

CYLCHLYTHYR MAMALIAID ERYRI

SNOWDONIA MAMMAL GROUP NEWSLETTER



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Croeso! Welcome! Welcome to the fifth newsletter of the Snowdonia Mammal Group. Thank you for your continued support, interest and enthusiasm for the Group and of course the Snowdonia Mammal Atlas.

Mammal Atlas update

Many enthusiastic people are continuing to send in their records for the Atlas project. We have well over 200 records for a number of species now and over 300 for a few. We have begun our 2007 training programme with an excellent Mammal Detective workshop with Rob (see piece below). We are continuing for most of the remainder of the year with monthly recording walks (see events section) and hope that as many of you as possible will join us. Specific details for the walks will be e-mailed out or you are welcome to give me a ring anytime on 01766 772255. Many animals are becoming more active again at this time of year, after the winter shut down, although this has not been happening as it should this winter! Look out for boxing hares, re-emerging badgers and hedgehogs and the first baby rabbits. Enjoy the season.

Please keep your records coming! Send them to kate.willamson@eryri-npa.gov.uk. We have signed our Data Exchange Agreement with Cofnod (North Wales Local Record Centre). All our records will be passed directly to Cofnod and they will share any mammal records from within Snowdonia National Park boundary with us. We are adhering to CCW's recommended sensitive data restrictions, mainly 1km square level. There will soon be an Atlas project recording form on the Cofnod website so volunteers and recorders will be able to input their records straight into Cofnod. Every so often the distribution maps will be produced and updated so recorders can see where our gaps are and where we need to concentrate effort.

The first Mammal Detective Workshop of 2007, led & described here by Rob Strachan

The first Mammal Detective training day for the year took place on 10th Feb at Plas Tan y Bwlch, Maentwrog. Led by Rob, the eager students were soon on their hands and knees

rummaging in the long grass and rush tussocks in search of field vole signs. Runs, burrows, chopped grass and latrines were quickly encountered as the workshop got underway - "its easy once you know how", was one comment! "What's this under my tussock?", came another call. Two fresh scats, tightly coiled and twisted had been found. Each about 4cm long and 5mm wide - musky smelling typical of a mustelid. But which one? Too small for polecat or mink and too big for weasel. Only one option really - a stoat. The fur and bone fragments, including a tooth revealed the prey as a field vole. The signs came thick and fast. Badger hair on barbed wire, snuffles holes, badger dung pit and even a sett entrance burrow. Fresh fox scats, mole hills, nibbled hawthorn hips by a wood mouse, a fresh dead wood mouse, grey squirrel drey and a cleaved hazel nuts where the squirrel had been feeding. A small group of droppings tucked into the drystone wall were attributed to the activity of a bank vole. All this in a walk of a few hundred metres. In fact the walk crossed the boundary between two different 1km squares so the process of searching took place again. First field vole, then fox, badger, mole and grey squirrel and of course the ubiquitous sheep that nearly all squares have.

An excellent introduction and good hands on classroom session too. We all left fired up to get recording in our own squares.

Thanks to all who came & to Rob for his time & expertise.

Bat project

Two batsound analysis workshops were held earlier this year, with trainer Dr Sarah Cartmel providing a good basic start into this useful method, which will form the basis of the bat project survey methodology. We had about 26 people altogether on the two days. We have identified transect routes for this year and will start allocating in April.

The idea is to run some more analysis workshops at the end of the summer where those who would like to, can analyse their transect recordings in the company of people who can point them in the right direction. If you would like to record some transects but not get involved in the analysis then that is fine, likewise, if you are interested in the computer analysis side of the project but do not want to go out in the field and record transects there will undoubtedly be work for all.

Otters

Kate Williamson reports that there have been large numbers of otter RTAs (roadkills) in recent weeks. She picked up a large dog otter from the middle of the cob to Porthmadog, the day before that she picked up a young female from the approach road to the Briwet Bridge, two weeks previously picked up an animal near Dolgellau and the next day a lactating female and very young cub from the A498 on the Glaslyn. That is an awful lot of otters. Kate recently pulled together a list for Chris Hall (Dwyrhyd Otter Partnership) of all otters killed on roads from Dwyrhyd catchment in last few years and there were 11 from just that catchment. Watch this space for a forthcoming article on the roads and otters project!

If you see or hear of any otter road deaths, there are two national numbers to call: either Environment Agency Wales on **0800 807060** or Countryside Council for Wales national

number 0845 1306229. In our area it is also possible to contact any of us on the steering group and we can sort it out (contact numbers at the end of this newsletter). On finding a body (or hearing of one), please try and gather as much information as possible, including description of location, grid ref if possible, sex (if you know how). All bodies are sent for post mortem via Cardiff University and valuable info on parasites, diseases and pesticide loading are gathered. Also data on potential road mitigation is gathered.

