

Friends of the Anglesey Red Squirrels Trust

# Red squirrel conservation: news and updates

## A Genetic Noah's Ark

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**Anglesey red squirrels are now the most genetically diverse in Wales!**

In 2010, a small amount of hair was collected from each of a hundred red squirrels on Anglesey. The samples containing follicles were then sent to the internationally renowned Wildgenes laboratory at the Zoological Society of Scotland (Edinburgh) for analy-

sis. Female blood line type (haplotype) as well as variation at a number of nuclear loci were examined for each animal and it was discovered that there are seven haplotypes on the island.

The data has also revealed that animals reintroduced near Beaumaris have travelled to Mynydd Llwydiarth forest where the population has historically been extremely inbred. As interest-

ing is the fact that the unique Welsh bloodline found in the forest has been discovered in Newborough where it is the second most common female bloodline present.

More detailed analysis is underway which it is hoped will uncover more information about the movements and reproductive rates of different animals in the Anglesey population.



Supported by

**The National Lottery**<sup>®</sup>  
through the Heritage Lottery Fund



For Sale



'Red Squirrels'  
by Philip Snow BA \*

## Heritage Lottery Application submitted

After a year of preparation and public consultation, the Friends have now finally submitted a Round Two application for a £300K Heritage Lottery Grant to help secure the future of the island conservation project.

The application will be presented to the Welsh HLF

board for scrutiny at their June meeting and if successful will mean that we will be able to reintroduce red squirrels to the Llangefni Dingle and undertake a variety of exciting initiatives.

The new phase of the project is timetabled to run from July 2011 to June 2014.

We would like to thank everyone who helped with the development of our Proposals but in particular Julie Dubberley & Carys Guile of Menter Mon and Martin Price consultants.

*\*The image is available as a Ltd Edition Print, with 1/3<sup>rd</sup> of the proceeds going to Friends of Anglesey Red Squirrels. To purchase the print visit [www.snowartandbooks.co.uk](http://www.snowartandbooks.co.uk)*

## Red squirrels brighten up island bird tables

We are delighted to report that red squirrels are now visiting gardens and bird tables across the south coast of Anglesey and are becoming increasingly common elsewhere.

Red squirrels have been seen in Tawlrn, Plas Llandufnan, Pentre Berw, Llangaffo, Llanfairpwll., Glyn Garth, and also recently at Tros yr Marian in the far south east corner of the island.

Feeding red squirrels is a great way of getting regular visits from these enchanting creatures and provides a good way of monitoring the spread of the populations and the health of individuals.

In addition to the increased sightings of red squirrels, we have had a dramatic and parallel decline in the number of grey squirrel sightings reported.

In 2011 there have been two sightings of grey squirrels; one at Plas Newydd and a second sighting near Brynsciencyn. Subsequent intensive trapping at these locations allowed both animals to be removed.

In 2011, we have widened our focus to try and monitor the spread of red squirrels from Anglesey to Gwynedd. There have been several sightings of red squirrels in Treborth gardens over the winter and we have greatly reduced the numbers of grey squirrels there.

We are particularly keen to hear from anyone controlling grey squirrels in the Bangor area as we are keen to develop a wide network of grey control to help the small population of red squirrels that are present there now.



### Top five places to see wild red squirrels on Anglesey

1. Llyn Parc Mawr (Newborough)
2. Henllys Hall Woodlands (Beaumaris)
3. Plas Newydd (National Trust)
4. Coed Mor (National Trust)
5. Wern Y Wylan (Llanddona)

## David Bailey captures the wild spirit of Newborough forest

We are grateful again to David for his wonderful pictures of the Newborough red squirrels. Hours of patience have resulted in some magical images of the fantastic array of colours and shades of red squirrel that inhabit the forest. We would also like to thank Cliff for feeding the squirrels.



## Non lethal grey squirrel population control?

Research is underway to produce a product that could be given to grey squirrels in a bait and in this article we summarise the latest findings.

Infertility research often is focused on immuno-contraceptive vaccines that control fertility by stimulating the production of antibodies against essential reproductive proteins or hormones. In this way, the antibodies interfere with the normal activity of the reproductive system.

Researchers have known for almost a decade that in cattle and horses that they can inhibit the activity of a particular hormone known as GnRH by the use of a specific chemical vaccine. In studies with Norway rats it was found that both males and females immunized with a GnRH vaccine were 100% infertile. A single injection of GnRH vaccine (GonaCon) can have a contraceptive effect for multiple years.

