

science summary

The aquatic plant management group project

Science Summary SC040081/SS


The Aquatic Plant Management Group at the Centre for Ecology and Hydrology, Wallingford, worked between 2004 and 2008 to provide advice and guidance on the management and control of invasive species and aquatic plants. The Environment Agency and staff from internal drainage boards, British Waterways, local authorities and other organisations have benefited from this service. A number of useful products have been created to improve the overall management of aquatic plants in UK watercourses, including a range of information sheets covering the management of all common native water plants and invasive species.

The Aquatic Plant Management Project has provided advice and information to thousands of staff involved in the planning and delivery of weed control and invasive plant species management in UK watercourses. This service has been provided through one-to-one consultations as well as a website (<http://www.ceh.ac.uk/sections/wq/CAPM1.htm>) that receives an average 26,000 hits each year. Advice in these key areas of river management has also been provided through training courses, such as the British Agrochemical Standards Inspection Scheme (BASIS), and through conferences such as the 'Robson Meetings' on aquatic plant management attended by more than 100 participants annually.


This advice and information has been disseminated via a number of outputs. These include 33 information sheets providing details on how to identify and manage common water plants and invasive species found in or near water in the UK. A manual detailing aquatic weed control techniques has also been compiled.

The outputs from this project will be of interest to flood risk management, biodiversity and other staff from the Environment Agency and staff from internal drainage boards, British Waterways, local authorities and other organisations.

Example of aquatic plant management information sheet



Centre for Ecology & Hydrology
NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Aquatic Plant Management



Information Sheet 12
Curled Pondweed

In Britain, there are 21 species of Pondweed and 25 hybrids, some of which are rare and others very scarce. Only *P. natans*, *P. pectinatus*, *P. crispus*, *P. perfoliatus* and occasionally *P. berchtoldii* and *P. pusillus* should be considered as weed species. Pondweeds can be locally troublesome, impeding flow and interfering with recreation and navigation. Although these plants are often a nuisance, they are an important food source for many animals. *P. crispus* grows from creeping rhizomes, forming slender vertical stems and rooting from nodes on the rhizome.

The leaves have a characteristic curly shape and have a finely serrated edge. It can grow in still and fast-flowing water. It prefers a mineral or organic-rich fine to medium substrate. It has no preference for nutrient status of the water and is found in clear mesotrophic to eutrophic waters of between 0.5 and 2 m deep. It is common throughout the British Isles except in the highland regions of Scotland.

Mechanical control

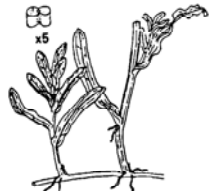
All pondweed species can be cut but regrowth, especially early in the summer, is often rapid. Where pondweeds have been cut regularly there is usually no evidence of any reduction in growth and the plant will tolerate this form of management almost indefinitely.

Mechanical control can be achieved by hand cutting, by weed bucket or by weed boat. Cutting should be as deep as possible to reduce the risk of regrowth later in the season. Cutting can be carried out at any time when there is sufficient growth to merit control, but as there is a risk of regrowth after early season cuts, cutting should normally not be carried out until mid to late summer.

Chemical control

In static water, herbicides can give good control of Pondweeds. In flowing waters, diquat alginate has achieved good control of many Pondweed species. This is no longer available for use.

In lakes and ponds dichlobenil (Midstream GSR, Casoron G, Luxan Dichlobenil Granules) or terbutryn (Clarosan) can be used. Use terbutryn where control of algae as well as Pondweeds and other submerged weed is required. Applications should be made early in the spring when growth is just starting.



The information sheets and aquatic weed control guidance may be used by managers of rivers, lakes and watercourses to guide and improve their management of aquatic plants to reduce flood risk and improve biodiversity in an ecologically sensitive way. These sources of information will ultimately help the Environment Agency reduce flood risk and create an enhanced environment for wildlife.

This summary relates to information from Science Project SC040081 reported in detail in the following output(s):

Science Report: SC040081 (multiple outputs)

Title: Aquatic Weed Control Manual & 33 (no.) Aquatic Plant Information Sheets

Product code: SCHO0708BOIA-E-P July 2008

Internal Status: Released to all regions

External Status: Publicly available

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