

Shropshire Invertebrates Group

Annual Report 2002

Text copyright A.G.Blunt, C. Derry, J. Mason, I. Thompson 2003

Photographs copyright R.G.Kemp 2003

Contents

Field Meetings 2002

Alveley and Highley, 17 March

Bucknell Wood, 12 May

Ironbridge and Coalport, 16 June

Whixall Moss, 30 June

Llanymynych Rocks Nature Reserve, 18 August

Borle Brook and River Rea, 8 September

Dudmaston, 13 October

Members' individual activities 2002

John Mason

Ian Thompson

Godfrey Blunt

Charles Derry

Scientific names of organisms mentioned in the text

Shropshire Invertebrates Group Field Meetings 2002

17 March 2002: Alveley and Highley (5 attended)

This field meeting explored woods and open spaces along the River Severn, from Hallclose Coppice and Severn Valley Country Park at Alveley, crossing the river by the old colliery bridge, and following the banks of the Severn northwards as far as Whithalls. The day was generally sunny, but with occasional light rain and with cooler, wetter weather by 4:00pm.

The main aim of the meeting was to investigate the population of Yellow Star-of-Bethlehem in woods near Whithalls. Once in good quantity here, the population has been adversely affected by a tree which fell across the site a few years ago. Our group found about ten plants surviving in one small area; two were in flower and the rest in leaf, with the tips of most leaves nibbled off. Encroachment by brambles over the site was threatening its future viability. Though invertebrates throughout the day were few in number, a specimen of the early spring sawfly *Amauronematus histrio* was taken here. A Badger sett in this area had fresh bedding at its entrance, and careful sifting of this produced a number of larvae of the badger flea *Paraceras melis melis*.

Riverside meadows just north of this woodland were much overgrown due to the cessation of grazing; Marsh Marigold and Yellow Flag were found in quantity in seepages here, a clump of frogspawn was also found, and some hills of the meadow ant *Myrmica rubra* were present in the drier parts of the field.

Hallclose Coppice was explored and a typical ancient woodland flora was found on its wet, clayey soil. Wood Anemone was flowering in abundance, and smaller quantities of Golden Saxifrage, Lesser Celandine, Dog's Mercury, Early Dog Violet, Wood Sorrel, Moschatel and Blackthorn were also in flower. Good populations of Bluebells and Wild Garlic were coming into leaf. A similar flora, though not as rich, was present in the woods at Whithalls.

Hallclose Coppice produced several interesting fungi including King Alfred's Cakes on Elder, *Daedaleopsis confragosa* on Birch and an unidentified slime mould on Pedunculate Oak. *Sarcoscypha coccinea* was growing on fallen wood, but no sign was found of *Verpa conica* which has occurred in this woodland in the past. An abundant flora of corticolous mosses and lichens was noted, and the snail *Clausilia bidentata* was located on several tree trunks. A number of bramble leaves bore mines of the nepticulid moth *Stigmella aurella*. The group observed the tufa deposits along one of the streams draining Hallclose Coppice.

Just to the east of this woodland is an excellent example of a meadow covered in *Myrmica rubra* mounds; an inspection chamber built into the side of one mound was examined but no ant activity was noted. Large numbers of ant-hills showed droppings and beak-marks of the Green Woodpecker, which was heard and seen nearby.

The footbridge over the River Severn had Spring Whitlow-grass in flower, and an egg of the Purple Hairstreak was found on an overhanging oak twig after a short search. The ladybird *Chilocoris renipustulatus* was located on both sides of the bridge, and a specimen of Orange Underwing observed flying about mature Silver Birches towards the halt on the Severn Valley railway. Jew's Ear Fungus was growing on Elder in this same vicinity. In the Severn Valley Country Park a clump of Mistletoe, still with a couple of berries on it, was found parasitising Hawthorn.

Birds were noticeably active in the wooded areas, and three or four Chiffchaffs were already in song. Long-tailed Tits were present at several spots along our route. Near the small island opposite Severndale were a pair of Goosanders, four or five Mallard and a Cormorant. In the Severn Valley Country Park a male Reed Bunting and a couple of Grey Wagtails were observed at close quarters.

12 May 2002: Bucknell Wood (6 attended)

This field trip explored the southern and central parts of the wood, where old oak woodland still exists above a typical flora of acid soils. Large areas of the rest of the wood have been coniferised and hold little biodiversity. The

aim of the expedition was to re-locate the red longhorn beetle *Pyrrhidium sanguineum*, found here a few years back, and other ancient woodland insects.

On a day alternately sunny and cloudy, the group searched the known site for *Pyrrhidium* but failed to find it. Large quantities of fallen oak branches, its favoured habitat here, were present in the upper reaches of the wood, but most were too far decayed to attract the beetle, which appears to prefer very recently fallen branches. However, the season was not as far advanced as expected and it may simply have been that the longhorn had not yet emerged.

Under the oaks the woodland floor was covered with an impressive display of Bluebells, and locally there were also good quantities of Primrose, Greater Stitchwort, Ground Ivy, Bugle, Yellow Pimpernel and Germander Speedwell in flower. In very restricted areas we found Wood Sorrel, Tormentil, Barren Strawberry, Lady's Smock and Changing Forget-me-not; both Field and Hairy Woodrushes grew in small quantity in suitable habitat; and in one location five flowering spikes of Early Purple Orchid were found.

