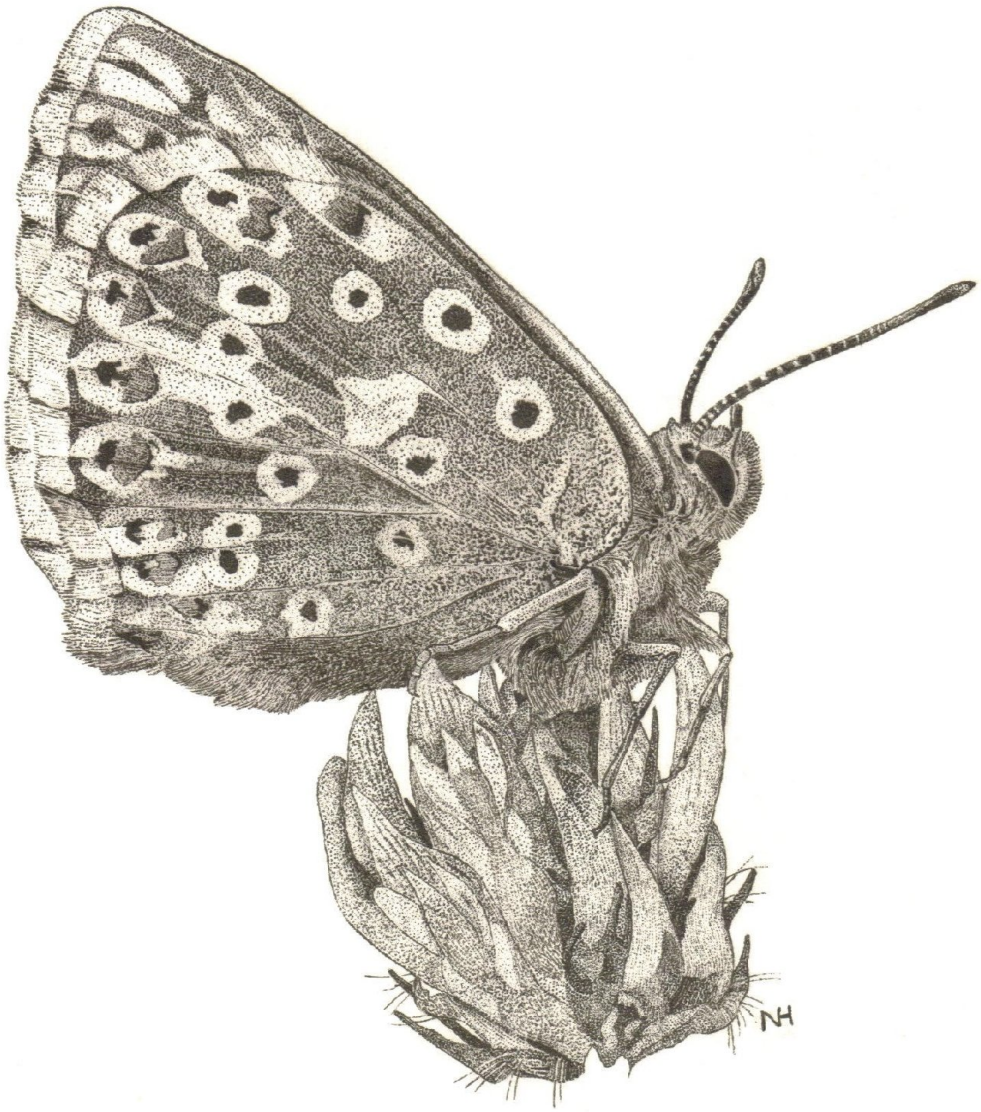
ADASTRA 2009



An annual review of wildlife recording in Sussex

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ADASTRA 2009

A review of wildlife recording in Sussex in 2009

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Cover picture: Chalk hill blue, *Lysandra coridon*, by Neil Hulme.

The Sussex Biodiversity Record Centre (SxBRC) in 2009

by Henri Brocklebank, Biodiversity Record Centre Manager

We have been publishing Adastra for eight years now and as I read through this year's contributions it is impossible not to notice the dramatic increase over that period of recording intensity and enthusiasm that is now so prevalent in Sussex. I challenge anyone, from any walk of life, not to be enthralled by Howard Matcham's microfungi article. It is the enthusiasm of recorders like Howard that inspires others, both those already recording a particular facet of the natural world, and those who don't, to take a closer look at the wonderful and often 'weird', world around us.

I cannot imagine that there is a county in the UK where it is more of a pleasure to work with the local recording community. Every day we are working with such exceptional levels of commitment, with ever increasing dedication not just the accuracy and amount of recording that takes place, but also to the clean data exchanges that are so fundamental to our work in SxBRC. I am not even going to mention any increase in the number of records in SxBRC over the past year (which is very out of character for me) as it is the dramatic increase in quality that has been the highlight of 2009 for us. Numerous important datasets have been through a 'deep cleanse' and this process will no doubt continue into future years.

International Year of Biodiversity

2010 has been declared the International Year of Biodiversity (IYB) by the United Nations. The website of IYB-UK, run by the Natural History Museum on behalf of the UK partnership supporting IYB, is at http://www.biodiversityislife.net/

Their message is that "Biodiversity is the variety of life on Earth. It is essential for sustaining the natural living systems or ecosystems that provide us with food, fuel, health, wealth, and other vital services.

Humans are part of this biodiversity too and have the power to protect or destroy it. Currently, our activities are destroying biodiversity at alarming rates. These losses are irreversible, impoverish us all and damage the life support systems we rely on. But we can prevent them.

We need to reflect on our achievements to safeguard biodiversity and focus on the urgent challenges ahead. Now is the time to act."

So I thank all of the contributors to this year's Adastra and also take this opportunity to thank all of those recorders that SxBRC has worked with throughout 2009. I feel very strongly that we have a clear shared vision for biological recording in Sussex and everyone at SxBRC has really enjoyed working with you all throughout the year.

Vascular plants

by Alan Harmes & Alan Knapp, Sussex Botanical Recording Society

The Sussex Botanical Recording Society continued recording for the new Flora of Sussex and are still on track to publish around the end of 2012. Thanks to the efforts of a number of members of the SBRS, every complete tetrad in Sussex has, with one exception (TQ92K), over 200 records and over 380 tetrads now have more than 300 records. During the last two years of recording our focus will move toward refinding records for scarce and declining species. We are now well on with preparing draft species accounts (65% complete) and work has started on a number of the introductory chapters including geology and soils, land use and conservation.

Interesting finds this year included first East Sussex record for **Greek dock** (*Rumex cristatus*) in Lewes, **four-leaved allseed** (*Polycarpon tetraphyllum*) at Sovereign Harbour, Eastbourne, x *Dactylodenia legrandiana*, the hybrid between **heath-spotted orchid** (*Dactylorhiza maculata* ssp. *ericetorum*) and the northern form of **fragrant orchid** (*Gymnadenia conopsea* ssp. *borealis*) on Ashdown Forest and the second UK record for the hybrid, **blue fleabane** (*Erigeron acer*) x **Guernsey fleabane** (*Conyza sumatrensis*) growing together with both parents on the banks of the A27 at Patcham. Last year we mentioned the discovery of **ivy broomrape** (*Orobanche hederae*) in East Sussex. This year it has been found in several other East Sussex locations around Ditchling and also on introduced ivy in Crawley industrial estate. One of our rarest roses is **round-leaved dog-rose** (*Rosa obtusifolia*) but this year an extensive colony was found NE of Ringmer.

In West Sussex a large colony of **saltmarsh goosefoot** (*Chenopodium chenopodiodes*) has been found at the new RSPB reserve NW of Selsey. This is the furthest west of any extant population on the British mainland. The only other Sussex location for this species is at the other end of the county, in and around Rye Harbour Nature Reserve. We also confirmed the presence of **common water-crowfoot** (*Ranunculus aquatalis* sens. str.) near Partridge Green, a species which, despite its English name, we thought had gone from Sussex. **Cut-leaved teasel** (*Dipsacus laciniatus*), a giant relative of **teasel** appeared, together with the hybrid with **teasel** (*Dispascus fullonum*) by a footpath near Strood Green. The **Rottingdean sea lavender** (*Limonium hyblaeum*) which has long been known at Rottingdean is slowly extending its range and this year a few plants were found at Selsey. **Wall bedstraw** (*Galium parisiense*) has only once before been recorded in W. Sussex but a large patch was found in the Fontwell Service Station on the A27 east of Chichester in early summer and, later in the year, on a nearby road verge a colony of one of our rarest umbellifers, **spreading hedge-parsley** (*Torilis arvensis*) was discovered.

We continue to find more **rootless duckweed** (*Wolffia arrhiza*) in East Sussex, this year it was abundant in a few ditches between Lewes Railway Lands and the Ouse. However, despite further searches, we still have not rediscovered it around Amberley in West Sussex.

Orchids in Sussex

by David Lang

Once again the orchids suffered from the erratic weather, resulting in poor flowering, with the flower spikes withering quickly due to drought or failing to appear at all. The latter was marked in early-flowering species and was possibly due to the persistent and intense cold in early spring which can cause the developing flower spikes to cease growing at an early stage in development.

Green-winged orchid (*Orchis morio*) flowered reasonably well in many sites, with yet again a superb show on a garden lawn near Arlington.

Early-purple orchid (*Orchis mascula*) similarly flowered moderately well around Beachy Head district, with a fine show of white flowered plants in a wood near Offham.

Early spider-orchid (*Ophrys sphegodes*) did badly, being absent from many sites in the east of Sussex. Flowering at Castle Hill NNR at Balsdean was abysmal – the site in poor condition and only 85 spikes to be found on 2nd May.

Greater butterfly-orchid (*Platanthera chlorantha*) was present in good numbers at Steers Common, but poor elsewhere, while **lesser butterfly-orchid** (*P. bifolia*) continues to hang on in low numbers at the few known sites.

Fly orchid (*Ophrys insectifera*) failed to make an appearance in most of the known woodland sites, a pattern of behaviour which also affected **bird's-nest orchid** (*Neottia nidus-avis*).

Lizard orchid (*Himantoglossum hircinum*) flowered again in two sites in East Sussex, and a report was received of a plant flowering in Seaford in 2008.

Lady orchid (*Orchis purpurea*) flowered again at the site near Belle Tout, but was promptly picked. The same fate befell the hybrid between **fragrant orchid** and **heath spotted-orchid** (*Gymnadenia conopsea* ssp.*borealis* x *Dactylorhiza maculata* ssp. *ericetorum*) – the first record of this particular hybrid in Sussex – which appeared near the Wych Cross Centre, only to vanish within 24 hours.

Early marsh-orchid (*Dactylorhiza incarnata*) was recorded in two new sites near Chichester.

Burnt orchid (*Orchis ustulata*) in its late-flowering form (var. *serotina*) did very badly in the dry summer, with a count of only 3 in one site which can boast a count in hundreds in most years, and a handful found in only two of the other eight sites.

All the autumn-flowering helleborines performed badly, such spikes as did appear withering before pollination could be affected or being eaten off by slugs, as happened to the road-side plants of **pendulous-flowered helleborine** (*Epipactis phyllanthes*) at Graffham.

We have now experienced three consecutive years of fairly disastrous flowering performance of our native orchids in Sussex, the only bright spot being the fine show of hundreds of **fragrant orchid** (*Gymnadenia conopsea* ssp. *densiflora*) seen on the SBRS outing to Ditchling Beacon on 8th July!

Bryophytes – mosses, liverworts and hornworts

by Howard Matcham, Sussex recorder for bryophytes.

Sussex is an extremely well recorded county and new Vice County records are few and far between. This year, an interloper from Surrey, Peter Howarth, found an exceptionally rare species at Powdermill Reservoir in Brede High Woods. *Micromitrium tenerum* (**millimeter Moss**) is, as its colloquial name suggests, not easily seen! A mud-loving specialist, *Micromitrium tenerum* was currently known in Britain only from Vice Counties 4 and 52, North Devon and Anglesey respectively. Formerly recorded in West Sussex, VC13, it has not been seen for many years and is probably extinct due to lack of habitat. Currently and for some years past, the previous location for this moss has had an artificially high water level for fishing purposes. Peter also found the rare BAP moss *Weissia rostellata* (**beaked beardless-moss**), also a mud-loving species at the same location. This species has two post 1950 extant records in East Sussex but has never been recorded from VC13.

Local, and seldom recorded bryophytes found this year include *Discelium nudum* (**flag-moss**) discovered by Neil Armstrong in a wet woodland, now Crowborough Country Park (formerly part of Crowborough brickworks), a third site for VC14 in TQ52. A second record for *Grimmia lisae* (**Lisa's grimmia**) was found at a cemetery in Brighton, VC13, in an extensive linear area of a finely graveled path by Peter Hill-Jones, Rod Stern and I when recording under-recorded tetrads and hectads for the forthcoming second edition of the Sussex Bryophyte Atlas. The leafy liverwort *Calopogeia neesiana* (**Nees's calypogeia**) had a second record collected on a Southern Group meeting of the British Bryological Society at the bog at Hurston Warren by another interloper from Surrey, Howard Wallis. Formerly an exceedingly rare species in southern Britain it is now known to be in adjacent VC11, North Hampshire and in VC17, Surrey. It may be increasing in frequency or bryologists are becoming more aware of critical morphological differences with congeners.

As mentioned above the second edition of the Sussex Bryophyte Atlas is now in the preparation stage and my thanks to the Sussex Biodiversity Record Centre who having supplied Recorder 6.0, I am now actively inputting data directly to Woods Mill. By the end of March 2010 approximately 7,000 records will have been accumulated and we hope to publish the results later in the year. Besides me, Peter Hill-Jones, Malcolm McFarlane and Rod Stern are engaged in field work recording in the areas of Sussex that need 'gap-filling'. A considerable amount of work has been undertaken by us since the *Atlas of Sussex Mosses, Liverworts and Lichens* (Rose, Stern, Matcham & Coppins) was published by the Booth Museum in 1991. Several species have been added to the overall total for Sussex which is remarkably rich for a lowland county of England with approximately 565 species. Several of these species have not been seen in the county for many years and it is perfectly reasonable to assume that they have become extinct. A handful has not been recorded since the end of the nineteenth century.

Lichens

Sussex Lichen Recording Group meetings and finds (2009),

by Jacqui Middleton, Secretary SLRG

We began the year with a visit to Knepp Castle (Pond Tail Farm) . We were investigating the old park trees and a woodland and a few concrete features. Wild daffodils blanketed the floor of the woodland and we had a good count of lichens for the day. Other species seen included buzzard, common lizard, slow worm, lots of frogs (and frog spawn), sloughed skin of a grass snake, roe deer and a fox (being chased by what looked remarkably like a hunt). We had a total of 64 lichen species by the end of the day which included *Normandinia pulchella*, 6 species of *Pertusaria* and *Chrysothrix candelaris*.

In May we visited Stanmer Park (two old orchards). The trees were generally covered in lichens and *Parmelia saxatilis* was particularly abundant which was nice to see. However, our count was pretty respectable even though we kept to corticolous species - 30 species for the first orchard - south facing and well-lit; and 20 species for the second orchard which was rather shaded.

In October we were invited to survey Markstakes Common in East Sussex by the local "Friends" group. Here, we were investigating the old wood pasture and we managed to get around most of the main areas. There was a

reasonable variety of lichen species on the oaks around the common but the most interesting trees of the day were the hornbeams. There were some lovely large specimens and some were covered in huge patches of *Graphis elegans*. The hornbeam also had some excellent colonies of *Pertusaria* species. Our count was pretty respectable even though we kept to corticolous species - 38 species.

The last meeting of the year was at Petworth Park in December where we concentrated exclusively on parkland trees, especially those adjacent to one of the ponds. We really only scratched the surface as many of the trees were thick with lichens. There were very good populations of the Parmeliaceae and *Pertusaria* spp., most notably *Parmelia saxatilis*, which appears to be decreasing in many places and *Pertusaria coccodes*. We also managed to carry out a clean air survey for Opal (Open Air Laboratory) – details of which can be found on the British Lichen Society website (www.thebls.org.uk).

If anyone is interested in joining our Sussex Lichen Recording Group to look at lichens and other lower plants please contact Jacqui Middleton by email (jacquiandbruce@tiscali.co.uk). We have four meetings a year and our group has all levels of identification abilities. Beginners welcome.

Notes on lichen survey at Ebernoe Common

by Neil A. Sanderson

As part of determining the future management of Ebernoe Common, the Sussex Wildlife Trust commissioned me to resurvey the epiphytic lichens flora in 2009 and set up some monitoring plots within the woods. This was part of a wider project with the dead wood invertebrates also being systematically looked by other surveyors. The survey was very successful with a lichen flora rich in national and county rarities with many new species recorded for the site. The New Index of Ecological Continuity (NIEC) for Ancient Woodland for all data scored 24, with a score of 21 using the 2009 data only, a good total for Sussex but not as rich as the scores of 30 – 40 found in lichen-rich woods to the west. This reflects past likely losses to acidifying air pollution, with the base rich bark on old trees good for Sussex but well down on sites to the west. In contrast a total of 3 Nationally Rare and 29 Nationally Scarce species have been recorded at Ebernoe since 1968, with 3 and 24 recorded in 2009 respectively. This is a much more impressive total and exceeds such select sites as Rushmore Woods in Cranborne Chase and is not far behind other rich sites to the west. This reflects the survival of a good range of old growth woodland habitats, especially on wound tracks on beech but also acid bark on old trees, smooth bark on old hazels and standing dead wood. The latter assemblage appears to have considerably increased in diversity since the 1980s. The whole assemblage is threatened by increasing shade and future management needs to work out compromises between the various features of interest on the common.

