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Editorial

Firstly, I would like to thank all the contributors whose skills with IT and deadline observance made the production of TGN 16 such an easy task. Secondly, thank you to all the contributors to this issue for the very same reasons.

Once again the various County Recorders have provided their annual reports on their own groups. As always, there have been sightings of new and unusual species in the county, such as *Odontomyia ornate* (see plate 1) (not just new to the county but Red Data Book as well) and the largest of our Pseudoscorpions at 4mm long, (*Dendrochernes cyrneus*), (see plate 20), also a Red Data Book species for which Gloucestershire is one of its British strongholds. Keith Alexander has produced a catalogue of the county's Bark flies and Book lice (see page 80), a little studied group but one that is often come across in the home in stored products, as well as existing in the outdoors. County recorders and environmental record centres always welcome records of even the common species in order to gain a fuller picture of their current status (see page 96). For details of recorders and how to record, read the GNS News and/or visit the Society's website at www.glosnats.org.uk.

New county recorders are always welcome, however obscure the group. New identification books and keys are coming on to the market all the time, but unfortunately a lot of the older keys are going out of date and out of print with no sign of anyone able to update them. "Glossy" and "high profile" seems to be the order of the day, and has its place, but in the long term this will be detrimental to wildlife recording if the detail is ignored. Armchair natural history is interesting up to a point and "safe", but there is nothing like getting out and about and seeing it for real whether it is birdwatching or lying in long grass watching insects leading their busy, active lives.

Articles on the county's flora and fauna are always welcome and can be sent to me at the addresses below. There are "Notes for Contributors" inside the back cover.

Erratum: TGN 16 page 31, line 1 – "PART 1" should read "PART 3"

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Notes on Contributors

David Scott-Langley has been GNS county recorder for Myriapods, Isopods, Harvestmen and Pseudoscorpions since 2000 and is currently Chairman of the GNS Scientific & Publications Sub-Committee and of the Society's Cirencester branch. He has lived in the county for over forty years, and has published works on the fauna of Foula, Shetland.

David Long has been Gloucestershire recorder for Molluscs since the 1980s, but has been recording land and freshwater molluscs since 1967, including surveys of nature reserves. He is a Vice-President of the Conchological Society, chaired the Gloucestershire Wildlife Trust's Conservation Committee from 1980 to 1992, and now chairs the Gloucestershire Invertebrate Group. He has published papers on non-marine molluscs and (in one case) marine fossils both in the UK and in Australia.

Keith Alexander is the county recorder for Coleoptera (other than ladybirds), Diptera (other than hoverflies), and Hemiptera (other than shieldbugs). He currently lives in Exeter and would be delighted if someone resident in the county would like to take over the baton for recording these insects.

David Haigh was born in Scotland and completed his education in Wales. He started teaching in 1960 in the Midlands and in 1965 came to Cheltenham where he continued to teach until 2002. Since 1967, when he joined the GNS, he has been recording spiders in the county. He is a member of The British Arachnological Society and is Area Organiser for the Spider Recording Scheme.

Mark Kitchen and Clare Kitchen are a husband and wife team who have contributed very substantially to botanical recording since 1981, especially to the north-east of Bristol, their home being near Berkeley. They have jointly acted, since 1993, as Recorders for the Botanical Society of the British Isles for vice-counties 33 (East Gloucestershire) and 34 (West Gloucestershire).

Colin Twissell took over from Peter Burns as Reptile and Amphibian Recorder for Gloucestershire in 1973. He has had a lifelong interest in all aspects of natural history.

Ingrid Twissell has been the Dragonfly recorder for Gloucestershire since 1993, taking over from Sonia Holland. Her interests are not solely confined to this group as she enjoys other facets of the Natural World.

Roger Gaunt was born in Yorkshire, did a few different things before moving to Gloucestershire in 1962, and in 1968 to St Briavels. Became interested in moths (after birds and butterflies) because of the immense variety in the county. Became moth recorder around 1988 because Jack Newton (previous recorder) couldn't think of anyone else.

David Iliff was born in Dublin and grew up in southeast England. He moved to Gloucestershire in 1965 and joined the GNS, mainly for bird watching. During the 1970s he became increasingly interested in entomology and was appointed county hoverfly recorder after reviewing a book on the subject for the GNS Journal. He is the editor of the Hoverfly Newsletter which is published twice yearly by the Dipterists Forum. He has been the ladybird recorder since the early 1990s and became shieldbug recorder in 2004.

Ian Carle became the County Recorder for the newly-formed Lichen Group in 2004. He is also the Data Manager for the Gloucestershire Centre for Environmental Records and as such has been of great help to the Society's other recorders in digitising all their records.

Chris Wiltshire took over as County Butterfly Recorder and area representative for Butterfly Conservation in 2004.

BEETLE RECORDING IN GLOUCESTERSHIRE 2006

Keith Alexander

Hairy click beetle *Synaptus filiformis* was given prominence in my last report – it is a Priority Species under the UK Biodiversity Action Plan. I have been working for “Action for Invertebrates” – part of the UK Biodiversity Action Planning Partnership – to investigate its old Gloucestershire localities over the past two years. It was reported from Elmore in 1857, ‘Newent Canal’ in 1880, and most recently Tewkesbury in 1904. The larvae feed on the roots of reed canary-grass *Phalaris arundinacea* where it grows in moist neutral soils in un-shaded situations at the upper tidal limits of large river systems. The 2004 work was an initial exploration of the old localities but this was intensified in 2005 with good result. Three beetles were found along the Severn at Maisemore (SO82), 26 May, close to the old confluence with the Newent Canal. About ten other localities surveyed drew a blank, but the species is very difficult to detect on demand and it does seem likely that other positive sightings will be made as the project continues.

Another UK BAP Priority Species in the county is the pot beetle *Cryptocephalus primarius*. This species has been reported from only seven localities in Britain of which three are in the south Cotswolds and two of these constitute the only known modern populations. While no recent records have been received directly by the GNS, it is clear that active recording and research is taking place and readers interested in finding out more are referred to two recent published papers:

Wiltshire, C.W., & Owen, J.A., 2004. The brief history of *Cryptocephalus primarius* Harold (Chrysomelidae) in Britain. *The Coleopterist* **13** (4): 162-166.

Owen, J.A. 2005. Observations on the biology of *Cryptocephalus primarius* Harold, 1872 (Coleoptera: Chrysomelidae). *Entomologist's Gazette* **56**: 261-269.

The species lives on dry calcareous hillsides, with open semi-natural grassland. The larvae are cased and free-living in the leaf litter, feeding on the green leaves of Common Rockrose *Helianthemum nummularium*. Adults have been seen from mid May until the end of June and are attracted to Rockrose blossom – the paper by Owen includes a colour image of the adult beetle. *English Nature Research Report* No **469** ‘The rare species of UK *Cryptocephalus*: the current state of knowledge’ provides information on other rare pot beetle species which have been seen in the county in the past: *C. nitidulus*, *C. frontalis* and *C. sexpunctatus*.

2005 proved a good year for the discovery of previously overlooked species. The following are the first reports of three species:

Anthocomus rufus (Herbst) – A fen speciality, this red malachite beetle is usually found in reed-beds. Confined to southern and eastern England.

SU09 Cotswold Water Park, lake 6, 18.ix.2005, C. Twissell.

Abdera flexuosa (Paykull) – **Nationally Scarce B**. Over much of Britain this false darkling beetle is mainly known from the small brackets of the wood-decay fungus *Inonotus radiatus* on dead trunks of alder *Alnus*, but it is proving to be another special feature of the county’s old orchards where it develops in the fruit bodies of the fungus *Phellinus pomaceus* on dead plum limbs and trunks. The significance of the discovery of the species in 2003 was overlooked by the county recorder until he found it himself in 2005!

SO61 Hay Farm, Elton (‘Flaxley Orchard’), two from a hole full of sawdust and some red-rot on plum, 18.v.2003, C. Twissell.

SO71 Minsterworth, an adult on *Phellinus pomaceus* bracket on old plum tree, 26.v.2005, KNAA.

Notaris scirpi (Fabricius) – **Nationally Scarce Category B**. The larvae of this weevil develop in the rootstock of tall sedges *Carex* and bulrushes *Typha*, in a wide variety of wetlands, including the banks of rivers and canals. It is widely distributed across southern Britain, but scarcer in the southwest.

SO83 Severn Ham, one swept from marginal vegetation along River Severn, 8.vi.2005, KNAA.

There were also some important new records for rare species already on the county list:

Amphimallon ochraceus (Knoch) – **Nationally Scarce Category A & County Rarity**. A chafer beetle of semi-natural grasslands on dry freely-draining soils; the larvae are soil dwellers, probably feeding at the roots of plants. A very local species predominantly coastal in distribution, with most records from the coast of Wales, but also reported from southwest England, including the Forest of Dean in 1938. A strange species to have been overlooked so long in the Cotswolds and perhaps recorders of the similar ‘summer chafer’ *A. solstitialis* have not checked their specimens properly?

SO81 Churchdown, one in flight over patio around mid-day, 15.vii.2005, C. Twissell.

Hadrobregmus denticollis (Creutzer) – **Nationally Scarce Category B**. This woodworm beetle develops in the dead heartwood of various broad-leaved trees, but especially Rosaceae (pear *Pyrus*, plum *Prunus* and hawthorn *Crataegus*) with red-rot, but also reported from old crack willow *Salix fragilis* and oak *Quercus*. It is another characteristic species of old orchards and is known from the old orchards on the edge of the Forest of Dean, the north Cotswolds, and in the Cheltenham-Gloucester area although there had been no records from this area since 1970.

SO81 Churchdown Hill, in kitchen, 9.x.2005, C. Twissell.

Rhinocyllus conicus (Froelich) – **Nationally Scarce Category A**. An old pastureland weevil species that feeds on thistles, especially on calcareous soils. It is very

localised across the southern counties, and was discovered in the county by Matt Smith and Jonty Denton independently during 2003.

SO71 Doodings, Longney, one at flowerhead of spear thistle, 7.vi.2005, KNAA.

ST58 Severn Beach, ix.2003, M. Smith. Cattybrook Brick Pit, Almondsbury, 11 wintering under lifting bark of a dead oak, 5.xi.2003, J. Denton.

Attactagenus plumbeus (Marsham) syn. *Cneorhinus plumbeus* - **Nationally Scarce Category B & County Rarity**. A rather local weevil nationally; usually found on grassy banks, along hedgerows, and occasionally on bushes and trees, often on sandy and other light soils.

SO83 Severn Ham, Tewkesbury, 8.vi.2005, KNAA.

INTERESTING NEW RECORDS OF DIPTERA 2005

Keith Alexander

The find of the year has to be Martin Matthews' discovery of the rare soldier fly *Odontomyia ornata* at The Mythe, Tewkesbury (see below). This raises the question of where its actual breeding habitat is in this area – it was a most unexpected addition to the county list. Is it a recent colonist or has it been here all along? Martin has been working this area for many years, although concentrating on hoverflies.

Odontomyia ornata (Meigen) – Ornate Brigadier. **Red Data Book Category 2 (Vulnerable)**. A speciality of lowland grazing levels, especially those on peat. The larvae live amongst duckweed *Lemna* or other floating vegetation in wide ditches and at the margins of ponds with rich submergent vegetation. Adults are attracted to the blossom of umbels. Best known from the Somerset and Gwent Levels, and the coastal levels of East Sussex. (See plate 1)

SO83 The Mythe, 2005, M. Matthews.

Dave Gibbs's work on the British leaf-mining flies of the Agromyzidae has resulted this year in the publication of another species new to GB, this time *Cerodontha staryi*. It has been added to the List on the basis of the characteristic pupa of this rare central European species. Unfortunately the puparia failed to hatch into adult flies. The puparia were collected from leaf-mines on *Carex sylvatica* along the path through Three Groves Wood Nature Reserve, en route with the Gloucestershire Invertebrate Group to Strawberry Banks in April 2003.

Other important finds during 2005 include the following:

Ctenophora flaveolata (Fabricius) - **Red Data Book Category 2 (Vulnerable)**. This spectacular wasp-mimic crane fly is assumed to be associated with ancient beeches in the lowlands, and oak or ash in hill country. The larval requirements are undescribed, but it is assumed to develop in old trees and stumps. It is a relict old forest species, only known in the county from the Cotswolds where four localities are previously known. (See plate 2)

SO90 Strawberry Banks, female at rest on ramsons foliage, 1.v.2005, DI.

Oxycera rara (Scopoli) – Four-barred Major. **County Rarity**. A localised species of wet meadows, grazing marshes, ponds, fens, and springs and seepages on coastal cliffs and inland hillsides. The larvae develop amongst wet moss in open seepages and in hoof prints in wet pastures. The following record is only the fourth in recent years. (See plate 3)

SO92 Woodmancote, female in garden, 5.vii, & m, 6.vii.2005, DI.

Villa cingulata (Meigen) – Downland Villa. **Red Data Book Category 1 (Endangered)**. A bee-fly associated with sheltered calcareous grassland and especially the grassland/woodland edge habitat; a very little known species, believed to develop as a parasitoid of either moth, bee or wasp larvae. Discovered in the Frome Valley by Matthew Oates in 2000, the following is a new site.

SO90 Strawberry Banks, 23.vi.2005, M. Matthews.

Dioctria baumhaueri Meigen = *hyalipennis* (Fabricius) - Stripe-legged Robberfly. **County Rarity**. A woodland edge species. Increasingly proving to be a Forest of Dean speciality, and unknown from the Vale or Cotswolds.

SO61 Pope's Hill, 7 & 16.vii.2005, J. Phillips.

Machimus cingulatus (Fabricius) – Brown Heath Robberfly. **County Rarity**. A species characteristic of woodland edges on sandy heaths, but discovered at Oxenhall by Martin Matthews in 2004.

SO72 Oxenhall, several seen, 29.viii.2005, M Matthews.

Myopa extricata Collin - **Red Data Book Category 3 (Rare)**. An increasingly rare conopid species about which very little is known. It is likely to be a parasitoid of adult bees and most records nationally come from calcareous grasslands across southern England, although it is less associated with calcareous sites in the west. It is most often encountered at dandelion flowers in sheltered sunny situations.

SO71 Hill Farm, Longney, at hogweed blossom in old plum orchard, 7.vi.2005, KNAA.

Melieria omissa (Meigen) – **County Rarity**. A picture-winged fly (Ulidiidae) which is a speciality of coastal wetlands, where found amongst tall emergent vegetation. Local, but widespread nationally. The following is only the third county record and the first since 1994 when it was found by Westbury Garden Cliff.
ST59 Lancaut Farm, 9.vi.2005, KNAA.

Melieria picta (Meigen) – **Nationally Scarce**. This picture-winged fly is also mainly known from saltmarshes and coastal levels. Despite its national status being the rarer of the two it is actually the more widespread in the county, Lancaut being one of five known sites.
ST59 Lancaut Farm, 9.vi.2005, KNAA.

INTERESTING NEW RECORDS OF BUGS (HEMIPTERA) 2005

Keith Alexander

The year has seen the county bug list continue to grow. One overlooked species and two new arrivals have now been found.

Orthops basalıs (Costa, A.) – An overlooked plant bug (Miridae), first recognised as being present in Britain only in 1971 when it was first distinguished from the very similar *Orthops kalmi*. It feeds on Umbelliferae and is now known from much of the country, albeit less frequently reported than *O. kalmi*.
SO73 Redmarley, one swept from ditch between a bushy hedge and an arable field, 5.viii.2005, KNAA.

John Widgery has reported two new county records from his daughter's garden in Woodmancote, demonstrating that significant finds can be made just about anywhere. Both are almost certainly new arrivals in the county.

Stictopleurus punctatonervosus (Goeze) – This rhopalid bug feeds on various Compositae, mainly on the seeds. For many years it was known only as an occasional vagrant from the continent, but climate change has enabled it to become established and it is now spreading northwards.
SO92 Woodmancote, swept from *Artemisia arvensis* and other weeds in garden, 12.x.2005, JPW.

Lygus pratensis (Linnaeus) – A plant bug found on various broadleaved herbs, generally in recently disturbed ground situations. A rarity for much of the 20th

Century but has become increasingly widespread in recent years and is clearly expanding its range.

SO92 Woodmancote, swept from *Artemisia arvensis* and other weeds in garden, 12.x.2005, JPW.

The following bugs new to the county list were discovered during 2004 but details only became available after the deadline for the 2004 reporting. The first is the only long-established native species, the others being recent arrivals in Britain:

Trigonotylus caelestialium (Kirkaldy) – This grass bug breeds on various grasses in both moist and dry habitats, as well as on crops such as barley, corn, oats, rye and wheat. Overlooked in past amongst the widespread *T. ruficornis*, it was first noticed in Britain in 1992 amongst museum specimens dated 1900, 1922 and 1953, from Surrey and Sussex. Since then it has been found to be more widespread, and is now known as far north as Yorkshire.

SO70 Whitescourt, Awre, swept from rank saltmarsh grasses, 11.viii.2004, KNAA.

Nysius senecionis Schilling – A recent arrival in Britain, this seed bug (Lygaeidae) was discovered in the southeast of England in 1992 and is spreading. It is associated with open sheltered situations on freely-draining soils, and often found at ragwort blossom.

SP03 Alderton, beaten from ash by weedy field with *Chenopodium*, etc, 19.ix.2003; weeds and grass including *Matricaria* adjoining arable, 5.ix.2004, JPW; Dumbleton, weedy strip with *Matricaria* etc. adjoining cut arable, 5.ix.2004, JPW.

Orsillus depressus Dallas – Spreading across Europe from the south and southeast, this seed bug was first reported in Britain from Surrey in 1987. It has generally been found on cones of Lawson's Cypress in gardens, although the native hosts also include juniper, *Thuja* and *Pinus*. It is clearly now widespread in the county.

SO70 Fretherne, *Thuja* sp., 20.ix.2003, JPW.

SO93 Alderton, cypress sp., 19.ix.2003, JPW.

SP03 Alderton, cypress, 5.ix.2004, JPW.

SP12 Naunton, cypress, 29.vi.2004, JPW.

SP22 Icomb, cypress in churchyard, 6.ix.2004, JPW.

Alloeotomus gothicus (Fallen) – An immigrant or introduced plant bug feeding on Scots pine, first noticed in Britain in 1951.

SP03 Dumbleton, on Scots pine, 5.ix.2004, JPW.

GLOUCESTERSHIRE MOTH REPORT 2005

Roger Gaunt

At the time of writing this report I have received about 6000 records from 30 recorders who have sent more than 10 records. There are several others who have sent in a handful of records. From garden traps I only include one representative record per species per year. For example I may receive 2500 records from one garden, but will only enter on my database 190 records if that is the number of species. When it can readily be done, I do however record such information as 'one of 34 records'. All records from sites other than gardens are included.

The weather was quite favourable for much of the season after a bad start, and several trapping sessions were rewarded with good numbers of species. For example on National Moth Night we recorded 122 species at The Park, Tidenham Chase.

Having said that I continue to express concern about moth numbers as there seems to be a general decline. This has implications for many birds, bats and invertebrates. This has been shown to be true on a national scale by work done by Rothamsted Research after analysing the data gained over several decades from the network of traps that they run.

There have been several **new county records**. The numbers refer to the Checklist drawn up by Bradley and Fletcher.

55 *Stigmella aeneofasciella*. A leaf mine on Agrimony was recorded by Guy Meredith at Snows Farm NR on 9.x.2005.

366a *Cameraria ohridella*. A leaf mine on Horse Chestnut was recorded by Guy Meredith near Nailsworth on 24.ix.2005. This is a fairly new species to Britain and information about it is only available on the internet.

638a *Denisia albimaculella*. This is an oecophorid and was recorded by Michael Harper (Herefordshire Moth Recorder) and Mike Bradley at Betty Daw's Wood NR on 19.vi.2005.

662 *Pseudatemelia subochreella*. Another oecophorid. This was recorded on the same night at Betty Daw's Wood by the two Michaels. The larva constructs a case and feeds on leaf litter on the ground.

836 *Caryocolum kroesmanniella*. John Langmaid found larvae on Stitchwort near Speech House on 18.v.2005 and bred out at least one moth. Apparently this moth has been recorded here before, but I had no reference for it.

1121 *Ancylis upupana*. This tortrix was seen flying with a swarm of *Adela reaumurella* near Broadwell by Guy Meredith on 14.v.2005, and netted. The specimen was retained for identification.

1269 *Cydia conicolana*. Another tortrix. This was netted by Guy on Rodborough Common on 1.v.2005 and I have confirmed the identification.

1699 Least Carpet *Idaea rusticata atrosignaria*. This is a macromoth, and was first recorded in the London area in 1831. It remained quite rare until the mid 20th century when it began to expand its range. This first county record was recorded by Val and Denis Jackson at their home on Tidenham Chase on 12.vii.2005. (See plate 9)

Two new county records from 2004 have also been reported.

605 *Elachista pomerana*. Recorded at Ashleworth Ham NR on 7.viii.2004 by Mike Bradley and confirmed by Michael Harper.

704 *Agonopterix scopariella*. Recorded at Chase End Hill (south end of the Malvern range) on 5.viii.2004 by Mike Bradley and also confirmed by Michael Harper.

There are 10 further records, not new to the county, but new to either VC33 or VC34.

MIGRANTS

2005 was a poor year for migrants. Apart from common ones such as Silver Y and Humming-bird Hawk-moth (19 records so far) the only records were of the **Gem** at Thrupp (Peter Hugo), **Vestal** at Tidenham (Val and Denis Jackson) and Dursley (Steve Chappell) and **Delicate** at Dursley (Steve Chappell) and WWT Slimbridge (Neil Woodward).

BIODIVERSITY ACTION PLAN (BAP) SPECIES

Again it has been rather disappointing. Only two of our 17 species have been reported. The **Drab Looper** has been recorded from 9 sites, four of which are new, and the **Silky Wave** from its known stronghold in the Avon Gorge.

Moth recording often produces memorable experiences. John Coates was helping a tree surgeon pollarding a *Salix caprea* in Charlton Kings last July when they noticed a pair of mating **Lunar Hornet Moths**. These were taken away and photographed before release. Next day John returned to finish clearing up and found a female laying eggs on the bark of the tree. This is the only record I have of anyone actually *seeing* this elusive moth. The other 11 records I have are all of larval workings or pupal cases after emergence.

I mentioned in my last report that Peter Hugo had searched in vain for the **Plumed Prominent**. This year (2005) he has been successful! He left his trap overnight in Withington Woods on 10th November and at lunchtime the next day there were still 14 in and around the trap. This was the first record since 1976. On the 3rd December Peter was again successful in finding two in Overley Wood. Inspired by this, Guy Meredith tried in Lineover Wood the next day and also found two. The male of this species has most remarkable antennae (see plate 10).

The **Scarce Hook-tip** has until recently been confined (nationally) to the Wye Valley woodlands between Tintern and Chepstow. In 2004 it was recorded in Monmouthshire from St Pierre's Great Wood, which is west of Chepstow and outside the Wye Valley. On 9th July 2005, Val and Denis Jackson trapped one in their garden again outside the Wye Valley at Tidenham. Could it be that this species is getting a little more adventurous? If this is the case there are plenty of places where the larval food-plant (small-leaved lime) can be found and, who knows, we may find further sites in 2006 (see plate 11).

I would like to thank all the many recorders who have sent in their records. I cannot mention them all by name, but I must mention Guy Meredith and Peter Hugo who have spent a lot of time away from home producing many valuable records. I must also mention Angus Moir who has been recording in many parts of the county, and whose enthusiasm has infected others.

Finally, rather later than I had intended, I have completed 'Gloucestershire Moths – A Second Account'. I had hoped to publish it in May 2005 but the amount of work involved was underestimated and it has only just been finished. All species accounts now go up to 2004, and there is a list of important records arising in 2005. Full details can be found on the GNS website.

GLUCESTERSHIRE BUTTERFLY REPORT 2005

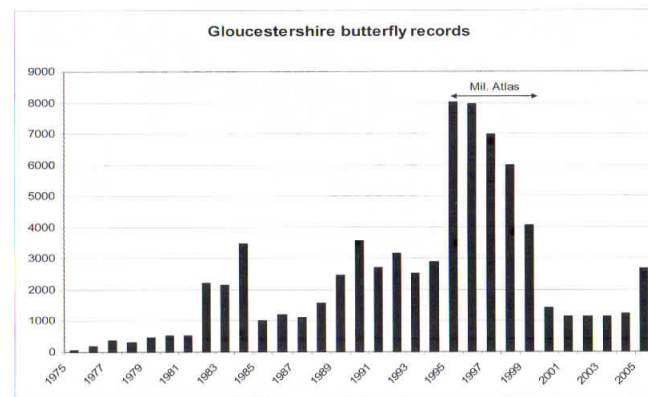
Chris Wiltshire

This is my first report since I became county recorder in November 2004. I found that I had taken on the position at a critical time because, unbeknown to me, Butterfly Conservation was nearing the end of a five year review as a follow-up to their hefty tome – The Millennium Atlas of Butterflies in Britain and Ireland. This review was to look at the state of British butterflies over the five-year period, 2000 – 2004, thus I found myself having to learn how to use Levana (BC's database) and put about two and a half years of records onto the system by the end of February 2005. This contributed to the total of 1.6 million records accumulated during that period. Publication of this review is planned for May 2006 and it is entitled "The State of Butterflies in Britain and Ireland".

Projects like this are vital to pick up changes in distribution and population structure and highlight problem areas; the sooner we know about a problem the sooner we can try to do something about it. One thing that became apparent to me was the decline in the number of records received recently. Does this reflect a decline in recorder activity or just that the records are not passed on to the county recorder? Figure 1 shows the number of records added to the database from 1975 to 2005. The massive rise in records for 1995 was triggered by the Millennium Atlas project but the enthusiasm had waned by the final year with only half the number of records compared with the first two years. In the following years the number of records

dropped to about half the level of those prior to the project. The result is that there are relatively few records for the period of the review. This may have been lack of publicity for the project; I confess that I did not know

Figure 1. Number of records added to database each year from 1975 to 2005



about it until I took on this post! I like to think that the small upturn in 2005 might be due to my efforts through "Antennae" (the newsletter for the Gloucestershire branch of Butterfly Conservation.) encouraging people to send in their records.

Figure 2 shows the 1km grid squares for which records have been received over the period 2000 – 2005; there is an awful lot of blank space there with potential for a lot of recording. Even "common" species need to be recorded (Are they still common?) and one would expect species like Meadow Brown and Large White to be recorded in most grid squares in the county. The greater the coverage of the recording the more accurate can be the interpretation of distribution. For instance one cannot say whether a species is present or absent from a particular site if there are no records available for that site.

