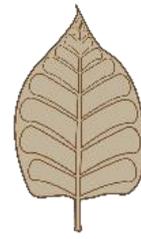




Norfolk Mink Project

Annual Newsletter 8

January–December 2020



Norfolk
Non-native
Species
Initiative



2020 Stats

Mink Caught 70

Rafts 501

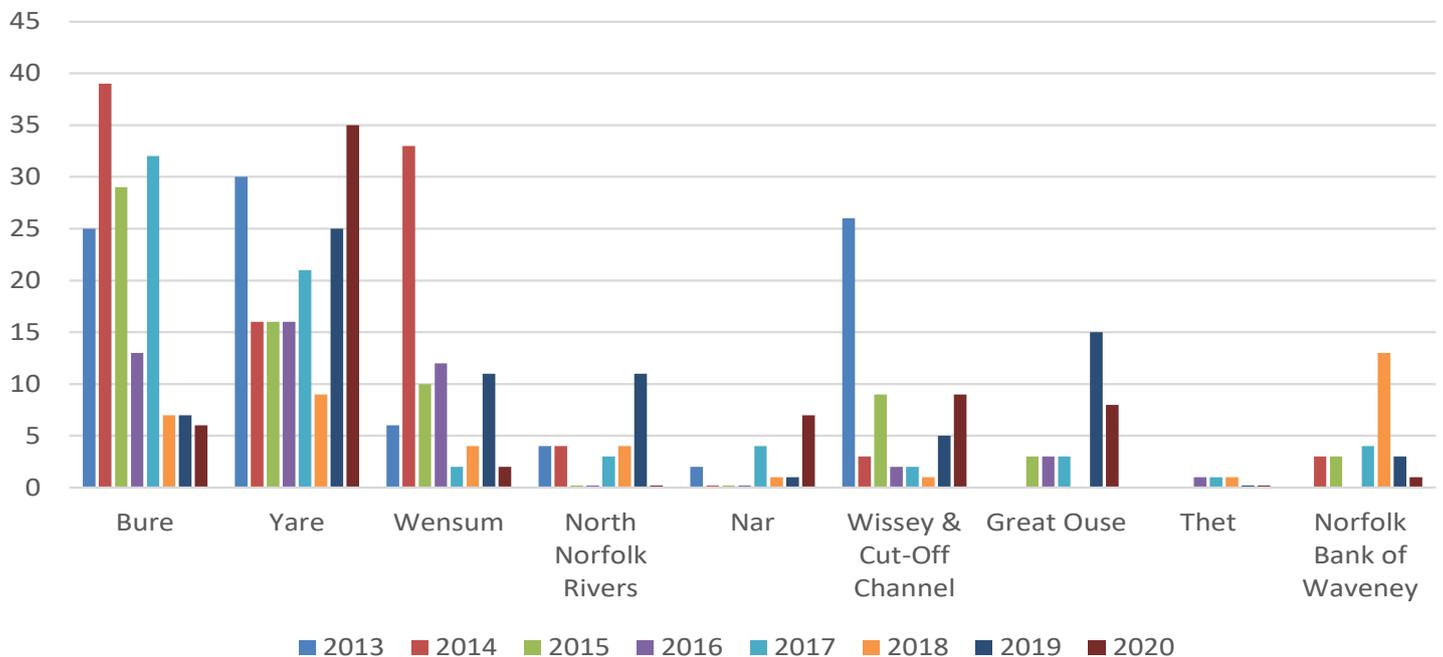
Traps 421

Volunteers 323

2020 has been a very exciting year, it is when mink control in Norfolk, and East Anglia more generally, prepared to step up a gear! Mink control in Norfolk, Suffolk and Cambridgeshire received a Defra / HLF grant of **£229,000** in December, for a 15 month project that started in January 2021. However, more of that later, first - what did we achieved in 2020?

With your help we caught 70 mink across the county, dominated this year by mink from the Yare catchment, which have accounted for half of the total. We have continued to build up the number of smart traps thanks to private donations and help from our partners in the IDBs, Natural England, the Broads Authority. These have been used mainly in the Broads and in the west of the county.

Figure 1. Annual totals of mink taken by catchment 2013-20



TRAPPING SUMMARY

Figure 2. Mink Events 2020



Figure 1 shows the numbers of mink killed by catchment over the past 8 years. This can only be a very general reflection of what is happening on the ground, as over time we have increased the trapping effort and have also been gradually increasing the number of more efficient 'smart traps'. For various reasons, most of these traps are in the Broads and in west Norfolk so will tend to bias results towards these areas.

