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Reducing the impact of
non-native species in Europe

**Establishing an American mink trapping network
in Norfolk**

Mike Sutton-Croft, Norfolk County Council




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American mink

Mustela Vison

Species Profile:

Origin: North America

UK Distribution: Widespread, except Northern Scotland

Habitat: Aquatic environments, along watercourses

Reproduction: Breeding takes place between late February and early April producing an average of 5.8 young per litter.



Photo Credit: Peter Trimming

Introduced into Europe as part of the fur trade with over 3500 farms across Europe.

The species is now widely naturalised present in over 28 European countries.




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Impact



Photo Credit: Peter Trimming

Photo Credits: Mike Pennington

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Photo Credit: Andreas Trempte

Photo Credit: BBC

Photo Credit: Derek Harper

Photo Credit: Mehmet Karatay

Photo Credit: Avicenna

ARKIVE
www.arkive.org

Photo Credit: Peter Trimming

Photo Credit: Richard Wagenfuhrer

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Impact: European Mink

Widespread across Europe until the 9th century

Range and population has been in decline since, leaving population isolated and threatened

Competes with American mink for food leading to inter-specific aggression



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Impact: Ground-nesting Birds

Macdonald & Harrington (2003)

Black-headed gulls declined by 52% and the common tern declined by 37 % on West coast of Scotland

Ferreras & Macdonald (1999)

Presence of mink had a significant affect on:

- Density of breeding coots and number of chicks hatched per pair of coots
- Average number of nests per pair of moorhens and percentage of moorhen clutches hatched






Photo Credit: Mehmet Karatay Photo Credit: Richard Wagenfuehrer
Photo Credit: Andreas Trompke Photo Credit: Mike Pennington

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American mink and the European water vole

In 1990, populations had been lost from 75 % of sites occupied in 1939.

In 1998, populations had been lost from a further 67.5 % of occupied sites.

A total population decline of 88 % in Great Britain alone






Photo Credit: Peter Trimming

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American mink and Norfolk

The distribution of European water vole across Norfolk from 1997-2005.

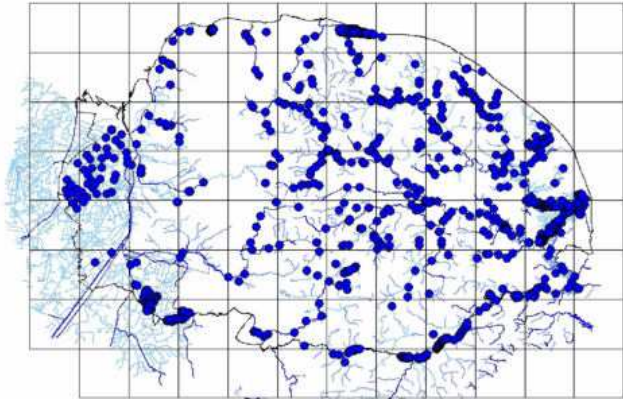




Photo Credit: Norfolk Biodiversity Partnership

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The Norfolk Mink Project

- Began 10 years ago, with control focussed on the River Wensum SAC.
- Emphasis was put on 'water vole conservation' rather than 'mink control'.








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The Norfolk Mink Project




- Came out of the Water vole Biodiversity Action Plan (BAP), which identified the control of American mink as a key priority to halt the decline of vole populations in Norfolk.








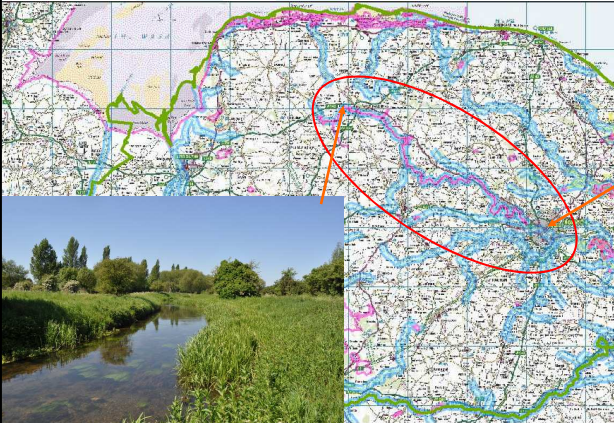



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River Wensum SAC











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The Norfolk Mink Project

- The project aimed to establish a self sustaining network of volunteers, who would monitor the mink population and trap them as required.
- Many large Estates on the river were already trapping mink, due to their impact on wildlife and **game bird numbers**.