The more exciting records include:

Arthonia zwackhii (Near Threatened & Nationally Rare): on an old ash, parasitic on another lichen *Phlyctis argena*, new to Sussex, first record east of New Forest.

Arthothelium ruanum (Nationally Scarce): on old hazel in the north of the common, rare in Sussex, first record for county since 1973.

Bacidia incompta (Vulnerable, Nationally Scarce & BAP species): highly threatened former elm specialist, found on a wound track on beech in Leconfield Glade, an important find.

Byssoloma leucoblepharum (Near Threatened & Data Deficient): on north of site on one oak, new to Sussex, major extension to known range, with nearest site in New Forest.

Chaenotheca hispidula (Nationally Scarce): on oak in far north of common, first record since the 19th C for Sussex.

*Chaenothecopsis nigra (*Nationally Scarce): on one dead oak in south of common, lignum specialist very rare in Sussex.

Eopyrenula avellanae (Nationally Scarce & International Responsibility Species): on old hazel near kiln, only known Sussex site, where not recorded since the 1990s.

Eopyrenula grandicula (Nationally Scarce & International Responsibility Species): on old hazel in the north of the common, rare in Sussex.

Lecania cyrtellina (Nationally Scarce): in a wound track on old beech in north of common, new to West Sussex.

Microcalicium ahlneri (Nationally Scarce): on one dead oak in south of common, lignum specialist rare in Sussex.

Normandina acroglypta (Nationally Scarce): in a wound track on old beech, Leconfield Glade, new to Sussex.

Pertusaria pustulata (Vulnerable, Nationally Rare): refound in poor shaded condition in a relic glade south of Leconfield Glade, first record for the common and Sussex since 1982, an important rediscovery.

Psilolechia clavulifera (Nationally Scarce): on root plate of fallen beech in south of the common, new to Sussex and SE England.

Ropalospora viridis (Nationally Scarce): on acid beech and an aspen in the south of the common, new to Sussex. A western species, not previously known east of the New Forest.

Strigula jamesii (Nationally Scarce): in a wound track on old maple in north, new to Sussex.

Seaweed (Marine Algae)

Ian Tittley, Department of Botany, Natural History Museum, London

The Natural History Museum was commissioned by Natural England to undertake a detailed study of the intertidal marine biotopes (communities) of the chalk shores of the two Sites of Special Scientific Interest between Brighton and Beachy Head. Field. Work was completed in July 2009 and involved ecological studies at 22 sites approximately 1 km apart (cf Table 1). This study created an opportunity to record species although the main aim was to record the downshore and alongshore extents of biotopes as a baseline for future condition status monitoring of the two chalk reef SSSIs. Full data are presented in a recently submitted preliminary report (Tittley et al., 2009) currently under review by Natural England.

A provisional list of the marine algae recorded and the sites at which they were found is given in Table 2 (for full nomenclatural citation see *Algaebase* at //www.algaebase.org). Further work remains to be done on the field collections that will undoubtedly yield additional species records, and confirm those such as *Ceramium* spp., *Porphyra* spp. and *Ulva* spp. identified only to genus and those provisionally identified to species. A small number of species found were of particular interest. These included four species whose distributional range has been extended east along the English Channel (*Champia parvula*, *Chondracanthus acicularis*, *Gelidium latifolium*, and *Pterosiphonia pennata*); *C. parvula* was found at site 17 (east of Cuckmere Haven) and was previously known to occur only to Swanage (Hardy & Guiry, 2006) and Brighton (historical specimen in BM – possibly drift). *Chondracanthus acicularis* was found as far east as site 22 (Beachy Head) a 150 km extension in range east of its previously known location on the Isle of Wight. *Gelidium latifolium* found at site 18 (near Birling Gap) and also previously known only to the Isle of Wight. *Pterosiphonia pennata* (previously recorded by this author at Newhaven – an extension in range east) was found in the present survey further east at site 22 (Beachy Head). *Sporochnus pedunculatus* was also found further east of its known distributional limit (Hardy & Guiry, 2006) but only as drift material.

There were also four non-native species of particular note, *Caulacanthus acicularis* (a Pacific strain cf. Mineur & Maggs, 2009), *Colpomenia peregrina*, *Grateloupia turuturu*, and *Sargassum muticum*). Further work is ongoing to confirm the specimen records of *C. ustulatus* that are easily confused with the native *Gelidium pusillum*. This species is a recent introduction to Britain and has spread rapidly along the south coast of England; it is now a major characterising species of intertidal biotopes. *Colpomenia peregrina* spread to the Britain in the early 20th century and its discovery in East Sussex represents a spread east. *Grateloupia turuturu* has been known to occur in West Sussex (Pagham Harbour) since the 1970s; it was first found in Britain in 1969 and is now a common element in rock-pools on chalk shores. *Sargassum muticum*, first found in Britain on the Isle of Wight in 1973, now occurs commonly in rock-pools on the chalk shores of East Sussex and locally characterises a pool biotope.

Table 1. Sites studied.

Site	Location	OS Reference
1	Brighton Marina	TQ 34721 03043
2	Ovingdean	TQ 35965 02546
3	Rottingdean	TQ 37310 02044
4	Saltdean Lido	TQ 37997 01937
5	Saltdean	TQ 38829 01618

6	West of Telscombe Cliffs	TQ 39161 01484
7	Telscombe Cliffs	TQ 40153 01060
8	East of Telscombe Cliffs	TQ 41052 00730
9	West of Peacehaven Heights and Friars Bay	TQ 42092 00411
10	Peacehaven Heights – Harbour Heights (Friars Bay)	TQ 42936 00215
11	Newhaven west of harbour breakwater	TV 43876 99945
12	West of site 13 towards Seaford Head	TV 49330 97807
13	Seaford Head below settlement and beacon	TV 49871 97538
14	Between Seaford Head and Cuckmere Haven	TV 50487 97384
15	West of Cuckmere Haven	TV 51142 97439
16	East of Cuckmere Haven	TV 52389 97348
17	East of Cuckmere Haven (below and between Rough Brow and Rough Bottom)	TV 53131 97061
18	east of Flagstaff Point (west of Birling Gap)	TV 54091 96674
19	Birling Gap west	TV 55117 96189
20	Birling Gap east	TV 55830 95601
21	Below Shooters Bottom (east of Belle Tout)	TV 57217 95347
22	Beachy Head by lighthouse (east)	TV 58293 95233

Species recorded (bracketed numbers refer to table above):

Chlorophyta (green algae): *Bryopsis plumosa* (13); *Chaetomorpha ligustica* (1,7,9,10,11,13,15,18,20,22); *Chaetomorpha melgonium* (13,20); *Cladophora rupestris* (7,9,12,13,14,15,17,18,20,22); *Cladophora sericea* (1,3,7,8,9,10,11,14,20,17,21); *Derbesia* sp.(14,17,18,21); *Ulva lactuca* (1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,19,20,21,22); *Ulva linza* (2,3).

Ochrophyta – Phaeophyceae (brown algae): *Cladostephus spongiosus* (1,2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20,21,22); *Colpomenia peregrina* (9); *Cutleria multifida* (*Aglaozonia*) (17); *Dictyota dichotoma* (1,2,3,4,5,7,8,9,11,12,13,1 , 15,16,17,18,19,21,22); *Elachista fucicola* (10); *Fucus serratus* (2,3,4,5,6,7,8,9,10,11,12,13,14,15,17,18,20,21,22); *Fucus spiralis* (5,12,13,15,16,17,18,21); *Fucus vesiculosus* (2,3,5,6,7,9,10,12,13,14,15,16,17,18,19,20,21); *Halidrys siliquos* (15,17,18,19,21); *Laminaria digitata* (3,8,9,10,11,12, 13,14,15,18,20,21,22); *Pylaiella littoralis* (2,10); *Ralfsia verrucosa* (1,2); *Saccharina latissima* (1,3,5,7,8,9,10,11,15,16,17,18); *Sargassum muticum* (2,3,5,11,13,14,15,16,18,22); *Stypocaulon scoparium* (1,2,3,7,9,10,11,15,16,17,18,21); *Taonia atomaria* (1,3,7,16,17).

Rhodophyta (red algae): *Ahnfeltia plicata* (3,15); *Calliblepharis ciliata* (1,7,14,15,18,19,20,21); *Caulacanthus ustulatus* (to be confirmed); *Ceramium deslongchampsii* (9,14); *Ceramium gaditanum* (2,3,4,7,8,12,15,16,17,19,20,21); *Ceramium virgatum* (3,4,5,7,8,9,10,11,12,13,14,15,16,17,18,19,22); *Champia parvula* (17); *Chondracanthus acicularis* (11,20); *Chondria* sp. (1,17); *Chondrus crispus* (1,2,3,5,7,8,9,10,11,12,13,14,15,16,17,18, 19,20,21,22); *Colaconema daviesii* (2,4,7,11,12); *Corallina officinalis* (1,3,4,5,6, 7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22); *Cryptopleura ramosa* (1,3,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22); *Cystoclonium purpureum* (2,3,7,8,9,12,13,15,18,19,20, 21,22); *Delesseria sanguinea* (13); *Dilsea carnosa* (9,11,13,14,15,17,18,19,20,21,22); *Erythroglossum laciniatum* (20); *Furcellaria lumbricalis* (14,17,21,22); *Gastroclonium reflexum* (3,7); *Gelidium latifolium* (13,18); *Gelidium pusillum* (3,4,5,6,7,8,9,10,11, 12,13,14,15,16,17,19,20,21,22); *Gracilaria gracilis* (10,14,16,17,18); *Grateloupia filicina* v. *filicina* (7); *Grateloupia filicina* v. *luxurians* (7); *Grateloupia turuturu* (1,3,7,9,15,16,17); *Gymnogongrus crenulatus* (13,14,15,17,20,21); *Halurus equisetifolius* (12,13,14,17,18,19,20,21,22); *Halurus flosculosus* (1,3,5,7,8,9,12,13,14,15,16,17,18,19,20,21,22); *Hildenbrandia* spp.(2,8,9,16,20); *Hypoglossum hypoglossoides* (15,17,19,20,22); *Lomentaria articulata* (1,3, 5,7,8,9,10,11,12,14,15,16,17,18,20); *Mastocarpus stellatus* (1,2,3,5,7,8,10,11,12,13,14,15,17,18,19,20); *Membranoptera alata* (5,9,10,11,13,14,15,18,20,22); *Osmundea hybrida* (16,20); *Osmundea pinnatifida* (1,3,4,5,7,8,9,10,11,12,14,15,16,17,18,19,20,21,22); *Palmaria palmata* (1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18,19,20,21,22); *Phyllophora crispa* (17,22); *Phyllophora pseudocaranoides* (3,11,12,13,14,15,17,19,20,21,22); *Phymatoliothon lenormandii* (1,2,3,4,5,6,7,8,9,10,11,13,14,15,16,17,18,20,21,22); *Plocamium cartilagineum* (3,5,7,9,10,14,15,17,18,19,20,21,22); *Polysiphonia fucoides* (3,4,5,7,8,9,10,11,12,13,14,15,17,18,20,22); *Porphyra* spp. (7,16,19); *Pterosdiphonia pennata* (3,9,14,15,17, 18,19,20,21,22); *Rhodothamniella floridula* (2,3,4,5,6,7,8,9,10,11,13,14,15,17,18,19,20,21,22); *Rhodymenia holmesii* (19,20,21,22).

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Charophyta – stoneworts.

by Frances Abraham

Since the last report in Adastra 2007 there has been a trickle of stonewort records, mainly of the commoner Sussex species *Nitella flexilis* (**Smooth Stonewort**) and *Chara vulgaris* (**Common Stonewort**). Several of these have been welcome confirmations of earlier records. Of the less common species, Alan Knapp's discovery of *Nitella mucronata* (**Pointed Stonewort**) in a new location near the Adur west of Shermanbury Place in October 2009 was notable. *Chara virgata* (**Delicate Stonewort**) was found at Partridge Green, where it was last recorded by the venerable botanist William Borrer in 1834. And, also in October 2009, Martin Willing and I re-found the Red Data List species *Lamprothamnium papulosum* (**Foxtail Stonewort**) in its only Sussex site in a ditch near Great Deep on Thorney Island, where it had not been seen since 1998.

We are approaching the last years of recording for the new Sussex *Flora* and, since it is proposed to include stoneworts, we would be especially grateful for any records. All stonewort records are of interest and, as identification is not always a simple matter, we would be grateful if you could send specimens as well as the usual details. Please especially check out any recently cleaned ditches and ponds, including in brackish habitats, as these are often good hunting grounds.

Fungi

by Martin Allison

Autumn 2009 was far from conducive for fungi, with very dry conditions prevailing well into the season. The best period was mid to end November but ironically, I was abroad for the majority of that time. For this article, records are virtually all restricted to East Sussex, with the exception of Pulborough Brooks. This is because my home base is in Crowborough, and the necessity of fitting the site visits around a busy work schedule restricted the scope of recording.

Recording began from work in mid September, but several anticipated forays were cancelled due to the dry conditions. The first record of interest was from the Woodland Trust site at Views Wood, Uckfield, where as luck would have it the whole morning was plagued by the first torrential rains of the autumn. After a couple of very wet hours in the woodland with little of real excitement found, a fungus was seen on a fallen hazel branch. This rather uninspiring specimen turned out to be *Dichomitus campestris*, at the time thought to be a new record for Sussex. However, whilst on a visit to Long Wood, near Northiam, the following week, the owner of that site showed me a photograph of what was surely the same species, which she had found in February 2007, so this latter record, although not substantiated with a specimen, is probably the true first county record. The species appears to be slowly expanding its range in southern Britain.

A day visit to one or two sites on the Ashdown Forest in mid September was rather unproductive due to prevailing dry conditions, but it was exciting to find the striking *Cordiceps longisegmentis*. This species grows from underground false truffles, and on digging a little deeper we found *Elaphomyces muricatus*, one of several possible hosts. The second new vice county record for the autumn came from the RSPB Fore Wood reserve near Hastings, in the form of *Amanita argentea*. This looks like the common **grisette** *A. vaginata*, but has a relatively tough volval bag and unusually persistent velar remnants on the cap, which are tough and not easily rubbed off. There are only 35 previous records on the Fungal Records Database (FRDBI), and none on the Association of British Fungus Groups (ABFG) CATE database. There is a single record for West Sussex from Warnham Nature Reserve, Horsham in 2007. The current known distribution of this species is restricted to southern counties of England, plus north Wales and the Welsh borders.

Another pleasing species seen at Fore Wood was *Psathyrella pygmaea*. This is a look-alike for the common **fairy inkcap** *Coprinellus disseminatus*, but is far less frequent. There are no records from East Sussex on the two main databases, and only one from West Sussex (in 2004) making this the third new vice county record for 2009. Not bad for a poor year!

Over in West Sussex, at Pulborough Brooks RSPB reserve, amongst the few common species recorded during another very wet morning, we found **onion earthball** *Scleroderma cepa*, This is a scarce species usually associated with oak on sandy ground.

Back in East Sussex, this time at Brede High Wood, a record was received for *Lactarius quieticolor*. I have recorded this species from the site previously, as well as from other scattered locations in Kent and East Sussex including Bixley Woods. It associates with pine on acid sands, so is likely to be found in other new localities, although it belongs to a complex group of closely related species around **saffron milkcap** *L. deliciosus*, and care is needed in identification.

A foray was held at the new RSPB reserve at Broadwater Warren in mid October. This site is a mixture of overplanted heath and ancient woodland including some important wet valley woods and mire. The plantations support the usual suite of associated fungi, but it was a pleasant surprise on the day to find the splendid, and very poisonous, **panther cap** *Amanita pantherina*, growing with oak and birch amongst the conifers. A final foray in East Sussex, at Abbot's Wood on 23rd October (and once more in heavy rain), produced nothing of great note, but a few less common species were present, including *Clitocybe cerrusata, Agaricus dulcidulus* and *Gamundia striatula*.

Following on from my article in Adastra 2008, I revisited several sites for "hedgehog fungi" in the Ashdown Forest area, but not a single fruit body could be found. This group of fungi tend to appear early in the autumn, and were no doubt affected by the drought conditions during September 2009.

