

****Please note – this report must be read in conjunction with the Northern Ireland Water Framework Directive Summary Report of the characterisation and impact analyses required by Article 5****

<http://www.ehsni.gov.uk/pubs/publications/article5report.pdf>

Other Human Pressures Risk Assessment Summary

1. Summary

For the initial pressure and impact analysis, the only ‘other human’ pressures considered are alien species. UKTAG guidance¹ is available on:

- the pressures from alien species on river, lake, transitional and coastal water bodies
- data required for carrying out risk assessment for Article 5 analysis and
- pressure thresholds at which water bodies are at risk of failing the environmental objectives of the Water Framework Directive.

The risk assessment exercise in 2004 focused on the 10 high impact alien species listed in Table 1. These have been selected because of the known severity of their impact, and the likelihood that information will be available for the water bodies in which they occur.

Table 1: UK List of 10 known high impact Alien Species

Australian swamp stonecrop	<i>Crassula helmsii</i>
Floating pennywort	<i>Hydrocotyle ranunculoides</i>
Water fern	<i>Azolla filiculoides</i>
Parrot’s feather	<i>Myriophyllum aquaticum</i>
Common cord-grass	<i>Spartina anglica</i>
Japanese weed	<i>Sargassum muticum</i>
Zebra mussel	<i>Dreissena polymorpha</i>
*Chinese mitten crab	<i>Eriocheir sinensis</i>
*Slipper limpet	<i>Crepidula fornicata</i>
*North American signal crayfish	<i>Pacifastacus leniusculus</i>

*not currently recorded in Northern Ireland

2. Data Sources

The data are taken from the Centre for Environmental Data and Recording (CEDaR) held at the Ulster Museum. Natural Heritage staff expert opinion was used to decide whether there was a risk of nearby water bodies of nature conservation importance becoming infested with alien species.

3. Approach to analysis of data

Any water bodies where any of the above alien species have been recorded, were categorised as ‘probably at risk’ (1b), with the exceptions noted below. The sites where the water fern, *Azolla filiculoides*, has been recorded were categorised as ‘probably not at risk’, (2a). This species is regarded as a localised problem in Northern Ireland and has not become established here in the same way as in Great Britain. Also, those lakes with Zebra Mussels, *Dreissena*

¹ http://www.wfduk.org/tag_guidance/Article_05/Folder.2004-02-16.5332/TAG_2004_%28PR1-16-03-04%29/view

polymorpha, were assigned a category of ‘at risk’ (1a) because of the known ecological effects of this species. As the risk assessment is based on the presence of species, any water body with no record of alien species was categorised, ‘not at risk’ (2b), except for some lakes which are considered to be ‘probably at risk’, (1b), because of the possible introduction of Zebra Mussels.

4. Data Gaps and Future Work

This assessment was restricted to seven species from the UK list of ten, as the others are not known to occur in Northern Ireland. More comprehensive studies are required to establish the extent of other alien species and their potential ecological impact in the island of Ireland. This will be taken forward as part of NS Share, a major cross border water management consultancy project.

In addition, a number of other human pressures will be considered in future. These will include fishing pressures for both marine and freshwaters fish through NS Share, and the effects of recreational and navigational uses of surface waters.