Otter post mortem research

Dr Liz Chadwick has been carrying the post mortems on animals picked up & sent to Cardiff Uni from England and Wales. From the post mortem, information is gathered on sex & age classes, distribution, cause of death, reproductive condition, fighting injuries, renal calculi, and links into other research such as genetic analysis, gall fluke and paleoecology. A report on the 2004 work detailed at least 9 animals from Gwynedd, 6 of which were males, all of the animals were RTAs. In 2005, at least ten animals were analysed, 5 of which were males, and all except 1 were RTAs. This other one was from the Dwyryd and had been shot, but due to decomposition the true cause of death was undetermined. A full copy of these detailed reports is available on request from the steering group.

About 18 months ago, there was an opportunity to witness a post mortem on otters by Dr Chadwick at Plas Tan-y-Bwlch. This was well attended and fascinating. Dr Chadwick kindly provided the aforementioned reports and the following insight into the process of the post mortems:

Data and tissues collected during post mortem

Morphometric data (overall length and weight) - this gives us to have a broad idea of the age class of the animal, and its condition (health-wise). It also acts as a benchline, to which we can compare organ weights, and ensure that they follow a normal pattern for the size of the animal.

External examination

1. Ectoparasites: Removed and identified, in collaboration with Dr D Forman at Swansea University.
2. Fighting injuries: We look for bite marks, particularly around the anogenital area, feet and head. Competition, particularly between males, can be severe, and may increase with increasing populations. It can also lead to serious infections and in some cases to death of the animal.
3. Nipples: checked to indicate whether a female is lactating, or has previously fed kits - can indicate reproductive state and past history
4. Vibrissae (whiskers) - taken for possible future analysis of heavy metal levels (work has been done in the past, but sample sizes were too small for conclusive results - whiskers are particularly useful as the position along the whisker can indicate when the animal was exposed).

Internal examination

5. Fat layer: on opening the body cavity, it is possible to see to what extent fat covers the abdominal and thoracic cavities.
6. Thoracic cavity: We take the heart, lungs and trachea, which are sent for analysis to detect canine heart worm (D Forman, Swansea University), which is increasingly found in dogs and can be passed to otters - but none have been found so far. We also

look at the lungs for signs of respiratory infection, and the heart to see whether all is normal and the valves are clear - abnormalities have (rarely) been noted.

7. Abdominal cavity

- Liver - taken for analysis for pollutants including organochlorines and PCBs (analysis carried out by the Environment Agency). Also checked for endoparasites such as liver fluke.
- Kidney - checked for renal calculi (kidney stones) which can be found in older animals. Weighed to check normality. Retained.
- Gall bladder - checked for gall stones and flukes (fluke newly introduced into UK, discovered by Vic Simpson in otters from Somerset)
- Adrenal glands - weighed to check normality - they enlarge rapidly when the animal is physiologically stressed, so can act as a health indicator. Also checked for a nodular appearance, which again can indicate health problems. Retained.
- Testes (males) - weighed, to check normality, and retained for possible future work on sperm development.
- Spleen - weighed to check normality, retained.
- Uterus (females) - checked for any thickening, which can indicate a recent or current pregnancy. Incised, to check inside for any foetal development, and also to check for placental scarring which can show that the animal has reproduced previously. Weighed, horn length measured (otters have a 2-horned uterus), and retained.
- Gastro-intestinal tract and stomach, with contents - retained, for current PhD research at Swansea University into diet and endo-parasites.

Bony materials

- Bone - skull, baculum, tibia, fibula and femur (leg-bones), and rib - all retained, variously for morphometric and heavy metal analysis. To be held after use in an existing collection at the national museum, Scotland. Skull morphometric analysis is showing some interesting differences between males and females, while heavy metal analysis has allowed us to identify a decline in lead levels following emissions legislation. Bone also to be used in stable isotope analysis to indicate the relative proportion of marine : freshwater food sources over animals lifetime.
- Tooth - retained for age-determination.
- Baculum (penis bone, males) - Measured, to indicate sexual maturity - a male with a baculum > 60mm in length is considered sexually mature and therefore an adult.

Other

- Scent glands - retained for work on chemical communication.
- Muscle - retained for genetics research, currently underway at Cardiff University. We are aiming to look at genetic variability across the UK and track patterns of spread during the population expansion. Also to be used in stable isotope analysis to indicate the relative proportion of marine : freshwater food sources over recent months.
- Brain and blood - retained for analysis for *Toxoplasma gondii* - this parasite is globally widespread and affects humans, but prevalence in wildlife has not been assessed.

Otters continued....

AFON DWYRYD OTTER PARTNERSHIP UPDATE.

