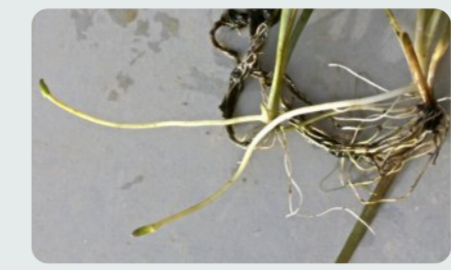


Fruit: Forms elongated, cylindrical fruits that contain numerous small seeds, which can be dispersed by water currents.



Stem: The stem is inconspicuous, as the plant's long, narrow leaves arise directly from a basal rosette at the root system. The stem primarily supports for the leaves and is usually hidden beneath the substrate in aquatic environments.

Root: The plant has a fibrous root system that anchors it to the substrate. It can also spread through runners, which extend from the base and form new plants.



Habitat - Eel-Grass is native to Europe, Asia, and northern Africa, where it grows in a variety of freshwater environments. It has been introduced to other regions, including North America and Australia. It thrives in:

- Lakes, Ponds, and Slow-Moving Rivers: Commonly found in still or slow-flowing freshwater, where it forms dense underwater meadows.
- Canals and Ditches: Can establish in artificial or disturbed water bodies, such as canals and drainage ditches.
- Soft Sediment Substrates: Prefers sandy or muddy substrates in clear, nutrient-rich water, with depths ranging from 0.5 to 5 metres.

The plant grows best in full sun to partial shade, with optimal growth occurring in nutrient-rich, slightly alkaline water.

Status in Ireland - In Ireland, Eel-Grass (*Vallisneria spiralis*) is not commonly found in natural water bodies but is used in aquariums and water gardens. While it is not considered highly invasive, there is potential for it to escape cultivation and establish in suitable freshwater habitats. Care should be taken to prevent accidental introduction into natural water systems.

Reproduction and Spread - Eel-Grass spreads through both sexual reproduction (seed production) and vegetative propagation (runners):

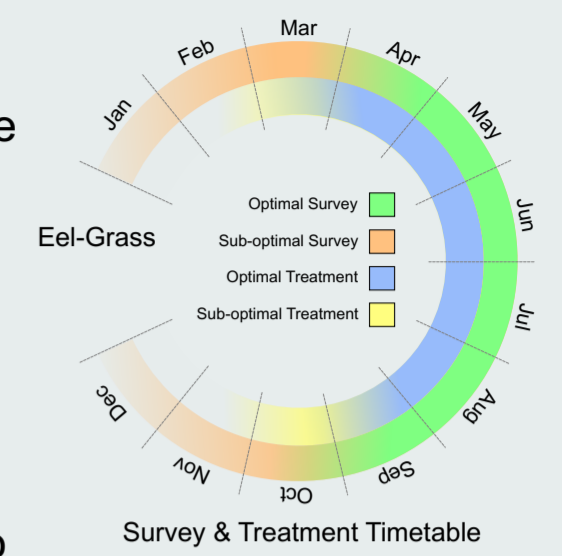
- Seed Dispersal: The seeds can be dispersed by water currents, allowing the plant to colonise new areas. Seed production is less common than vegetative spread.
- Vegetative Propagation: The primary method of spread is through runners, which produce new plants along their length. This allows Eel-Grass to form dense mats that cover large areas.

Management and Control - Controlling Eel-Grass in water bodies can be challenging due to its rapid growth and ability to spread through runners:

- 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 may be necessary to achieve control.

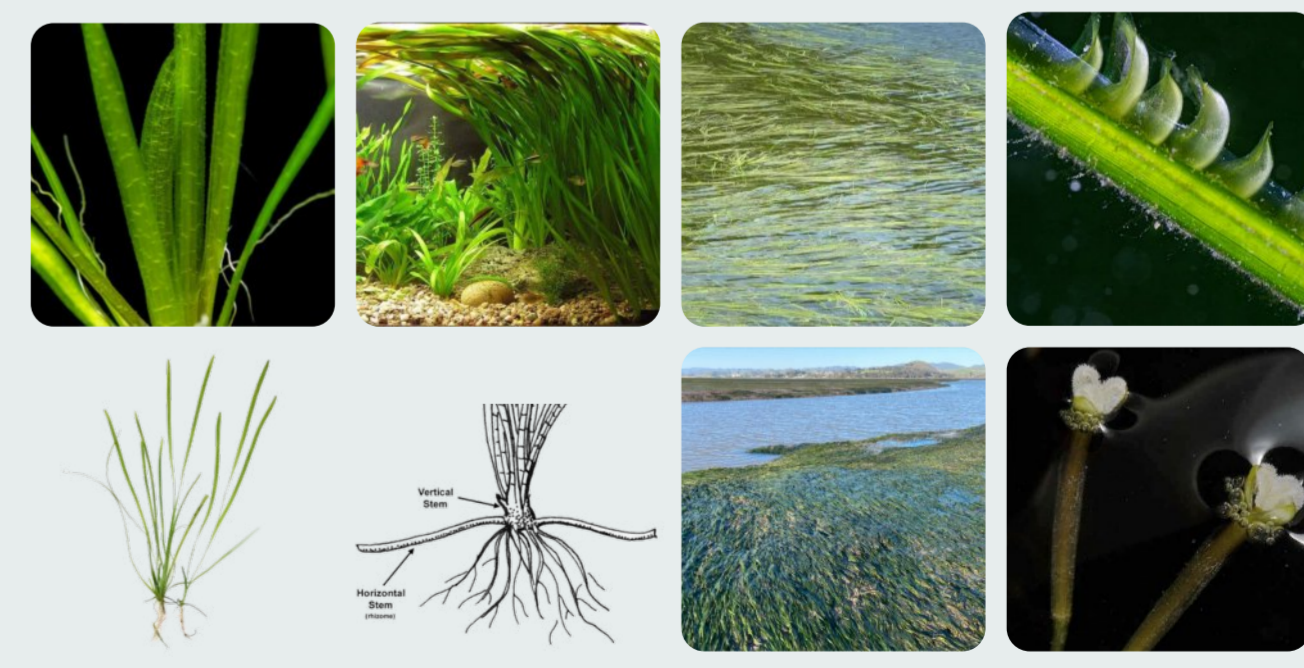
- Chemical Control: Herbicides approved for aquatic use may be applied to control Eel-Grass, although caution is needed to minimise impacts on non-target species.

- Preventative Measures: Avoid releasing Eel-Grass from aquariums or water gardens into natural water bodies. Regular monitoring can help detect early infestations before they become problematic.



Ecological Impact - Eel-Grass can have various ecological impacts, both positive and negative, depending on the situation:

- Habitat for Aquatic Life: Provides important habitat and shelter for fish, invertebrates, and other aquatic species. It can enhance the biodiversity of aquatic ecosystems when present in moderation.
- Competition with Native Vegetation: When it becomes invasive, it can outcompete native submerged plants, potentially reducing biodiversity in freshwater ecosystems.
- Impact on Water Flow and Recreational Use: Dense growth can impede water flow in canals and ditches, and may interfere with recreational activities, such as swimming and boating, in heavily infested areas.



For further information and free advice, please contact:
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