A reasonable variety of insects was present, but no species was in quantity except for the wood ant *Formica rufa*, several nests of which were examined, and the bumble-bee *Bombus pascuorum*, much the commonest of the four bumble-bee species encountered (others being *B. lapidarius*, *B. lucorum* and *B. terrestris*.) Among the butterflies the Green-veined White was in reasonable numbers and one or two each of Large White, Orange Tip, Peacock, Small Tortoiseshell and Comma appeared during the sunnier spells. Many Speckled Yellow moths were on the wing, and a mating pair was found and photographed. Also locally common was the longhorn moth *Adela reaumurella*. Other moths present were the Cinnabar, Common Carpet, Brown Silver-line and the micro *Incurvaria masculella*. The best find of the day, however, was a specimen of the Square Spot at rest on the trunk of a Beech tree. This moth is a rare species in Shropshire, only recently added to the county list; but the specimen we encountered was not of the typical form but ab. *waiensis*, described in Skinner's Colour Identification Guide to Moths of the British Isles as inhabiting the Wye valley, Monmouthshire, and the Forest of Dean.

Among other insect groups another excellent find was the uncommon old-woodland cranefly *Tanyptera nigricornis*, a female of which was taken in the same vicinity as the Square Spot. Several hoverflies were on the wing, among them *Volucella bombylans*, *Rhingia campestris* and *Leucozona lucorum*. The bee-fly *Bombylius major* was encountered three or four times. Few beetles were in evidence, but we did locate a common longhorn *Rhagium mordax* and ladybird *Propylea 14-punctata*. A snake-fly *Raphidia* sp. was found on low vegetation along the main track through the wood, but it escaped capture and could not be identified to species level. Few other invertebrates were seen during the excursion, but we did find the "big bud" galls of the mite *Eriophyes avellanae* on Hazel.

Birds were not noticeably abundant, and summer visitors were particularly few in number: a couple of singing Chiffchaffs, a Willow Warbler and a Redstart. A pair of Ravens indulged in some territorial display flights, and Buzzards and a Sparrowhawk flew overhead. Among typical woodland species we saw or heard Green and Great Spotted Woodpeckers, Song Thrush and Nuthatch. Other vertebrates found during the day were a Slow Worm, Rabbit and Grey Squirrel, plus a Badger sett near the entrance to the wood.

The day's sightings were rounded off by an impressive specimen of the fungus *Polyporus squamosus* at the Early Purple Orchid locality.

16 June 2002: Ironbridge and Coalport (3 attended)

This meeting took place in the late afternoon and evening, with the twin aims of investigating the fauna of Traveller's Joy at Ironbridge and of counting the number of glow-worms *Lampyris noctiluca* in a colony on the disused railway at Coalport. The group began by searching the car park shrubberies by the historical iron bridge itself, where Traveller's Joy was growing in reasonable quantity. Here we disturbed a specimen of Common Marbled Carpet and located a number of leaf mines of the fly *Phytomyza vitalbae*; a larva found on Traveller's Joy in this same area proved to be the Angle Shades moth. We then proceeded along the disused railway at the foot of Benthall Edge Wood almost as far as Buildwas power station, where the group turned up into the wood, and after a steep climb eventually came out into the small limestone quarry in its upper reaches.

The railway line was flanked by a profusion of tree, shrub and tall herb species, notable among which were Large- and Small-leaved Limes and an abundance of Wych Elm suckers. Traveller's Joy was locally common here too, but produced nothing of interest. However, by general netting along the railway the group secured the Snout moth plus several interesting microlepidoptera, among which were *Olethreutes lacunana*, *Anthophila fabriciana*, *Agonopterix arenella*, *Nemophora schwarziellus*, *Pseudargyrotoza conwagana* and *Eudonia truncicolella*, all of which are widespread in Shropshire. Four species, however - *Epinotia subocellana*, *Lampronia rubiella*, *Argyresthia spinosella* and *Coleophora binderella* - are potentially new for the county. The last named appeared to be quite common around Hazel shrubs. An abundance of Ramsons was noted deeper into Benthall Edge Wood, while Soapwort and Nettle-leaved Bellflower were among the more interesting plant species encountered. Some fine specimens of the fungus *Peziza repanda* were growing on a pile of chipped bark left during conservation work in the woodland.

The quarry is a notable spot for calcicolous plants and did not disappoint on this occasion. Common Spotted Orchids were flowering abundantly and included a white specimen; about fifteen spikes each of Bee Orchid and Greater Butterfly Orchid plus four plants of Common Twayblade were also located; but tree-felling had obliterated the small population of Birdsnest Orchid, and no plant of this species was found. Scrub clearance operations had also removed all the large Aspens, leaving only a group of small suckers; this was formerly one of the best populations of this tree in the county and held an interesting invertebrate fauna; very little of the latter was in evidence on the current visit, except that the large and well-formed galls of the midge *Harmandia globuli* were still present. By contrast, Dogwood was clearly flourishing in the quarry, and a larva of the Vapourer moth was found upon one bush. Among other plant species recorded during our visit were Sanicle, Fairy Flax, Common Milkwort, Quaking Grass and Yellow-wort, the last not yet in flower.

