



Research Information Note

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Strategic control of non-native invasive aquatic plants

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Introduction

There are a number of invasive non-native plant species associated with freshwater and wetland habitats. The invasive nature of the species means that they are liable to spread rapidly, occupying available habitat and excluding native flora. Their impact upon native fauna is largely unknown but it is widely acknowledged that dense stands of these species do not provide the diversity of habitat structure associated with the typical range of native plant species. Additionally there are a number of riparian species, in particular Japanese knotweed – *Fallopia japonica* and Himalayan balsam – *Impatiens glandulifera*, which colonise riverbanks and dieback during the winter exposing bank to erosion. This can result in loss of riparian habitat and siltation problems in stream.

Experience in controlling invasions of these problem species has indicated that eradication is difficult and that there is a risk of re-infestation from neighbouring sites or upstream sections if a strategic approach is not adopted. Coordinated control programmes which have the support of a wide range of partners and stakeholders have a much greater chance of success in the long term and there are a several pilot projects where such an approach has been adopted.

What was done

This report provides guidance on developing a strategy for managing and preventing invasive aquatic plant problems. The key steps in establishing a strategy are described with guidance on setting a focus area; identifying useful data sources, partners and stakeholders; prioritising and funding action. The report draws on experience in setting up invasive control strategies and best practice from a handful of established projects. The River Avon catchment (Wiltshire & Hampshire) is used to illustrate the various steps of strategy development. A brief report of a workshop held in Peterborough in November 2004 is included as an appendix to the report. The purpose of this workshop was to consider the non-native invasive problem from a nature conservation perspective.

Results and conclusions

The report describes the options for defining a focus areas for a strategy with the conclusion that there is no one ideal scale and a range of factors will determine the focus area. It is proposed that whatever the focus area there should be strong links to local authority boundaries and aspects of hydrological connectivity (catchment boundaries). Once a focus area has been defined it is important to collate information on the current extent and distribution of known problem species in the catchment. A key component of any strategy must be to develop a risk assessment and prediction process for both

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potential non-native introductions and potential sources of such species ('horizon-scanning'). The importance of identifying and engaging the relevant partners and stakeholders is emphasised and the appointment of strategy 'champion(s)' is recommended. Additionally, the report proposes some factors to consider when prioritising action and establishing policies including organisational and planning processes to underpin any strategy.

English Nature's viewpoint

English Nature recognises the importance of working with a range of partners and stakeholders to address invasive non-native species problems. Establishing management programmes to tackle invasive plants will be an important part of restoring and maintaining favourable condition on SSSIs and European designated sites. Experience shows that coordinated control and management programmes can deliver significant improvements and raise the profile of invasive species problems such that future problems may be avoided.

There are now several strategic projects (Comish Knotweed Forum, Tweed Invasives Project) which are developing best practice in relation to invasive plant management. We are seeking to develop similar projects across England to deal with invasive plant problems on and outside of designated sites. The report is intended to be used to guide the planning and implementation of such projects. Much of the content is intuitive but nevertheless should serve as a useful checklist to ensure that all aspects of strategy development have been addressed. It is hoped that the report will help partner organisations better understand our favoured approach to tackling this problem and act as an impetus for setting up new strategic projects.

The Defra review of non-native species policy (Defra, 2003) resulted in 8 key recommendations many of which could be achieved through strategic approaches of this type. Responses to this review highlighted the need for an organisation to take a lead on management and the potential to deal with aquatic invasive species through implementation of River Basin Management Plans (RBMPs) under the EU Water Framework Directive. It is proposed that the strategies described in the report could be adopted as a mechanism for coordinating action within these RBMPs.

Selected references

DEFRA. 2003. *Review of non-native species policy*. London: Defra Publications.

Further information

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