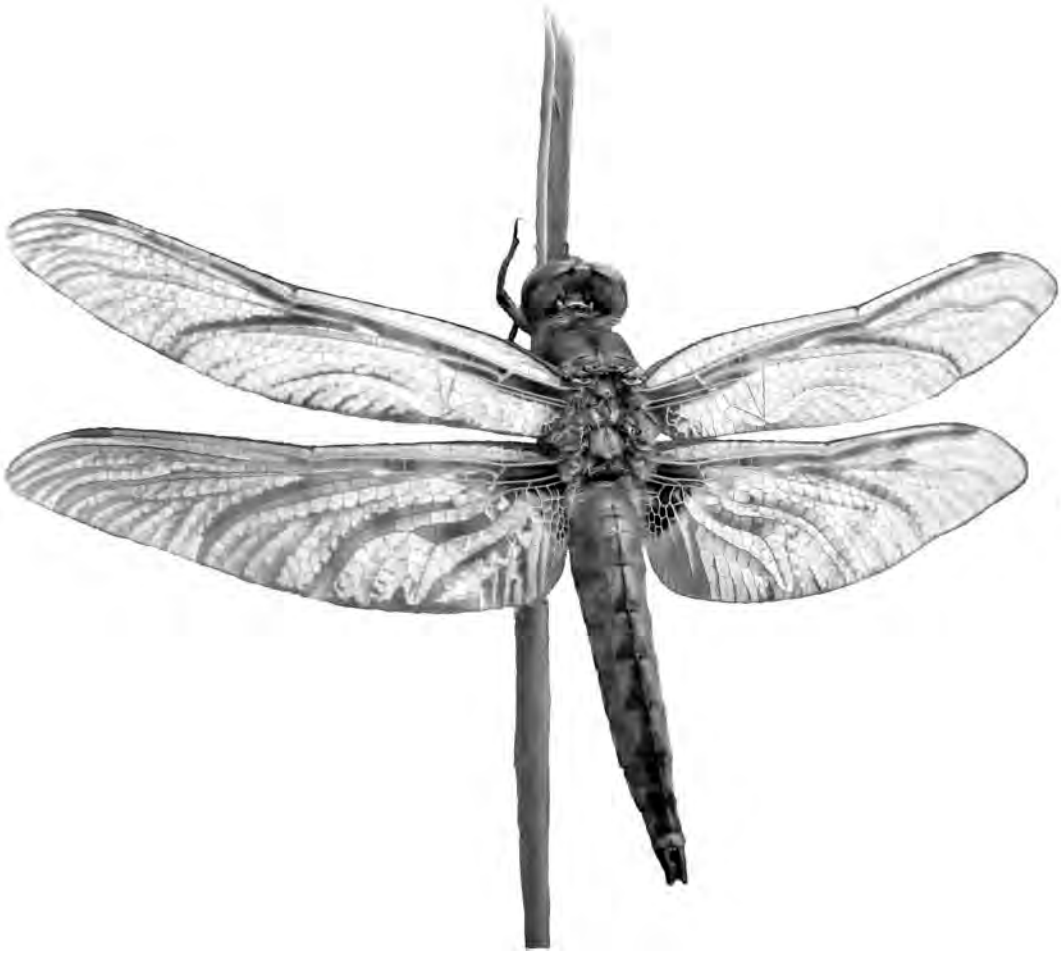
ADASTRA 2008



An annual review of wildlife recording in Sussex

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ADASTRA 2008

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by the

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Cover picture: Scarce chaser (*Libellula fulva*) by John Luck (see dragonfly article below).

RECORDING OUTSIDE THE BOX?

Conservationists across the UK are thinking BIG. The traditional focus on Nature Reserves has rapidly evolved over the past couple of years to 'larger scale' thinking. The Wildlife Trusts are looking towards 'Living Landscapes' and the Woodland Trust too are thinking not just of the magnificent sites that they manage, but also of the plight of woodlands across the nation. Natural England is backing the push for an 'ecosystem approach'.

I've been at the Sussex Biodiversity Record Centre for quite a few years now (this is my tenth…eek!) and so I feel that I am in a position to make some sweeping statements about trends in the data held at SxBRC. When I started in the Record Centre, there were about 150,000 species records (believe me, it seemed a lot at the time, but the Sussex Ornithological Society and the Sussex Botanical Recording Society can each surpass this in a year!). Now we hold 20 times that amount of records at over 2 million species records. However, in 1999 the data that was held was virtually a map of nature reserves, SSSI's and SNCI's. I don't think this was because recorder effort was specifically focussed on these sites, as the Sussex Plant Atlas and Sussex Atlas of Mosses, Lichens and Liverworts both demonstrate. The reason for this trend, I think, is that data entry was so slow and cumbersome and had to be prioritised. Species records for these important sites were put first and SxBRC hadn't even started data exchange relationships with most of the Sussex groups.

Along with an incredible data revolution, where the majority of recorders now have computers at home, with the atlas work of SBRS, SOS and remarkable recording momentum that groups and individuals in Sussex gather, the species record map now reaches way beyond these sites prioritised for nature. When, for example we undertake data searches for agri-environment schemes it is often surprising how many records of yours we now hold in largely agricultural areas, not historically well recorded. But recorders get everywhere and due to the exceptional work of the record co-ordinators or county recorders in each Sussex group, a huge amount of records are coming into SxBRC each year for the whole of Sussex.

So if conservationists are thinking bigger picture, can biological recording support their 'evidence base'. I think 'yes it can'. Yes there are gaps in the data, but as a trend the coverage of the county is improving each year. As this publication demonstrates biological recording in Sussex has exceptional vitality, it's thinking BIG and judging by the numbers of people attending most recording group meetings it is getting BIGGER.

Henri Brocklebank
Biodiversity Record Centre Manager

MAMMALS

by Penny Green

The current number of mammal records which have come in to the Sussex Biodiversity Record Centre and Sussex Mammal Group for 2008 is 1426. It's never too late to send your data in though! You don't actually have to see a mammal to know that it has been there. For example mole hills, deer slot marks, disturbance from rooting wild boar and badger latrines are all great ways of recording mammal activity and you can do this when on a countryside ramble. This article excludes cetacean records, water vole and otter records which are covered in other articles below.

Amongst the mammal records received for 2008, we have plentiful records of the **mole**, that little gentleman in velvet, clocking in over 500 records, thanks to a couple of dedicated recorders. **Rabbit** records also coming in like the clappers[1] with 293 records, and wild boar still prolific in the far east of Sussex, with 14 records. Have you seen any signs of **wild boar** anywhere else in Sussex? **Brown hares** are also doing relatively well with 20 records, but there is room for improvement! Sadly, there has been a distinct lack of **hedgehog** records; is this depicting their decline or perhaps a decline in recorder effort? It certainly was the case in 2007 that a majority of hedgehog records could be accredited to just two keen-eyed recorders. Did we only have six **brown rats** in Sussex in 2008? That's what our records show. **Dormouse** records were few and far between but an exciting find of one was made in a wood on the outskirts of Brighton; it is the first time a dormouse has been recorded in the Brighton & Hove area. **Foxes** and **badgers** remain under-recorded despite being amongst our most easy to see mammals, unfortunately usually as road kill. There were 40 records of our native **roe deer**, 12 records of the introduced **fallow deer** and three **muntjac** in some woods. There were three more reports of **polecats** in the county, although without pelage analysis it is difficult to determine whether they were 'true' polecats or hybrids with domestic ferrets. **Weasels** and **stoats** were a bit better recorded in 2008 than in 2007, with eight records of each. Small mammal record numbers were low, due to the need for trapping equipment and effort, with just a handful of records of **wood** and **yellow-necked mouse**, **common** and **pygmy shrew**, **bank** and **short-tailed field vole**. A single **harvest mouse** recorded in the reedbed at Woods Mill was the only record of the year. And a sad one to end, just one **water shrew**…who had sadly lost its head.

A very successful Sussex Mammal Group training day in March produced a load more enthusiastic volunteers to get involved with finding out more about the County's mammal populations. The training day included Longworth trapping methodology and how to look for signs of field voles. We were also lucky enough to see a weasel running about. A lot of the people that came on the training day, along with some existing volunteers, have got involved with the Sussex Dormouse Nut Hunt which is running over the winter 2008/2009. Using the data held at the Sussex Biodiversity Record Centre we have looked at historic records of this species in Sussex and come up with a list of woods to revisit to see if they are still resident. We supplied this list and a map of the sites to the volunteers and they have been busy going out to visit them. So far we have had 12 site results back. We are also encouraging people to visit suitable-looking woods that haven't had dormice recorded there before. If you would like to get involved or would like to have a look for nibbled nuts in your local wood please get in contact for an identification sheet. We are hoping that this information can help us to focus our attention in specific areas for dormouse monitoring.

[1] '*Going like the clappers*' is an old English expression thought to be linked to rabbits, c*lapier* being French for rabbit hole, amongst other things!

We have also been lending out the Longworth traps to people so that they can gain experience in trapping in preparation for the National Small Mammal Monitoring Survey that should be going ahead in 2009.

AMPHIBIANS AND REPTILES

CHYTRID UPDATE

Chytrid fungi have long been thought to be predominantly free-living saprophytes, with a few species capable of infecting invertebrates and vascular plants. However, in 1999 a new species was described that infected amphibians and caused the often fatal disease, chytridiomycosis. Since 1999 this Chytrid fungi has been associated with amphibian population declines across the globe (www.amphibianark.org).

The disease is carried by healthy tadpoles and when these metamorphose the fungus spreads within their skin. Research on chytridiomycosis is at an early stage, and there are many areas still not understood. However, Chytrid fungus can probably infect any amphibian but each species is thought to have differing levels of susceptibility. It appears particularly to affect species which live around streams and at high elevations (some of which we saw on our screens this year in David Attenborough's *Life in Cold Blood*): **common toads** are not specifically associated with either of these habitats but this species has suffered in isolated areas of mainland Europe from the disease (www.froglife.co.uk).

In 2005 Chytrid was reported for the first time in native amphibians in the UK, at a Kent site near Tunbridge Wells (alarmingly close to Sussex), where it was affecting two common toad populations. Since then there are three known sites in the UK (also not in Sussex).
Following this outbreak, in 2008 Natural England and the Institute of Zoology began disease monitoring of other sites in the UK to assess the threat that the disease may pose to our native amphibian species. They called upon the amphibian and reptile groups (ARGS) around the UK for help.

In order to take part in this monitoring 30 individual amphibians were needed from a single site on two sampling dates. Laura Bristow and Barry Kemp of the Sussex Amphibian and Reptile Group went to a pond near Henfield. The toads at this site were found under a bank near the pond and once Laura and Barry had established that these individuals had been in the water, 30 individuals were selected. They needed to be sure a mixture of males and females were swabbed. Swabbing involved rubbing the swab on the hind legs, particularly in the crease of their inner thighs and knee, also on the 'drink patch' on their bellies. Once swabbed they were released back into the site. In late June they returned but a second sample was not possible. They were hoping for newts this time but only ten were found which was not enough to be included in the study.

Barry Kemp also swabbed at a site at Offham with Eddie Brede from the Zoological Society who was co-ordinating the national sampling. They managed 30 individuals on two occasions.
Nationally amphibians were swabbed in the numbers required to provide meaningful results from 102 locations across the country during the first swabbing session and from 75 during the second swabbing period. Across the country, 5,998 amphibians were swabbed (ARG UK).

All Sussex results were thankfully negative which is reassuring, and nationally there was very little sign of the fungus in the tested populations. There seem just to be a few isolated patches so ARG

groups may well be called in for more sampling in future years as herpetologists keep tabs on this dangerous pathogen.

Symptoms of chytridiomycosis infection in a population include:

- Large numbers of dead froglets, toadlets (May-June) or newtlets (June to September), just after metamorphosis
- Skin flaking
- Lethargy
- Dead amphibians with no obvious cause of death or signs of disease

The mass mortality at metamorphosis is the main thing to watch out for. The other symptoms may not develop and may be difficult to observe without closer inspection.
I
f you witness any of the above in 2009 please let SARG know by calling Laura Bristow on 01273 497505 or emailing laurabristow@sussexwt.org.uk

Henri Brocklebank, SARG Chair

SUSSEX OTTERS & RIVERS PARTNERSHIP (SORP)

by Fran Southgate

There are promising signs this year of a slow but steady recovery of **otters** in Sussex. An otter was found near Rowlands Castle on the West Sussex/Hampshire border at the end of 2007, and there have been a number of confirmed sightings on the river Arun, with further sightings at Chichester Harbour and on the river Ouse.

SORP is now holding regular training days for anyone who would like to learn to survey for otters as part of a volunteer Sussex Otter Survey team. Dates in 2009 are March 24th and October 6th. **Water vole** training days are also held and are advertised in the SWT courses brochure.

Do you remember otters pre-1970?

If you saw or knew of otters in East or West Sussex before 1970, I would be very grateful if you could get in touch with details.

My contact links are at the end of this article.

Fran Southgate

A long term drive of conservation effort for water voles appears to have finally halted the decline of the species. Although still very much at critically low numbers in most Sussex catchments, the water vole does seem to be making a slow recovery, with new evidence of populations on the middle reaches of the Cuckmere river near Chiddingly. Introduced populations of water vole on the Arun are also flourishing and it is hoped that local conservation effort can link introduced animals with existing populations at Pulborough and Amberley. Long term landscape based projects in the Chichester Coastal Plain and Pett levels/Brede valley are also providing areas of best practice land management, along with monitoring and protection of the two core Sussex populations of water voles. In April 2008, the water vole was also given full legal protection in the UK.

