

Glamorgan Recorders' Forum 2008

Best Western Heronston Hotel, Bridgend

Saturday 26 January 2008

The Event Chairman, Peter Williams, introduced himself and welcomed everyone to the sixth annual Recorders' Forum.

South East Wales Biodiversity Records Centre update (Adam Rowe)

The Welsh Network of LRCs went "live" in 2007 and this was celebrated with a launch event on 28th November. The gateway website to all four LRCs is available at: www.lrcwales.org.uk

SEWBRReC also has a new website: www.sewbrec.org.uk which has increased functionality, including an Events Calendar and Discussion Forum. Attention was drawn to Our Services pages www.sewbrec.org.uk/our-services.page - follow the links to information for Data Suppliers or LBAP. There was also an offer of hosting other groups/organisations' websites (SEWBRReC already successfully hosts the Glamorgan Moth Group website).

SEWBRReC reached the million records mark on 8th January 2008. The landmark record was a bryophyte recorded by Sam Bosanquet: *Sanionia uncinata* (Sickle-leaved Hook-moss) on waste ground in Abersychan.

CCW has asked SEWBRReC and other LRCs to start a project to verify the accuracy of data extracted from CCW files. Procedures are being drawn up and work will soon be carried out to evaluate the scale of the task. **Help may be required from VC Recorders and other local experts to review records extracted from CCW files. Please let SEWBRReC know if you may be prepared to help!** CCW's aim is to ensure all of its data is made available via the NBN Gateway in future years.

New Service Level Agreements are confirmed or in progress with Cardiff CC, Neath Port Talbot CBC, Vale of Glamorgan Council and Wye Valley AONB.

SEWBRReC Staffing update:

Four full time permanent staff

- Adam Rowe – Manager
- David Slade – Senior IT & Biological Records Officer
- Rebecca Davies – Senior Data & Enquiries Officer
- Rebecca Johnson – Data & Enquiries Officer

Two full time temporary staff

- Lindsay Bamforth – Biodiversity Information Assistant (CCW)
- Emma Koblizek - Biodiversity Information Assistant

Plus increasing numbers of volunteers!

A full electronic version or hard copy of this presentation may be obtained on request from SEWBRReC, 13 St Andrews Crescent, Cardiff, CF10 3DB, Tel: 029 2064 1110, E-mail: info@sewbrec.org.uk

The State of Biological Recording in Wales: A personal view (Ray Woods, Plantlife)

Started with a slide of the Elan Valley, which was designated as a SSSI to protect it from drainage in the 1970's, but a site visit a few years later revealed a prize meadow here had been ploughed up to accommodate a potato crop. SSSIs are only protected from developments which are recognized by the planning system.

Subsequently a major report was published illustrating species declines, and the Wildlife & Countryside Act was introduced as a result of this compilation of many years' biological recording effort. Following this were the Agri-Environment Schemes (Tir Cymen, then Tir Gofal & Tir Mynydd).

Ray talked about the importance of thorough recording, citing the example of a lichen community at Hafod in West Wales which has since diminished, yet preserved fruiting material allows us to picture the lichens before the increase in atmospheric pollution. However, the lack of early data for some species means that suspected declines cannot be mapped. He described how a minimum of 15 lichen-supporting trees are required to maintain a population, each not more than 40m apart. Intervention (transplanting lichens) may be the only option in some cases to ensure survival of a species, as seed banks are not a viable option for non-vascular plants.

He also stressed the importance of recording at high resolution where necessary, and warned against entering important species at a site centroid grid reference. He also expressed concern at the practice of square-bashing: recording at tetrad or even at hectad- level for atlas production, and promoted the idea that VC lists of important species should be produced so that people are aware of which species should be recorded to 6-figure resolution or higher. He also mentioned that the BSBI, British Lichen Society, and British Bryological Society were in the process of developing new databases and questioned how this might relate to LRCs.

Ray highlighted the importance of biological recording in ensuring good background data is available against which to measure species distributions and sustainability. He also noted that Diana Reynolds has expressed concern that some Local Authorities are still not screening their planning applications against the available LRC data, and thus neglecting their duties under the NERC Act 2006. LRCs can be particularly useful in unearthing records of species which might not be encountered on a site survey, due to seasonality of life cycle, or by virtue of them being in less well recognized species groups.

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Mustelids in South Wales (Dan Forman, Mammal Recorder for V.C. 41)



Mustelids, generally being nocturnal, can be a challenge to record. However, their high levels of activity make them easier to spot, and we can use scat distributions to monitor their presence (assuming they are correctly identified!)

Swansea University, the Cardiff University Otter Project www.otterproject.cardiff.ac.uk & Vincent Wildlife Trust are all involved in monitoring mustelids in South East Wales. If mustelid road mortality hotspots can be identified, then culverts can be created, or ideally incorporated at the road design stage.