The more interesting insects recorded in the quarry included the red-and-black froghopper *Cercopis vulnerata*, the tortricid moths *Epiblema sticticana* (quite numerous among its foodplant Coltsfoot), *Aethes smeathmanniana* and *Epinotia ramella*, this last in its rather unusual form *costella*; and a pyralid *Crambus lathoniellus*. A Grass Snake and Rabbit in the quarry were two of the few vertebrates encountered by the group. Birds were little in evidence, except for an abundance of Swifts by the River Severn and Woodpigeons in Benthall Edge Wood.

The evening was completed by a visit down-river to Coalport, where along a 150-yard stretch of disused railway by the Brewery pub we counted seven Glow-worms shortly after 10:00pm. A little later an eighth specimen was spotted by the nearby road bridge.

30 June 2002: Whixall Moss (4 attended)

Despite the small size of the group, naturalists from Shropshire, Leicestershire and the West Midlands were represented in this gathering on a somewhat overcast and windy day not obviously suited to looking for insects. The group met at Moss Cottages and went out from there directly onto the Moss, working the Shropshire part of this National Nature Reserve as far as the boundary with Wales.

The very first peat cutting we explored while still among the wooded area proved highly productive, as three or four Large Heaths were readily disturbed from the mixed vegetation of Common Cotton-grass, Heather and Cross-leaved Heath. One fine fresh specimen was reluctant to fly in the cool, windy conditions and gave splendid opportunities for photography. In the same area we located two other well-known specialities of the moss, the Purple-bordered Gold and Bog Bush Cricket *Metrioptera brachyptera*, the latter still a small nymph. A Common Frog was also located here. Some Large Skippers were quite active, and the nearby trackway among mature birches produced several Meadow Browns and a Speckled Wood. Microlepidoptera were also easily obtained, the commonest being *Argyresthia brockeella* and *Crambus pascuella*, while single *Nemophora degeerella* and *Olethreutes lacunana* were also observed. Several Odonata were active in this more sheltered part of the Moss, consisting chiefly of the Common Blue Damselfly with a handful of Emerald Damselflies and Common Darters. A colony of Bog Asphodel was found here. At the end of the field meeting the group returned by the same trackway, encountering more species, including Yellow Shell, Riband Wave, Coxcomb Prominent, the pyralid *Agriphila tristella* and the tortricid *Pseudargyrotoza conwagana*, an untypical specimen heavily suffused with fuscous-brown.

The transition zone between the birch/sallow scrub and the open moss was also very productive, particularly where there was shelter from the blustery wind. Larger moths consisted of single specimens of Common Wave, Common Carpet, Grass Wave and Brown Silver-line, together with an abundance of Common Heaths in a great variety of colour forms. Micros included *Eupoecilia angustana*, *Orthotaenia undulana* and the best find of the day, a specimen of the bird-dropping mimic *Hedya salicella*. This species is nationally local, and certainly so in Shropshire; and although it is known from the Welsh parts of Fenns and Bettisfield Mosses, this may be the first record for the Shropshire stretch of the Whixall Moss complex. Common Sallows in this zone produced galls of the mite *Eriophyes tetanothorax* and the sawfly *Pontania vesicator*, and the group found Fox tracks in a peat cutting on the edge of the open Moss.

Lunch was taken by the side of an overgrown ditch in the lee of a line of shrubs, and this proved an excellent stop. The ditch itself held an abundance of Lesser Bladderwort in flower, and its banks had Round-leaved Sundew in reasonable quantity. Brown China-mark moths were numerous, and a second Bog Bush Cricket nymph was found here, while among the Odonata were one or two Large Red Damselflies and a dragonfly thought to be the Hairy Dragonfly. Among the herbage by the side of the ditch a caterpillar of the Red Chestnut moth was found, along with a superb imago of the Scallop Shell which was much admired by the group.

As afternoon wore on, deteriorating weather conditions made the open parts of Whixall Moss relatively unproductive of insects. A couple more Large Heaths were put up, and two or three teneral Black Darters indicated that this species was right at the start of its emergence period. A single specimen of the Azure Damselfly was located, as was a Four-dotted Footman; while the characteristic leaf-rolls of the weevil *Deporaus betulae* were found on a single birch shrub. The Bog Rosemary was in reasonable quantity locally on the open moss. In contrast to the paucity of insects, bird life was varied and abundant, including single Snipe, Lapwing and Green Sandpiper, a brood of Mallard and recently-fledged Black-headed Gulls, and a pair of Curlews on territory. Female Teal and female Shoveler were also interesting sightings. Three singing Whitethroats were located and a newly-fledged brood of Linnets was found among birch scrub. Other passerines on the open moss included two Meadow Pipits, a singing Tree Pipit and a male Reed Bunting. Swifts were very abundant overhead and single Kestrel and Buzzard were seen.

Rain set in at 3:30pm; the Fox Moths started to fly about the same time and we headed back off the Moss.

18 August 2002: Llanymynyach Rocks Nature Reserve (2 attended)

The aims of this meeting were to search for the Brown Argus butterfly and specialist Lepidoptera on Traveller's Joy. The whole site area was visited on both sides of the joint county/national boundary.