Microfungi

by Howard Matcham, Sussex Microfungi Recorder

The year began with two extraordinary records! I have a woodpile in my garden where I store the winter fuel; entirely of elm that has succumbed to 'Dutch Elm' disease. I use a hand saw; because I enjoy using a hand saw and my dog Lucy can play in the garden without fear of accident. Bored with lack of attention she jumped up at the sawing horse and ran off with the branch that was on it, with me 'tally-ho-ing' behind her. Eventually and after some effort I was able to wrestle the branch from her jaws (Staffordshire Bull Terriers can drag extraordinary lengths of branch and manage to hang on to them) and when sitting down and drawing in lungfuls of air I noticed what I assumed to be a slime mould covering part of the branch. Sawing off a length I took it up to my study and looked at it under the dissecting microscope only then realizing that it was in fact, not a myxomycete but a fungus that I had not seen previously. When I immersed part of the ascomycete in KOH, (potassium hydroxide), the reaction was a dark purple which in itself was unusual. I had no idea of its identity and sent it to Brian Spooner at Kew who was able to identify the fungus as *Pseudotrichia viburnicola*, new to Britain! The type had been collected in France and there have been few subsequent collections. My thanks to Patrick Roper who introduced me to the web address www.ascofrance.com which has excellent photographs of spores; superb colour photographs of this fungus can also be seen on www.picasaweb.google.com

Walking from Strettington to Boxgrove with Lucy in February several fairly conspicuous dark grey, assumed lichens, caught my eye on a standing dead elm trunk, a closer approach revealed them to be pyrenomycetes which were discharging black spores contained in a thick 'jelly like' substance. When I looked at the thallus under the microscope it became apparent it was non-lichenized and viewing the spores led me to the Xylariaceae but I could not key out the genus in the literature. Once again I sent the specimen to Kew and to the amazement of all, the fungus proved to be in a genus not previously recorded from Europe. The specimen has been named as *Jumillera* aff. *cinerea* a very rare species seldom collected and previously known from isolated stations in Argentina, Brazil, Mexico and the State of Louisiana in the U.S.A. Kew sent specimens to Thomas Lassøe, University of Copenhagen, and an authority on the Xylariaceae who agrees with this determination but is hoping to cultivate an *in vitro* anamorph of the species to be certain.

Visit the website http://www.mycology.sinica.edu.tw/Xylariaceae for information on the synamorphs produced by *Jumillera cinerea*. What is this species doing in Sussex? As I write this note in late December a further colony has been found two hundred yards west from the original collection and on elm brush wood.

Although the two species mentioned above have been the microfungi highlights of 2009 the wet summer meant that it was a good year for fungi and several species were found new to Sussex, several of which are host specific; the facultative parasite *Thedgonia ligustri* causes zoned brown spots on the living leaves of garden privet (*Ligustrum ovalifolium*) and I found it new to VC14 (not yet seen in VC13) in a semi-naturalized location in Brighton and it was subsequently found to be at Sedlescombe in Patrick Roper's garden. A further species new to Sussex and also in Patrick's garden on leaves that had fluttered into the 'Square Metre' (http://squaremetre1.blogspot.com/) from a nearby hedge was the host specific facultative parasite *Mycosphaerella buxi* on box (*Buxus sempervirens*).

Rust fungi species have been numerous this year with the host specific *Uromyces minor* found only on *Trifolium dubium* (lesser trefoil) seen on several plants in paddocks at Boxgrove and new to Sussex. *U. dactylidis* attacks *Ranunculus* (buttercup) species and this year I found a new record for Sussex for this species on *R. acris*, (meadow buttercup). It is commonly seen on *R. ficaria* (lesser celandine) but only on the subspecies *ficaria*, I have not yet come across it on ssp. *bulbifera* and I would be most interested to know if it is found on the subspecies. In Eastbourne I came across a large patch of alexanders (*Smyrnium olusatrum*) heavily infested with the host specific rust *Puccinia smyrnii* and although reported as common in the literature this is the first record I have seen in VC14 and it is a rust not yet reported from VC13. *Milesinia scolopendrii*, hypophyllous (borne only on the lower surface of the leaf) on the sterile leaves of hart's-tongue fern (*Phyllitis scolopendrium*), is a new record for the far west of Sussex.

Coprophilous fungi are exceptionally diverse, numerous, and usually overlooked, I normally find them through moist chamber cultivation. This year I found my first field record of *Pilaria anomala* on rabbit droppings in a midden, the same midden had the attractive orange ascomycete *Iodophanus carneus* covering pellets. Horse manure thrown from the paddocks at Boxgrove into large middens at gaps in hedges have a varied coprophilous fungal flora, both macro and microfungi species are numerous; extremely attractive is *Pilobolus crystallinus* a common member of the Mucorales which has sporangiophores swollen at the apex with a black sporangium that is forcibly discharged to release the spores onto nearby grass where it is ingested by the horse, passed through the gut and the cycle begins once more.

The New Naturalist *Fungi*, by Brian Spooner and Peter Roberts, HarperCollins (2005) is a must have read for all would be mycologists and gives an excellent account of the life cycle of *Pilobolus crystallinus*. For the more serious student, *Introduction to Fungi*, John Webster and Roland Weber, (third edition 2007) published by Cambridge University Press is a wonderful encyclopedia for all interested in our fungi and I can thoroughly recommend both of the above books.

NB: My dog Lucy who 'found' *Pseudotrichia viburnicola* new to Britain died in April and, after a month visiting our son in Queensland, we returned to Barney; another of our favourite Staffordshire bull terriers. He runs off with the sawing horse but has not yet made a fungus record of note.

Land Mammals

by Penny Green, Sussex Mammal Group Secretary

There were two main focuses for the Sussex Mammal Group in 2009, one was getting a Sussex Dormouse Network up and running and the other was to get involved with the National Small Mammal Monitoring Scheme (NSMMS).

In the winter of 2008/2009 we ran a Nut Hunt in Sussex, to re-visit woods where **dormice** have been recorded before and get people visiting woods that they think look suitable for this species. The Nut Hunt involves looking for hazel nut shells and identifying what has eaten them from the nibble marks. Twenty four sites were visited, and unfortunately out of these less than half had positive signs of dormice presence. The sites that have provided negative results will be re-surveyed again in the future as nut hunts aren't a fool-proof way of determining if dormice are present. We then found out that there were currently only eight National Dormouse Monitoring Programme (NDMP) sites in Sussex, compared to 70 sites in Kent. So, we thought that it was time that something was done about that, especially as people are always contacting us to say that they'd like to get involved with dormouse monitoring.

As a result, in March we held a meeting for people interested in being part of the Sussex Dormouse Network and over 30 people attended a very positive meeting. We all said what we could contribute to the project; whether it was a licence holder who could provide mentoring for someone that would like to get trained up, someone who knows landowners that might like to get set up with the NDMP, through to someone who has no experience but would really like to be involved.

The SxBRC recording award, which is run each year, gave the Sussex Mammal Group funds to buy wood to make dormouse boxes. The wood was cut against the template and was taken along to Springwatch at Stanmer Park. People were given the chance to sponsor a box and this money then went back in to the pot to help pay for training; at the end of the day we had a huge pile of dormouse boxes ready to go. As a result of this we were able to provide three sites with 50 new boxes in 2009, and we still have some wood left to make more in 2010. We held two training days during the summer for people that would like to obtain their licence, one at Mallydams and one at Wakehurst Place, both established NDMP sites and both had excellent tutors who enthused the 38 people that attended these courses.

We then went about setting the newly trained people up with licensed mentors across Sussex and they are in the process of getting experience in order to obtain their licences. These people can then go on to help set up and monitor new NDMP sites, and in the meantime we are working with various organisations and other licensed people to monitor new sites.

We are also running another Nut Hunt this winter 2009/10 in conjunction with the People's Trust for Endangered Species (PTES) who are running a 'Golden Nut Hunt' across the UK. We have 14 people surveying sites (some multiple sites) and we hope that the results will come back from PTES once they have checked the nibbled nuts that have been sent in to them. Unfortunately the wet weather that we had in November may have scuppered the survey as the nuts have decomposed beneath the leaf litter. If any positive results come back then we can consider entering them in to the NDMP.

The Mammal Society's National Small Mammal Monitoring Scheme (NSMMS) was launched in the autumn of 2009, so having run a few training days over the last couple of years we were ready to jump in to action. Unfortunately we were only given a couple of weeks to do so and having been allocated 12 tetrads across Sussex it was difficult to get landowner permissions in time to run the surveys in the allocated period. Additionally some of the sites had shoots going on at that time – so not ideal circumstances to start with. The survey is an ongoing one though, there is another set of surveys coming up in the spring, so hopefully we'll have more luck then. There are various surveys to conduct for the NSMMS which include small mammal trapping, field vole surveys, owl pellet diagnosis, harvest mouse transects and so on. If you would like to get involved then please contact us, we'd appreciate it: sussexmammalsurveys@googlemail.com

We had an excellent response to our pleas for mammal records at the last Sussex Biological Recorder's Seminar, so thank you to all of you who reported your sightings. There was a particularly good number of **brown hare** records sent in, as people noted them when they were out and about walking on the Downs, and we even had one keen recorder that found hare paw prints in the snow, now that's commitment! The lack of **hedgehog** records which we highlighted in last year's Adastra has been addressed with many records of live hedgehogs, rather than just road kill, being sent in – especially from recorders' gardens and sometimes people have been lucky enough to see young too. **Weasel** and **stoat** records also came rushing in, people noting that they were seen with prey or cheekily investigating the recorder. We have had several more **polecat** records sent in to us from various locations across Sussex, but without an expert looking at the pelage it is difficult to determine if they are 'true', domesticated or hybrid polecats. As we have been lending out the Longworth small mammal traps more often we have seen an increase in mouse, vole and Shrew records too. If you have experience in using these traps and would like to borrow them then please get in contact. We encourage you to carry on sending in your mammal records please, whether it's an actual sighting of a mammal or a sign that it has visited. Please send your records in to: pennygreen@sussexwt.org.uk

Otters and water voles

by Fran Southgate, Sussex Otters and Rivers Partnership

Otters

This year appears to have been a turning point for otters in Sussex. After a faltering start, regular otter sightings and signs are now being found on the river Arun, and unconfirmed sightings are coming intermittently from a few other Sussex rivers.

At the end of 2009, a combination of professional surveyors and dedicated volunteers managed to survey over 300 sites in Sussex for otter signs. Although few signs were found, it appears that there is more regular otter activity in the County than ever before. This was confirmed when a dead otter was surprisingly found on the A22 near Pevensey levels – a relatively central geographical point to the County. Two otters also escaped from a wildlife centre in Turners Hill, although one unfortunately immediately died. There is still no room for complacency however. At best, the Sussex otter population still only numbers a few individuals.

Water voles

Despite the continuing efforts of many landowners and conservation organisations in Sussex, it appears that water voles are still both a threatened and vulnerable species in the County. Thanks to a grant from the People's Trust for Endangered Species, a volunteer (Matt Smith) was able to carry out a ten year update of the National Water Vole Survey. In 1989, this survey showed water voles still survived at 75% of the sites surveyed. By 1996, only 5% of sites surveyed had water voles, and this year, when the sites were re-visited, only 1% of sites had any water voles present. That's a 99% decline of one of our best known wetland mammals, right under our noses and despite huge efforts to slow this decline.

In Sussex there are only three remaining key areas where water voles survive in any numbers. These are the Chichester Coastal Plain, Pett Levels and Romney Marsh, and the river Arun (predominantly a population which was introduced in 2006 by the Arundel Wildfowl and Wetlands Trust.) This recent survey highlights how critical these last remaining core populations are to the survival of the species as a whole in the County and underline how devastating the destruction of our wetlands has been to some of our key wetland species. It also underlines how critically important the maintenance of both mink control and wetland habitat restoration is within these core areas.

There have been vast improvements in the way we manage our rivers and wetlands and in how we look at our countryside not just as isolated pockets of wildlife, but as an interconnected landscape, through which both people and wildlife can move. We have realised that Ratty can't survive in isolated nature reserves but needs to be able to move through the countryside to find food and breeding mates and to adapt to changes in the environment including the climate.

Sea Mammals

by Stephen Savage, Sussex Country Recorder for Sea Mammals, Sussex Regional Coordinator for the Sea Watch Foundation.

Another interesting year of sea mammal sightings, in quality if not quantity. Only 5 confirmed sightings of **bottlenose dolphins** *Tursiops truncatus* this year. Sightings for this species in 2009 were restricted to the Months of May and June. Locations ranged from Selsey Bill, to Seaford Bay. Sightings were also made at Brighton and Shoreham. Sightings ranged from dolphins transiting along the coast to playing around vessels or feeding. One bottlenose dolphin was observed heading west at Splash Point, Seaford Bay. The dolphin may have been attracted by the terns making spectacular dives for the numerous small silvery fish in the area.

In late August a possible **minke whale** *Balaenoptera acutorostrata* was reported off Rottingdean (just east of Brighton) but we were not able to confirm the sighting and it has also been suggested that this might have been the **northern bottlenosed whale** *Hyperoodon ampullatus* seen off Bournemouth. This is a deep water species not usually found in the English Channel, more at home in the open waters of the Atlantic where it feeds on deep water fish and squid. However it is of course the species that became trapped in the river Thames in 2006. There was also a northern bottlenosed whale stranded on the mud flats near Chichester Harbour at the end of July 2008 which did not survive. The bottlenose whale off Bournemouth also did not survive.

Other Strandings

A stranded **humpback whale** *Megaptera novaeangliae* stranded was found dead in the Thames near Dartford Bridge, Kent on Saturday 10th September. It was first seen alive on Thursday and was originally mistaken for a minke whale. I mention it because this is a possible candidate for the cetacean seen at Rottingdean. A few years ago back in 2001 a juvenile humpback whale was stranded and later died on a beach in Kent. This occurred around the time that we received a report of 3 large cetaceans off Hastings which were recorded as probable humpback whales.

A dead adult **harbour porpoise** *Phocoena phocoena* stranded at Worthing on 30th January. A **long finned pilot whale** *Globicephala melas*, a species of toothed whale, was stranded on Rustington beach, west Sussex on the 7th September. A dead female harbour porpoise was washed ashore at Shoreham Beach 27th November. A badly decomposed common seal was also washed up on Shoreham Beach 16th November.

Seals

Some very interesting seal sightings were recorded including river sightings. First sighting was in the river Adur in West Sussex. A **common seal** *Phoca vitulina* was seen swimming in the lower estuary area of the river on Saturday 17th October. On the Sunday, a seal (almost certainly the same one) was spotted a few miles up river near Upper

Beeding. It's not unusual for common seals to swim up river, especially the Ouse and the Arun. It's thought that these seals are following fish. Unlike whales and dolphins, seals are quite happy in the lower reaches of rivers, being able to haul out from time to time and rarely getting into trouble.

Two common seals were sighted 9th October both inland. The first was reported on the river Arun near Pulborough (West Sussex). The second near Alfriston on the River Ouse (East Sussex). A common seal was also seen just outside the Brighton Marina on Saturday 10th October. On 8th November a common seal was spotted by a paddle-boarder off the Widewater on Shoreham Beach. On 26th November a seal reported as a young **grey seal** *Halichoerus grypus* was seen on the river Adur just past Lancing College.

Final sighting of the year was a common seal on 5th December. It had been resting on the river bank on the river Ouse at Piddinghoe. The seal flopped into the water and was visible for a few minutes before it disappeared.

Sea mammal observations, photographs and other local marine sightings can be found at
http://sussexmarinejottings.blogspot.com/

Seal Tagging Project

An exciting new project took place this year to increase our knowledge of common seals in the Solent and eastern English Channel. The main leads in the project were the Wildlife Trusts South East Marine Programme and Chichester Harbour Conservancy (the latter is the site of a small resident population of common seals). The first step has been to collate all the currently existing seal sightings from various sources including my records for East Sussex and records held by the Record Centre. Harbour seals (also know as common seals) were recently made a Biodiversity Action Plan Species (joining bottlenose dolphin and harbour porpoise) because their numbers overall in the UK have declined dramatically in recent years.

A small population of approximately 15 - 20 harbour seals live in the Solent area and are considered regionally unique and therefore very important. Very little was previously known about the Solent seals, their resting, feeding and breeding sites remain a mystery. Without knowledge of these important sites, little can be done to ensure the marine environment is protected for the benefit of the seals. As mentioned above, transient seals are recorded in East Sussex (including Sussex rivers) and these may come from this Solent population.

Five of the Solent seals were tagged in March using the latest seal monitoring equipment. The tagging operation was undertaken by the Sea Mammal Research Unit (SMRU), the tags transmit using mobile phone networks and provide information on the seals location, dive depth, dive duration and periods spent resting on land. The data received from the tags has been very informative and we now know the seals visit nearly all of the harbours in the Solent - Hampshire, the Isle of Wight, and West Sussex, particularly Chichester Harbour. The seals easterly movements reached Pagham harbour. One seal did travel as far as Worthing, taking two days, sleeping at sea and feeding at depths of 60 metres.
From the tags we have been able to identify approximately 15 feeding grounds that are regularly used by the seals, with some of the most frequented sites found off Selsey Bill. We have also been able to locate primary resting areas. This information is vital if we are to ensure the areas that the seals rely upon are considered in management and conservation plans and development proposals that may affect them.
Although the tags have given us an excellent insight into the movement of the seal population, the tags have now fallen off with the seals annual moult. We are continuing to gather information on seals and photographs, which we hope to use to build up a photo ID profile (common seals have unique spot patterns), will help us monitor the seals across the Solent and Sussex.

As part of this project I was funded to develop an outreach programme which will be delivered to local schools by Chichester Harbour Education Team. I visited a couple of schools during the tagging period and demonstrated the seals movements using Google Earth. If funding becomes available the tagging may be repeated in 2010.

Seal sightings can be reported to Steve Savage, Sussex County Recorder Sea Mammals on 0777 361 0036 or stevep.savage@ntlworld.com

Bats

by Cath Laing, Sussex Bat Group

Last year we made a big step forward in bat recording in Sussex. Until recently, one version of the Bat Record Database was held by the Sussex Biodiversity Record Centre and another by the bat group. It was very difficult to make sure that both were identical. Records were coming from a variety of sources and getting muddled and duplicated. Penny Green – the Record Centre species expert– went carefully through our 7000 thousand records and checked each one to ensure that the information was entered correctly.

Penny and her colleagues have also developed a special reporting system which extracts records in a simple, concise and easy-to-follow way. An example of the new report is available on the Record Centre website.