Eighty percent of all mink trapped this year were caught in smart traps, although these make up less than 20% of the total. Not only are rafts fitted with smart traps better at catching mink, they also require less work to manage than checking and maintaining rafts with clay pads. Tony Martin, who manages over 80 smart traps in west Norfolk and Cambridgeshire, recently analysed the total number of visits that were necessary to keep a smart trap running effectively for every day of the year. On average it worked out at less than one visit a month, and this includ-

ed all visits: for mink, releasing non target captures, maintenance and even periodic checks to ensure everything is in order.

Figure 2 shows the distribution of all 'mink events' that we recorded last year; that is a combination of captures, sightings, field sign etc. It shows the concentration of mink activity along the lower Yare and in the Great Ouse out towards the Ouse Washes. There were also a number of sightings reported along the Waveney but, as far as we are aware, without the mink captures that might have been expected to have stemmed from these. This area has, for historical reasons, mainly been trapped by Suffolk Wildlife Trust but we will be working with them closely in 2021 to put out smart traps along the length of the river.

Another big advantage of smart traps is that we know precisely when they are operating, which means that we will have a much better idea of trapping effort. It is mink killed per night of trapping that will really begin to tell us the impact that we are having on the underlying population, rather than just the number killed, where a year to year change could be due to more or less trapping taking place.

With all these advantages, expect us to contact you soon to see if we are able to get you upgraded to a smart raft!

Didn't get the chance to finish supper!



REPORTS FROM THE CATCHMENTS

BURE, YARE & THET

Stephen Mace

07920 522054 macey@stephenmace.co.uk

MINK CAUGHT & STATUS 2020

Number caught in previous year ()

Bure	6 (7)	●
Yare	35 (25)	●
Thet	0 (0)	●

Bure

Numbers of mink caught in the Bure remain low compared to years gone by, with only 6 caught in 2020. Of these, 4 were caught at East Ruston, 1 at Calthorpe Broad and 1 at Sotshole Broad near Ranworth. Sightings were also very sparse but there was a live sighting at Wayford Bridge and another in the upper Bure at Erpingham. With the numbers being reasonably low for the last few years I'm very proud of the work everyone has put in to achieve this, and in a very difficult area, which has some of the best habitat for mink in Norfolk. However, we must remain vigilant and not let up or mink will quickly re-establish themselves in the broads.

Thet

For the second year running no mink have been caught, and we have not even had a single sighting. Despite this, I still feel that there could be a small number of mink in the catchment somewhere, as there is a lot of ideal habitat. I am also looking for new volunteers here and I would like to get some permanent smart traps in place. If you know of anyone who would be interested in volunteering, please pass on my contact details or let me know.

Yare

Once again we have seen an increase in numbers in the Yare; up to 35 for 2020, a jump of 10 from 2019. As in

previous years most of the mink have been caught between the mouth of the River Chet and Norwich. The rafts and smart traps that went out just over a year ago with the help of funding from the Water, Mills and Marshes Project have been extremely successful. Between them they have caught 13 mink in 4 different locations. Other



smart traps in the area have caught a further 10, and a female and litter of 4 kits were removed from under some riverside decking. I have a feeling that mink are trickling down from the upper reaches of the Yare and maybe the lower end of the Wensum. If you know someone who might want to join, anywhere on the Upper Yare west of Bawburgh or on the Tiffey, for example, I would be very interested in talking to them; please feel free to pass on my contact details.

NORTH NORFOLK, GT. OUSE & NAR

Rory Hart

07950 555279 roryhart@ymail.com

MINK CAUGHT & STATUS 2020

Number caught in previous year ()

North Norfolk Rivers	0 (11)	●
Great Ouse	8 (15)	●
Nar	8 (1)	●

North Norfolk Rivers.

Reports of mink activity across this area of the county

have been low. It is pleasing that the lower Glaven, which appeared to have a family of mink and associated

sightings last year, now appears to be quieter. The action and vigilance of the Glaven conservation group appears to have been a success. Otters continue to feature in more catchments; one animal investigated a very small garden pond, about 500 meters from a ditch that sometimes contains water, on two separate evenings.

