

Alien invaders get a bad press

June 10 2013, by Alex Peel



A new study, published in *Acta Oecologia*, says many of the most damning claims about invaders are not backed up with hard evidence. This might be skewing priorities when it comes to dealing with them.

'Some invasive species are possibly getting a harder time than they deserve,' says Claire McLaughlan, a NERC-funded PhD student at the University of Cambridge, who led the study.

'It's an emotive subject but it needs to be looked at in a balanced way. For many of the species in the list of Europe's top ten worst invaders, we could find little evidence of their reported effects in the literature.'

'If this is the literature behind the worst species, then what is the evidence like for others?'



There are thought to be more than 12,000 non-native species in Europe. Having evolved under different competitive pressures, some can quickly overwhelm their new <u>ecosystems</u> and become invasive.

These invaders can wreak havoc, out-competing their native <u>neighbours</u> and damaging the many economic, cultural and health benefits of nature, known as <u>ecosystem services</u>.



Several projects have been launched to tackle invasive species and protect those services, but there is only so much money available. To help prioritise spending, a group of European scientists put together a list of the 10 most damaging invasive species in Europe.

Sika deer, <u>Canada geese</u> and <u>zebra mussels</u> all made the list, but McLaughlan and her team wanted to examine the evidence behind it.

They found that the damaging effects of invaders are often assumed, rather than based on hard evidence. Some <u>invasions</u>, particularly those in environments which are already severely damaged, could even enhance ecosystem services.



'It's context-dependant,' explains McLaughlan. 'For example, with the zebra mussel, if they were to invade a stream full of rare, native species, they would obviously be very damaging.'

'But if they were to become established in a large man-made reservoir with very few species and an algae problem, they could help to process the algae and improve some ecosystem services.'

'We're not for a moment suggesting that you should introduce <u>invasive</u> <u>species</u> anywhere; prevention is always better than cure.'

'But with the species that are already there, there's only limited money available and we need new ways to prioritise which species we tackle. That has to be based on the evidence of their effects.'

McLaughlan's PhD research focusses on the invasive zebra mussel and its effects on the ecosystem services of UK reservoirs.

More information: McLaughlan, C., Gallardo, B. and Aldridge, D. How complete is our knowledge of ecosystem services impacts of Europe's top 10 invasive species?, *Acta Oecologia*, 2013. <u>DOI:</u> <u>10.1016/j.actao.2013.03.005</u>

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