Immediately upon leaving the car park we heard a Green Woodpecker calling from the field below the woodland. We followed the track up to the grassland on the quarry floor and subsequently examined the floor of the cirque. Although the best of the wild flowers were over, Harebell and Wild Carrot were numerous and it was evident that it had been a good year for Yellow-wort. The remains of Carline Thistle were in evidence and Wild Marjoram, Eyebright, Knapweed, Slender St. John's Wort, Common Milkwort and Quaking Grass were noted. At the shut-off entrance to the tunnel, in the Ivy and Traveller's Joy found on the cliff faces, numerous tits were feeding on unidentified prey. At any one time several Great, Blue and Long-tailed Tits were to be seen. Our search for the Brown Argus was unfulfilled. Gatekeepers were particularly plentiful and we also recorded Large, Small and Green-veined Whites, Common Blue and Meadow Brown, which seemed to be having a good year. Some Speckled Woods were evident along the main track. Another species we hoped to find, the Wall, was not in evidence. The best area for invertebrates was the open scree on the way to the extreme southern end of the cliffs. Here we found Field Scabious and Wild Thyme, also all the butterflies seen lower down plus Peacock and Small Copper. Two species of bumblebee *Bombus lucorum* and *B. lapidarius* and some Common Field Grasshoppers *Chorthippus brunneus* were present.

A lunch stop was made at the highest point of the reserve at the southern end. At this time a heavy rainstorm occurred and we took shelter in a small cave where we noted Black Spleenwort growing in a rock cleft above the floor and about twelve feet inside the cave in dry conditions and poor light. After rain we climbed to the top of the hill by the twelfth tee on the golf course and enjoyed one of the finest views in the Borders, looking along the

Severn, Vyrnwy and Tanat valleys. We were treated to a fine aerial display by a pair of Ravens. On our way back, in the first quarry area, a single Migrant Hawker *Aeshna mixta* was seen.

Finally we visited the dense 'temperate jungle' area reached by a track from the main path just above the car park. The trees were largely Ash, and the Traveller's Joy had climbed to the canopy roof producing a situation where little light reaches the rocky floor. The ground vegetation was dominated by Hart's-tongue with some Broad Buckler Fern and Hard Shield Fern. In more open areas, next to the rock faces and around a small open grassy quarry floor, some Traveller's Joy foliage at low level was to be found, but our admittedly quick study revealed no leaf mines; we did not have a beating-tray with us. Whilst we were in the open area a Peregrine flew low overhead. In the grassy area and a wet hollow, now almost dry, we noted Star Sedge, Hard, Soft and Jointed Rushes and Common Bulrush. No other Odonata were present and we doubted that the wet hollow was the breeding-ground for our earlier sighted Migrant Hawker.

8 September 2002: Borle Brook and River Rea (4 attended)

This meeting set out to explore stands of Butterbur and associated vegetation along the Borle Brook near Highley and the River Rea near Stottesden. Three sites were investigated: Hook Plantation at Covert Lane Bridge, Chelmarsh Common; the environs of Duddlewick Bridge, Stottesden; and the disused railway line near the latter locality.

At Covert Lane Bridge a population of Butterbur was found on the banks of the Borle Brook among a thick tangle of vegetation typical of damp woodland on nutrient-rich soils. Alder, Hazel, Blackthorn and Hawthorn formed the dominant tree and shrub species, with Bramble and Wild Gooseberry locally present. Climbing plants were frequent, and included Honeysuckle and Black Bryony; while Stinging Nettle, Creeping Thistle, Ground Elder, Himalayan Balsam and Meadowsweet occurred in the field layer.

Leaf-mines, galls and other signs of phytophagous invertebrates were readily encountered on the main plant species throughout this site. Those identified were as follows:

Diptera:

Dasyneura urticae galls on Stinging Nettle
Euribia cardui gall on Creeping Thistle
Phytomyza tussilaginis mines on Butterbur

Phytomyza obscurella mines on Ground Elder
Phytomyza periclymeni mines on Honeysuckle
Agromyza spiraeae mines on Meadowsweet

Lepidoptera:

Stigmella aurella mines on Bramble
Stigmella microtheriella mines on Hazel
Phyllonorycter coryli mines on Hazel

Phyllonorycter nicellii mines on Hazel
Phyllonorycter rajella mines on Alder
Epinotia tetraquetra leaf-roll on Alder

Acarina:

Eriophyes axillare galls on Alder
Eriophyes brevitarsus galls on Alder

Additionally a larva of the Double-striped Pug was beaten from Hawthorn, imagines of the microlepidoptera *Agriphila tristella* and *Yponomeuta parenthesella* were disturbed from vegetation, and Speckled Wood was on the wing. A scorpion-fly taken among the Butterbur proved to be *Panorpa germanica*. A neighbouring meadow was briefly visited and yielded plants of Pignut, Harebell and Devil's-bit Scabious.

The group then moved on to the banks of the River Rea at Duddlewick Bridge, encountering en route a Peacock butterfly at Stottesden. After lunch at the bridge we investigated a neighbouring track which runs parallel to the river and has a colony of Butterbur, after which we beat and searched trees and shrubs along the roadside. Alder and Ash were the dominant tree species, with some Crack Willow and Goat Willow and a small amount of Pedunculate Oak, Wych Elm and Field Maple. The most abundant shrubs were Hazel, Elder, Blackthorn and Dogwood, with a local population of Redcurrant and a single specimen of Wild Gooseberry. Ground Elder was abundant in the field layer, where Stinging Nettle, Sanicle, Meadowsweet and Tufted Hair-grass were also present.