The Norfolk Rivers Trust (NRT) continue to liaise closely with the mink project providing reports of potential mink presence and where field staff have recorded the presence of water voles. Sites where these vulnerable animals occur are a high priority for monitoring and control effort. We are most grateful for the expertise, practical support and co-operation of the NRT.

The problems of remote locations or where access is particularly awkward have in the past made deployment of control equipment impractical. The new smart traps / rafts have greatly eased these problems. Locations of high conservation value such as wader nesting sites can now have mink control in situ and be monitored without the need for daily disturbance when checking an active trap.

Great Ouse.

Reports of mink at Denver, Salters Lode and Downham Market were all investigated. Monitoring equipment was set up in co-operation with Tony Martin. A number of mink were caught in these locations but it is very likely that a population continues to live in the area. The large amount of suitable habitat available and the popularity of the rivers for recreation make control difficult and disturbance, frequent. Volunteers in the area have put in a great deal of effort to reduce interference with equipment and monitor rafts.

A number of volunteers have reported that rafts provided by the project are beginning to deteriorate and have been

replaced. Please let me know if your raft is beginning to age and we can then replace it or, better still, upgrade to a smart raft. Our new rafts have the polystyrene buoyancy completely boxed in so bits should no longer be able to break off and enter the environment.

Nar.

This catchment has had several reports of mink but also a successful trapping campaign by Tony Martin (Waterlife Recovery East (WRE)) and volunteers. The Norfolk Mink Project works very closely with Tony and WRE throughout west Norfolk. This has enabled a number of smart traps to be put out and more are planned for next year. Environment agency staff have been very supportive with monitoring work on rafts as well as reporting any mink seen.



During the autumn period rainfall rates rose sharply leading to a rapid rise in river levels and sluices being opened for improved drainage. This led to some challenging conditions but trapping was able to continue at most sites. 2020 has shown that mink are more frequent in the Nar than was previously indicated from reports of their activity.

WENSUM AND WISSEY Paul Gambling
For 2021; Wensum—Stephen Mace (07920 522054), Wissey—Tony Martin (07977 979589)

MINK CAUGHT & STATUS 2020	Wensum	2 (11)	●
Number caught in previous year ()	Wissey	10 (5)	●

Wensum

It has been a relatively quiet year with little in the way of sightings, although a juvenile was caught at Hellesdon in August and an adult at Lenwade in December. We were

able to get 3 smart traps out on the Tud, purchased as mitigation for civil engineering works possibly impacting on a water vole population and are planning to get more smart traps out at suitable sites in 2021. It will be inter-

esting to see if that results in more mink being caught.

Wissey and Cut-Off Channel

One was caught at Barton Bendish, 2 near Denver, 3 at Denver Sluice and 4 at Hilgay. These were all, bar 1, caught in smart traps put out through Tony Martin, with the great co-operation from the local farming community. There was also sign of a juvenile mink left on a raft tracking plate in the STANTA area.

Change in Co-ordinator

Paul Gambling has made a valuable contribution to mink control in Norfolk over many years, for which we are very grateful, but he will cease to work as a Co-ordinator from the end of March 2021. If you need any assistance or wish to report a capture along the Wensum please contact Stephen Mace; for the Wissey and Cut-Off Channel please contact Tony Martin.

WAVENEY AND LITTLE OUSE

Alice Wickman

07826 867009 alice.wickman@suffolkwildlifetrust.org

Stephen Mace (Norfolk bank of Waveney)

MINK CAUGHT & STATUS 2020

Number caught in previous year ()

Waveney

32 (39)



Little Ouse

7 (11)



Waveney

The Suffolk Project coordinates most of the trapping in our southern boundary catchments. Suffolk has seen the number of mink taken in the county fall from 112 in 2019 to 59 in 2020. The Norfolk part of the catchment also saw a fall, with only one being caught. Despite the fall, it still means 66% of the Suffolk total were caught in the 2 border catchments of the Waveney and Little Ouse.

Little Ouse

There has been a further fall in captures this year, to a about a third of what it was 2 years ago. We hope the fall represent a real fall in the underlying population. However, we will get a much better idea in future years, as the numbers of smart traps increases. These let us know precisely over what period traps are open and able to catch,

and we can look at the number of mink per unit of trapping effort. The rise or fall in this index will tell us so much more. By itself, a change in the number caught could be due to more or less trapping, and have little to do with the mink population increasing or decreasing in size.