In terms of records gained this year:

- It was a relatively quiet year for rescues and roost visits. We can put that down to the good weather during the maternity season and economic downturn – fewer people moved and discovered bats in their new house! A relatively quiet year is still a tough year for the group's bat hospitals who work day and night during the late spring and summer to rehabilitate and release bats.

- The Bats in Brighton survey took place for a second year (the first being 2007). Over 30 volunteers walked bat detector transects across Brighton. The survey has more than doubled existing bat records in Brighton. Cath Laing is presently doing some analysis looking at the correlation between urban habitats and bat activity and her findings will be available in the bat group magazine, The Belfry, and on the group's website.

- The group is also focusing on National Bat Monitoring Programme serotine colony counts. The bat groups of the South East of England have concerns about this species. It is not a Biodiversity Action Plan species because there is no discernable downward trend in population, but this is likely to be because of under-recording. We are therefore making serotine colony counts a priority, as are our colleagues in Kent and Surrey.

We are asking people who are actively recording bats to fill in a spreadsheet once a year and send it to Cath Laing by the beginning of December. You can download the spreadsheet here from the Bat Group website. We are particularly keen to encourage consultants who undertake commercial work to provide their bat records.

We'd also like to encourage as many people as possible to take part in the National Bat Monitoring Programme this year. The surveys are relatively simple – you don't have to be an expert. To find out more visit this website http://www.bats.org.uk/pages/nbmp.html

Reptiles and amphibians

by Henri Brocklebank, chair of the Sussex Amphibian and Reptile Group

2009 has been a year of consolidation for the Sussex Amphibian and Reptile Group. Running a local recording scheme in the 21st Century requires a few essentials that SARG needed desperately to update, so now we have a revised constitution, which will in turn give us valid insurance cover from UK ARG. We have Health and Safety protocols in place and received funding from OPAL for a new all singing, all dancing website and a 'recording herps' leaflet. With all our new tools in place SARG is ready to re-emerge into herp[1] recording activity from a period where recording has taken a back seat.

This year has also seen the successful launch of the Sussex Pond Inventory. Certain types of ponds (i.e. those supporting priority or 'BAP' species) are described by the UK Biodiversity Action Plan as 'Priority Ponds'. However in Sussex, defining exactly where our priority ponds are has been challenging. Bev Wadge has co-ordinated the training of 25 new pond surveyors. Having each been trained in the relevant ID and recording skills the new pond volunteers are charged with the daunting task of recording the ponds in their parish. In doing so they will identify where the priority ponds are and also where suitable sites for pond creation are. This data all goes back to Sussex Biodiversity Record Centre and provides new datasets not just on Amphibians in ponds but also plants and invertebrates. The survey has proved to be a great success in its first year and Bev is looking to train 25

[1] 'Herp' is short for 'herpetile' the word that covers both reptiles and amphibians. Ed.

more volunteers this year. Barry Kemp provided the herp training for this course and we hope that the experience will generate new herp enthusiasts for the future.

Meanwhile SARG has maintained a continued dialogue with Southern Water regarding the Groombridge Lagoons. The future of the site is still unknown, however the herp interest of the site is considerable and SARG has done great work to ensure that all the relevant parties are aware of this its implications.
SARG played an active role in the controversial 'Downlands enquiry'. The secretary of state was called upon to make the final decision regarding the proposed development of several sites on the outskirts of Uckfield in East Sussex. The eminent herpetologist Professor Trevor Beebee of the University of Sussex inspected the Downlands Farm site and stated that the herpetile interest was extremely high (worthy of a SSSI). This and the evidence of many ecologists and others saw development at this rural site rejected.

Birds

The Sussex Ornithological Society's report for 2008

The number of records submitted for 2009 is as yet unknown as records are still coming in and being collated. The Sussex Ornithological Society received an astounding 191,788 records for 2008, more than four times the number received ten years ago and the highest yearly total ever. If the increase in records continues at the same pace the Society will be well on its way to gathering over a quarter of a million records in 2009.

2008 was not only successful in the number of records received but also in the number of observers submitting records (962, the second highest number ever) and the number of species observed. A very impressive year total of 266 species were submitted and appeared in the annual Sussex Bird Report, the highest number of species since 2000 when 269 species were recorded.

Atlas and BirdTrack data helped to bolster the number of records received but were balanced with traditional recording by observers and collated records from the main birdwatching sites such as Pagham Harbour, Rye Harbour, Pulborough Brooks RSPB, Weirwood Reservoir, Warnham NR, Selsey Bill and Chichester Harbour. Garden Birdwatch data was not received in time for inclusion in the Bird Report and probably accounts for the small drop in the number of observers and is also likely to mean the number of records finally received for the year will top 200,000.

More than 270 official scarce and rare descriptions were submitted for 2008 of which over 200 were accepted by the SOS Records Committee (SOSRC) and 28 by the BBRC and appeared in the relevant reports.

A **River Warbler** at Beachy Head on 30 May was the first occurrence of the species in the county and an unexpected addition to the county avifaunal list. Although it remained throughout the day it was not easy to see, although by dusk most observers present had managed at least fleeting views and the odd burst of its reeling song.

Other rare/scarce species seen during the year included the county's second **Trumpeter Finch** (at Telscombe on 4-6 Jun), third **Terek Sandpiper** (at Rye Harbour on 31 May and later at the Midrips on 1-8 Jun), third Crag Martin seen by one lucky visiting birder (at Truleigh Hill on 21 Sep), fifth **Dusky Warbler** (trapped and ringed at Pett Level on 1 Nov) and only the second county record of a **"Bridled" Guillemot** (photographed at Brighton Marina on 17 Feb). A distant Surf Scoter at Ovingdean during March and April, a mobile Black Stork in the east and centre of the county in May and early June, an obliging **Lesser Yellowlegs** at Sidlesham Ferry in April and an at times elusive **Short-toed Lark** at Newhaven for one day in May provided observers with chances to see species previously seen fewer than twelve times in the county. The **Red-breasted Goose** seen the previous year remained at West Wittering/Chichester Harbour into March before departing but did not return to the county in the second winter period.

Another high year total of **Balearic Shearwaters**, a species of high conservation concern, peaked at 74 including twenty-three past Selsey Bill on 19 July.

A record influx of **Cattle Egrets** into the country resulted in at least sixteen being seen in the county. The high numbers seen in the UK during the year resulted in the decision by BBRC to drop this species from the list on which they adjudicate upon and therefore this species will from 1st Jan 2009 be dealt with by the SORC.

The Sussex County list stands at 389 species as of 31 December 2008.

Egyptian Goose (1 successful pair fledging at least 3 young), **Honey Buzzard** (4 successful pairs fledging 7 young), **Red Kite** (1 successful pair fledging 2 young), and **Peregrine Falcon** (15 successful pairs fledging 39 young) were among the nesting successes of the year. Numbers of **Mediterranean Gulls** nesting at Rye Harbour was down on the number in 2006 (but up on 2007) and reached a minimum of 63 pairs fledging 39 young. At nearby Pett Level a further nine pairs fledged nine young.

In July an adult **Guillemot** with a very young bird was seen off Beachy Head, the second year running this has been observed at this suitable nesting location and may indicate that the species is once again nesting in the county **Little Terns** on the other hand had a terrible breeding year with no breeding attempted at Rye Harbour (only the second time since 1970 that this has occurred) and only three pairs nested at Pagham Harbour and three in Chichester Harbour (although two nests at the latter site are known to have failed).

Breeding waders, as the previous year, also remained rather scarce within the county. **Oystercatcher** breeding pairs increased to 46 (40 in 2007) with a further 8 pairs holding territory; 43 pairs of **Avocet** nested in the east of the county; a minimum of seven pairs (but possibly as many as 15 pairs) of **Little Ringed Plovers** nested; 62 pairs of **Ringed Plovers** bred; **Lapwings** bred at 15 sites (but also possible at a further 32 locations); and up to twenty drumming **Snipe** were recorded in the Arun Valley - the only evidence of breeding within the county.

As usual many of our summering visitors also seem to be faring poorly with just 22 records of probable breeding by **Turtle Dove** and 39 records of probable breeding by **Cuckoo** being disappointing, although the single confirmed breeding records for each species are even more so.

Only 38 pairs of **Swifts** were confirmed as breeding in 29 1-km squares/tetrads, although this must be far lower than the number actually nesting, and causes concern that one of our most familiar summer migrants is having a tough time finding suitable nest sites. It is hoped that some of these can be addressed through the "Sussex Swift Champion" details of which can be found on the Society's website.

The few confirmed records of breeding received for **Nightjar**, **Yellow Wagtail** and **Wood Warbler** were sadly unsurprising but an increase to 30 confirmed nesting pairs of **Spotted Flycatchers** was most welcome

The well-documented decline of the **Willow Tit** continues apace in Sussex and only 23 records were received for the year and there was no evidence of breeding. Due to the species status within the county now and the difficulty of identifying the species in many circumstances Willow Tit has been added to the list of species requiring a description to be submitted to the Society.

A full list of scarce/rare descriptions species, record acceptances and requests by the Recorder and/or Records Committee can be found at the Society's website, along with regularly updated Recent Sightings and a host of other features: www.sos.org.uk

Christian Melgar, Sussex Ornithological Society recorder.

Dragonflies and damselflies

by Penny Green, British Dragonfly Society – Sussex Dragonfly Group Secretary

Data news

The Sussex Biodiversity Record Centre (SxBRC) is proud to announce that in 2009 it exported just under 60,000 Sussex Dragonfly records to the National Biodiversity Network (NBN) Gateway. This was the first dataset to be sent to the NBN Gateway from the SxBRC due to its being a good clean dataset, verified by John Luck, the County Dragonfly Recorder at the time. It is a huge milestone for the group and has led the way for other groups.

The National Biodiversity Network (NBN) describes the Gateway as "an innovative website which acts as a "data warehouse" for biodiversity information, and can be quickly and easily accessed to understand the distribution of particular species in the UK. Individual records can be displayed on a map of the UK in a number of different ways."

The British Dragonfly Society - Sussex Group and the SxBRC have decided that the Sussex dragonfly data will be shown at a 1km resolution and that full details of the records will only be available on request; the user will thus be able to see a map of what data is available for Sussex and then they know that they can come to us for more

information. This way we are not compromising the integrity of the dataset, information on any rare or protected species, or losing track of who has used the data. By sharing this data we will be adding a missing part of the jigsaw on a national level, so that population trends and distributions can be seen much clearer throughout the UK. If you would like to see the Sussex Dragonfly dataset then visit the NBN Website www.nbn.org.uk and go to the "NBN Gateway" tab. It's worth a visit - you can look for individual species, search through the datasets that are available, or even pull up all records for a particular site. Simply type in the species you would like to see a map for, e.g. emperor dragonfly, and when it comes up with the results click on 'Grid map of the distribution of *Anax imperator*' and you can then pick the location and play around with the changeable settings. You can also use the 'interactive map' for which there is a link near the top of the page, so you can view where the data has come from, zoom in, and see this information against different boundaries including SSSIs and other designated sites. This is an excellent tool for highlighting gaps in our data, perhaps this dragonfly season you could explore new or under-recorded areas?

Species News

John Luck was out with a group of National Trust staff surveying the boggy pools on their reserve at Black Down in July when one of the wardens spotted a very small damselfly. John couldn't believe what the warden had found – a **small red damselfly**. This is a scarce heathland bog-dwelling species which has only one other recorded site in West Sussex and a couple more in East Sussex. It is a national rarity which can be found on pools and streams with sphagnum moss on lowland heathland. Its stronghold in Sussex is the Ashdown Forest, especially at the SWT Reserve, Old Lodge. We would encourage recorders to keep their eyes peeled if visiting any of the other western heathlands, such as Marley and Linchmere Commons during its flight period of early June to September. Let us know if you see any.

The **scarce chaser** was recorded in great numbers at Barcombe Mills on the Ouse last year, but despite many visits in 2009 there was a mysterious lack of them. John Luck thinks that this could be because most of the sightings in 2008 were near to a weir and they could have been washed down-stream and this is something that he will investigate in 2010.

Emerald dragonflies are under-recorded, due to their secretive behaviour. When you are lucky enough to see one it rarely settles (when it does it's usually high up in a tree!), and normally whizzes past too quickly to see any diagnostic features to identify which species it is. The **brilliant emerald** is a national rarity and is found only in parts of the south east and the Scottish Highlands; the **downy emerald** has a scattered distribution in the UK with a stronghold in the south east, both species occupy similar locations. They also favour the same type of habitat, mildly acidic lakes and ponds surrounded by woods and slow streams and rivers with overhanging trees and bushes. The brilliant emerald has a yellow 'nose' but this is hard to see in flight, so as Dave Chelmick recommends, try to take some photos, even if they're blurry you can hopefully still see the yellow. The two species have different flight patterns too. If you'd like to learn more about these species then please contact me for a copy of the BDS Sussex Group's Autumn Newsletter which looks at the key identification features of these two species. We'd be grateful if recorders could invest a bit of time in to recording these species in 2010 - we'd love to hear from you if you see any. The High Weald is a particularly fruitful area in which to concentrate your search.

Field events

One of our most successful field events ever was held at Warnham Nature Reserve and Southwater Country Park on 14th June. Hosted by Sam Bayley, the Reserves' Countryside Warden, we were treated to a great day out in the field with perfect dragonfly weather – sunny, no wind and the odd cloud here and there to encourage them to settle every now and again. Twenty three people attended and we enjoyed 17 species of dragonfly and damselfly, with highlights including excellent views of an **emerald dragonfly**, but which one? Although initially no-one was prepared to commit to which species of emerald this was, it soon became apparent that it was a **brilliant emerald** as it kindly patrolled along in front of us showing off its yellow 'nose', a distinguishing feature. We were also treated to all three species of chaser (**scarce chaser**, **broad-bodied chaser** and **four-spotted chaser**) close to each other so we could learn to tell them apart from one another. Sam kindly gave us access to a brick pit at Southwater Quarry where we were delighted to see a spectacular number of **white-legged dragonflies**, or 'flying matchsticks' as they are sometimes called. We estimated that there must have been over 800 present.

A visit to a private nature reserve near Isfield proved to be another excellent day out for the group, with 25 people turning out, including the landowner, and a total of 15 species were recorded on the day. Highlights included early **small red-eyed damselflies**, and the grizzly sight of an **emperor dragonfly** eating a mating pair of **black-tailed skimmers**. It was a privilege for those people that went along to have access to this private nature reserve, which has been created on a farm.

Usually we're pretty lucky with the weather on our field trips, but the first attempt at Black Down on 1st August was scuppered by downpours, although four brave people turned up they only saw one emerging **southern hawker**. But ever-optimistic John Luck decided to go for it and run another trip the following weekend. Four different people turned up and were rewarded for their effort, as this is a beautiful nature reserve well worth a visit. Highlights included three **golden-ringed dragonflies** at 'Discovery Pool' where **small red damselfly** had been found the previous month. Eight species were seen in total.

If you would like to become a member of the British Dragonfly Society - Sussex Group then please contact me: pennygreen@sussexwt.org.uk It's free of charge and you'll receive two excellent newsletters a year, and the chance to attend our field trips. Please send your dragonfly records to the same email address, they will be gratefully received.

Grasshoppers and their allies

by John Paul, Sussex Orthoptera Recorder

The most interesting thing to report on Sussex Orthoptera for 2009 is confirmation that the **southern oak bush-cricket**, *Meconema meridionale*, is established in the county as a breeding species. Roger Hagger, a naturalist based in Eastbourne, reported the insect from his back garden and I arranged to join Ralph Hobbs there on 31 August to see if we could find it. This turned out to be surprisingly easy. Two adults were beaten from pyracantha and a third from ivy. These were photographed and released. Seven more specimens were found by beating ivy in a neighbouring street. Some of these were nymphs.

Roesel's bush-cricket, *Metroptera roeseli*, also had a good year. I had been wondering when this insect would become established in the Adur Valley. In June nymphs were found at Saltings Field, Upper Beeding while doing some general sweeping. Later in August adults were present among patches of field bindweed on the bank of the Adur.

Other recorders have noted Roesel's bush-cricket from the South Downs in 2009 from such places as Ditchling Beacon. It is probably widespread now across Sussex.

Butterflies

by Neil Hulme, Chairman, Butterfly Conservation, Sussex Branch

The butterfly season was largely influenced by three main features of the 2009 weather pattern; a more 'traditional' 2008/2009 winter with prolonged periods of low temperature, a marginally better-than-average spring and summer (with the exception of a poor July), and a protracted, warm autumn.

The frosts and snow experienced at the start of 2009 are conditions historically considered advantageous to the fortunes of our Lepidoptera, probably suppressing moulds, parasites and pathogens. The **wall brown** seems to have benefited greatly in this respect, with first brood numbers being significantly higher than for many years. Foraging by predators, such as small mammals, is also curtailed by lengthy periods of cold. The similar conditions experienced towards the close of 2009 bode well for the 2010 season.

The 'marginally better-than-average spring and summer' was significant in being such an improvement over 2007 and 2008. Many species showed at least some signs of recovery and a few had relatively good seasons. However, numbers of the majority remained low following two very poor years. The **green hairstreak**, **grizzled skipper**, **small skipper**, **Essex skipper** and **common blue** all did badly. Other species, such as the **chalk hill blue**, maintained the trend observed in 2008, doing particularly poorly on some sites, but much better on others. The exposed slopes of Mill Hill at Shoreham again hosted pitifully low numbers of this species, whereas the more sheltered 'Gallops' area at Friston delighted visitors with the sight of literally thousands. Our two most endangered species in Sussex, the **small pearl-bordered fritillary** and **wood white**, maintained their tenuous hold in the highly restricted areas in which they still occur. On a more positive note, the declining **grayling** was seen at Ouse Estuary near Newhaven, some considerable distance from any known colony.

