



# Waterlife Recovery East

## a mink-free East Anglia

NEWSLETTER 4: March 2022

### WRE in a nutshell

On a day-to-day basis, the Waterlife Recovery project is, for me, mostly about trap activations, grant applications and anal gland extractions (of which more later) - the nuts and bolts of an invasive predator eradication programme. Just occasionally, though, I am delightfully reminded of what this project is *really* all about. In the last newsletter, I mentioned that one of our army of volunteers removed a female mink from the river that meanders through his farm at Little Sampford in NW Essex. He caught another in early February, and when the same trap sent a message indicating that the door had closed again a few days later, I expected a call to say that yet another mink had been sent to heaven. My phone duly rang a short while later, but the message was not what I had expected. After years of dedicated work to rid his river of mink, Farmer John was excitedly ringing to say that he had just released in fine fettle the first water vole he had seen since his youth. One water vole does not a colony make, but here was proof that, given half a chance, a little furry Phoenix can indeed arise from the ashes of decades of mink predation. Essex Wildlife Trust's Darren Tansley later confirmed that no water vole reintroductions had taken place anywhere near here, so this was natural recolonisation at work; no human intervention needed beyond removal of the human-introduced predator. A week later, in the south of Essex, RSPB Rainham Marshes similarly reported water voles where mink had once been caught. The tide is certainly turning in this important county.



*When mink are removed, water voles have a wonderful capacity to expand and recolonise waterways under their own steam, as we are witnessing right across the WRE project area.*

### It's working

Further really encouraging news comes from a simple analysis of the mink catch by WRE partners in early 2022 compared to early 2021. By the date of writing (6 March) exactly the same number of mink (40) had been caught last year as this, but with only a third of the number of traps operating as now. In other words, an average trap was three times more likely to catch a mink in the early part of 2021 than a year later, and that's despite the majority of traps now containing an extremely alluring scent that should increase the catch, not diminish it. This is heartening, but also extremely informative, because it tells us a lot about the size of the mink population in this region. We know of 326 mink that met an untimely end within the

project area in the 12 months before today's date (most trapped, but a few road casualties etc), and no doubt some others we don't know about were shot by gamekeepers or run over etc; let's estimate 500 in total. Think about this - the loss of this number of animals, in addition to natural mortality due to accidents, disease etc, was apparently responsible for a roughly 67% decline in the population. We can't get carried away, and must remember that there are still significant gaps in our trap coverage, but I think it would be hard to make the case that the remaining population across East Anglia exceeds 1,000 mink, and quite possibly there are fewer than 500. The genetics work by Bill Amos (see below) provides results that are consistent with this lower figure. That number will of course increase very soon as the 2022 cohort is born, but more and more traps are out there to get on top of them as soon as they start dispersing in late summer. The picture should become clearer as catch numbers later in 2022 come in.

As I write, we are in the final few weeks of the large Green Recovery Challenge Fund award that has proved so transformational for our work. In normal circumstances, staff employed under this award would necessarily be 'let go', but I'm delighted to report that each of them will be kept on in one way or another, for at least another 6 months. This was vital in order to ensure that no traps will have to be picked up for want of a supervisor. Continuing the employment of these staff can be considered as a legacy of the grant, as can the hundreds of smart mink rafts that they deployed across the region in 2021. These robust units should last for many years - other than those that are flailed into oblivion by zealous tractor drivers, that is!