The Sussex Otters and Rivers Partnership has also launched a new website this year, aimed at providing easily downloadable advice on a number of wetland management issues including managing land for otters and water voles. See www.sussexotters.org for more details.
Native **black poplar** (*Populus nigra* subsp. *betulifoia*) and ancient floodplain woodland work has predominantly been centred around contacting all those who have planted black poplars over the last 11 years to gain updates on tree status and health. Approximately five thousand black poplar

trees have been planted since the project began and, although not all of these have survived, there is now a widespread distribution of this rare tree throughout most catchments.

The Sussex Black Poplar Working Group (SBPWG) is asking black poplar owners to contact them if/when they notice trees producing flowers, seed or catkins, in order to assess the phenology of the Sussex trees and the potential for assisted production of viable black poplar seed. Please contact fransouthgate@sussexwt.org.uk if you have any updates or information.

This year Forest Research kindly carried out DNA analysis on all 34 of the mature Sussex black poplars, revealing that we have only 5 genetic clones within the Sussex tree group. One of these trees appears to be currently unique to Sussex however. Although a number of 'new' black poplar trees have been reported recently, to date these have unfortunately all been found to be hybrids. The SBPWG has also been searching for opportunities to restore floodplains woodlands including some black poplar in its traditional habitat, and also to encourage natural vegetative reproduction of the tree. Over 3 ha of floodplain woodland have been restored over the last year on two separate catchments. Survey work has been carried out into the status and condition of the last remaining fragments of ancient floodplain woodland in Sussex. Eight main sites were surveyed with some exciting results (see summaries below). It is hoped that with funding and landowner access, further surveys of ancient wet woodland fragments can be carried out in 2009.

Summary of floodplain woodland results (for details of woodland NCV categories mentioned below, please see www.jncc.gov.uk/page-2565):

South Ambersham wood
Large and rich woodland, although not ancient. Part of a common in 1810 and woodland by 1879. It has humic leys and peats on mires at the valley edge and alluvial gleys in the centre. Debris dams and flood channels present. W7a/W6 to south, with limited patches of W8a on levees grading to W7a up stream with W7b on deep peat. Old growth pasture woodland relics on banks with rare lichens, including the BAP *Bacidia incompta* on a veteran beech.

Hartsgravel Wood
Ancient woodland with "hardwood" riverine woodland, i.e. mixed ash-maple-wych elm wood over W8f & W8b ground floras; a rare and exciting site to the east of Shipley, West Sussex. Debris dams present and limited flood channels.

Knepp, Alder Copse
Although not on the old series OS map, this woodland, also near Shipley, was on the 1879 map and the survey suggested it was actually ancient. Although slightly damaged by poplar planting, the floodplain had mixed ash-maple-wych elm-alder wood over W8f. Very impressively hornbeam wood stopped right on the edge of the floodplain, as it is supposed to do in mainland Europe.

Charlwood Wood
Ancient woodland, also east of Shipley, is mainly off the floodplain (W10a & W10b) but parts of it just get on to the edge, with similar W8b ash-maple stands as on the edge of Hartsgravel Wood floodplain. Wych elm is present in adjacent secondary woodland and English elm in the ancient woodland. An ancient ash has the Nationally Scarce lichen *Chaenotheca brachypoda*, the first record for Sussex since the 19th century.

Fran Southgate: Tel: 01273 497555 Email: fransouthgate@sussexwt.org.uk

SUSSEX SEA MAMMAL RECORDING

Stephen Savage, Sussex Regional Co-ordinator, Sea Watch Foundation
Sussex County Recorder for Sea Mammals

2008 was quite poor for cetacean sightings, following a great 2007 where we had records of 3 species, **bottlenose dolphin** *Tursiops truncatus*, **harbour porpoise** *Phoceana phoceana* and **common dolphin** *Delphinus delphis.* In 2007 we had several unusual cetacean sightings including a large group of 40-60 harbour porpoise and a group of 30 bottlenose dolphins. 2007 also saw two visits from sociable bottlenose dolphins, George from France and Dave who usually resides around the Kent coast. A juvenile common dolphin, possibly separated from a group of adults seen in the area, also visited various coastal areas including Brighton Marina and Eastbourne.

Bottlenose dolphins

2008 sightings began with a report of a dead bottlenose dolphin washed up just east of the Brighton marina. This was around the same time as the timber from the vessel 'Ice Princess' was washed ashore after it was hit by rough weather off Portland Bill in Dorset. It was unclear if the two incidents were related. We only had three live bottlenose dolphin sightings reported in 2008, substantially fewer than in previous years however this may to some extent reflect the opportunities for spotting cetaceans. These consisted of a single bottlenose dolphin off Southwick beach in June, 2 bottlenose dolphins near the Brighton Marina and a single bottlenose dolphin at Hove in September.

Unusual sightings 2008

The most unusual sightings for 2008 has to be the **northern bottlenose whale** (*Hyperoodon ampullatus*) first seen at East Wittering 30th July. This is a deep water species made famous by the one that swam up the river Thames a few years back and tragically died despite valiant efforts to move the whale back out to sea. The East Wittering animal was observed again on the 31st July around the entrance of Chichester harbour and there was a fear that it would become stranded on one of the many sand banks in the area. Sadly, on the 1st August the whale did become stranded on the Langstone side of Hayling Island (Hants) and the attending vets decided that it was in the best interests of the animal to euthanise it following lab tests that revealed kidney failure, muscle myopathy and extreme dehydration.

A dead porpoise was washed ashore at Worthing on 19th December and another near Worthing on 21st December. Other unusual sightings in the English Channel include a **sperm whale** (*Physeter catodon*) seen off Boulogne in France in January 2008 and a **humpback whale** (*Megaptera novaeangliae*)also off Boulogne in February 2008.

National Whale and Dolphin Watch

The 7th National Whale and Dolphin Watch, organised by the *Sea Watch Foundation*, took place between 21st and 29th of June 2008. Watching took place at 160 locations around the UK including 60 manned watch sites. A total of 372 sightings of whales, dolphins and porpoises were reported during the week, comprising of nine species with 2057 individual cetaceans observed. The bottlenose dolphin was the most frequently seen cetacean with 153 sightings one of which occurred in Sussex.

In 2008 sighting information regarding sea mammals was provided for two environmental impact studies and a fisheries operation licence.

Seals

While Cetaceans have not been very visible this year we have had some very interesting **common seal** (*Phoca vitulina*) sightings including several in rivers. It is quite normal for seals to frequent rivers, even travelling many miles inland. One of the reasons for this may be migrating fish. The common seal and **grey seal** (*Halichoerus grypus*) are the two species seen off Sussex, the common being the smaller of the two. They can be distinguished by the shape of the head. Common seals have a very visible forehead (like a dog) while the head of the grey seal slopes towards the nose. The nostrils of the common seal form a Y – shape, while the grey seal has parallel nostrils.

6th January a healthy common seal was observed in the river Ouse near Lewes
12th January a common seal was seen as West Wittering
1st March, common seal, Rye Bay
20th March, common seal, Playden, River Rother
27th April, a common seal hauled out on the river bank of the river Ouse
3rd May, a common seal was observed swimming up the river Arun, past Amberley castle
15th June, a common seal in the Adur estuary where it was observed chasing fish
6th October, Swimming in Pevensey Bay
26th November, a seal swimming and feeding, Brighton/Hove border

The following sightings may well be of one animal:

22nd October river Adur by the airport
31st October/1st November hauled out on sea defences at Peacehaven
18th November swimming and hauled out, river Ouse
19th December swimming and hauled out, river Ouse

There is also a small resident group of seals living within Chichester Harbour and we are hoping to be working with the Wildlife Trust on a satellite tagging project in 2009 to help protect this vulnerable group.

Sea mammal sightings can be reported on our hotline 07773610036 or via Sussex Biodiversity Record Centre

BIRDS

At the time of writing 2008 records are still being received, so this report covers the main highlights of 2007, details of which can be found in the *2007 Sussex Bird Report* and also in the relevant *British Birds* for those species for which British Birds Rarities Committee (BBRC) adjudicates.

The number of records received in 2007 was again up on previous years bolstered considerably by the wider capturing of records from an ever-increasing number of sources. Records from BTO BirdTrack and Garden Birdwatch and records from sites such as Pagham Harbour, Rye Harbour, Pulborough Brooks RSPB, Weir Wood Reservoir, Warnham NR, Selsey Bill and Chichester Harbour collated in a more comprehensive and targeted way have again helped to ensure better coverage from these sites.

A total of 253 species were recorded in 2007, the same as in 2006 and there were 148,292 records from 1207 observers or sources in 2007 compared with 96,595 from 632 observers or sources in 2006.

The number of scarce and rare species reported in 2007 was down on previous recent years and the number of descriptions actually submitted was the lowest for at least three years. This is a reminder of the importance of submitting descriptions for those species where it is required as many records are lost through non-submission and therefore from the avifaunal record.

A widely appreciated **Hume's leaf warbler** at Horseshoe Plantation, Beachy Head from the end of 2007 until mid-January 2008 was only the fifth county record and a **red-breasted goose** at West Wittering, which was seen in both winter periods was only the third Sussex record and was even more widely admired during its stay.

A completely unexpected and surprising long-staying rarity was an adult **white-billed diver** that remained off Selsey Bill from the end of September until mid-November. Only the fourth Sussex record and the first to be truly twitchable, it proved to be much appreciated by both Sussex birders and those from further afield. If one managed to hit the tide and the bird's appearance just right four species of diver could be seen at one time from Selsey.

Other species of note observed during the year included two **red-rumped swallows** at Pett (April); a **glossy ibis** at Pagham Harbour and then at Pannel Valley (April-May); a **black-winged stilt** at Pett Level (June); a very showy juvenile **night heron** in Hastings (August); a **white-winged black tern** at Weir Wood Reservoir (Aug) which was part of a small influx into the UK; two **great white egrets** at Thorney Island (Sept); and the third Sussex record (and third site record) of **paddyfield warbler** trapped at Pett Level in October.

Small numbers of **European storm-petrels** were again recorded, mainly off Selsey Bill, although the number recorded was nowhere near that reported in 2006's record influx.

Unusual records of wintering birds included **whinchat** near Horsham and a **yellow-browed warbler** in gardens in Southwick, which constituted only the second wintering record for Sussex. **Mediterranean gull** numbers continue to rise with 250 recorded at Rye Harbour in March breaking the county record for the ninth successive year.

Red kites successfully nested again in 2007. **Honey buzzards** also successfully nested but the suitable available habitat within the county perhaps suggests that more birds may be or at least should be present during the nesting period. There were no confirmed **goshawk** sightings this year and although undoubtedly the species was present within the county several areas where this scarce (Sussex) species have been reported with some frequency in the past failed to deliver even any unsubstantiated reports. It will be interesting to see if this is just a poor year for the species or whether a longer-term trend may be appearing.

Breeding by **little egrets** also continued and large roosts were again recorded at the west end of the county with smaller numbers reported along the central and eastern portions.

The picture for the county's scarcer resident and summer migrant species appears to have changed little in the past few years and so it is no surprise therefore that this brief overview of the year's bird records includes those species which caused concern in 2006.

Willow tit continues to disappear from the county and although 33 records were received over the course of the year some records may have involved **marsh tit** and the true number recorded could be even lower. With the species on the brink all records of the species are required by the Society; however it is likely that with the present situation and crash in population the species is destined for the list of species for which a description is required for acceptance and publication.

Turtle dove amassed 231 records this year compared with only 195 records in 2006 although two thirds of the observations were of just single birds. There were a probable 18 pairs in the county altogether (perhaps as many as 49 in 2006), but confirmed breeding came from only one site.
As always it is important that all records of species of conservation concern are submitted so that as true a picture as possible is formed for the most vulnerable species in the county. It is hoped that a list of species for which all records are required, as well as undertaking targeted species record capture, will be available in 2009 to help guide observers as to which species records are particularly sought by the Sussex Ornithological Society. Species involved are likely to include **grey partridge**, **bullfinch**, **corn bunting**, **skylark**, **lesser-spotted woodpecker**, **kingfisher**, **grasshopper warbler**, **wood warbler**, **tree sparrow** and **yellowhammer** amongst others. Waders such as **redshank**, **lapwing** and **common snipe**, which have all suffered catastrophic declines in their breeding numbers in Sussex, will also be the focus of recording effort. Indications show that in 2007 only three pairs of common snipe may have bred; eleven pairs of redshank (10 in 2006); and breeding of lapwing was confirmed from about seven different sites (although up to 40 pairs were at a number of different sites where breeding attempts or success are not known). **Oystercatchers**, **ringed plover** and **little-ringed plover** also continue to struggle to find suitable and undisturbed nesting sites within the county.
The overall picture of the health of the county's bird life is a mixed one and it is clear that many species need additional help and protection to sustain their populations. It is hoped that through effective recording and submission of observations the Sussex Ornithological Society and those submitting records to it can help to bring about increased awareness and protection for those species which require it.

No new species were recorded in the county in 2007 and the Sussex County list remains at 388 species as of 31st December 2007.