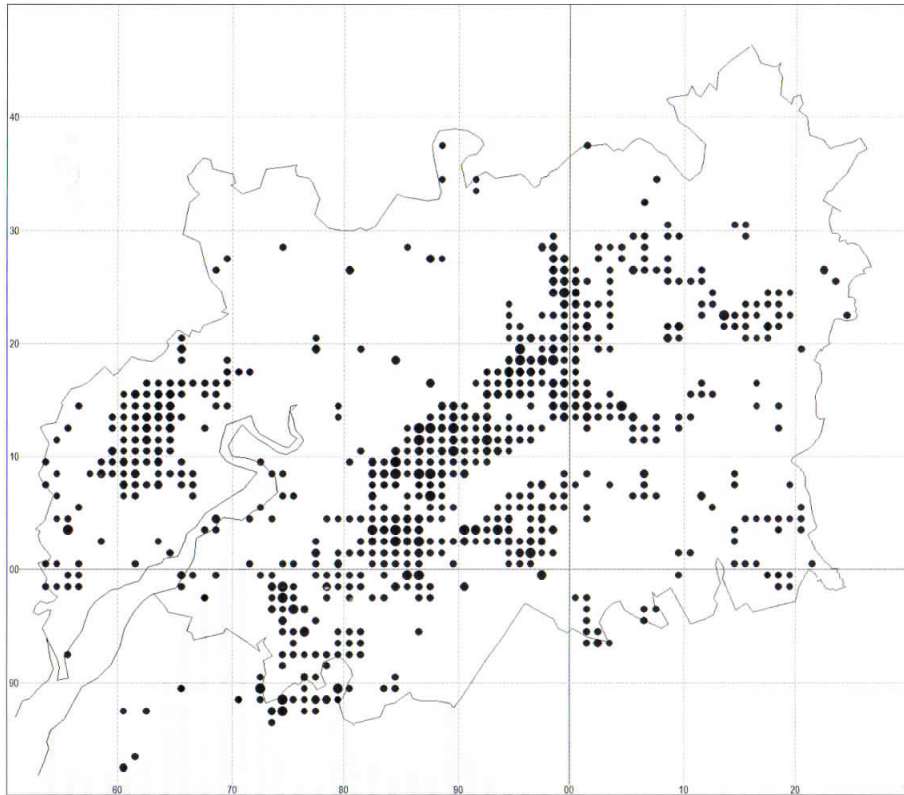


Figure 2. Gloucestershire showing 10km grid squares with records for 2000-2005 at 1km scale. (See key below)

- Key
- 1-9 species
 - 10-19 species
 - 20+ species

A valid record needs the following information:

- a) Who? – The name of the recorder or observer.
- b) What? – The species seen, including whether it is adult, egg, larva or pupa.
- c) Where? – This is the location, where it was seen. A name for the site is important but even more important is to give a grid reference, a minimum of four figures and preferably a six-figure grid reference (e.g. SO828029). Because the distribution map is based on 1km grid squares a name may not be enough: an example is Selsley Common, this site is spread over four 1km grid squares and so we need to know which square or squares are intended. If we give a four figure reference SO8202 this is excellent for mapping and for most of the "common" species but a six figure reference pinpoints a location for conservation purposes.
- d) When? – An easy one, the date of the observation.

Additional information can be given; for instance an estimate of the number of adults seen can be useful, if the number is not given in a record it is assumed to be the minimum of "1".

Should anyone require them I can provide Butterfly Conservation's standard recording forms. One is the **site** form for several visits to one site (e.g. your garden, place of work or favourite nature reserve etc.) and the other is the **casual** form for visits to different sites. Send an s.a.e. to me stating which type of form or forms you require (you may photocopy them if you need more). I can also accept records as Excel files, tab separated text files, Word files etc. (send to arion.ecology@virgin.net)

The 2005 season summary

The brief information presented below is based upon transect data, personal observation and records submitted to date. It is in the format of species name, first recorded date and location, last recorded date and location, maximum number seen on any one occasion and any relevant notes.

Small Skipper. 14th June Swellshill, 19th August, 17. First sighting earlier than usual, numbers above average.

Essex Skipper. 23rd July, 27th August, three. Below average numbers.

Large Skipper. 9th May Swellshill, 20th August, 12. Exceptionally early first record but numbers well down.

Dingy Skipper. 1st May Rodborough Common and Swellshill, 18th June, seven. Numbers slightly below average.

- Grizzled Skipper.** 29th April Breakheart Hill, 26th June, eight at Hailey Wood. About average.
- Swallowtail.** A single specimen was seen near Ullenwood on 31st July by Arthur Ball. This is likely to be a migrant, not a native British specimen. Several others were seen in the south and east of England during the summer.
- Wood White.** 15th May Serridge, 7th August a second generation specimen, 10 at Blaisdon. There were only eight records and all from the Forest of Dean.
- Clouded Yellow.** 7th July, 17th November, two. The unusually late adult was flying at Sheepscombe Common. Only 15 records, mostly scattered individuals.
- Brimstone.** 16th January Ruscombe, 27th October, maximum of 20 at North Cerney Downs, numbers about average.
- Large White.** 2nd April, 20th September, 18 at Bisley Road Cemetery. Average.
- Small White.** 10th April, 16th October, an estimated 200 seen flying around crops near Dowdeswell. (Presumed to be oilseed rape) Despite this high number the overall number was well down on previous years.
- Green-veined White.** 24th April, 20th September, 12 at Hilcot Wood. Average.
- Orange Tip.** 27th March Coaley, 11th June, 10 at St. Briavels. A species which did reasonably well with numbers up on previous years.
- Green Hairstreak.** 17th April, 14th June Swellshill, seven at Edge Common. An average year for the species.
- Brown Hairstreak.** The first evidence of it breeding in the county since the early 1980s. Three eggs were found at the Cotswold Water Park by Chris Wiltshire.
- Purple Hairstreak.** 16th July Dowdeswell, 10th August, maximum was 45 seen by John Coates at Lineover. A poor year for what is probably an under-recorded species.
- Small Copper.** 15th May, 24th September, five at Sheepscombe Common. Another species that had an average year.
- Small Blue.** 2nd May Strawberry Banks, 28th August second generation, 25 at Swellshill. The numbers seemed to be well down in most sites this year.
- Brown Argus.** 16th May Daneway Banks, 4th September, the maximum of 10 shared by Swellshill, Sheepscombe Common and Scar Hill Bank. Numbers below average.
- Common Blue.** 27th May Edge Common, 26th September Stinchcombe Hill, maximum of 24 in second generation at Uley Bury. Despite that numbers were well down again.
- Chalkhill Blue.** 12th July Stinchcombe Hill, 4th September, maximum number of more than thirty shared between Breakheart, Coombe and Stinchcombe Hills. A species that did not do well in 2005 despite getting off to a very early start.
- Adonis Blue.** 29th May Rodborough Common, 1st September Scar Hill Bank, which also had the maximum of eight. Although it has turned up on several new sites, on Stinchcombe Hill it produced the lowest transect count since they first appeared. The origin of these specimens is unknown but they were first seen on Stinchcombe

- Hill in 2001 and in 2005 they turned up in eight different 1km squares some of which are close enough for possible colonisation from Stinchcombe Hill. If anyone has any information on the origin of these specimens I would be eager to hear it; despite suggestions to the contrary it wasn't me!
- Holly Blue.** 14th April Berkeley, 9th September Dursley, six at Little Tor Hill. A poor year for this species which is probably past its peak on its six or seven year cycle.
- Large Blue.** 21st June, 27th June, three. The five records received tell us very little.
- Duke of Burgundy.** 1st May Rodborough Common, 29th May Rodborough Common, 18 at Swellshill. This was one of the species with targeted recording so there were several people out there monitoring it and it had a short flight season. It is difficult to say how it performed because there was only one record for it in 2004. However it does seem to have gone from some of its old sites around Haresfield, Cliffwell and Painswick although it may still be at the latter.
- White Admiral.** 28th June, 17th July, maximum of four at Lower Woods. Perhaps an average year with no drop in numbers on transects.
- Red Admiral.** 16th January Ruscombe, 23rd December Cheltenham, eight at Lineover Wood. A very good year for this species in terms of frequency encountered and with both early and late records. I suspect that the cold weather of February and March 2006 might not be to its liking with a possible reduction in winter survivors.
- Painted Lady.** 15th May Overley Wood, 27th September Little Haresfield Farm, three at Tarlton. Although the transect figures suggest an average year I feel that it had a poor year as it was seldom seen and very few records were received.
- Small Tortoiseshell.** 6th February Stroud, 23rd December there were two records from Hartley Bottom and Saltridge Wood and by coincidence they were both recorded by people called Brown. Maximum was six at Uley Bury. Another butterfly that had a bad year with numbers well down.
- Peacock.** 15th March Lower Woods, 24th September near Kingswood (W-u-Edge), 41 at Gulf Scrubs. Reasonable numbers were to be seen and transect figures suggest an average year.
- Comma.** 18th March Charlton Kings, 31st October Stinchcombe Hill, 10 at Lineover Wood. The rather late sighting did not alter the fact that this butterfly had a bad year.
- Small Pearl-bordered Fritillary.** The only record was of a single adult in the Forest of Dean on 18th June. This does not look good and is cause for great concern. Here is a species that needs help.
- Pearl-Bordered Fritillary.** 6th May Hailey Wood, 3rd June Hailey Wood, maximum 42 at Hailey Wood. A species that was covered by targeted recording again and while reasonable numbers were seen, with the exception of one near Stroud, they were all in the Cirencester Park woodlands. The future of this butterfly is far from secure.

Dark Green Fritillary. 26th June Bill Smyllie Reserve, 20th August Cleeve Quarry, maximum three at Swellshill. Transect data for Stinchcombe Hill shows that it had its best year since 1997 but that is still well below the long-term average. A species that needs watching.

Silver Washed Fritillary. 23rd June Hailey Wood, 2nd September Hailey Wood with a maximum of 20 at Lower Woods. Interesting that unusually early record and late record are both from same site. Another species with targeted recording showing that it had an average year. The most secure of all our Fritillaries.

Marsh Fritillary. 24th April, 20th June, maximum of 21 from its only known breeding site in Gloucestershire. It did crop up at Rodborough Common but there is no evidence of this being a breeding site.

Speckled Wood. 17th April Alderley, 15th October Coaley, 14 at Little Tor Hill. A disappointing year for the Speckled Wood.

Wall. 29th May, 5th June. The only two records with dates. A total of 23 was recorded over the season on the Bill Smyllie Reserve but are included in a transect summary. A very poor year – has it gone to the wall?

Marbled White. 14th June Rodborough Common, 23rd August Sheepscombe Common, 100 on Stinchcombe Hill. One of the few species that did better than average.

Grayling. Although I have been told that it is “hanging on” at the Bill Smyllie Reserve, no records have been received for this species that should start the alarm bells ringing.

Gatekeeper. 27th June Tewkesbury, 1st September Cranham Common, 100+ at Breakheart Hill and Quarry. Unfortunately one of the “common” species that had a less than average year.

Meadow Brown. 16th May Daneway Banks, 22nd September Selsley Common, maximum of 111 at Frith Wood. It had a prolonged flight period this season with unusually early and late records; the Selsley specimen was a fresh male. Another species that did very well.

Small Heath. 5th May Rodborough Common, 22nd September Selsley Common, 52 at Daneway Banks. A species which I seemed to see everywhere although the transect figures show that, in terms of numbers, it only had an average year.

Ringlet. 18th June Strawberry Banks, 20th August Cleeve Quarry, 30+ at Breakheart Hill and Quarry. As one might expect in a warm dry year this species did not do very well.

Remember you can still send in records for 2005 and for any previous years for which you may have data and have not yet supplied it to GNS or Butterfly Conservation. Happy Recording!

HOVERFLY REPORT 2005

David Iliff

For the third successive year hoverflies proved elusive. Two phenomena indicate that it was an even less productive year than the previous two. One of these was the unusual shortage of hoverflies (and other insects) on hogweed, which is normally such a useful flowering plant for finding many species feeding on pollen and nectar; I understand that some naturalists believed that dry conditions had resulted in the flowers failing to produce a good crop of pollen. The other phenomenon was the reduced numbers of the most familiar of hoverflies, *Episyrphus balteatus* (see plate 4), which is abundant in July and August in most summers; in 2005 it was by no means scarce, but was not found in Gloucestershire in anything like its customary profusion.

In spite of this, 2005 was notable for the discovery of a very pleasing number of county rarities. Martin Matthews found a female *Xylota abiens* at Speech House Lake on 10th June; this was only the second county record for the species, the previous one having been at Stone in 1928.

John Phillips recorded four county rarities. He saw *Callicera aurata* in Blaisdon on 17 June, the third county record (John was also responsible for one of the earlier two). He also recorded both species of *Eriozona*, *E. syrphoides* (see plate 5) and *E. erratica* (see plate 6). The former is a bumblebee mimic (the only one among the predatory hoverflies on the British list), which was unknown in Britain before 1957, and is believed to be a recent colonist associated with conifer plantations. John saw and photographed a male in his garden at Pope's Hill on 28th July. The only previous Gloucestershire record was by David Shirt and Keith Alexander at Worcester Walk, in August 1982. John saw 3 examples of *E. erratica* on 14th May in Flaxley Wood and 2 in the same wood on 15th May. *E. erratica* previously belonged to the genus *Megasyrphus*, but was transferred into the *Eriozona* genus in 1987. As the illustrations show, the two *Eriozona* look very dissimilar as adults; the same is true of the larvae, and recent molecular analysis also suggests that the decision to merge them into a single genus was not justified.

John's fourth rarity was *Sericomyia lappona*, a species associated with acid bog, at Mallard's Pike on 11th May. I had seen this hoverfly at the same site in June 1993 (see plate 7). There are two earlier records: Foxes Bridge Bog in 1946 and Staple Hill on the edge of Bristol in the early part of the 20th Century. The other *Sericomyia* species, *S. silentis* (see plate 8), a species normally found in wet heathland and woodland on acid soil, is a familiar sight in the Forest of Dean with numerous records; it is also

known from the Vale of Berkeley. Until 2005 there were no records in VC33. However on 17th September I discovered a male feeding on ivy in my garden in Woodmancote near Cheltenham – a spectacular sight among the many smaller hoverflies and Hymenoptera that were also on the ivy flowers, and a surprise as my garden is some 26 kilometres from the nearest previous record and from the typical habitat of this species.

Both the *Volucella* species that are new to the present county since the turn of the Millennium were seen again in 2005. David Scott-Langley had *Volucella zonaria* at Coombe Hill during the challenge; the second record for VC33. I saw *Volucella inanis* in Pittville Park, Cheltenham on 21 July, and John Fleming saw specimens at Ebworth on 26 July and 8 September. Another former rarity, both in Gloucestershire and elsewhere, *Rhingia rostrata*, continued to be seen frequently in woodland sites, and *Anasimyia transfuga* was seen again at Coombe Hill Meadows (Martin Matthews) and by the Coombe Hill canal on 2nd July.

All county records (a total of almost 15,400 up to the present) are now in MapMate. I should like to thank the following who provided me with records during the year: John Fleming, Roger Gaunt, John Harper, Ken Heron, Martin Matthews, John Phillips and Colin Twissell.

LADYBIRD REPORT 2005

David Iliff

2005 was generally a productive year for ladybird recording in Gloucestershire, with most of the common species, including the 7 Spot Ladybird (*Coccinella 7-punctata*), which seems to be recovering well from a period of relative scarcity, being found in good numbers.

The opportunity to add a new species to the county list would normally be regarded as a highlight of the season. However the discovery of two larvae of the Harlequin Ladybird (*Harmonia axyridis*) at Pittville Park, while of great interest, is hardly a cause for celebration; the rapid spread in Britain of this invasive and destructive alien since its first detection in 2004 has been widely publicised and was the subject of two articles in GNS News.

In last year's Ladybird Report I described the second appearance of the Eyed Ladybird (*Anatis ocellata*) on the Pittville Park railings and noted that both that specimen and the one first recorded there had damaged elytra. I saw another Eyed Ladybird at the same site on 21st April; astonishingly this example also had damaged elytra, however further specimens found there on 29th April and 5th May were intact. Guy Meredith recorded another Eyed Ladybird at Dowdeswell on 29th May.

The 19 Spot ladybird (*Anisosticta 19-punctata*), also known as the Water Ladybird, was recorded at Shorncombe Reedbed on 23rd April (John Harper), at Coombe Hill Meadows on 2nd July (during the Coombe Hill Challenge), and at Lake 6 of the Cotswold Water Park on 18th September. This species is unusual among British ladybirds in that the colour of its elytra changes seasonally: in spring they are straw coloured, and they brighten to vivid orange in summer before fading again by the autumn. The two colour phases are illustrated on Plate 12.

In the 2004 Ladybird Report I noted the steady year-by-year increase in county records of the Orange Ladybird (*Halyzia 16-guttata*). In 2005 there were again many sightings of this species: 16 site records totalling at least 26 individuals; these included a number found by Guy Meredith overwintering on birch on Leckhampton Hill on 18th January.

I am grateful to the following who sent me records during the year: Wendy Freedman, Roger Gaunt, Anne Goodenough, John Harper, Ken Heron, Guy Meredith, David Scott-Langley, Tony Taylor, Colin Twissell and Jane Whittingham.

SHIELDBUG REPORT 2005

David Iliff

The momentum of the previous year's shieldbug recording effort continued throughout 2005, and once again a valuable set of records was obtained including several county rarities. John Harper found three female *Eurygaster testudinaria* (a member of the genus known as Tortoise Bugs) in Blaisdon Wood on 20th August; the species had been recorded in the county on only three previous occasions. John also took *Neotiglossa pusilla* at Merring Meend on 10th August and at Wigpool on 14th August (only five previous records).

The Heather Shieldbug (*Rhacognathus punctatus*) was seen at Wigpool on 14th August by John Harper and on 3 September by Colin Twissell (see plate 13). The only previous records were from Crabtree Hill in 2002 (Colin Twissell and Keith Alexander). The presence of this shieldbug at Crabtree Hill and Wigpool is a tribute to the success of the heathland restoration at these two sites.

The Pied Shieldbug (*Sehirus bicolor*), which feeds on white dead nettle, used to be encountered frequently in Gloucestershire, but appears to have become much scarcer in recent years. I was therefore very pleased to find an example at Trull on 30th April (see plate 14).

An adult Gorse Shieldbug (*Piezodorus literatus*) was present daily between 31st May and 6th June in my garden at Woodmancote near Cheltenham on the flowers of a lupin (see plate 15). My garden is about two kilometres away from the nearest gorse. The species is however known to occur on other Leguminosae besides gorse, including lupins, but usually only those with yellow flowers. The lupin that the insect used in my garden was the cultivar "Storm", which has deep purple flowers. Although the shieldbug changed its position regularly it was always seen on or near the same flower spike, in spite of there being other lupins, including yellow-flowered ones, close by. At first I wondered whether this Gorse Shieldbug was the same individual that Roger Gaunt had taken, while it was in the immature adult stage, at Nagshead in September 2004 (illustrated on Plate 8 of The Gloucestershire Naturalist No. 16), and which I had taken home to identify and photograph. It had escaped in my garden before I could release it elsewhere on some gorse, and I wondered whether it might have overwintered there. However by comparing enlarged photographs I was able to establish that they were two different individuals as the pattern of random punctures on the pronotum, coreum and scutellum was not the same. Guy Meredith also had a Gorse Shieldbug in his garden at Charlton Kings on 10th April; although it was not on a plant at the time, Guy suspects it may have come off a Spanish Broom in his garden.

Lucy Chubb contacted me from King's Stanley where she had found a colourful insect in her garden. From her very clear description I believed that the insect was a final instar nymph of *Troilus luridus*. She sent me the specimen, and when I saw it I was struck by the very close similarity between the nymphs of *Troilus luridus* and those of the Blue Shieldbug (*Zicrona caerulea*). To resolve the determination I sent one of the photographs that I had taken of this nymph to Roger Hawkins (the author of "Shieldbugs of Surrey"), who confirmed the identification as *Troilus luridus*, but commented on the difficulty of distinguishing these nymphs using any feature other than size. The similarity of the final instar nymphs of two species that look so very different as adults is surprising. Adults of *Troilus luridus* were recorded by David Scott-Langley at Coopers Hill on 15th February and by Colin Twissell at Coombe Hill on 31st July and at Lake 6 (CWP) on 18th September. Colin also found two adult Blue Shieldbugs at the latter site on the same date.

In these columns and in those of GNS News I have reviewed and welcomed recent additions to the literature on shieldbugs. I can now report that the long out-of-print "Land and Water Bugs of the British Isles" by Southwood and Leston is available on CD, published by Pisces Conservation Ltd.

I thank the following people who supplied me with records during the year: Ian Carle, Lucy Chubb, Roger Gaunt, John Harper, Ken Heron, Martin Matthews, Guy Meredith, David Scott-Langley and Colin Twissell,

GLOUCESTERSHIRE BOTANY REPORT 2005

Compiled by Clare and Mark Kitchen

In a county historically so thoroughly well botanised, as Gloucestershire, it is an annual source of amazement that there are still new discoveries to be made. It is true that, more often than not, the species involved can be new arrivals, but long established aliens can also be found and just once in a while a new native species turns up. Critical species, taxonomically difficult to identify, are the most likely new natives to be recorded. It was extremely fortunate that the year saw a dandelion specialist, Burt Reid, recording for the forthcoming Flora of Worcestershire on the southern boundaries of his administrative county but within the embrace of our own Watsonian Vice-counties of East and West Gloucestershire. Seventeen taxa were recorded including two, *Taraxacum densilobum* and *Taraxacum leucopodium* new to East Gloucestershire, whilst a third species, *Taraxacum rubicundum* had not been recorded since 1970.

The case of French Oat-grass (*Gaudinia fragilis*) is of great interest. It has long been thought of as an introduction into the British Isles, having possibly been imported with fodder into places such as the Isle of Wight during the war years. However, it appears to have been somewhat overlooked, and over the last decade or so has been reported to be fairly widely distributed throughout the southern counties and may just possibly prove to be a native species. As one of the species heading the list of plants most likely to be found to be present in the county it fell to John Martin whilst working for DEFRA to discover it growing in a number of neutral pastures to the east of Wickwar in what is now South Gloucestershire.

Two alien sages are reported here for the first time. Turkish Sage (*Phlomis russeliana*) was found to be well established in a disused quarry near Arlington but is under threat from dumping. In 2004 Jerusalem Sage (*Phlomis fruticosa*) was found growing in Breakheart Quarry near Dursley. A yellow flowered Peony (*Paeonia mlokosewitschii*) however, has been well established in the famous Broadwell Foss Way cutting for a number of years. Out of date seed, of a number of native and alien species was introduced by a local alpine garden nurseryman in the past. The only published reference to this species appears to be a 1998 Elizabeth Norman sighting reported in the Wild Flower Society magazine. It escaped inclusion in the 2003 Vice-County Census Catalogue. Material collected during the year was confirmed by Eric Clement to be this species. This is the only British locality.

Bulbous comfrey (*Symphytum bulbosum*) first recorded in the county in 2001 appears to be more extensively distributed in the Cirencester area than was originally thought.

It is a very early flowerer and dies down quickly, which may account for it having gone unrecorded for so long.

Annual Beard-grass (*Polypogon viridis*) appears to be expanding its range, with records from industrial estates in both Cheltenham and Gloucester, having only been previously recorded in East Gloucestershire once before in Gloucester Docks in 1974. Another exotic grass Hairy Finger-grass (*Digitaria sanguinalis*) was found to be well established along Oxford Street in Gloucester.

Records of alien species persisting at known localities are seldom received so it was a pleasure to know that Twiggy Spurge (*Euphorbia x pseudovirgata*) is still to be found at its 1974 roadside site near Upper Slaughter.

Orchids in general had a good year with Musk Orchid (*Herminium monorchis*) doing particularly well. This however, was bettered by the appearance of Narrow-leaved Helleborine (*Cephalanthera longifolia*) on Rodborough Common following conservation work by the National Trust under the capable leadership of David Armstrong. It is inconceivable that the last and only record for this showy species in this vicinity was made by Rudge way back in 1803 at Minchinhampton. In total, three fairly widely separated plants were noted. More conservation work, this time by the Wildlife Trust appears to have benefited two species at the Coombe Hill Canal reserve. Frogbit (*Hydrocharis morsus-ranae*) reappeared last year after a long absence in several parts of the canal but despite quite intensive searching there was none to be seen in 2005. On the adjacent fields, the cessation of ploughing saw the emergence of a strong population of the Red Data listed True Fox-sedge (*Carex vulpina*), which appears to be acting as a pioneer species. It will be interesting to see how this population maintains itself over the next few years as the developing vegetation becomes more consolidated. This is a clear-cut case where conservation work begets conservation success which itself begets a new conservation problem.

Often our rarer native species are only to be found at a handful of sites. One such species is Dioecious Sedge (*Carex dioica*), which maintains a tenuous foothold at Brassey N.R., its only county site. It is notoriously difficult to locate so a record of its continued existence here in 2004 is most encouraging.

All in all the year has been a good one, with new critical natives to stretch the mind, exciting new aliens, and even more exciting native species reappearing, providing all the essential ingredients to make 2005 a most exciting Gloucestershire botanical year.

THE RECORDERS

The names of contributors have been abbreviated as follows:

Armstrong D.J.	DJA	Kitchen C.	CK
Arnold J.M.	JMA	Kitchen M.A.R.	MARK
Arnold P.	PA	Lansdown R.V.	RVL
Bailey J.A.	JAB	Meredith G.H.J.	GHJM
Ball A.R.	ARB	Martin J.P.	JPM
Bannister C.W.	CWB	McSweeney P.	PM
Berry M.	MB	Palfrey M.J.	MJP
Bradshaw P.	PB	Pearce S.	SP
Button M.R.	MRB	Phillips V.E.	VEP
Button P.	PB	Quinn P.R.	PRQ
Carle I.	IC	Ralphs I.L.	ILR
Chatters C.	CC	Reid A.W.	AWR
Clement E.J.	EJC	Richards A.J.	AJR
Day J.J.	JJD	Ryves T.B.	TBR
Doe J.R.	JRD	Smart M.	MS
Evans R.	RE	Spencer J.	JS
Evans T.G.	TGE	Spyvee R.	RS
Fleming J.M.	JMF	Stewart N.F.	NFS
Fryer J.	JF	Studholm C.	CS
Gibson R.	RG	Twissell C.F.	CFT
Gubert L.	LG	Twissell M.E.I	MEIT
Heathcott J.	JH	Wake A.J.	AJW
Hilton P.B.	PBH	Wilkinson M.	MW
Holland S.C.	SCH	Wray N.J.	NJW
Houston L.	LH		

THE RECORDS

Unless otherwise stated all records lie within the administrative county of Gloucestershire. Nomenclature follows the Vice-county Census Catalogue of the Vascular Plants of Great Britain (Stace, Ellis, Kent and McCosh, 2003), with English plant names taken from C. A. Stace's "New Flora of the British Isles", second edition 1997.

* An asterisk denotes a species not native to the county.