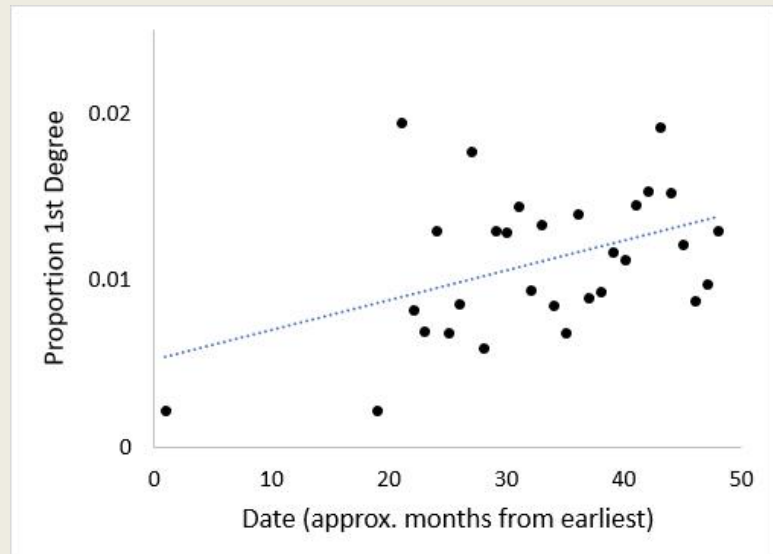
### **Mink and otters**

Otters are making a comeback on waterways across the eastern region, just as mink are declining. Many people are tempted to conclude that these two trends must be linked, and I have often been told with certainty that mink disappear from any waterway where otters live. A research team at Oxford University found little evidence for this, and concluded that the two species often co-occur, something that our raft cameras have demonstrated time and again. Volunteer Cliff Carson, who has played a pivotal role in restoring otters to Fenland waterways over many years, routinely sees both species visiting the rafts he manages, but even Cliff was taken aback by two clips taken by the same camera just 90 minutes apart in early March. The first showed a large male mink on top of the tunnel roof, before clambering down to enter the trap (probably to inspect the scent lure inside) and be caught (top image). The second clip (lower image) showed a huge otter also venture onto the tunnel roof, with the mink just 30mm underneath, before joyously sprainting and then dropping into the water. The mink can be seen to be severely unamused by this treatment; one wonders in what other circumstances an otter could possibly get away with such disdain without receiving admonishment in a sensitive part of the anatomy.



## Genetics news from Prof. Bill Amos

The genetic work continues apace. We have now genotyped 450 animals and are poised to process the next 100. The results are also promising and encouraging. I previously explained that samples collected from smaller populations are more likely to contain first degree relatives compared with samples from larger populations. So, the more pairs of first degree relatives you find, the smaller the local population size. Applied to the whole sample set, we estimate a population size of around 200-300 over the area covered by



most samples. However, I also looked at how many first degree relatives each animal has, ordered by the date of capture. Remarkably, the more recently an animal was caught, the more first degree relatives it is likely to have. This pattern is strongly suggestive of a shrinking population, exactly what we want!



*White-pointed mink from the Norfolk Broads. This variant seems to be restricted to the WRE Core Area.*

Elsewhere, I have been looking at relatedness and how this varies with geographic distance between capture sites. First, the overwhelming majority of first degree relatives are caught within 15-20 kilometres of each other, indicating remarkably short dispersal distances and confirming previous results that indicate strong spatial structuring. Next, over short distances, first degree relatives are around 50:50 males and females. However, among the few instances with greater separations (50-150Km) there is a large excess of comparisons involving males. Take-home message - while daughters tend to stay close to where they were born, it seems that sons sometimes disperse over much larger distances. The next step is to start looking at the extent to which mink with white points (feet and tail tip) are related to each other. Stephen Mace and his volunteers have been seeing this characteristic in animals near Norwich, but no-one else is, so there appears to be an intriguing and potentially very informative genetic story here.

## Waterlife Discovery Day

There *is* such a thing as a free lunch! Join us for a celebration of the achievements made during the Green Recovery Challenge Funded phase of our campaign to make East Anglia's waterways a safe place for our native wildlife! We will be having an afternoon learning about the recovery of water voles, otters and other wildlife. Find out how the mink eradication programme has been working across the East Anglian region, our plans for expanding and consolidating this work and how you can help us achieve the dream of a mink-free East Anglia in the coming months and years.



The event will be held at Cambourne Village College, in the headwaters of the Bourn Brook valley in South Cambridgeshire. The Bourn Brook is where Vince Lea made his first steps into the world of mink control, with the Countryside Restoration Trust in 2010. Working with Ruth Hawksley from the Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire the 'Bourn Free' project has charted the disappearance of mink and the re-colonisation by water voles, with additional benefits to the local moorhen, mallard and otter populations. Lessons learned from this project have helped us design the massive regional-scale project which Waterlife Recovery East has become.

This will also be a chance to chat with fellow mink trapping volunteers, pick up any important spare parts for rafts you supervise and share your experiences. We can also take delivery of any frozen mink you may have! We will have a chance to look at some of the features of mink which our dissections reveal and explore how the information you give us about your mink raft visits are inputted into the all-important database and look at the outputs this system can deliver to help us understand the progress of the eradication.