Christian Melgar, Sussex Ornithological Society Recorder

FLOWERS, FERNS AND THEIR RELATIVES.

THE SUSSEX BOTANICAL RECORDING SOCIETY 2008

By Paul Harmes and Alan Knapp, Flora recorders for East and West Sussex

We continue to be busy recording for the new flora of Sussex which we hope to be able to publish by the end of 2012. Thanks to the efforts of a number of members of the Sussex Botanical Recording Society, every tetrad in Sussex (with the exception of a few small parts of tetrads around the edges), has had at least one good visit and over 230 tetrads now have more than 300 records. However, we still have a lot to do, especially trying to refind old records for scarce and declining species.
Probably the best known new record this year was the **lady orchid** (*Orchis purpurea*) which appeared on Beachy Head and which was visited by many admirers. This appears to be the first time it has occurred in East Sussex. Another first for East Sussex this year was **ivy broomrape** (*Orobanche hederae*) growing (unsurprisingly) on ivy in a garden in Burgess Hill. Also surprising, as it had not

been seen in East Sussex for many years, was the discovery of wood horsetail (*Equisetum sylvaticum*) growing close to the Bluebell Railway.

In West Sussex one of the most welcome discoveries was a strong colony of **mousetail** (*Myosurus minimus*) in the edge of a field south of Wisborough Green - the first new record for this species for several years. Another interesting find was a strong colony of **early meadow-grass** (*Poa infirma)* on a low bank by a cricket field near Broadbridge Heath. All previous records were within 10km of the coast but this species appears to be spreading as the first Sussex record was only nine years ago but it is now known to be present in 35 tetrads. It is possible that part of the apparent increase is the result of recorders missing it in the past as it looks very like the ubiquitous **annual meadow-grass** (*Poa annua)*. The known range of **cut grass** (*Leersia oryzoides*) has also been extended northwards by the discovery of a few plants near the Arun NW of Billingshurst. This species is of particular interest as it seems that Sussex now has the only extant native populations in the UK although so far it appears safe here with large populations in and around Amberley Wild Brooks plus scattered populations elsewhere.

We have spent some time searching for apparently missing species with mixed success. We have failed to refind **rootless duckweed** (*Wolffia arrhiza*) in W. Sussex, mainly because many of the ditches in the Amberley area where it did occur are now overgrown although it could well re-appear if they were cleared. Fortunately it continues to do well in Pevensey Levels. We were more successful in refinding **dodder** (*Cuscuta epithymum*) in Ashdown Forest, growing as reported before on heather on the mown edges of rides. However searches in the majority of the previously known sites for **bog pimpernel** (*Anagallis tenella*) in Ashdown Forest failed to produce any positive results. Some sites still looked suitable so hopefully it is still around - if anyone has seen it in the Forest since 2000 please send details to Paul Harmes & Alan Knapp. Another species which is clearly declining is **heath cudweed** (*Gnaphalium sylvaticum*) so it was good to get a new record from Scotland Knob, north of Easebourne this year. It used to occur in St. Leonards Forest but a search there failed to reveal any plants. We did however get a pleasant surprise as we refound a small colony of **allseed** (*Radiola linoides*) which has not been seen there for many years; it is these unexpected finds that make it all worthwhile.

ORCHIDS IN SUSSEX 2008

by David Lang, Sussex Orchid Recorder

Looking back at the report for 2007, I fear that the report for the current year is not a great deal better, and certainly the later flowering species once again did not perform very well.

Green-winged orchid (*Orchis morio*) started the year off well, with a good showing at most of its traditional sites. My attention was drawn to a lawn near Arlington with a stunning display of more than 5,000 flowering plants. The resident obviously had nurtured them with loving care!

Early spider-orchid (*Ophrys sphegodes*) fared badly at many of the sites near Beachy Head for the third year in succession due to overgrazing by sheep. Once again the Castle Hill site was excellent, with two flowering plants of var. *lutea*.

Greater butterfly-orchid (*Platanthera chlorantha*) made a poor showing everywhere, many classic locations having no flowering plants. Clearing work at Wellcombe Bottom near Wolstonbury is continuing, with a reasonable number of flowers there. Growth of competing vegetation after the initial clearance certainly suppressed many of the orchids, but this is noted by the National Trust and further work will take place on what is a long-term project.

Fly orchids (*Ophrys insectifera*) continue to cause concern, but the var. *lutea* at Heyshott Down flowered again with three spikes.

The **lizard orchids** (*Himantoglossum hircinum*) at Beachy Head and by the river Ouse both flowered again and set seed, but the surprise was the **lady orchid** (*Orchis purpurea*) found by John Curson a few yards from the Beachy Head plant. This was the first Sussex record since 1981. In both flower morphology and colour intensity it more closely resembled the flowers to be found in northern France, rather than those in West Kent – the nearest UK sites. Considering that the prevailing wind is most frequently south-westerly, it is probable that this plant was the result of seed blown across the Channel.

Burnt orchids (*Orchis ustulata*) did quite well, both the early flowering form in May and the late-flowering var. *serotina*, although this failed to appear at five known sites near Eastbourne. **Fragrant orchids** (*Gymnadenia conopsea*) did well on the Downs in many places, with an unusually fine showing of some robust ssp. *densiflora* at two sites near Ditchling Beacon.

The marsh orchids at Ferring Rife were once again superb, increasing yearly in numbers, particularly the mauve-coloured form of **early marsh-orchid** (*Dactylorhiza incarnata* ssp. *pulchella*). Hybrids between the species were again present, *Dactylorhiza fuchsii* x *D. incarnata*, *D. fuchsii x D. praetermissa* and *D. incarnata* x *D. praetermissa*. The unusual hybrid *D. fuchsii* x *D. maculata* ssp. *ericetorum* was found by Dr Jean Byatt in two places on Ashdown Forest.

Broad-leaved helleborine (*Epipactis helleborine*) continues to flourish in Friston Forest, and two achlorophyllous plants were found at Crowhurst and another near Broadoak.

Pendulous-flowered helleborine (*Epipactis phyllanthes*) once again had a bad season, flowering in only two of the six sites at Thakeham, with no plants visible at Arundel.

LICHENS (AND A FEW FUNGI).

SUMMARY OF SUSSEX LICHEN RECORDING GROUP MEETINGS, 2008

by Jacqui Middleton

We began the year with a trip to Blackdown on the Surrey border. We started looking at the car park and stayed there for about 5 minutes (must be a record!) as there was very little there in the way of lichens. Bruce then drove us to our first site which was a relatively *Cladonia*-rich mossy bog. Our second site was a lovely sandy bank which had a good patch of both *Baeomyces rufus* and *Cladonia caespitica*. Last, but not least, we were taken to a pretty valley with some thickly lichen-laden *Sorbus* and Oaks. We had a very respectable count for the day (47 species) given that it was a site that had recently had considerable clearing works for heathland. In the future we are hoping that this site will have many more *Cladonia* species and we certainly should continue to keep an eye on it.

The next spring meeting was at Midhurst Cemetery. We had a good time trying to work out some of the odd and over-grazed species found on the granite - many of which we gave up on! A rather strange wooden cross proved to be the high-light of the day with an amazing range of species for such a small item. There were also some impressive colonies of certain lichen species - particularly

a spectacular colony of *Pertusaria amara* on one of the gravestones. We made a respectable count by the end of the day (51 species).

Our first autumn meeting at Fishbourne Church was fine. We looked at a range of habitats: a bench with the good specimens of *Flavoparmelia caperata* and *Flavoparmelia soredians* - which provided a good opportunity to compare the two; some very good gravestones with a range of saxicolous lichens that were not fully identified; a fence with a wide range of lichens. However, our search to find *Parmelia oleagina* again (we had seen it earlier in the year) sadly was fruitless. There were some largish scars on the fence that suggested that the specimen may have been removed. We are going to make another visit to confirm this, but it would be a great shame if this was indeed the case. In our group we make a policy of not collecting what we think is possibly a rare lichen unless there is a lot of it at the site and if so we only collect smallish samples or fruiting bodies with sellotape. Despite our disappointment, we made a respectable count by the end of the day (49 species).

The last meeting of 2008 was at Kingley Vale, nr Chichester, where we were investigating the Yew and surrounding ancient woodland and scrub and as well as fence posts and old gates. Howard Matcham found some very rare (and rather splendid) fungi including *Chromocyphella muscicola* (new to Sussex and on the moss *Hypnum cupressiforme*), *Amylostereum laevigatum* (on Yew), the purple upright *Ascocoryne sarcoides* and the blue staining *Chlorociboria aeruginascens* – normally only the stain is present but this time we were able to see the lovely little "green elfcups". Lichen-wise we came across a superb ash grove which had unusually large quantities of *Normandina pulchella* (Ash) on many of the trees, *Stenocybe septata* (Holly) – again a larger number than is normal for Sussex - and a likely large specimen of *Ochrolechia inversa* (C+ Orange) which is more common in the West country (will need confirmation from an expert at some stage). We did not have time to investigate the chalk grassland and so it is likely that we missed a lot of further species. We had 35 species by the end of the day.

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.

Stop press: On 28 January 2009, Howard Matcham collected a micro-fungus from his wood pile at Strettington near Chichester which he was unable to identify. He sent it to Brian Spooner at Kew and was informed that it appeared to be *Pseudotrichia viburnicola*, a very distinctive little species growing on elm and new to Britain.

IN SEARCH OF FUNGAL HEDGEHOGS – A SURVEY OF THE STIPITATE HYDNOID FUNGI OF KENT AND EAST SUSSEX

by Martin Allison

Stipitate hydnoid fungi, or stalked hedgehog fungi in layman's terms, collectively form a rare UKBAP community with a limited distribution throughout the UK. All species are terrestrial, with the fertile underside of the cap composed of spines rather than gills or pores, hence the epithet "hedgehog". Nine species have been recorded from South East England: *Phellodon niger, P. melaleucus, P. confluens, P. tomentosus, Hydnellum concrescens, H. spongiosipes, Sarcodon scabrosus* and *S. squamosus*. The common **wood hedgehog** (*Hydnum repandum*), is widespread and well known, and is not considered in the current survey.

The author was originally commissioned by Plantlife to undertake a survey of the modern and historical distribution of hedgehog fungi in Kent. This rapidly developed into a personal challenge, which extended over the border into the lesser-known East Sussex.

The strongholds for hedgehog communities in England are the New Forest, Crown Estate land in Surrey and Berkshire, and the Greensand and Tunbridge Wells Sand ridges of West Kent. Other stipitate hydnoid communities comprising some species not recorded in England, are found in the Caledonian Pinewoods of the Scottish Highlands. There is a noticeable gap in the current distribution for East Sussex, despite some suitable geological areas present in the county.

The author was already familiar with the hedgehog sites of West Kent, but was puzzled by the lack of records from East Sussex, where the sandy or gravelly wooded ridges should have been eminently suitable for the fungi. Potential sites close to the Kent border include Ashdown Forest, Broadwater Forest, and the Hornshurst/Hoth Wood ridge at Crowborough. Other sites to consider further south were Chailey Common, and the Low Weald acid woodlands represented by Bixley & Flatropers Woods and Brede High Wood. Success can never be expected as the communities are distinctly local, leading to frequent negative searches even where the habitat looks optimal, and making any find a red-letter day for the surveyor.

A trawl through the available literature for East Sussex revealed few historical records, mostly from unconfirmed sites, with original recorders unknown. Some useful data emerged from the Kent records, such as species lists compiled from visits to Ashdown Forest by the Orpington Field Club 2004 and 2007. There was one unconfirmed 1994 record of *H. concrescens* from Chailey Common, found in the Chailey Commons Society 2000 Annual Report.

Stipitate hydnoid fungi are mycorrhizal and associate with various host tree partners. The bulk is found with oaks, *Quercus robur* and *Q. petraea,* or sweet chestnut *Castanea sativa*, but at least two species are possible with Scot's pine *Pinus sylvestris* or birch *Betula sp*. They demand very poor, acidic soils, where there is little competition from other vegetation besides bryophytes. They tend to cluster on old woodbanks and other raised, and often recently disturbed, ground, and are probably seeking sharp drainage. Aspect does not seem to be significant. This habitat limitation helps to target search areas. Once a site is found it will often support more than one species in close proximity, the best sites containing 5-6 species. There seems to be a suite of other fungi species that cluster with them, particularly **stocking webcap** (*Cortinarius torvus*), but not at all sites. In general, a site with hedgehog fungi is rich in other fungi, whereas the surrounding woodland can be much less productive.

Of the more widespread species, **zoned tooth** (*Hydnellum concrescens*) is the most frequent, and has previously been recorded in Ashdown Forest, along with the unconfirmed record mentioned previously, as *Hydnum zonatum*, from Lane End Common, Chailey. The current survey has found a further site on Ashdown, and two sites at Hornshurst and Hoth Woods near Crowborough. **Scaly tooth** (*Sarcodon squamosus*), previously mis-recorded as *S. imbricatus*, is another previously known species from Broadwater Forest, and was there during the current survey in 2006 and 2007, but not 2008. This species is a pine associate. The situation in any one year can be deceptive. For instance, in 2006, *H. concrescens* was abundant in several known sites in West Kent, whereas in 2008, it was virtually absent from the same sites. The need for surveying over several years soon becomes apparent.