As many of you are probably aware, a network of artificial otter holts were installed on some upland lakes as a result of recommendations made following the upland lake survey

weekends. These holts were recently checked by Kate and myself for signs of occupation. The results were disappointing but this is not altogether surprising as the holts have only been in place for less than a year. Unfortunately two of the holts are in need of some repair work and minor re-siting after severe flooding and storm incidents in the autumn. The holts on Llyn Crafnant require moving slightly further away from the lake shore to avoid flooding during very high water. As all of the materials are already on site this is a fairly minor operation. The large breeding holt installed in the boat house on Llyn Cwellyn however is a rather more serious operation. The three large timbers supporting the holt above the water are currently on the far shore of the lake, the main body of the holt is washed up in the garden of Castell Cidwm and only the lid remains actually in the boat house. Now that we are aware of the potential severity of the flooding and the size of the waves that occasionally affect this part of the lake we can take remedial measures and rebuild the holt. It is planned to carry out the work with a small volunteer work force which will involve Dave Thorpe towing the timbers across the lake for us with a canoe before we can start. Anyone interested in helping out with the rebuilding of this holt and the re-siting of the holts on Llyn Crafnant should get in touch with me.

It is now five years since the monthly monitoring of the Afon Dwyrd sites ended. It was this work which started what has now become one of the most comprehensive volunteer based conservation and research projects on otters in the UK. We now plan to repeat this exercise to try and establish if any changes have taken place in distribution and diet since the project began. This simply entails monitoring a 600m pre-allocated stretch of one bank of the Dwyrd and its tributaries on a monthly basis. All spraints will again be collected for analysis and it is planned to run the project for twelve consecutive months. Again, if anyone is interested in taking part in this, please get in touch.

Chris Hall ADOP.

Kate & Chris are currently collating all the Dwyrd Otter Partnership data and reports from the 3 year SCF project to produce one big report. This will be available as an electronic copy, either by e-mail or on CD to anyone who has taken part in the project and will be available generally for an as yet undecided fee. This will include the digital spraint reference collection as it stands at present. We hope to add to this in the future.

Pine Martens

A few of us will be going over to County Waterford in Ireland in June to take part in a pine marten workshop organised jointly by ourselves, Waterford Institute of Technology and the Vincent Wildlife Trust. We are aiming to share experience with other mammal workers in areas of the UK where pine marten are thought to persist in low numbers, e.g. Yorkshire, South Wales and Cumbria. We will investigate other methods of trying to record this species in these situations and the use of DNA technology. We will report back on this in the next newsletter.

Creature Feature: Moles (Talpa europaea) by Rob Strachan

This is an animal rarely seen but easy to record because of its activity and habit of throwing up piles of soil in obvious mounds known as molehills.

If you do get to see one - they occasionally get killed by foxes and left on the surface and more rarely find their way onto roads - they are easy to recognise due to their short silky black fur, spade-like forelimbs and pink fleshy snout. The head/body length is 113-159mm, with a short tail 25-40mm.



Moles are found throughout Britain but not in Ireland. In Snowdonia they are present in most habitats where the soil is deep enough to allow tunnelling but are uncommon in coniferous forests, on moorlands and in sand dunes, probably because their prey is scarce. Moles spend almost all their lives underground in a system of permanent and semi-permanent tunnels. Surface tunnels are usually short-lived and occur in areas of light sandy soil and in very shallow soils, where prey is concentrated just below the surface. More usual is a system of permanent deep burrows which form a complex network hundreds of metres long at varying depths in the soil. The deepest tunnels are used most in times of drought and low temperatures. Permanent tunnels are used repeatedly for feeding over long periods of time, sometimes by several generations of moles.

Within the tunnel system moles construct one or more spherical nest chambers, each lined with a ball of dry plant material. Nests are used for sleeping and for raising young.

Moles sometimes construct very large mounds containing more than 750kg of soil. The mounds have an internal structure with one or more nests and a network of tunnels and can have food stores. These are known as the "fortress mound" and are built by males and females, and they occur most often in areas with shallow soil on hard substrate and in areas prone to flooding. The fortress acts as a refuge in times of flooding and also helps insulate the nest against low temperatures.

Earthworms are the most important component of the mole's diet; an 80g mole needs 50g of earthworms per day. These are caught as they fall into the tunnels or are encountered when the animal is digging. Moles also eat many insect larvae particularly in the summer. Earthworms dominate the winter diet. Moles sometimes collect and store them alive in special chambers. The stored worms are immobilised by a bite to the head segment, 470 worms have been recorded in one chamber.



Males and females are solitary for most of the year, occupying exclusive territories of about a quarter of a hectare in size. With the start of the breeding season in April, males enlarge their territories, tunnelling over large areas in search of females. A litter of 3 or 4 naked babies is born in the spring. Fur starts to grow at 14 days, eyes open at 22 days and they are weaned at 4-5 weeks. The young start to leave the nest at 33 days and disperse from their mother's range at 5-6 weeks. Dispersal usually takes place above ground and is a time of great danger. Moles are sexually mature in the spring following birth and if they survive that first winter they may go on to reach the ripe old age of 6 years. Their main predators are owls, buzzards, stoats, foxes and cats.