As the phenological 'butterfly calendar' continues to move forward in response to climate change (**grizzled skipper** emerged on the early date of 30th March and **dingy skipper** on 15th April), some species seem increasingly capable of fitting in additional broods towards the end of the year. The 'protracted, warm autumn' saw mid/late September records of third brood **brown argus** and second brood **large skipper**, together with second brood **peacock** and third brood **small tortoiseshell** caterpillars. Records of fresh, male **adonis blue** in October suggest that the species managed a partial third brood at Ouse Estuary and Mill Hill. A second brood **gatekeeper** was reliably

reported on 12th October. **Large white** caterpillars were again spotted in November, although this probably reflects a late-season influx of adults from mainland Europe. These events are just as significant as the trend of increasingly early 'first appearance' dates.

The spring period saw a number of species suffer highly variable fortunes. Amongst the 'post-hibernators', the numbers of **brimstone** were particularly disappointing, although there were some indications of a slight recovery in the **small tortoiseshell**. As we moved into April, our hedgerows, damp meadows and road verges became awash with patrolling **orange tips**, which showed better than for many years. On the minus side the numbers of **holly blue** plummeted, with the 2008 'high' proving to have been a peak in its cyclical relationship with the parasitic ichneumon wasp *Listrodomus nycthemerus*. In May the **Duke of Burgundy** showed some signs of reacting positively to conservation measures, with daily counts approaching 70 on our best (private) site, and the establishment of a satellite colony approximately 0.5 km away.

The 2009 spring invasion of the **painted lady** has already passed into folklore. Increasingly regular sightings through late April and May preceded the massive influx seen between 24th and 29th May. Many observers watched in awe as seemingly endless columns of immigrant butterflies passed north-north-westerly across the county. Although the majority continued on their travels, by 30th May many had 'put down' and were laying vast numbers of eggs at sites including Keymer and on the Downs to the south of Ditchling Beacon. At the latter location this activity subsequently led to the unprecedented sight of approximately 250,000 freshly emerged adults on 31st July. A further brood was produced and there was some evidence of a return, southwards migration.

Summer butterflies that did well included the **large skipper**, **dark green fritillary** and **purple emperor**, with the latter being increasingly recorded across East Sussex, and at altitude along the crest of the South Downs. The **purple hairstreak** had a very poor year, possibly due to difficulties encountered in its larval stage, as the spring foliage of many oak trees was severely damaged by huge numbers of moth caterpillars, including *Tortrix viridana*. The ubiquitous **meadow brown** had a relatively poor year, but remained our commonest species by far.

Diurnal temperature extremes in the first week of June (warm days and notably cold nights) affected the early pupal stage of several species, giving rise in late June and July to an atypically high number of dark-coloured aberrant forms. The **white admiral** (ab. *obliterae* and ab. *nigrina*) and **purple emperor** (ab. *iole/lugenda*) were observed with much-reduced or absent white markings, and the **silver-washed fritillary** (ab. *ocellata*) and **comma** (ab. *suffusa*) occasionally sported extensively blackened areas of their wings.

Of the late summer species, the **silver-spotted skipper** fared better than it did in 2008, with reasonable numbers suggesting that it has now managed to gain a firm foothold at the recently colonised Chantry Hill. The **brown hairstreak** had another good year in Sussex, with many visitors arriving to watch the butterfly at Steyning Rifle Range. The regularity with which our most elusive species was seen here certainly suggests that this represents one of the best *betulae* sites in the UK. By the time that the **wall brown** went to its third brood in warmer locations, it had become clear that this species was one of the 2009 'winners', having regained some ground across its contracting geographical range in Sussex. Although the **red admiral** had another poor year, this ever-popular species produced a reasonable flush of adults from mid September onwards.

Following several poor years, we were treated to the sight of the beautiful, immigrant **clouded yellow**, locally occurring in unusually high numbers. A few that arrived in spring laid eggs, producing a 'home-grown' brood at Ouse Estuary from early/mid July onwards. These butterflies were themselves observed ovipositing, producing further UK offspring in September. However, the 'main event' occurred at Shooter's Bottom, near Beachy Head. Numbers of newly-emerged adults built from mid September, towards a peak of 500+ later in the month. Their ranks were further swelled by a new wave of immigrant butterflies. The stunning, yellowish-white *helice* form was observed both here and elsewhere.

The seemingly endless season was subsequently crowned, through mid September and October, by perhaps the most significant butterfly event of the 21st Century. The **Queen of Spain fritillary**, a very scarce visitor from mainland Europe, appeared in significant numbers (at least 8 individuals) alongside a maize field on the outskirts of Chichester. These were interpreted as the progeny of a female observed less than 500 m away in mid July. A paper currently in preparation (Pratt, C. R. & Hulme, N. A. C.) contends that the species may have been present in the area since 2007, when at least five (a record number) were observed in Sussex.

Butterfly Conservation is a registered charity dedicated to the conservation of butterflies and moths.
Visit www.sussex-butterflies.org.uk

Making butterfly recording easier

by Clare Jeffers, Recording Officer, Butterfly Conservation, Sussex Branch

In Butterfly Conservation, Sussex Branch, we're making changes to our systems for capturing and storing butterfly sightings which we think will make recording easier and enable us to do more with our records. There may be other recorders out there who'd be encouraged to hear that there can be easier ways of doing things and *help is available!* So I thought I'd share some of our experiences in this article.

In late 2008, being the branch's Recording Officer was looking like a pretty onerous job. There weren't many people left on the committee who knew how to work the recording software and getting it to run on Microsoft's latest operating system – *Vista* – wasn't straight forward. With literally thousands of records coming through the door (mostly on paper recording forms) entering all the data into the computer was becoming a real strain. So when Bill Taylor announced he would be standing down from his position as Recording Officer it seemed like a good time to take a look at the way we were doing things.

An important step we took early on was to get a group of us together and think about recording as a whole picture. It's easy to get bogged down in technical discussions about software and forms, but recording is a complicated process involving many aspects:

- Recorders (and potential recorders)
- Tools for capturing records
- Databases for storing and analysing records
- Knowledge required for checking and verifying records
- Sharing records with the SxBRC and national recording schemes
- Publishing records and results of analysis

It soon became apparent that *really* understanding all of these aspects would require an enormous breadth of knowledge, experience and skills – which I don't have! But by setting up a Recording Sub-committee (with lots of talented people on it) we were able to look at the whole picture; understand the different aspects and how they fit together; and then share out responsibilities for the different bits. This team approach was borne out of necessity but it is working really well.

We all agreed that what we *really* want to do is **share** and **publish** our records, but we needed a system that would make the data-entry process easier – so we'd have more time and energy to spend on checking, analysing, sharing and publishing the records. The SxBRC were enormously helpful here. Charles Roper explained the pros and cons of the different types of recording software available, advised us on which software was likely to be the best fit for what we wanted to do, and put us in touch with someone who could provide training. Penny Green pointed us in the direction of funding sources for recording projects and arranged for us to hold the training at Woods Mill (at no cost). And Henri Brocklebank offered the SxBRC's support in other areas, including covering the costs of any printing we needed to do.

One of the reasons we'd stayed with our old recording system for so long was because it was free. But once we'd decided to switch to using the MapMate software the cost really wasn't an issue. We got a 'rollover' Sussex Biodiversity Recording Award which paid for 25 MapMate licences (£367.02), and funding from other sources - including an OPAL Grant – to cover the cost of three training sessions (£240 per session). I would say the training sessions were worth every penny as they really helped us to establish our 'Butterfly Recorders Network' and get to grips with the software.

It was quite a lot of work doing all this thinking, applying for grants, arranging training, etc. And it hasn't all been plain sailing (turns out running MapMate on *Vista* isn't entirely straight forward either!), but as I write this we're on track to get all of our butterfly records for 2009 (more than 20000 records) entered into the sightings database by the end of January 2010 which will be a real sign of success. In 2010 we plan to release a new data entry tool (similar to Species Recorder) which will enable more recorders to enter their own records onto the computer, without having to invest in special recording software, and we hope to develop an online data-entry facility.
So the stage is set for launching the recording effort for a new **Sussex Butterfly Atlas**. We're working hard to make butterfly recording as easy as we can. Please help us by surveying a tetrad near you in 2010. To find out how you can get involved please contact me, Clare Jeffers, or Tom Ottley - our details are at the end of this review.

Can't tell your Browns from your Blues?

We're running a beginners butterfly identification workshop especially for Adastrans (date to be arranged).
Please contact Michael Blencowe (for details see end of this review).

Moths

Rare moths in Sussex during 2009
by Colin R. Pratt, F.R.E.S., *County Recorder of Butterflies and Moths for East and West Sussex*

The number of enthusiasts that have been running light-traps across the county to monitor moths and contribute to the Sussex Biological Recording Centre, to the country-wide Garden Moth Scheme, and to the National Moth Recording Scheme, continues to increase. But, aside from a few exhilarating episodes, 2009 was a disappointing season, both for natives species and continental immigrants.

For native species the season was most notable for sightings of the pyralid *Pyrausta cingulata* in Friston Forest, the **chimney sweeper** *Odezia atrata* at Mayfield, **silver hook** *Deltote uncula* at Amberley, and the **valerian pug** *Eupithecia valerianata* at Storrington, all of which are currently in danger of extinction in Sussex.

Commonplace migrants such as the day-flying **humming-bird hawk** *Macroglossum stellatarum* and the **silver Y** *Autographa gamma* were again at a low level, although migrating hawk moths put in a reasonable showing, with the rare **silver-striped hawk** *Hippotion celerio* at Heathfield, Crawley Down, Portslade, and Walberton, **striped hawk** *Hyles livornica* at Lindfield, Wadhurst, Pagham, Ferring, and Ringmer, and a full-grown caterpillar of the **death's-head hawk** *Acherontia atropos* at Barcombe Mills.

But 2009 will be best remembered as the year when the continental **Rannoch looper** *Itame brunneata* paid its first ever visit to Sussex - or at least was first detected. Thirteen specimens in all were recorded, these being at Shoreham, Bexhill, Icklesham, Etchingham, Walberton, Netherfield, Friston, Peasmarsh, Beckley and Battle. Similarly, our inaugural sighting of the continental pyralid *Udea fulvalis* was made at Ferring by Tim Freed. Further notable events concerned a **dusky hook-tip** *Drepana curvatula* at Haywards Heath, and **Jersey tigers** *Euplagia quadripunctaria* at Ringmer, Winchelsea, Icklesham, and Pagham Harbour.

During the past 160 years the cloaked pug *Eupithecia abietaria* has only been seen on around half a dozen occasions, but this year it put in a fresh appearance at Haywards Heath. Some experts suspect the insect to be an importation on exotic firs, while others include migration as a possible explanation for these eccentric records.

A number of previously exclusively immigrant species continue to colonise the county, including the huge lavender-banded **Clifden nonpareil** *Catocala fraxini* in the far east, the showy **scarlet tiger** *Callimorpha dominula* along the coast between Eastbourne and Worthing, the **olive crescent** *Trisateles emortualis* in East Sussex, and **Blair's mocha** *Cyclophora puppillaria*, **tree-lichen beauty** *Cryphia algae*, and **Dewick's plusia** *Macdunnoughia confusa* in the south-west. Most unusual of all, a colony of the small **peach twig borer** *Anarsia lineatella* continues to thrive at Walberton, this being unique in the whole of the UK.

Much of the above information was supplied by members of the Sussex Moth Group. For information on the Group, and its aims, activities, and meetings, contact the chairman, Stephen Teale, at 63, St Leonards Close, Denton, Newhaven, BN9 0RW, telephone 01273 516716, or e-mail clicka15@ymail.com *For queries and information on the Sussex Lepidoptera contact the County Recorder of Butterflies & Moths for East and West Sussex, Colin R. Pratt, F.R.E.S, at 5, View Road, Peacehaven, East Sussex, BN10 8DE, telephone 01273 586780, or e-mail:* colin.pratt@talk21.com

Coleoptera and Heteroptera

by Peter Hodge, Sussex recorder for these orders

Coleoptera - beetles

The list of beetles recorded from Sussex continues to grow, albeit more slowly, and the elusive target of 3,000 species is at last within sight. With the current total standing at 2,980 my goal is still a few years away but nevertheless some exciting discoveries have brightened the year.

During summer 2009 Mark Telfer was commissioned by Sussex Wildlife Trust to investigate the saproxylic interest at Ebernoe Common and amongst the discoveries made were three beetles not previously recorded from Sussex. Amongst numerous notable species listed in his report the most exciting was undoubtedly the tiny subterranean beetle *Oxylaemus cylindricus* (Bothrideridae), listed as 'Red Data Book – Appendix (Extinct)' in the review by Hyman & Parsons in 1992. Previous records for the British Isles are from the New Forest and Sherwood Forest, all before 1900. During the Ebernoe survey 21 individuals were extracted from subterranean pitfall trap samples at the roots of two oak trees. A single female of *Rhizophagus oblongicollis* (Monotomidae) was recorded from a flight interception trap set in a beech tree. Previous records for this 'Red Data Book 1 – Endangered' species are from a few widely scattered ancient woodland locations. In complete contrast the third new county record from Ebernoe is *Stephostethus alternans* (Lathridiidae), captured in an aerial interception trap set in an oak tree. This recently established alien is thought to have arrived recently from continental Europe and was first found in the British Isles by Norman Heal at Denge Wood, Kent in 1994 and two years later by Brian Levey in Carmarthenshire.

It is impossible to list all the notable species found at Ebernoe this year but one more is worth mentioning. On 8th May 2009 Michael Blencowe photographed a specimen of *Dendroxena quadrimaculata* (Silphidae) at Willand Wood. This distinctive pale brown beetle, marked with four black spots, preys upon caterpillars and has not been seen in Sussex for over 100 years. The other significant find was a much larger beetle that rather surprisingly has not previously been recorded from either East or West Sussex. Towards the end of June I received an e-mail from Dave Monk containing a photograph of the spectacular longhorn *Mesosa nebulosa* (Cerambycidae) that he'd discovered in Brede High Wood and I was pleased to confirm that this Red Data Book 3 species was a new county record. It is associated with dead or recently fallen branches of ancient oak trees and is hard to find because it doesn't appear to visit flowers.

Heteroptera – true bugs

There have been two separate reports of the **fire bug** *Pyrrhocoris apterus* (Pyrrhocoridae) in West Sussex but these have not yet been thoroughly researched. A nice photograph accompanied the sighting from beside the A27 in Worthing, the other record was from the west bank of the river Adur at Shoreham-by-Sea. This spectacular red and black bug was established for many years (and may still be present) on Tree Mallow growing on Oar Stone Rock, half a mile offshore at Torbay in Devon. During recent years a few other colonies have become established (e.g., at Epsom, Surrey) but this is the first report from Sussex.

In September there were several reports of a very large bug flying into moth traps or crawling across pavements. This was the **western conifer seed bug**, *Leptoglossus occidentalis* (Coreidae), a native of North America that was accidentally introduced into mainland Europe. Now it has successfully crossed the Channel DEFRA have labelled the species as a potentially serious pest and the Forestry Commission's Forest Research Agency is monitoring the number of sightings.

Auchenorrhyncha (leafhoppers and planthoppers)

by Alan Stewart, Sussex recorder for Auchenorrhyncha

In last year's *Adastra*, I reported on the recent arrival in Britain of *Prokelisia marginata*, a species of planthopper that feeds exclusively on cord-grass (*Spartina* spp.) in salt-marshes. I reported finding a few adults and several nymphs on the salt marsh at Bosham Ferry and speculated that they would be plentiful the following season. This indeed turned out to be the case. In Sussex, we have located dense populations at both Bosham Ferry and Pagham Harbour. I have no doubt that it would be found at other sites in the county if we looked. Over last season, I conducted a survey of this species across southern Britain in an attempt to establish how far it has spread and over

what time scale. We have now recorded it as far north as The Wash and west to Cardiff. In fact, we found it at every site where a reasonable stand of *Spartina* was present. In the case of some sites, we know from previous entomological surveys that the species was absent only ten years ago, suggesting that this species has arrived in Britain, colonised and spread widely in a very short space of time.

Over the last year, six further species of leafhopper and planthopper have been added to the list of BAP Priority Species in addition to the single species that was on the list before. Three of these species have important populations in Sussex: the **pondweed leafhopper** *Macrosteles cyane* and the planthoppers *Ribautodelphax imitans* and *Eurysa douglasi*, both of the latter occurring on chalk grassland sites. I am hopeful that the extra attention that BAP Priority Species status confers on these species will help us learn more about their detailed distribution and habitat requirements so that we can manage sites more appropriately for them.

Last year, I listed six species that had recently been added to the British list, with records for two of them in Sussex. I confidently predicted that some of the others would be found in Sussex sooner or later, but none of them have turned up yet. I am surprised that *Eupteryx decemnotata* has not been found in the county yet; look out for it on the sage bushes in your garden. Since then, two more species have been added to the British list: neither in Sussex, but there is no reason why they should not occur here.

Finally, readers may be interested to know that we are currently developing a website for the Auchenorrhyncha (leafhoppers and planthoppers) National Recording Scheme. I am hoping that it will be up and running by the spring. This will provide much more information on this fascinating group of insects.