Several species which we had encountered along the Borle Brook were located at this site also, while a number of new species were added to the day's tally. The following were identified:

Lepidoptera:

Stigmella microtheriella mines on Hazel
Phyllonorycter coryli mines on Hazel
Phyllonorycter nicellii mines on Hazel
Parornix devoniella mines on Hazel
Stigmella plagicollella mines on Blackthorn
Phyllonorycter spinicollella mines on Blackthorn

Parornix torquillella mines on Blackthorn
Phyllonorycter rajella mines on Alder
Tischeria ekebladella mines on Oak
Caloptilia syringella mines on Ash
Purple Thorn larva on Wild Gooseberry

Diptera:

Phytomyza tussilaginis mines on Butterbur

Hymenoptera:

Neuroterus quercus-baccarum galls on Oak
Diastrophus rubi gall on Bramble

Pontania proxima galls on Crack Willow
Tenthredo mandibularis larvae on Butterbur

Acarina:

Eriophyes similis galls on Blackthorn
Eriophyes padi galls on Blackthorn

Eriophyes laevis inangulis galls on Alder
Eriosoma ulmi galls on Wych Elm

Psylloidea:

Psyllopsis fraxini galls on Ash

Flying insects included four Speckled Woods and single specimens of Large White, Green-veined White, Comma and the microlepidoptera *Acleris comariana*, *Argyresthia goedartella* and *A. bonnetella*. Beating and searching of trees and shrubs produced the 14-spot Ladybird *Propylea 14-punctata*, the centipede *Lithobius variegatus* and the shield bugs *Picromerus bidens* and *Troilus luridus*, the latter a brightly coloured nymph which completed its metamorphosis into the adult stage a few days later.

The meeting concluded with a search of the nearby railway line, where an abundance of Rosebay Willowherb produced mines of the moth *Mompha raschkiella*, and among lush vegetation including Yarrow, Perforate St John's Wort and Musk Mallow we encountered the micros *Udea lutealis*, *Anthophila fabriciana* and *Hypatima rhomboidella* and Painted Lady, Meadow Brown and Small White butterflies. Birds were more noticeable here than elsewhere: a party of Long-tailed and other Tits, a Chiffchaff and Bullfinch in the surrounding trees, a Buzzard overhead and Grey Wagtails on the River Rea.

13 October 2002: Dudmaston (3 attended)

This field meeting set out to explore the Comer Wood area of the Dudmaston Estate, including the series of three lakes known as Wall Pool, Seggy Pool and Brim Pool. We were seeking to extend the list of fungi and microlepidoptera known from the estate and to make an initial survey of plant galls.

Our route took us through a woodland which was punctuated by some very fine old trees, both native Pedunculate Oaks and a range of planted species including Sweet Chestnut, Beech, Douglas Fir and Wellingtonia, along with a single large Laburnum. Younger trees of many other species were also present, and a notable feature was the abundant regeneration of Sweet Chestnut, Yew, Rowan and Silver Birch. We were intrigued to find and photograph a mature Rhododendron growing out of the massive stool of a felled conifer. Few plants were in flower so late in the season, but we did find one other Rhododendron shrub well in bloom, and a few flowering specimens of Black Horehound, Red Campion, Herb Bennet, Hogweed and White Dead-nettle. A couple of plants of Climbing Corydalis were present by the main track near Wall Pool. Many trees and fallen branches bore good examples of the lichen *Platismatia (Cetraria) glauca*.

The recent spell of dry weather had only just broken, and fungi were not particularly abundant. The Sulphur Tuft was growing on a couple of tree stumps, along with specimens of *Mycena alcalina* and a *Melanoleuca* species. Fallen beech logs were festooned with an abundance of Porcelain Fungus, and a specimen was also found on the bough of a standing tree. Sycamore leaves were almost totally infested with the characteristic blotches of Tar Spot Fungus. On the ground a recent fire site gave us *Collybia dryophila* and *Coprinus atramentarius*. The widest range of species was encountered in leaf-mould on the forest floor; locally common here were the Stinkhorn Fungus, most of which were in the "egg" stage, and *Scleroderma citrinum*; less abundant were *Lepiotes rhacodes* and *Amanita citrina*, and we found a single fine specimen of the unusual terrestrial bracket fungus *Phaeolus schweinitzii*.

The good range of tree and shrub species present in the wood produced a wide variety of galls and leaf-mines, specimens of which were readily encountered in numbers. The following were present:

Diptera:

Agomyza alnibetulae on Silver Birch
Dasyneura crataegi on Hawthorn
Dasyneura urticae on Stinging Nettle

Didymomyia reamuriana on Common Lime
Mikiola fagi on Beech

Hymenoptera:

Andricus fecundator on Pedunculate Oak
Andricus kollari on Pedunculate Oak
Diplolepis eglanteriae on Dog Rose

Diplolepis rosae on Dog Rose
Neuroterus quercusbaccarum on Pedunculate Oak

Lepidoptera:

Parornix anglicella on Hawthorn
Phyllonorycter maestingella on Beech
Phyllonorycter schreberella on Elm sp.
Phyllonorycter sylvella on Field Maple