Ophioglossum vulgatum L., Adder's-tongue. V-c 33. Near Snow Capel Farm, Upton St. Leonards C.P., SO81L. 28 May 2005 (CK and MARK). V-c 34. Westley Farm, Sapperton C.P., SO90B. 11 April 2005 (JRD and RS). Six plants in hawthorn scrub.

Oreopteris limbosperma (Bellardi ex All.) Holub, Lemon-scented Fern. V-c 34. Wigpool Common, Mitcheldean C.P., SO61P. 2004 (VEP).

Asplenium adiantum-nigrum L., Black Spleenwort. V-c 33. Chedworth N.R., Chedworth C.P., SP01M. 24 June 2004 (JRD). V-c 34. Howbeech Slade, and Howbeech Slade Quarry, Ruspidge C.P., SO60P. 28 June 2004 (JRD). Nailbridge, Cinderford C.P., SO61N. 20 Feb 2005 (CK and MARK). Plentiful on disused railway embankment. Cottrells Barn, Wigpool, Mitcheldean C.P., SO62K. 30 July 2004 (JRD). On exposed quarry face.

Asplenium trichomanes L., Maidenhair Spleenwort. V-c 33. Chedworth N.R., Chedworth C.P., SP01M. 24 June 2004 (JRD). Padcombe Bottom, Cleeve Hill, Southam C.P., SP02C. 27 July 2004 (JRD and JMF).

Asplenium ruta-muraria L., Wall-rue. V-c 33. Padcombe Bottom, Cleeve Hill, Southam C.P., SP02C. 27 July 2004 (JRD and JMF).

Ceterach officinarium Willd., Rustyback. V-c 33. Stringer's Wood, Thrupp C.P., SO80R. 4 Nov 2004 (JRD). On roadside boundary wall.

**Azolla filiculoides* Lam., Water Fern. V-c 33. Coombe Hill N.R., Deerhurst C.P., SO82T. 15 March 2005 (PB), also 16 March 2005 (MS) and 7 April 2005 (JAB). The Leigh, Leigh C.P., SO82T. 13 March 2005 (MS). In ditch around southern side of new GWT reserve fields and in village pond. Slimbridge, Slimbridge C.P., SO70L. 13 March 2005 (JAB).

Helleborus foetidus L., Stinking Hellebore. V-c 33. Three Groves Wood N.R., Bisley-with-Lypiatt C.P., SO90B. 26 April 2004 (JRD). Believed to be a new reserve record.

Helleborus viridis L., Green Hellebore. V-c 33. Guiting Wood, Temple Guiting C.P., SP02T. 13 March 2005 (GHJM). Lion's Grove, Elkstone C.P., SO91R. 19 March 2005 (GHJM). V-c 34. Westley Farm, Sapperton C.P., SO90B. 31 March 2005 (JRD and RS). Scattered patches along woodland edge and in grassland.

**Eranthis hyemalis* (L.) Salisb., Winter Aconite. V-c 33. Ready Token, Bibury C.P., SP10C. 5 Feb 2005 (JRD). Akeman Street on wide road verge.

**Nigella damascena* L., Love-in-a-mist. V-c 33. Alstone, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK). Several on post-industrial wasteland.

Aconitum napellus L., Monk's-hood. . East of Lineover Wood, Dowdeswell C.P., SO91Z. 2005 (MRB). 20-30 flowering spikes beside A436

Ranunculus auricomus L. Goldilocks Buttercup. V-c 34. Howbeech Slade, Ruspidge C.P., SO60P. 28 June 2004 (JRD). Poulton Wood, Westbury-on-Severn C.P., SO71D. 14 April 2004 (JRD).

Ranunculus ficaria L. subsp. *bulbilifer* Lambinon., Lesser Celandine. V-c 33. Stow-on-the-Wold, Stow-on-the-Wold C.P., SP12Y. April 2005 (MRB).

Ranunculus trichophyllus Chaix, Thread-leaved Water-crowfoot. V-c 33. Bible Pond, Whittington Lodge Farm, Sevenhampton C.P., SP02B. 24 June 2005 (ILR). Newly created pond.

Thalictrum flavum L., Common Meadow-rue. V-c 33. Coombe Hill Meadows, Deerhurst C.P., SO82T. 17 May 2005 (JAB). V-c 34. Ashleworth Ham, Ashleworth C.P., SO82H & I. 28 June 2005 (JAB).

Berberis vulgaris L., Barberry. V-c 33. Near Trout Inn, Lechlade C.P., SU29J. 27 June 2005 (GHJM). Several in field hedge.

Fumaria officinalis L., Common Fumitory. V-c 33. Cotswold Farm Park, Temple Guiting C.P., SP12D. 26 July 2005 (AJW).

Fumaria officinalis L. var *minor*, Common Fumitory. V-c 33. Ebley, Cainscross C.P., SO80H. 30 Sept 2005 (RVL). On allotments.

Fumaria officinalis L. var *officinalis*, Common Fumitory. V-c 33. Ebley, Cainscross C.P., SO80H. 30 Sept 2005 (RVL). On allotments. V-c 34. Chapman's Cross, Sapperton C.P., SO90F. 2 April 2004 (RVL). Frampton Pools, Frampton on Severn C.P., SO70N. 23 April 2004 (RVL).

Chenopodium bonus-henricus L., Good-King-Henry. V-c 33. Haresfield Beacon, Standish C.P., SO80J. 14 May 2005 (JAB).

Salicornia sp., Glasswort. V-c 34 Lancaut N.R., Tidenham C.P., ST59I. 2 Sept 2004 (JRD). No previous records from the reserve.

Minuartia hybrida (Vill.) Schischk., Fine-leaved Sandwort. V-c 33. Barton Bushes, Temple Guiting C.P., SP12D. 31 May 2005 (MRB). About 20 plants at edge of an old shallow stone pit.

Spergula arvensis L., Corn Spurrey. V-c 33. Alstone, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK). Along road verge and in raised concrete flower trough.

Spergularia media (L.) C.Presl., Greater Sea-spurrey. V-c 34. Lancaut, Tidenham C.P., ST59I. 18 Aug 2005 (JS). About 20 plants.

Rumex maritimus L., Golden Dock. V-c 33. Coombe Hill Meadows, Deerhurst C.P., SO82T. 15 Sept 2004 (JRD). Edge of newly created pond.

Sagina nodosa (L.) Frenzl., Knotted Pearlwort. V-c 34. Plump Hill N.R. Dolomite Quarry, Mitcheldean C.P., SO61T. 1 Sept 2004 (JRD).

**Paeonia officinalis* L., Garden Peony. V-c 34. Linegar Wood, Ruspidge C.P., SO61L. 21 June 2004 (JRD).

**Paeonia mlokosewitschii* Lomakin. V-c 33. Broadwell, Broadwell C.P., SP12Y. 27 May 2005 (CK and MARK conf. EJC). Well established in the famous Foss Way cutting and known by us here for a number of years. The only previously published reference is of a record by E. Norman in 1998 in the Wild Flower Magazine. The only British locality and not listed in the Vice-county Census Catalogue.

Hypericum androsaemum L. Tutsan. V-c 34. Cottrells Barn, Wigpool, Mitcheldean C.P., SO61P. 30 July 2004 (JRD). Howbeech Slade and Howbeech Slade Quarry, Ruspidge C.P., SO60P. 28 June 2004 (JRD). Linegar Wood, Ruspidge C.P., SO61L. 21 June 2004 (JRD). Staple-edge Wood, Ruspidge C.P., SO60P. 29 June 2004 (JRD).

Tilia platyphyllos Scop., Large-leaved Lime. V-c 34 Patches Wood, Staunton Coleford C.P., SO51L. 18 May 2005 (JRD). Many trees.

Tilia cordata Miller, Small-leaved Lime. V-c 33. Three Groves Wood, Bisley-with-Lypiatt C.P., SO90B. 26 April 2004 (JRD). Just beyond reserve boundary. V-c 34. Cherington, Cherington C.P., ST99E. 25 Oct 2004 (JRD). Mature standard in boundary. Linegar Wood, Ruspidge C.P., SO61L. 21 June 2004 (JRD). Old coppice at quarry edge. Liningwood Top, Wigpool, Mitcheldean C.P., SO61P. 21 July 2004 (JRD). Many-stemmed tree in deep hollow and two coppiced trees in woodland. Poulton Wood N.R., Westbury-on-Severn C.P., SO71D. 14 April 2004 (JRD). Three

scattered through wood. Wigpool Common, Mitcheldean C.P., SO61P. 19 July 2004 (JRD). Numerous ancient coppice trees on edge of quarries within the woods.

Malva moschata L., Musk-mallow. V-c 33. Barton Larches, Temple Guiting C.P., SP12D. 26 July 2005 (AJW). V-c 34. Church Hill, Plump Hill, Mitcheldean C.P., SO61N. 1 Sept 2004 (JRD). *Forma alba*.

Viola tricolor L. Wild Pansy. V-c 33. M5 Motorway Junction 12, Haresfield C.P., SO81A. 16 May 2005 (JAB). V-c 34. Dishes Brook Quarry, Mitcheldean C.P., SO61P. 30 July 2004 (JRD).

Populus nigra L. subsp. *betulifolia* (Pursch)W.Wettst., Black Poplar. V-c 33. Coombe Hill Meadows, Leigh C.P., SO82T. 15 June 2004 (JRD) An old hedgerow tree. Another tree but Deerhurst C.P., also SO82T. 17 May 2005 (JAB). This is a mature tree in canal hedge line. Cuttings have been planted in recent years from this well known tree.

**Sisymbrium orientale* L., Eastern Rocket. V-c 33. Near Tewkesbury Bridge, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK).

Salix purpurea L., Purple Willow. V-c 33. Near Thornhill Farm, Lechlade C.P., SP10Q. 18 April 2005 (CK and MARK). Single plant by ditch.

**Barbarea intermedia* Boreau, Medium-flowered Winter-cress. V-c 33. Bourton-on-the-Water, Bourton-on-the-Water C.P., SP12Q. 18 April 2005 (MRB). Single plant by carpark.

Cardamine impatiens L., Narrow-leaved Bitter-cress. V-c 34. Hangerberry Hill, Lydbrook C.P., SO61C. 26 Aug 2004 (JRD). Linegar Wood, Ruspidge C.P., SO61L. 21 June 2004 (JRD). Patches Wood, Staunton Coleford C.P., SO51L. 18 May 2005 (JRD).

Arabis glabra (L.) Bernh., Tower Mustard. V-c 34. Bromsberrow, Bromsberrow C.P., SO73L. 11 May 2005 (LG). Two hundred and four plants along M50 motorway, increased from a single plant two years previously and two in 2004 following conservation disturbance work.

Draba muralis L., Wall Whitlow-grass. V-c 33. Batsford Arboretum, Batsford C.P., SP13W. 16 April 2005 (MRB). In several patches by streamside boulders. About 200 plants in total. V-c 34. Lasborough Churchyard, Westonbirt with Lasborough C.P., ST89H. 8 April 2005 (MRB). 20-30 plants on wall.

Cochlearia danica L., Danish Scurveygrass. V-c 33. Little Haresfield Farm, Little Haresfield, Standish C.P., SO80E. 16 March 2005 (JAB). Two plants on roadside.

Thlaspi perfoliatum L., Perfoliate Penny-cress. V-c 33. Brassey N.R., Upper Slaughter C.P., SP12L. 13 May 2004 (JRD). Two plants on scree slope in old quarry.

**Iberis umbellata* L., Garden Candytuft. V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 4 Aug 2004 (MB, IC, JRD and RS).

Lepidium ruderales L., Narrow-leaved Pepperwort. V-c 33. Swindon Trading Estate, Swindon C.P., SO92H. 23 Oct 2005 (CK and MARK).

Monotropa hypopitys L., Yellow Bird's-nest. V-c 33. Stringer's Wood, Thrupp C.P., SO80R. 4 Nov 2004 (JRD). About 15 plants near the location where previously recorded by JMF in 1987.

Samolus valerendi L., Brookweed. V-c 34. Blaisdon Wood, Blaisdon C.P., SO61Y. 21 Aug 2005 (JAB). Growing in a wet woodland ride.

Saxifraga granulata L., Meadow Saxifrage. V-c 33. Beckbury Hillfort, Temple Guiting C.P., SP02U. 5 May 2005 (PM). Locally abundant.

**Sorbaria sorbifolia* (L.) A.Braun, Sorbaria. V-c 34. Liningwood Top, Wigpool, Mitcheldean C.P., SO61P. 21 July 2004 (JRD). Amongst numerous garden escapes.

Potentilla anglica Laich., Trailing Tormentil. V-c 34. Edgehills, Littledean C.P., SO61S. 13 July 2004 (JRD). Linegar Wood, Ruspidge C.P., SO61L. 21 June 2004 (JRD). Plump Hill, Mitcheldean C.P., SO61T. 1 Sept 2004 (JRD).

Sanguisorba officinalis L., Great Burnet. V-c 33. Coombe Hill Meadows, Leigh C.P., SO82T. 7 April 2005 (JAB) and Deerhurst C.P., SO82Y. 17 May 2005 (JAB). Near Snow Capel Farm, Upton St. Leonards C.P., SO81L. 28 May 2005 (CK and MARK). V-c 34. Ashleworth Ham, Ashleworth C.P., SO92I. 28 June 2005 (JAB).

Sorbus x vagensis Wilm. = *S. aria* x *S. torminalis*. V-c 34. Naas Cliff, Lydney C.P., SO60L. 8 Sept 1996 (CK, MARK and NJW). Previously reported as *S. rupicola* x *S. torminalis* in GNS Journal, Vol 47, no1 but now redetermined following molecular genetic investigation undertaken at Kew.

Sorbus torminalis (L.) Crantz, Wild Service-tree. V-c 34. Horwood Farm, Yate C.P., ST78I. 12 May 2005 (JPM).

**Cotoneaster simonsii* Baker, Himalayan Cotoneaster. V-c 33. Swindon, Swindon C.P., SO92H. 23 Oct 2005 (CK and MARK). Single bush beside rail-line. V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 4 Aug 2004 (MB, IC, JRD and RS). Hazel Hill, Mitcheldean C.P., SO61T. 7 Oct 2005 (CK and MARK det JF).

**Cotoneaster bullatus* Bois, Hollyberry Cotoneaster. V-c 33. Swindon, Swindon C.P., SO92H. 23 Oct 2005 (CK and MARK det JF). Single bush beside rail-line.

Crataegus laevigata (Poir.) DC, Midland Hawthorn. V-c 33. Coombe Hill Meadows, Leigh C.P., SO82T. 15 June 2004 (JRD).

Lotus glaber Mill., Narrow-leaved Bird's-foot Trefoil. V-c 33. Cotswold Water Park, SP10Q. 26 July 2005 (MRB and PB). Hundreds of plants over a large area. V-c 34. Liningwood Top, Wigpool, Mitcheldean C.P., SO61P. 21 July 2004 (JRD).

Hippocrepis comosa L., Horseshoe Vetch V-c 33. Haresfield Beacon, Standish C.P., SO80J. 14 May 2005 (JAB).

**Securigera varia* (L.) Lassen, Crown Vetch. V-c 33. South of Stow-on-the-Wold, Mangersbury C.P., SP12W. 2005 (MJP).

Lathyrus linifolius (Reichard) Bässler var. *montanus*, Bitter-vetch. V-c 34. Cannop, West Dean C.P., SO60E. 12 June 2005 (JAB).

Lathyrus nissolia L., Grass Vetchling. V-c 33. Monkmeadow. Gloucester, SO81I. 2003/2004 (VEP).

Medicago arabica (L.) Hudson, Spotted Medick. V-c 33. Tewkesbury Road, Gloucester, SO81J. 2 May 2005 (JS). Swindon Trading Estate, Swindon C.P., SO92H. 23 Oct 2005 (CK and MARK).

Trifolium scabrum L., Rough Clover. V-c 33. Haresfield Beacon, Standish C.P., SO80J. 14 May 2005 (JAB).

Genista tinctoria L. subsp. *tinctoria*, Dyer's Greenweed. V-c 34. Horwood Farm, Yate C.P., ST78I. 12 May 2005 (JPM).

**Oenothera stricta* Ledeb. ex Link, Fragrant Evening-primrose. V-c 33. Near Tewkesbury Bridge, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK). On waste ground under redevelopment. Only post 1970 county record.

Thesium humifusum L., Bastard-toadflax. V-c 33. Brassey N.R., Upper Slaughter C.P., SP12G. 5 Aug 2004 (JRD) and SP12L. 2 Jul 2004 (IC and JRD).

Euphorbia helioscopia L., Sun Spurge. V-c 34. Black Ditch, Minchinhampton C.P., SO80K. 14 Dec 2005 (RVL). Recently disturbed soil beside track.

Euphorbia exigua L., Dwarf Spurge. V-c 33. Cotswold Farm Park, Temple Guiting C.P., SP12D. 26 July 2005 (AJW). V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 23 July 2004 (JRD).

**Euphorbia x pseudovirgata* (Schur) Soó = *E. esula* x *E. waldensteinii*, Twiggy Spurge. V-c 33. Roadside between Upper Slaughter and Upper Swell, Upper Slaughter C.P., SP12S. 17 June 2005 (MRB). First recorded here in 1974.

Frangula alnus Miller, Alder Buckthorn. V-c 34. Cannop, West Dean C.P., SO60E. 12 June 2005 (JAB).

**Linum usitatissimum* L., Cultivated Flax. V-c 33. Cirencester, Cirencester C.P., SP00G. 30 Aug 2005 (JAB). In pavement cracks below St. John's Church tower with other alien weeds and not obviously from birdseed.

Geranium rotundifolium L., Round-leaved Crane's-bill. V-c 33. M5 Motorway Junction 12, Haresfield C.P., SO81A. 16 May 2005 (JAB).

Geranium lucidum L., Shining Crane's-bill. V-c 34. Near Woodcock, Nympsfield C.P., ST89E. 30 April 2004 (RVL). On fallen field wall.

Geranium robertianum L., Herb-Robert. V-c 34. Wigpool Common, Mitcheldean C.P., SO61P. 19 July 2004 (JRD). Forma *alba*.

Erodium cicutarium (L.) L'Hér, Common Stork's-bill. V-c 33. Haresfield Beacon, Standish C.P., SO80J. 14 May 2005 (JAB). V-c 34. Frampton on Severn, Frampton on Severn C.P., SO70N. 3 Sept 2005 (JAB). At the bird ringing station.

**Impatiens capensis* Meerb., Orange Balsam. V-c 33. Monkmeadow, Gloucester, SO81I. 2003/2004 (VEP).

**Smyrniolum olusatrum* L., Alexanders. V-c 33. Houndscroft, Rodborough Common, Rodborough C.P., SO80L. 23 May 2005 (JS). Shortwood Cliffs, Standish C.P., SO80J. 14 Feb 2005 (JAB). At foot of cliff.

Oenanthe fistulosa L., Tubular Water-dropwort. V-c 33. Coombe Hill Meadows, Leigh C.P., SO82T. 1 June 2004 (JRD) also 7 April 2005 (JAB). V-c 34. Ashleworth Ham, Hasfield C.P., SO82H. 27 May 2005 (JAB). Ashleworth Ham, Ashleworth C.P., SO82I. 28 June 2005 (JAB).

Oenanthe silaifolia M. Bieb., Narrow-leaved Water-dropwort. V-c 34. Ashleworth Ham, Ashleworth C.P. and Hasfield C.P., SO82H & I. 27 May 2005 and 28 June 2005 (JAB).

Oenanthe pimpinelloides L., Corky-fruited Water-dropwort. V-c 33. Barnwood Park, Barnwood, Gloucester, SO81T. 9 June 2004 (TGE). Coombe Hill Meadows, Leigh C.P., SO82T. 15 June 2004 (JRD). Near Painswick Lodge, Painswick C.P., SO81V. 20 June 2005 (JRD). Gloucester northern by-pass, Walham, Longford C.P., SO82F. 21 June 2005 (JRD and JMF). Frequent along road verge.

Silaum silaus (L.) Schinz & Thell., Pepper-saxifrage. V-c 33. Near Snow Capel Farm, Upton St. Leonards C.P., SO81L. 28 May 2005 (CK and MARK).

Apium inundatum (L.) Reichb., Lesser Marshwort. V-c 33. Over Ponds, Gloucester, SO81E. 30 June 2005 (JS).

Pastinaca sativa L., Wild Parsnip. V-c 33. Barton Larches, Temple Guiting C.P., SP12C. 26 July 2005 (AJW).

Torilis nodosa (L.) Gaertner, Knotted Hedge-parsley. V-c 33. Hill Farm. Upper Slaughter C.P., SP12L. 18 May 2005 (MRB and MARK, conf MRB 9 June 2005).

Gentianella amarella (L.) Boerner, Autumn Gentian. V-c 34. Bream Tufts, West Dean C.P., SO50X. 9 Sept 2004 (JRD). Edgehills, Littledean C.P., SO61S. 13 July 2004 (JRD).

Atropa belladonna L., Deadly Nightshade. V-c 33. Kite's Hill, Upton St. Leonards C.P., SO81R. 8 Sept 2004 (JRD and JMF). Single patch in hedgerow.

**Datura stramonium* L., Thorn-apple. V-c 7. Kemble Farm, Kemble C.P., ST99Z. 7 Sept 2005 (SP and RG det PRQ). Several plants in maize field. V-c 33. Mangersbury, Mangersbury C.P., SP12X. 2005 (MJP).

Cuscuta europaea L., Greater Dodder. V-c 33. Lower Lode Inn, Forthampton C.P., SO83Q. 4 Sept 2005 (MW). Roadside.

Cuscuta epithimum (L.) L. Dodder. V-c 33. Barnsley Warren N.R., Coln St. Dennis C.P., SP00N. 13 Aug 2005 (JRD on a Glos Plant Group meeting). A patch of two very small flowering plants on open Jurassic limestone downland. Confirms the continued presence at a site where the last published record was in 1964.

Menyanthes trifoliata L., Bogbean. V-c 34. Wigpool Common, Mitcheldean C.P., SO61P. 2004 (VEP).

**Phacelia tanacetifolia* Benth., Phacelia.

Correction. Entry in GNS Journal Vol 47, Number 8, p206, tetrad SO71X should read SO71M.

Lithospermum officinale L., Common Gromwell. V-c 33. Haresfield Beacon, Standish C.P., SO80J. 14 May 2005 (JAB).

Echium vulgare L., Viper's-bugloss. V-c 33. Barton Larches, Temple Guiting C.P., SP12C. 26 July 2005 (AJW).

**Pulmonaria officinalis* L., Lungwort. V-c 34. Liningwood Top, Wigpool, Mitcheldean C.P., SO61P. 21 July 2004 (AJW). Amongst numerous garden escapes.

**Symphytum grandiflorum* DC., Creeping Comfrey. V-c 33. Witpit Lane Preston C.P., SP00L. 1 April 2002 (CK and MARK). Road verge.

**Symphytum orientale* L., Soft Comfrey. V-c 33. M5 Motorway Junction 12, Haresfield C.P., SO82A. 16 May 2005 (JAB).

**Symphytum bulbosum* C. Schimper, Bulbous Comfrey. V-c 33. Siddington, Siddington C.P., SU09J. 24 April 2005 (CK and MARK). Several colonies on road verge. Tudmoor Cottages, Siddington C.P., SU09I. 24 April 2005 (CK and MARK). Extensive patch on road verge. Witpit Lane Preston C.P., SP00K. 28 April 2002 (CK and MARK). Well established on road verge in several places. Second vice-county locality.

Myosotis sylvatica Ehrh. ex Hoffm., Wood Forget-me-not. V-c 33. Chosen Hill N.R., Churchdown C.P., SO81Z. 23 April 2004 (JRD).

Myosotis ramosissima Rochel, Early Forget-me-not. V-c 33. Haresfield Beacon, Standish C.P., SO80J. 14 May 2005 (JAB).

Myosotis discolor Pers., Changing Forget-me-not. V-c 34. Ruardean, Ruardean C.P., SO61D. 22 May 2005 (JAB).

Cynoglossum officinale L., Hound's-tongue. V-c 33. Cranham Common, Cranham C.P., SO81W. 3 June 2005 (JAB). A single plant. East of Stanton, SP03X. 26Oct2004 (AJW).

Verbena officinalis L., Vervain. V-c 34. Frampton on Severn, Frampton on Severn C.P., SO70N. 3 Sept 2005 (JAB). By the bird ringing station.

Lamium amplexicaule L., Henbit Dead-nettle. V-c 33. Ebley, Cainscross C.P., SO80H. 30 Sept 2005 (RVL). On allotments. V-c 34. Chapman's Cross, Sapperton C.P., SO90F. 2 April 2004 (RVL).

**Phlomis russeliana* (Sims) Benth., Turkish Sage. V-c 33. Arlington, Bibury C.P., SP10D. 2 Jan 2005 (CK and MARK conf. EJC from material collected 2 July 2005). Well established in small overgrown quarry well away from buildings but somewhat threatened by dumping. First county and vice-county record.

**Phlomis fruticosa* L., Jerusalem Sage. V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 23 July 2004 (JRD). First vice-county and county record.

Scutellaria galericulata L., Skullcap. V-c 34. Lancaut N.R., Tidenham C.P., ST59I. 2 Sept 2004 (JRD). First record on reserve since that of SCH in 1969.

Scutellaria minor Hudson, Lesser Skullcap. V-c 34. Wigpool Common, Mitcheldean C.P., SO61P. 2004 (VEP).

**Melissa officinalis* L., Balm. V-c 34. Bream Tufts, Tidenham C.P., SO50X. 9 Sept 2004 (JRD).

Clinopodium ascendens (Jordan) Samp., Common Calamint. V-c 33. Between Knapp Farm and Swift's Hill, Painswick C.P., SO80T. 28 Aug 2005 (JS).

Clinopodium acinos (L.) Kuntze, Basil Thyme. V-c 33. Down Hill, Painswick C.P., SO80Z. 2 July 2005 (GHJM).

Mentha arvensis L., Corn Mint. V-c 34. Frampton on Severn, Frampton on Severn C.P., SO70N. 3 Sept 2005 (JAB). By the bird ringing station.

Chaenorhinum minus (L.) Lange, Small Toadflax. V-c 33. Cotswold Farm Park, Temple Guiting C.P., SP12D. 26 July 2005 (AJW). Longridge, Painswick C.P., SO80U. 2 Sept 2005 (JAB). On arable land. V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 4 Aug 2004 (MB, IC, JRD and RS).

Kickxia elatine (L.) Dumort, Sharp-leaved Fluellen. V-c 33. Alstone, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK). Several on road verge. V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 4 Aug 2004 (MB, IC, JRD and RS). Frampton on Severn, Frampton on Severn C.P., SO70N. 3 Sept 2005 (JAB). By the bird ringing station

Kickxia spuria (L.) Dumort, Round-leaved Fluellen. V-c 33. Cotswold Water Park, east of Cleeve Wood, Fairford C.P., SP10Q. 26 July 2005 (MRB and PB). Several plants by disturbed lake edge. V-c 34. Frampton on Severn, Frampton on Severn C.P., SO70N. 3 Sept 2005 (JAB). By the bird ringing station.