Weasel (*Mustela nivalis*) – has a dark spot under the chin and a wavy line between upper & lower pelage (however, this feature is not found in Irish populations). The male can be twice the size of the female, but both sexes are still very small (17-32cm). Weasels can be found anywhere with cover, and can occupy 1-15ha. Under-recorded.

Stoat/Ermine (*Mustela erminea*) – has a black tail tip and clear demarcation between the upper & lower pelage. They have large range sizes (2-200ha) and prefer cover, so they can be difficult to see. Under-recorded.

Feral Mink (*Mustela vison*) – skilled divers, occupying a niche between that of otters and polecats. They appear to be very under-recorded, probably due to their non-native status.

Polecat (*Mustela putorius*) – have come back from the brink, re-establishing from a corner of NW Wales, the populations having recovered following a reduction of game-keeper persecution after the war. If taking photographic records, please include a picture showing the paws, chest area and the face full-on, so that the necessary characters are visible to enable distinction from polecat-ferrets.

Pine Marten (*Martes martes*) – arboreal, very elusive, preferring rocky moorland and conifer forests. Best identified using molecular scatology.

Badger (*Meles meles*) – becoming slightly more diurnal in some less disturbed areas. Surprisingly under-recorded: look out for RTAs, and for signs in coastal areas where they are often overlooked.

Otter (*Lutra lutra*) – “bumpy” outline and characteristic gait. A large animal, with males much larger than females. Riparian and coastal habitats. Natal sites may limit populations. Ongoing national surveys indicate a substantial increase in the number of positive sites recorded. Prof. Mike Bruford (Cardiff University) is using molecular techniques to monitor otter populations on the Gower. Video images and electronic counters associated with fish passes may also yield useful data.

Dan made a general request for more mammal records and/or mustelid dead bodies. If taking photographic records of roadkill, please include pictures of a face (full-on) and front of paws and chest where possible. Please remember to make sure that it is safe to do so first!

For more information or to report a “poleflat” or other mammal records, contact Dan Forman on 01792 295445, d.w.forman@swansea.ac.uk or at The Behavioural, Physiological & Molecular Ecology Group, Institute of Environmental Sustainability, Swansea University, Singleton Park, Swansea, SA2 8PP.

Myriapods & Isopods of Glamorgan (Greg Jones)

The British Myriapod and Isopod Group aims to promote the study of myriapods (millipedes, centipedes, pauropods and symphylans) and isopods (woodlice and water-slaters) by providing information and support to members and holding field meetings. The 2008 Annual Field Meeting will be held in Swansea, 27th March – 30th March 2008, organised by Mark Winder.

<http://mysite.orange.co.uk/bmig/>

British Myriapods

Class: Chilopoda – Centipedes (globally 2800 spp)

Order: LITHOBIOMORPHA – common garden species with 15 leg pairs

Order: SCOLOPENDROMORPHA - common garden species with 21 leg pairs

Order: GEOPHILOMORPHA – (25-30 spp) live within the soil, blind, large number of leg prs

Order: SCUTIGEROMORPHA – no native UK spp, long legs, compound eyes, caves/cellars
Class: Symphyla – Garden Centipedes (12spp) – look like small, slow-moving white centipedes
Class: Pauropoda - these look like springtails but won't hop away when you blow on them.
Class: Diplopoda – Millipedes (globally 10,000 spp) highly diverse

The Literature:

- *Synopses of the British Fauna (Volume 35): Millipedes* by J Gordon Blower, 1985, published by The Linnean Society. (out of print)
- *Synopses of the British Fauna (Volume 49): Woodlice Keys and Notes for Identification of the Species* by P. Graham Oliver and CJ Meehan, 1993, published by The Linnean Society. (available from www.nhbs.com)
- *Centipedes of the British Isles* by EH Eason, 1964, republished in 2003 as a Pisces CD-book edition available from www.nhbs.com

Image: *Tachypodoilus niger* - Greg Jones



For more information contact: Greg Jones at: polydesmus47@yahoo.co.uk .

A full electronic version or hard copy of this presentation may be obtained from SEWBRc on request.

First Year of the Heads of the Valleys Lapwing Project (Colin Cheesman, Blaenau Gwent CBC on behalf of Camilla Smith, RSPB Project Officer)

The Heads of the Valleys Project

- Project coordinated by RSPB Cymru
- Partnership working with Department for Economics & Transport and Blaenau Gwent CBC
- Aim: '...creation of a sustainable network of suitably managed sites for breeding lapwing within the Heads of the Valleys area...'
- Lapwing specific conservation and development management advice
- Targeted habitat management
- Monitoring of breeding populations

The Heads of the Valleys

- Former stronghold for breeding lapwing
- Absence of population estimates due to lack of data
- Threats are: habitat loss due to development / lack of management, disturbance, predation
- Selection of post industrial sites is common

Year 1 of the Project

- Established network of recorders to monitor sites
- Liaison with Local Authorities, Bird Clubs and individual naturalists in the project area
- Supervised contractors on two sites undertaking management work
- Identified management zones for lapwings
- Completed most of the Heads of the Valleys Lapwing Strategy

Lapwing Monitoring

- 30 sites surveyed and compared to historic data.
- Population status was estimated at 31 breeding pairs in the key area.