Further Information:

Corbet, G.B. & Harris, S. (1991) *The Handbook of British Mammals* (3rd edn.). Blackwell, Oxford.

Gorman, M.L. & Stone, R.D. (1990) *The Natural History of Moles*. Christopher Helm, London.
Stone, D. (1986) *Moles* Anthony Nelson, Oswestry.

Bat hibernation. By Pauline Barber

Lesser horseshoe bat hibernation monitoring continued until the end of February. Owing to exceptionally warm weather in January & February numbers of bats seen at mine sites is lower than the same months in 2006. Interestingly fresh otter evidence in the mines has also been correspondingly lower. More info on bats to follow in the next newsletter!

New Dormouse site for SNP

A new dormouse site for the Park was reported in March by Jack Grasse. Some people with a chalet at Llugwy, near Pennal, cleaned out their birdboxes in January this year. In early March, they went back to these boxes to fit some squirrel guards and discovered a dormouse nest in one of the boxes. The animal was no longer in residence. It would appear that the dormouse had woken from hibernation early due to the unseasonably warm weather and had then gone back into hibernation when it again turned very cold. In terms of energetics this leaves the animal in a very vulnerable state. It is, however, a new site record for dormice in Snowdonia and hopefully we will be able to record more evidence over the spring and summer.

Confused bat! By Huw Jenkins

They're supposed to hibernate with just the occasional sortie to gather food but this winter they just don't know whether they're coming or going. The numbers counted at hibernation roosts are well down on last winter. Already in mid February there are frequent flyers leaving the roosts at dusk.

I was talking to someone on the phone as I sat in a window seat. Concentrating on my conversation I glanced down at the window catch and noticed a sizeable cobweb. When I tried to brush it away it moved. It was a small bat.



At first I thought how cute and left it be to snooze until night time. But when I looked the following morning it was in exactly the same position, upside down on the window ledge with its head buried behind the latch. But instead of hanging on by both back feet only one was in contact with the wood with the other limply suspended in thin air.

Was it alive? It barely moved when I touched it. What to do? I know these beautiful creatures live 21 years or so. I looked on the web for the local bat group and phoned for advice. I explained that the bat was at death's door.

Sarah could not visit until the afternoon so I was given advice on what to do in the meantime. Basically try and give it some water and keep the dog away!

I put some drops on an in-between-the-teeth brush and offered it to the bat. It looked dazed, confused and pathetic. You could see it's little tongue coming out to sip away. After it had had its fill it then groomed its front wings.

By the time Sarah arrived the bat was back in hibernation on the windowsill. It looked so weak and feeble, I told her I thought it had not long to go. She picked it up and examined it. The wings were carefully unfolded and checked for rips and the bones for breaks but all looked sound. The rest of the body also looked fine.

All this young Pipistrelle needed was to be returned to a suitable hibernation place out of reach of our dog, away from the children and central heating. I was given my instructions.

As dusk fell I picked up the bat, wearing gloves of course, and held it within cupped hands. After about 30 minutes the bat started to vibrate as its body warmed up and it came back to life. It was very alert now with its eyes scanning the room.

I took it outside and let it climb onto my forearm. First the left wing was extended fully and retracted, then the other wing. A brief pause, a final backward glance and it fluttered up into the trees.

I wonder if we'll recognise each other next time we meet?

Squirrel poxvirus on Anglesey. By Becky Groves



Anglesey animal with squirrel pox

Squirrel poxvirus is potentially fatal disease that effects red squirrels and we think may be contributing to the decline of red squirrels across the UK. The UK Red Squirrel group have recorded the virus in Northumberland, Cumbria, Lancashire, Durham and East Anglia. Unfortunately it has now also been recorded by the Friends of the Anglesey Red Squirrel group on Anglesey.

It is not known where the virus originated from, but it is known that the antibodies to the virus are often found in Grey Squirrels. It is however very rare for the virus to actually be found in grey squirrels. Because of this it is thought that grey squirrels may be acting as a carrier of the virus.

Once a red squirrel is infected with the virus it is thought that it dies within a week. Symptoms of the virus include lesions/scabs with discharge around the eyes, mouth, feet and genitalia and the squirrels become lethargic.

In December (2006) unfortunately a male squirrel with the squirrel poxvirus was found in Newborough Forest. The friends of Anglesey red squirrel group managed to catch the individual and took it to the Welsh Mountain Zoo in Colwyn Bay where the squirrel was treated for antibiotics. Unfortunately it died 5 days later.