Homoptera – Aphids

Aphids in Sussex *by Howard Matcham*

During late May and early June common nettles (*Urtica dioica*) were heavily infested with the **nettle aphid** *Microlophium carnosum.* Having just a passing interest in aphids my eye had been attracted by noticing that several appeared to be fatter and yellower than others and a closer inspection revealed that these were in fact, parasitized by a fungus. After bryophytes, my passion is microfungi (see above) and a brief Google search elucidated that I had found the fungus *Pandora neoaphidis* (indeed the box has opened and aphids have become a third passion!) the identity of the fungus was later confirmed when I sent specimens to Kew and I was informed that *P. neoaphidis* is the most common of the aphid infecting fungi although mostly overlooked. During the summer hundreds of nettle colonies across Sussex were found to have the aphid and the fungus.

Most of us are familiar with aphid induced galls on trees and herbaceous plants and 2009 has been an exceptional year with, in the Chichester area, elms (*Ulmus procera*) producing hundreds of the **fig gall** (*Tetraneura ulmi*) containing waxy aphids; easily seen are the yellow thickenings on the upper side of the leaf; the most spectacular of the elm leaf galls is *Eriosoma lanuginosum* forming a large bladder containing waxy aphids, two leaves on elm suckers near my home were exceptionally conspicuous and galls opened at the top to reveal apterous vivipara and alate females feeding on large wax balls. Two other galls on leaves of *Ulmus procera* are extremely frequent, *Aceria ulmicola* and to a lesser extent, *A. brevipunctatus.*

The petiole leaf galls of *Populus* species are also extremely conspicuous and once again this year has proved to be conducive to the pouch galls caused by the woolly aphids (all females) *Pemphigus bursarius* with a gall on one side of the petiole and non-spiralled releasing the aphids in June and the spiraled gall caused by *P. spyrothecae* which releases the aphids when the spirals loosen (Redfern, M. Shirley, P. & Bloxham M., 2002). Cultivated apple trees, *Malus domestica*, in my garden were, for the second year in succession, infected by the woolly aphid *Eriosoma lanigerum* which leave an unsightly swelling on the trunk and branches although they do not as yet seem to have affected the crop of apples. I planted the trees about twenty five years ago and to the best of my knowledge 2008 was the first year aphids were apparent.

Organic farming has arrived at Boxgrove and one 26 acre field had been sown with field beans (*Viccia faba*) and although many were infected with the common rust fungus *Uromyces viciae-fabae* I found myself staggered by the number of plants smothered by apterous vivipara of the **black bean aphid**, *Aphis fabae,* this is the species commonly seen on docks with white wax markings on a matt black dorsum and is always extremely noticeable, the subspecies *A. fabae mordwilkoi* can be seen on *Arctium* sp. (burdock) and one large burdock in my garden had a huge infestation of possibly this aphid. Organic farming seems to have had a huge impact on the number of insects

making a 'comeback' (did they ever disappear?) and the above field of beans had a 'ground flora' represented in their thousands by two *Atriplex* species, *A. patula* (Common Orache) and *A. prostrata* (Spear-leaved Orache). The latter had leaves galled by the green waxy aphid *Hayhurstia atriplicis* and these were present in their thousands, the former seemed to be galled less regularly but this one field would have produced hundreds of thousands of aphid progeny.

Three dogwood (*Cornus sanguinea*) bushes in my garden were infested with the aphid *Anoecia corni,* the alate vivipara (winged female) is conspicuous by the prominent black pterostigma on the forewing. I had counted ten aphid species in my garden but have subsequently been informed (Roger Blackman pers. comm.) that many more are to be found in the average garden. Look out for them as they are a fascinating and vastly under-recorded group.

When I used RECORDER to send these records to the Sussex Biodiversity Record Centre, it became apparent that the Dictionary of Species had few aphid names on it and a subsequent email from Roger Blackman (BMNH) stated "Considering their accessibility and the added interest of polymorphism, host alternation, etc, aphids have been strangely neglected by British entomologists."

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Diptera – two-winged flies

by Patrick Roper, Sussex recorder for Diptera

Perhaps the greatest highlight of the year was the June record, by Chris Bentley, of the tachinid fly *Huebneria affinis* on the Rye Harbour Nature Reserve. This is an extremely rare species in Britain (RDB1 - Endangered) with only two records, from Folkestone in 1866 and Deal in 1921. Larvae of this species are parasitoids of Arctiid moth caterpillars ('woolly bears' such as garden tiger and cream-spot tiger), so Rye Harbour is the ideal place for them.

Also from Rye Harbour I was given an old cormorant's nest which went into an Owen emergence trap. It produced much of interest including quantities of a small gout fly *Siphunculina aenea.* The only previous Sussex record is from Ringmer in 1911. Another *Siphunculina* species has been bred from cormorant droppings in Japan.

At Hollingbury Hill in Brighton the 'nationally scarce', picture-winged fly *Merzomyia westermanni* (Tephritidae) was recorded. Its larvae live in flower heads of both common and hoary ragwort. This was, until fairly recently, known in the British Isles only from Kent and Cambridgeshire and, over a century ago, from the New Forest. There are now more records including one from Whitehawk Hill in Brighton by David Bangs in 2004 and two from elsewhere on the East Sussex chalk down grassland (Mount Caburn and Willingdon). As this is a fairly large and distinctive fly it is unlikely that it would have been overlooked in the 20th century and might therefore be colonising, or recolonising, Sussex.

At the Marline Valley nature reserve in Hastings *Platypalpus rapidus,* a widely distributed but nationally scarce dance fly, was recorded and there are no previous records on the Sussex Biodiversity Record Centre database. Also apparently new to Sussex from the Marline valley was *Dolichopus nitidus,* a widespread but rather scarce 'doli'. Another Marline Valley species from the same family was *Teuchophorus nigricosta,* widespread in England and known from High Rocks in Kent but new on the Sussex Biodiversity Record Centre database.

Several interesting species were recorded during a baseline invertebrate survey of Ferry Field at Pagham Harbour in West Sussex. These included the very small dolichopodid *Micromorphus albipes.* The larval biology seems to be unknown, but the species is believed to be predatory on other invertebrates in mud or rotting vegetation. This is the first record from West Sussex of this widespread but local and uncommon species. The Red Data Book Carnid fly *Meonura freta* was also recorded during the survey. This was described in 1937 from examples taken at Blakeney Point in Norfolk and it has since been found elsewhere only in Lincolnshire and a few places in mainland Europe. The early stages are probably spent in the droppings and pellets of gulls.

Also new to Sussex from Ferry Field were *Meromyza palposa*, *Dicraeus styriacus*, *Philotelma nigripenne*, and *Philygria picta.* The last of these is apparently rarely collected and was described by Swedish taxonomist Richard Dahl as the most beautiful Ephydrid (shore fly). Though small, it is a very smart looking insect with white borders round its eyes, a distinctively striped thorax and a contrasting matt black scutellum. The abdomen has the first few segments matt black while the remainder are shining black.

The area studied at Ferry Field was rather dull-looking, cattle-grazed, florally-poor grassland and not the sort of habitat to which the field naturalist would normally pay much attention. It goes to show that interesting invertebrates are not always found where we think they might be.

Hymenoptera Parasitica

by Patrick Roper

The vast array of parasitoid wasp species, fascinating though their life histories often are, rarely get coverage from recorders largely due to the difficulties of identification. However, one of these insects that caught my attention was a large ichneumon wasp that was found in a trap for saproxylic invertebrates in my garden in Sedlescombe in July 2009. It would not 'run down' in the standard literature and after some ferreting about and with help from Gavin Broad at the Natural History Museum it turned out to be *Perithous albicinctus*. This was added to the British list by Brock & Shaw (1997) and appears to have become well-established in southern England, now extending north to North Yorkshire, though it does not seem to be common and, as far as I know, has not been previously recorded from Sussex. It is a parasitoid of dead-wood dwelling larvae of aculeate hymenoptera. There is a useful key that includes this and other pimpline and poemeniine ichneumon species in Shaw (2006).

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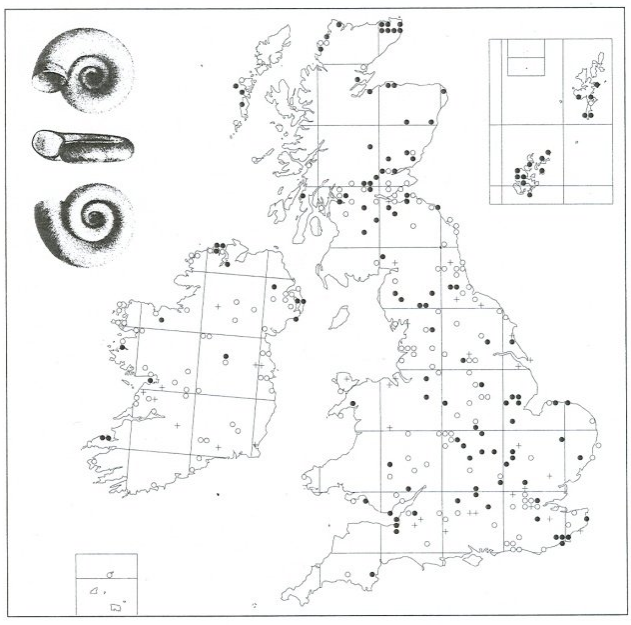
Mollusca

by Martin Willing, County recorder for Mollusca

A freshwater rediscovery in West Sussex (VC 13)



The **smooth ram's-horn** *Gyraulus laevis,* is a very local species in the UK (Fig. 1). This snail is found in a variety of still water habitats and Kerney (1999) notes that, in lowland England, it is typically associated with artificial habitats such as flooded gravel pits, quarries, newly created reservoirs and artificial lakes in public parks. In June 2009 the Wildfowl and Wetlands Trust (WWT) supported a series of small freshwater and wetland habitat surveys both within and immediately adjoining their property at Arundel. On one of these surveys, good numbers of *Gyraulus laevis* were recorded in one of the artificial wildfowl ponds within the reserve; a typical habitat for the species. Prior to this discovery the only West Sussex records all date from well before 1965 (Kerney 1999). This new *Gyraulus laevis* record therefore represents the only known extant population of the snail in West Sussex. *G. laevis* is equally scarce in East Sussex and, as far as is known, the only recent record, made in 2003, is from an abandoned river meander adjacent to the river Ouse at Tarring Neville, south of Lewes.

Fig 1. British & Irish distribution of *Gyraulus laevis*
(open circles are pre-1965 records; the majority belong to the period 1880 – 1914)

Conservation of Desmoulin's Whorl Snail *Vertigo moulinsiana* in West Sussex

In 2009 work was undertaken at Fishbourne Fen near Chichester to assess if conservation management aimed to help **Desmoulin's whorl snail, *Vertigo moulinsiana*** (Fig. 2) had been successful. *V. moulinsiana,* which is one of West Sussex's rarest molluscs, is listed in the British Red Data Book (Bratton 1991) as an RDB 3 (Rare) species, is scheduled on Annex IIa of the EU Habitats & Species Directive and is also a UK BAP priority species. This tiny snail (max length about 2.2mm) is chiefly found in un-shaded swamps, fens and marshes usually bordering rivers and lakes, living on both the live and dead stems and leaves of tall monocotyledonous plants (e.g. *Glyceria maxima, Carex* spp*, Cladium mariscus* and occasionally *Phragmites australis*). The species shows a preference for taller vegetation upon which it climbs, rarely being found in leaf litter on the ground.

In Britain *V. moulinsiana* is locally distributed across southern and eastern England from Dorset to north Norfolk, with a few isolated populations in west Cornwall, north Wales and east Kent (see Kerney 1999, Drake 1999). *V. moulinsiana* has not been recorded in East Sussex and is rare and declining in West Sussex. It was first recorded in the county in fen bordering Harting Pond, East Harting in 1946, but several surveys in the last twenty years suggest that it has been lost from the site, probably following pond restoration work in the early 1970s. Elsewhere in the county four other *V. moulinsiana* sites have been recorded:

- there are post-1965 records for the species from the borders of Swanbourne Lake, Arundel, but searches in the early 1990s failed to relocate it;
- in 1991 a population was discovered (Willing 1991) in a tiny fen at Selham, near Petworth, but by 2005 the snail could not be found at the site, probably because of successional changes from open fen to shaded carr;
- in 1992 (Willing 1992) a large populations of *moulinsiana* were found in several areas of fen on the margins of both Burton Mill Pond and the adjacent Chingford Pond, south of Petworth. Monitoring at Burton Mill in September 2007 confirmed the continued presence of 'healthy populations' of the snail in fen at the inflow end of the pond;
- a general survey of habitats around Chichester Harbour in 1997 (Willing 1998) led to the discovery of small numbers of *V. moulinsiana* in pockets of open fen on the southern margins of Fishbourne Mill Pond, near Chichester.

The importance of the small Fishbourne *V. moulinsiana* population led to the snail becoming one of the qualifying features of the Solent Maritime SAC citation. This site is unusual in that it is one of the few places bordering Chichester Harbour without sea walls and where a natural saltmarsh to freshwater fen transition zone remains. The site still supported reasonable numbers when surveyed by Emu Ltd in 2002, but monitoring of the area in 2005 (Willing 2005) only produced two live *moulinsiana*. It was believed that the spread of carr had increased shading of the few remaining areas of open fen and possibly also lowered ground water levels as a result of transpirational losses by the trees. In 2007, appreciating that the site required conservation management to help *V. moulinsiana* populations to recover, Chichester Harbour Conservancy (CHC) undertook selective tree clearance of the site to restore open fen. Two years later, in October 2009 they also initiated site monitoring to see if *moulinsiana* populations had recovered.

Desmoulin's whorl snail
Vertigo moulinsiana

Disappointingly, although areas of suitable habitat had become re-established, no *moulinsiana* were found. It is perhaps, too early to say if the snail has been lost from the site and further monitoring will take place in spring 2010. The vulnerable state of the *V. moulinsiana* populations at Selham and Fishbourne, combined with the probable losses of those at Harting Pond and Swanbourne Lake, means that the remaining Burton Mill-Chingford populations are especially valuable at a county level. Plans are currently being considered to restore water levels in Chingford Pond. It is therefore important that a full EIA is undertaken to guide management works to minimise the impact on both *V. moulinsiana* and the many other plants and animals of conservation importance living in the areas potentially affected by the works.

The continued decline of chalk grassland 'indicator' molluscs

Unimproved, grazed, chalk grassland supports a range of open country Mollusca. Some of these are generalists (e.g. the **garden snail** *Cornu aspersum*) found in a variety of other habitats, whilst others (e.g. the **wrinkled snail** *Candidula intersecta* and **striped snail** *Cernuella virgata*) can

The heath snail, *Helicella itala*

be common even in fairly newly established or restored grasslands. In addition to these widespread forms, there is a suite of species associated with the very 'best' chalk grassland sites; those not 'improved' by artificial fertilisers and maintained by grazing. This specialist 'guild' includes the **moss chrysalis snail** *Pupilla muscorum*, the **large chrysalis snail** *Abida secale,* the **Carthusian snail** *Monacha cartusiana* and, (arguably the most characteristic indicator of dry, exposed, unimproved grasslands) the **heath snail** *Helicella itala.* Additionally at a few more coastal sites the **point snail** *Cochlicella acuta* may join this group. In simple terms the more of these specialist species present at a site, the greater is its conservation value, not just for molluscs, but also for other groups such as vascular plants and insects. In 1992-1993 West Sussex County Council and The Sussex Downs Conservation Board initiated a molluscan survey of chalk grasslands on the West Sussex chalk downs (Willing 1993). The project surveyed 68 sites lying between the Hants border and East Sussex and mostly targeted large to medium sized tracts of unimproved or semi-improved grasslands. Over 40% of the grasslands surveyed were suffering from, or appeared to be imminently threatened by, successional loss (growth of rank vegetation and scrub), chiefly as a result of insufficient grazing. The survey revealed that a minority of the grasslands were in good condition with only about 9% of sites supporting the group of 'top indicator species' (typified by *Helicella itala).* These few pockets of high quality grassland were fragmented and vulnerable to loss. In early 2009, fifteen years after the original survey, I received a note from Dave Bangs, who had recently revisited a selection of the best chalk grassland sites. What he reported was worrying. Of the five 'top grassland sites' (all on SSSIs and in many ways the 'crown jewels' of West Sussex chalk grasslands), two appeared to have lost all of the key indicator species, whilst they had declined significantly at two others; only a single top site had remained in reasonable condition and even there, a reduction in grazing gives cause for concern.

At these and other sites Dave concluded that losses had occurred as a result of a lack of grazing and or an absence of suitable site management, leading to the growth of rank herbaceous vegetation and scrub. Alarmingly Dave believed that if current trends continue, then *Helicella itala*, that most characteristic of old chalk grassland molluscs, may be heading for extinction on the Sussex Downs. In a year when the South Downs National Park was announced, it is perhaps ironic to learn of the continued deterioration of the chalk grasslands that the new National Park seeks to protect.

Action is clearly needed soon! First it seems essential to undertake a thorough environmental review of unimproved chalk grassland sites throughout the Sussex Downs to investigate Dave's worrying observations. In addition to grassland Mollusca (some of which are excellent biological indictors due to their sensitivity to environmental changes and poor powers of re-colonisation) such a programme might also include other complementary indicators such as short-turf vascular plants and selected insects groups such as bumble bees. The results of such a project should provide information to guide plans for suitable site management and restoration.