Veronica polita Fries, Grey Field-speedwell. V-c 33. Little Haresfield Farm, Little Haresfield, Standish C.P., SO80E. 1 March 2005 (JAB).

**Veronica persica* Poirlet, Common Field-speedwell. V-c 33. Ebley, Cainscross C.P., SO80H. 30 Sept 2005 (RVL). On allotments.

Euphrasia nemorosa (Pers.) Wallr., Common Eyebright. V-c 34. Frampton on Severn, Frampton on Severn C.P., SO70N. 3 Sept 2005 (JAB). By the bird ringing station.

Orobancha elatior Sutton, Knapweed Broomrape. V-c 33. Cranham Common, Cranham C.P., SO81W. 14 July 2005 (CK and MARK). Single fruiting spike on the Common. Near Stud Farm, Lechlade C.P., SP20A. 10 April 2005 (CK and MARK). 41 spikes as two distinct colonies along former rail-line.

Orobancha minor Smith var. *flava* Regel, Common Broomrape. V-c 33. Arlington, Bibury C.P., SP10D. 2 July 2005 (CK and MARK). A single spike in improved grass ley amongst more than 100 of the usual variety.

Campanula glomerata L., Clustered Bellflower. V-c 33. Barton Larches, Temple Guiting C.P., SP12C. 26 July 2005 (AJW). V-c 34. Cherington Banks, Cherington C.P., ST99E. 25 Oct 2004 (JRD).

Legousia hybrida (L.) Delarbre, Venus's-looking-glass. V-c 33. Near Painswick, Painswick C.P., SO81Q. 9 July 2005 (JS). 6 plants along field edge.

Valerianella carinata Loisel., Keel-fruited Cornsalad. V-c 33. M5 Motorway Junction 12, Haresfield C.P., SO81A. 16 May 2005 (JAB). At least 5,000 plants. Over Bridge, Maisemore C.P., SO81E. 13 May 2004 (RVL). Abundant on railway sidings.

**Echinops bannaticus* Rochel ex Schrader, Blue Globethistle. V-c 33. Ford, Temple Guiting C.P., SP02Z. 7 Sept 2005 (JPM). Small clump on road verge. New to vice-county and to Gloucestershire.

Carlina vulgaris L., Carline Thistle. V-c 34. Bream Tufts, West Dean C.P., SO50X. 9 Sept 2004 (JRD).

Tragopogon porrifolius L., Salsify. V-c 33. A38, Quedgeley Bypass, Quedgeley C.P., SO81B. 29 May 2005 (JAB). Solid stand of flowering plants along 40m of central reservation.

Taraxacum argutum Dahlst. V-c 34. Wigpool Common, Mitchdean C.P., SO61P. 8 May 2005 (JJD det AWR conf AJR).

Taraxacum glauciniforme Dahlst. V-c 34. Wigpool Common, Mitchdean C.P., SO61P. 8 May 2005 (JJD det AJR).

Taraxacum oxoniense Dahlst. V-c 33 (Worcestershire). Bredon Hill, Kemerton C.P., SO94Q. 29 April 2005 (AWR). Frequent on calcareous grassland. Also SO94K where occasional on hillfort ramparts.

Taraxacum rubicundum (Dahlst.) Dahlst. V-c 33 (Worcestershire). Bredon Hill, Kemerton C.P., SO94K. 29 April 2005 (AWR). On hillfort banks. First post-1970 vice-county record.

Taraxacum bracteatum Dahlst. V-c 34. Wigpool Common, Mitchdean C.P., SO61P. 8 May 2005 (JJD det AWR conf AJR).

Taraxacum subbracteatum A. Richards. V-c 34. Wigpool Common, Mitchdean C.P., SO61P. 8 May 2005 (JJD det AJR).

Taraxacum atactum Sahlin and Soest. V-c 33 (Worcestershire). Pebworth, Pebworth C.P., SP14I. 7 April 2005 (AWR).

Taraxacum marklundii Palmgren. V-c 34. Wigpool Common, Mitchdean C.P., SO61P. 8 May 2005 (JJD det AWR conf AJR).

Taraxacum hamatum Raunk. V-c 33 (Worcestershire). Bredon Hill, Kemerton C.P., SO94K. 29 April 2005 (AWR). Occasional on calcareous grassland.

Taraxacum pseudohamatum Dahlst. V-c 33 (Worcestershire). Ashton under Hill to Beckford Road, Beckford C.P., SO93Y. 25 March 2005 (AWR conf. AJR). Hinton on the Green, Hinton on the Green C.P., SP04F. 2 April 2005 (AWR). On road verge. Kemerton, Kemerton C.P., SO93N. 6 April 2005 (AWR). Village road verge. Pebworth, Pebworth C.P., SP14I. 7 April 2005 (AWR). Village road verge.

Taraxacum subhamatum M. Christiansen. V-c 33 (Worcestershire). Kemerton, Kemerton C.P., SO93N. 6 April 2005 (AWR). Village road verge.

Taraxacum densilobum Dahlst. V-c 33 (Worcestershire). Beckford, Beckford C.P., SO93Y. 25 March 2005 (AWR conf. AJR). Road verge. Kemerton, Kemerton C.P., SO93N. 6 April 2005 (AWR conf. AJR). Road verge. First and second vice-county records.

Taraxacum ekmanii Dahlst. V-c 33 (Worcestershire). Pebworth, Pebworth C.P., SP14I. 7 April 2005 (AWR). Village road verge.

Taraxacum lacerifolium Hagl, V-c 33 (Worcestershire). Pebworth, Pebworth C.P., SP14I. 7 April 2005 (AWR conf AJR).

Taraxacum leucopodum Hagl, V-c 33 (Worcestershire). Pebworth, Pebworth C.P., SP14I. 7 April 2005 (AWR conf AJR). Road verge. First vice-county record.

Taraxacum oblongatum Dahlst. V-c 33 (Worcestershire). Between Ashton under Hill and Beckford, Beckford C.P., SO93Y. 25 March 2005 (AWR det. AJR and AWR). Road verge. Hinton on the Green, Hinton on the Green C.P., SP04F. 2 April 2005 (AWR). Single road verge plant. Kemerton, Kemerton C.P., SO93N. 6 April 2005 (AWR). Village road verge. Pebworth, Pebworth C.P., SP14I. 7 April 2005 (AWR). Road verge.

Taraxacum undulatiflorum Lindb.f. and Markl. V-c 33 (Worcestershire). Hinton on the Green, Hinton on the Green C.P., SP04F. 2 April 2005 (AWR). Single road verge plant. Kemerton, Kemerton C.P., SO93N. 6 April 2005 (AWR). Village road verge.

Antennaria dioica (L.) Gaertner, Mountain Everlasting. V-c 33. Cleeve Hill, Southam C.P., SO92Y. Sept 2005 (CC). Non-flowering patch about the size of a beer mat. Confirms the continued presence at the sole county locality. Last published record here was for 1987.

**Anaphalis margaritacea* (L.) Benth., Pearly Everlasting. V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 28 Sept 2004 (JRD).

**Conyza sumatrensis* (Retz.) E. Walker, Guernsey Fleabane. V-c 33. Near Tewkesbury Bridge, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK). Abundant on site under redevelopment. Swindon Industrial Estate, Swindon C.P., SO92H. 23 Oct 2005 (CK and MARK).

Erigeron acer L., Blue Fleabane. V-c 33. Cirencester, Cirencester C.P., SP00G. 28 July 2005 (MRB). Cotswold Water Park, east of Cleeve Wood, Fairford C.P., SP10Q. 26 July 2005 (MRB and PB). Tinkers Barn, Cotswold Farm Park, Guiting Power C.P., SP12D (MRB). V-c 34. Bream Tufts, West Dean C.P., SO50X. 9 Sept 2004 (JRD). Edgehills, Littledean C.P., SO61S. 13 July 2004 (JRD).

Anthemis arvensis L., Corn Chamomile. V-c 34. Black Ditch, Minchinhampton C.P., SO80K. 14 Dec 2004 (RVL). On recently disturbed soil on track.

Petasites hybridus (L.) Gaertner, Meyer and Scherb., Butterbur. V-c 33. Elkstone, Elkstone C.P., SO91R. 13 March 2005 (GHJM).

**Galinsoga quadriradiata* Ruiz Lopez & Pavón, Shaggy-soldier. V-c 33. Cricklade Street, Cirencester, Cirencester C.P., SP00F. 30 Oct 2005 (CK and MARK).

Bidens tripartita L., Trifid Bur-marigold. V-c 34. Ashleworth Ham, Ashleworth C.P., SO82I. 18 May 2005 (JAB).

Butomus umbellatus L., Flowering-rush. V-c 33. Cobney Meadows, Deerhurst C.P., SO82N. 12 July 2004 (MS). Dominant in pond excavated a few years ago. Coombe Hill Meadows, Deerhurst C.P., SO82T. 27 Aug 2004 (PB, JRD and CS).

Sagittaria sagittifolia L., Arrowhead. V-c 33. Coombe Hill Meadows, Deerhurst C.P., SO82N. 12 Aug 2005 (CK and MARK). Six plants on island on pond in meadow.

Alisma lanceolatum With., Narrow-leaved Water-plantain. V-c 33. Badgeworth N.R., Badgeworth C.P., SO92A. 12 June and 17 July 2005 (ILR).

Hydrocharis morsus-ranae L. Frogbit. V-c 33. Coombe Hill Canal, Deerhurst C.P., and Leigh C.P., SO82Y. 15 Sept 2004 (JRD).

Potamogeton pectinatus L., Fennel Pondweed. V-c 33. Top pond, Whittington Lodge Farm, Sevenhampton C.P., SP02B. 24 June 2005 (ILR). In newly created pond.

**Arum italicum* Mill. subsp. *italicum*, Italian Lords-and-Ladies. V-c 33. Hatherop, Hatherop C.P., SP10M. 24 April 2005 (CK and MARK). Extensively naturalised along road verge. V-c 34. South of Braceland, Bicknor C.P., SO51R. 11 Nov 2005 (CK and MARK). Single plant in woodland.

Spirodela polyrhiza (L.) Schleiden, Greater Duckweed. V-c 34. Haw Bridge, Deerhurst C.P., SO82N. 28 March 2005 (CFT and MEIT). Abundant on pond surface.

**Juncus tenuis* Willd., Slender Rush. V-c 34. South of Braceland, Bicknor C.P., SO51R. 11 Nov 2005 (CK and MARK). Locally abundant in woodland.

Juncus compressus Jacq., Round-fruited Rush. V-c 33. Coombe Hill Medaows, Deerhurst C.P., SO82N. 12 Aug 2005 (CK and MARK). Small patch on meadow pond edge. Dowdeswell Reservoir, Dowdeswell C.P., SO91Z. 28 Aug 2005 (CK and MARK). V-c 34. Ashleworth Ham, Ashleworth C.P., SO82I. 28 June 2005 (JAB).

Luzula forsteri (Smith) DC, Southern Wood-rush. V-c 34. Howbeech Slade and Howbeech Slade Quarry, Ruspidge C.P., SO60P. 28 June 2004 (JRD).

Luzula sylvatica (Hudson) Gaudin, Great Wood-rush. V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 12 May 2004 (IC and JRD).

Eleocharis quinqueflora (F. Hartmann) O. Schwarz, Few-flowered Spike-rush. V-c 33. Brassey N.R., Upper Slaughter C.P., SP12G. 13 May 2004 (JRD).

Cyperus longus L., Galingale. V-c 34. Cotterells Barn, Wigpool, Mitcheldean C.P., SO62K. 30 July 2004 (JRD).

Carex vulpina L., True Fox-sedge. V-c 33. Coombe Hill Meadows, Deerhurst C.P., SO82T. 17 May 2005 (JAB). Fifty plants in field formerly under arable with more plants observed nearby. V-c 34. Ashleworth Ham, Ashleworth C.P., SO82I. 28 June 2005 (JAB).

Carex dioica L., Dioecious Sedge. V-c 33. . Brassey N.R., Upper Slaughter C.P., SP12G. 13 May 2004 (JRD). Small patch.

Carex viridula subsp. *brachyrrhyncha* (Celak) B. Schmid, Yellow-sedge. V-c 34. Cherington Marsh, Cherington C.P., ST99E. 25 Oct 2004 (JRD).

Carex digitata L., Fingered Sedge. V-c 33. Down Wood, Bisley-with-Lypiatt C.P., SO80Z. 13 April 2004 (JRD). Patches Wood, Staunton Coleford C.P., SO51L. 18 May 2005 (JRD).

Carex acuta L., Slender Tufted-sedge. V-c 34. Ashleworth Ham, Ashleworth C.P., SO82I. 28 June 2005 (JAB).

Vulpia bromoides (L.) Gray, Squirreltail Fescue. V-c 33. Chedworth N.R., Chedworth C.P., SP01M. 24 June 2004 (JRD). V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 4 Aug 2004 (MB, IC, JRD and RS).

Vulpia myuros (L.) C.C. Gmel., Rat's-tail Fescue. V-c 34. Howbeech Slade Quarry, Ruspidge C.P., SO60P. 28 June 2004 (JRD).

Poa compressa L., Flattened Meadow-grass. V-c 33. Chedworth N.R., Chedworth C.P., SP01M. 24 June 2004 (JRD). Frequent to locally frequent on embankments. Padcombe Bottom, Cleeve Hill, Southham C.P., SP02C. 27 July 2004 (JRD and JMF). Near Tewkesbury Bridge, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK). Good patch in post-industrial wasteland.

Catabrosa aquatica (L.) P.Beauv., Whorl-grass. V-c 33. Ryeford, Stonehouse C.P., SO80C. 5 Sept 2002 (JRD).

Catapodium rigidum (L.) C.E.Hubb., Fern-grass. V-c 33. Chedworth N.R., Chedworth C.P., SP01M. 24 June 2004 (JRD). Haresfield Beacon, Standish C.P., SO80J. 14 May 2005 (JAB). Meysey Hampton, Meysey Hampton C.P., SP10A. 16 March 2005 (JAB). V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 4 Aug 2004 (MB, IC, JRD and RS).

Melica nutans L., Mountain Melick. V-c 34. Patches Wood, Staunton Coleford C.P., SO51L. 18 May 2005 (JRD).

**Gaudinia fragilis* (L.) P. Beauv., French Oat-grass. V-c 34. South of Bishop's Hill Wood, Wickwar, Yate C.P., ST 78I. 12 May 2005 (JPM). Abundant in semi-improved field that is cut for hay. First vice-county record for a species which is now

being considered as a possible native species and which has recently been discovered in several southern English counties. The only previous Gloucestershire record was made by CWB as a casual in Gloucester Docks in 1974.

**Polypogon viridis* (Gouan) Breistr., Annual Beard-grass. V-c 33. Barnwood Junction, Gloucester, SO81P. 4 Dec 2005 (CK and MARK). Single plant Southbrook Road, Swindon Industrial Estate, Swindon C.P., SO92H. 23 Oct 2005 (CK and MARK). Second vice-county record and first for district 2A having only previously been recorded in 1974 in Gloucester Docks by CWB. The record in Riddelsdell's Flora for Treherne Court, Frampton should read Fretherne Court which is in V-c 34 and not in V-c 33 as stated in Botanical Exchange Club Reports, 1937, p517.

Bromus racemosus L., Smooth Brome. V-c 33. Coombe Hill Meadows, Leigh C.P., SO82T. 15 June 2004 (JRD).

**Anisantha madritensis* (L.) Nevski, Compact Brome. V-c 33. Quedgeley, Quedgeley C.P., SO81C. 22 May 2005 (JAB). About 20 plants growing against pedestrian crossing protection barriers at A38 Junction.

Hordelymus europaeus (L.) Jessen, Wood Barley. V-c 33. Frith Wood, Bussage, Chalford C.P., SO80W. 7 June 2004 (JRD).

**Cortaderia selloana* (Schult and Schult. F.) Asch. and Graebn., Pampas-grass. V-c 34. Nailbridge, Cinderford C.P., SO61N. 20 Feb 2005 (CK and MARK). Single plant on disused quarry floor. Also present in adjacent garden.

**Echinochloa crus-galli* (L.) P. Beauv., Cockspur. V-c 33. Cirencester, Cirencester C.P., SP00G. 30 Aug 2005 (JAB). In pavement cracks below St. John's Church tower along with other alien weeds. Not obviously from bird seed. Ebley, Cainscross C.P., SO80H. 30 Sept 2005 (RVL). On allotments. Swindon Park, Swindon C.P., SO92H. 23 Oct 2005 (CK and MARK det TBR). Several plants by park boundary.

**Setaria viridis* (L.) P. Beauv., Green Bristle-grass. V-c 33. Cirencester, Cirencester C.P., SP00G. 30 Aug 2005 (JAB). In pavement cracks below St. John's Church tower along with other alien weeds. Not obviously from birdseed.

**Digitaria sanguinalis* (L.) Scop., Hairy Finger-grass. V-c 33. Cirencester, Cirencester C.P., SP00G. 30 Aug 2005 (JAB). In pavement cracks below St. John's Church tower along with other alien weeds. Not obviously from birdseed.

Gloucester, SO81J. 2 Sept 2005 (MARK det TBR). Two patches growing between pavement and garden walls in Oxford Street.

Narthecium ossifragum (L.) Hudson, Bog Asphodel. V-c 34. Wigpool Common, Mitcheldean C.P., SO61P. 2004 (VEP).

Colchicum autumnale L., Meadow Saffron. V-c 34. Staple-edge Wood, Ruspidge C.P., SO60P. 29 June 2004 (JRD).

Paris quadrifolia L., Herb Paris. V-c 33. Chedworth Woods, Withington C.P., SP01M. 24 June 2004 (JRD). V-c 34. Westley Wood, Sapperton C.P., SO90B. 31 March 2005 (JRD).

**Allium paradoxum* (M.Bieb) Don., Few-flowered Garlic. V-c 33. Witpit Lane, Preston C.P., SP00L. 1 April 2002 (LH, CK and MARK). Road verge. New tetrad.

**Asparagus officinalis* L. subsp. *officinalis*, Asparagus. V-c 33. Alstone, Cheltenham, SO92G. 22 Oct 2005 (CK and MARK). Single plant beside rail-line.

Iris foetidissima L., Stinking Iris. V-c 34. Liningwood Top, Wigpool, Mitcheldean C.P., SO61P. 21 July 2004 (JRD).

Cephalanthera damasonium (Miller) Druce, White Helleborine. V-c 33. Casseywell Bottom, Sapperton C.P., SO90L. 24 April 2002 (JRD).

Cephalanthera longifolia (L.) Fritsch, Narrow-leaved Helleborine. V-c 34. Rodborough Common, Rodborough C.P., SO80L. 5 May 2005 (DJA and RE). One plant. Second extant county and vice-county record and possibly the first east of R. Severn record since the nineteenth century. The nearest cited locality was that of Rudge in 1803 given as Minchinhampton. A second plant was located nearby by DJA on 10 May and a third by CK and MARK subsequently. All plants were flowering.

Epipactis helleborine (L.) Crantz, Broad-leaved Helleborine. V-c 33. Haresfield Hill, Haresfield C.P., SO80J. 14 Aug 2005 (GHJM). V-c 34. Hangerberry Hill, Lydbrook C.P., SO51X. 26 Aug 2004 (JRD).

Epipactis muelleri Godfery, Narrow-lipped Helleborine. V-c 33. Popes Wood, Cranham C.P., SO81R. 8 Aug 2005 (JS). Three clustered spikes.

Epipactis phyllanthes G.E. Smith, Green-flowered Helleborine. V-c 33. Wood near Painswick, Painswick C.P., SO81Q. 9 July 2005 (JS). Three plants.

Neottia nidus-avis (L.) Rich., Bird's-nest Orchid. V-c 33. Cranham Common, Cranham C.P., SO81W. 4 June 2005 (GHJM). Leckhampton Hill, Leckhampton C.P., SO91P. 22 May 2005 (GHJM). Oldhills Wood, Chalford C.P., SO90B. 28 May 2005 (GHJM). Painswick Beacon, Painswick C.P., SO81R. 28 June 2005 (PBH). Four or five plants. V-c 34. Linegar Wood, Ruspidge C.P., SO61K. 21 June 2004 (JRD).

Listera ovata (L.) R.Br., Common Twayblade. V-c 33. Chedworth Woods, Withington C.P., SP01M. 24 June 2004 (JRD). Juniper Hill, Painswick C.P., SO80U. 2 July 2005 (GHJM).

Spiranthis spiralis (L.) Chevall., Autumn Lady's-tresses. V-c 33. Swift's Hill, Painswick C.P., SO80T. 28 August 2005 (GHJM). V-c 34. Bream Tufts, West Dean C.P., SO50X. 9 Sept 2004 (JRD). Plump Hill N.R. Dolomite Quarry, Mitcheldean C.P., SO61T. 1 Sept 2004 (JRD).

Herminium monorchis (L.) R.Br., Musk Orchid. V-c 33. Barrow Wake, Cowley C.P., SO91H. 28 June 2005 (PBH). About 70 flowering. Charlton Kings Common, Charlton Kings C.P. and Cheltenham, SO91P & U. Several colonies noted on various dates in 2005 by GHJM including 350 flowering spikes on 22nd June in SO91P where few were noted in 2004 when the colony was first observed. This may be due to increased grazing although *Herminium* did have a good year at many sites. Crickley Hill, Badgeworth C.P., SO91I. 28 June 2005 (PBH). Nine spikes. Juniper Hill, Painswick C.P., SO80U. 2 July 2005 (GHJM). Two spikes. Padcombe Bottom, Cleeve Hill, Southam C.P., SP02C. 27 July 2004 (JRD and JMF). A total of sixty flowering plants spread over seven colonies. Near Puckham Farm, Severnhampton C.P., SP02B. 7 July 2005 (CK and MARK). Four flowering spikes. Swift's Hill, Painswick C.P., SO80T. 29 June 2005 (JS). Five flowering.

Platanthera chlorantha (Custer) Reichb., Greater Butterfly-orchid. V-c 33. Buckle Wood, Brimscombe C.P., SO91B. 2 July 2005 (JS). More than 300 flowering. Bulls Cross, Painswick C.P., SO80U. 7 June 2005 (JS). Two flowering spikes. Cranham Common, Cranham C.P., SO81W. 3 June 2005 (JAB). Eighteen in flower. Scottsquar Hill, Painswick C.P., SO80P. 27 May 2005 (GHJM). V-c 34. Breakheart Quarry, Breakheart Hill, North Nibley C.P., ST79N. 12 May 2004 (IC and JRD). At least thirty plants. Coleman's Wood, Longhope C.P., SO61Z. 2 June 2005 (JS). Sixty-four plants flowering.

Platanthera bifolia (L.) Rich., Lesser Butterfly-orchid. V-c 33. Bulls Cross, Painswick C.P., SO80U. 7 June 2005 (JS). 114 plants flowering. Cranham Common, Cranham C.P., SO81W. 3 June 2005 (JAB). Fifty in flower along with eighteen

seemingly intermediate between these and *P. chlorantha*. Lord's Wood, Sheepscombe, Painswick C.P., SO81V. 4 June 2005 (GHJM). Two spikes.

Anacamptis pyramidalis (L.) Rich., Pyramidal Orchid. V-c 33. Juniper Hill, Painswick C.P., SO80U. 2 July 2005 (GHJM). Near Oldhills Wood, Chalford C.P., SO90B. 20 June 2005 (GHJM).

Gymnadenia conopsea (L.) R.Br., Fragrant Orchid. V-c 33 Cranham Common, Cranham C.P., SO81W. 3 June 2005 (JAB). Two plants.

Gymnadenia conopsea (L.) R.Br. subsp. *densiflora* (Wahlemb.) E.G. Camus, Bergon and A. Camus, Fragrant Orchid. V-c 33. Swift's Hill, Painswick C.P., SO80T.11 June 2005 (JS). Five flowering plants. First post-1970 county and vice-county record.

Gymnadenia conopsea x *Dactylorhiza fuchsii* = *X dactylodenia* St. *quintinii* (Godfery) J. Duvign. V-c 33. Sheepscombe Common, Painswick C.P., SO81V. 11 June 2005 (JS). Two flowering plants.

Coeloglossum viride (L.) Hartman, Frog Orchid. V-c 33. Cleeve Common, Southam C.P., SO92X. 7 July 2005 (JS). Fifteen flowering. Cranham Common, Cranham C.P., SO81W. 14 July 2005 (CK and Mark). Single plant in bud on the Common.

Dactylorhiza fuchsii (Druce) Sóo, Common Spotted-orchid. V-c 33. Juniper Hill, Painswick C.P., SO80U. 2 July 2005 (GHJM). Near Oldhills Wood, Chalford C.P., SO90B. 20 June 2005 (GHJM). Leckhampton Lane, Shurdington, Shurdington C.P., SO91J. 18 May 2005 (JAB). V-c 34. Tarlton Wood, Rodmarton C.P., SO90K. 24 April 2005 (GHJM).

Dactylorhiza incarnata (L.) Sóo, Early Marsh-orchid. V-c 33. Brassey N.R., Upper Slaughter C.P., SP12G. 13 May 2004 (JRD). Five flowering. Hyde Mill, Upper Slaughter C.P., SP12G. 27 May 2005 (MRB). Seven flowering spikes. Salmonsbury Meadows N.R., Bourton-on-the-Water C.P., SP12Q. 25 May 2005 (MRB). Three flowering in one meadow and seven in a second.

Orchis mascula (L.) L., Early-purple Orchid. V-C 33. Chedworth Woods, Chedworth C.P., SP01L. 15 July 2004 (JRD). Cleeve Common, Southam C.P., SO92Y. 5 May 2005 (ARB). In great abundance producing a wonderful show. Near Lineover Wood, Dowdeswell C.P., SO91Z. 24 March 2005 (GHJM). Not flowering. Swift's Hill, Painswick C.P., SO80T & Y. 8 May 2005 (GHJM). Wistley Grove,

Coberley C.P., SO91T. 29 May 2005 (GHJM). V-c 34. Rooksmoor, Rodborough Common, Rodborough C.P., SO80L. 17 April 2005 (GHJM). Tarlton Wood, Rodmarton C.P., SO90K. 24 April 2005 (GHJM).

Orchis morio L., Green-winged Orchid. V-c 33. Brassey, Upper Slaughter C.P., SP12G. 12 May 2005 (GHJM). Daneway Banks, Bisley-with-Lypiatt C.P., SO90L & M. 13 May 2005 (GHJM). V-c 34. Poor's Allotment, Tidenham C.P., ST59U. 23 May 2005 (GHJM).

Aceras anthropophorum (L.) W.T.Aiton, Man Orchid. V-c 33. (Worcestershire). Bredon Hill, Ashton-under-Hill C.P., SO93. 3 June 2005 (JS). Four flowering plants.

