



Annual Newsletter Number 9

The Norfolk Mink Project / WRE

Mink in Norfolk 2021



Mink killed 84
Smart traps deployed¹ 280
Trap nights² 78925
Capture per unit effort³ 0.089

(¹number in the field at the end of December, ²one trap night is one trap open for 24 hours, ³number trapped ÷ the number of trap nights x 100)

2021 was a landmark year for mink control in Norfolk. With support from the Defra Green Recovery Fund, Anglian Water and Norfolk Coast AONB and our fantastic long-term supporters, the Internal Drainage Boards, the Environment Agency, and Broads Authority, our volunteers have managed to launch 280 smart rafts across the county with a total of 84 mink killed. The traps are usually set for 365 days a year, 24 hours a day, amassing a brilliant 78925 trap days, or to put it another way, 216 trap years! This is far more trapping effort than would have been possible using traditional raft trapping, where traps were only set for part of the time.

Work over the year has been seamless between the Norfolk Mink Project and WRE, which is the body that co-ordinates mink control across East Anglia and been able to successfully bid for the larger grants. The additional funding this year has meant that we could employ our lead Project Officer, Stephen Mace on a full-time contract for the first time. 'Not before time', I am sure many of you are thinking, given his dedication to this work over the last 10 years! This was made possible by support from the Norfolk Rivers Trust, who have employed him on our behalf – Thank You NRT.