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Shoreham Beach Local Nature Reserve

by Jacky Woolcock Friends of Shoreham Beach LNR Committee member.

The Friends of Shoreham Beach Local Nature Reserve have continued their work managing, surveying and informing about the reserve with support from the management Group, and grants from West Sussex County Council and Adur District Council.

Kate Ryland of Dolphin Ecological Surveys was commissioned to perform an updated baseline survey of the vegetation of the reserve and a revised management plan. She recorded a total of 129 plants including **yellow horned poppy** *Glaucium flavum*, **sea kale** *Crambe maritima*, **bittersweet** *Solanum dulcamara* and **viper's bugloss** *Echium vulgare*. (Twenty four of these were introduced/non-native or probable garden escapes). Thirty nine plant species previously found on Shoreham Beach were not recorded. A plan is in place for FoSB members to survey the reserve to see if any of these plant species are present in 2010.

During 2009, FoSB members surveyed the reserve for **starry clover** (*Trifolium stellata*). The locations had altered slightly but the total area is approximately the same. The members mapped the distribution of **childing pink** *(Petrorhagia nanteuilii)* at Silver Sands which is not on the Reserve but close. This showed that the preservation area behind the wooden bar erected by West Sussex County Council had reduced trampling but had allowed the growth of grass which had inhibited the **childing pink** which was flourishing better on the sandy areas to the west of the area.

The Shoreham and District Ornithological Society generously shared their records of sightings of birds on the whole of Shoreham Beach and offshore from 1991 -2008. The number of species recorded as seen by SDOS members was 102 and included **purple sandpiper** *(Calidris maritima*), **ringed plover** *(Charadrius hiaticula)* and **red-throated diver** *(Gavia stellata)*. FoSB members recorded another 9 species mostly from gardens including **mistle thrush** *(Turdus viscivorus)*.

Kate Ryland indicated that **wall cotoneaster** *(Cotoneaster horizonatalis)* and **spearmint** *(Mentha spicata)* were invading the Beach and should be removed completely so this was done. It is planned to remove any regrowth. There was reduction of **silver ragwort** (*Senecio cineraria),* **common ragwort** (*Senecio jacobaea)* and **Oxford ragwort** (*Senecio squalidus).*

There were three well supported beach litter cleans during 2009 in conjunction with the Marine Conservation Society. Many of the threats to vegetated shingle plants are due to human activities which we hope to reduce through education of the public. Educational stands were held at the Brighton Science Festival, World Oceans Day and Beach Dreams. A Flower Walk, a Strandline Event and a Rock Pooling Event were held. Tide pool invertebrates were recorded on the day and a huge **compass jelly fish** (*Chrysaora hysoscella)* and a **common eel** *(Anguilla anguilla)* were also found. Both were dead. Tim Freed gave an excellent talk on coastal moths and butterflies. He had done three moth surveys (June 2007 and August 2008) recording 85 species including several larvae of the **toadflax brocade** *(Calophasia lunula)* which has Red Data Book status. We hope to develop more educational resources in 2010 in conjunction with a local marine educator. We are grateful for any biodiversity recorders to give help with recording and monitoring. The records for invertebrates remain few except for the moths found by Tim Freed. (See Shoreham Beach Local Nature Reserve Management plan 2006-2011). Interested recorders can contact FoSB on gordonjoy.daintree@btinternet.com

Fungi of an ancient footpath and horse middens

by Howard Matcham

Not having transport has its disadvantages but does dictate, on the positive side, just how far you can go and where without four wheels. If you have a love of the countryside and a passion for all that grows in it, then it is an ideal opportunity for an in-depth study of a particular habitat(s), and subject(s). I have lived in Strettington in the parish of Boxgrove for the past twenty nine years and during that time have walked a succession of canine friends from my house east to Boxgrove and back in a circuitous route that encompasses a linear ancient public footpath (Town Lane) approximately 800 metres in length which in centuries past was probably part of the Roman road 'Stane Street' that connected Chichester to Bignor Roman Palace. It is a tree lined 'sunken' footpath with moist banks covered in bryophytes; my walk begins in the west where I join the path where it leaves the A285 with a bank covered in nettles and bracken. All species with the exception of the single **pipe club** (*Macrotyphula fistulosa*) have been seen during 2009.

During the past three years an extraordinary explosion of fungi species has been very apparent throughout the walk and for the third year in a row **common stinkhorn** (*Phallus impudicus*) and **dog stinkhorn** (*Mutinus caninus*) have grown virtually side by side under nettles separated only by the width of the path. Later in the year, **blue roundhead** (*Stropharia caerulea*) shares this sheltered spot and its bluish-green cap is easily spotted. **Pipe club** (*Macrotyphula fistulosa*) mentioned above, found on New Year's Day 2008 grew near this spot but has not been relocated, this is the third VC13 record for this species and last seen in the county at Ebernoe Common in 1994. Dead nettle stems increasingly have the delicate white bell-shaped cyphelloid basidiomycete, **harebell** (*Calyptella cupula*) and on one occasion this month (December) associated on the same stem was the equally small white-haired cup-shaped cyphelloid *Lachnella villosa*, this is only the third West Sussex record and last seen in 1985, it is obviously overlooked as few wander into stinging nettles - both previous records of this species were from this host. Partially submerged wood is host to the **candle snuff fungus** (*Xylaria hypoxylon*) and on the root plates of fallen dead elm trunks its congener **dead Moll's fingers** (*X. longipes*), this latter species for the past two years has had the hyphomycete *Calcarisporium arbuscula* powdering the 'fingers' with conidiophores bearing an 'icing sugar' like covering of conidia. Other dead wood specialists include the frequently found **Cesat's oysterling** (*Crepidotus cesatii*) and the equally frequent **peeling oysterling** (*Crepidotus mollis*); **collared parachute** (*Marasmius rotula*) and this autumn the first sighting of **glossy-white parachute** (*Marasmiellus candidus*), its sixth VC13 record and on a dead portion of **old man's beard** (*Clematis vitalba*). In the past and before I arrived in the area, elm graced the hedgerows bordering the path; **English elm** (*Ulmus procera*), and now suckers come and go and the dead wood is host to the beautiful **wrinkled peach** (*Rhodotus palmatus*) formerly and before the demise of elm a rare species but here it is abundant on trunks and branches, the habitat is shared by the **artist's bracket** (*Ganoderma australis*) and the polypore **dryad's saddle**, (*Polyporus squamosus*), two of these fine saddles are clothed in the bright orange hyperparasite *Hypomyces aurantius.* **Jelly ear fungus** (*Auricularia auricula-judae*) is abundant on elm brushwood and the white pigmented form (formerly the var *lactea* but now synonymised with the type) was found here at the beginning of this year. Kew retained the specimen as apparently it is seldom seen. As I write this note on the last day of December 2009 the first of the winter fungus, **velvet shank** (*Flammulina velutipes*) is appearing on the elm. A large ash is doomed as it has a clump of **shaggy scalycap** (*Pholiota squarrosa*) at its base.

Field maples (*Acer campestre*) above the footpath appear to have had whitewash flicked over the trunks; this is the host specific (in Britain) *Dendrothele acerina*, a resupinate in the Corticiaceae. The occasional **elder** (*Sambucus nigra*) grows on the banks above and has *Hyphoderma sambuci* a similar looking 'whitewash' species, staining the bark-free dead areas of trunk and branches, this species is also a corticioid and extremely frequent.

Gasteroid fungi this year have included **common puffball** (*Lycoperdon perlatum*) and the **scaly earthball**, (*Scleroderma verrucosum*) the latter growing near exposed roots of **oak** (*Quercus robur*) and possibly mycorrhizal , the furrowed pseudostipe and microscopic examination of the fruitbody strongly suggests that it is this species and not the closely allied *S. areolatum* which is known to be mycorrhizal with oak. Two years ago, a single **parasitic bolete** (*Pseudoboletus parasiticus*) grew with the scaly earthball, this species is now known to be mutualistic rather than parasitic with interwoven mycelia and an exchange of nutrients, see http://www.basidiochecklist.info/ for discussion. Other ground fungi have included many of the delicious **wood blewit** (*Lepista nuda*) and **tawny funnel** (*Lepista flaccida*), edible but not recommended. Many other toadstools and dozens of microfungi species are found along this footpath.

Leaving the footpath before it arrives at Boxgrove I walk south through paddocks that have never been ploughed while I have lived in the area and are neatly grazed by horses. An area of approximately twenty yards encircles these paddocks where the horses are ridden and the public are kindly allowed to walk by the owner. An old hawthorn hedge separates paddocks and here over the years horse dung has been thrown from the paddocks on a daily basis and allowed to rot down, several large middens have accumulated and this is the habitat for coprophilous specialists particularly in the genus *Coprinus* (inkcaps). This wet year has been exceptional for the delicate *C. cordisporus* and for **snowy inkcap** (*Coprinopsis nivea*) and in November I counted over a hundred of the latter species in a single day. Three years ago and still extant on weathered dung under an old hawthorn I found **daisy earthstar** (*Geastrum floriforme*) a first county record. A large number of microfungi species are found on horse dung, particularly if I use moist chamber culture. Open areas under the hedge had **giant funnel** (*Leucopaxillus giganteus*) in large numbers and more **grisette** (*Amanita vaginata*) than I have seen in previous years. On the periphery of an open area, left after a large pile of wood chippings and sawdust had been burned several years ago **weeping widow**,(*Lacrymaria lacrymabunda*) and **white dapperling** (*Leucoagaricus leucothites*) were abundant. The paddocks had large numbers of the **yellow fieldcap** (*Bolbitius titubans*) and several **brittlestem** (*Psathyrella*) species which are extremely difficult to identify. For the first year in the twenty nine I have been walking these fields a **meadow waxcap** (*Hygrocybe pratensis*) species has arrived, a sure sign that the grassland is indeed improving.

Adastra Recording Days

by Penny Green, Sussex Biodiversity Record Centre

Every year SxBRC organises field days in under-recorded or unusual places in Sussex. This is to help get a more complete picture for under-recorded areas, or even to get some records for areas that don't have any at all. It's a good opportunity for new recorders, or people new to the area, to meet established Sussex recorders and it's also a great opportunity for old recording chums to meet and catch up on the recording gossip for Sussex. We usually have a good mix of entomologists, botanists and birders and often find something rare and exciting.

We had two very productive recording days in 2009, one in conjunction with Sussex Moth Group and Butterfly Conservation at the Dorothy Stringer School's Butterfly Haven in Brighton and the other in conjunction with the West Weald Landscape Project (WWLP) on two private sites near to Ebernoe and Kirdford in north west Sussex.

Five of us ran three moth traps on the 22nd May, at Whithurst Park – a privately owned hay meadow with a small orchard, lake and bits of ancient woodland. One moth trap was based in the ancient woodland there, one in the middle of the meadow near an oak tree and the other next to the large lake. We also walked around the site with a torch and net to see what we could catch. In the torchlight we found several species of moth caterpillars, especially in the orchard area and in the morning we found a **poplar hawk-moth** hanging from the oak tree. We caught a modest 24 moth species (partly due to our generator malfunctioning) but got some interesting ones including the moth of the evening **the mocha** which is a Nationally Scarce B species. A number of local species such as **scorched wing**, **great prominent**, **orange footman** and **maiden's blush** were also caught. Later on in the evening we walked across the site to meet Frank Greenaway who was doing some bat trapping that evening too. He had kept some bats to show us which included **brown long-eared bat**, **common pipistrelle** and **soprano pipistrelle**, **Bechstein's bat**, **whiskered bat**, and **barbastelle bat**. We all took delight in smelling the difference between the two pipistrelle bats; I think it was the soprano pipistrelle which smells musty and the common pipistrelle which doesn't smell of anything at all.

The recording day in the West Weald area was held the following day (23rd May), and started at a private site called Bittles Field which backs on to Ebernoe Common SWT Reserve. Well, we were certainly all 'buzzing' at the beginning of the day - as I was digging out the risk assessment from my bag we were buzzed by a huge swarm of bees. This wasn't on my risk assessment though so I was quite pleased that everyone came out of the experience unscathed, although I will be adding it to future risk assessments….

Twenty people turned up for this event and we split up into groups in order to cover the site in the morning. The enthusiasm of the naturalists resulted in long lists of new records spanning a great range of groups from lichens and plants through diverse types of insects to birds and reptiles. The insects discovered proved especially interesting, including a nationally notable black and red click beetle *Ampedus elongatulus*. New records of the scarce **brown hairstreak** and **grizzled skipper** butterflies also came to light for this site as we were serenaded by **turtle dove**, **cuckoo** and **nightingale**.

Back to Whithurst Park in the afternoon we recorded plenty of dragonflies on the lake, including a pair of copulating **scarce chasers**, and another invertebrate highlight was the sighting of a huge and striking cranefly *Tanyptera atrata* seldom recorded in Sussex.

This species information will prove invaluable in underpinning the WWLP's work to advise, manage and monitor these important sites and so advance conservation on a bigger scale working in partnership with private landowners in the West Weald.

The recording day at Dorothy Stringer School's Butterfly Haven in Brighton commenced with a moth trap on 5th June which got off to an interesting start with a police 'drive-by' as they were trying to work out what on earth we were doing. The butterfly haven was only created 18 months ago in the middle of the school's playing field, and is designed to support a chalk grassland community; it has even been grazed by sheep. We put one trap in the middle of the grassland area of the butterfly haven, one by a pond which was created around five years ago, and one in a little copse area. Whilst being shown around the butterfly haven by our host and instigator of the butterfly haven, Dan Danahar, we discovered **toadflax brocade** caterpillars on **common toadflax** and a single **mullein moth** caterpillar on **great mullein**. This was a good start, to see moths on the plants they're named after.

Despite the drizzle we had good numbers of moths coming to the traps, although not a great number of species. Some of the more interesting recorded in the evening included **elephant hawkmoth**, **small elephant hawkmoth** and **common swift**, 5 **flame shoulder**, 1 **common marbled carpet**, 2 **small magpie**, 2 **setaceous Hebrew**

character, 1 **snout**, 1 **shuttle-shaped dart** and 5 **small china mark**. We also ran a couple of bat detectors and picked up a single **common pipistrelle** feeding around the buildings.

Ten of us returned to Dorothy Stringer School's Butterfly Haven the next day (6th June) and spent the morning recording on the site. Butterflies during this time included 2 **painted ladies**, 6 **common blue**, 1 **large white**, 2 **small white**, 1 **speckled wood** and 1 **red admiral**. Then much to Dan Danahar's delight Jim Steedman discovered a **small blue** amongst the flowers, which we later observed egg-laying. This is fantastic news as elements of the Butterfly Haven have been designed to be attractive to **small blue** and to have them arriving here naturally in the middle of an urban area only a year after its establishment is a real success story. A second egg-laying female was found by Graeme Lyons later in the day. Day-flying moths seen here were **burnet companion**, *Pyrausta aurata* and **small china mark**, which was next to the pond.

In the afternoon we ventured in to Brighton Wild Park, where we recorded **common blue**, **painted lady** and single **small copper**, **meadow brown**, **small tortoiseshell**, **brown argus** and **speckled wood**. Day-flying and disturbed moths included **burnet companion**, *Crambus perlella*, *Crambus lathoniellus*, **heart and dart**, **Mother Shipton**, **common carpet**, **straw dot**, *Nemophora degeerella*, *Stenoptilla pterodactyla*, **yellow shell** and finally just as we got back to Dan's house for a nourishing cup of tea, we found a *Lozotaenia forsterana* in his garden.

Monitoring on Sussex Wildlife Trust reserves in 2009

by Graeme Lyons, Ecologist for the Sussex Wildlife Trust

This year was my first full field season as the Trust's Ecologist (previously known as Scientific Officer) and was a very eventful one. My role is to plan, co-ordinate and implement biological monitoring on the 34 sites that the trust manages, I do much of the field work myself and contract out the more specialised projects. Selecting what and how things are monitored is a rigorous process and standardised, repeatable methods are used whenever possible. There are many reasons for monitoring but gauging the effectiveness of habitat management is perhaps the most common. At the time of writing I am knee deep in report writing and data analysis and eagerly awaiting the end of March 2010 to start another season of field work. In 2009, a large amount of my time and resources were spent at Ebernoe Common and this is documented in a separate article (below).

The field season started at the end of March with baseline territory mapping of birds at Woods Mill and Graffham Common. Woods Mill has a diverse mixture of habitats but the species associated with scrub are of particular interest, such as **nightingale**, **bullfinch** and **turtle dove**. Further to this, plans to restore the river to its original course (in conjunction with the Environment Agency) should radically improve the site for riparian and wet grassland species and it is hoped that this baseline monitoring will help to show these changes. Similarly, monitoring birds at Graffham before and after management of the site should show the effectiveness of this management. All territory maps are stored digitally using a GIS package. Bird point counts that were set up in 1988 were repeated in 2009 at Ebernoe Common and The Mens.

Botanical work started early looking at vernal ground flora at West Dean Woods, a new base-line was required looking at different stages in the **hazel** coppice cycle. Baseline botanical work at Southerham and Ditchling Beacon was set up to monitor the effects of grazing and sward management. At Southerham, half of the quadrats were allocated to the existing chalk grassland and the other half to the arable reversion. It is hoped that by using multivariate analysis, the convergence of these two communities can be illustrated. Two arable plants of note were recorded, the nationally scarce **dense-flowered fumitory** and the local **knotted hedge-parsley**. Base-line botanical monitoring was also set-up at Graffham Common, with quadrats placed in the plantation as well as the existing wet and dry heathland. Of particular note was the re-discovery of 18 plants of the rare **marsh club-moss**. The Trust has begun to carry out its own invertebrate surveys and the contents of a series of pitfall traps that were deployed at Graffham (in the centre of the vegetation quadrats) in May and June have been sorted to order and preserved in alcohol. The spiders and beetles will be sent for expert identification and the whole process will be repeated after any management is carried out.