Ophrys insectifera L., Fly Orchid. V-c 33. Charlton Kings Common, Charlton Kings C.P. and Cheltenham, SO91P & Q. 22 May 2005 (GHJM). A colony of sixteen spikes in SO91P and two populations of one and two plants in SO91U. Cranham Common, Cranham C.P., SO81W. 3 June 2005 (JAB). Thirty-one in flower.

Ophrys apifera Hudson, Bee Orchid. V-c 33. Cleeve Common, Southam C.P., SO92Y. 25 June 2005 (JS). Juniper Hill, Painswick C.P., SO80U. 2 July 2005 (GHJM). Near Oldhills Wood, Chalford C.P., SO90B. 20 July 2005 (GHJM). Lineover Wood, Dowdeswell C.P., SO91Z. 20 June 2005 (JH). Monkmeadow, Gloucester, SO81I. 2003/2004 (VEP). V-c 34. Clearwell, Newland C.P., SO50U. 18 June 2005 (GHJM). Dishes Brook Quarry, Mitcheldean, Mitcheldean C.P., SO61P. 30 July 2004 (JRD). Littledean Walk, Littledean C.P., SO61S. 12 July 2004 (JRD). Meering Meend, Mitcheldean C.P., SO61N. 17 June 2005 (GHJM).

Ophrys apifera Hudson var. *belgarum* Turner Ettl., Bee Orchid. V-c 33. Bamfurlong, Badgeworth C.P., SO82V. 13 June 2005 (JS). Five flowering spikes.

Ophrys apifera Hudson var. *friburgensis* Freyhold, Bee Orchid. V-c 33. Cleeve Common, Southam C.P., SO92Y. 25 June 2005 (JS). Single flowering plant.

Ophrys apifera Hudson var. *trollii* (Hegetschw) Nelson, Wasp Orchid. V-c 33. Birdlip Hill, Birdlip, Great Witcombe C.P., SO91H. 20 June 2005. (JS). More than fifty flowering spikes. Cleeve Common, Southam C.P., SO92Y. 25 June 2005 (JS). Five flowering spikes plus two intermediate with Bee Orchid. Also SO92X. Lineover Wood, Dowdeswell C.P., SO91Z. 20 June 2005 (JH conf. JMA and PA). Single spike with three flowers. Apparently recorded at this locality in three of the last five years, usually as a single plant amongst several Bee Orchids.

Chara contraria A. Braun ex Kutz. var. *hispidula* A. Braun, Opposite Stonewort. V-c 33. Bible Pond, Whittington Lodge Farm, Sevenhampton C.P., SP02B. 24 June 2005 (ILR det. NFS).

Chara curta A. Braun ex Kutz., Lesser Bearded Stonewort. V-c 33. Lake 114, Cotswold Water Park (East), Kempsford C.P., SU19Z. 24 Sept 2004 (ILR conf. NFS).

Chara vulgaris L. var. *longibractea* (Kutz.) J. Groves and Bullock-Web., Common Stonewort. V-c 34. Frampton Sailing Lake, Frampton on Severn C.P., SO70N. 1 Sept 2004 (ILR det. NFS).

Chara vulgaris L. var. *papillata* Wallr. Ex A. Braun, Common Stonewort. V-c 33. Bible Pond, Whittington Lodge Farm, Sevenhampton C.P., SP02B. 24 June 2005 (ILR det. NFS). V-c 34. Hundred Acre Flashes and Drains, The Wildfowl and Wetlands Trust, Slimbridge C.P., SO70I. 15 July 2005 (ILR det. NFS).



Plate 1. *Odontomyia ornata* from The Mythe, Tewkesbury, 2005.
(Photo: Martin Matthews)



Plate 2. Cranefly *Ctenophora flaveolata* (female) from Strawberry Banks,
1st May 2005. (Photo: David Iliff)

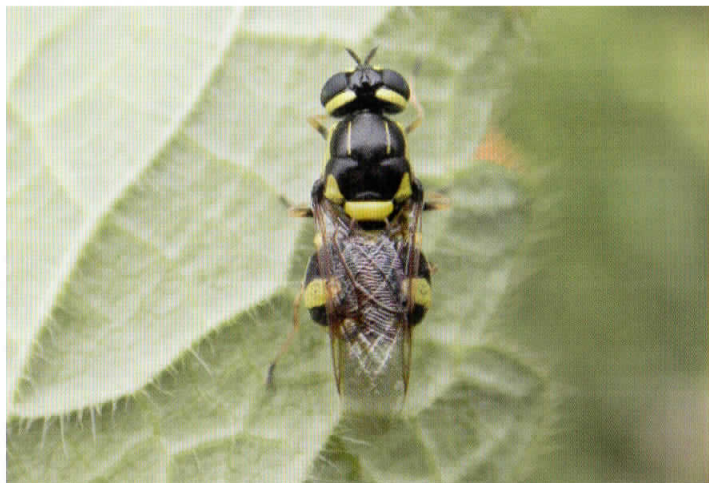


Plate 3. A female Four-barred Major (*Oxycera rara*) at Woodmancote on 5th July 2005. (Photo: David Iliff)

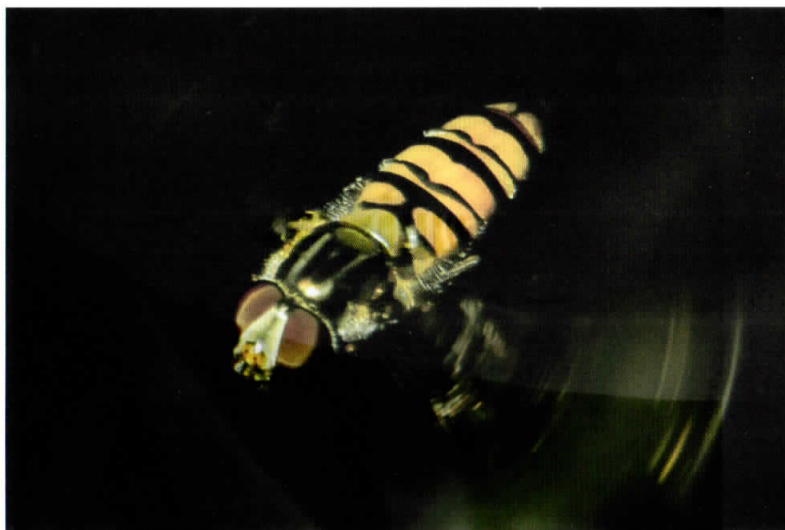


Plate 4. The hoverfly *Episyrrhus balteatus* (female); not seen in its usual abundance in Gloucestershire during 2005. (Photo: David Iliff)



Plate 5. Hoverfly *Eriozona syrphoides* (male) at Pope's Hill on 28th July (Photo: John Phillips)



Plate 6. Hoverfly *Eriozona erratica* (female) at Mallard's Pike in May 1998 (Photo: David Iliff)

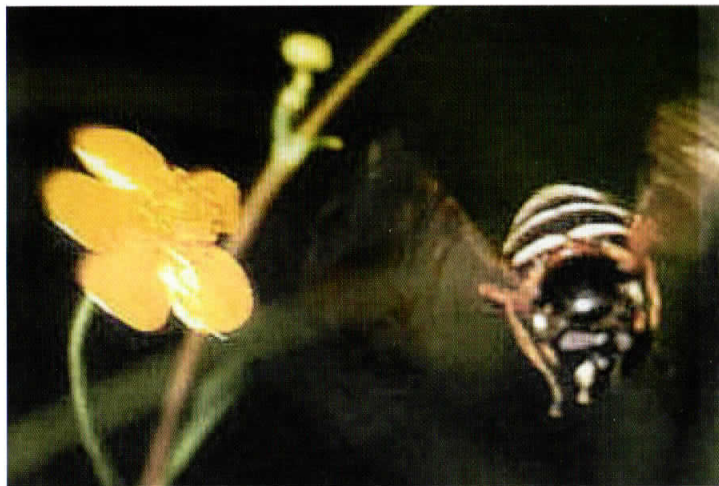


Plate 7. A female *Sericomyia lappona* hoverfly attempts to avoid being photographed, Mallard's Pike, July 1993. (Photo: David Iliff)

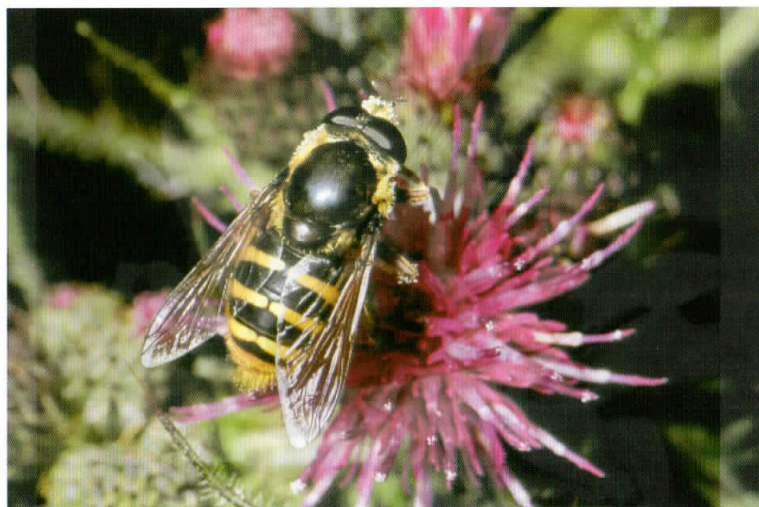


Plate 8. Hoverfly *Sericomyia silentis* (male). (Photo: David Iliff)



Plate 9. Least Carpet (*Idaea rusticata atrosignaria*) from Tidenham Chase, July 12th. (Photo: D & V Jackson)

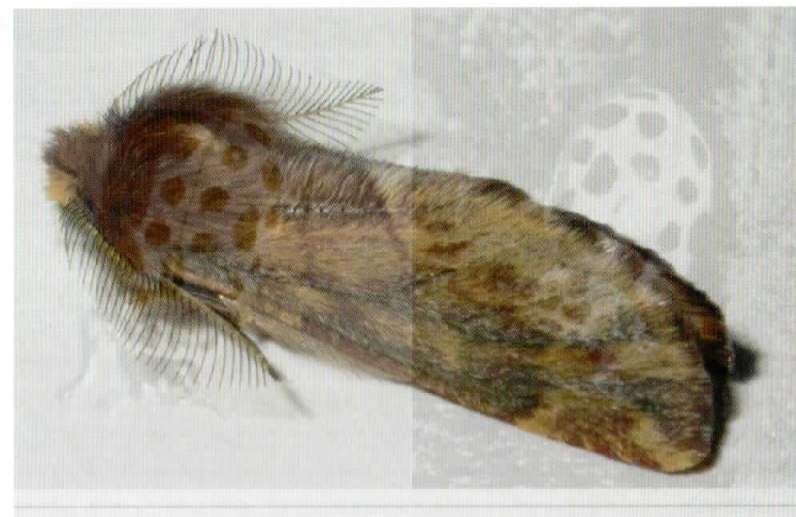


Plate 10. Plumed Prominent (*Ptilophora plumigera*) from Lineover Wood, 4th December. (Photo: Guy Meredith)



Plate 11. Scarce Hook-tip (*Sabra harpagula*) from Tidenham Chase, 9th July.
(Photo: D & V Jackson)



Plate 12. 19 Spot Ladybird (*Anisosticta 19-punctata*) showing summer coloration (left) and autumn coloration (right). (Photos: David Iliff)

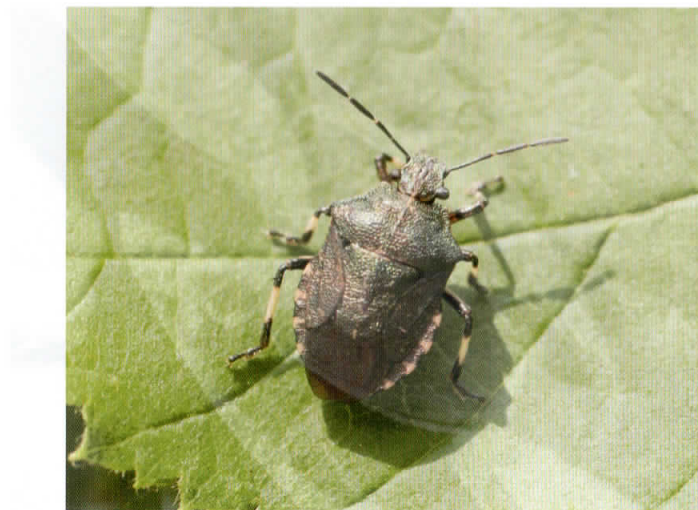


Plate 13. Heather Shieldbug (*Rhacognathus punctatus*) at Wigpool, 3rd September. (Photo: Colin Twissell)



Plate 14. Pied shieldbug (*Sehirus bicolor*), Trull, 30th April.
(Photo: David Iliff)



Plate 15. Gorse Shieldbug (*Piezodorus literatus*) on lupin at Woodmancote in June. (Photo: David Iliff)



Plate 16. *Larinioides scolopetarius* in the bird hide at Shorncote. (Photo: Colin Twissell)



Plate 17. A male emperor dragonfly (*Anax imperator*) feeding on a Small Tortoiseshell Butterfly (*Aglais urticae*) at Coombe Hill Meadows on 2nd July. (Photo: David Iliff)



Plate 18. The Golden-ringed Dragonfly (*Cordulegaster boltonii*). (Photo: Colin Twissell)



Plate 19. The shelled slug *Testacella maugei* from Standish.
(Photo: Juliet Bailey)

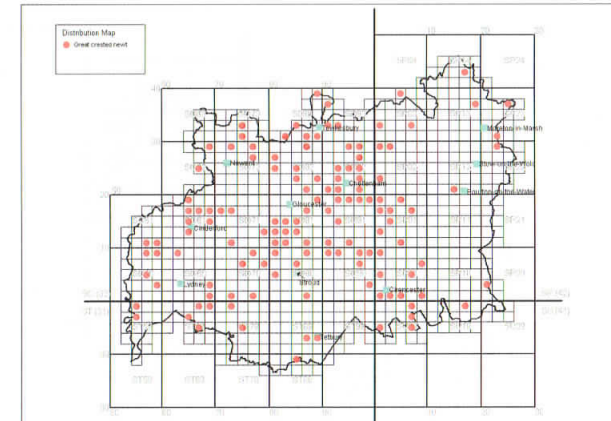


Plate 20. The largest British pseudoscorpion *Dendrochernes cyrneus* (RDB3)
found near Tewkesbury. (Photo : Colin Twissell)

GLOUCESTERSHIRE AMPHIBIAN AND REPTILE REPORT 2005

Colin Twissell

Great crested newt (*Triturus cristatus*)



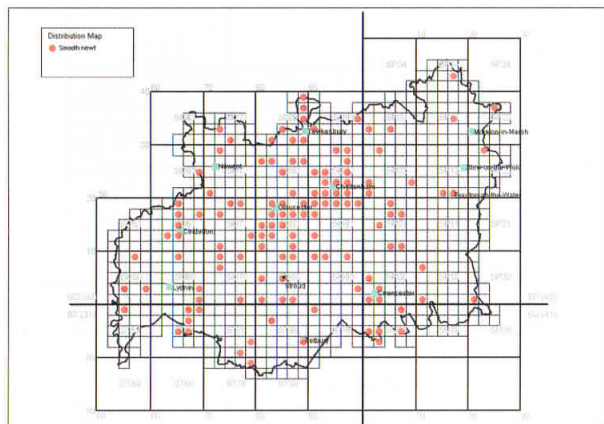
Two Glos. Amphibian and Reptile Group (GARG) meetings were arranged for March 05; both of the meetings were to search for great crested newts. Middle Street near Eastington was visited on the 16th March. Three ponds were inspected, the surfaces of two of the three ponds were covered with duckweed making a torch survey difficult, but in the third pond, 11 male and 7 female great crested newts were counted and one female was observed egg-laying. On the 30th March we visited Berkeley, but due to heavy rain the ditch we were to investigate was flooded and too hazardous. Instead we looked at Brian Butcher's pond, which contained, on the 13th January, 50 male and 16 female great crested newts. Newts were present again in his pond on the 3rd November 05, with males displaying their full crest and one female egg-laying!

In April, GARG visited Wigpool to bottle trap for newts in the hope of catching adult great crested newts. Great crested newt eggs have been found in previous years, but never any adult newts. A visit to Wigpool in July, primarily to search for reptiles, was hampered by heavy rain, but undaunted, we continued to check the metal sheets, but not before casting a net along the shoreline of the large pond. After a few sweeps of the net we were soon rewarded by the sight of two large great crested newt tadpoles. Subsequently, on the 18th August I found two sub-adult newts under a log.

Two new tetrads for great crested newts, one from Highnam and the other from Sapperton were received from two people who telephoned me to say that they had these newts in their garden pond. The gentleman from Sapperton was concerned that his landlord wanted to fill in the pond.

During a visit, at the end of August, to an open garden in Sheepscombe where several ponds had been created in the grounds, I was a little surprised to find an adult great crested newt in one of the smaller ponds.

Smooth newt (*Triturus vulgaris*)



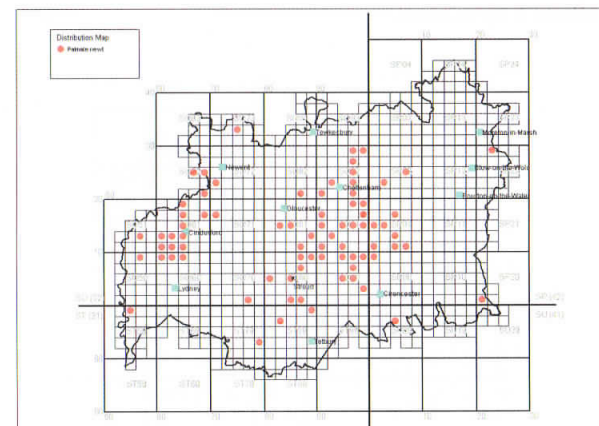
Eight records for smooth newt were received this year, a newt often found during searches for great crested newts, and one commonly found in garden ponds. Visiting a garden pond in Whaddon, Cheltenham, which, together with the bungalow, was to be demolished to make way for the extension of the Cheltenham football stadium, only one female smooth newt was discovered.

Palmate newt (*Triturus helveticus*)

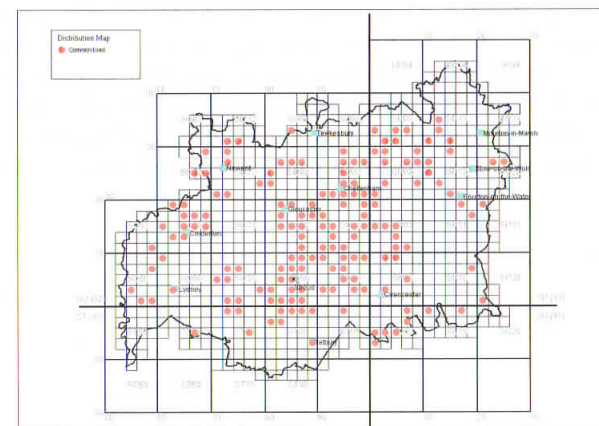
The distribution of this newt is mainly confined to the Cotswold Scarp and the Forest of Dean, so finding numerous palmate newts in a garden pond in Nailsworth was not a surprise; but when asked to visit a garden pond in Gloucester, the new owner of the property wanting to fill the pond in for safety reasons, I was not expecting to find palmate newts. 33 male and 25 female newts were rescued and translocated to the Gloucestershire Wildlife Trust's wildlife pond on Robinswood Hill, a site known to have palmate newts.

A GARG meeting in April to visit a pond in Hampney was a little disappointing as the pond was eutrophic with only a small amount of starwort, on which some newt eggs had been laid, possibly palmate newt eggs, as one female palmate newt was netted.

(See next page for map)

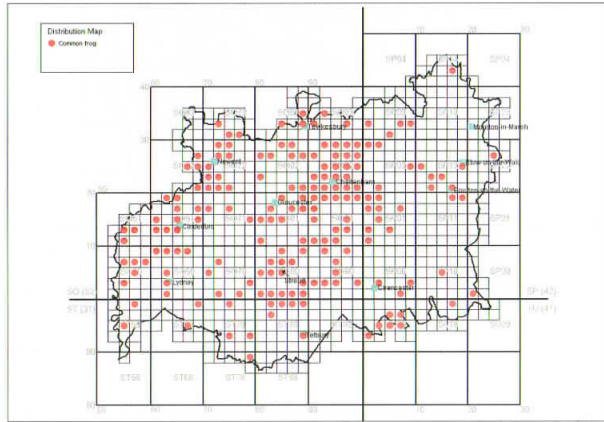


Common toad (*Bufo bufo*)



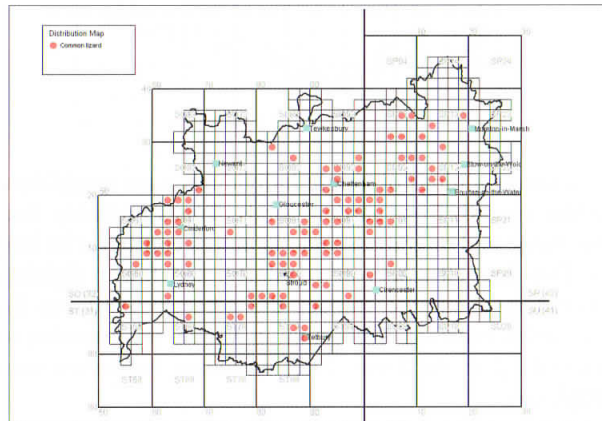
Several records of toad sightings of single individuals were made throughout the year with a few breeding records from garden ponds. Toads probably fare better in areas where their home range and migration route is in less conflict with busy roads. Arthur Ball, who visits Dowdeswell reservoir regularly, had fewer sightings of toads this year and one wonders about the impact the adjacent A40 has had on the toad population. On a visit to Batsford Arboretum in March, my attention was drawn to the sound of toads croaking in the lower lake; on closer inspection several toads were seen, some in amplexus.

Common frog (*Rana temporaria*)



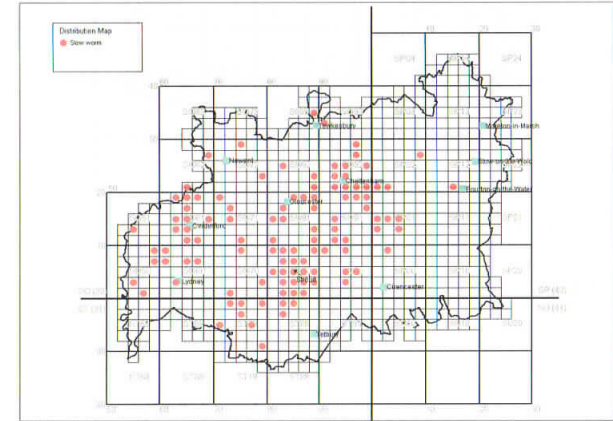
The sight of frogs and frogspawn marks the start of our amphibian season, but the weather in February divided the spawning period. Those who usually see spawn during January/February were probably not disappointed, but many pond owners had to wait until March before frog activity was resumed. This was due to several weeks of night frosts, followed by low daytime temperatures during February. A pond in a sunny hollow at Batsford Arboretum had approximately 25 clumps of frogspawn on the 26th March, but also a black mass of hatched tadpoles obviously laid some weeks earlier.

Common lizard (*Lacerta vivipara*)



Fourteen lizard sightings were received for the year, eight of which were from various areas of the Forest of Dean, the others being from the east of the county - Dowdeswell, Leckhampton, Cleeve Common, Prestbury and Sheepscombe.

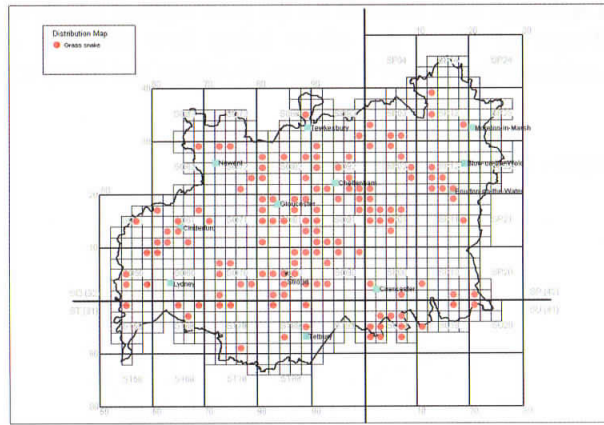
Slow worm (*Anguis fragilis*)



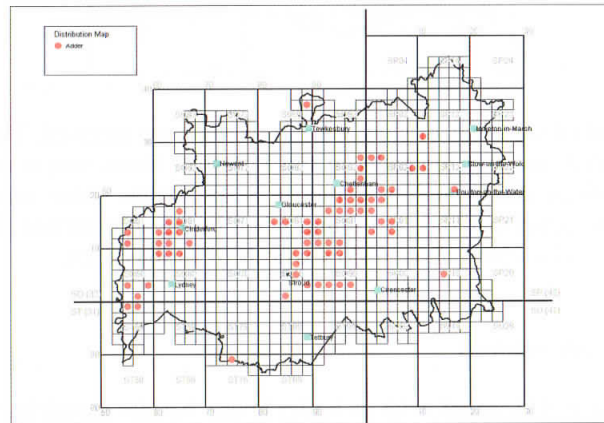
Thirteen individual sightings of slow worm records were received. Two slow worms were encountered crossing footpaths in the Forest of Dean, one a road casualty in Whittington, others discovered in compost heaps, while some were found when turning over discarded material, as I found when lifting an upturned plastic table in a Stroud allotment, disturbing about 6 slow worms of various ages.

Grass snake (*Natrix natrix*)

The Dilke Memorial Hospital, with its boiler house, besides supplying the health care needs of the Forest of Dean, once again, doubled as an incubator for grass snake eggs. Pictures of Eric Pritchard holding handfuls of rescued hatchling snakes were published in several newspapers. Over two hundred young snakes were gathered up and released in other parts of the Forest. A young grass snake found under a corrugated iron sheet at Wigpool may well have been one of the Dilke's previous translocations. Other hatchlings were observed at Dowdeswell and Gretton. A total of thirteen different sightings of grass snake were received, which is encouraging. (See next page for map)



Adder (*Vipera berus*)



Only six records were received: two from Cleeve Common, three from the Hartley Hill / Leckhampton area and one from the Forest of Dean. Each year newspapers warn walkers and dog owners to take care. Regrettably this tends to give this reptile a bad name. Adders select quiet areas for basking and rapidly disappear if disturbed, but can occasionally be encountered dispersing from their hibernacula to their hunting grounds. Unless inadvertently trodden on or deliberately interfered with, they pose no threat.