Figure 1. Annual totals of mink taken by catchment 2013-21

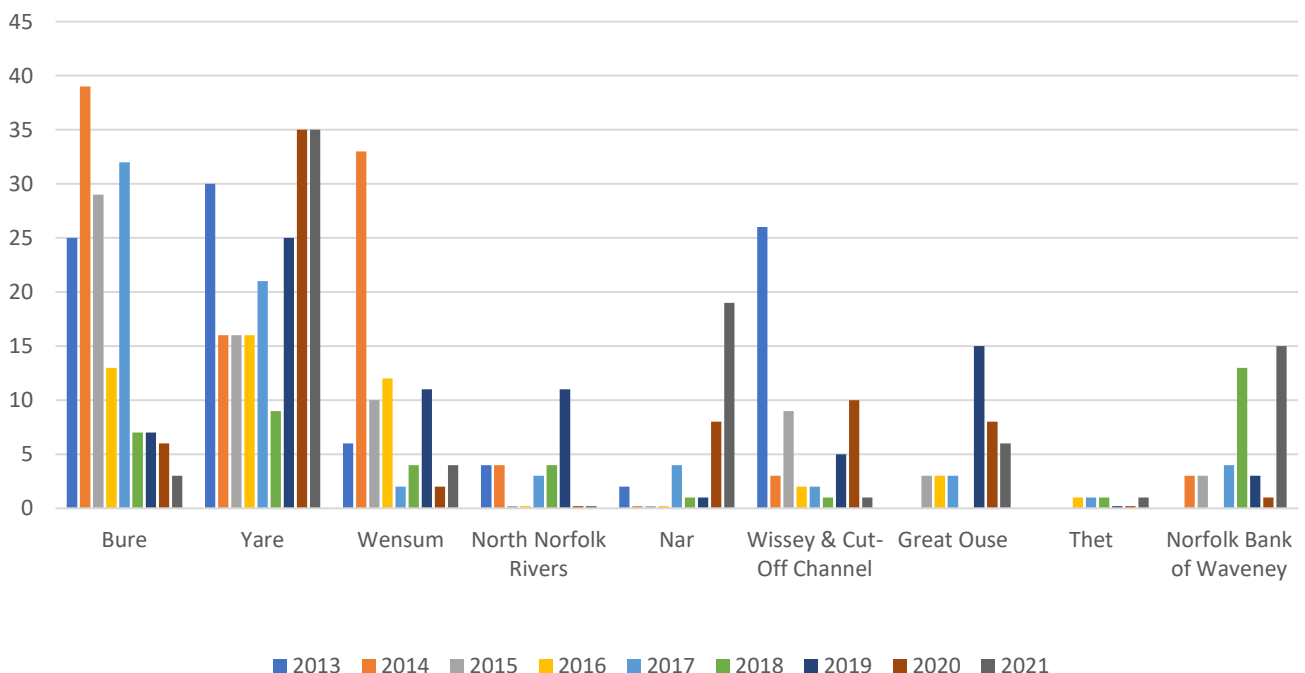


Figure 1 shows annual mink catches by catchment over the past nine years. The yearly comparisons are not straightforward as we started trapping in some catchments earlier than others, and this year we have radically changed and improved things. As well as all the smart traps we have made trapping even more efficient by using anal gland extract as a lure in our traps. This is especially effective in the mating season, and we have scented all the Norfolk traps this spring with very encouraging results. Traps that have not caught all year have the scent applied, and a mink (or two) is caught within a few days.

Despite some of the challenges with interpretation, Figure 1 does illustrate some things clearly:

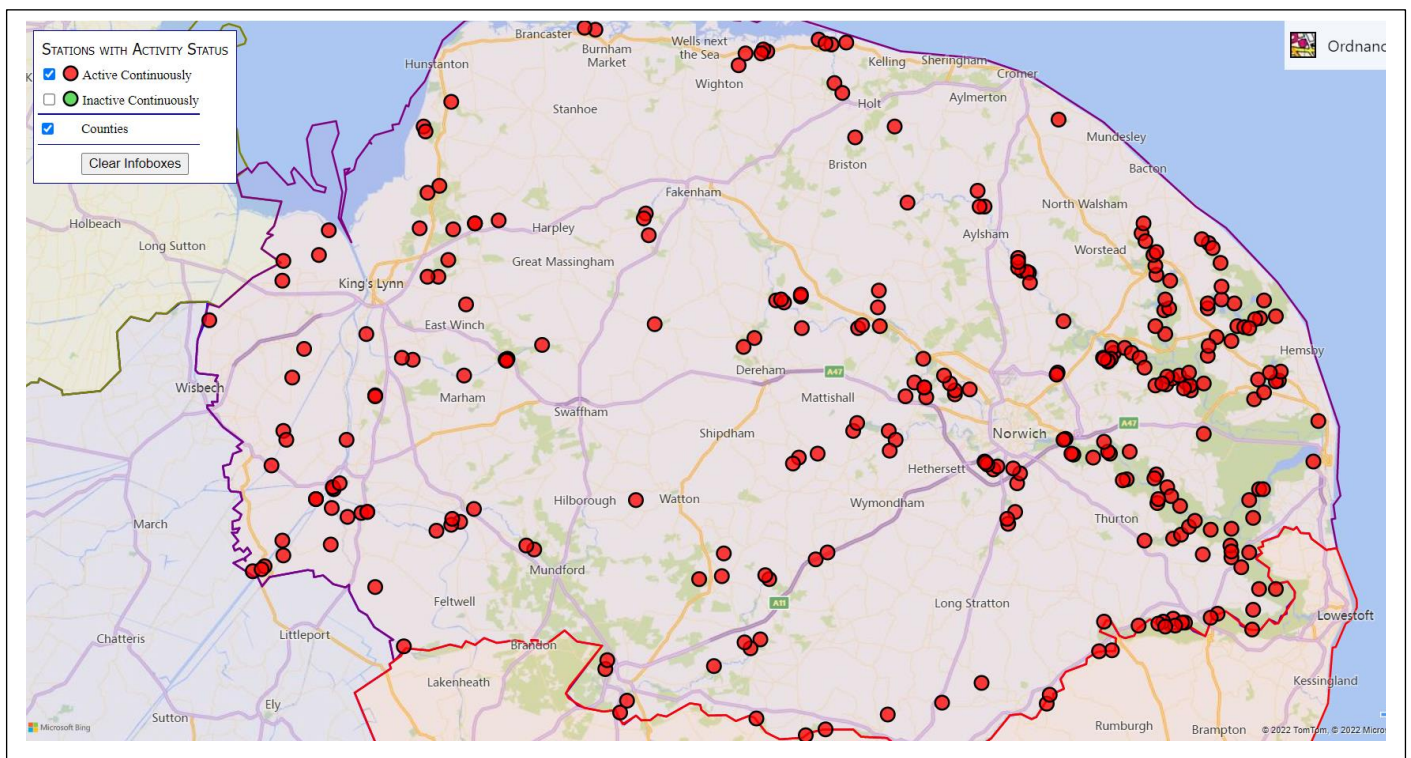
- We have radically reduced mink density in the Bure catchment.
- The Yare has been the most difficult of the Broadland catchments to control – although I would be very surprised if mink were not extremely scarce by this time next year!
- North Norfolk is well controlled, as are the Thet, the Wissey and Cut-off channel.
- The Nar is a catchment where we have now had the resource to trap more comprehensively and the lower Nar was clearly a mink ‘stronghold’. We anticipate that the trapping in 2021, together with the addition of lure this spring, when mink are anyway at their most trappable, will greatly reduce the population here.
- The Great Ouse has succumbed to the hard work of the volunteers in that catchment but its extensive network of waterways will always make it a challenge.

