Aquatic Solutions UK

Breathing New Life Into Your Water Course

Specialists in aquatic and bank weed control, pond and lake restoration, silt pumping and dredging, treatment and control of algae, reed, bulrush and lily control.

Aquatic Weed Identification Guide

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- **Spraying can only be carried out on any weeds above the surface of the water with a WQM1 spraying certificate.**

Aquatic Weed: **Canadian Pondweed**

Scientific Name: ***Elodea canadensis***

Information: Can occur in lakes, ponds, canal and slow flowing water. The pondweed out competes native aquatic species for nutrients in the water.

Control: Mechanical cutting is the best method of control and then removal of all of vegetation from the water to avoid de-oxygenation. Cutting in early spring can avoid peak biomass periods during the year.

Aquatic Weed: **Nuttall's Pondweed**

Scientific Name: ***Elodea nuttallii***

Information: This plant is very similar to Canadian pondweed, however the leaves taper to an acute point.

Control: Mechanical cutting is the best method of control and then removal of all of vegetation from the water to avoid de-oxygenation. Cutting in early spring can avoid peak biomass periods during the year.

Aquatic Weed: **Hornwort**

Scientific Name: ***Ceratophyllum demersum***

Information: The stems are 1-3m long and float under the surface of the water. The plant has no real roots, it sinks to the bottom during the winter and grows back again during the spring.

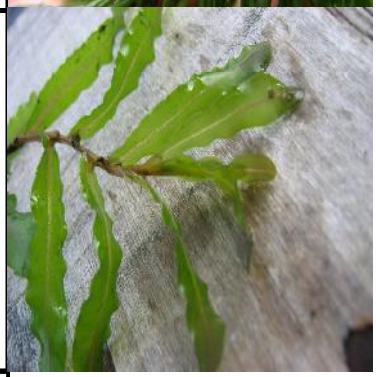
Control: Remove out of the water with a lifting rake to prevent any defragmentation of the plant and subsequent spreading to other parts of the water body.

Aquatic Weed: **Curled Pondweed**

Scientific Name: ***Potamogeton crispus***

Information: This plant can be locally troublesome by impeding water flow and interfering with recreation and navigation. It grows from a creeping rhizome and can grow rapidly during the summer.

Control: Mechanical cutting can provide an annual control but it will regrow. Removal of the rhizomes by dredging would be the most effective method.



Aquatic Weed: **Curly Waterweed**

Scientific Name: ***Lagarosiphon major***

Information: *Lagarosiphon* will grow in water 3 metres deep, but does not tend to grow in fast flowing waters. In alkaline water the curly waterweed will out grow any other aquatic species. A very hardy, invasive and troublesome weed.

Control: A clean mechanical cut is required, as fragmentation can cause the waterweed problem to become worse, all the vegetation must be removed from the water to the bank.

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Aquatic Weed: **Duckweeds**

Scientific Name: ***Lemna species***

Information: These are small free-floating plants often forming dense mats on the surface of still or slow flowing water. The plant colonises and slowly covers the waters surface area.

Control: With the correct approved herbicide, this can be effective as the plant lies on the surface but will only kill what it touches, care also needs to be taken with this method. A rake with fine sieves on the Truxor can also be used to remove it from the water.

Aquatic Weed: **White/Yellow Water-lily**

Scientific Name: ***Nuphar alba/lutea***

Information: With white or yellow flowers, lilies can grow in up to 5m of water. They have extensive rhizome systems and with no control they will provide a dense covering over the water surface, which can suppress the growth of other aquatic plants.

Control: The most effective method on established colonies is by excavation of the rhizome from the water bed. Mechanical cutting can be short-term annual methods. Chemical control can also be used subject to approval from the Environment Agency.

Aquatic Weed: **Bulrush**

Scientific Name: ***Typha latifolia***

Information: Bulrush grows between 1.5 and 3 m high with cigar like heads. During the winter it dies back and collapses down leaving brown vegetation until the spring. In shallow, warm waters it can spread rapidly as it is a highly invasive plant.

Control: Mechanically remove the plant and it's roots with a clamshell bucket. Chemical control can also be used but it is advisable to remove the dead vegetation from the water.

Aquatic Weed: **Common Reed**

Scientific Name: ***Phragmites australis***

Information: It likes to grow in shallow wetland areas and can grow up to 5m per year and has an extensive rhizome root system. Phragmites is extremely invasive and can be particularly tough to control.

Control: The most effective method is mechanical removal by excavation of the rhizome to remove the tough rooted and invasive plant. Regular cutting will also have a good effect, best done in winter. Chemical control is possible, but may need repeated applications.

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Aquatic Weed: **Australian Swamp Stonecrop/New Zealand Pigmyweed**

Scientific Name: ***Crassula helmsii***

Information: A highly invasive non-native plant. Grows around damp margins of ponds and in water up to 3m deep. *Crassula* out-competes native flora and poorer ecosystem for invertebrates and fish. Dense growth can reduce oxygen levels in the water.