Change in personnel

Penny Hemphill, who has masterminded trapping in Suffolk for nearly the past 20 years, is retiring from the Suffolk Wildlife Trust at the end of March 2021. We hope that after a well earned break she will be back supporting mink work in a voluntary capacity. But whatever the future holds, we wish her a long and enjoyable retirement knowing that she has done so much to protect wildlife in Suffolk and neighbouring counties.

AN EXCITING FUTURE AHEAD: GREAT FOR WILDLIFE, WORRYING FOR MINK!

In our last Newsletter, I introduced Waterlife Recovery East (WRE) (<https://waterliferecoveryeast.org.uk/>), the organisation that brings together all of the groups carrying out mink control in East Anglia and its dynamic Chair, Professor Tony Martin. The group has not been idle and successfully bid for a £219,000 grant to improve mink control across Norfolk, Suffolk and Essex. The grant was a Defra funded Green Recovery Challenge Fund grant administered by the National Heritage Memorial Fund. This allowed us, with the help of one of our partners (the Norfolk Rivers Trust) acting as the employer, to employ some-

one full time in Norfolk. We had a strong field of applicants but the role went to Stephen Mace, who many of you will know, and who has been the highly effective co-ordinator for our Broadland catchments for the past 10 years. The grant has also allowed staff to be employed in Suffolk and Cambridgeshire and the purchase of equipment, including 240 'smart rafts'.

The grant was awarded in December for an almost immediate start, on January 4th 2021. The grant will finish at the end of March 2022. The Norfolk Mink Project and WRE are working together effectively as one organisation

in Norfolk, and those who already knew Stephen as their Co-ordinator will notice little change in their relationship. The big change is that we are working as fast as possible to upgrade everyone we can to new smart rafts. These are so much more efficient at catching mink, as they can be left set 24/7, 365 days a year, and only need to be visited when your phone ‘pings’ to tell you the trap has gone off. In a pilot study of some 80 ‘trap years’ (1 ty = 1 trap open and running for 1 year) in Cambridgeshire and the west of Norfolk, carried out by Tony Martin, he found that this meant visiting a trap less than once a month on average.

We have also settled on a standard for our equipment



A delivery of flat-packed rafts and traps—quickly deployed!

based on all our experience to date, this is:

- Filcris rafts with a solid edge to avoid polystyrene breaking off and entering the environment
- Perdix traps, which have an integral otter guard
- Remoti trap monitoring units that are placed on top of the trap rather than on the end. This protects the unit and means less errors being transmitted and also slightly improves the signal.

A smart trap and raft unit, together with post and ancil-

THE SCENT OF SUCCESS ?

Mink are very smelly animals; as you may have had the ‘good fortune’ to find out! As with other mustelids, scent plays a prominent role in their social organisation. The question is, can we use this to our advantage when trapping? Their main scent gland is the anal gland, which consists of two pouches holding the secretions, which can then be discharged through ducts just inside the anus. During the mink eradication project in the Western Isles,

lary bits and pieces, costs about £300, although we have been able to get some discount for purchasing the components in bulk.

Fortunately we have also been successful in bidding for another substantial grant and have received 3 grants



Raft built, now part of a smart trapping unit awaiting a customer!

funded by Anglian Water and administered by the Cambridgeshire Community Foundation that have amounted to £43,950. Together the grants cover the whole of Norfolk and a small part of Suffolk and Cambridgeshire. This will purchase us a further 90 rafts and cover some staff time to deploy them and support their use.

As I explained in the last Newsletter, WRE has the objective of carrying out a trial eradication project in East Anglia. These fantastic grants are not sufficient for us to start the full project but they do allow us to build a solid foundation from which to go forward. We will know, for example, much more about smart traps, how effective they are, the density we need to deploy them at in different habitats, and how many volunteer trappers can one project officer support. We will also start from a mink population that is even smaller in size than it is now, and native wildlife that is already better protected!

the scientists involved did a trial to see if trapping efficiency could be improved by the use of a scent lure. They used both a commercial lure from the USA that was derived from anal glands, and secretions that they extracted directly from the glands of dead mink onto cigarette filters. Both of these lures increased the capture rate significantly compared to using fish as a bait.

These findings chime with experiences we have had dur-

ing our own operations.