The event will be held on Saturday 23rd April, Cambourne Village College, Sheepfold Lane, Cambourne, Cambs, CB23 6FR.

13:15 Welcome and lunch (provided)

14:00 Talks and presentations

16:00 Refreshments and demonstrations

17:00 Field trip to local Wildlife Trust reserve at Cambourne, to look at Water Vole field signs

We will be able to host up to 80 attendees at this event, but as we now have a remarkable 400 volunteers on the project, please contact Vince Lea to reserve your place. We will hopefully have similar events around the region as the project progresses so if this is too far for you let us know if you would like something more local. Contact Vince on [vlea@countrysiderestorationtrust.com](mailto:vlea@countrysiderestorationtrust.com). Please let us know if you have any dietary or access requirements.

## News from around the region

Our mink rafts have been designed to cope with most things, but the trio of named storms in late February gave us a few issues in **Cambridgeshire**, writes *Vince Lea*. Storm Dudley over the night of Feb 16th/17th did not cause too much trouble but was the weakest of the trio. Then the highest winds of the winter came with Storm Eunice on the 18th. As wind strengths reached their peak we had a series of trap alerts from exposed sites, with two on fenland drains and two on gravel pits both shaken violently by wind action. Once conditions eased and it was safe to go out these traps were reset, in some cases being left on the bank for the time being. In fact, one of these traps has caught 3 mink since being moved to the bank!

Another raft on one of our gravel pits had been marooned on the bank a long time ago, it was originally installed when water levels were very high but since the water has gone down it has been left on the bank,



nonetheless it has caught 8 mink and no by-catch. Storm Eunice nearly brought this raft's time to an end though, as one very large willow came close to crushing it!



A member of the public reported that one of our rafts had drifted half a mile down a fenland drain. We don't know if this had been deliberately cut free or dislodged by the storms, but it indicates that the signage on the rafts can be useful. Check your tethering when you visit a raft and make a routine quarterly check on rafts is the take-home message here!

The final storm, Franklin, brought a lot more rain and subsequent flooding. One of our rafts failed to send its regular heartbeat on the 21st of Feb and our volunteers found it upside down in the middle of a raging torrent. There was no safe solution to this at the time but once the river went down it was all safely retrieved and

reset the right way up, none the worse for its inundation. Whenever fast-flowing water is concerned safety is paramount and it is much better to wait a day or two to let the floods go down rather than risking a heroic rescue of a raft.

Nearly three weeks after Franklin, a routine check and luring visit to a raft on another river revealed that sometimes the Remoti can continue to transmit even when the raft is upside down. The raft was found with crusty pigeon poo on the base and the rope entangled with a mass of flood debris. It was probably overturned during the floods but somehow the unit continued to transmit. The Remoti was covered in silt, but a quick rinse and it was back in action. It is a reminder that after any severe weather it is worth checking that the raft is still in place and the right way up. Overturned rafts can occur at any time, the main culprits seem to be otters climbing on the tunnel roof, and usually the result is that the Remoti stops transmitting and we get an error alert but just occasionally if there is very good local signal reception, they will continue to check in fine twice a day and we have no way of knowing. Fortunately, this is very rare.