Control: Preferred method is to spray when above the surface before mechanical removal.

Aquatic Weed: **Broad-Leaved Pondweed**

Scientific Name: ***Potamogeton natans***

Information: It is a rhizome plant from which leaf and flower stalks grow each spring. Leaves will form a dense surface covering impeding fishing and other recreation. Often found in streams and drainage ditches impeding the flow.

Control: Dredging is the most effective long-term method of removing the rhizomes, cutting can be a short-term annual control but will not remove the plant long-term.

Aquatic Weed: **Floating Pennywort**

Scientific Name: ***Hydrocotyle ranunculoides***

Information: Roots in shallow margins of slow-flowing water bodies and lakes forming dense interwoven mats of vegetation. A highly invasive plant potentially growing up to 15m from the bank in a year.

Control: Mechanical cutting and removal from the water throughout the growing season can offer short-term annual control, which can be followed up by chemical applications.

Aquatic Weed: **Water-Starworts**

Scientific Name: ***Callitriche spp.***

Information: Most common in slow-flowing waters in muddy silty beds. There are 25 species of this highly invasive plant worldwide, some of which are semi-terrestrial. Similar to *Crassula helmsii,* which do not have notches on the leaves.

Control: Mechanical cutting and removal from the water or dredging the plant from the water bed are the best methods of control. Chemical control cannot be used.

Aquatic Weed: **Creeping Water-primrose**

Scientific Name: ***Ludwigia peploides***

Information: Most common in slow-flowing or still waters. It has a distinctive yellow flower and has a variety of different leaf shapes. This is a highly invasive plant that will spread from small fragments.

Control: Chemicals can be used to control the *ludwigia*. Mechanical cutting can be used followed by removal out of the water onto the bank.

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Aquatic Weed: **Spiked Water Milfoil**

Scientific Name: ***Myriophyllum spicatum***

Information: It is a submerged plant with feathery leaves arranged around a circular stem, the stem can be reddish in colour and flowers are red. It forms dense stands but is not usually found in fast flowing waters.

Control: The plant responds well to mechanical cutting followed by complete removal of the cut plant from the water to avoid de-oxygenation.

Aquatic Weed: **Branched Bur-Reed**

Scientific Name: ***Sparganium erectum***

Information: Found in margins of lakes, rivers, streams, canals and drainage ditches. Grows best in silty mud with water levels around 10-20cm. Lives in shallow margins but cannot withstand prolonged emersion.

Control: Mechanical cutting during the summer growing season can control the growth of this plant. Can be controlled with chemicals as the plant is above the level of the water.

Aquatic Weed: **Unbranched Bur-Reed**

Scientific Name: ***Sparganium emersum***

Information: This can grow in water up to 1m deep and is found in still or slow flowing water. It has deep rooted rhizomes, with floating strap-like leaves which may become emergent in shallow water.

Control: Due to its rhizome nature, mechanical cutting is only a short term control which makes dredging more effective. Chemicals applied to any emergent growth is effective.

Aquatic Weed: **Parrot's Feather**

Scientific Name: ***Myriophyllum aquaticum***

Information: This plant can grow in and out of water even if the pond dries out, it produces emerged and submerged shoots. The stems are brittle and can reproduced from fragmentation.

Control: Mechanical cutting of the plant and removal from the water can be effective followed up by a chemical application to control any remaining plants.

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Aquatic Weed: **Large-flowered Waterweed**

Scientific Name: ***Egeria densa***

Information: This grows in water up to 4m deep, with trailing stems to 2m or more long, producing roots at intervals along the stem. The leaves are produced in whorls of four to eight with an acute apex. It produces white flowers with three broad rounded white petals

Control: A clean mechanical cut is required, as fragmentation can cause the waterweed problem to become worse, all the vegetation needs to be removed out of the water.

Aquatic Weed: **Water Lettuce**

Scientific Name: ***Pistia stratiotes***

Information: This is a floating plant with feathery roots hanging beneath the leaves. It has soft, thick, matt, light green leaves shaped like rosettes with a corrugated surface. They form dense mats which block waterways and cause a loss of biodiversity.

Control: Mechanical removal rake to lift all of the water lettuce out of the water to the bank.

Aquatic Weed: **Fringed Waterlily**

Scientific Name: ***Nymphoides Peltata***

Information: Previously a rare plant it has started to spread in static or slow flowing waters. It produces smaller and rounder leaves than the common (white or yellow) lily. It can grow in waters up to 1.5m deep and has a rhizome root system.

Control: The most effective method is by excavation of the rhizome from the water bed and removal the bank. Mechanical cutting and chemical control can be short-term annual methods.

Aquatic Weed: **Fennel Pondweed**

Scientific Name: ***Potamogeton pectinatus***

Information: This is a submerged pondweed and is characterised by growth from a creeping stolon, from which the stems grow forming cylindrical stems and leaves. It produces leaf buds that help it reproduce by dropping them in autumn for new plants in the spring.