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Mink Trapping



Photo Credit: GWCT



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Mink Trapping



Photo Credit: GWCT



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Mink Trapping

This method of mink control has a number of benefits

Scaled-down Trapping

Increased Efficiency

Feedback and Motivation

Reduced capture of non-target species



Photo Credit: GBNNSS



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Recruitment



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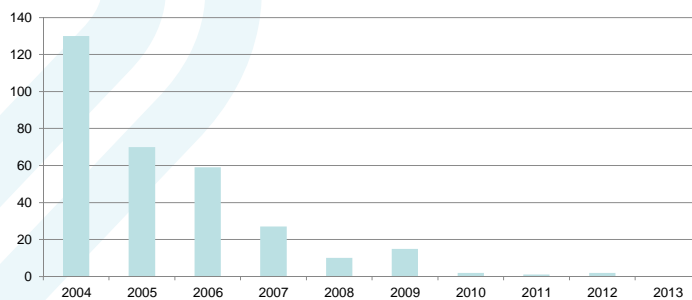
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How effective has the project been?



Annual Wensum Mink Kill



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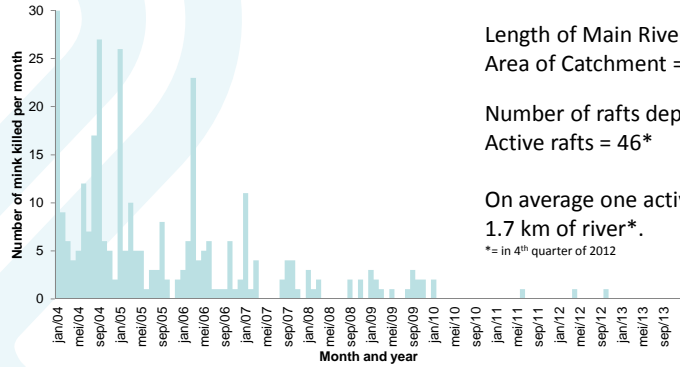
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How effective has the project been?



Total Wensum Control Area Mink Kill by Month



Length of Main River = 78 km
 Area of Catchment = 650 km²
 Number of rafts deployed = 75*
 Active rafts = 46*
 On average one active raft per 1.7 km of river*.
 * = in 4th quarter of 2012



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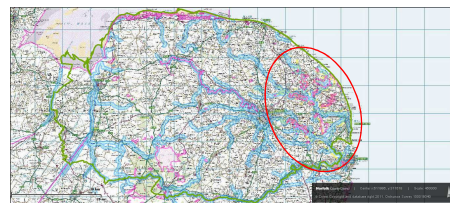
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Expansion



- With the obvious success of the mink control project on the Wensum, a similar project was launched in the Broads.



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Expansion



- With a project on the River Waveney following shortly after...






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The Norfolk Mink Control Strategy



- Between 2003 and 2010 the project was managed by three different organisations.
- No overarching strategy or aim for the project.
- Expansion was piecemeal as funding became available.




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The Norfolk Mink Control Strategy



- The Norfolk Non-native Species Initiative (part of Norfolk County Council) took over management of the mink projects in 2011.
- Simon Baker was made Chair of the Mink Projects' Steering Group in 2011.



**Norfolk
Non-native
Species
Initiative**



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The Norfolk Mink Control Strategy



- Simon was commissioned by the NNNSI to produce a new Strategy for the control of American mink.
- A Strategy for the whole of Norfolk with a realistic aim:
 - Reduce mink density to extremely low levels throughout the county, with localised eradication where possible.



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The Norfolk Mink



Version 1.1

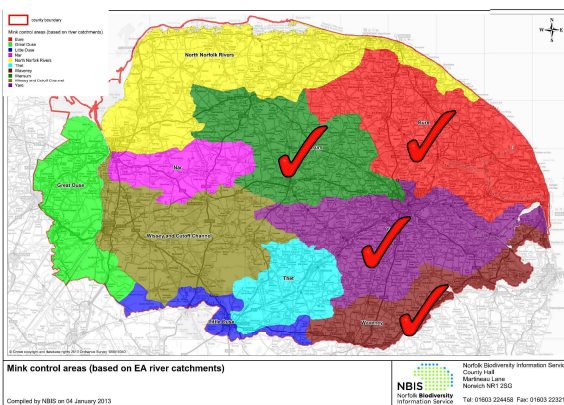
Quarterly Report to Norfolk Mink Project Steering Group

Year2013..... QuarterJan - Mar.....(Jan - Mar/ Apr - June/ July - Sept/ Oct - Dec?)