Stigmella crataegella on Hawthorn
Stigmella hemargyrella on Beech
Stigmella viscerella on Wych Elm and Elm sp.
Tischeria ekebladella on Pedunculate Oak

Acarina:

Aceria eriobia on Field Maple
Eriophyes campestricola on Elm sp.
Eriophyes leionota on Silver Birch
Eriophyes leiosoma on Beech
Eriophyes macrorhynchus on Field Maple

Among vertebrates several Grey Squirrels were seen and there were foraging signs of Badgers. The woodlands were full of parties of tits, including Long-tailed and Marsh Tits. About thirty Mallard were on the pools, along with five Gadwall, a couple of Little Grebes and a Heron. Two Wrens, a Buzzard and a few overflying Skylarks and Pied Wagtails completed the tally of birds.

A downpour after about two hours put an early end to the meeting.

Shropshire Invertebrates Group Members' individual activities 2002

John Mason

Birds

A Bittern turned up in January at Venus Pool, stayed for several weeks and was joined for a while by a second bird. By 5 March it had established a regular roosting pattern and I saw it before dusk creating a roosting perch by winding its neck around a bundle of reeds. That same evening three Whooper Swans flew in at dusk. By 21 March the Bittern was roosting on the upturned roots of a fallen tree and could be seen in full view in the last light. On that occasion an Osprey appeared fishing on the neighbouring pool.

The sound of their wings in flight alerted me to a pair of Ravens flying over my house in Bayston Hill (2 March) an addition to my "seen from the house" list. At Attingham I spotted a Nuthatch gathering mud for its nest hole from the edges of the road (2 April). On 13 April I searched the Long Mynd for Crows' nests and located some that had sitting birds, potential for fleas. I also saw Peregrine, Merlin, five Red Grouse and several Meadow Pipits. On 6 May there was a Sedge Warbler singing loudly from scrub at the bottom of my garden and it stayed for several days before moving on. At Bettisfield (14 May) I saw Hobby and Cuckoo flying over the Moss. On the river near Atcham I noticed that an old Sand Martin nest hole was being used by bumblebees (I assume it had already been taken over by mice after the martins had finished with it.) Huge swarms of Swallows, Martins and Swifts over Bayston Hill (13 July), possibly feasting on aphids (there were lots feeding in the garden at the time.) I visited the Red Kite feeding station at Gigrin Farm in central Wales (3 September) and saw flocks of Crows, Rooks, Ravens and Buzzards all fighting over the meat put out as bait. Lots of Kites came too, swooping low to snatch pieces of meat without landing (maximum number 17 at one time, but there must have been more in total.) At the end of October I returned to Flamborough Head (East Yorkshire) to collect some of the House Martin nests that I had seen on the cliffs in June. The nests are easy to spot as they are built of reddish-brown mud which stands out clearly on the chalk cliffs. Surprisingly many of the nests were low enough to reach with my set of poles but I took my hard hat and goggles to protect against loose falling stones. I extracted huge quantities of fleas which were packed off to Bob George to identify. A big flock of (huge!) Alpine Swifts was seen over Goreme in Cappadocia on my autumn trip to Turkey (calls very different from our Swifts) on 14 October. There were also Crag Martins in the rocky gorges.

Invertebrates

In south-west France we saw a good many of the usual suspects: a Hairy-legs Centipede *Scutigera coleoptrata*, which turned up in one of our accommodations; a Stag Beetle *Lucanus cervus* at Peche Merle; Roman Snails *Helix pomatia* in the Cele Valley and Bee-beetles *Trichius* sp. at Mas d'Azil. In the Lot Valley I spotted some astonishingly bright blue beetles *Hoplia caerulea* glittering in the sun like sapphires. The Cele Valley also yielded exuviae of *Boyeria* and two species of *Gomphus*. Down near the Mediterranean we heard at least two species of cicadas: *Cicada orni* and the deafening *Tibicen plebejus*. On 28 July at Ryton Organic Garden (Warwickshire) they had put out some solitary bee homes which were being used by Leaf-cutters *Megachile* sp. On a rockery I spotted a Carder Bee *Anthidium manicatum* shaving fluff off the leaves of a Lamb's Ear for its nest. A Larch Fly *Urocera gigas* was buzzing round the video hut at the Centre for Alternative Technology, Machynlleth in Powys (14 July), and their gooseberry bushes were stripped bare by Gooseberry Sawfly *Nematus ribesii* larvae. Later the same afternoon we found Cowries (Calyptraeidae) washed up on the beach at Llandanwg, Gwynedd. On the River Clun (1 August) there was a handful of live Freshwater Pearl Mussels *Margaritifera margaritifera* (plus lots of dead shells in the shallows.) In the Elan Valley, Powys (4 September) on an English Nature trip we visited the Pen-y-Carreg Dam and walked through the service tunnel which already had good numbers of over-wintering insects (mostly Herald moths plus Peacocks and Small Tortoiseshells) and a few cave spiders. On 26 September I visited Lichfield,

Staffordshire, on another English Nature outing to see the outcome of some Crayfish *Austropotamobius pallipes* trapping at Stowe Pool where about thirty trapped animals were inspected.