- Productivity was estimated at 0.19 chicks per pair.
- The range of lapwing was found to have dramatically declined compared to historical data.
- Breeding was not found to occur on all occupied sites.

Lapwing Monitoring Results

- Habitat fragmentation & degradation may be deterministic factors affecting lapwing population dynamics.
- The uncharacteristic weather, also has had a negative impact on breeding lapwing in 2007.
- The selection of suboptimal habitats & high corvid densities also has had a negative effect.
- The survey identified lapwing management zones within the key area to use as a basis for targeted habitat management and searches for potential lapwing mitigation/compensation sites.

What next....

- Continuation of lapwing monitoring
- Production of the Heads of the Valleys Lapwing Strategy
- Management of the mitigation areas
- Seek opportunities for new lapwing breeding habitat e.g A465 dualling
- Draw down funding from Heads of the Valleys Regeneration Strategy and Europe to support habitat management work and long term work
- Continue to work in partnership with Local Authorities, local bird groups and individual naturalists.



*For more information, please contact: Camilla Smith, Heads of the Valleys Lapwing Project Officer, Blaenau Gwent CBC, Business Resource Centre, Tafarnaubach Industrial Estate, Tredegar, NP22 3AA; Tel: 01495 355826, Mob: 07889 615749; Email: camilla.smith@rspb.org.uk.
A full electronic version or hard copy of this presentation may be obtained from SEWBRc on request.*

Seashore Sightings (Judith Oakley)

Judith began by explaining how the dynamic habitat of the seashore was a fascinating place to record. Oxwich Point on Gower is particularly diverse in habitats and species. She gave a fascinating whistle-stop tour of her top records for each taxonomic group (including Porifera (sponges), Cnidaria, Crustacea, Mollusca, Echinodermata, and Chordata) over the last year, illustrated by some incredible photos. Judith finished by underlining the importance of establishing proper legal protection for marine habitats and species. Her website can be found at www.oakleynaturalimages.com and she also highlighted www.marlin.ac.uk as a useful resource. For any queries, contact: jomoakley@btinternet.com

Climate Change: the implications for Wales & its biodiversity (Dr Hefin Jones)

General background information:

There had been a substantial increase in global average temperatures since 1950, which corresponds with the exponential increase in CO₂ since that time.

Greenhouse gases

- Greenhouse gases: CO₂, CH₄, H₂O, CFCs
- CO₂ is a major contributor to the greenhouse effect, but CH₄ is 20 times more potent
- Absorption of solar radiation by greenhouse gasses is what causes the greenhouse effect

General impacts of climate change:

Sea level rise

How much will sea level rise? IPCC predict an average rise of 12 cm by 2030, 50 cm by 2100. 50% of humanity inhabits the coastal zones around the world, and the lowest lying land is some of the most fertile.

Effects on plants and animals

Two species of the genus *Prunella* were shown to respond in opposite ways to raised CO₂ concentrations, one species showing a reduction in growth and the other an increase. Even different ecotypes of the same species (*Bromus erectus*, *Senecio vulgaris*, *Senecio jacobea*) demonstrated different responses to raised CO₂ concentrations.

Indirect effects of elevated CO₂ include:

- Leaves of plants in higher CO₂ may be thicker, have more starch and more carbon based defences against herbivores.
- Insects that eat plants usually limited by nitrogen supply - may need to consume more, they may develop slower.

Effects on agriculture

Crop distribution:

- Low temperature constrains on crop production lifted in many regions.
- 1°C increase in mean annual temperature will move northern boundaries 150 - 200 km north
- Pole-ward extension of the northern boundaries of most crops.

Distribution of species

The Silver-washed fritillary, *Argynnis paphia*, is stable at its southern boundary in Fennoscandia and extending at its northern edge. There may also be a shift in biome patterns: some are expected to decline in original extent, while others may show an expansion

Changing patterns in disease

- Increased spreading of diseases; tropical diseases could spread into mid-latitude.
- Spread of malaria by mosquitoes: optimal temperature 15 - 32°C with 50 - 60% humidities
- IPCC predict malaria incidence could increase from 45% - 60% of world population by 2050

Human migration

Environmental Refugees may total 150 million.

Implications for Wales:

Climate Change: the implications for Wales

The Welsh Climate Predictions for 2080:

- warmer by 1.1 – 2.9°C
- wetter in winter by 7 – 24%
- drier in summer by 7 – 14%
- windier by 1 – 4%
- Very cold winters become increasingly rare
- But, if the Gulf Stream weakens or 'switches off', Wales's climate will cool significantly.