Catchment	Current Mink Status?	Co-ordinator	Mink Killed in quarter by Project?	'Other' Mink killed in quarter?	Total Rafts Deployed?	Number of active rafts?	Total Traps?	Notes - mink reported from ... (give locations) and mink now known to have been killed in previous quarters but not included in previous reports?
North Norfolk Rivers	?	Rory		4	0	0	0	Traps and rafts now collected and will be deployed in next quarter. Rory to confirm or otherwise at Quarterly Meeting
Bure	?	Stephen	1	0	138	131	158	Sightings for quarter: Barton Broad, Marham, Burgh next to Aylsham, Hoveton & Ludham.
Wensum	?	Paul	1	0	0			Mid Norfolk trapper caught 1 at Trove on Yare. Project still on hold till funding released
Nar	?	Paul	1	0	2			West Acre. 2 rafts deployed by (other) Nar Habitat project. Project still on hold till funding released
Yare	?	Stephen	0	1	65	63	74	Sightings for quarter: Haddiscoe & Thorpe.
Great Ouse	?							
Wissey & Cut off Channel	?	Paul	0	4	5	5	7	4 mink Barton Bendish 0-d-Dec12
Thet	?				2	2		Estimate from Penny's map
Little Ouse	?	Penny			19	19		Estimate from Penny's map
Waveney	?	Penny (Stephen)			88 (11)	88 (11)	88 (19)	37 killed in 2012, some already caught in first 3 months of 2012. Estimate from Penny's map and figures from 2012 Report.

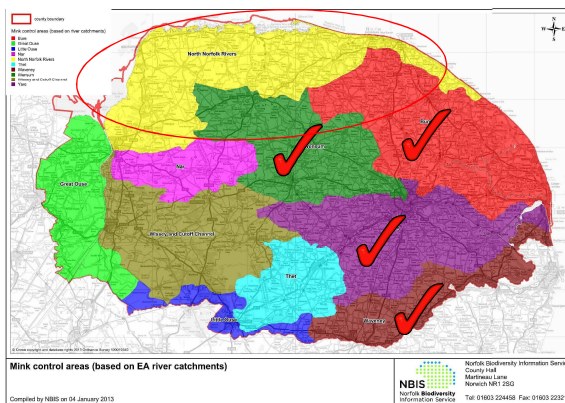
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The Norfolk Mink Control Strategy



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The Norfolk Mink Control Strategy



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North Norfolk



Holkham Hall (Credit: Paul C)



Sandringham House (Credit: Ray Sullivan)



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North Norfolk





River Burn (Credit: Rory Hart)



River Glaven (Credit: Helen Hanley)




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Progress to date



- A local contractor was taken on as the Catchment Co-ordinator in January 2013.
- He identified 3 distinct groups of potential volunteers:
 - Game Keepers, Fishery staff and the landowners who employ them.
 - Conservation sector staff.
 - Conservation enthusiasts.




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Progress to date

- 15-20 volunteers are involved with the project so far (we aim for 40 by the end of the project).
- The local community is supportive – no opposition at all!
- Although Game Keepers perceive the threat from mink to be low, they are still keen to participate.



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Challenges

- All volunteers perceive the number of mink to be low – is this true or just because people haven't been looking?
- One major NGO are hesitant about becoming involved due to potential adverse publicity and conflict. Currently consulting Research Team.



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Challenges



- Strong interest from fishermen – although in Norfolk otters are increasingly thought to be more problematic than mink (!?)






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Lessons learnt...



- The volunteer trappers respond well to direct personal contact or phone. If you e-mail them forms asking for information you won't get anything back!
- The rafts don't work well in small rivers... perhaps use tunnels on the bank side, as has been done in the Scottish Highlands?
- Norfolk wide co-ordination is welcome.




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Future plans



- Develop a new 'Cloud' based Database:
 - Standardised methods to collect and store data are essential.
 - We have to get the right information from the trappers, via the Catchment Co-ordinators
 - For example, we have good records of mink captures, but without trapping effort these are not very useful!



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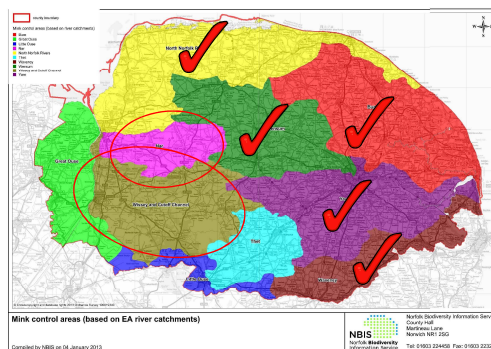
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Future plans



- Fill in the gaps in our current coverage:



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Future plans

- Maintain regular contact with the trappers, update on progress of project across Norfolk.
- Use regular contact to build a more dynamic trapping approach.
- Try to find a longer term funding solution!



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Conclusions

- Volunteers can be used to control invasive mammals if given proper training and provided with ongoing support.
- Although we can't eradicate mink, we can reduce it to such low numbers that it is no longer a problem.
- Although the management of land in the UK is very different to Flanders, is there potential to try to emulate certain aspects of this approach here?



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Thank you for listening!



Any questions?





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