The survey has so far added four new species for East Sussex. **Velvet tooth** (*H. spongiosipes*), **fused tooth** (*P. confluens*) and **grey tooth** (*P. melaleucus*), were all good new records, but the most

rewarding find was on Ashdown Forest in 2008, where 8-9 fruit bodies of **bitter tooth** (*Sarcodon scabrosus*), alongside a further two stipitate hydnoid species, were located on a steep roadside bank south of the ford at Newbridge. This is by far the rarest of the hydnoids in the UK, with only 63 entries on the national fungal records database for England, with most of those originating from Berkshire.

To confound the issue, current molecular work on *P. melaleucus* and *H. concrescens* could further split these species, but whether field mycologists will be able to differentiate them from the already existing and confusing species is another matter!

There will always be suitable but inaccessible habitat in the two counties where surveyors will not be able to search for the fungi. However, this is also true of the rest of the counties where these species have been found. The survey is not intended to provide full coverage, but rather to attempt to identify a series of hot spots for the species, where hopefully once they are known, they will be safe from inadvertent damage in the future. This is particularly important along roadside banks and verges, a favoured habitat for stipitate hydnoids. At some sites they occur dangerously close to the tarmac itself.

If anyone has current records, or finds sites for these intriguing fungi, I would very much like to hear from them: Martin.Allison@rspb.org.uk

BUTTERFLIES

By *Neil Hulme*, Chairman, Butterfly Conservation, Sussex Branch

Unsurprisingly, the fortunes of our butterflies were again adversely affected by poor weather, compounding the similar problems experienced throughout the summer of 2007. At least in that year we were blessed with a very warm spring and an extended period of better weather during the late summer and autumn. This time around a modest spring was followed by relentlessly windy and overcast conditions, with the numbers of most species being suppressed. Spring and early summer emergence times reverted back to the 'norm' (following the exceptionally early 2007 calendar) and flight periods were often truncated, as was the entire 'butterfly season'.

Red admirals were decidedly rare through the winter and early spring period, having failed to survive here in the unprecedented numbers we saw at the start of 2007. However, when the temperature increased, and the 'over-winterers'/hibernators started to appear, we were treated to spectacular numbers of the beautiful **peacock**.

Given the national coverage of the dramatic decline in the **small tortoiseshell** (over 80% down in SE England since 1990), possibly influenced by the arrival of the parasitoid fly *Sturmia bella* from southern Europe, it was encouraging to see good numbers (up to 16) at Ferring Rife in mid April. As part of a national research project 32 caterpillars were collected from the nettle-beds here, with 4 of the resultant pupae being infected by *S. bella.*

The **holly blue** fared very well in the spring, with higher numbers being recorded than for several years. The roller-coaster fortunes of this species appear to be closely linked with the parasitic ichneumon wasp *Listrodomus nycthemerus*. It might be that recent weather patterns have been even less palatable for the wasp than the butterfly, resulting in a net gain.

Another very visible 'winner' during the spring was the **dingy skipper**, which did as well as its relative the **grizzled skipper** did badly. On many sites numbers of the latter plummeted spectacularly, from a strong showing in 2007. Firmly in the 'loser' camp was the **common blue**.

Fortunately, some of our most endangered species fared reasonably well during the early part of the year. These include the **Duke of Burgundy**, **pearl-bordered fritillary** and, in its last remaining refuge at our Park Corner Heath Reserve, the **small pearl-bordered fritillary**. The **wood white** maintained its tenuous hold in woods near the Surrey border.

Many of the 'blue' species that have a close, symbiotic relationship with ants suffered badly in 2008. The **chalkhill** and **adonis blue** both had a very poor season, although the degree to which they were adversely affected by inclement weather (either this year or last) varied greatly between locations. This probably reflects the geographic orientation of different sites, with those fully exposed to the elements, such as Mill Hill (Shoreham), being particularly hard-hit.

In the mid summer months our woodlands supported reasonable numbers of our 'showier' species such as the **white admiral** and **silver-washed fritillary**, while in the canopy above, the **purple emperor** did remarkably well in Sussex. Up to 20 individuals a day were observed at its stronghold in Southwater Woods, where it emerged rather early (24th June).

The **silver-spotted skipper** had a very poor season as the bad weather continued into late summer, and although the butterfly was again recorded at Kithurst Hill, it remains to be seen whether this 'embryonic' colony takes hold. The **brown hairstreak** was seen in good numbers, appearing 'on cue' every time the sun broke through. Following a particularly wet summer, the **wall** fared better than expected. On warmer sites it went on to a third brood. Michael Blencowe's **Grayling Festival** participants located reasonable numbers of the butterfly at Windover Hill.

2008 was almost a 'write-off' for the more exotic migrants such as the **painted lady** and **clouded yellow**, although the spectacular **large tortoiseshell** again arrived from continental Europe in low numbers. An autumnal migration of 'whites' resulted in an unseasonable batch of **large white** caterpillars, some of which appear to have survived the icy, end-year conditions before pupating.
Butterfly Conservation is a registered charity dedicated to the conservation of butterflies and moths. Visit http://www.sussex-butterflies.org.uk/

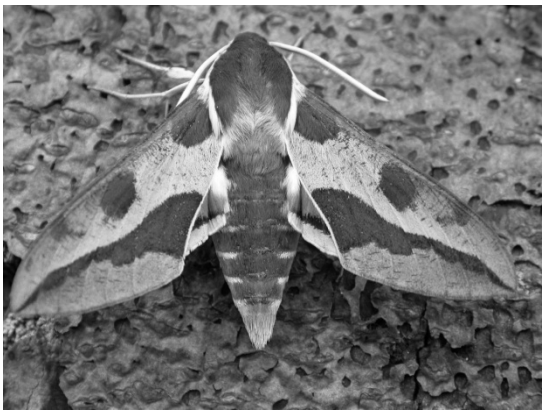
RARE MOTHS IN SUSSEX DURING 2008

By Colin R. Pratt, F.R.E.S.*, County Recorder of Butterflies and Moths for East and West Sussex*

The migrant species
Increasing numbers of moth enthusiasts have been deploying their light-traps across the county in bids to snare rare species and contribute to the Sussex Moth Group's records, to the country-wide Garden Moth Scheme, and to the National Moth Recording Scheme. But after the unique excitements of recent years, the 2008 season was rather bland, both for continental immigrants and native insects - but a few thrilling moths were still seen and more records broken.

Migrants were at typically low levels. For example, the numbers of the day-flying humming-bird hawk (*Macroglossum stellatarum*) were at their lowest since 1999 and only around half a dozen convolvulus hawks (*Agrius convolvuli*) were detected, similar to last year. On the other hand it was a good season for the four-spotted footman (*Lithosia quadra*), with about three dozen records. Up until recently this insect is not known to have been resident in Sussex since the early 1950's, when it

bred at Arundel. But it has now been annually recorded all over in the county since 2003, raising the distinct possibility of renewed residency in our foremost deciduous woods. But 2008 will be first remembered as the great Clifden nonpareil (*Catocala fraxini*) year. Ten of these huge beautiful moths with lavender-blue-banded hindwings appeared in the far eastern corner of the county, this being by far the best season in Sussex for at least 150 years. The season will also be recalled for the arrivals of the smart-looking Dewick's plusia (*Macdunnoughia confusa*), as 20 were detected here, from Chichester to Rye; again, another record level. Rarer still, there was a gypsy moth (*Lymantria dispar*) at Northiam, the second and third West Sussex records of Porter's rustic (*Athetis hospes*) at Walberton, with more at Peacehaven, two orache (*Trachea atriplicis*) at Friston Forest and Bexhill, and a dusky hook-tip (*Drepana curvatula*) at Peacehaven.



One of the most spectacular sightings of the year concerned a spurge hawk-moth (*Hyles euphorbiae*) that came to Penny and Dave Green's garden light-trap at Shoreham (see right – photo by Penny Green). While five larvae have been noted in the county since the middle of the 19th century, this is only the third adult ever seen here.

Of the smaller pyralid moths, the second and third British specimens of *Diaphania perspectalis* came to a trap deployed at Icklesham, although these were probably accidental imports. Even more spectacularly, the day-flying *Mecyna flavalis* turned up at Sharpthorne - there is only one known Sussex colony, at Wilmington.

The season was nicely rounded off by a mid-December discovery of a well camouflaged Bloxworth snout (*Hypena obsitalis*) hibernating inside a cave at Pulborough, this being just the third West Sussex sighting.

The native species

As with the migrant moths, the year of 2008 generally proved a run-of-the-mill affair. One of the most notable events concerned the discovery of the tree-boring goat moth (*Cossus cossus*) at Hastings - a nationally Notable Group B species in danger of extinction in the county. Both an adult and a larva of the striped lychnis (*Shargacucullia lychnitis*) were seen at Walberton, this being a Notable Group A species. The triangle (*Heterogenea asella*), a Red Data Book class 3 insect, continues to colonise the extreme east and west of the county. The new colony of scarlet tigers (*Callimorpha dominula*) at Friston Forest, carefully chaperoned by Michael Blencowe, thrived in 2008. Moreover, it was augmented by the discovery of another settlement in the town at Eastbourne, which made much local newsprint.

Most important of all, a new locality for the micro-moth *Phyllocnistis ramulicola* was found at Pulborough. This moth was first discovered as completely new to science in Sussex near Emsworth in September 2006 by John Langmaid.

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, Tony Davis, at Butterfly Conservation, Manor Yard, East Lulworth, Wareham, Dorset, BN20 5QP, telephone 07837 412820, or e-mail: tdavis@butterfly-conservation.org

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

PSOCOPTERA[2] (BARK LICE AND BOOK LICE)

Marcus Oldfield, Sussex Psocoptera Recorder, *c/o Booth Museum of Natural History, Brighton*

'Psocoptera' - What are they, you may well ask? For a start, everyone has a 'Psocid' or two in their gardens and homes. But, worry not. They are rarely noticed, shy and under-recorded little brown insects. The garden species are called barkflies and indoor ones, booklice. They never cause much damage, except maybe to very old papers. Many bio-recorders would probably say that 2008 was not a vintage year for bugs of any type. That is true even for Psocids, even though they do not mind a bit of the old English damp.

However 2007 *was* a good Psocid year with two new Sussex records. One was the most unexpected *Atlantopsocus adustus*, caught in Brighton. It could occur all along the south coast with its only other UK site in Cornwall, but in 2008 it has kept its head well & truly down. This year, there were two Psocid highlights for me. One was rather beautiful and the other a bit weird.

I say Psocid 'year', but really, that is the cool thing about these bugs. Dragonflies, butterflies and other run of the mill insects, have a short season and come October, they have had it. Psocids do much better, presumably due to a superior evolutionary progression. Not only are there many species that like to co-habit with us in our nice cosy homes all year round, but also in the wild many more of them can be found throughout the winter. Recorders never cease hunting for Psocids. Uphill, down dale and in the shower room! In fact, the 'weird' highlight this year was indeed from within a shower room in Brighton. I have never seen so many lovely little Psocids decorating the walls indoors anywhere before. I excitedly examined them. They were either *Trichopsocus dalii* or *clarus* and there were fifty or so of them and so I did not mind a trip to the Booth Museum to find out which species they were.

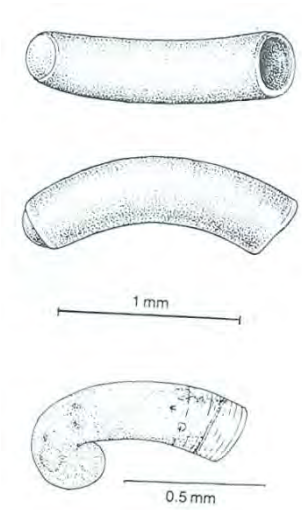
About the same time of the year, a similar number of Psocids had been reported to the Booth Museum, plaguing a Brighton home. This came as an Environmental Health enquiry and they brought some along which were identified as a different species, *Trogium pulsatorium*. I can only divulge that the home was "full of them". Ideal!! The other rather beautiful highlight was in September, found while hunting through Memorial Common, the SE part of heathy Chailey Common in mid- Sussex. Casually sweeping a small sallow tree, I caught a psocid that was new to me called *Caecilius fuscopterus*, a name that will forever live in my memory. It's a strikingly smart little black and white creature, the matching fore and hind wings having a pattern making it look as if it was just off to a cocktail party. This was a splendid entomological event, the equivalent, I suppose, to an ornithologist spotting a firecrest for the first time.

There are always new delights around the corner in the world of entomology, even in a 'second rate' year, even with the humble little order of the Psocid.