Mammals

In 2002 I joined the Shropshire Bat Group's field trips in an attempt to get more bat fleas. We had a very good evening at Apley Castle Park (north Telford) on 30 May. After inspecting the bat boxes we went to the pool at dusk. There were still some Swifts flying over the water but they were soon joined by Noctules which replaced them as it got darker. Pipistrelles were fluttering around us at the edge of the pool. Later, Daubenton's Bats appeared skimming over the water surface.

Plants

At Ellesmere there were masses of Bogbean in flower (4 May) in the shallows of the mere. On an evening visit to Fenn's Moss, Clwyd (16 May) I managed to locate the big patch of Cloudberry that was discovered there recently. It was already in good flower but I had to return a couple of days later to take photos in decent light. The Ivy Broomrape in my garden produced a good total of 22 flower-spikes. We made the long trip to Llandeilo in Dyfed to see the wonderful collection of plants in the glasshouse at the National Botanic Garden of Wales (lots of Proteas, Banksias and extraordinary Restios from South Africa.) *Equisetum camtschatense* was also memorable for its huge size. At Machynlleth there were many interesting plants including Black Cumin, Liquorice and others. I spotted *Vicia orobus* in fruit at the Radnor Wildlife Trust reserve at Gilfach on 3 September and, later on the same trip, New Zealand Willow-herb in the Elan Valley. There was a plant of Small Teasel on the Staffs & Worcs Canal near Stewponey Bridge, Staffordshire (14 September.) On Walthamstow Marshes, Greater London, I photographed the pestilential waterweed *Hydrocotyle ranunculoides* (21 October.)

Ian Thompson

A busy year, involving several surveys of various types. Outside of these arranged days, the SIG field trips and fishing days, there have been only a few casual observations.

Mammals

Only one Mink seen by me this year while fishing the Tanat. This individual was an unusual silvery-grey colour. During a period of very low water on 3 October I found a fairly clear Otter print on the sandy margin of a pool on Beat 10 of our water. I took part in a survey of road traffic accident (RTA) Polecats and Mink for the Vincent Wildlife Trust during September and October, apparently the peak months for Polecat road deaths. I found one Polecat during each of the months, in early September one very flat one along the Tanat valley, and on 13 October (on the way to a SIG field trip) a barely-damaged individual on the A458 south-east of Much Wenlock. In addition, prior to the survey finds, on 12 July I saw a Polecat (or Polecat-Ferret) RTA in Longden Road, Shrewsbury, near the junction with South Hermitage and well within the urban area of the town.

Whilst fishing on 7 October I witnessed what for me was the biggest leap I have seen by a Grey Squirrel. I disturbed the animal on the bank near where I was wading and it climbed a nearby tree to a considerable height. It then made a leap for the tree on the other bank. The horizontal distance branch-tip to tip I estimated at 12-15 feet. It just clung on to small twigs only about two feet from the water and after much swaying and scrabbling made it to safety.

Birds

Quite a good range of species visited my garden and feeders in Meole Brace this year, but no Siskins or Bullfinches. A new first for the garden was a single Stock Dove on 12 May.

First sightings: 15 April – House Martin over garden and adjacent field

16 April – Swallow at Ashford Bowdler

17 April – Whinchat, between Llangynog and Bala, central Wales. Also had a good view of a Red Kite on this journey.

Jo and I spent a few days (22-26 April) around Rydal Water in the Lakes (Cumbria). I also visited two upland tarns. The birds were rather disappointing, the best a Merganser on Rydal Water and numerous Green Woodpeckers in the area.

On Adstone Hill (west of the Long Mynd) on 10 October there were many Goldfinches on a rough, well-thistled pasture. On being disturbed they flew up onto a power line and a count revealed a total of 54.

I saw several Goosanders while fishing the Tanat this year: three on 16 May, a well-grown brood on 28 June and probably the same brood but almost full-grown on 7 October; plus a female with five young on another part of the river on 25 July. Other Tanat fishing observations – Common Sandpipers, numerous Swifts and House Martins (but no Sand Martins), a flock of nineteen Curlew, and a Little Owl (all on 28 June); two Dipper nests (one empty, one feeding young) on 25 July; and a Kingfisher on 27 August.

Invertebrates

On 17 February in the garden I found 7-Spot and 2-Spot (melanic) Ladybirds (*Coccinella 7-punctata* and *Adalia bipunctata*.) However for the rest of the year, apart from the 14-Spot *Propylea 14-punctata* found on the SIG trip on 8 September, only the ubiquitous 7-Spots were to be found. I found an early queen *Bombus lapidarius* on 4 March in Meole Brace.

Butterflies have been poor in the garden this year. The earliest record were Small Tortoiseshells on 26 March. On 16 May on the Tanat (still in Shropshire) I saw numerous Orange Tips; in the area much Hedge Garlic was growing along the river bank and field edge.

I don't usually net specimens whilst fishing as it creates too many extra items to carry, but on 16 May on the Tanat I collected the ephemeropteran *Paraleptophlebia submarginata* – no English name but known to fishermen as the Turkey Brown – a fly chiefly of stony streams and rivers.