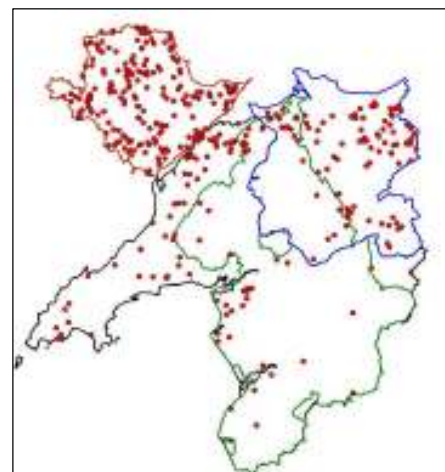
A day after the squirrel was found all of the other nest boxes at the site were cleared of their bedding, cleaned with anti-viral solution, fresh bedding was replaced inside and this had been treated with an insecticide powder. It is hoped that this would be enough to kill off any remaining flea eggs, which may be carrying the virus. All feeders in the vicinity were also taken down and destroyed as a precaution. The population is now currently being trapped during March to monitor the population numbers. This should indicate how many squirrels may have been lost to the squirrel poxvirus. Grey squirrel control is also continuing in the woodland - it is hoped that this will help control the potential spread of the virus.



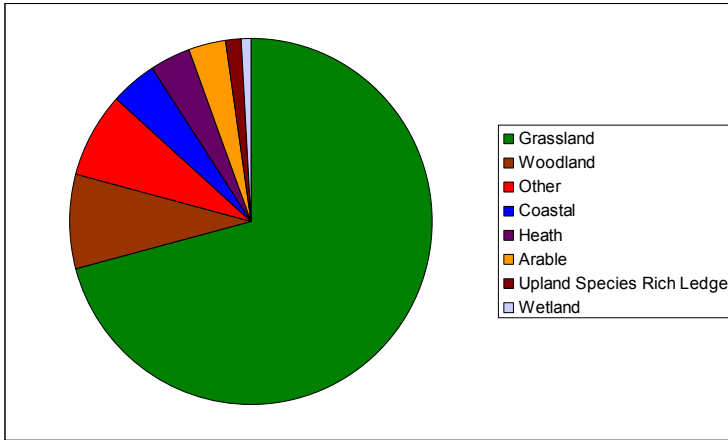
Y Diweddraf am Brosiect yr Ysgyfarnog - Gaeaf 2006/ 07

Drwy gyfrwng cyllid gan Gyngorau Sir Ynys Môn, Conwy a Gwynedd a Chyngor Cefn Gwlad Cymru rydym wedi cwblhau pedwar prosiect annibynnol yn ystod y ddwy flynedd ddiwethaf a nawr mae gennym brosiect newydd gydag Awdurdod Parc Cenedlaethol Eryri.

Arolygon wrth ddesg oedd y tri phrosiect cyntaf, yn



rhoi sylw i Ynys Môn, Conwy (ac eithrio PCE) a Gwynedd (ac eithrio PCE). Ar gyfer yr arolygon hyn roeddem yn dibynnu ar gofnodion y cyhoedd wedi iddynt weld ysgyfarnogod a hyd yma rydym wedi derbyn mwy na 600 o gofnodion ar gyfer Gogledd Cymru gyfan. Roedd y siroedd yn dangos bod i'r ysgyfarnog ddsbarthiad eang (*gweler y map ar y dde*). Gan ddefnyddio data gan CCGC, llwyddwyd hefyd i edrych ar y math o gynefinoedd ble gwelwyd yr ysgyfarnog.



Mae'r siart hwn (chwith) yn dangos ble gwelwyd yr ysgyfarnogod ac mewn pa fath o gynefin - ar gyfer Ynys Môn, Gwynedd a Chonwy.

Cyllidodd CCGC astudiaeth beilot o ddwyseddau poblogaeth yr ysgyfarnog yng Nghonwy a Gwynedd (ac eithrio PCE) yn ystod gwanwyn 2006. Cerddwyd 6 thrawslun 1km ar gynefin o laswellt ym mhob sir a hithau'n wyll. Dim

ond 1 ysgyfarnog a welwyd yng Ngwynedd! (ger Bangor). Ar 3 thrawslun yng Nghonwy, gwelwyd cyfanswm o 9 ysgyfarnog. Roedd yr amcangyfrifon dwysedd ar gyfer Conwy rhwng 0.22 ysgyfarnog / he a 1.65 ysgyfarnog / he. Wedi dadansoddiad pellach o'r cynefin o amgylch ar y 12 trawslun, gwelwyd bod y gorchudd o laswelltir wedi'i drin yn amrywio o 30% i gymaint â 90%. Gyda'r pedair trawslun a oedd yn cynnwys ysgyfarnogod, y canran isaf o laswelltir wedi'i drin oedd 65% a'r uchaf, 90%. Gwelwyd coetir llydanddail lled-naturiol mewn tri allan o'r pedwar plot; fodd bynnag, dim ond ardal fechan (1-3%) a orchuddiwyd gan y cynefin hwn.