[2] Bob Saville, the national Psocoptera recorder, has written an excellent new key (with lots of pictures) to the order available on line at http://www.brc.ac.uk/schemes/barkfly/key/key.htm

MOLLUSCA

by Martin J. Willing, Sussex Mollusca Recorder



Caecum are marine prosobranchs belonging to the Rissoidae or spire-shells. They are quite unlike other members of this family because the regular coil of whorls that they possess as juveniles falls off before maturity, after which the truncated end is filled with a shelly plug. Until 1987 only three species of the genus *Caecum* were known from British waters (Seaward, 1990); *C. imperforatum,* which occurs from near LWST[3] to about 3 fathoms around south-western and western coasts, *C. glabrum* (see picture on right)*,* a species of rather deeper waters extending down to about 250m with a similar distribution, but extending to parts of the east coast and finally *C. clarkii,* recorded only from the Channel Islands. In 1987 Dennis Seaward (Seaward, 1989) discovered a species of *Caecum* in marginal areas of the Fleet lagoon in Dorset which proved to be new species to the UK. This was **De Folin's lagoon snail**, *Caecum armoricum* de Folin 1869, a species very locally distributed from Brittany south to Portugal and similar to *C. glabrum*). This snail, which has a very small shell, up to about 2mm long and 0.4mm in width was found living on the margins of the Fleet in salt water 'springs' formed where sea water from Lyme Bay drained through the shingle of Chesil Beach to enter the Fleet. *C. armoricum* was found buried shallowly in spaces between the shingle, kept clear of fine muddy sediments by the salt water flow. The snail was associated with a two other molluscs, the small bivalve *Lasaea rubra* var. *pallidula a*nd the rissoid *Onebra aculeus* and occasionally also with *Leucophytia bidentata.* After its discovery *C. armoricum* was placed onto the Red Data Book category K (insufficiently known) (Bratton, 1991), whilst in 1992, as a result of the second Quinquennial Review, it was also added to Schedule 5 of the Wildlife and Countryside Act 1991. In the marine recorder's report delivered at the last Conchological Society AGM, Jan Light announced the discovery of two new *C. armoricum* records to the UK. The first of these was made by Celia Pain, who found the snail whilst undertaking survey work in saline lagoons just outside East Sussex, on army training ranges at Lydd. The snail was found by sieving mud and shingle from one of the lagoons. A few months later, in October 2007, Steve Wilkinson found the first Sussex record for this rare species at Pagham Harbour, living buried in upper shore gravel. Interestingly it was found in close association with the **looping snail** (*Truncatella subcylindrica*), another rare species (RDB category 3 = rare) also living at its only known Sussex site. *T. subcylindrica* also lives buried in upper-shore gravels on the margins of the Fleet lagoon but, unlike the situation at Pagham, it is not living in direct association with *C. armoricum*.

In Adastra 2004 (16 – 19) I wrote about a suite of rare freshwater Mollusca living in some freshwater ditches on a number of Sussex floodplain grasslands (particularly Lewes Brooks, the Arun valley wetlands and Pevensey Levels). In Adastra 2006 I gave an update with particular reference to the rarest and most threatened of these, the little **whirlpool ram's-horn snail** (*Anisus vorticulus*). This is a UK BAP priority species an EU Habitats and Species Directive IIa (requiring designation of SACs) whilst it is the only mollusc in the UK on Annex IV, a European Protected Species receiving strictest protection across the EU. In 2006 all known Pevensey Levels *A. vorticulus* were monitored (Adastra 2006:20). Further survey work on the levels during 2007 and 2008 (funded by the Environment Agency) has turned up 4 new populations on Horse Eye Level, but most significantly an *A. vorticulus* 'hotspot' on an area of Hooe Level. In this section the snail was recorded in 38% of 60 ditches surveyed. During 2009 potential SACs for *A. vorticulus* will be considered by Natural England and it is likely that some part of Pevensey Levels will be designated.

[3] Low Water Slack Tide

E.B. Ford defined polymorphism as the occurrence together, in the same habitat, at the same time, of two or more distinct forms of a species in such proportions that the rarest of them cannot be maintained merely by recurrent mutation. Two of the most familiar land molluscs in Sussex (and indeed throughout much of the UK and Europe) are the two "humbug snails" the **brown-lipped** and **white-lipped snails**, *Cepaea nemoralis* and *C. hortensis* (see picture on page 40). These species display two polymorphic shell characteristics; background colour, which can be yellow, pink or brown and banding, with various combinations of up to 5 bands (the commonest being unbanded, 5-banded and 1-banded). In a recent issue of *The Malacologist*, Robert Cameron (Cameron, 2008) explains how the Open University, as a contribution to Darwin Year (2009), is staging an "Evolution Megalab" involving the colour and banding polymorphism of these two *Cepaea* species. The aim of the project is to get as many records as possible from across the range and to analyse the patterns of variation in morph frequency. European *Cepaea* records already entered have created a genetic database that is second only in size to that of *Homo sapiens.* The scheme, to be launched in April 2009 (approximately at the start of the 'active snail season'), will involve participants from across the species' European range. Participants will be able to submit shell colour and banding records online and can also get feedback on the composition of other local samples and possibly also an analysis of how their samples compare. A test version of the interactive website can be viewed at www.evolutionmegalab.org ; the organisers are keen to receive feedback before the main launch so you are encouraged to try it out now! I have included this information so that readers of Adastra will be made aware of this exciting initiative in ample time to allow them to participate by submitting information from Sussex during Darwin Year. *Cepaea* are easily recognised and even those with little experience can make a valuable contribution to the Megalab project.

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DRAGONFLIES 2008

Highlights for last year were:

- Scarce Chaser
- Black Down
- Field Events

The **scarce chaser** (see cover picture) was without doubt the most significant event of the summer for three separate reasons:

- A significant population was confirmed to be present on the river Ouse after 3 individual sightings in the previous two years and my perceived wisdom that it probably wasn't the right habitat. How wrong can you be? It raises the question of how long they have been there but unnoticed.
- I attended the National Dragonfly Recorders' conference in Milton Keynes back in April last year, during which several of us were ushered aside by the Conservation Group Convenor. "We need Scarce Chaser exuviae for a DNA project", he said. "Can you help?" I confessed, exuviae weren't really my thing but I knew a chap who might be able to help. "We'll need 5-10 per site, although 50 would be ideal" he confided. So I had a word with David Chelmick.

We visited the Arun in mid-May and found a dozen exuviae and then I left him to it. By the end of May he'd collected 421 from just one site....unbelievable. A prime example of under-commitment and over-delivery (just what you'd expect of someone from Sussex). So the DCG Convenor and the scientist at Liverpool University who was carrying out the DNA Analysis were very pleased and we await feedback with interest.

- The Cuckmere colony continues breeding and it was learned that the species was present as far back as 2005 and extended nearer to the sea than previously realised.

Black Down was "discovered" for want of a better word following a field trip with Butterfly Conservation, Sussex Branch. This National Trust site is a delightful area of heather, bilberry and boggy acid pools. A return visit revealed **black darters** in large numbers which have doubtless been there quite happily since the only county record in 1992 and probably before that. Although **keeled skimmer** had finished breeding for the year, it is said to be present and there have been rumoured visits by **common hawkers**. The site is a tribute to NT and their management. A field trip has been arranged for August 2009 to take full advantage of this precious and scarce habitat.

Field Trips may be a surprising choice as a highlight but in 2008 it was well earned with all 5 field trips attracting record attendances. We were delighted to welcome the many SOS and Butterfly Conservation members who joined us and look forward to seeing even more new faces in 2009.

So on to this year and what will be happening on the recording front:

- **Breeding activity** records will continue to be our primary focus;
- **Adopting a Water-body** was launched last year and has got off to a steady start with several recorders signing up, but we need more people to join in. It's a pleasurable way to spend part of your summer, watching your local pond and sending in any dragonfly sightings. So please get in touch as soon as you've decided upon your water-body;
- **Surveying** – I'll be spending the summer recording the **azure damselfly** and other species in my *icosikaipentad.* It's a good phrase to drop into a casual conversation with your friends, I think you'd agree. They are almost certain to be impressed or at the very least, intrigued. Perhaps I should explain in more detail. I've been looking at the fine maps produced by Sussex Biodiversity Record Centre for *The Dragonflies of Sussex* and in particular those for our common species. If we look at the map of our commonest Sussex species, the azure damselfly, we will see that it is shown as being present in considerably less than a quarter of the km.sqs. Indeed the most populated 10 km.sq. is less than half full. Not surprising this, with relatively few recorders, but with a species as common as this, is it not likely that it occurs in almost every km.sq? Our maps could therefore be considered misleading. In an effort to establish whether this is true, I will be looking at my own 10km.sq. (TQ41) to determine whether the azure damselfly does in fact occur in every km.sq. between TQ4010 and TQ4919. This, as you may imagine, may take a little while, so I'm planning to do this over the next four years by dividing the 10 km.sq. into 4 equal parts and working on each icosikaipentad (group of 25 or 5 x 5 km.sq.). 2009 will see my working on the bottom left corner (TQ4010 to TQ 4414). After 2 years a pentacontad (group of 50) will be achieved and finally after 4 years a complete hectad (10 km sq). Icosikaipentad?? It doesn't quite trip off the tongue yet, but I'm sure it will do by the time we reach September. I cannot imagine this idea appeals to anyone

else, but should you wish to carry out a similar project on your own patch, do not hesitate to get in touch.

John Luck, Sussex Odonata Recorder

COLEOPTERA

By Peter Hodge, Sussex Coleoptera Recorder

There is very little beetle news to report for summer 2008. The Sussex BRC recording event a short distance east of Ninfield on 23rd May attracted enough volunteers for them to divide into two groups, each agreeing to follow the same circular route, but in opposite directions. Alas neither group reached the halfway point at the allotted time and both resorted to returning by the same route after a picnic lunch.

Of the species recorded the most noteworthy was the distinctive RDB3 soldier beetle *Cantharis fusca* (Cantharidae), found not uncommonly by several recorders in water meadows in the eastern half of grid square TQ7211. This large beetle similar to the very common *C. rustica* but the black spot on the thorax is at the extreme front margin, not in the middle, and the legs are entirely black, not conspicuously reddish. The habitat is generally wet grassland although its preferences are not entirely clear. Another interesting beetle was a specimen of *Melandrya caraboides* (Melandryidae) observed flying in the warm sunshine in the same water meadow. Although this fairly large blue-black beetle resembles a ground beetle (Carabidae) it belongs to a different family and breeds in rotting wood including old tree stumps.

A little further east near Watermill Lane the grassland became somewhat drier and two tiny pea-weevils *Bruchidius varius* and *Bruchus atomarius* (Chrysomelidae) were recorded. The former breeds in flower-heads of red clover and was only discovered in Britain in the 1990's (but has now spread and is exceedingly common in south-east England), however, *B. atomarius* is uncommon and only rarely recorded in Sussex.
Longhorns included the pretty yellow and black wasp beetle. Finally the distinctively coloured red **hazel leaf-roller weevil**, *Apoderus coryli* (Attelabidae), was seen on its main host, hazel.
In late summer a search for the very rare and endangered water beetle *Laccophilus poecilus* on the newly acquired RSPB land on the Lewes brooks was unsuccessful but nevertheless some valuable baseline data was accumulated from the recently dredged ditches. It is pleasing to report that the habitat looks in better condition than it was five years ago.

Twice yearly monitoring of water beetles on the Railway Land LNR at Lewes returned an average species count although the **great silver water beetle** (*Hydrophilus piceus*) was more plentiful than it has been for several years.

AUCHENORRHYNCHA (LEAFHOPPERS & PLANTHOPPERS)

by Alan Stewart, Sussex Recorder for Auchenorrhyncha

After a quiet previous year, 2008 turned out to be remarkable for this group of hemipteran bugs. Some eight new species to Britain were recorded at a national level (more than in the previous ten years!), two of which have also been found in Sussex. I have no doubt that more of the others will be recorded in Sussex in due course.

Zyginella pulchra is a small green leafhopper that was first recorded in Britain from Kent in 2001. Marcus Oldfield was the first person to find it in Sussex, recording several on ornamental conifer trees in gardens in the Westdene area of Brighton in 2007. In February 2008, I discovered that it was hibernating in yew bushes in Lewes cemetery. Since then, it has been recorded again in Brighton and indeed as far west as Cardiff and as far north as Leeds. By any measure, the spread of this species across the country since 2001 has been remarkable for such a small insect. It is about 3.0-3.5mm long, lime green, with males having a distinctive rusty-red elongated triangular patch immediately behind the head. Females lack this red patch but are easily distinguished from other similar leafhoppers by the presence of a thin black line running across the face. These characters help to distinguish this species from other similar leafhoppers in the genus *Empoasca* that often over-winter in abundance in various evergreen trees and bushes. From what we know about this species on the continent, it breeds on sycamores during the spring and summer and then uses evergreens to survive the winter as an adult. I was able to confirm last year that it does indeed move onto sycamores in summer in this country too. It seems to favour yew during the winter but can also be found on other evergreens such as cypresses.

Giving the branches of such trees a sharp tap with a stick can be used to dislodge any insects that are present onto a sheet held underneath (an entomologist's 'beating tray'). This will quickly establish whether or not this new leafhopper is present. It would be good to receive any further records of this species for Sussex since it must be fairly widespread in the county by now.

Discovery of the second new species for Sussex this year was even more remarkable. *Prokelisia marginata* is a small planthopper belonging to the Delphacidae, a family whose members are easily recognised by their unique inward-pointing 'spurs' at the end of the hind tibiae. This one feeds exclusively on cordgrass (*Spartina* species) in salt marshes. It is a native of the eastern seaboard of North America where it can reach extraordinarily high densities (several thousand per square metre). Some years ago, we recorded it on the salt marshes of the Algarve in southern Portugal, but we never thought it would be able to tolerate the cooler climate in Britain. My colleague from Cardiff Museum, Mike Wilson, recorded it for the first time in Britain in 2008 on the salt marshes bordering Southampton Water (also in super-abundance). Naturally, I was keen to see if it had also reached Sussex. After some searching for suitable and accessible habitat, I found several adults but also many nymphs (juveniles) at Bosham Ferry. It was rather late in the season to find large numbers of adults, but the density of nymphs suggests that there will be plenty next season. If this species reaches anything like the densities reported from America, then it will surely have a major impact on the rest of the insects and other invertebrates in these salt marshes. Next season, we will be surveying other potential sites along the coast of SE England to see just how far this species has spread.

