



New research projects under way at the University of Aberdeen

We would like to welcome Yolanda Melero who has been awarded a 2 year Marie Curie fellowship to study controlled mink populations in Scotland.



Yolanda Melero has carried out valuable mink research in Spain

Yolanda's research will look at how to prevent American mink reinvasion into 'mink free' areas.

This study will be carried out in the Cairngorms National Park and will involve mink capture data (new and previously collected data) such as capture location, age, sex, reproductive condition and genetics so mink carcasses will be essential! As will information on detection of mink footprints even if they do not lead to capture.

Yolanda carried out her PhD in Catalonia, north east Spain where she studied mink density, behaviour and control. Yolanda observed American mink living in very small territories (0.75 km) whereas in Aberdeenshire the average territory size is considered to be 2-3 km. The population density was higher than expected with approximately 1.16 mink/kilometer of river (in Scotland the population density is more like 0.194 mink/km of stream/river/loch). By studying the mink diet,

Yolanda found that this was happening due to the existence of the invasive American signal crayfish. In fact, American crayfish formed 85% of the mink diet! The abundance of this prey and its ease of capture reduces competition and allows mink to spread and settle faster and more effectively.

We believe that Yolanda's experience and skills will be invaluable to Scottish Mink Initiative and look forward to working with her.



'..American signal crayfish form 85% of the mink diet!'

Over the past few years, American mink caught as part of the Water Vole Conservation Projects and Scottish Mink Initiative, as well as information on mink detection on rafts and trapping attempts, whether or not successful have been sent to the University of Aberdeen for analysis. This data collection and analysis will continue throughout the Scottish Mink Initiative.

As part of this on-going research, the University of Aberdeen and Dot.Rural – a research centre at the University using digital technology to enhance natural resource and conservation studies - are developing 'an easy to complete, electronic method of reporting your mink raft findings'.



We are also looking at ways to provide feedback in your local area as well as across the Initiative area.

In order to ensure that the best methods for reporting, and providing feedback are developed, we have created a questionnaire. The link is below, but you can also request to fill it in and return it by post (the return postage is free and the questionnaire should only take a few minutes to complete). Questionnaires are completed anonymously.

Your involvement in the Scottish Mink Initiative and its predecessor projects is greatly valued and we hope that the development of the reporting and feedback systems will provide you with more information on what is happening in the Scottish Mink Initiative.

Link: <https://www.surveymonkey.com/s/MinkSurveyWeb>





Highland - Gunnar Scholtz

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Since April this year I have had more reports of potential mink in the far north which means I have had to expand effort all the way to Durness and Bettyhill. Raft and tunnel coverage has increased by ~100 and I have reacted to ~40 reported mink sightings.

The Loch Eriboll carcass, initially identified as a mink, turned out to be a feral ferret after all! This is good news however, clarification is required as to whether there are still some individual mink roaming the area. After having received sightings in Coigach early this year, things have gone quiet nevertheless almost 20 mink have been caught on the west coast between Skye and Gruinard Bay, so there is a real threat that there might be more on their way. The captures near Contin/Beaully confirm that this remains a gateway for mink heading north. Every animal caught in this area makes a difference in the NW Highlands.



In addition to the existing volunteer force when I came into post, I am happy to welcome more than 40 new volunteers across the Highlands. Given how vast the area is, as many people as possible are needed to be on the look out for mink dispersing into the region.

Many landowners, fishing ghillies, 'keepers, fish farm operatives and Countryside Rangers across Ross-shire, Caithness and Sutherland are playing a vital role in mink management. Countless tourists come to the west coast to see wildlife and it would be great to see tour providers become more involved in the future.

'.. as many people as possible need to be on the look out for mink dispersing into the area.'



Cairngorms and Moray - Cat Robinson

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I've had a busy 8 months or so getting to grips with living somewhere new and learning how the job works. I've tried to meet all the volunteers recruited before my time and I think I have achieved this.

There are more than 280 rafts on the Rivers Spey, Lossie, Findhorn, Nairn, Ness and Beaully. These are monitored by over 190 volunteers which is absolutely fantastic!

49 mink have been controlled in the following catchments since April:

- 12 on the Spey - the River Dulnain appears to be a dispersal route as mink prints are often seen but mink have been trap-shy and are rarely trapped
- 18 on the Lossie - mink have also been seen in areas with no rafts
- 0 on the Findhorn however mink have been seen playing on a beach near Burghead and in the river
- 10 on the Nairn
- 9 on the Ness and Beaully - footprints have been recorded in Glen Moriston

Cull figures are supplied by SMI volunteers as well as people doing their own trapping.

Priority areas have been identified and in 2012 I am going to focus on increasing raft coverage and trapping effort in the Lossie and Findhorn catchments as well as the lowlands of all river catchments in my area. Mink are expected to be breeding in these areas and during the dispersal season they are moving upstream to find new territories. With the help of existing and new volunteers, I hope to have a better raft coverage going into the spring so that mink numbers can be reduced before the breeding season.



'..mink prints are often seen [on the River Dulnain] but mink are rarely trapped.'