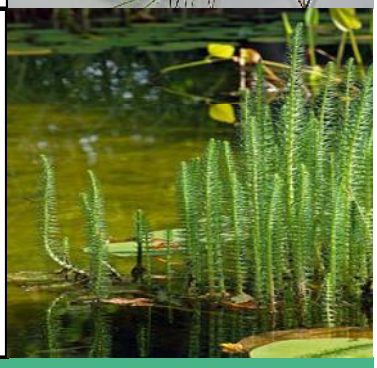
Control: Mechanical cutting should be carried out when the weed is a problem, but to prevent regrowth in the season, mid to late summer would be the best time.

Aquatic Weed: **Mares-tail**

Scientific Name: ***Hippuris vulgaris***

Information: This is a emergent, perennial aquatic plant with a rhizome route system. It can withstand very cold temperatures. It can grow in water up to 3m deep, below the water the leaves are soft and above the water they are more rigid.

Control: Mechanical cutting after July can offer a short-term annual control, as it is a vigorous plant it may require further cutting in the season if the first cut is early.



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Aquatic Weed: **Water Parsnip**

Scientific Name: ***Berula erecta***

Information: grows in shallow, clear flowing water at the margins of ditches, ponds, lakes and rivers. It grows to heights of 30cm to 1m, has white flower heads and grooved hollow stems. It has the smell of a parsnip or carrot when crushed.

Control: Chemical control can be used as it above the waters surface and before the plant has flowered will be most effective. Mechanical cutting can be used as a short term control and is most effective before flowering.

Aquatic Weed: **Stonewarts**

Scientific Name: ***Charales***

Information: Most complex form of green algae, which has lots of branchlets at intervals along the main stem. Tend to appear in disturbed habitats with unfavourable growing conditions for other species, and can start growing very quickly to outcompete other plants.

Control: They can be controlled by the use of mechanical cutting for short term measures and then removed from the water with a mechanical rake.

Aquatic Weed: **Fools Watercress**

Scientific Name: ***Apium nodiflorum***

Information: This is a perennial marginal plant with shoots that die back in the winter and regrow in the spring. It flowers and fruits from spring to autumn and can reproduce from detached shoots that root quickly. It has round stems and pairs of opposite leaves.

Control: Mechanical cutting and removal from the water can control this or chemical applications to the plant as it is found above the surface and along waters margins.

Aquatic Weed: **Water Fern**

Scientific Name: ***Azolla filiculoides***

Information: Only species of free-floating fern that is green during the summer and goes red during the winter. They can be a danger to water users when a dense matt is formed.

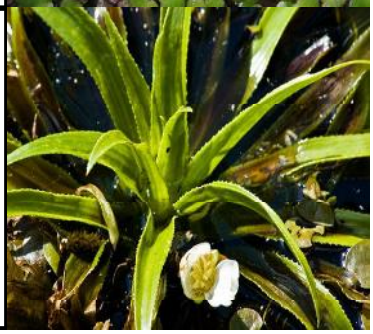
Control: No effective mechanical control, but can be removed with sieves if required. Chemicals can be used for all emergent ferns.

Aquatic Weed: **Water Soldier**

Scientific Name: ***Stratiotes***

Information: Overwinters on the silt bed, new growth in the spring oxygenates the leaves and it floats to the surface to flower. As the leaves die back, it loses its buoyancy and sinks. If not controlled, the surface area of the lake will be completely colonised.

Control: Mechanical removal with a lifting rake when the plant is floating.



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The Amphibious Truxor Machine

The Amphibious Truxor machine is an extremely lightweight, manoeuvrable machine capable of working in the tightest and most challenging of aquatic environments. Able to turn on its own axis and weighing less than 1,400 kg it is ideal for SSSI sites, golf courses, stately homes, private properties and public parks. Its ability to work on or off water makes it ideal for a site where public access cannot be limited or where larger terrestrial machines are not suitable. With a wide range of tools available it is ideal for a variety of tasks within the water. The machine is towed by a 4 x 4 on a flatbed trailer and the Truxor can drive itself to the water over the land.

- **Engine**: Daihatsu 35 hp diesel, Environment Class Euro 2
- **Dimensions**: Length 4.7 m, Width 2.06 m, Height 2.1 m
- **Hydraulic oil:** Biodegradable

Attachments Available;

- Cutter Basket
- Large Cutter Bar
- Heavy Duty Cutter
- Collection Rake
- Clamshell Bucket
- Silt & Dredge Pumps
- Excavator

Services Aquatic Solutions UK offer;

- Complete Aquatic Weed Control
- Silt Pumping and Dredging
- Pond and Lake Restoration
- Reed and Bulrush Control
- Water Lily Control
- Algae and Blanketweed Control
- Aeration
- Invasive weed control;
    - Japanese Knotweed
    - Himalayan Balsam
    - Giant Hogweed
    - Horsetail

[Aquatic Solutions UK looks forward to doing business with you]