

## TOPMOUTH GUDGEON ERADICATION PROGRAMME



### PROGRESS UPDATE: JULY 2014

- Topmouth gudgeon is considered one of the most potentially damaging invasive species to invade Western Europe
- At its peak in 2004, there were 23 confirmed sites in GB with a further 12 suspected sites under investigation
- Through our investigation and eradication programme confirmed populations in England are now thought to have been reduced to 6 sites, with only 1 remaining site in the East Midlands, all 5 other sites are confined to the South East of England.\*
- Our strategy is to remove all confirmed sites in England by 2017, and in partnership with Cyfoeth Naturiol Cymru – Natural Resources Wales, to ultimately remove this threat from GB
- Defra has provided funding for a 5 year eradication programme to deliver this work in England

*\*(Confirmed sites in Wales have been reduced from 3 to 2 in 2013)*

### Background

The topmouth gudgeon *Pseudorasbora parva*, is a small non-native coarse fish from Asia, introduced to the UK from mainland Europe in 1984, and first formally identified at a fish farm in Hampshire in 1986. Following introduction, the species spread, potentially through a number of routes including fish farm movements and the ornamental fish trade, invading stillwater sites across England and Wales. 23 populations have been formally identified from Cumbria & Yorkshire in the North of England, to the Midlands, South Wales, and from Devon to Sussex in the South of England.

Topmouth gudgeon is considered to be one of the most potentially damaging non-native fish species to invade Western Europe. It is classified under the Import of Live Fish Act (1980) as a 'Category 5 species', being of highest risk, and Red Listed by the UK Task Action Group's Alien Species Group. It is highly effective invasive species, dispersing easily, achieving rapid sexual maturity and is highly fecund. Its diet is broad enabling it to out-compete native species; and it preys on native fish

eggs. Tolerance of poor environmental conditions is also high and populations may carry novel parasites and disease that can impact upon native fish species.

Evidence from mainland Europe and studies within the UK indicated that should topmouth gudgeon spread sufficiently and become established in UK waters, the impacts on our native species and the fisheries they support could be severe. Trial eradication operations of topmouth gudgeon populations in England and Wales began in 2004.

### Progress in the UK

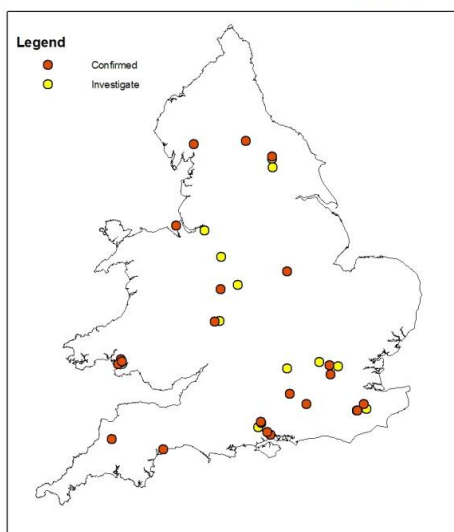
Localised eradication operations using a piscicide began in 2004 at the most northerly known sites in Cumbria and Yorkshire, these proved very effective and a Water Framework Directive funded 5 year



eradication programme was subsequently implemented in 2010, with the objective of total removal of the species from GB by 2017. Of the 23 confirmed topmouth gudgeon sites, we have now eradicated 15 and monitoring to date indicates that all operations have been effective, with no recurrence of the species at treated sites. A further 12 potential sites remain under investigation but to date all have proven negative for the species. There are now only 6 confirmed sites remaining in England, confined to the Midlands and the South East, and we are on schedule to complete the eradication programme by 2017, removing this invasive species from England. (N.B. a further 2 sites remain in Wales under the control of Cyfoeth Naturiol Cymru – Natural Resources Wales)

**Figure 1:**

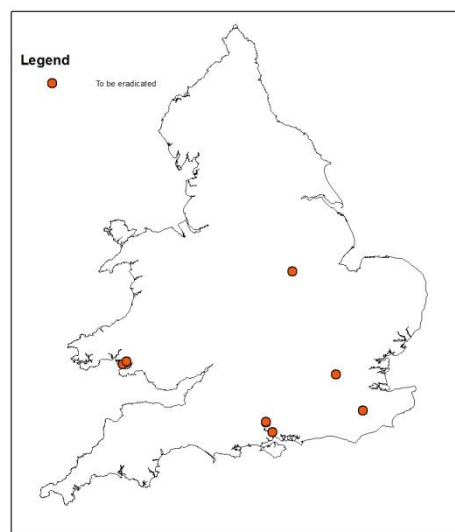
Topmouth gudgeon sites 2004



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**Figure 2:**

Topmouth gudgeon sites 2014



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## **Future work in the UK**

The scale of this work has been challenging, requiring eradication of topmouth gudgeon from a range of sites from small 1 acre ponds to 80 acre multi-lake fishing complexes, fish farms and open stream systems. Our success to date demonstrates that total eradication of topmouth gudgeon from England remains feasible and, subject to continued funding, we are on target to achieve our programme objective by 2017.

In conjunction with our programmed work, piscicide based rapid response eradication operations have also been carried out at sites in Yorkshire and North London, successfully removing two other highly invasive fish species from GB, the fathead minnow in 2008 and black bullhead catfish in 2014.

The tools, techniques and expertise we have developed through this programme provide us with the capability, not only to manage invasive fish, but potentially to respond rapidly to new, novel threats from a range of invasive aquatic species including crustaceans, amphibians and invertebrates.

We would like to express our sincere thanks to all the fishery owners and managers who have supported this essential work since 2004. The progress towards eradication could not have been made without their assistance and patience, and their continued co-operation remains vital.

To ensure the continued success of this work, we are asking members of the public to report any sightings or reports of topmouth gudgeon or other invasive fish species to the Environment Agency at: [non-natives@environment-agency.gov.uk](mailto:non-natives@environment-agency.gov.uk) /03708 506506 or via Aqua/Invaders app downloadable at: <http://naturelocator.org/aquainvaders.html>

Further information on topmouth gudgeon can be found at: [www.nonnativespecies.org](http://www.nonnativespecies.org).

If you want to find out more about what we do, contact:

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