

Science for Environment Policy

Conservation managers and public unaware of invasive alien species' true risks

Neither the public nor conservation managers are fully aware of the different risks posed by invasive alien species (IAS), new research suggests. A study examining perceptions of five invasive species in the UK shows that both conservation managers and the public regard some highly damaging species as 'low risk', and that their awareness does not increase with the amount of scientific research on the topic.

Effective conservation management schemes to eradicate IAS must have a sound foundation in science. Public support can also be vital to the schemes' success, as ignoring public attitudes can result in their failure. However, there is little understanding as to what influences public or conservation managers' opinions and attitudes towards IAS.

In this study, researchers examined the views of the general public (187 individuals) and conservation managers (132 individuals) and related these views to media coverage and scientific research concerning IAS. Initially, the two groups were asked to complete a questionnaire which asked about their general views on the threats of IAS, their knowledge of specific IAS and how much of a threat they considered them to be. The five species included in the study were: grey squirrels, Japanese knotweed, harlequin ladybirds, topmouth gudgeons (a freshwater fish species) and signal crayfish.

In order to compare the participants' responses to media coverage of these species, the researchers recorded the number of 'hits' from three major internet search engines when searching for each species. The number of peer-reviewed scientific papers published was used to represent research output for each species. Finally, to compare perceptions of threat with actual threats posed by these IAS, the researchers assessed the [risk](#) of each species using an invasiveness scoring tool based on range, history, biology and ecology.

The results showed that public awareness of the IAS did not match the scores from the risk assessments. For example, public awareness of the grey squirrel was very high, but this species scored lowest on the risk assessment.

There was also no obvious relationship between the numbers of scientific papers published on a species and the public awareness or perceived threat. For instance, a large amount of research has been published on the signal crayfish, but public awareness was relatively low. Media coverage, however, did correlate well with public awareness, although it should be noted that this does not imply causation.

The results also revealed some surprising and concerning results regarding conservation managers' awareness and risk perception of IAS. As with the general public, awareness of the harlequin ladybird remained low despite the high research output. However, perceived risk did not match that of the risk assessments. For example, the topmouth gudgeon, which is identified among experts as being one of the most potentially damaging IAS in the UK today, was thought to have the least risk of the five species by conservation managers.

The study's authors warn that this lack of knowledge could result in ineffective conservation practices. They call for better communication between scientists, conservation managers and the general public, and recommend using a scientific basis for conservation prioritisation.



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