Nod y prosiect cyfredol gydag APCE yw cael syniad o ddwyseddau poblogaeth yr ysgyfarnog. Mae 40 o wahanol safleoedd wedi'u dewis ledled y Parc Cenedlaethol. Mae'r safleoedd hyn yn cynnwys cynefinoedd o gonwydd, coed llydanddail, twyni tywod; glaswelltir asid yn yr ucheldir; rhostir; mosaig a thir isel. Mae gan bob cynefin 5 safle, ac eithrio'r tir isel ble ceir 10. Oherwydd bod amser yn brin, gofynnwyd i wirfoddolwyr gymryd rhan yn yr arolwg hwn. Mae pob goruchwylydd yn cael ei drawslun ei hun i'w gerdded ddwywaith rhwng dechrau Rhagfyr a diwedd Chwefror. Bydd yr adroddiad ar gael yng ngwanwyn / haf 2007. Manylion pellach am y Gogledd.

NEWYDD DDOD I LAW

Bydd prosiect newydd yn cael ei lansio yng Ngogledd Ddwyrain Cymru, yn cael ei gyllido gan Gymdeithas Swolegol Gogledd Ddwyrain Lloegr

Daliwch i anfon eich cofnodion am ysgyfarnogod at:

Vicky Swann, Swyddog Prosiect yr Ysgyfarnog, YNGC, 376 Stryd Fawr, Bangor, Gwynedd LL57 1YE, E-bost: VickySwann@wildlifetrustswales.org

Brown Hare Project Update - Winter 2006/ 07

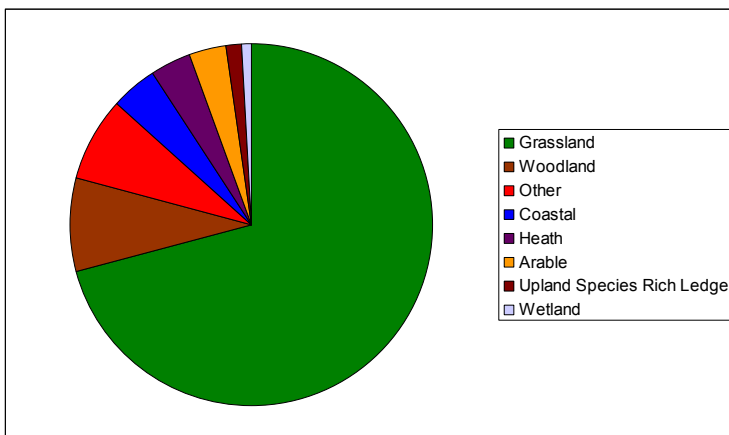


Through funding from Anglesey, Conwy, Gwynedd County Councils and Countryside Council for Wales we have completed four separate projects over the last couple of years and now have a new project with the Snowdonia National Park Authority.

The first three projects were desk-based surveys to cover Anglesey, Conwy (excluding SNP) and Gwynedd (excluding SNP). For these surveys we relied on the public's sightings and so far we have received over 600 records that cover the whole of North Wales.

The counties showed a widespread distribution for the brown hare (*see right*). Using data from CCW we were

also able to examine the habitat in which the hares were seen.



This chart (left) shows hare sightings and their associated habitats for Anglesey, Gwynedd & Conwy.

CCW funded a pilot study into population densities of hares in Conwy and Gwynedd (exc. SNP) during Spring 2006. Six 1km

transects were walked on grassland habitat in each county at dusk. Only 1 hare was spotted in Gwynedd! (near Bangor). 3 transects in Conwy yielded a total of 9 hares. Density estimates for Conwy were between 0.22 hares/ ha and 1.65 hares/ ha. Further analysis of the surrounding habitat on the 12 transects showed that the coverage of improved grassland ranged from 30% to as much as 90%. With the four transects that contained hares, the lowest percentage of improved grassland was 65% and the highest 90%. Semi-natural broadleaved woodland featured in three of the four plots; however this habitat covered a very small area (1-3%).

The current project with the SNPA is again aiming to get an idea of hare population densities. 40 different sites have been chosen throughout the National Park. These sites cover the habitats of conifer; broadleaf; sand dunes; upland acid grassland; heath; mosaic and lowland. Each habitat has 5 sites, except the lowlands which has 10. Due to time limitations volunteers have been asked to take part in this survey. Each surveyor has their own transect which will be walked twice between the beginning of December and the end of February. The report will be available in Spring/ Summer 2007.

NEWS FLASH

A new project is to be launched in North-east Wales funded by the North-east England Zoological Society.

Please continue to send your hare records to:

Vicky Swann, Brown Hare Project Officer, NWWT, 376 High St, Bangor, Gwynedd LL57 1YE
Email: VickySwann@wildlifetrustswales.org

Hedge laying and dormice by Huw Jenkins

I booked myself onto this course because I was keen to learn how to lay a hedge. But what did dormice have to do with the subject?