Overall, we caught 14 more mink in 2021 than in 2020 but given our increased efficiency we are not surprised!

Our trapping network

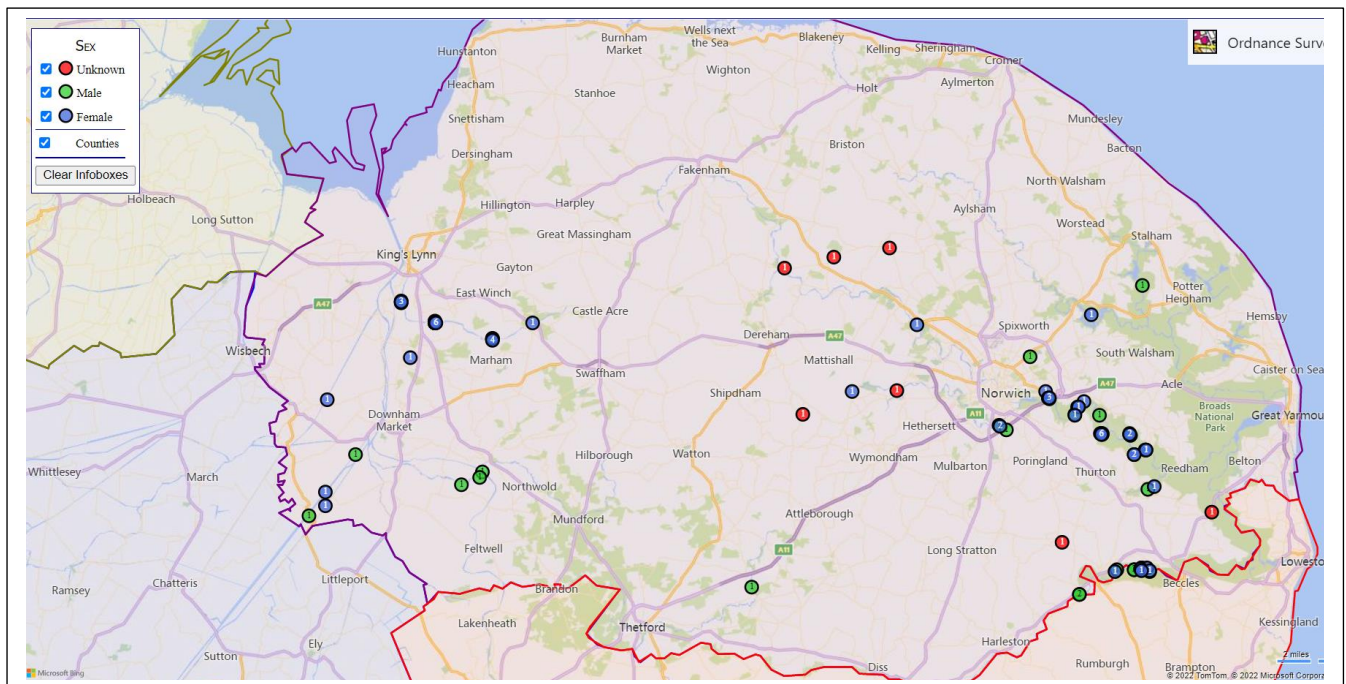
The sheer number and enthusiasm of our volunteers can be seen when you look at the distribution of smart traps across Norfolk in Figure 2. Each circle represents someone with an eye on their phone ready to respond to a text and helping protect our wildlife – thank you to one and all, what fantastic bunch of volunteers!