Thanks to:- A. Bingle, R. Boyd, J. Bridge, A. Ball, Capt. Burne, B. Butcher, C. Butters, M. Button, J. Bailey, R. Cliffe, B. Curr, J. Elsworth, T. Fenton, R. Gaunt, T. Grant, D. Haigh, J. Harper, K. Heron, G. Harris, A. Jayne, D. Lane, D. Long, Mrs McDade, J. McGarry, G. Meredith, H. Morgan, J. & V. Phillips, E. Pritchard, D. Scott-Langley, C. Studholme, H. Taylor, T. Taylor, I. Twissell for supplying records, and to Ian Carle of the Gloucestershire Centre for Environmental Records for providing the Dot-Maps.

SPIDERS IN GLOUCESTERSHIRE 2005

David Haigh

INTRODUCTION

The programme of Gloucestershire Invertebrate Group (GIG) Field Meetings visited sites as varied as wetland in the Cotswold Water Park (CWP) to an elevated rocky knoll in the Forest of Dean (FOD). Undoubtedly the most rewarding venue was Blaisdon Wood on August 20th when, with the invaluable assistance of Welsh Area Organisers of the Spider Recording Scheme (SRS), John Harper (JH) and Mike Kilner (MK), an RDB3, a Nationally Scarce Nb and 4 Nationally Local spiders were found. Records from the two wetland visits by GIG were supplemented by records of JH from the Coombe Hill Challenge in July and from Coombe Hill came a New County Record.

As in previous years JH has been industriously recording in the county and provided another New County Record from a beechwood south of the Cinderford Linear Park. The third New County Record came courtesy of the SRS Newsletter in an article submitted as part of an MSc. dissertation.

The second year of a survey of FOD scowles brought the total spider count up to 74. The yield did not throw up many cavernicolous species (we did not explore caves) with the exception of *Nesticus cellulanus* recorded at the Delves, Wigpool and a deep excavation near the airshaft at Old Staple Edge Wood.

The 'Bughunt' on June 11th at Greathough Brook was blessed with fine weather and enthusiastic participants. For me the memorable sight was an adult female of the yellow form of the crab spider *Misumena vatia* captured and released by one of the junior visitors James Harris.

A further contact with younger enthusiasts was with the Watch Group at Newent Lake in September. In less than two hours we found the Nationally Scarce Na *Nigma walckenaeri* on ivy, the Nationally Local *Achaearanea lunata* and a variety of those spiders exhibiting different web forms.

The county checklist stands at 328 and includes 1 introduced species. RDB species still remain at 3, Na 8 and Nb 17. 26 species included on R.S.George's checklist 1957 still remain to be confirmed.

NEW COUNTY RECORDS

Theridion hemerobium Nb Gloucester-Sharpness Canal, SO74210679. This species was recorded by Nick Law on 25th August 2004 during a survey of the navigable canal system in England and Wales for this species for his MSc. dissertation. The description of the habitat is "Rusty railway track tie-bar over concrete pilings". To quote, "Webs are constructed across the face of the pilings and the spiders located

beneath the overhang of the upper rib of the tie-bar". *T. hemerobium* was recorded in 1999 from an island on the River Avon at Eckington, Worcs.

Hypselistes jacksoni Coombe Hill Meadows, SO8727 April 25th, JH. The 'Atlas' says this species is uncommon but is widely distributed through Wales and into northern England. This is the fourth record for the SO 100Km square since 1980. It is nearly always found in wet or marshy areas.

Porrhomma egeria Little Staple Edge Wood, south of Cinderford Linear Park, SO649125 April 22nd, JH. This is predominantly a cavernicolous species but can be found among stony debris in woodland. This individual was found dead and covered in fungal hyphae and fungal fruiting bodies. However the chitinised epigyne was visible and provided the necessary diagnostic features.

NATIONALLY SCARCE, Notable A

Nigma walckenaeri Taken from ivy on the bridge over the River Ell at Newent Lake, SO724262 Sept. 17th, Newent Watch Group. This is a new 10Km square record. The destruction of my *Pyracantha* last year failed to dislodge *Nigma* and it was recorded in my garden on leaves of a palm and in the adjacent lane on ivy, both in September. A brief account of its county status and map was given in TGN No.16, May 2005.

Salticus zebraneus One male/two females on a dead oak between Deerhurst and Tewkesbury, SO873311 May 29th, Colin Twissell. This is a new Tetrad and vice-county record and the first since 1999 when it was recorded for the first time at Forthampton Oaks. This species was first recorded in the west of England in 1995 by Keith Alexander on an old oak trunk in parkland converted to arable in Worcestershire.

Bianor auROCinctus Immatures were identified from Clearwell Meend, SO579081 June 18th, (GIG) and The Park restoration heathland, ST557992 August 11th, JH. These were the third and fourth county records. A requirement for this spider is dry lightly vegetated ground as is found in quarries and regenerating clear-felled forestry plantation.

NATIONALLY SCARCE, Notable B

Theridiosoma gemmosum A wetland species previously only recorded from Cannop Ponds in 2003. Both records in 2005 were from riparian habitats: Shorcote Reed Bed, SU034968 April 23rd (GIG) and Coombe Hill 'Challenge', SO878272 July 2nd/3rd, JH.

Zilla diodia This orb-web spinner was recorded on three occasions in 2005.

Highnam Woods, 3 males SO778193 May, JH

Greathough Brook, near The Pludds, SO621155 June 11th, 'Bughunt'

Clearwell Meend, SO579081 June 18th, GIG.

This spider is now present in four 10 Km squares, all in V-c 34.

Nigma puella 10 males and 25 females were recorded from Highnam Woods SO778193 by JH in May. This is an unusually high figure and must indicate a strong breeding population. A GIG meeting on August 20th produced immatures at Blaisdon Wood, SO696167, JH, MK. Figure 3 shows its distribution in Gloucestershire. The habitat favoured by *N. puella* seems to be high hedges with holly and/or wild-rose and ivy-covered walls. An account of this species is found in GNS News, Spring 2004.

SIGNIFICANT OTHER SPECIES

A number of spiders are designated Nationally Local, usually where specific habitat requirements are needed. Visits to wetlands in 2005 produced an encouraging list of 'Local' species.

Tallusia experta This wetland linyphiid has only previously been recorded at Fox's Bridge Bog in 1990. In 2005 the CWP produced a female at Shorncote Reed Bed, SU0396 April 23rd and a male beneath *Juncus* clumps near Lake 6, SU067960, September 18th.

Microlinyphia impigra This local marsh specialist was first recorded at Purton Timber Ponds in 1992. Two further records were made at Shorncote Reed Bed and Lake 6 in the CWP. The favoured microhabitat seemed to be beneath cut reed stems dumped on the lakeside. The adult female has a body length of 5 mm with an abdomen of a silvery white colour with a central dark mark and with 3 or 4 pairs of triangles arranged laterally with their apices pointing outwards. It shows up well against decomposing reed stems and I would welcome further records of this spider.

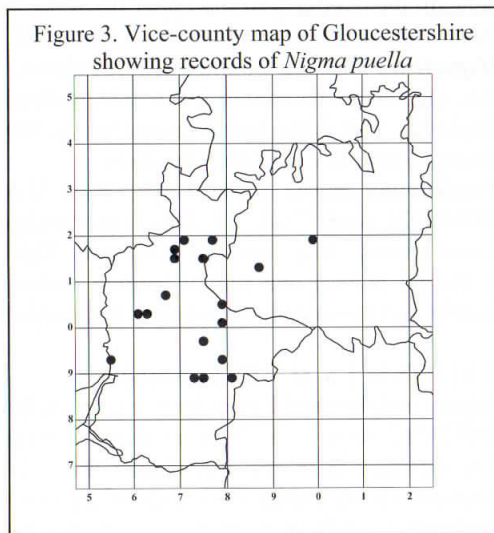


Figure 3. Vice-county map of Gloucestershire showing records of *Nigma puella*

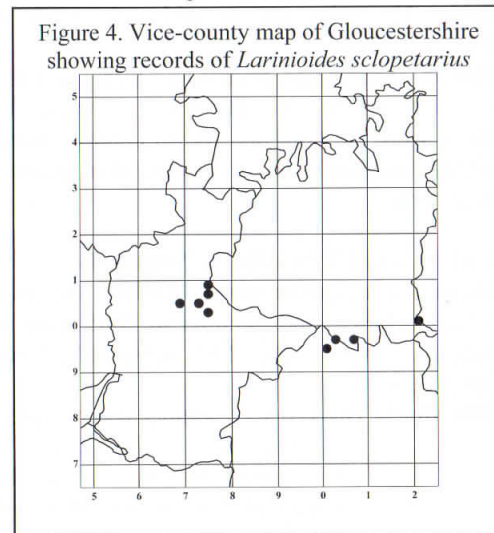


Figure 4. Vice-county map of Gloucestershire showing records of *Larinioides sclopetarius*

Larinioides sclopetarius This is a large (up to 14mm) orb-web spinner and which is 'nationally very local but may be numerous where it occurs'. It was first recorded in Gloucestershire at Purton Timber Ponds in 1992. Figure 4 illustrates its present distribution. It is strongly associated with water and spins its web on bridges, moored vessels, canal fencing and sturdy bankside vegetation. Records in 2005 were from inside the bird hide at Shorncote Reed Bed and around the Gateway visitor centre at Lake 6. (See plate 16)

Araneus marmoreus* var. *pyramidatus This is another large (up to 15mm) orb-web spinner but is surprisingly elusive. Records exist from Blaisdon disused railway line 1979, Orles Wood 1991 and 1992 and Woolaston Common, Lydney 2003. An immature was found at Blaisdon Wood on the August GIG meeting. This record is within 200 metres of the 1979 record. A further visit to the Blaisdon area would seem to be indicated.

Arctosa leopardus Coombe Hill Canal 'Challenge' July 2nd/3rd, JH. This is the fourth county record and the second for V-c 33, previously at Salmonsbury Meadows 2000. This spider is widespread in Wales, East Anglia and the New Forest but absent from much of central England and Scotland.

Tibellus maritimus Of the two *Tibellus* species, *T. maritimus* is much the more local. MK identified this species at Blaisdon Wood, the fourth record for V-c 34. It has not been recorded for V-c 33, its place being taken by *T. oblongus* on ungrazed grassland. Both species adopt a cryptic attitude, extending themselves along plant stems.

Ozyptila brevipes Two males and several immatures were discovered under tussocks at Brassey Marsh, SP139223 May 15th. This is a rediscovery of a species on Bob George's checklist.

Ozyptila simplex Coombe Hill Canal 'Challenge', SO8827 July 2nd/3rd JH. This is the second county record albeit from the same site.

In the recent BBC1 series 'Life in the Undergrowth' David Attenborough described the RDB3 spider *Hyptiotes paradoxus* springing its triangular web and trapping its prey. *H. paradoxus* occurs at several sites in the FOD - see TGN No 16. What is interesting is that the TV spider was filmed in St. Mary's Churchyard, Painswick on the "famous" yews. It was filmed in the spring of 2005 and the celebrity surrounding it was given near full-page treatment in the Gloucestershire Echo, Dec. 10th and the Western Daily Press, Dec. 12th. Apparently the BBC had been 'tipped off' that *Hyptiotes* was resident in Painswick Churchyard. Is there another arachnologist in Gloucestershire? I have been in touch with the churchwarden and hope to visit later in the year to assess the spider's population. It is the first record of *Hyptiotes* for V-c 33.

Of invaluable assistance has been David Long providing litter species while sieving for molluscs during the scowles survey and Colin Twissell's regular records. Tony Taylor, Larry Bellamy, David Iliff and Roger Gaunt all contributed records.

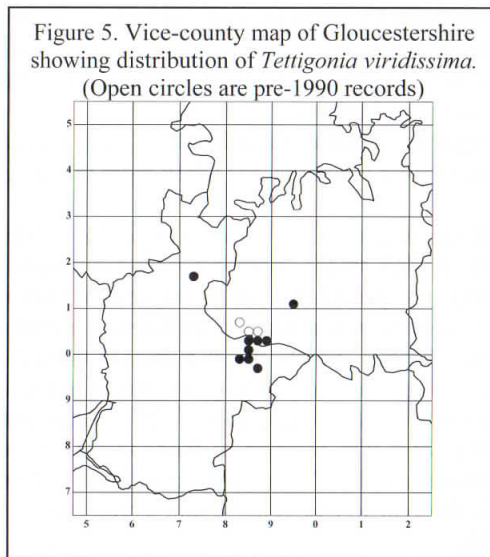
GLUCESTERSHIRE ORTHOPTERA REPORT 2005

David Haigh

At the 36th meeting of the GNS Scientific and Publications Sub-committee, February 2nd 1998 it was proposed that Alan Wake becomes Orthoptera Recorder. With energy, erudition and the experience of recording Orthoptera in Essex, grasshoppers, bush-crickets, earwigs and cockroaches have been surveyed as never before. With the assistance of Alan's brother-in-law John Widgery (until recently National Recorder for Orthoptera) and a bat recorder, new county records have been made and many more records of existing species logged. The northward and westward spread in Gloucestershire of the Long-winged Conehead (*Conocephalus discolor*) and Roesel's Bush Cricket (*Metrioptera roeselii*) has been minutely plotted and is exciting evidence of possible global warming or amelioration in the UK climate. Alan and his partner Lisa left the county late in 2005 to relocate in southwest Scotland. I wish them every good fortune and I expect the Orthoptera checklist for SW Scotland to be substantially increased. Alan has left with me all his records and distribution maps and from these I have put together a brief report of the more significant finds in 2005.

Tettigonia viridissima (Great Green Bush Cricket)
Chalford Hill, SO8902 September 11th, Barbara Wood. This is an occasion when the GNS Web Site (enquiries@glosnats.org.uk), provided the means of receiving Barbara Wood's observation and sending a reply. *T. viridissima* is indeed rare in the county with most records within the Stroud valleys. It was 'fortunate' to find an adult male and be exposed to its 'singing'. The discovery of a dead adult female the following day at least indicates there is the potential for a breeding population in the Chalford area. Further records of this insect would be very welcome.

This species flourishes among unmanaged scrub with a southerly aspect. It is generally common along the Channel coast and the south Wales coastal fringe.



Inland it is distinctly local. Mature gardens, railway embankments and shrubby limestone hillsides are favoured habitats. See figure 5.

The stag beetle and this bush cricket are among the largest insects in Britain.

Metrioptera roeselii (Roesel's Bush Cricket)

Grassland above Stanton, SP0734 and SP0834 September 9th, Lisa Hooper and Alan Wake. This bush cricket has rapidly expanded its range into Gloucestershire. This record is in a new 10 Km square. To date, most records are within the 100 Km SP square with only one from the SO square at Sapperton. In future seasons it would be expected that *M. roeselii* would turn up increasingly westwards.

Conocephalus discolor (Long-winged Conehead)

The first county record for *C. discolor* was in 1996 and was two years ahead of the first record for *M. roeselii*. The extra time seems to have allowed *C. discolor* to cross the SP/SU westward boundary and there are now 8 tetrad records within the SO/ST squares.

In 2005 three observations are recorded,

- (1) Little Haresfield Farm, SO8009 August 16th, Ian Carle. This is a new 10 Km square record and the most westerly occurrence by 12 kilometres.
- (2) Disused Railway, south east of the Bridge Car Park adjacent to Lake 10, Cotswold Water Park, SU 067960 September 18th, David Scott-Langley. This is a new tetrad record.
- (3) Grass verge on a green lane between Down Ampney and Latton, SU 098962 September 22nd, Colin Twissell. The identity of this female was confirmed by Alan Wake via email. This record was 3 1/2 kilometres due east of the record (2) above. It is also a new tetrad record.

Leptophyes punctatissima (Speckled Bush Cricket)

For a species with in excess of 220 tetrad records a new tetrad is quite a rarity. In 2005 there were 2 new tetrad records

- (1) Clearwell Meend, SO5808 June 18th, GIG Field Meeting. This record was of a nymph beaten off bramble.
- (2) Little Haresfield Farm, SO8009 August 16th, Ian Carle and October 28th, Juliet Bailey.

This species may survive into November in a mild autumn.

Omocestus viridulus (Common Green Grasshopper)

Grassland above Stanton, SP0734 September 2nd, Lisa Hooper. This is a new 10 Km square record. There appear to be some ecological limitations operating in the distribution of this grasshopper. Records in Gloucestershire are along the high Cotswolds with a second centre of distribution in the Forest of Dean. It has a liking

for ungrazed or lightly grazed upland grassland, both limestone or lime-free. Marshall and Haes suggest as it is not recorded from wasteland or roadside verges it is unable to tolerate chemical pollution.

On October 17th I was phoned from Tewkesbury to be informed that a number of 'crickets' had been found in a heated greenhouse at Evesham. They had been installed in a tank at Rob Lewis' home at Northway. When I visited the 'crickets' they were found to be Bush Crickets and of European origin. They were mature and had obviously thrived in the greenhouse conditions in Evesham. I informed John Widgery and he identified two of them as *Ruspolia nitidula* (Large Conehead) and a further two as *Phaneroptera nana* (Southern Sickle-bearing Bush Cricket). A third species could not be identified easily and is now with the Natural History Museum for determination. Neither of the named species are UK natives but I have seen *R. nitidula* in northern France in wetland between La Rochelle and Nioret. All records of exotic insects or spiders are welcome.

I must thank Alan Wake once again for providing an exemplary document of recording Orthoptera. It made my task of writing this report very straightforward. May I also thank those contributors named and un-named for their records.

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GLOUCESTERSHIRE ODONATA REPORT 2005

Ingrid Twissell

With the month of April being wet and cool, it was not until 30th April that the first damselfly was recorded, this being the **Large Red Damselfly** (*Pyrrhosoma nymphula*), at St. Briavels in the Forest of Dean. The date of the first sighting of this damselfly occurred about a fortnight earlier last year.

The Cotswold Water Park, being an excellent area for dragonfly watching, produced the next species to be recorded this year: the **Common Blue Damselfly** (*Enallagma cyathigerum*) and the **Four-spotted Chaser** (*Libellula quadrimaculata*) on 2nd May, the **Red-eyed Damselfly** (*Erythromma najas*), the **Banded Demoiselle** (*Calopteryx splendens*) and the **Downy Emerald** (*Cordulia aenea*) all seen on 15th May, the **Blue-tailed Damselfly** (*Ischnura elegans*), on 17th May, with the **Beautiful Demoiselle** (*Calopteryx virgo*) on 5th June.

The **Lesser Emperor** (*Anax parthenope*) was not seen in Gloucestershire this year but a male was spotted along with **Brown Hawkers** (*Aeshna grandis*), **Emperor Dragonflies** (*Anax imperator*) (see plate 17) and **Black-tailed Skimmers** (*Orthetrum cancellatum*) in the Wiltshire part of the Cotswold Water Park. The **Lesser Emperor** is now seen annually in Britain with record numbers occurring in 2005, and ovipositing being reported. It is now very likely that this dragonfly is starting to colonise here, rather than just coming over from the continent as an immigrant each year.

The **Azure Damselfly** (*Coenagrion puella*) was first seen on 25th May in Churchdown, and the **White-legged Damselfly** (*Platycnemis pennipes*), on the River Severn near Apperley, on 29th May.

The first dragonfly record of the year was of one **Hairy Dragonfly** (*Brachytron pratense*), on 12th May at the site where it was re-discovered a few years ago.

In the Forest of Dean, the first dragonflies recorded this year were of the **Broad-bodied Chaser** (*Libellula depressa*), at Wigpool and Blackpool Brook Lagoon, and at the latter location a newly emerged **Black-tailed Skimmer**, all on 4th June. During the season the **Downy Emerald** occurred at four locations, with more records received than in 2004, the **Common Hawker** (*Aeshna juncea*) was found in its usual heathland habitats at several sites, the **Golden-ringed Dragonfly** (*Cordulegaster boltonii*) was seen in five areas – this dragonfly appeared to have had a good year - not like the **Black Darter** (*Sympetrum danae*) which is just holding on, with only one sighting in 2005 as opposed to sightings in four locations last year.

After several years of very few records of the **Brown Hawker** (*Aeshna grandis*) from the Forest of Dean, more were recorded this year, as well as on the various canals in Gloucestershire – the Stroudwater Canal, the Gloucester-Sharpness Canal, the Lydney

Docks Canal, and the Coombe Hill Canal, these all being very good areas where this dragonfly is regularly seen. The CWP is another good area for the **Brown Hawker**, where the latest sightings were on 22nd September. One unusual location was at Stinchcombe Hill, near Dursley where one was seen on 9th July.

There was only one sighting of the **Common Clubtail** (*Gomphus vulgatissimus*) at The Mythe, Tewkesbury this year, and a few sightings only of the **White-legged Damselfly** on the River Avon at Twyning and on the River Severn at Apperley.

The latest dates for Odonata that I received were of the **Southern Hawker** (*Aeshna cyanea*) at Whiteshill, Stroud on 1st November, the **Common Darter** (*Sympetrum striolatum*) at Coombe Hill Canal on 9th November, the **Common-blue damselfly** and the **Blue-tailed damselfly** on 18th September in the CWP.

I would like to take this opportunity to thank everyone who gave records to me this year: Nick Adams, Gordon Avery, Bob Axworthy, Arthur Ball, Mike Bradley, Colin Butters, Ian Elphick, Roger Gaunt, Mike Glenny, Gareth Harris, Ken Heron, David Iloff, Judith Lack, Martin Matthews, Martin McGill, Guy Meredith, John and Viv Phillips, Neil Pryce-Jones, Ian Ralphs, Rosie Ray, David Scott-Langley, Brian Smith, Colin Twissell, and Keith White. Thanks also to Colin Twissell for the photograph of the **Golden-ringed Dragonfly** (see plate 18).

LICHEN REPORT 2005

Ian Carle

In 2005 we held nine lichen group meetings visiting a variety of different sites across the county. We surveyed nine churches and found our first three-figure churchyard with one hundred lichens recorded from Elkstone. We visited three woodlands and managed to add 42 species to the Lower Woods list. Our trip to survey a limestone grassland recorded one nationally scarce species (*Rinodina bischoffii*) from a stone in amongst the grassland and one (*Opegrapha mougeotii*) on a stone gatepost on the way to the site!

The above visits enabled us to gather 1135 records (1072 in 2004). The total number of records for the year is 1832. Figures 6 and 7 show how our survey work has increased our coverage of the county.

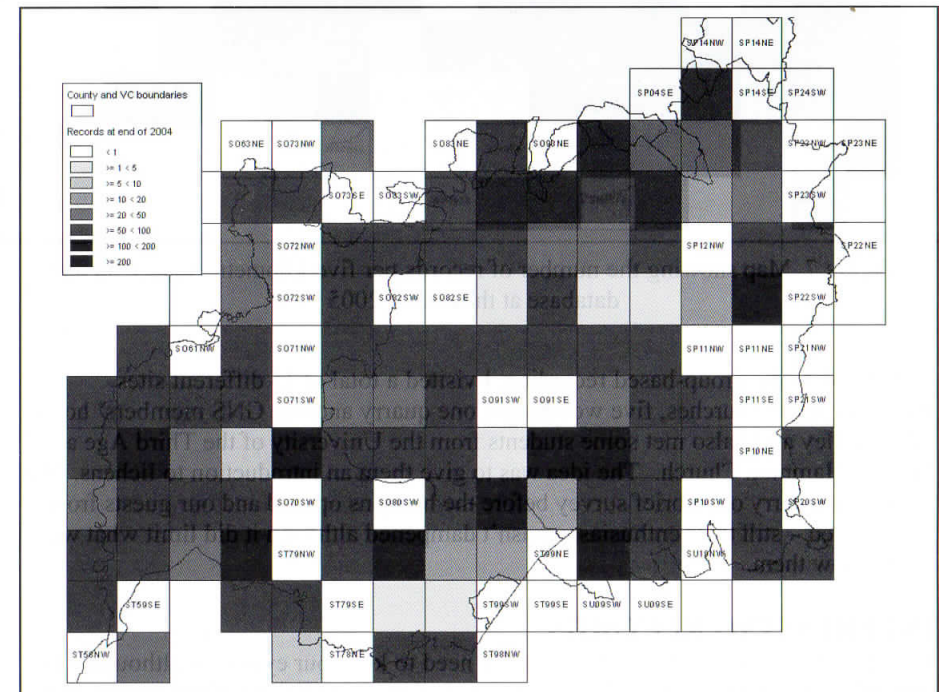


Figure 6. Map showing the number of records per five-kilometre square on the group's database at the end of 2004

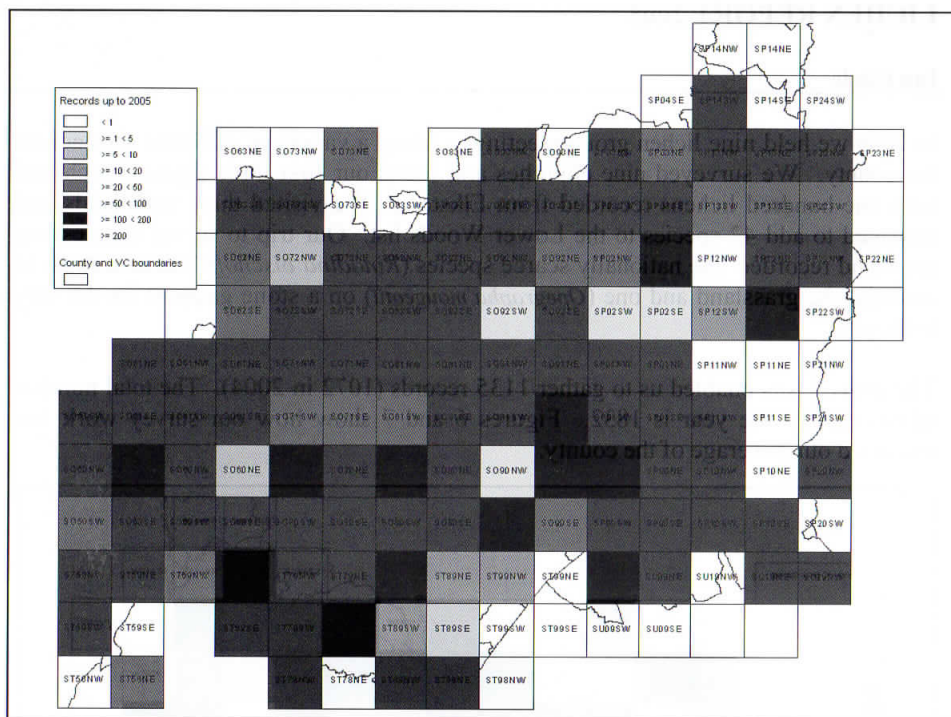


Figure 7. Map showing the number of records per five-kilometre square on our database at the end of 2005

In addition to the group-based recording, I visited a total of 15 different sites including seven churches, five woodlands, one quarry and one GNS members' house. Juliet Bailey and I also met some students from the University of the Third Age at Meyse Hampton Church. The idea was to give them an introduction to lichens. We managed to carry out a brief survey before the heavens opened and our guests from U3a arrived – still their enthusiasm wasn't dampened although it did limit what we could show them.