The Trust acquired three GPS cow collars early in 2009 which have built in SIM cards that transmit spatial data to my computer (via the hub site in Germany!). The collars provide essential data on the movements of animals around our sites. When used in conjunction with NVC maps and aerial photographs, the data gives us a great understanding of how animals use the sites at different times of the year. Mapping of plant communities to the NVC level was carried out at Woods Mill and Filsham Reedbed and resulted in the discovery of several patches of **brown sedge** in the new land at Woods Mill. This in turn appears to be supporting the fourth colony of **dotted fan-foot** moths in West Sussex.

Monitoring at Ebernoe Common in 2009

by Graeme Lyons, Ecologist for the Sussex Wildlife Trust

Ebernoe Common is well known for having records of 14 of the 17 species of bat in Britain but beyond being designated as an SAC for its **barbastelle** and **Bechstein's bats** and acidophilus beech woodland it is also designated as a SSSI for a number of other features, many of which have never been properly monitored. One such group is the deadwood invertebrates. Dr Mark Telfer was contracted to carry out a survey of the deadwood invertebrates, concentrating on beetles and calculating the SQI (Saproxylic Quality Index) for the site. Survey techniques involved active searches, interception trapping and subterranean trapping. An incredible 85 species were added to the site list, including 5 red data book species and over 35 nationally scarce species. The site rose from the 121st best site in the UK for deadwood invertebrates to the 36th best site. The site is now also the third best in Sussex and has the second highest Index of Ecological Continuity after Arundel Park making Ebernoe nationally significant for deadwood invertebrates. Of particular note was the rediscovery of the ***Oxylaemus cylindricus*** described above in Peter Hodge's article on Sussex coleoptera.

Neil Sanderson was contracted in to look at epiphytic lichens, another SSSI feature of the site with no standardised monitoring in place. He describes his work in more detail above. The survey consisted of two parts, a comprehensive survey of rare species across the site and a standardised survey based upon 12 fixed plots around the site. The site has been well covered for lichens in the past so it was surprising that 38 species new to the site were recorded including two red-listed species ***Bacidia incompta*** and ***Arthonia zwackhii*** and 19 nationally scarce/notable species. Neil stated that Ebernoe Common is the most important beech woodland outside of the New Forest for lichens and that one of the Trusts greatest achievements has been to maintain the openness of the area known as Leconfield Glade.

Repeat point count monitoring set up in 1988 by the BTO was repeated by the author. All birds were recorded by site and sound within set distance bands over a five minute period. Forty points were recorded and visited four times. Several species have been lost from the survey area and these mostly reflect declining national trends such as **willow warbler** and **willow tit**. Common birds have become commoner, again reflecting national trends. The **chaffinch** has significantly declined on the site reflecting a significant regional decline. The contraction of the glades over the last twenty years has seen losses of some species associated with scrub and more open woodland.

Despite these findings, Ebernoe is not thought to be in favourable condition for all of its interest features, mainly due to the over-dominance of **holly** in the understorey caused by the cessation of grazing and the 1987 storm. A management plan that caters for all interest features is currently being worked on.

SUSSEX COUNTY RECORDERS 2009/10

If you are not already sending your records to a particular local recording scheme or Society, records of any plant or animal species can be sent to the Sussex Biodiversity Record Centre who will pass them on to the relevant groups listed below.

Sussex Biodiversity Record Centre (SxBRC)
Woods Mill, Henfield,
West Sussex BN5 9SD
Tel: 01273 497553
Email: info@sxbrc.org.uk

Sussex Wildlife Trust (SWT)
Woods Mill, Henfield,
West Sussex BN5 9SD
Tel: 01273 492630
Email: enquiries@sussexwt.org.uk

Higher Plants
ALAN KNAPP
(Sussex Botanical Recording Society
West Sussex)
7, Trinity Close, Pound Hill, Crawley RH10 3TM
Tel: 01293 883695
Email: aknapp2000@btinternet.com

PAUL HARMES
(Sussex Botanical Recording Society
East Sussex)
Flat 7, Park View,
5 Offham Terrace,
Lewes, East Sussex BN7 2QP
Tel: 01273 474797 Mob: 07740 438306
E-mail: pharmes@btinternet.com

Sussex Botanical Recording Society
web site: www.sussexflora.org.uk

Orchids
DAVID LANG
1 Oaktree, Barcombe, Lewes,
East Sussex BN8 5DP.
Tel: (01273) 400446
dclangbarcombe@yahoo.co.uk

Bryophytes
HOWARD MATCHAM
21 Temple Bar, Strettington,
near Chichester, West Sussex PO18 0LB
Tel: 01243 781238
hwlgmatch@yahoo.co.uk

Fungi
MARTIN ALLISON (mainly E. Sussex)
martin.allison@rspb.org.uk

HOWARD MATCHAM (mainly W. Sussex)
See under Bryophytes above.

Microfungi
HOWARD MATCHAM
See under Bryophytes above

Lichens
SIMON DAVEY
10 Cottage Homes, Common Lane,
Ditchling, Hassocks
West Sussex BN6 8UR
Tel: **01273 844436**
srdavey@globalnet.co.uk

Sussex Lichen Recording Group
Jacqui Middleton
Tel: 01730 716366
Email: jacquiandbruce@tiscali.co.uk

Charophytes (Stoneworts)
FRANCES ABRAHAM
Old School House, Ebernoe, nr Petworth,
West Sussex GU28 9LD
Email: fab@inmycloud.net

Marine algae (seaweeds)
IAN TITTLEY
Department of Botany
Natural History Museum
Cromwell Road, London SW7 5BD
Work: i.tittley@nhm.ac.uk
Home: mmit@waitrose.com

Amphibians & Reptiles
Records should be sent to
Sussex Biodiversity Record Centre (SxBRC)
Woods Mill, Henfield,
West Sussex BN5 9SD
Tel: 01273 497521
Email: info@sxbrc.org.uk

River Fish
DAMON BLOCK
Environment Agency, Sussex Area Office.
Saxon House, Little High Street, Worthing,
West Sussex BN11 1DH
Tel: 01903 703812
damon.block@environment-agency.gov.uk

Birds
CHRISTIAN MELGAR
Recorder: Sussex Ornithological Society
36 Victoria Road, Worthing,
West Sussex BN11 1XB
Tel: 01903 200064
Email: recorder@sos.org.uk

Bird conservation enquiries:
conservation@sos.org.uk

All other enquiries:
NIGEL BOWIE
Tel: 01273 571266
Email: secretary@sos.org.uk

Mammals (see below for bats, badgers & cetaceans)
Records should be sent to the
Sussex Mammal Group
C/O Penny Green, Woods Mill, Henfield,
West Sussex BN5 9SD
Tel: 01273 497521
Email: pennygreen@sussexwt.org.uk

Bats
Sussex Biodiversity Record Centre (See above).

Badgers
Badger Trust - Sussex
Tel: 07910 198720
Badger Trust website: www.badger.org.uk

Cetaceans and Seals
STEPHEN SAVAGE (Seawatch)
45 North Road, Portslade,
East Sussex BN41 2HD
Tel. 01273 424339
stevep.savage@ntlworld.com
www.seawatchfoundation.org.uk

Otters and Water Voles
FRAN SOUTHGATE
c/o the Sussex Wildlife Trust, Woods Mill
Henfield, West Sussex BN5 9SD
Tel: 01273 497555
Email: fransouthgate@sussexwt.org.uk

Moths and butterflies
CLARE JEFFERS
Sussex Moth Group Secretary
Email: clarejeffers@aol.com

Moths and butterflies (cont.)
COLIN PRATT
Sussex Moth Group Recorder
Oleander, 5 View Road,
Peacehaven, East Sussex.
Email: colin.pratt@talk21.com
Tel. 01273 586780

CLARE JEFFERS
British Butterfly Conservation Society –
Sussex Branch Butterfly Recorder
Email: clarejeffers@aol.com

Glow-worms
Please send records to SxBRC

Spiders
ANDY PHILLIPS
Flat 5, 21 West Hill Road
St. Leonards on Sea
East Sussex
TN38 0NA
Tel: 01424 716919
Email: threecubes@gmail.com

Orthoptera & related orders
JOHN PAUL
Downsflint, High Street, Upper Beeding,
West Sussex BN44 3WN
Email: turbots@btinternet.com

Dragonflies
Graeme Lyons/Penny Green
British Dragonfly Society – Sussex branch
C/O Sussex Biodiversity Record Centre
Woods Mill, Henfield, West Sussex, BN5 9SD
01273 497506 / 497521
Records to pennygreen@sussexwt.org.uk
Web: www.webjam.com/bdssx

Coleoptera (beetles) &
Heteroptera (plant bugs)
PETER HODGE
8 Harvard Road, Ringmer,
East Sussex BN8 5HJ
Tel. 01273 812047
Email: peter.hodge@mypostoffice.co.uk

Hymenoptera Aculeata: Ants, Bees & Wasps
MIKE EDWARDS
Lea-side, Carron Lane, Midhurst,
West Sussex GU29 9LB
Tel. 01730 810482
ammophila@macace.net

Diptera (two-winged flies)
PATRICK ROPER
South View, Churchland Lane,
Sedlescombe, East Sussex TN33 0PF
Tel. 01424 870208
Email: patrick@prassociates.co.uk

Hoverflies

ROGER MORRIS
& STUART BALL
National Hoverfly Recording Scheme
7 Vine Street, Stamford
Lincolnshire PE9 1QE
roger.morris@dsl.pipex.com
Web: www.hoverfly.org.uk

Geology
JOHN COOPER
Booth Museum of Natural History, 194 Dyke Road, Brighton,
East Sussex BN15AA
john.cooper@brighton-hove.gov.uk
Tel: 01273 552586

Hemiptera/Homoptera
(Auchenorrhyncha: Leafhoppers &
planthoppers)
ALAN STEWART
31 Houndean Rise, Lewes,
East Sussex BN7 1EQ
a.j.a.stewart@sussex.ac.uk
Tel: 01273 476243

Molluscs
MARTIN WILLING
14 Goodwood Close, Midhurst,
West Sussex GU29 9JG
martinwilling@godalming.ac.uk
Tel:. 01730 814790

Pseudo-scorpions
GERALD LEGG (National Recorder).
Booth Museum of Natural History, 194 Dyke Road, Brighton,
East Sussex BN15AA
gerald.legg@brighton-hove.gov.uk
Tel: 01273 292777

Psocoptera (Bark lice and book lice)
MARCUS OLDFIELD
Booth Museum of Natural History, 194 Dyke Road, Brighton,
East Sussex BN15AA
Email: gerald.legg@brighton-hove.gov.uk
Tel: 01273 552586

Marine Records - (see also Cetaceans)
GERALD LEGG
Booth Museum of Natural History, 194 Dyke Road, Brighton,
East Sussex BN15AA
Email: gerald.legg@brighton-hove.gov.uk
Tel: 01273 292777

Other useful addresses

Ashdown Forest
The Conservators of Ashdown Forest
The Ashdown Forest Centre
Wych Cross, Forest Row
East Sussex RH18 5JP
Tel. 01342 823583;
conservators@ashdownforest.fsnet.co.uk

East Sussex County Council
KRISTOFFER HEWITT
kristoffer.hewitt@eastsussex.gov.uk
Tel: 01273 481621

Natural England (formerly English Nature)
Sussex and Surrey Team,
Phoenix House, 33 North Street,
Lewes, East Sussex BN7 2PH
Tel: 01273 476595
Email: sussex.surrey@english-nature.org.uk

Environment Agency
Sussex Area Office
Saxon House, Little High Street,
Worthing, West Sussex BN11 1DH
Tel: 01903 703831
Email: cherry.weeks@environment-agency.gov.uk

Forestry Commission
South East England Forest District,
Bucks Horn Oak, Farnham,
Surrey GU10 4LS
Tel: 01420 23666
Email: enquiries.seefd@forestry.gsi.gov.uk

High Weald AONB Unit
Woodland Enterprise Centre,
Hastings Road, Flimwell,
East Sussex TN5 7PR
Tel: 01580 879500
Email: info@highweald.org

National Trust
South East Region, Polesden Lacey,
Dorking, Surrey RH5 6BD Tel: 01372 453401

Otters and Rivers Partnership
See Otters & Water Voles above.

RSPB
South East England Regional Office
2nd Floor, 42 Frederick Place,
Brighton BN1 4EA
Tel: 01273 775333

South Downs Joint Committee
Victorian Barn, Victorian Business Centre
Ford Lane, Ford Nr Arundel
West Sussex BN18 0EF
Tel: 01243 558700 Fax: 01243 558701

South Eastern Water
3 Church Road, Haywards Heath
West Sussex RH16 3NY
Tel: 0845 301 0845
Email: contactcentre@southeastwater.co.uk

Southern Water
Environment & Product Quality
Southern House, Lewes Road
Falmer, Brighton BN1 9PY
Tel: 0845 272 0845
customerservices@southernwater.co.uk

Sussex Amphibian & Reptile Group
Henri Brocklebank, Chair
Sussex Biodiversity Record Centre (See above)

Sussex Bat Group
Web: http://www.sussexbatgroup.pchweb.co.uk/
E-mail: sheila@batbox.com

***Sussex Botany* magazine**
Enquiries to the Sussex Biodiversity Record Centre

Sussex Botanical Recording Society
http://www.sussexflora.org.uk/

Sussex Lichen Recording Group
Jacqui Middleton at jacquiandbruce@tiscali.co.uk

Sussex Wildlife Trust
Woods Mill, Henfield, West Sussex BN5 9SD
Tel: 01273 492630
enquiries@sussexwt.org.uk

Weald Meadows Initiative
At High Weald AONB Unit (see above).
meadows@highweald.org

West Sussex County Council
Environmental and Economic Policy Services
The Grange, Tower Street, Chichester,
West Sussex PO19 1RH
Tel: 01243 777273
E-mail: env.dev@westsussex.gov.uk

Woodland Trust
The Woodland Trust, Autumn Park
Dysart Road, Grantham, Lincs. NG31 6LL
Tel: 01476 581111
conservation@woodland-trust.org.uk

Publications from the Sussex Biodiversity Record Centre

The Sussex Biodiversity Record Centre has a growing library of publications, papers reports available as hard copies or on line from http://sxbrc.org.uk/documents/ Copies of this Adastra Review from 2001 are also available on line.

The Record Centre has paper copies of the following: The Dragonflies of Sussex, Sussex Wild Flowers, Sussex Rare Plant Register, Sussex Botany, Wild Orchids of Sussex, The Trees of Sussex.

The following are available on line: Sussex BAP Species Inventory (BAPSI), Sussex Invasive Alien Species Report (SIASR), Sussex Bird Inventory, Lichens of Sussex checklist, Great Nut Hunt, Big Biodiversity Butterfly Count, Bat Surveyors Wanted in Brighton, West Weald Recording Day - May 2009, Burgess Hill Green Circle Network, Harassed by the Rattle of the Steam-Plough, A Major Milestone, Dormouse and Field Vole Surveys, Ninfield Recording Day.

Further details here: http://sxbrc.org.uk/biodiversity/publications/

Occasional papers available on line

OP01 *Geranium x monacense* nothovar *anglicum*. The Sussex cranesbill.
G. x monacense nothovar *anglicum* was described from a plant found growing in a hedgebank in East Sussex and this paper gives an account of the species and its varieties.

OP02 Bat flies and fleas at Ebernoe.
A brief note on some of the ectoparasites of bats at Ebernoe Common in West Sussex.

OP03 Anophelic mosquitoes in Sussex.
A brief note on malaria-bearing mosquitoes in modern Sussex. This account may have to be expanded if climate change exacerbates the problem.

OP04 The polecat in Sussex.
After many years of absence due to persecution by gamekeepers and others, the polecat *Mustela putorius* is now returning to Sussex. This paper covers the story so far.

OP05 The ivy bee, *Colletes hederae* in Sussex.
An account of an attractive, late-flying solitary bee that has colonised much of Sussex along the coast in recent years.

OP06 Japanese knotweed, *Fallopia japonica*. An account of this problematic invasive alien plant and the legislation that applies to it.

OP07 Green seafingers, *Codium fragile*, in Sussex. Information regarding the seaweed *Codium fragile* ssp.*tomentosoides*. It is found on the Priority List of Problem Species in Need of Control and is one of several taxa known as **green seafingers**. Other vernacular names are dead man's fingers, green fleece, oyster thief and Sputnik weed.

OP08 Sussex stoneflies (Plecoptera).
An account of the stoneflies (Plecoptera) recorded in Sussex.

OP09 Sussex lacewings and their allies.
An account of the Neuroptera, Mecoptera and Megaloptera recorded in Sussex.

OP10 Blackflies (Diptera: Simuliidae) in Sussex. An account of the blackflies so far recorded in Sussex based mainly on the work of Roger Crosskey and Rory Post.

OP11 Sussex special species (in preparation). Short descriptions of species that have a particular Sussex dimension.

OP12 Extinct or formerly extinct species in Sussex (in preparation). Species in Sussex that are extinct, almost extinct, thought to be extinct, or formerly extinct.