This was an event organised by Meirionnydd Oakwoods, an EU funded project to conserve and enhance the Atlantic woodlands which in this part of Wales are a rare reminder of what used to stretch the entire West coast of Europe down through Portugal.

In simplistic terms the project is about reinstating the habitat, with fewer conifers, more broad-leaved trees and the knock-on diversity of other plants and wildlife. It's not just a matter of "doing it", it's also a matter of educating the community as to what is going on and gaining their commitment and support and this training course was a part of that.

Rhodri, from the National Trust at Ganllwyd, introduced us to the basics of laying a hedge using an overgrown one that had not been laid since the conifers were planted in the 1930s.



In those days it would have been used to restrain stock but our purposes were slightly different.

The old line of the hedge could still be made out by a row of mature hazel trees albeit with large gaps between. We started at the top end because hedges are laid uphill as this is the direction in which trees grow. We took out the dead wood and removed those large branches or trunks that were pointing in the wrong direction.

One by one the branches were bent towards the desired direction and using a billhook the bottom end, about 6 cm off the ground was cut downwards into until it could be "laid" at an angle of about 30° to the ground. The important thing being to retain a sufficient core of the branch and its bark to form a hinge so that life can flow from the roots.

Stakes were driven into the ground every 60 cm or so through which the laid branches were twisted thereby giving it strength and a straight line.

Quite simple really but when we put the theory into practice several things did not go quite to plan, such as the branches snapping off. Also, there were quite a few gaps that needed to be filled with cut branches and these were supplemented with freshly cut pieces of willow. Cut willow has a 99% success rate of growing when stuck into the ground.

Our other tutor was Jack and this was the dormice connection. Dormice are the subject of a lot of research. Their numbers have fallen dramatically in recent years and this is thought to be a consequence of the disappearance of hedgerows and ancient woodlands. Jack is a veteran of dormice conservation.

The newly laid hedge would be a vital corridor for dormice. They spend 99% of their time above the ground to avoid the predators that lurk below. Without corridors it is difficult for dormice to move to other areas limiting their ability to feed and go forth and multiply.

Jack's spin on hedge laying was not only to create the corridor but also to retain the food. Mature hazel produces great nuts whilst young branches will take 7 or more years before they fruit. To that end we went out of our way to make sure we retained and made good use of the mature branches.

Having laid a section of hedge to act as a corridor we turned our attention to the gaps from which the conifers have been removed, treeless ground is a dormice desert. With mattocks, planting spades and sacks full of young hazel trees we set about our task with little attention to the straight lines used for Sitka Spruce.

As with any course held in the woods of West Wales there is a distinct possibility of rain and today was no exception, it came with a driving certainty. But fortunately Jack had erected a makeshift shelter and we huddled under it for sandwiches whilst he told us more about these rarely seen creatures. Being nocturnal, in the trees and asleep for up to three quarters of their life there's little chance of bumping into one.

The key giveaway that dormice are about is the presence of hazelnuts which have been eaten by them. They eat about 14 a night and take about 20 minutes with each one. It's quite an effort for a small creature to break into the tough shells and they leave a distinctive pattern. Jack showed us how to differentiate between these and nuts eaten by wood mice, squirrels, bank voles and nuthatches.

The presence of shells will tell you they've been around but when? Through practice and research Jack has devised a sophisticated system of age grading from impossible to break between thumb and fingers being last autumn to easily squidged with a splat being 5 years or more. Varying degrees of facial expressions, grunts and adjectives define the ages in between.



A lot of people up and down the country are licensed to take part in monitoring schemes based on putting up and regularly checking nesting boxes. Jack took us through the practicalities of building, setting and inspecting the boxes. How to safely extract the dormouse or dormice without injuring or losing them, how to weigh them, how to mark them and how to put them back into their box.

This is all well and good at a low level but there's a lot of activity high up in the tree canopy and Jack has discovered that there's quite a community in conifers. This presents a

logistical difficulty. How to get a box 8 meters up? How to inspect it without the dormouse running away?



Climbing the branches of a conifer is difficult at the best of times and not advisable on a regular basis. The use of a ladder is possible but it's a heavy item to haul around the woods and health and safety regulations say there must be a 2nd person. Furthermore a 12 stone giant climbing the tree is unlikely to go undetected by the tenants!

Being clever and full of "high" tech ideas Jack has invented the pole box based on a tall pole, from 4 to 8 metres long, on which the box is mounted. The poles are ideally made from straight thin conifers, preferably left a season to dry out thereby being lighter and easier to manoeuvre.

Attached to the top of the pole is the nesting box made from a piece of plastic pipe with wooden discs at the top and bottom. An entrance hole is cut into the pipe and the outside surface scored with a soldering iron to make it climbable. A piece of rubber from an old tyre is used to keep the box together.