Figure 2. Locations of smart traps in Norfolk at the end of December 2021



Mink captures

Figure 2. Map showing locations of 84 mink killed in 2021. The numbers in the circles give the number killed at each location.



The animals where the sex is unknown tend to be from public reports of mink that have been found dead on the road band where we were unable to collect the bodies. The single male caught on the river Thet north-east of Thetford is interesting in that it is the first mink in this catchment for 3 years. We know that mink can disperse long distances, males in particular, so it is possible that this one worked its way in from the Great Ouse catchment. We may never know for sure, although developments in the genetic techniques being developed by Professor Bill Amos on our behalf are starting to shine a light on such questions. Bill has now looked at sufficient tissue samples you have provided to be able to assign an animal as being from an area of some 20-30 km² purely from its genotype, and with reasonable accuracy.

A sexy ratio!

As well as looking at things from a county level we are now able to look at results from a wider area and are particularly focussed on the difference between the Core and Buffer project areas. You will probably remember that the Core is where we are working towards a trial eradication and encompasses the Broadland Rivers Catchment (Bure, Yare, Waveney), most of North Norfolk, the Thet and north Suffolk. The Buffer is a 60 km wide area surrounding the Core. It is extremely interesting to look at the sex ratios in the Core and Buffer from January 2021 to date. In the Buffer the ratio of males to females is 1.25 (n=241) and this modest bias towards males is what we might expect. This is for two reasons; males have larger territories and they also disperse further, both of which mean that they are more likely to be trapped. However, in the Core, that ratio is 0.62 (n=81) showing a strong bias towards females. We believe this may be because there is little immigration into the Core, which has been heavily trapped for many years. This has removed a disproportionate number of the more trappable males and we are left with a female biased population. The number left to breed

successfully in the Core this year, out of what is already a heavily trapped population, will be the real test of the impact of the intense trapping this spring.

A white tip to the tail

While Bill's genetics can give us the fine detail about who is related to who, we sometimes get other clues. Over the last couple of years, we have had 12 mink that have had very distinctive markings, notably a white tip to the tail. This is a feature that we don't find anywhere else, as far as we know. All the animals have come from the River Yare and River Wensum in a section that runs from Loddon in the east to Billingford in the west. Some 40km 'as the crow flies' but several times this as the river flows.



We think these animals must be related and it shows how one family group can spread along a watercourse to help colonise a wide area, much to the detriment of the local wildlife. It will be interesting to see if any more turn up (and where) or have we removed the entire clan!

FiPL and a new part time Project Officer

We have been fortunate this year to get funding of £7000 through the FiPL programme, which has helped us put out an additional 40 rafts in the upper Wensum and in the Norfolk Coast Area of Outstanding Natural Beauty (AONB). If you were, like me, unaware of what FiPL is, it stands for Farming in Protected Landscapes. It is part of Defra's Agricultural Transition Plan and will offer funding to farmers and land managers in AONBs, National Parks and the Broads. It will fund projects that:

- Support nature recovery
- Mitigate the impacts of climate change
- Provide opportunities for people to discover, enjoy and understand the landscape and its cultural heritage
- Support nature-friendly, sustainable farm businesses

To help us deliver the project with the help of the Broads Authority and The Norfolk Coast AONB we have been fortunate to find another very capable part-time Project Officer in Karl Charters. Karl is based near Kings Lynn and can help Stephen and Rory in the west and north of the county and is a very welcome addition to WRE / NMP.

And finally

I hope you are finding the WRE Newsletters interesting but we will also keep up the one covering Norfolk each year, so that you can easily see how we are progressing across the county. As much of general relevance is also covered in the WRE Newsletters, this one will now become somewhat shorter.

Simon Baker

Chair NMP Steering Group, and Vice-chair WRE