2011 has been a very hectic year! Since the start of the Scottish Mink Initiative in April, I have increased mink raft coverage on the River Don by around 20 rafts so far. I hope to increase raft coverage on the Urie and lower down from Alford to Aberdeen and to recruit more volunteers during the spring of 2012.



'2 juvenile mink were caught in the same trap at the same time!'

50 mink have been caught across Aberdeenshire since April - 21 of which were caught in September during the dispersal season. This is a really great start to the new Initiative. Interestingly 2 juvenile mink were caught in the same trap at the same time! I expect capture rates to rise over the course of the Initiative, due to the increase in area covered and number of people trapping. Eventually captures will decrease, but in the meantime catching females before they breed is of paramount importance!

Across my area I have 33 news rafts in place and I have recruited 37 new volunteers.

My priorities for 2012 include the lower River Don and maintaining trap effort on the Ythan, lower River Dee and Water of Feugh.



www.scottishmink.org.uk



North Tayside - Ann-Marie MacMaster

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Since I started work, nearly 8 months ago, I have put in place 89 new rafts and recruited 40 new volunteers. As a result of this work, volunteers in north Tayside have successfully dispatched 57 mink!

These mink have been dispatched in the following river catchments:

- 5 – River Tummel
- 4 – River Tay
- 7 – River Isla
- 28 – Lunan Water (Angus)
- 13 – River South Esk

The majority of new rafts and volunteers are located on the Lunan Water and River South Esk catchments, which explains why so many mink have been removed from these catchments. Another important factor is that there has been no coordinated monitoring and trapping here prior to April 2011. Raft coverage on the Lunan Water is good, however there is still room for improvement on the River South Esk.

In western Tayside raft coverage is steadily increasing from Loch Rannoch eastwards. Given that this could be a dispersal route for mink moving into Tayside from the

west it is vital that monitoring takes place in this area. Raft coverage is good between Calvine and Dunkeld and lately I have been working to increase the number of rafts on the Lunan Burn (part of the Tay catchment).

2012 will see my work focus on the Bervie Water and the River North Esk catchments. Another priority will be the River Tay between Kenmore and Logierait so I will be looking to meet keen volunteers in these areas.



'..volunteers in north Tayside have successfully dispatched 56 mink!'

*Photo credits: two mink in a trap - Sarah Atkinson
Mink in trap - Ann-Marie MacMaster*

It's been 'minky business' as usual on the Deveron expanding vital raft coverage and continuously searching for new volunteers.

Mink signs on rafts are well below last year's figures which is great news.

In early August a mink was captured trying to gain access via Garrowood. This is the only mink capture on the Isla in over 18 months.

Over the course of the summer months and into the dispersal season the Trust and volunteers captured more than 35 mink. The majority of these came from the main stem Deveron and Bogie catchments. Although mink may seem to be in decline throughout the catchments, I would suggest that areas of uncharted water lie ahead as Phase 3 of the Deveron Invasive project moves into the easterly region of the catchment and coastal burns.

In order to encourage volunteer growth I began setting up *Local Biodiversity and Wildlife Steering Groups*. I hope this will allow local people to make decisions about bio-security and biodiversity which will in turn enable those same people to shape conservation in their local areas.

The Trust project includes the management of all invasive non-native species. By giving local people ownership of projects such as mink or hogweed control this will provide a stewardship when the funds for the current project have run out.



'Mink signs on rafts are well below last year's figures which is great news.'



Cromarty Firth - Meryl Norris

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In September this year the Cromarty Firth Fisheries Trust (CFFT) took on the role of coordinating mink monitoring and trapping within our catchment area together with The Black Isle, Dornoch Firth and Loch Fleet.

All existing volunteers were contacted and informed of the changes.

Mink sightings and captures have been few and far between this year with only 3 captures from the Conon catchment. Other volunteers in the Cromarty Firth have had no confirmed sightings however more coverage is required. My initial focus was to get a network of volunteers across the Black Isle as this area has previously had no monitoring. Thanks to the University of

Aberdeen's contact at the Cromarty Lighthouse Field Station and the age old word of mouth, we now have fourteen new volunteers throughout



'..a member of the public spotted mink tracks in the mud at Loch Fleet..'

the Black Isle! We have had no confirmed sightings as yet and the only historic records of captures I have are: 1 on Rosehaugh Estate in 2008 and 1 near Poyntzfield in 2010.

After a member of the public spotted possible mink tracks in the mud at Loch Fleet, SNH in Golspie now have two rafts out on site which are being monitored by a staff member and local volunteers. A wider coverage of rafts is required around Loch Fleet and down towards the Dornoch Firth. From the predecessor mink project we know there have been confirmed sightings around the Dornoch Firth and a volunteer recently found mink scat on the Spinningdale burn which is now being monitored.

My aim for spring 2012 is to have as wide a coverage as possible on all watercourses entering the Dornoch Firth and Loch Fleet.

The Private Lives of Mink!

'What's the point in keeping mink carcasses?'
It's a question Mink Control Officers have all been asked - read on to find out why...