Government scientists in the UK are looking at the feasibility of producing an oral bait that is long lasting and which could sterilise grey squirrels. The approach is looking at a product called diazacon which prevents cholesterol synthesis and produces infertility by that route. If trials are successful it could offer a means of reducing grey squirrel populations by a non-lethal method. There are however some significant hurdles to overcome to get to the stage where a commercially available product would be licensed for use, however, in the long term this could provide an additional way to manage grey populations.

## Modelling grey squirrel removal from Anglesey

Although grey squirrel control is the cornerstone of red squirrel conservation in the UK, data sets in Scotland & England are largely incomplete, short-term, recorded in inconsistent formats, or commonly lacking trapping effort data. As result grey squirrel control schemes are universally based upon an expectation that systematic culls will work, but without comprehensive understanding of, or data that illuminates, the population processes. Hence our ability to manipulate trapping intensity across a broadleaved woodland dominated landscape to secure a given result remains relatively crude.

However, from Anglesey we possess thirteen years of comprehensive data encompassing spatial (720km<sup>2</sup>) and temporal intensity of trapping effort, the associated biometric and reproductive state of culled greys, and SQPV/adenovirus disease status. Investment in a spatial model would help inform current and proposed EU culling, and prevent retrospective criticism that opportunities to inform such programs were not taken at the start.

We have now applied for a £5,000 grant to have the Anglesey data modelled by research scientists.

## Glastir Agri environment scheme

The Welsh Assembly Government are about to introduce a new agri-environment scheme called 'Glastir'. Components in the scheme will encourage landowners to establish new woodlands and hedgerows, and to manage existing trees to benefit a range of wildlife including red squirrels.

The scheme also includes payments to cover the costs of controlling grey squirrels and could greatly assist with efforts to prevent grey squirrels invading red squirrel habitats.

Interested in volunteering? Get in touch, we would love to hear from you!

Visit the website or give us a call.

Details on page 4.

### NEW ADDRESS

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"Red Squirrels in Wales"

### Squirrel Web-Cam

[www.redsquirrels.info/squirrelcam.html](http://www.redsquirrels.info/squirrelcam.html)

## We have moved address...

In the autumn we announced that the Anglesey Red Squirrel project has a new address.

From 1st October 2010 we have been based Plas Newydd, the ancestral seat of the Marquess of Anglesey and a property now managed by the National Trust.

With extensive gardens and broadleaved woodlands, red squirrels now flourish within the grounds, and we too are delighted to now call it home.

The Friends would like to extend their thanks to the National Trust and to our patron Lady Anglesey.

### Let us know your red squirrels sightings!

We are always keen to hear about red or grey squirrel sightings from Anglesey or Gwynedd.

We are especially interested if red squirrels are visiting gardens or bird tables and for copies of any pictures which we can put on our Facebook page.

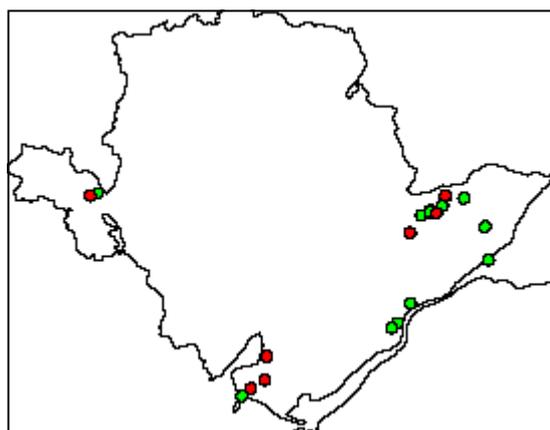
## Red Squirrel Adenovirus cases

The first deaths associated with adenovirus infection were discovered in October of 2007 in Newborough forest.

Since then almost 30 cases of infection have been recorded in wild and captive red squirrels on the island. Retrospective analysis of archived tissue samples from dead animals has revealed that the virus was present in Newborough forest in 2005 and was linked to epidemic disease in the captive red squirrel population being housed as part of the reintroduction work.

Positive cases of infection have subsequently been recorded on Holy Island, Newborough, and from in and around Mynydd Llwydiarth forest near the village of Pen-traeth.

If anyone finds a dead red squirrel please contact the project so we can determine the cause of death.



Green circles- Negative cases of the virus  
Red circles- Positive adenovirus cases

## Media Coverage 2011

The Anglesey red squirrels featured on the BBC One Show in March, and further filming will take place for an S4C children's program in the early summer months.