Canadian waterweed, *Elodea canadensis*

**Overview**

Short description of *Elodea canadensis*, Canadian waterweed

Canadian waterweed is an aquatic herb with branching stems <30 cm long with leaves in whorls of (2-)3-4 which are widest above the middle, rounded at the tip and now twisted by recurved.

Description of *Elodea canadensis*, Canadian waterweed status in GB

Canadian waterweed occurs throughout most of GB, being absent only from parts of north-west Scotland, western Ireland and higher altitudes in other areas.

**Habitat summary: Elodea canadensis, Canadian waterweed**

Canadian waterweed is most abundant in nutrient-rich lakes and ponds both in its native and invasive range; however it will also grow in flowing water, even in areas with fast flow, although it rarely forms dense beds in such conditions.

**Overview table**

<table>
<thead>
<tr>
<th>Environment:</th>
<th>Freshwater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species status:</td>
<td>Non-Native</td>
</tr>
<tr>
<td>Native range:</td>
<td>Western United States Temperate, Eastern United States Temperate, Canada Temperate</td>
</tr>
<tr>
<td>Functional type:</td>
<td>Land plant</td>
</tr>
<tr>
<td>Status in England:</td>
<td>Non-Native</td>
</tr>
<tr>
<td>Status in Scotland:</td>
<td>Non-Native</td>
</tr>
<tr>
<td>Status in Wales:</td>
<td>Non-Native</td>
</tr>
<tr>
<td>Location of first record:</td>
<td>Dun’s Castle, Scotland</td>
</tr>
<tr>
<td>Date of first record:</td>
<td>1842</td>
</tr>
</tbody>
</table>

**Invasion history: Elodea canadensis, Canadian waterweed**

**Origin**

Canadian waterweed is a native of North America.

**First Record**

Canadian waterweed was first recorded in a pond near Waringstown, Co. Down in 1836 and in a lake at Duns Castle, Berwickshire in 1842.

**Pathway and Method**

Canadian waterweed became established in GB by accidental or deliberate release after import for ornamental purposes in aquaria and ponds. It probably moved from artificial to natural sites as a result of fragments being transported by stock or by man, such as on fishing equipment or boats.
Species Status
Canadian waterweed occurs as an alien in Africa, Australia, Central and South America, Mexico, New Zealand and the Russian Federation. It is abundant throughout much of continental Europe, particularly the north and west. Until about 1990, it showed little sign of significant increase, with records from only 200 10km squares in 1986. However by 1995 there were records from over 1000 10km squares, rising to 1700 by 1999 and nearly 3000 (of a total of 3887 10km squares). The rate of colonisation appears to have declined, but it is now absent only from upland and western areas and may have colonised most suitable sites.

Ecology & Habitat: Elodea canadensis, Canadian waterweed

Dispersal Mechanisms
All plants in the UK are female, although one population involving male plants was recorded near Edinburgh between 1879 and 1903; all dispersal must therefore be by vegetative means and is likely to be by fragments.

Reproduction
Reproduction is almost certainly predominantly from fragments, although turions are produced in the autumn.

Known Predators/Herbivores
Canadian waterweed is preyed upon by a high number of freshwater organisms including fish and birds, but none of these have been shown to have a significant effect on Canadian waterweed in GB.

Resistant Stages
None known.

Habitat Occupied in GB
Canadian waterweed is most abundant in nutrient-rich lakes and ponds both in its native and invasive range; however it will also grow in flowing water, even in areas with fast flow, although it rarely forms dense beds in such conditions.

Distribution: Elodea canadensis, Canadian waterweed
Canadian waterweed occurs throughout most of GB, being absent only from parts of north-west Scotland, western Ireland and higher altitudes in other areas.

Impacts: Elodea canadensis, Canadian waterweed

Environmental Impact
None known in GB, but in tropical countries it can cover vast expanses of water bodies blocking light and precluding movement of animals.

Health and Social Impact
None known in GB, but in tropical countries it can cover vast expanses of water bodies preventing transport and navigation, as well as adversely affecting the aesthetic qualities of wetlands.

Economic Impact
For a period following initial colonisation, Canadian waterweed populations produced sufficient bulk to block waterways, obstructing boat traffic and impeding flow leading risk of flooding. However, by the 1880s, it had become less problematical and is not now known to cause significant problems.

References & Links: Elodea canadensis, Canadian waterweed

Identification


Biology, ecology, spread, vectors
Global Invasive Species Database (www.issg.org/databasespeciesList.asp)

Management and impact
Global Invasive Species Database (www.issg.org/databasespeciesList.asp)

General
Global Invasive Species Database (www.issg.org/databasespeciesList.asp)