An adult male mink was captured in the Ythan catchment in May 2007. We don't know where he was born, or the identity of his parents or siblings. However, by analysing the structure of his teeth and DNA, we have learned some intriguing facts about his life.



'An adult male mink was captured in the Ythan catchment in May 2007.'

We know that he was born in 2005 and that in 2006 he sired at least 1 offspring; a young male who was also captured in 2007 on the Bronie Water of the Ythan. In 2007 our adult male successfully mated with at least 2 different females to father at least 4 offspring. The locations where these adult females and their offspring whom were subsequently captured: around Tarland on the Dee, and the Ythan catchment, revealed that our male had wandered far and wide in his attempts to breed. The genetic data revealed another surprise though; other male mink had been making similarly determined efforts, and these females had each mated with at least 1 other male. The female from Tarland had in fact produced at least 6 juveniles, all of which were successfully captured before dispersing far and wide or having a chance to breed (the oldest and farthest being a male captured on the Burn of Canna, mid-Dee, in February 2008). The mother of the other litter avoided capture until August 2008 so had a chance to breed again in her year of capture. From her 2007 litter, a juvenile male was captured in July on the Bronie Water of the Ythan, indicating the location of the female's territory (July is before the time that young mink disperse from the natal territory). One of this juvenile's brothers made a considerable dispersal effort and was not captured until April 2008, where he had travelled all the way to Boat'o'Brig on the Spey. However, his journey may well have been in vain, as amongst hundreds of mink genetically analysed we have found no offspring that can be assigned to him as a father. The female was



eventually captured on the Ythan, as was one of her sons from her 2008 litter, the other made it farther afield, but was eventually captured on the Shevock Burn, part of the Urie/Don system, in October 2008.

And so beginning with one male born well before the breeding mink eradication project had got into full swing, we discover a tale of promiscuity and intrepidity, that through the movements inter-related mink spanning five years, joins the Dee, Don, Ythan and Spey river systems of the North East.

Whilst the information we derive using genetic tools provides many such fascinating stories, it also provides us with vital information about the scale of the challenge that we face and how we can best confront it. In practice we use this data to understand the spatial extent of mink dispersal; where mink breed and reinvade from; and how successful we have been in removing the breeding population.

So far the picture is positive. We now capture very few breeding females in areas that have been under mink



'In 2007 our adult male successfully mated with at least 2 different females to father at least 4 offspring.'

control for a year or more, and nearly all of the mink captured in areas that we consider as having being cleared appear to have come from outside of the project area. An important lesson that we have learned from this is that individual mink are capable of massive movements and potentially re-establishing in areas that have been cleared. Therefore it is essential that we remain vigilant even in areas where we've not seen a mink for a while.

We will keep you posted as we learn more about where the mink you capture come from and the lives they have led.

Dr Matt Oliver
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Events and Activities

Why not check out the events list below to find out if there are any activities taking place near you in 2012

Aberdeenshire:

- 17 January - SMI presentation at James Hutton Institute, Aberdeen, open to all
- 29 February - SMI presentation for National Trust for Scotland (NTS) Conservation Volunteers (members only), Aberdeen city, location to be confirmed
- 13 April - SMI presentation for Tarves Heritage Trust members (members only), location to be confirmed

If you would like to attend one these events please contact Sarah Atkinson for further details.



North Tayside:

- 24 February - SMI presentation for Perth Scottish Wildlife Members Group, Luncarty (members only)
- 28 February - Riparian Mammals Seminar - come along and hear Rob Coope, Victor Clements and Ann-Marie MacMaster present the otter, beaver and mink respectively. 7pm, Locus Centre, Aberfeldy. Open to all, no charge, booking essential. Please contact Ann-Marie directly
- 7 March - SMI presentation at BASC's Gamekeepers Day, Scone Palace, Perth. Invitation only
- 10 March - Illustrated presentation and workshop - 'How to Monitor for Mink' training day, SWT Loch of the Lowes, 10-2pm. Open to all, no charge, booking essential. Please contact Ann-Marie directly

Flickr

Don't forget to check out our flickr site - a free photo sharing website.

If you are having trouble identifying the prints on your raft why not take some photographs and upload them to see if anyone can help

<http://www.flickr.com/groups/scottishmink>

The Cairngorms Water Vole Conservation Project has been nominated for a RSPB Nature of Scotland Award in the 'Innovation' category. The nomination is in recognition of the hard work carried out by volunteers, project staff and partners in developing a successful landscape scale approach to American mink control. The results are to be announced on 1st March and we'd like to wish them lots of luck! More information can be found here:

<http://www.rspb.org.uk/thingstodo/natureofscotland/shortlist.aspx>



Merry Christmas and Happy New Year!



We would like to thank each and every volunteer for all their hard work in 2011. The success that we have seen to date would not have been possible without *your* enthusiasm and dedication.

We will be targeting specific areas next year so many more volunteers are required. Anyone who regularly spends time in the great outdoors can help. Whether you are walking the dog, observing birds or patiently waiting for that fish of a lifetime, you can help by reporting sightings, monitor a raft or trapping - it all helps!

Hollie Walker, Project Coordinator



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