DIPTERA (TWO-WINGED FLIES)

By Patrick Roper, Sussex Diptera Recorder

Among the encouraging signs in 2008 were reports of the continued spread of three of our larger, more dramatically coloured flies. The BAP **hornet robberfly** (*Asilus crabroniformis*) was recorded by Graeme Lyons at Stedham and Iping Common SWT reserve and is now well established on both downland and heathland. The **dotted bee-fly** (*Bombylius discolor*) was found by Gordon Jarvis in the Fernhurst area in West Sussex and appears to be moving back into some of its old inland locations from where it had retreated to the coast over the last fifty years or so. The distinctive black and orange, 'vulnerable' **ladybird fly** (*Gymnosoma rotundatum*), a tachinid whose larvae are parasitoids of the green shieldbug (*Palomena prasina)* was, until quite recently, recorded in Britain

mainly from West Sussex and south west Surrey but is now widespread across Sussex with records increasing in frequency.

Among the new records for the Sussex Biodiversity Record Centre's database were the lesser dung fly *Spelobia rufilabris* from Hargate Forest near Tunbridge Wells and the **black gem** (*Microchrysa cyaneiventris*) from Sedlescombe. The latter is quite widespread in Britain with strong concentrations in northern England and north west Wales. The little agromyzid *Cerodontha fulvipes* was recorded twice, from Etchingham and Sedlescombe and previously had only one Sussex Biodiversity Record Centre record from Brighton.

Over the years a colossal amount of work has been done on blackflies (Simuliidae) in Sussex and elsewhere by Roger Crosskey and Rory Post and their Sussex data has now been digitised and added to Biodiversity Record Centre's database. It has also been used as the basis for a paper on Sussex blackflies (Roper, 2008). This small group of flies (around 30 British species) has attracted considerable international attention as many species bite both humans and animals since, like mosquitoes, the females need a blood meal. Though they rarely reach nuisance proportions in Sussex and most of us have probably never been bitten by one, their aquatic larvae have some very specialised habitats in small springs and streams and include some of the relict species for which the Wealden gills are renowned.

Nearly 450 diptera records for the Bewl Water area near Lamberhurst were received from Phil Bance and included material from Andy Godfrey and well as others and, of course, Phil Bance Himself. This material is currently being entered into the SxBRC database and contains records of many species that are not at all well-known in Sussex.

REFERENCE

Roper, Patrick (2008) *Blackflies in Sussex.* Occasional Paper 10, Sussex Biodiversity Record Centre, Henfield, West Sussex. (See Sussex Biodiversity Record Centre website).

BUTTERFLY CONSERVATION'S ROTHER WOODS PROJECT – 1 YEAR IN

by Steve Wheatley, Rother Woods Project Officer

Over 5,000 butterfly sightings were recorded and submitted to the Sussex Biodiversity Record Centre from the eastern Rother area in 2008. This ten-fold increase in recording has been thanks to the recruitment and encouragement of new volunteers, many of whom have never been involved in recording before.

For people new to ecological recording, butterflies are a good place to start; there are only 50-60 species in the UK. Of these, 10 of these don't occur in Sussex and only 30 are likely to occur in the Rother area. Their bright colours, different flight seasons and flight patterns all make the identification process easier. Half-day training workshops in identification and recording were all that was needed in 2008 to get people started. More than 50% of workshop attendees went on to submit records throughout the year.

Gaining access to previously unrecorded sites has also been a major development. The Rother Woods Project has secured access for volunteers to over 1,000 hectares of private woodlands, not only for our butterfly and moth recorders but also BTO bird recorders, flora and dragonfly surveyors and organisations such as Central Science Laboratory undertaking specific research; in 2008 the **golden-ringed dragonfly** (*Cordulegaster boltonii*) was recorded at a range of previously unrecorded sites. By feeding back the results of these studies to landowners we are positively reinforcing these

relationships and ensuring long term monitoring will be welcomed and recommendations for good management are communicated. **Dingy skipper** (*Erynnis tages*), also UKBAP, was found in May at a previously unrecorded site and the landowner is now carefully managing the area to help the colony thrive.

The increase in recording has also helped us to understand the local distribution of key butterfly species such as **white admiral** (*Limenitis camilla*), a UKBAP butterfly whose UK population has declined by more than 60% in the last 35 years. It has also helped us to identify management priorities where key species (such as **grizzled skipper**, *Pyrgus malvae*) are seriously declining in distribution will continue in 2009 to survey and map their distribution and learn more about their distribution and habitat needs.

Based on historical records and our recent butterfly survey data:

Winners: white admiral, silver-washed fritillary, comma, clay fan-foot
Losers: grizzled skipper, pearl-bordered fritillary (none recorded in Rother since 2002), wall brown

Priority areas have been identified for recording in 2009. The majority of 2008's volunteers are keen to continue and more recorders will be recruited and encouraged via workshops in the spring. Please contact me if you'd like to be involved.

25th April 2009 Butterfly Identification and Recording Workshop, Brede High Wood.
2nd May 2009 Butterfly Identification and Recording Workshop, Beckley Woods.
9th May 2009 Butterfly survey of the Tillingham valley.

Steve Wheatley, Rother Woods Project Officer, Butterfly Conservation.

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Tel: 01580 879958

FRIENDS OF SHOREHAM BEACH LOCAL NATURE RESERVE (FoSB)

Stephen Savage (Honorary FoSB member)

Shoreham Beach Local Nature Reserve lies on the seaward side of a shingle spit, created by longshore drift, at the mouth of the river Adur on the West Sussex coast. The beach supports several large areas of vegetated shingle and is one of several important sites on the south east coast. This rare and fragile habitat has a very limited distribution not only in the UK but also globally. In June 2006 a management group was formed to implement the new management plan for Shoreham Beach. This article is a very general overview of the Shoreham Beach LNR and work since June 2006.

The Friends of Shoreham Beach (FoSB) was set up in December 2006 to support the management group to meet aims of the management plan. Involving the local community has been a key aim and FoSB provides an opportunity for local people to get involved in protecting and raising awareness about this important habitat. About 90 species of plant have been recorded on the LNR. These include **common orache** (*Atriplex patula*) and **spear-leaved orache** (*Atriplex prostrata*) fast growing annuals growing on the seaward edge. Other plants include **sea kale** (*Crambe maritima*), **yellow horned poppy** *(Glaucium flavum*), **sea beet** (*Beta vulgaris*), **curled dock** (*Rumex crispus*), **vipers bugloss** (*Echium vulgare*), **bitter sweet** (*Solanum dulcamara)* and **English stonecrop** (*Sedum anglicum*).

Shoreham Beach also has an interesting fauna including **ringed plover**, **turnstone**, **black redstart**, **linnet**, **rock pipit**, **greenfinch**, **fox**, **small tortoiseshell**, **red admiral**, **small skipper**, **red-tailed bumblebee** and **common lizard** to name a few.

A wide variety of work took place in 2007 on the LNR thanks to a Breathing Places grant.

A major part of the work was the establishment of the Friends of Shoreham Beach (FoSB), to help with the implementation of the management plan. FoSB includes a large number of Shoreham Beach residents but membership is open to anyone. Many of the threats to vegetated shingle are from direct human impact. These include dumping of garden waste, dog fouling, trampling (damaging plants and compacting shingle), bonfires etc. We have focused much of our effort on raising awareness of these issues with local residents and other visitors to the beach and by fostering an interest in the shingle beach habitat through events and literature.

In 2007, FoSB, with support from the management group, organised a range of events to raise awareness and engage people with the LNR. These were run with the help of local experts and included several flower walks, an intertidal ramble, estuary bird walk, a moth evening, a strandline walk, pebble talk and several beach clean events. The Breathing Places funding also made it possible to set up the beginnings of a more formal outreach programme run by a local marine educator which is aimed at local schools. There has been a lot of interest from local schools and with local teacher input we plan to continue to develop this programme. Both of the above programmes continued through 2008. FoSB was also instrumental in producing a Shoreham Beach Leaflet and three information boards erected at key entrance points to the LNR.

Future work includes an updated baseline survey of the plant communities that will provide the basis for ongoing monitoring and biological recording. We hope this survey will also help with the management of invasive species especially the **silver ragwort** (*Senecio cineraria*) and **red valerian** (*Centranthus ruber*). We are keen to link up with other groups and recorders who currently record on Shoreham Beach or people who may wish to be involved in future monitoring

Interested recorders can contact FoSB on stevep.savage@ntlworld.com or 07773610036 as a first contact point .

PROVIDE THE GENERAL HABITAT AND SEE WHAT TURNS UP!

by Alan Gillham, Voluntary Manager, Old Lodge Local Nature Reserve

Due to lack of management during the 20th century, Old Lodge LNR on Ashdown Forest was invaded by bracken, birch and pine. Heathland restoration has mostly focussed on reducing the numbers of these. This has resulted in an increase in heathers, gorses and bilberry, but there have been unexpected arrivals as well.

Several ponds have been dug. Above one of these, a boggy area was improved by digging out grass tussocks to create small, wet hollows. Subsequently **marsh St. John's-wort** (*Hypericum elodes*) appeared. This perennial has yellow flowers each only lasting for a few hours from late morning until tea-time. It is found in a handful of Ashdown Forest sites, but more commonly in the New Forest and western Britain. Did buried seeds survive from the past, or did birds bring them?

This pond was also the first location for **small red damselfly** (*Ceriagrion tenellum*), with an egg laying pair in 1996. Now they breed in about 10 ponds, with best one-day counts of over 90. Although a weak flyer, this species must have arrived from ponds 1,100 to 1,800 metres away on a neighbouring

estate where suitable habitat seems to have been present for centuries. **Black darter** (*Sympetrum danae*) was probably always hanging on in wet places or the stream, but has colonised most ponds and flushes. With a warmer climate, **keeled skimmer** (*Orthetrum coerulescens*) was first seen in 2001 and now uses at least 11 ponds.

Dartford warbler (*Sylvia undata*) recolonised Ashdown Forest in the early 1990s, but only infrequently visited Old Lodge. Over the last three years they have been increasingly seen, with twelve recorded on a mild, sunny, windless day last October.

Bracken removal leaves soft ground for **woodlark** (*Allula arborea*) nest scrapes. By 2007 there were six territories, but heavy snow in April 2008 may have smothered nesting birds and temporarily reduced the population.

The ½-millimetre long **gorse mite** (*Tetranychus lintearius*) was first seen in 2007, when the webbing (used to regulate temperature and humidity) of a colony covered a gorse bush as if it had been shrink-wrapped in plastic.

In October 2006 some flat fungal structures were found on pony dung. These were identified by the mycology herbarium at Kew as immature **nail fungus** (*Poronia punctata*). The Biodiversity Action Plan for this species describes it as "possibly the rarest fungus in Europe", known from the New Forest and a handful of south-east European sites. Increasing use of ponies for conservation grazing has resulted in its' appearance at about half-a-dozen other UK sites. Perhaps the prevailing wind blew spores from the New Forest. Mature specimens were subsequently found on over 100 dung balls, and it re-appeared in 2008.

There is an unconfirmed report of **stag's-horn clubmoss** (*Lycopodium clavatum*) in 2007. This short-lived species, absent since 1974, is believed to have disappeared from Ashdown Forest around 1983. It needs ground disturbance to persist and may favour wet places.

ANCIENT WOODLAND IN SUSSEX

Victoria Hume, Ancient Woodland Project Officer, West Sussex

Ancient woodland in England is defined as a site that has been wooded continuously since at least 1600 AD (Kirby & Goldberg, 2006). Both semi-natural woodland and plantations on ancient woodland sites are classed as ancient. The habitat can be identified by comparing historical and modern mapping evidence as well as carrying out field surveys of plants and archaeological features.

Ancient woodland is currently under-represented in much of the South East. Our understanding of the habitat comes from surveys carried out at the end of the 1980s. However, the survey failed to identify many smaller woods that were under 2ha in size. To rectify this, a project called the Weald and Downs Ancient Woodland Survey was initiated. The project has been funded by the participating local authorities as well as the Sussex Biodiversity Record Centre, Sussex Wildlife Trust, Natural England, South Downs Joint Committee, Forestry Commission and the High Weald AONB.

The project will significantly increase our knowledge of ancient woodland in the South East and its whereabouts, which has many positive implications. For example, it will help to identify threats to the resource, feed into landscape management initiatives and highlight opportunities for the strategic management of key woodlands.

The revision of the inventory has already been completed for several districts in the South East including the Wealden District and Mid-Sussex District. In these areas alone this has resulted in an almost 3,500ha increase in the woods included in the Ancient Woodland Inventory. The study has also contributed to our understanding of current woodland management practices, woodland archaeology and the distribution of key woodland species.

Within Sussex two ancient woodland project officers have been appointed to carry on with the work that was started in Wealden and Mid Sussex Districts. It is anticipated that the revisions to the Sussex Ancient Woodland Inventory will be published at the end of this year.