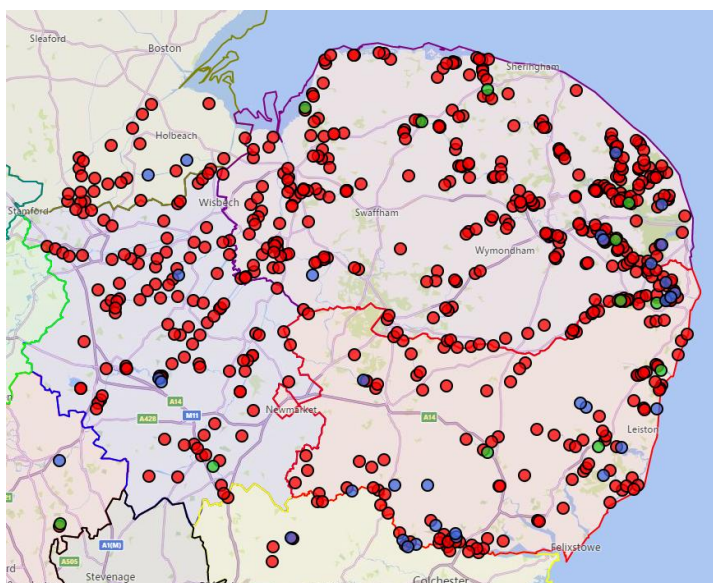


The **Essex** Water Vole Recovery Project was launched in 2007 with just 35 monitoring rafts across the Tendring peninsula in NE Essex; at that stage one of the few strongholds for water vole in the county, writes *Darren Tansley*. Since then more than 350 traditional clay pad rafts have been deployed, many being replaced several times as old ones deteriorated. But now the time has come to retire the old clay pad rafts and move to a new smart trap network that inputs into the Regional database.

In 2022 we have been gifted another 17 more Remoti smart trap sensors from a successful funding bid by Thames 21, and 5 have been purchased by Essex Waterways for the Chelmer Navigation. With further funding likely later in the year we should be in a good position to supplement the smart trap network already in place through Lincs, Norfolk, Suffolk, Cambs and Herts. In addition we now have access to mink scent lures that can be placed in traps and the Essex Coordinator has been trained in the method on how to extract more. These lures are now routinely deployed very successfully elsewhere in the WRE project, and substantially increase trapping success.

Please get in touch with Darren Tansley (darrent@essexwt.org.uk) if you are in Essex and would like to upgrade to a smart raft for 2022. And remember to retain your mink and report them for collection to assist with the WRE genetics study. We have freezers to store mink in NW Essex (Little Sampford), on the Blackwater Estuary on the Essex Coast near Colchester and are planning to install one in South Essex on the Thames Estuary in April 2022.

In **Norfolk**, WRE Project Officer Stephen Mace has been diligently adding fresh anal gland lure to the large number of smart traps that he oversees, with very encouraging results. Trapping has been underway for many years in this county, substantially under the auspices of the Norfolk Mink Project, so mink captures are relatively uncommon in view of how many traps are in operation. For Stephen to catch 7 mink within a few days of deploying fresh lure is nothing short of remarkable, and all the more important because the majority of the animals he traps are females. The removal of any female just before the breeding season is



probably as beneficial as catching four mink in the autumn, when juveniles are dispersing, so the efforts of Stephen and all other trap managers to 'lure up' as many traps as possible early in 2022 could be pivotal for the entire WRE project.

The mink situation in southeast **Lincolnshire** is becoming clearer, thanks to the efforts of an increasing number of smart traps and smart trappers there. The North Level and South Holland Internal Drainage Board areas, hotspots in 2020 and early 2021, are now almost mink free thanks to the continuing vigilance of their IDBs. To their west, the Welland and Deepings area is now the front line. I mentioned in the last newsletter that a volunteer in the Welland and Deepings area had caught no mink,

Current location of all smart mink rafts across the region

despite investing time and effort to find them. Well, he did then find them, and in the space of a few weeks has despatched more mink in his local patch than I have in the past year over a much larger area of Cambs and W Norfolk. Much work remains to be done in SE Lincs, and consequently we were delighted to receive news that Black Sluice and Witham 4th IDBs are keen to join the fray, thereby extending trapping coverage right around the Wash.

Further afield, our work and success is gaining increasing attention over a broad area. I have recently taken a batch of smart rafts to farmers in the Pevensey area of E Sussex, and visited a fascinating corner of east Yorkshire where the Yorkshire Wildlife Trust is considering trying to establish a mink free zone, protected from re-invasion by the Yorkshire Wolds. And in early April I shall head north to advise the Durham, Northumberland and Tees Valley Wildlife Trusts about how they might improve their effectiveness in removing mink as part of their lottery-funded Naturally Native initiative. A mink-free eastern England may be within reach much sooner than we could possibly have imagined just a couple of years ago.

With my best wishes,

*Tony Martin*

Chair of the WRE Steering Group

**STOP PRESS: OUR NEW CHARITY - WATERLIFE RECOVERY TRUST - HAS JUST BEEN RECOGNISED BY THE CHARITY COMMISSIONERS! THIS IS A HUGE STEP FORWARD.**