The Snowdon Lily, *Lloydia serotina*, (and other arctic-alpine plants in Britain) may not be able to adapt, as possibilities to move uphill or further north are limited. Migratory bird arrival dates may alter, and this could cause problems if it is out of sync with available food (such as invertebrates). Robin and Chaffinch egg-laying dates are significantly earlier. Food webs may be affected e.g. sandeel populations are in decline and these are the favoured food of Puffins.

Water Management

- dry summers may mean drought in 18 of 43 supply zones by 2025
- more storage from winter to summer? export of water to England? more demand for irrigation?

Agriculture

- Cereal yields reduced by higher temperature
- Seasonality of grass growth is altered
- Livestock suffer heat stress
- Climate change impacts on pests and diseases are unknown.

Tourism

- 7.5% of Welsh economy, 10% of jobs
- Importance of outdoor tourism; sector sensitive to climate change
- Expand into spring and autumn?

Biological recording is critical in the process of researching climate change as it is not a subject which can easily be studied in the lab, and so records are vital!

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Discussion

A representative of the Glamorgan Recorders is needed on the SEWBReC Board of Directors

- Only 3-4 meetings per year
- A vital link between the recording community and your LRC
- Brings Glamorgan into line with Gwent

An individual to represent Recorders at the Glamorgan Biodiversity Advisory Group (GlamBAG) is also required. Roles will include:

- To be a recorder representative at GlamBAG meetings.
- To act as a representative at future Glamorgan Recorders' Forum meetings.

The two positions could be combined or carried out by separate individuals. Peter Williams has kindly offered to continue his role as Chairman at future Glamorgan Recorders' Forum meetings.

Laura Palmer suggested that people take this issue back to their recording groups and put it to people who might be interested but weren't present today. There was unanimous agreement that this issue needs resolving this year. Adam Rowe proposed that expenses could be covered for volunteers for the SEWBRc role, and Alison Jones thought it should be possible to cover GlamBAG expenses. AR invited people to contact him for informal discussion. **Please consider seriously whether you or anyone you know can fill these important roles.**

Recorders' Newsletter

Currently, SEWBRc produce a newsletter for Gwent, with contributions from the recording community and LBAPs. It was suggested that the newsletter be extended to cover both Gwent and Glamorgan, and there was a good consensus that this would be appreciated. A decision will be made after consulting attendees of the Gwent Recorders' Forum in February.

Changes to the Recorders' Forum format

People were invited to discuss possible changes to the format of the Recorders' Forum. Laura Palmer expressed concerns that an evening meeting would not be long enough to accommodate the same number of talks and discussions, and it was decided to keep the Forum on a winter Saturday daytime. The proposal to have a joint Recorders' Forum with Gwent was supported by Rob Nottage, who noted that the talks were usually general enough to apply to both vice-counties. Alison Jones pointed out that travelling times could be a concern for some. It was agreed that the idea of a joint meeting could be discussed at the Gwent Recorders' Forum in February (16th).

Outdoor Summer Recording Event

The Gwent Recorders Group held a "Biodiversity Blitz" in Cwm du, Blaenserchan (Torfaen) this year which yielded 290 species records, despite not being well-attended. The Glamorgan Recorders were asked whether they would be interested in similar event, and Rebecca Davies suggested that one could be arranged for both Vice-Counties, with invitation open to both events. She also reminded people to propose under-recorded sites (with sufficient parking!) so that permission could be gained in advance. The Tir Gofal Farmers Association may have some potential sites lined up.

Any Other Business

Laura Palmer queried who was coordinating the Amphibian & Reptile Group in Glamorgan. Sarah Mellor was not present to comment. In the meantime it was suggested that records are sent to SEWBRc.

Adam Rowe announced that a Mammal Atlas covering Glamorgan and Gwent was in the initial stages of development. The five-year timescale plans to generate interest and coordinate recording in year one, and to publish a provisional atlas in year two to encourage further recording. Casual recording and systematic survey of squares are both encouraged. Recorders were reminded that common mammals such as rats, mice, rabbits and moles are still under-recorded. It is hoped that the People's Trust for Endangered Species (PTES), Mammal Society and Bat Conservation Trust will all be involved. Anyone interested in this project is encouraged to contact SEWBRc or keep an eye on the news section of their website www.sewbrec.org.uk/news.page for further details.

The Chairman closed the event by thanking Bridgend CBC, Merthyr Tydfil CBC and SEWBRc for making a financial contribution. He then thanked the SEWBRc team for organising the Forum, with particular thanks to Rebecca Davies for all her hard work. He congratulated the speakers on interesting and stimulating presentations, and finished by giving thanks to the attendees for coming.