So far so good. But how to inspect the box without causing the Dormice to flee the nest? Jack found good evidence of dormice nesting materials but was missing the conclusive proof.

This problem was overcome with a shutter made from a ring of plastic piping cut through such that it was still a tight fit but could be moved up and down. Connected to the shutter was a length of string running down the pole through staples.

Based on this high but low technology Jack now has concrete proof of the presence of dormice living in the canopy of conifers at heights of up to 8m.





uk|National Wildlife
Crime Unit
Operation Bat

Operation Bat came into existence following a consultation in 2003 between the Police service represented by Richard Brunstrum the Association of Chief Police Officers (ACPO) lead on Wildlife, and the Joint Nature Conservation Committee (JNCC). Following this meeting Bat related crime was identified as a wildlife crime conservation priority.

At the same time, a two year joint study between the Bat Conservation Trust (BCT) and the Royal Society for the Protection of Birds (RSPB) had just produced a broad report [Bat Crime](#). The 17 UK species of Bat are offered complete protection of themselves and their resting places under Schedule 5, of the Wildlife and Countryside Act (1981), and their conservation status is threatened in the main by the actions of man. .

In 2004 the Police Conservation priorities were discussed at ACPO level and it was agreed to take bat crime on board. A strategy for dealing with bat related incidents within the police, and a training package on bat legislation and procedures to follow, was produced and Operation Bat was initiated.

However, the current response to this priority is perceived to be patchy across the UK. The situation is not helped in that forces all have differing recording standards, and the true level of criminality involving bats is not known. The BCT have attempted to fill in the gaps on recording known bat offences but it is strongly believed that only a small proportion of incidents come to light. . It is envisaged that the national Standards for Incident Recording when fully implemented will do much to address this situation

Following discussions at the National Wildlife Crime Conference in 2006 it seemed that Operation Bat was not delivering its key objective of improving the response by police to bat related crime. The [National Wildlife Crime Unit](#) (NWCU) now retains ownership of Operation Bat and is in a position to assess criminality, target any activity that illegally disturbs bats and their protected sites of location and enable a coordinated response to any identified offences.

On the 8th January 2007 I took up post with the National Wildlife Crime Unit as Project Officer for Operation Bat. Prior to this I was a serving officer with the North Wales Police, retiring after 30 years of front line service, and having been a volunteer Police Wildlife Crime Officer (PWCO) since 1994. My brief is to find out the extent of the problem with bat offences, collate the police response to reported incidents, identify any bottle necks in the investigations procedure, identify any trends/patterns to the criminality involving bats and their habitats, and offer support to investigating officers.

Initially I shall be collecting data on incident recording, how police forces individually respond, monitoring of ongoing investigations, how much support is available to investigating officers and the number of reported of incidents.

I shall shortly be again contacting all Bat Groups and bat workers and elicit their views as to how individual police forces and the police service are implementing Operation Bat It is hoped and anticipated that at the end of the exercise we will be in a position to suggest a code of best practice to better protect a very special family of animals. If in the meantime you have any thoughts on the matter feel free to contact me.

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Events

- The Mammal Society annual conference will be on 13th - 15th April in Cirencester. Kate will be presenting a paper on the work of Dwyrdd Otter Partnership and the Species Challenge Fund project. There will also be a local groups forum as part of the conference for the first time. It is hoped that there will be stronger links with and more support from The Mammal Society in the future. There is talk of a UK Atlas project and utilising local groups for recording towards this. All our Atlas work will be able to plug straight into to this. There is nothing definite at present, but again, we will report further in future.

As previously mentioned, it was decided that instead of having set species-specific training as part of the Mammal Atlas project, that there would be guided walks where all participants can get involved in recording mammals in certain pre-organised areas. The following is the provisional training walk/event programme for 2007:

EVENT	DATE	LEADER	VENUE
Mammal Detective Workshop	10 th February	Rob Strachan	Plas Tan y Bwlch
Guided walk	Sat 24 th March	Becky Groves	Sq12 SH7060
Guided walk	Sun 1 st April	Kate Williamson	Sq111 SH6000
Guided walk	May	Pauline Barber	Sq44 SH7540
Guided walk	June	Chris Hall	Sq39 SH8545
Guided walk	Sun 1 st July	Kate Williamson	Sq72 SH6525
Bat Walk	August	Chris Hall	TBA
Guided walk	Sat 8 th Sept.	Jan Baylis	Sq93 SH8515
Guided walk	Sun 14 th Oct	Jan Baylis	Sq74 SH7525
Guided walk	November	Pauline Barber	Sq23 SH8050

Please contact Kate for further details.

Final Word

Another plea for help with translation please! If you are able to translate some (or all!?) of the newsletters we produce, or know of someone who might be willing, please let us know.

If you would like to contribute to this newsletter through articles, drawings, photos, editing, please contact us. Thanks!

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