INTERESTING RECORDS

Bacidia adastr is one species that we will need to keep our eye on as although it is currently described as nationally rare it may well prove to be one of the species that spreads with increased nitrogen levels and temperature. It was good to see *Lobaria pulmonaria* looking in reasonable condition at what is possibly its last remaining site in the county.

Records in bold were gathered on GNS lichen group meetings

Scientific name	Grid	Location	Date	Status	V C	Recorder	Determiner
<i>Bacidia adastr</i>	ST7488	Lower Woods	17/9/2005	LC NR	34	Ian Carle	Joy Ricketts
<i>Caloplaca crenulatella</i>	SO7403	Slimbridge St. John the Evangelist's	13/3/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Caloplaca crenulatella</i>	SO6317	Ruardean Church St John the Baptist	22/5/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Caloplaca crenulatella</i>	ST7298	Stinchcombe St Cyr Church	13/3/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Catillaria atomarioides</i>	ST7993	Ozleworth	14/8/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Catillaria atomarioides</i>	ST7488	Lower Woods	17/9/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Diplotomma venustum</i>	SO8209	Haresfield Beacon	22/10/2005	LC NS	33	Bryan Edwards	
<i>Hymenelia prevostii</i>	SO8209	Haresfield Beacon	22/10/2005	LC NS	33	Bryan Edwards	
<i>Lecanora persimilis</i>	SO6317	Ruardean Church St John the Baptist	22/5/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Lobaria pulmonaria</i>	SP0826	Guiting	25/6/2005	LC IR	33	Ian Carle	
<i>Opegrapha mougeotii</i>	SO8208	Haresfield Beacon	22/10/2005	LC NS	33	Bryan Edwards	
<i>Opegrapha rupestris</i> #	SO8209	Haresfield Beacon	22/10/2005	LC NS	33	Bryan Edwards	
<i>Psoroglaena stigonemoides</i>	ST7992	Ozleworth	14/8/2005	LC NS	34	Alan Orange	
<i>Punctelia ulophylla</i>	SO8709	Painswick	09/2/2005	LC NS	33	Juliet Bailey	
<i>Punctelia ulophylla</i>	SP1100	Meysey Hampton St Mary the Virgin Church	16/3/2005	LC NS	33	Ian Carle	
<i>Punctelia ulophylla</i>	SO7411	Rodley	12/2/2005	LC NS	34	Ian Carle	

Scientific name	Grid	Location	Date	Status	V C	Recorder	Determiner
<i>Punctelia ulophylla</i>	SO8326	Hasfield	03/5/2005	LC NS	34	Juliet Bailey	
<i>Punctelia ulophylla</i>	SO9612	Elkstone Church St John the Evangelist	16/4/2005	LC NS	33	Ian Carle	Joy Ricketts
<i>Punctelia ulophylla</i>	SP0313	Withington Woods	16/4/2005	LC NS	33	Ian Carle	Joy Ricketts
<i>Punctelia ulophylla</i>	SO8101	Woodchester Park	23/10/2005	LC NS	34	Bryan Edwards	
<i>Punctelia ulophylla</i>	SO7322	Taynton St Lawrence Church	30/5/2005	LC NS	34	Ian Carle	
<i>Punctelia ulophylla</i>	ST7488	Lower Woods	17/9/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Punctelia ulophylla</i>	SO7403	Slimbridge St. John the Evangelist's	13/3/2005	LC NS	34	Ian Carle	Joy Ricketts
<i>Punctelia ulophylla</i>	ST7993	Ozleworth	14/8/2005	LC NS	34	Alan Orange	
<i>Punctelia ulophylla</i>	SO8208	Haresfield Beacon	22/10/2005	LC NS	33	Bryan Edwards	
<i>Ramalina fraxinea</i>	SP0313	Withington Woods	16/4/2005	LC IR	33	Ian Carle	
<i>Ramalina fraxinea</i>	SO9612	Elkstone Church St John the Evangelist	16/4/2005	LC IR	33	Ian Carle	Joy Ricketts
<i>Rinodina bischoffii</i>	SO8208	Haresfield Beacon	22/10/2005	LC NS	33	Bryan Edwards	
<i>Sturothele hymenogonia</i>	SO8209	Haresfield Beacon	22/10/2005	LC NS	33	Bryan Edwards	
<i>Verrucaria elaeina</i>	ST7992	Ozleworth	14/8/2005	LC NS	34	Alan Orange	
<i>Verrucaria murina</i>	ST7993	Ozleworth	14/8/2005	LC NS	34	Alan Orange	
<i>Verrucaria simplex</i>	ST7992	Ozleworth	14/8/2005	LC NS	34	Alan Orange	

Key to status

DD - Data Deficient NR - Nationally Rare IR International Responsibility
 NS - Nationally Scarce LC - Least Concern*

*The least concern category indicates that although the taxon may appear to be currently scarce or rare there is good evidence that with further recording effort it will be found in more locations. Status information has been taken from 'A Conservation Evaluation of British Lichens' by R.G. Woods and B.J. Coppins, published by the British Lichen Society in 2003.

I would like to thank the following for their support. Joy Ricketts the Worcestershire county recorder, Bryan Edwards BLS Conservation Officer, Alan Orange National Museum of Wales and David Hill President BLS. Finally, thank you to Juliet Bailey, Pam Pugh and Dr Paul Smith for submitting their records and to Jeremy Doe, Richard Spyvee and Mark Berry for bringing lichen samples back for me to look at from their travels around the county.

THE BARK FLIES & BOOK LICE (PSOCOPTERA) OF GLOUCESTERSHIRE

Keith Alexander

Over 90 species of Psocoptera have been recorded in Britain. All of these occur also on mainland Europe and some domestic forms are almost cosmopolitan. The species which naturalists are most likely to come across and identify are the free-living species that occur on trees and shrubs - the arboreal group. Other wild habitats that support a few species include woodland leaf litter, long-established semi-natural grassland, heathland, and tall marshy vegetation, particularly reed beds and fen. All are small, soft-bodied insects.

The arboreal Psocoptera found in Britain fall into two well-defined ecological groups. Most species are found mainly on bark, but a smaller group of about a dozen species are predominantly foliage-frequenters. They lay their eggs mainly on the foliage and both the young stages and the adults feed on the debris and microflora on the leaf surfaces. The bark frequenting species feed on the green alga *Pleurococcus* and fungal spores.

A large group of species are to be found associated with stored organic produce, especially grains and grain products, where they feed upon fungal spores. In this situation they are generally referred to as book lice.

The county list currently stands at 50 species, comprising 36 natives and 11 introductions, plus 3 species for which the detailed habitat associations are not available and which might be either native or introduced. There are also two further species that had been confused with closely related species until the pairs were separated in the British list by Saville (2001), and where only one of each pair has so far been confirmed as present in the county. Additions may be expected in both native and introduced categories, the true total of natives being probably at least 40 out of the 50 plus nationally, while the potential for further introductions is obviously enormous.

Many of the arboreal species appear to be more associated with ancient woodlands and ancient wood pastures, and this would presumably link to the well-known high species-richness of the epiphyte communities of these habitats - better developed epiphytic vegetation will provide a greater variety of niches for associated invertebrates. Britain's largest bark fly *Psococerastis gibbosa* and the cloudy-winged *Metylophorus nebulosus* have only been found in the Cotswold ancient woodlands and in the Forest of Dean, whereas *Caecilius fuscopterus*, with its distinctive wing-

banding, and the small delicate *Enderleinella obsoleta* have only been found in the Forest.

The open country natives are similarly associated more with ancient semi-natural situations. The nationally rare *Kolbia quisquiliarum* is only known in the county from the ancient limestone grassland of Swift's Hill SSSI, while *Caecilius atricornis* is only known from the ancient grassland of Tiddly Moor, between Oakley and Overley Woods, Cirencester Park.

SOURCES OF RECORDS

As with most of the less popular invertebrate groups in the county, recording only really began in a serious way with R. S. George (RSG in the catalogue) in the late 1950s and early 1960s. He particularly concentrated on the stored product associates, and left his file of accumulated data with the Gloucestershire Naturalists' Society when he moved to Dorset. The present author (KNAA) has concentrated on the arboreal fauna. Other recorders are David Scott-Langley (DSL), Paul Whitehead (PFW) and Pete Kirby (PK).

AREA OF STUDY

The following accounts include records for the whole of the Watsonian Vice-Counties of East and West Gloucestershire (v-cs 33 and 34 respectively), including those areas currently within the administrative boundaries of the unitary authorities of South Gloucestershire and Bristol City Council.

NOMENCLATURE

The species names used in this account and the order of presentation are largely as used in New (1974), supplemented by information provided in Withers (1997), Lienhard (1998) and Saville (1999, 2001).

STATUS

The status of British Psocoptera has not been assessed in any systematic way and comments given on national status in the following catalogue are based entirely on New (1974). County status is only assessed where the quality of the data available appears to warrant it. Thus four species are picked out as having County Rarity status: *Caecilius atricornis*, *Enderleinella obsoleta*, *Elipsocus abdominalis* and *Kolbia quisquiliarum*.

CATALOGUE OF GLOUCESTERSHIRE PSOCOPTERA

ORDER PSOCOPTERA
Suborder Trogiomorpha

Family LEPIDOPSOCIDAE

Nepticulomima sakuntala Enderlein - An introduction from the Tropics; found in stored products.

ST57 Avonmouth, 1952 (GNS files).

Pteroxanium kelloggi (Ribaga) - Most usually found in leaf-litter, occasionally on vegetation of trees and shrubs. Widespread nationally but not common.

SO61 Crabtree Hill, beaten from *Ulex gallii* in heath; Speech House Oaks, one off foxglove seed head & another beaten from aerial dead oak branches, 10.viii.2002, KNAA.

SO82 Ashleworth Ham, in decayed fence post attached to old willow, 4.viii.2002, KNAA.

ST57 Lawrence Weston, 1916; Stoke Bishop, 1922 (GNS files).

Family TROGIIDAE

Lepinotus patruelis Pearman - Primarily a leaf litter species, but also found in domestic situations. Noted in 1958 by RS George, but details not available.

Trogium pulsatorium (Linnaeus) - Almost cosmopolitan and associated with domestic situations.

SO82 Churchdown, aquarium, 1960, RSG.

Family PSOQUILLIDAE

Rhyopsocus disparilis (Pearman) - Introduced from Africa or America; usually found in ships' holds.

ST57 Bristol, 1953, RSG.

Suborder Troctomorpha

Family LIPOSCELIDAE

Embiodopsocus enderleini (Ribaga) - Subcortical on trees with laminated bark, such as *Acer* and *Pinus*; rare or local, southern England.

SO81 Podsmead, 1955, RSG.

ST57 Bristol, 1921 (GNS files).

Liposcelis bicolor (Banks) - Native species, associated with bark.

ST57 Laurence Weston, Glos, 1924 & 1925 (GNS files).

Liposcelis bostrychophila Badonnel - A relatively new introduction into the UK and a major pest species. First described as new to science in 1944. A pest in museum

collections, a contaminant of stored products, a head louse and, more recently, the causal agent of allergic reactions such as asthma. Reproduces parthenogenetically.

SP00 Cirencester, females, possibly this species, in flour, 26.viii.2002, KNAA.

ST57 Bristol, 1952 (GNS files).

Liposcelis brunnea Motschulsky (= *liparus* Broadhead) - Found in buildings.

ST57 Bristol, 1948, (GNS files)

Liposcelis decolor (Pearman) (= *terrificolis* Badonnel) - In leaf-litter and in stored products.

SO60 Sharpness, 1944 (GNS files).

Liposcelis entomophila (Enderlein) - Predominantly in stored products; very widespread.

ST57 Bristol, 1952 (GNS files).

Liposcelis mendax Pearman - Found in buildings.

ST57 Bristol, 1952 (GNS files)

Liposcelis obscura Broadhead - In stored products.

ST57 Bristol, 1952 (GNS files).

Liposcelis paeta Pearman - In stored products.

ST57 Bristol, 1948; Avonmouth, 1952 (GNS files).

Liposcelis rufa Broadhead - In stored products.

ST57 Bristol, 1930 (GNS files).

Suborder Psocomorpha

Family EIPSOCIDAE

Epipsocus lucifugus (Rambur) - A primary leaf-litter dweller; occasionally beneath stones; apparently widespread nationally but not common.

ST57 Laurence Weston, 1924 (GNS files).

Family CAECILIIDAE

Kolbia quisquiliarum (Bertkau) - **County Rarity.** A nationally rare species associated with the field layer in warm dry situations and known from a few records across southern and central England. Its presence in ancient limestone grassland may suggest that its rarity reflects poor mobility and an association with long-established semi-natural open vegetation.

SO80 Swift's Hill, a micropterous female, 19.vi.2003, and a male, 6.ix.2003; both were identified by C. Lienhard.

Caecilius fuscopterus (Latreille) - Local nationally; on foliage of broad-leaved trees. So far, only known in the county from the Forest of Dean.

SO50 Bigsweir Woods & Causeway Grove, 2000, PK.

SO60 Nagshead NR, 14.ix.1991, KNAA.

Caecilius flavidus (Stephens) - Abundant and widespread nationally and in Gloucestershire; on the foliage of broad-leaved trees, especially oak; a secondary dweller in leaf litter, the arboreal generation oviposits on the leaves of deciduous trees and shrubs. Adult 5 June - 19 October.

SO50 Wyeseal Wood, 17.x.1981, KNAA; Prior's Mesne, Aylburton, 8.ix.2002, KNAA.

SO51 Five Acre Pond, Berry Hill, & Timberyard Pools, 18.x.1981, KNAA.

SO60 Nagshead NR, 14.ix.1991; Purton Timber Ponds, 15.viii.1992, KNAA.

SO61 Leymoor Quagg, oak, 13.ix.1997; Crabtree Hill & Speech House Oaks, 10.viii.2002; Newnham, 19.x.2002, KNAA.

SO71 Bulley Woods, 4.x.1997; Highnam Woods, 18.x.1998, KNAA; Broadway Farm, 2003, KNAA.

SO72 Bulley Woods, 4.x.1997; Highnam Woods, 18.x.1998; Glasshouse Orchard, Taynton, 4.vii.2001, KNAA.

SO80 Rabbit Warren Wood, Selsley, 4.viii.1996, KNAA; Frith Wood, 2003, KNAA.

SO81 Robins Wood Hill, 19.x.1997, KNAA.

SO90 Siccaridge Wood, 7.x.2001, KNAA; Three Groves Wood, 2003, KNAA.

SO91 Short Wood, Crickley Hill, 10.xi.1991, KNAA.

SO92 Dowdeswell Wood, 29.viii.1994, KNAA.

SO93 Tewkesbury, hawthorn, 22.vii.2001, KNAA.

SP01 Rendcomb Park, 16.x.1999, KNAA; Chedworth Woods, 8.vi.2002, 5.vi.2003, KNAA.

SP02 Guiting Wood, 19.vii.1992, KNAA.

SP22 Lower Oddington Ashes, 10.ix.1994, KNAA.

ST78 S of Midger, 18.ix.1993, KNAA.

ST89 Highgrove House, 17.viii.1995; Field Farm, Nympsfield, 19.viii.1995, KNAA.

SU09 Swillbrook Lakes Reserve, 19.ix.1998, KNAA.

Caecilius atricornis McLachlan - **County Rarity**. A speciality of tall vegetation in open habitats, usually long-established semi-natural situations especially fens. A very localised species nationally.

SO60 Tiddly Moor, Cirencester Park, one swept in rank limestone grassland, 28.ix.2002, KNAA.

Caecilius burmeisteri Brauer - A tree foliage species favouring evergreen trees and shrubs, especially yew. Adult 8 June - 11 November.

SO60 Fairmoor Green, Cannop, yew, 18.vii.1998, KNAA.

SO61 Broadmoor Pool, on pine, 1997 & 2000; Lightmoor Works, on spruce, 13.ix.1997; Cinderford Linear Park, pine, 12.viii.2000, KNAA.

SO71 Bulley Woods, 4.x.1997, yew, KNAA.

SO80 Stonehouse, off yew, 18.viii.2001, KNAA; Frith Wood, yew, 11.xi.2003, KNAA.

SO81 Robins Wood Hill, larch, 19.x.1997; Lords Wood, Sheepscombe, on yew, 31.vii.1998, KNAA.

SO90 Siccaridge Wood, yew, 7.x.2001, KNAA.

SO91 Dowdeswell Wood, *leylandii*, 16.ix.2001, KNAA.

SO92 Pittville Park, Cheltenham, yew, 16.ix.2001, KNAA.

SP00 Rendcomb Park, yew, 16.x.1999, KNAA.

SP01 Chedworth Woods, yew, 8.vi.2002, KNAA.

ST57 Coombe Dingle, yew, 30.vi.1998, KNAA.

ST59 Ban-y-Gor Wood, beaten in numbers from yew foliage, 12.vii.1997, KNAA.

Enderleinella obsoleta (Stephens) - **County Rarity**. A tree foliage species; nationally rare.

SO61 Leymoor Quagg, beaten from western gorse close to birches, 13.ix.1997, KNAA.

Family STENOPSOCIDAE

Graphopsocus cruciatus (L.) - Common and widespread nationally and in Gloucestershire; on the foliage of many kinds of tree, mainly broad-leaves, but occasionally conifers. First recorded in the county by RS George in 1955. Adults 19 May - 11 November.

SO50 Woolaston Lime Coppice, 26.vi.1999, KNAA; Bigsweir Woods, 2000, PK. Prior's Mesne, Aylburton, 8.ix.2002, KNAA.

SO60 Purton Timber Ponds, hawthorn, 15.viii.1992, KNAA; The Priory, Awre, 11.viii.2004, KNAA.

SO61 Speech House Oaks, off holly, 10.viii.2002; Newnham, 19.x.2002; Vostell's Brook, Newnham, off ash, 5.viii.2004, KNAA.

SO70 Stroudwater Canal, Stonehouse, off ivy, 18.viii.2001, KNAA.

SO71 Bulley Woods, 2.vii.1997, 4.x.1997; Highnam Woods, 18.x.1998, KNAA; Gamage Court, 6.x.2001, KNAA; Westbury-on-Severn, 13.iv.2002; 19.x.2002, 2003, KNAA.

SO72 Rodway Hill, Highnam Woods, 18.x.1998; Glasshouse Orchard, Taynton, 4.vii.2001, KNAA; Redhill Farm, Newent, 26.v.2005, KNAA.

SO80 Selsley Common, hawthorn, 10.viii.1997; Rabbit Warren Wood, Selsley, 25.v.1998; Bisley Road Cemetery, 20.v.2001, KNAA; Frith Wood, 11.xi.2003, KNAA.

SO81 Robins Wood Hill, 19.x.1997; Nut Hill, Upton St Leonard's, 18.vii.1998, KNAA.

SO82 Coombe Hill Canal, 3.ix.2000, KNAA; 2/3.vii.2005, DSL; Ashleworth Ham, 4.viii.2002, KNAA; Ashleworth Ham, 4.viii.2002, KNAA.

SO83 Chaceley Meadow, 30.viii.1999, KNAA.

- SO90 Edgeworth, numerous in *leylandii* hedge, 21.vi.1998, KNAA; Siccaridge Wood, 2003, KNAA.
- SO92 Queenswood Farm, 19.vi.2002, KNAA.
- SO93 Tewkesbury, hawthorn, 22.vii.2001, KNAA.
- SP00 Smiths Covert, Barnsley Warren, 30.viii.1993, KNAA.
- SP01 Chedworth Woods, 6.vii.1997, 8.vi.2002; Rendcomb Park, 16.x.1999, KNAA.
- SP03 Stanton Hill, 19.v.2002, KNAA.
- SP10 Bryworth Lane Railway, 7.x.2000, KNAA.
- SP12 Stow Bridge Coppice, 17.vii.1999, KNAA.
- SP20 Lechlade Reserve, 17.ix.1995, KNAA.
- ST57 Coombe Dingle, 30.vi.1998, KNAA.
- ST59 Sedbury Cliff, 15.viii.1993, KNAA.
- ST78 Lower Woods, 31.v.1997, KNAA.
- ST79 Alderley Wood, 23.v.1998, KNAA.
- ST89 Boxwell Wood, 31.vii.1973, LK Ward; plentiful on box, 23.v.1998, KNAA; Highgrove House, 17.viii.1995, 2.vii.1997, KNAA; Field Farm, Nympsfield, on hazel, 19.viii.1995, KNAA; Box Farm Meadows, 2003, KNAA.
- Stenopsocus stigmaticus*** (Imhoff & Labram) - Widespread nationally, but local; on tree foliage, mainly broad-leaves. Adult 1 July – 10 November.
- SO50 Prior's Mesne, Aylburton, 8.ix.2002, KNAA.
- SO61 Leymoor Quagg, on oak and alder foliage, 13.ix.1997, KNAA.
- SO71 Gamage Court, ix.2001, PFW; Broadway Farm, on plum tree, 15.vii.2003, KNAA.
- SO82 Coombe Hill Canal, common on hawthorn and blackthorn, 3.ix.2000, KNAA; 2/3.vii.2005, DSL.
- SO83 Chaceley Meadow, hawthorn & willow, 30.viii.1999, KNAA.
- SO90 Sapperton Wood, 17.vii.2002, KNAA.
- SO91 Short Wood, Crickley Hill, 10.xi.1991, KNAA.
- SP10 Rack Isle, Bibury, ash, 1.vii.2001, KNAA.
- SP02 Puckham Woods, 21.ix.1997, KNAA.
- SP20 Lechlade Reserve, 17.ix.1995, KNAA.
- Stenopsocus immaculatus*** (Stephens) and ***S. lachlani*** Kolbe – This species complex was first distinguished in Britain by Saville (2001) and so all earlier records of the former should be treated with caution unless confirmed by checking voucher material. It had been considered widespread nationally and often common; on tree foliage, mainly broadleaves. Adult 15 June – 18 October. Although *S. lachlani* is suspected as occurring in the county it has not yet been confirmed.
- SO50 Woolaston Lime Coppice, 26.vi.1999, KNAA; Prior's Mesne, Aylburton, *S. immaculatus*, 8.ix.2002, KNAA.
- SO51 Swan Pool & Timberyard Pools, 18.x.1981, KNAA.

- SO60 Nagshead NR, 14.ix.1991, KNAA.
- SO61 Stenders Quarry, *immaculatus*, 15.vi.2003, KNAA.
- SO71 Broadway Farm, *immaculatus* on plum, 26.vi.2003, KNAA.
- SO81 Popes Wood, 19.ix.1985, KNAA.
- SO83 Mythe Railway, off *Rosa* sp, *S. lachlani* (unconfirmed?), 10.vi.2003, KNAA.
- SO90 Oakley Wood, 30.ix.1989; Pinbury Park, off elder, 21.vi.1998; Siccaridge Wood, 7.x.2001, *immaculatus* 2003, KNAA.
- SO91 Cowley Manor, 1959; Churchdown, RSG.
- SO91 Dowdeswell Wood, 16.ix.2001, KNAA.
- SO92 Dowdeswell Wood, 29.viii.1994, KNAA.
- SP02 Guiting Wood, 19.vii.1992, KNAA.
- SP12 Stow Bridge Coppice, 17.vii.1999, KNAA.
- SP20 Lechlade Reserve, 17.ix.1995, KNAA.
- SP22 Lower Oddington Ashes & Bledington Heath, 10.ix.1994, KNAA.
- ST57 Coombe Dingle, 30.vi.1998, KNAA.
- ST59 Ban-y-Gor-Wood, 12.vii.1997, KNAA.
- ST78 S of Midger, 18.ix.1993, KNAA.
- ST89 Abbots Wood, Boxwell Valley, 18.ix.1993, KNAA.

Family LACHESILLIDAE

Lachesilla pedicularia (Linnaeus) - A native species, often common in dry grass, haystacks, etc; occasionally indoors. Reported in the county in 1957 by RSG, although the details are not available.

Lachesilla quercus (Kolbe) - Found associated with imported goods.

ST57 Bristol, 1952 (GNS files).

Family ECTOPSOCIDAE

Ectopsocus briggsi McLachlan - Widely distributed on tree foliage and in leaf litter. First recorded in the county by RS George in 1958, but confused locally with *E. petersi* (see below) until x.1997. Adult 7 July – 21 November.

SO60 Gatcombe, Awre, off mistletoe, 11.viii.2004, KNAA.

SO61 Cinderford Linear Park, western gorse, 12.viii.2000; Popes Hill, off privet in hedge, 7.vii.2002; Speech House Oaks, 10.viii.2002; Vostell's Brook, Newnham, off ash, 5.viii.2004, KNAA.

SO70 Stroudwater Canal, Stonehouse, off ivy, 18.viii.2001, KNAA; Northington Cliff, Awre, 11.viii.2004, KNAA.

SO71 Highnam Woods, willow, gorse, etc, 18.x.1998; Gamage Court, 19.x.2002; Broadway Farm, on apple and plum trees, KNAA.

SO72 Rodway Hill, Highnam Woods, *Clematis*, 18.x.1998, KNAA.

SO80 Stonehouse, off yew, 18.viii.2001, KNAA. Frith Wood, 11.xi.2003, KNAA.

SO81 Robins Wood Hill, 19.x.1997, KNAA.

- SO82 Ashleworth Ham, 4.viii.2002, KNAA.
SO83 Forthampton Oaks, 14.viii.1999; Chaceley Meadow, buckthorn, 30.viii.1999, KNAA.
SO90 Siccaridge Wood, off yew, 21.xi.1998, 2003, KNAA.
SO92 Pittville Park, Cheltenham, 16.ix.2001, KNAA.
ST59 The Park, Tidenham Chase, birch, 8.ix.2002, KNAA.
Ectopsocus petersi Smithers - Widely distributed and common throughout much of Britain on tree foliage. *Ectopsocus petersi* was distinguished from *E. briggsi* as long ago as 1978 (in Ireland) but was not really looked for in Britain until the 1990s when Withers (1997) found it to be the commoner of the two species in Norfolk. The author has found it to be widespread in Britain. Confused locally with *E. briggsi* until October 1997 but it then took three years to find it, so perhaps it will prove the less common of the two in this county. Adult 21 April – 19 October.
SO50 Prior's Mesne, Aylburton, 8.ix.2002, KNAA.
SO61 Speech House Oaks, 10.viii.2002; Newnham, 19.x.2002, KNAA.
SO70 Stroudwater Canal, Stonehouse, off dead grass stems and old bramble, 18.viii.2001, KNAA.
SO71 Gamage Court, pear, 6.x.2001, KNAA.
SO72 Newent Lake, 2 from ivy on alder, 21.iv.2001, KNAA.
SO73 Redmarley, hedgerow, 5.viii.2005, KNAA.
SO82 Long Pool & Coombe Hill Canal, 3.ix.2000, 22.vii.2001, KNAA. Ashleworth Ham, 4.viii.2002, KNAA.
SO83 Mythe Railway, off elder, 10.vi.2003, KNAA.
SO90 Overley Wood, 28.ix.2002, KNAA.
SO92 Pittville Park, Cheltenham, 16.ix.2001, KNAA. Queenswood Farm, 19.vi.2002, KNAA.
SO93 Tewkesbury, elder & bramble by disused railway, 22.vii.2001, KNAA.
SP10 Bryworth Lane Railway, hazel & field maple, 7.x.2000, KNAA.
SP20 Lechlade Reserve, 7.x.2000, KNAA.
Ectopsocus briggsi or **E. petersi** – All Gloucestershire records of *E. briggsi* prior to October 1997, and which do not have voucher material available in collections, cannot therefore be allocated to either species. These records are, however, presented in the catalogue for the sake of completion.
SO51 Swan Pool & Timberyard Pools, 563118, 18.x.1981; Lady Park Wood, 1.vii.1984, KNAA.
SO61 Cannop Ponds, 18.x.1981, KNAA.
SO70 The Dumbles, hawthorn, 15.viii.1992, KNAA.
SO80 Selsley Common, blackthorn, 10.viii.1997; Bisley Road Cemetery, two swept, 16.viii.1997, KNAA.
SO90 Oakley Wood, 30.ix.1989, KNAA.
SP20 Lechlade Reserve, 17.ix.1995, KNAA.