To give a typical recent example, someone close to the River Yare saw a mink some years ago and was set up with a raft and trap. There was no further trouble until recently, when he lost 15 domestic chickens to what might have been to mink. He had also recently been given a smart raft but as no mink were caught he purchased a trail camera, to see exactly what it was taking his chickens. He soon had a photograph of a mink passing the raft and heading to the chickens. Stephen Mace immediately went out and scent marked the raft trap and two additional traps set on the bank where he thought that the mink was probably coming out of the dyke. The scent was laid by rubbing a dead mink on the traps and the ground. At five o'clock that day the first mink was caught, followed by 2 others in the following week. Not of itself proof of the effect of scent improving trapping success but another strong indication that it does.

The mink in the photograph is a female at another site and is still focused on the golf ball, despite the trap being taken out of the raft onto the bank; the ball contains a cigarette filter dipped in anal gland secretion from another female. The ball was originally wired to the roof of the trap but has been pulled down. Interestingly both sexes seem to be attracted to the scent of another mink regardless of the sex. One final thing I found out—if you send an email to someone in County Hall extolling the virtues



of anal glands the email does not get past a screening for decency. However, I was subsequently let into the building without having to wear a badge warning of some sort of 'deviant interest'!

DNA— WHO DO YOU THINK YOU ARE ?

As you probably know, we are trying to collect a small tissue sample from all mink that are caught so that these can be sent for DNA analysis. The analysis is kindly being carried out for us '*pro bono*' by Professor Bill Amos at the University of Cambridge. We are very grateful to Bill, and the results are just beginning to come back. We ultimately hope that we can work out how mink are related to each other. It is a mink version of the BBC's 'Who do you think you are', based on DNA! Among other things, this might well tell us how far a mink has travelled since it was born (assuming its mother had not moved far from a stable territory) and if we are likely to have caught all the young from a litter. The analysis could also potentially confirm the sex of the animal sampled. This, apparently, need not be difficult but Bill is trying to combine it with looking at relatedness so that it can all be done in one

test, and this is proving more challenging. Bill now has some 200 samples to work with, which allows sufficient individuals to start looking for the best sections of DNA to help determine relatedness.

A first early analysis shows that there is a strong positive relationship between the degree of relatedness of individuals and the distance apart that they were caught. At one level this is no great surprise, as you would expect closely related animals to be caught near to each other. However, the strength of the relationship indicates that they may not be moving as far or as fast as we might have thought, which could have implications for our trapping programme. All this is still at a relatively early stage but we are starting to get tantalising glimpses of what valuable information that we might get out of this work.

If you dispatch a mink, please make sure that a tissue sample is collected. We only need a few square mm of ear, which can be saved in a small plastic tube of alcohol or even popped into a plastic bag with a piece of tissue and posted to us. Your Coordinator will be only to

pleased to help, and can provide you with a sample tube or, if it is easier, a stamped addressed envelope with a suitable plastic bag; you can request one via the 'Report a capture' button on the home page of the Waterlife Recovery East website <https://waterliferecoveryeast.org.uk/>.

AND FINALLY

It has been a very exciting end to 2020 and start to 2021, we now have sufficient finance to start seriously upgrading our existing traditional Mink Rafts to new rafts fitted with smart traps. However, what has helped make a successful bid for this funding possible, is the fantastic work that we have demonstrated in Norfolk; we have achieved a great deal on a tiny budget because of the great support from you, our partners and volunteers. Without literally hundreds of committed volunteers in Norfolk, working to save our wildlife, and putting out rafts and cage traps to locate and trap mink we would not have been able to move to this next step in our longer term aim of a mink free East Anglia.

to record all the additional information that we can get from smart traps and DNA samples. We also intend to make this available to all our volunteers so that you can see what is happening over the whole of East Anglia in almost real time. Personal data will not be viewable and maps will be slightly 'fuzzy' to protect peoples privacy.

A big thank you to those who have donated this year, and despite our grants we still have so much to do. **If you are able to help protect our wildlife and make a donation to help us, please do get in touch and play an even greater part in this exciting project. As always, from all of us involved with managing, financing and co-ordinating our Project, a huge thank you to all our volunteers.**

The new funding has already had a big impact in Cambridgeshire, which has historically not seen the widespread trapping. They have already caught 54 mink in the first 3 months of 2021, which should further reduce immigration into Norfolk. We are also using the funding to have a new 'Cloud' database developed for us that is able

Simon Baker

Chair of the Steering Group and editor of the Newsletter



Waterlife
Recovery
East



giving
nature
a home