If you would like further information about ancient woodland in Sussex or are interested in volunteering for the project please contact the relevant project officer. We are always interested to hear from people with botanical survey skills or a desire to carry out historical research.

West Sussex: Victoria Hume, victoriahume@sussexwt.org.uk, 01273 497 570

East Sussex: Philip Sansum, P.Sansum@highweald.org, 01580 879962

THE SUSSEX POND SURVEY

by Bev Wadge

The Sussex Biodiversity Record Centre are recruiting volunteers to carry out baseline surveys of as many Sussex countryside ponds as possible. Working with the Ponds Conservation Trust, we are designing a survey that will support and extend the new Ponds Habitat Action Plan (HAP). From the results of these surveys, we will identify ponds that are likely to fulfill Priority Pond criteria under the Ponds HAP, and these will be targeted for expert survey to establish status. We will also gain a lot of knowledge about the condition of Sussex ponds, which will enable us to target pond management, restoration and creation.

No experience of pond surveying is needed – full training in simple techniques will be given. Each volunteer will be asked to survey a parish, so there will be some time commitment, but the surveys can be spread over a couple of seasons if necessary.

Training courses for volunteers are being held in April and June this year. For further details please contact Bev Wadge on 01273 497570 (Mondays only) or ponds@sussexwt.org.uk

ROLES OF BOOTH MUSEUM OF NATURAL HISTORY, BRIGHTON

What is a Museum?

The International Council of Museums (ICOM) defines a museum as: 'A non-profit making permanent institution in the service of society and of its development, open to the public, that collects, conserves, exhibits, researches, and communicates for purposes of education, study, and enjoyment, the tangible and intangible heritage of humanity. [The term non-profit making (not-for-profit) refers to a legally established body, corporate or unincorporated, whose income (including any surplus or profit) is used solely for the benefit of that body and its operation.]'

The Booth Museum of Natural History in Brighton is an important natural history resource. Originally built by Edward Thomas Booth (1840-1890) in 1874 to house is unique collection of British birds, it has evolved into major natural history museum. In terms of collections it ranks as the third largest provincial natural history collection in the country. The collections illustrate and preserve examples of the vast biodiversity to be found in Sussex and beyond - from anthrax to zebras! Arranged in over 300 display cases, the birds were mounted in settings recreating their natural surroundings. It is generally recognised that Booth was the first to not merely put on display stuffed birds, but rather he placed them in their natural haunts based upon his wildlife observations. Each case is a study in ecology. His novel approach and success was immediately imitated by other museums world-wide, earning the Booth title of 'the home of the diorama' (quote from the Smithsonian Institute). On Booth's death the collection was left to the people of Brighton in the care of the Corporation (now the City of Brighton & Hove).

At the time Booth was active Brighton developed its Museum and Art Gallery in which was housed a wealth of natural history material. During the 1970's this material was moved up to the Booth Museum and parts of it put on display, notably the skeletons largely acquired by Frederick Lucas who had his own museum in Rottingdean. Local government re-organisations have lead to further natural history material coming to the Museum as many local museums rationalised their collections.

For many years the Museum had been used by the Brighton & Hove Natural History and Philosophical Society/Brighton & Hove Microscopical Society. Their collections of books microscope slides and paraphernalia were left to the museum. During the 1930's Major Blackiston, a keen entomologist and former chairman of the Brighton Museum Sub-committee, pursued his interest in natural history and through his many contacts amassed, for the Museum, a large collection of butterflies, moths and other insects.

Collections

The collections cover all aspects of natural history with virtually every group of living organism represented, totalling in excess of 750,000 items. The predominant collections include:

Insects, 500,000. World-wide with nearly all orders represented, particular strengths in butterflies, moths, beetles, true bugs, flies, dragonflies, bees and wasps, psocids. Major Blackiston developed strong contacts with a number of entomologists who subsequently provided a large part of the insect collection. Three of the largest acquisitions were from the Natural History Museum in London, the sale of the Joicey collection and from Arthur Hall. This includes over 650 internationally important butterflies known as 'types' (original specimens used in the original or subsequent descriptions of a species). In addition important Sussex and British collections of insects have come from A.E. Tonge, D. Hillman, G. Botwright, A.E. Stafford, J.H. and P. Cribb, C. Pratt, A.F. Brazenor, C.H. Morris, J.H. Jenner, D. Porter and others.

Molluscs (shells and wet preserved), 60,000. Most families of molluscs are represented in the world-wide shell collection and includes marine, land and freshwater specimens. Particular strengths are in British species and land snails from Madeira, oceanic islands and the Far East.

Vertebrates (amphibians, reptiles, birds, and mammals, represented by skeletal material, wet preserved specimens, skins, mounts and nests), 80,000. Skeletons are tough and durable making them readily collectable. Consequently they form an important part of the Museum collection, predominantly in the form of skulls and almost uniquely, bird breastbones. Non skeletal material is

represented by mounted vertebrates and skins of birds and mammals. In addition, there are over 60,000 birds' eggs present in the collection. Bird nests are also represented, as are wet preserved snakes, amphibians and fish.

Plants (including local marine algae, diatoms from around the world, mosses, liverworts, lichens, ferns, conifers and flowering plants), 65,000. A great deal of Sussex material is represented in the collections of T. Hilton, F.C.S. Roper, Rev Arnold, U. Smith, L.N. Derrick, Mrs Merrifield, Mrs L. Grey, P.M. Newey, and others. Of note is the plant collection from St. Petersburg made by Sir A. Crichton who was the physician to the Czar, circa 1795 (possibly the first Russian herbarium ever amassed).

Geology, 55,000. Of the collection of rocks, minerals and fossils some are the very earliest donations to the Borough. In 1860 Henry Willett gave what is still one of the cornerstones of the Museum, his famed collection of chalk fossils. Other significant collections include fossils from the Weald, fossil insects and insects in amber. Many collections are local including those of C. Potter, R.M. Brydone and G. Holmes.

Natural history and scientific library, 12,000. The bulk of the library consists of books, journals and periodicals from the Brighton & Hove Natural History Society. Over time other books have been added through deliberate collection to aid the work of the Museum as well as donations from individuals and organisations. In addition there are several thousand 35mm images of natural history objects and nearly four thousand glass slides and negatives.

Minor but significant collections, 4,000. These include pseudoscorpions, bryozoans (sea-mats), slime moulds, crustaceans, echinoderms, sponges, hydroids and bacteria. Many of these are slide mounts. Many rare, endangered and extinct species (excluding the fossils) are represented in many of the zoological and botanical collections (particularly birds, mammals, shells and insects).

Collections of Information, and Records. Site records cover Brighton and Hove (data transferred to SxBRC). Geological and marine data cover Brighton & Hove, and East and West Sussex. Information from a variety of sources comes into the Museum and archived, in addition where it is appropriate individual datasets are forwarded on to other relevant organisations. Having an active enquiry service such data can include anything e.g. the presence of a white blackbird in someone's garden, biting spiders, unusual weeds, grubs in a take-away sandwich, vertebra in a packet of peanuts, poisonous plants killing livestock, fossils from the beach or Downs, what I've found on holiday, site records, full lists of species records etc. Information sheets (false black widow spiders, carpet beetles, booklice and others) support regular subjects for enquiry.

The Role of the Museum

In order to fulfil our function as defined by ICOM (see above) the Museum must:

Curate. Having a collection is not just a case of putting it away and forgetting about it. Collections need care and a natural history museum provides professional curatorial staff trained in specialist collections' management. This includes appreciating their storage needs, threats (pests, environment), documentation and access requirements etc. Details of what is in store must be made available in the form of catalogues, lists, and other publications whether printed or electronic. Collections cost money to keep. They occupy space that has a £/sq metre value based on community charge, heating, lighting, building maintenance, etc. They need care that takes time and this together with other needs amounts to costs in staff time. Such costs are often not appreciated by those on the outside, particularly donors. As a local authority museum core funding comes from

the Council. Additional funding is sought from various museum oriented agencies, and where-ever it can be found.

Inform. Natural history has a long tradition as a museum discipline. Some of the earliest museums were formed to show 'Cabinets of Curiosities' showing preserved exotic plants and animals from around the globe. Nowadays the media, travel and other opportunities allow people to gain knowledge and insight into today's natural world, but a museum can offer the chance to interact with the real specimens. The specimens themselves can provide inestimable amounts of information about life on Earth provided the right questions are asked and the appropriate investigative techniques applied whether it be simply observing variations in patterns and colour or analysing fragments of DNA. As techniques advance who knows what information can be 'extracted'. Specimens can be used to interpret the complex geological, biological and environmental processes that have produced the world around us. They underpin taxonomy. They can also show how attitudes to wildlife and conservation have changed during the past centuries and how the wildlife of planet Earth is changing. Identified material provides a valuable resource to assist in the determination of specimens. Books, keys and images can go a long way to help identify a species, but to be able to compare an unidentified specimen with identified material can be invaluable. Identification work is an important part of the Museum's role whether it be identifying specimens from the general public, enthusiasts, students, consultants, local authority environmental health departments, police, customs and excise or other organisations.

Provide evidence. Specimens are important for a number of reasons, some more so than others. When a 'new' animal or plant, be it living or fossil, is discovered it is given a name. Under international codes this consists of its *generic* and *specific* (trivial) name [if it cannot be 'assigned' a name because its affinities are unclear then it might be temporarily attributed as *species* or *genus nova*]. To be recognised the organism has to be described and given its name through being published. The specimen(s) collected and used in the published description form the fundamental basis/bases of that organism. They are the ultimate reference for that organism and are called types. There are a plethora of different types of types (!) the primary one being the holotype. Others include paratypes, syntypes, lectotypes, paralectotypes, and allotypes. Museums are fundamentally important in housing these unique specimens in order to preserve them and make them available for anyone to consult. In theory a museum is permanent unlike an individual and so by depositing types in a museum they are more likely to survive for future generations to consult whereas they could all to easily be lost when an individual dies. The Booth Museum has many types in its care including in excess of 400 insects, several arachnids and many geological. Science knows no boundaries; collections are not national possessions but assets of the entire scientific world. The UK holds a significant percentage of the types from other countries, particularly the ex-colonies. In addition, those countries rely on us for access to material collected during times past, and we as a nation owe a duty to those countries to treat their material professionally. To discharge this duty collections must be adequately curated, publicised and allowed efficient access to them, be it through visits or loans.

Other specimens have special value. In particular specimens associated with good information. These can provide evidence for the occurrence of a species at a particular place and at a particular time. Again, they are not possessions but assets for the wider community. Such specimens are also the products of the environment at the time they were collected and thus may provide important data for long-term analysis. Records and observations supported by such voucher specimens can have their identities checked or reassessed. Records and observations unsupported by a voucher specimen may have their authenticity questioned in the future that diminishes their value. Voucher

material deposited at the Museum originates from a variety of sources including site surveys, environmental impact assessments, ecological studies, as well as road and weather casualties. Several of the collections held by the Museum contain particularly important voucher specimens used in county flora and fauna publications (e.g. plants: Wolley Dodd 1970, Merrifield 1864; insects: Pratt 1981; marine: Irving 1984).

Additionally, specimens used or cited in publications also have value and when they appear in print they are considered to be 'figured'. Effectively they are a 'referenced' specimen. The Museum has facilitated the publication of a number of Sussex related books including: Sussex Plant Atlas, and Supplement; A History of the Butterflies and Moths of Sussex; Sussex Mosses, Liverworts & Lichens; Habitats & Vegetation of Sussex and A History of Sussex Wild Plants.

Collections and the Collector's Responsibility

Making a collection carries with it certain responsibilities. Apart from the obvious, collecting in an ethical way, it is important to realise that the specimens can go beyond belonging to the collector (as already alluded to above). If taken from local nature reserves or similar designated or quasi-designated sites then representative samples should be deposited in a museum. Labelling is all-important, without a label a specimen is almost useless – the animal or plant has died in vain. Labels should include, and this is not an exhaustive list: the date the specimen was taken, who took it, where it was taken (the place name, map reference, even position within the habitat (e.g. upper shore, south-facing chalk slope, oak canopy), and any other relevant data. Information can be recorded in a notebook or in a 'Word' document but the information written here should not be the ultimate source of information being only linked to the specimen through a number. Specimens with numbers on their label and nothing else are at very high risk of joining the ‘no data’ specimens. It is all too easy to disassociate documents with data from specimens with numbers, and so tragic when it does happen. A curator can be faced with a wonderful collection of beetles all with neat numbers on them but nothing to refer to. In time note books and diaries do surface and then there is a forensic search for comparable hand-writings, trying to match writing on labels with those in the notebook.

Collection Sources

Specimens given to the museum must have been legally acquired in the first place (as given in the Museum’s Acquisition and Disposal Policy) and not been taken in breach of any national or international laws, statutes or regulations (including CITES etc.). It must show *due diligence* in ensuringthis to avoid seizure (notably Countryside Act and its Amendments; Part 6, Section 136 of the Tribunals, Courts and Enforcement Act 2007 and other legislation, etc.2). In effect there must be a full audit trail for all specimens in its collection. Having said this, a museum is one of the few places where birds’ eggs, ivory and other ‘protected’ material can be deposited provided their acquisition falls within the law, e.g. collected before a specific date. Illegally collected and confiscated specimens can be deposited provided they have the necessary legal documentation and come from an appropriate authority.

