Risk Assessment Key Messages

Invasive Non Native Species (draft risk assessment)   June 2013

Risk assessment details

Pressure - Invasive Non Native Species
Water Category - Rivers, lakes, estuaries and coastal waters
Risk - Risk of deterioration by 2015, 2021, 2027 and 2050

Key messages

The risk assessment is based on 25 separate species, taken from the UKTAG high impact list of invasive non-native species (INNS) (www.wfduk.org). Risks of non-native species becoming established and impacting on the ecology have been incorporated into the model to assess risk of deterioration from current status.

Invasive non-native species pose a risk to deterioration in ecological status and this risk is increasing. The risk is increasing because some of the most damaging established species continue to spread (e.g. signal crayfish, Chinese mitten crab, zebra mussel, floating pennywort), there are some new invaders (most notably, the killer shrimp, topmouth gudgeon and the creeping water primrose) and there are many more potential invaders established in our nearest European neighbours (e.g. there are approximately 30 Eastern European species, collectively referred to as Ponto-Caspian species, in the Netherlands including the quagga mussel).

The overall risk of deterioration for INNS is reported as the highest risk out of all 25 species assessed. We have provided the individual species ('sub pressure') maps which show that the highest risks come from only a few of the species (killer shrimp, signal crayfish, water primrose, top mouth gudgeon etc.).

The models include impacts of both current distribution and predicted distribution based on invasion pressure. At risk means that we have a) evidence that the species is likely to cause deterioration, b) the species is currently in, or likely to invade the waterbody.

Work to reduce and understand the risk to deterioration that INNS pose is guided by the GB non native species strategy.

Key differences between cycle 1 and cycle 2 outputs

The cycle 1 risk assessments focused on 10 priority species and their presence in water bodies using a limited dataset. In cycle 2 we have included 25 high impact species and much improved species distribution datasets.

With better data on the distribution of species and a greater understanding of the risk of new introductions the reported risk of deterioration has increased from cycle 1.

For a few riparian species, local evidence can now be used to increase the reported risk at a waterbody level.

In addition to the Cycle 2 outputs of overall risk of deterioration for INNS, maps of the risk posed by each of the 25 species are also available. This will help set appropriate species specific measures at the local level.

Review of the risk assessments

Species experts from within the Environment Agency and the GB non native species secretariat helped to design the method and set the rules for each species in a workshop and subsequent review via correspondence.

Environment Agency staff and external stakeholders now have the opportunity to review the water body risk assessments between June and September 2013 and to provide additional evidence.

We are interested in comments on the species rules based on evidence and experience. Any information on better species distribution data is welcome.

We will refresh the maps with the most recent distribution data and apply any changes to the species rules that arise from the wider consultation.

In the future we hope to assess all species on the high impact list and provide new assessments as new species arrive. Where significant changes in distribution of a species occur, we will refresh the risk assessments.

customer service line
03708 506 506

incident hotline
0800 80 70 60

floodline
0845 988 1188

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