- SP22 Lower Oddington Ashes, 10.ix.1994, KNAA.
ST89 Fishpond Wood, Boxwell Valley, 18.ix.1993; Lower Lutheridge Farm Banks, buckthorn, 10.viii.1997, KNAA.

Family PERIPSOCIDAE

- Peripsocus phaeopterus** (Stephens) - Fairly common; arboreal and bark frequenting. First reported in the county by RSG, although the details are not available.
SO90 Siccaridge Wood, female off hazel pole, 21.ix.2003, KNAA.
SO92 Scobb's Grove, Dowdeswell, 16.ix.2001, KNAA.
SP02 Guiting Wood, 19.vii.1992, KNAA.
ST78 S of Midge, 18.ix.1993, KNAA.
ST89 Coaley Peak, hazel, 19.viii.1995; Highgrove House Park, 2.vii.1997, KNAA.
Peripsocus didymus Roesler - Arboreal and bark frequenting; apparently much scarcer than *P. phaeopterus*. Distinguished from the latter in 1939.
SO61 Chestnut Cottage Orchard, Popes Hill, dissected male, 7.vii.2002, KNAA.
SP02 Guiting Wood, 19.vii.1992, KNAA.
ST57 Bristol, 1925 (GNS files).
Peripsocus subfasciatus (Rambur) - Widespread on tree foliage but localised. *P. milleri* (Tillyard) has recently been found to be widespread in the west Midlands and may have been overlooked amongst *P. subfasciatus*.
SO50 Prior's Mesne, Aylburton, 8.ix.2002, KNAA.
SO61 Chestnut Cottage Orchard, Popes Hill, dissected female, 7.vii.2002, KNAA.
SO71 Broadway Farm, off apple branches, 15.vii.2003, KNAA.
SO80 Stonehouse, on yew, 18.viii.2001, KNAA. Frith Wood, 11.xi.2003, KNAA.
SO90 Sapperton Wood, 17.vii.2002, KNAA. Siccaridge Wood, teneral off hazel pole, 11.vi.2003, KNAA.
Peripsocus alboguttatus (Dalman) – Widespread on tree foliage nationally but localised.
SO91 Dowdeswell Wood, off xC. *leylandii*, 16.ix.2001, KNAA.

Family TRICHOPSOCIDAE

- Trichopsocus** sp. - Gloucester, amongst bananas, 1963, RSG.
Trichopsocus dali (McLachlan) – On tree foliage.
SO90 Siccaridge Wood, 7.x.2001, KNAA.
SO92 Pittville Park, Cheltenham, off ivy, 16.ix.2001, KNAA.

Family ELIPSOCIDAE

- Elipsocus abdominalis** Reuter (= *mclachlani* Kimmins) – **County Rarity**. On bark of many kinds of tree; widespread nationally and locally common. Only two county records.
SO80 Swifts Hill, swept in quarry, 19.vi.2003, KNAA.

- SO83 Forthampton Oaks, 14.viii.1999, KNAA.
Elipsocus hyalinus (Stephens) - On bark of many kinds of tree. Widespread and common nationally. Adults 13 April – 19 October.
SO50 Prior's Mesne, Aylburton, 8.ix.2002, KNAA.
SO61 Leymoor Quagg, on birch, 13.ix.1997, KNAA. Speech House Oaks, off ivy on oak trunk, 10.viii.2002; Newnham, 19.x.2002, 5.viii.2004, KNAA.
SO71 Bulley Woods, 4.x.1997, KNAA; Westbury-on-Severn, plum, 13.iv.2002, 19.x.2002, 2003, KNAA.
SO80 Swifts Hill, on larch, 20.iv.1997; Selsley Common, hawthorn, 10.viii.1997, KNAA.
SO82 Sandhurst Brickpits, 18.iv.1999, KNAA; Ashleworth Ham, 4.viii.2002, KNAA.
SO83 Chaceley Meadow, buckthorn, 30.viii.1999, KNAA.
SO90 Siccaridge Wood, 7.x.2001, KNAA. Sapperton Wood, blackthorn, 17.vii.2002, KNAA.
SO91 Hilcot Wood, 16.v.1999, KNAA.
SO92 Dowdeswell Wood, 29.viii.1994, KNAA. Pittville Park, Cheltenham, birch, 16.ix.2001, KNAA.
SP03 Warren Park Farm, Toddington, plum trees, 19.v.2002, KNAA.
SP12 Salmonsbury Meadows, 17.vi.2000, KNAA.
ST59 The Park, Tidenham Chase, 8.ix.2002, KNAA.
ST89 Box Farm Meadows, *Rosa* in hedgerow, 5.vi.2003, KNAA.
SU09 Swillbrook Lakes Reserve, hawthorn, 19.ix.1998, KNAA.
Elipsocus pusillus (Hagen) (= *westwoodi* McLachlan) - On bark of many kinds of tree; often commoner on conifers; widespread nationally and locally common.
SO50 Prior's Mesne, Aylburton, 8.ix.2002, KNAA.
SO61 Chestnut Cottage Orchard, Popes Hill, 7.vii.2002, KNAA.
SO70 Stroudwater Canal, Stonehouse, teneral off hawthorn, 18.viii.2001, KNAA.
ST89 Field Farm, Nymphsfield, hazel, 19.viii.1995, KNAA.
Pseudopsocus rostocki Kolbe - Small colonies under web on bark; a rare species known from a few records from southern England.
ST68 Winterbourne, 1923 (GNS files).
Reuterella helvimacula (Enderlein) - Found on bark, usually in colonies under silken webs. Widespread, but local and usually found in small numbers.
ST68 Winterbourne, 1923 (GNS files).

Family PHILOTARSIDAE

Philotarsus parviceps Roesler & ***P. picicornis*** (Fabricius) – These two species were confused under the name of the latter until Saville (2001) drew attention to the presence in GB of the former. They are found on bark of many kinds of trees. Saville

- (loc. cit.) has found the former to be the more widespread of the two in the Lothians and this is the only species of the pair that has been confirmed in the county so far. Adults 7 July – 6 October.
SO50 Prior's Mesne, Aylburton, 8.ix.2002, KNAA.
SO61 Nagshead NR, 14.ix.1991, KNAA. Chestnut Cottage Orchard, Popes Hill, *P. parviceps*, 7.vii.2002, KNAA.
SO71 Gamage Court, *P. parviceps*, 19.x.2002, KNAA. Broadway Farm, *parviceps*, 2003, KNAA.
SO80 Stonehouse, *P. parviceps* off yew, 18.viii.2001, KNAA. Swifts Hill, swept, 18.vi.2003, KNAA.
SO82 Coombe Hill Canal, 3.ix.2000, KNAA. Lord's Hill Orchard, Ashleworth, pear branches, *P. parviceps*, 6.x.2001, KNAA.
SO91 Dowdeswell Wood, *P. parviceps* off *xC. leylandii*, 16.ix.2001, KNAA.
SO92 Dowdeswell Wood, 29.viii.1994, KNAA.
SP02 Guiting Wood, 19.vii.1992, KNAA.
SP12 Stow Bridge Coppice, 17.vii.1999, KNAA.
ST78 S of Midger, 18.ix.1993, KNAA.
ST89 Highgrove House, 17.viii.1995, KNAA.

Family MESOPSOCIDAE

- Mesopsocus unipunctatus*** (Müller) - A common and widespread species nationally; on trees and low vegetation.
SO71 Broadway Farm, 25.v.2003, KNAA.
SO91 Cowley Manor, 1959, RSG.
SO92 Queenswood Farm, frequent off dead hazel boughs, 19.vi.2002, KNAA.
SP12 Old Hinchwick, off blackthorn in field boundary, 17.vi.2000, KNAA.
Mesopsocus immunis (Stephens) - A reputedly common and widespread species nationally; on trees, although very local in my experience.
SO91 Cowley Manor, 1959, RSG.

Family PSOCIDAE

- Amphigerontia bifasciata*** (Latreille) – Common and widespread nationally; feeds on encrusting algae.
SO61 Chestnut Cottage Orchard, Popes Hill, 7.vii.2002, KNAA; Speech House Oaks, one swept from grasses beneath old oak, 10.viii.2002, KNAA.
Amphigerontia contaminata (Stephens) - Common and widespread nationally; feeds on encrusting algae on the branches of various trees and low vegetation.
SO71 Broadway Farm, off apple branch, 26.vi.2003, KNAA.
SO90 Siccaridge Wood, swept beneath hazels, 21.ix.2003, KNAA.
SP02 Guiting Wood, 19.vii.1992, KNAA.
ST57 Coombe Dingle, 30.vi.1998, KNAA.

Metylophorus nebulosus (Stephens) - Widespread nationally, but local; on bark of many kinds of tree; usually only in small numbers. Confined in the county to the Forest of Dean and a few ancient woodlands in the Cotswolds. Adults 15 July – 29 August.

SO50 Slade Wood, one swept, 25.vii.1998, KNAA.

SO60 Fairmoor Green, Cannop, 18.vii.1998, KNAA.

SO61 Cinderford Linear Park & Wigpool Common, 12.viii.2000, KNAA. Speech House Oaks, off aerial dead oak branches, 10.viii.2002, KNAA.

SO71 Broadway Farm, apple branches, 15.vii.2003, KNAA.

SO92 Dowdeswell Wood, 29.viii.1994, KNAA.

SP02 Guiting Wood, 19.vii.1992, KNAA.

Psococerasis gibbosa (Sulzer) - Found locally on many kinds of tree, especially in southern and central England. At present, mainly known in the county from a few sites across the Cotswolds, and perhaps characteristic of ancient woodlands in the county. Adults 17 July – 19 August.

SO60 Fairmoor Green, Cannop, 18.vii.1998, KNAA.

SO82 Coombe Hill Canal, 22.vii.2001, KNAA.

SO90 Sapperton Wood, teneral, 17.vii.2002, KNAA.

SP02 Guiting Wood, 19.vii.1992, KNAA.

SP12 Stow Bridge Coppice, frequent, 17.vii.1999, KNAA.

ST88 Silk Wood, 5.viii.1984, KNAA.

ST89 Field Farm, Nympsfield, 19.viii.1995, KNAA.

Loensia fasciata (F.) - A bark frequenter, found on a wide range of trees; widespread nationally but not usually common.

SO61 Cinderford Linear Park, 1 beaten from pine branch, 12.viii.2000, KNAA.

SO71 Oak Field Orchard, Nottwood Hill, Blaisdon, one off old apple tree, 4.vi.2002, KNAA.

SP00 Cirencester, on garden fence, vii.2005, DSL.

SP01 Chedworth Woods, one off scrub at edge, 8.vi.2002, KNAA.

Loensia variegata (Latreille) - A bark frequenter, found on a wide range of trees; widespread nationally but not usually common.

SO50 Prior's Mesne, Aylburton, off oak, 8.ix.2002, KNAA.

SO71 Tan House Orchard, Blaisdon, on bark of pear tree, 19.vii.2000, PFW. Broadway Farm, off branches on pear and plum trees, 15.vii.2003, KNAA.

Trichadenotecnum majus (Kolbe) - A bark frequenter, found on a wide range of trees; widespread nationally but not usually common.

SO61 Wigpool Common, 10.viii.1996, KNAA.

SO71 Monk Hill Farm, Blaisdon, apple branches, 23.vi.2002, KNAA.

ST57 Straw Wood, Henbury, 1927 (GNS files).

Trichadenotecnum sexpunctatum (L.) - A bark frequenter, found on a wide range of trees; widespread nationally but not usually common.

SO90 Siccaridge Wood, 7.x.2001, KNAA.

ST57 Straw Wood, Henbury, 1927 (GNS files).

ACKNOWLEDGEMENTS

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MOLLUSCS IN GLOUCESTERSHIRE 2005

David Long

There was one new Vice County record: *Vertigo substriata*, a “whorl snail,” was found at Foxes Bridge Bog, v.c. 34, (SO631124) on 3 September by John Harper using a “Vacuum cleaner”. This is a species that likes damp habitats, and should be at other sites in the Forest of Dean.

Juliet Bailey’s find of the carnivorous slug *Testacella maugeri* (see plate 19) in her Stonehouse garden is the first record of this species in vc33 or 34 since 1916 (see GNS News, Summer 2005; Mollusc World issue 8 July 2005 and Western Daily Press, date uncertain).

Gloucestershire Invertebrate Group meetings continued to provide examples of molluscs being found by such means as sweep nets for arthropods. The RDB3 species *Ena montana* was found at Pen Wood on 8 October by this means. On 15 May the marsh at Brassey (SP138223) produced *Vertigo substriata*, known there since the 1970s, along with *V antivertigo*, not previously recorded there; Brassey is the only vc 33 site which has produced *V substriata* in recent years; there are previous records for Cranham Wood and Workmans Wood NNR but recent searches have failed to refind the snail.

As a result of surveying scowles in the Forest of Dean David Haigh and I found the local slender slug *Malacolimax tenellus* in October and November at the Delves (SO 649194 on 5 October and in two spots in/near Old Staple Edge Wood (SO650107 and SO652105) on 2 November. As this species is the target of a Conchological Society national survey these records have been passed to the Conchological Society.

Records for another Conchological Society survey, for the semi-slug *Phenacolimax major*, came from Workman’s Wood NNR (John Fleming SO 910114 10 April), Snows Farm (SO 892086 and 891083) on 8 March, and the Slaughter SO 553142 on 3 May.

Recording by John Fleming included re-finding the clausiliid snail *Balea perversa* living on a wall by Ebworth Park Cottages SO 913117 and in Workman’s Wood the old woodland species *Acicula fusca*, *Ena montana* and *Limax cinereoniger*.

Finally a new listing of British and Irish non-marine mollusca has been published (Anderson R, 2005. An annotated list of the non-marine mollusca of Britain and

Ireland, Journal of Conchology Vol 38 Part 6: pp 607-637). Adoption of this list will mean scientific name changes for some species that live in Gloucestershire.

Many thanks to the following for records: Juliet Bailey, Jeremy Doe, David Haigh, John Harper, John Fleming and Richard Spyvee.

RECORDING AREAS AND SPECIES STATUS

David Scott-Langley

Throughout this magazine and its forerunners, as well as the GNS News you will have seen phrases such as “Gloucestershire”, “Vice-County 33”, “RDB3” and “County Rarity”. The county recorders clearly know what they mean as they use them all the time but the average member of the public and, indeed, some members of the GNS may not. Hopefully what follows will cast some light on the recording methods and language used.

RECORDING AREAS

Recorders usually record species, habitats etc, within the county in which they live. However, the boundaries they use vary from one recorder to another and there is no current overall standard.

Using political county boundaries has an inherent problem – politicians. In their endeavours to change voting patterns they alter county boundaries at fairly frequent intervals, usually measured in tens of years, either by moving them or by subdividing into smaller units. At one time the county of Gloucestershire extended all the way into the heart of Bristol. Currently it is divided into two parts – Gloucestershire and South Gloucestershire. Some recorders do not include South Gloucestershire in their recording area and some do. The maps on pages 59-64 show the modern county mapping scheme. The problem here is that there is no recording organisation in South Gloucestershire and, apparently, the recorders from Bristol and Avon rarely come north of the river.

An alternative system of County boundaries was devised in 1852 by a botanist named Hewett Cotterell Watson, the Vice-County system. In his honour, they were named Watsonian Vice-Counties. They are based on subdivisions of the county boundaries of the day and, being apolitical, they have never changed in over 150 years. There are 112 Vice-Counties, each numbered and named, and Gloucestershire has two – Vice-County 33 (East Gloucestershire) and Vice-County 34 (West Gloucestershire). The maps on page 68 show the Vice-County system of mapping. Two advantages of this system are that (a) it provides continuity in interpreting historical records and (b) successive county recorders inherit the same territory. The system was first adopted by the forerunners of the Botanical Society of the British Isles, and is still used by them and many other recording schemes. In most cases the words Vice-County are reduced to V-c for convenience, as in the Botanical report. There is one slight point of confusion to a non-user and again, you can see this arising in the Botanical report. Some of the records are reported from V-c 33 (Worcestershire). This is because

Watson did not always strictly follow a county boundary, following instead a natural feature such as a river, in order to make more sense of his botanical distribution scheme. This means that parts of another political county might be included in a Gloucestershire Vice-County and also, that parts of political Gloucestershire might be included in surrounding non-Gloucestershire Vice-Counties (see figure 9).

You will have noticed that both the mapping systems mentioned so far show the distribution of species by dots on the maps. Not surprisingly, these are referred to as “dot-maps”. When records are gathered and sent to a recorder, they usually come with a grid reference, based on the National Grid, e.g. SP123456. The two letters refer to the 100-kilometre square in which the record is made, and the six figures give a point to the nearest 100 metres where the recorded species occurred. Ten-figure grid references are occasionally used, pinpointing to the nearest metre, but map-reading and even GPS (Global Positioning Systems) can never be that accurate. These map references are transferred to a mapping system, whether electronic or paper, resulting in dots appearing on either sort of recording area system showing the distribution of the species concerned. Some distribution maps are divided into 10-kilometre squares whilst others may be divided more finely into 2-kilometre squares, with dots to match. Problems can arise when interpreting the information from these different scales – the 10-kilometre scale can show a large area with a dot on it but that dot may represent only one record. The 2-kilometre scale on the other hand could be said to be 25 times more accurate since there are 25 2-kilometre squares in a 10-kilometre square. Recording at this scale however requires a huge amount more work for a voluntary recorder, hence the need for records from the general public and members of the GNS to augment his/her own.

This brings us to the DINTY system of recording whereby a species may be recorded from a grid reference given as SP12M. As above, the first two letters refer to the 100-kilometre square, but the two numbers refer to the relevant 10-kilometre square and the final letter refers to a 2-kilometre square, often referred to as a “tetrad”, within that 10-kilometre square. Why DINTY? Because each tetrad within a 10-kilometre square is given a letter of the alphabet (the only one not being used is the letter Q) the second row down was the only combination of letters that could be made into a “word” (see figure 8).

E	J	O	U	Z
D	I	N	T	Y
C	H	M	S	X
B	G	L	R	W
A	F	K	P	V

Figure 8. The DINTY tetrad system

You may have noticed in the Lichen report that the two maps are based on 5-kilometre squares. The reason is that these maps show the approximate number of species in each square and this is used as a tool for the targeting of recording efforts by the Lichen Group. The difference between figure 6 and figure 7 shows how well this works. Once such general coverage of the county is complete more intensive recording at the tetrad level and below can commence.

SPECIES STATUS

The status of a species refers to its abundance or rarity, both on a national and a local (county) scale. Here we refer back to the scale, and interpretation, of records in that a species may be locally abundant but nationally rare and vice versa. Applying a particular status to a species can also be misleading – if there is only one recorder nationally of a particular obscure organism, then a national distribution map is going to give a distorted picture of what may be a common species, and the map will only represent the recorder's own wanderings around the country.

There is a series of Red Data Books (RDB) that give details of species considered to be under threat nationally. These books set out a series of threat category definitions that are used by county recorders when discussing such species. The relevant category is usually inserted after the species name (see plate 20). RDB categories usually apply to species that are found in 15 or less 10-kilometre squares. These categories are summarised below:

- Extinct** Species which formerly had wild breeding populations in Great Britain but which are now believed to have died out. Occasionally such species are rediscovered and recategorised.
- Endangered (RDB1)** Species in danger of extinction and whose survival is unlikely if causal factors continue operating. Included are species whose numbers have been reduced to a critical level or whose habitats have been so dramatically reduced that they are deemed to be in immediate danger of extinction.
Criteria: - Species which are known as only a single population within one 10-kilometre square in Britain and species which have shown a continuous decline over the last twenty years and now exist in five or fewer 10-kilometre squares in Britain.
- Vulnerable (RDB2)** Species believed likely to move into the Endangered category in the near future. Included are species of which most or all of the populations are decreasing because of over-exploitation, extensive destruction of habitat or other environmental disturbance; species with populations that have been seriously depleted and whose ultimate security is not yet assured; and species with

populations that are still abundant but are under threat from serious adverse factors throughout their range.

Criteria: - Species declining throughout their range; species in vulnerable habitats; species whose populations are low and thought to be existing in less than ten 10-kilometre squares in Britain.

Rare (RDB3) Species with small populations which are not at present Vulnerable or Endangered but are at risk. These species are usually localised within restricted geographical areas or habitats, or they are thinly scattered over a more extensive range.

Criteria: - Usually species which are thought to exist in fifteen or fewer 10Km squares in Britain.

Insufficiently Known (RDBK) Species suspected of falling within RDB categories 1-3, but about which there is insufficient information to be certain.

Out of Danger (RDB4) Species formerly meeting the criteria of one of the above categories but which are now considered relatively secure owing to effective conservation measures or the removal of the previous threat to their existence.

Endemic (RDB5) Species which are thought not to occur naturally outside the British Isles. Species within this category may also be in any other threat category or not be seriously threatened at all.

RDB-Appendix Species which were formerly native to Britain but have not been recorded since 1900.

pRDB Species which are proposed at the stated RDB level (e.g. pRDB2) but have not yet been ratified by the RDB Criteria and Species Selection Committee.

Once the species is recorded in more than 15 10-kilometre squares then it comes out of RDB status (with the exception of RDB5 which can apply to any qualifying species, however common) and the following status definitions may apply:

Nationally Notable A Sometimes written as **Notable Na** or **Nationally Scarce A**. This category applies to species that are thought to occur in 30 or fewer 10-kilometre squares in Britain.

Nationally Notable B Sometimes written as **Notable Nb** or **Nationally Scarce B**. This category applies to species recorded from between 31 and 100 10-kilometre squares in Britain

Local Species that are recorded from between 101 and 500 10-kilometre squares.

County Rarity This category is usually determined by the county recorder and applies to a species that may be widespread and/or common

nationally but that within a particular county has only been recorded a very few times

The total number of 10-kilometre squares with some land in them in the British Isles is 3870 and a species that is likely to be found in a majority, or all, of these is usually referred to as "widespread" or "common". Political Gloucestershire contains forty-four 10-kilometre squares and the Watsonian Vice-Counties 33 & 34 contain a total of fifty-one 10-kilometre squares.

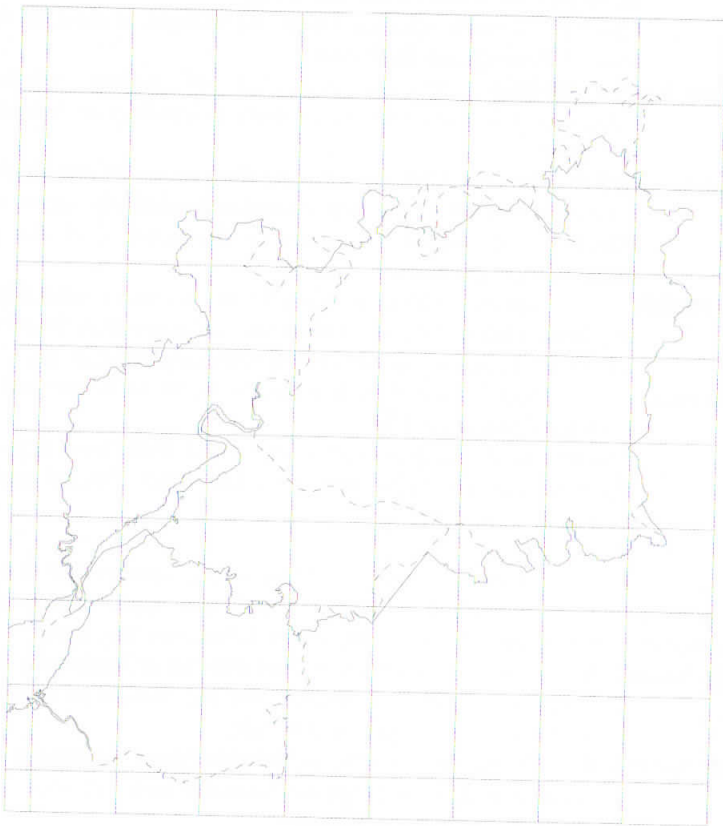


Figure 9. Map of political Gloucestershire (solid lines) and Vice-Counties 33 (East Gloucestershire) and 34 (West Gloucestershire) (dotted lines where they differ from the county boundary)

APPENDIX: Notes for Contributors

1. The Editor will be pleased to receive papers of a more scientific nature relating to the fauna and flora of Gloucestershire than would be published in the GNS News, as well as annual reports from the County Recorders.
2. Wherever possible, papers for publication in *The Gloucestershire Naturalist* should be in Microsoft Word and saved as (.doc) files.
3. The font is to be Times New Roman size 10.
4. Titles and section headings should be as in 2. above and will be formatted by the editor.
5. Page size is to be A5 Portrait. The Editor will be pleased to email a formatted page for use by the contributor.
6. Drawings and sketches should be camera-ready and should be supplied on good quality paper or Polydraw drafting film.
7. Maps should be as in 6. above unless they can be electronically generated using programmes such as DMAP or Mapmate.
8. Photographs should preferably be supplied as digital images.
9. All digital images (maps, photos or scanned images) should be as large as possible and saved as .tif or .jpg files and sent to the Editor on Compact Disc or by email. Please do not incorporate them in your article
10. For those using traditional methods, manuscripts should be double-line spaced and clearly legible or they will be returned. Drawings, maps and photographs should be supplied as in 6., 7. & 8. above.
11. If requested, contributors will be sent a copy of their paper for proofreading and final alterations before publication.
12. Submission date shall be no later than February 28th for publication the following May/June of the same year.
13. Contributors are asked to submit two or three lines about themselves with their article.