Reference has already been made to some of the sources of specimens that come into the Museum. There are two basic forms acquisitions can take, single or small groups of specimens and large collections. Individual specimens are brought in either by random individuals, which can include members of the public, environmental health officers, or 'regulars' (including local specialists), who find insects, birds or whatever. Complete collections come from individuals giving up collecting, people who find collections in the loft or have to clear granddad's house following

his death, and through legal process.

Several codes of conduct for collecting include the need to safeguard collections, e.g. JNCC: *'The future value of every collection should be safeguarded. The owner's will should provide for the appointment of a scientific executor, who can offer the collection to a learned society or a museum.'* Far-sighted recorders and collectors do make arrangements for the future safekeeping of their collections. Husbands and wives left with their partner's collection to dispose off can be faced with a problem easily solved by dumping. Such a waste and extra stress for the bereaved. Individuals and organisations such as university students doing projects, consultants, surveyors, various organisations and even specialists and, enthusiasts make collections that can easily be lost and should be considered for depositing in a museum.

Using the Collections

The Museum is the guardian of the collections. Legally they may be owned by Brighton & Hove, but morally they belong to everyone. They are not tucked away just for the curators to play with but are freely accessible to anyone who wants to look at them, photograph them or do specific research on them. We have special policies concerning photography, research and destructive sampling aspects of which may have to be taken into account. These are in place to protect the objects and derivatives thereof, and their use. Anyone wishing to consult the collections should contact the Museum in advance detailing what they want to see or do rather than turn up on the spur of the moment (although we are very accommodating). Many of the collections are databased. This means that a preliminary list of specific collections, genera or whatever, that we have, and from whom, when etc, can be provided in advance in a variety of formats. The plants are well covered in this respect as are the vertebrates and some insect groups. If a visit is not possible then information can be requested including images (which can be taken by us) and data. Specimens can also be borrowed. Non-commercial uses are free although a 'donation' to the Museum's Pig is suggested! For commercial use a variety of charges are made dependent upon the way the objects or images are used or the time involved in supervision or abstracting data. For security reasons vetting of visitors may be necessary.

Facilities include: microscopes (stereo and compound), photomicrography equipment, fibre-optic lights, camera lights (twin 1000W [400/600W], professional tripods (saves lugging your own), photocopier, scanner and PCs, and other laboratory equipment. Using the collections can be a two-way process. Visitors with expertise in a particular field can confirm the identification of specimens whilst doing their own researches. They may even be able to offer to do some work on a collection or genus and so help the Museum improve that collection's taxonomy. Through this a number of volunteers have provided very useful services for the Museum and continue to do so. The staff cannot be expert in everything nor have time to properly identify material, so any help with this aspect of curation is welcomed.

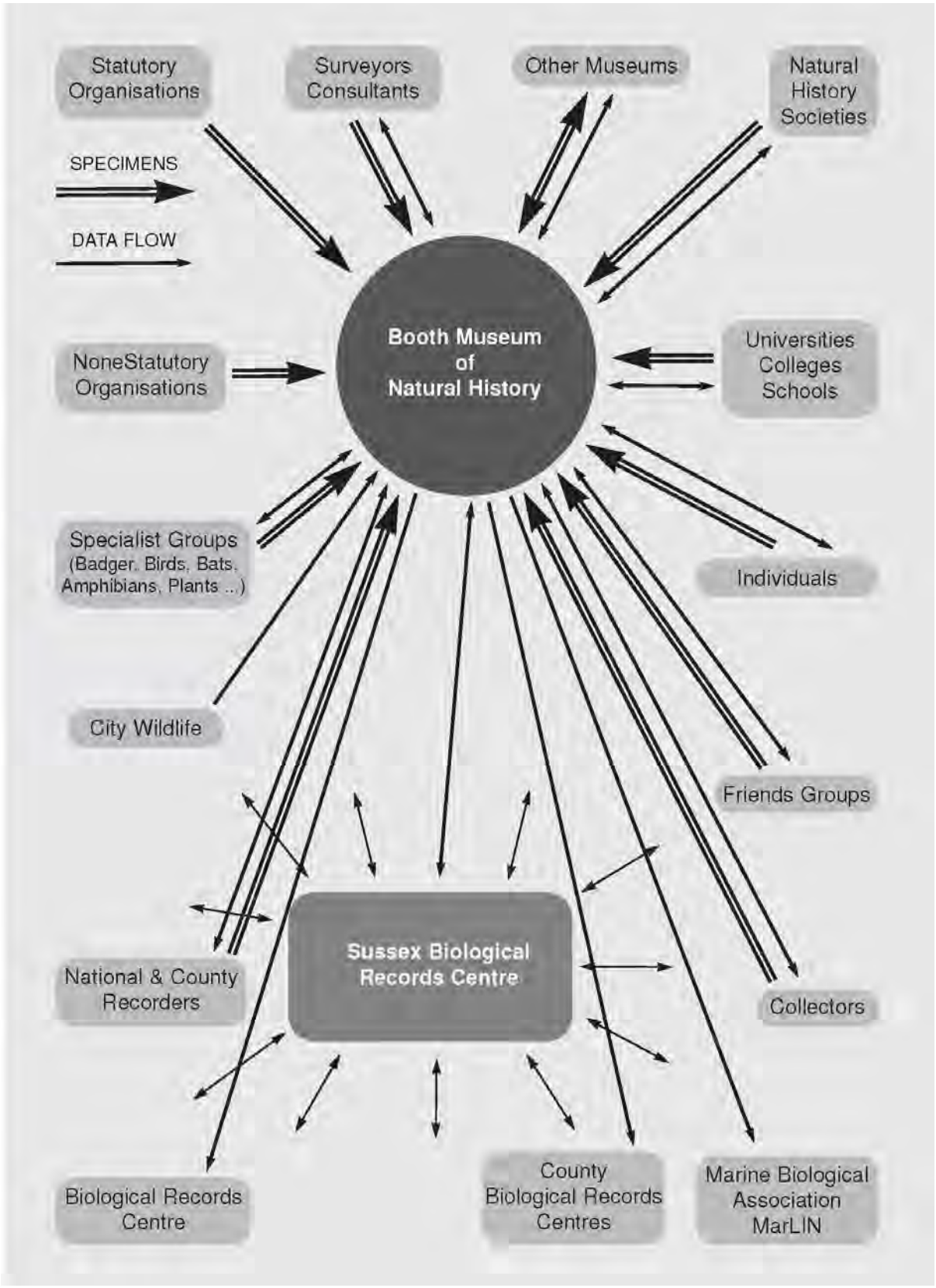
Conclusion

The Museum is not static but grows and has changed enormously since its near moth-balled status pre-1974. Its fundamental role must be maintained and developed particularly since it is a senior member of the SE Museum Hub. In terms of acquisition it does not accept everything offered. Material accepted may be passed on to other institutions, used in teaching, be incorporated into the main collection or destroyed.

In order to satisfy its status as a *Registered Museum* (a status that helps to attract funding) an

Acquisition and Disposal Policy is in place that reflects the strengths of the collections and the expertise available. This is not a fixed document and can evolve and be adapted to suit circumstances. Collections expansion is difficult but not impossible and ways of increasing storage, the main difficulty for any museum, are constantly being sought. Limitations of the building mean that off-site storage is inevitable and has already happened with the bulk of the library now being housed at Preston Manor, but still accessible. The feasibility of containerised storage, as used by Hampshire Museum Service, is being examined. The main problem with which is a suitable site for the containers (which are not just a metal box but properly serviced units with storage, bench space and other facilities).

Recognising that the Museum has a special role to play in safeguarding, interpreting and making collections available, particularly Sussex material, means that close links with relevant organisations and individuals associated with specimens and collections should be strengthened. A more formal approach could be developed in a similar way to that developed between data sources and the Sussex Biological Records Centre which acquires data. In fact the Museum and the Record Centre are different sides of the same coin, one managing distribution records, and site and habitat information and the other managing specimens and data. Links between the two organisations are also essential, as the information associated with specimens in the Museum should be fed into the Record Centre. Many record centres in the UK are in fact part of the regional museum and so the links are already in place. The diagram on page 35 shows aspects of the flow of data and specimens between organisations and individuals. For clarity the Record Centre's flow has not been fully shown.



Data flow diagram for the Booth Museum, Brighton

Adastra Recording Day at Ninfield

by Penny Green

Recording days are organised events where recorders meet up and help explore under-recorded areas in Sussex. It's a great day to learn new things and catch up with fellow recorders, and for new recorders to meet established recorders. We often go to unusual areas where perhaps we wouldn't normally go. We all have a tendency to go to areas that we know or have heard of as being particularly good locations for particular birds, butterflies, plants and so on, so it's great to put new areas on the map!

Another great day out in the field was had at the 2008 Adastra Recording Day in the Catsfield and Ninfield area, on Friday 23rd May. Working in partnership with the Sussex Botanical Recording Society we certainly filled a gap in the species data on their database and also the BRC database. At the beginning of the day we only had three non-plant records for the eight 1km squares, but along with the data from the two botanical groups that explored the area we will have many more records for the area, including 212 plant species which have been submitted back to the SBRS so far. Other species recorded included beetles, dragonflies, mammals, butterflies, birds, fungi, lichens and slime-moulds. So a big thank you to all of the recorders for your various contributions on the day.

Of particular interest were some coppiced sessile oaks in High Woods, which are one of the reasons for its notification as a Site of Special Scientific Interest. The plant list here included a good selection of ancient woodland indicator species and things of particular interest found included **common cow-wheat** and **smooth-stalked sedge**. Alan Knapp of the SBRS tells me that common cow-wheat was a good record as it is one of the species which has declined significantly across Sussex in the last 30 years, and the smooth-stalked sedge is not at all common. A **medlar** was also of particular interest, even if it had been planted.

Another interesting bit of habitat was a semi-improved buttercup meadow, just opposite the sub-station, which was good for butterflies and beetles. **Beautiful demoiselles** were recorded in the stream along the edge of the field and **orange-tip**, **common blue** and **holly blue** were seen flying about and soldier beetles were seen aplenty.

We also ran five moth traps in the evening, plotted around the Ninfield electricity substation; we recorded over 55 species including **alder kitten** (right), **alder moth**, **miller** and **lime hawkmoth** accompanied by a **tawny owl** hooting away in the woods.

If you don't already receive information about the Adastra Recording Days (you will do if you are on the seminar email list) please let us know and we can add you to the email list: pennygreen@sussexwt.org.uk

SUSSEX COUNTY RECORDERS 2008/9

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
info@sxbrc.org.uk

Sussex Wildlife Trust
Woods Mill, Henfield,
West Sussex BN5 9SD
Tel: 01273 497630
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
aknapp2000@btinternet.com

PAUL HARMES
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

Lichens
SIMON DAVEY
10 Cottage Homes, Common Lane,
Ditchling, Hassocks
West Sussex BN6 8UR
Tel: 01273 843375
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
frances.a@solutions-inc.co.uk

Marine algae (seaweeds)
IAN TITTLEY
Department of Botany
Natural History Museum
Cromwell Road, London SW7 5BD
Work: it@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 497553/554
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

Bird conservation enquiries:
conservation@sos.org.uk

All other enquiries:
NIGEL BOWIE
Tel: 01273 571266
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 497521/553
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
fransouthgate@sussexwt.org.uk

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

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

BILL TAYLOR
British Butterfly Conservation Society –
Sussex Branch, Recorder
Tel: 01903 774551
Email: william.pendrich@tesco.net
Web: http://www.sussex-butterflies.org.uk/

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
threecubes@gmail.com

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

Dragonflies
JOHN LUCK
British Dragonfly Society – Sussex branch
4 Mill View, Ringmer, East Sussex BN8 5EP
Email: johnluck@gotadsl.co.uk
Web: www.dragonflysoc.org.uk

Coleoptera (beetles) & Heteroptera (plant bugs)
PETER HODGE
8 Harvard Road, Ringmer,
East Sussex BN8 5HJ
Tel. 01273 812047
Peter.J.Hodge@tesco.net

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
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
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
gerald.legg@brighton-hove.gov.uk
Tel: 01273 292777

SOME VACANT GROUPS : VOLUNTEER COUNTY RECORDERS NEEDED

Fungi, Ephemoptera (Mayflies), Neuroptera, Mecoptera and Megaloptera, (Lacewings, Scorpion-flies, Alderflies and Snake-flies), Coelenterata, Nemertea (Nematode worms), Oligochaeta (Oligochaete worms), Bryozoa, Annelida (Flatworms), Myriapoda (Millipedes), Crustacea, Isopoda, mites and ticks.

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

Badgers – see above.

East Sussex County Council
Alex Tait, County Ecologist,
Transport & Environment,
County Hall, St. Anne's Crescent,
Lewes, East Sussex BN7 1UE
Tel: 01273 481621
E-mail: alex.tait@eastsussexcc.gov.uk

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
cherry.weeks@environment-agency.gov.uk

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

High Weald AONB Unit
Woodland Enterprise Centre,
Hastings Road, Flimwell,
East Sussex TN5 7PR
Tel: 01580 879500
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

'Humbug snails' (*Cepaea* spp.).
See article on page 20.

The Open University, as a contribution to Darwin Year (2009), is staging an "Evolution Megalab" involving the colour and banding polymorphism of these two *Cepaea* species. The aim of the project is to get as many records as possible from across the range and to analyse the patterns of variation in morph frequency.