A site where I was involved in a botanical survey, an eight-year-old irrigation reservoir at Lower Betton near Crosshouses, proved to be a good one for dragonflies. On 19 June, a hot sunny day, the pool margins had literally hundreds of Common Blue Damselflies. I must have netted a hundred but could find no Azure Damselflies present. There were also Blue-tailed and Red-eyed Damselflies. Several Emperors were present and two Four-spotted Chasers. Other visits on 2 and 19 August again had large numbers of Common Blue Damselflies and numerous Ruddy Darters (but no Common Darters.) The grassy banks of the pool also had seven common species of butterflies and two species of bumblebees present.

I searched the outcrop on Haughmond Hill where in 1991 Bill Rudge and I found the Grayling. Despite a thorough search of the most likely areas there were no sightings. Jenny Joy is of the opinion that this site no longer has the butterfly.

Plants

I spent a lot of time doing botanical surveys last summer: at two Shropshire Wildlife Trust sites at Weeping Cross and Stapleton, three National Trust sites at Lower Betton Farm, two SABC Heritage sites at the Mere Pool and the Old Riverbed and a first botanical survey (to be completed in 2003) at the recently-acquired SWT reserve at Brook Vessons on the north-east flank of the Stiperstones ridge. The irrigation pool at Lower Betton had some interesting species and an unfamiliar Bulrush, which eventually proved to be a “less robust” form of the common species rather than the first identification as Lesser Bulrush. However, we also recorded in the pool the dreaded *Crassula helmsii*. The Old Riverbed might well be worth considering as a potential venue for a field trip.

On the way home from the Lakes we briefly visited the limestone pavement at Newbiggin Slabs and Hutton Roof (Cumbria): super sites to which I will return. Our visit was a bit early but we found Blue Moor-grass and Spring Sedge in flower at both sites. We also saw a near-perfect specimen of an Early Purple Orchid.

Godfrey Blunt

During 2002, along with Mike Smith of Stourbridge, I undertook a number of searches and surveys of invertebrates in Shropshire, chiefly aimed at filling in some gaps in our knowledge of the county Lepidoptera fauna. Our results can be summarised as follows:

Whitcliffe, Ludlow

We made a couple of visits to search for colonies of Wood Spurge, host-plant of the Drab Looper moth. We located a colony of the plant along several score yards of a roadside bank, but this year found no trace of the moth. We did, however, encounter many species of Lepidoptera including an imago of *Phyllonorycter quinnata*, whose larvae I had previously found in leaf-mines on Hornbeam in this, perhaps its only Shropshire locality. Other interesting finds were several other microlepidoptera including *Incurvaria pectinea*, *Micropterix aureatella* and *Elachista megerlella*, plus the beetles *Pyrochroa coccinea*, *Phyllopertha horticola* (the Garden Chafer, in abundance on 2 June) and the longhorn *Rhagium bifasciatum*, including an unusual variation in which the normal elytral markings were all but absent. We found a single Hawfinch, six singing Wood Warblers, and a Roe Deer on our visit on 19 May.

Stokesay Wood near Craven Arms

We visited an old sunken lane at the southern end of the wood where grow a number of trees of Small-leaved Lime. As at Whitcliffe we failed to find our target Lepidoptera species but were well rewarded with other invertebrates. A female specimen of the Bluebell-feeding moth *Hysterophora maculosana* was found, apparently a new species for the county. The beetle *Apoderus coryli* occurred on Hazel bushes, and the cardinal beetle *Pyrochroa serraticornis* was also found. Galls of three species of mites (*Eriophyes lateannulatus*, *E. leiosoma* and *Phytoptus tetratrichus*) were present on leaves of Small-leaved Lime, and the fungal gall of *Taphrina pruni* affected fruit of Blackthorn. The Silver-ground Carpet was the commonest moth on the wing. Pied Flycatchers were observed using nest-boxes in a large garden which abuts this part of the wood.

Brown Clee

With permission from the Burwarton Estate we explored several localities on Brown Clee to continue our investigation of its Lepidoptera. High winds and cool temperatures usually make the summit of Brown Clee unrewarding to work by night, but we did manage two light-trapping sessions on the moorland at Abdon Burf, the second of which, on 24 August, was in almost ideal weather conditions. This moorland produced one first for Shropshire, the tortricid moth *Acleris caledoniana*, plus a county rarity, Haworth's Minor. The Twin-spot Carpet, Chevron and Antler moths were particularly abundant on the moor, as were the micros *Rhopobota naevana* (around Bilberry), and *Agriphila straminella*. A Palmate Newt investigated our lighted sheet on 24 August.

We also trapped around Big Pool and Chaos Pool and their neighbouring woods below Abdon Burf. Here we had Green Carpet and Silver-ground Carpet abundantly. More unusual Lepidoptera were Small Wainscot, Pinion-streaked Snout, Purple Clay, Lesser Swallow Prominent, Satin Beauty; and the micro *Argyresthia semitestacella*, which had been taken only once before in Shropshire.

Lower Short Ditch and the Kerry Ridgeway

Just a few days after finding it at Brown Clee, we again encountered *A. semitestacella* – four specimens – while exploring the small moorland and beating the abundant Rowans along the south-western county boundary. The Rowans produced larvae of Willow Beauty, Grey Dagger and Coxcomb Prominent, and the moorland had *Batia unitella* and the striking hoverfly *Sericomyia silentis*. Good numbers of Buzzard and Raven put in an appearance on this day (1 September) and Lower Short Ditch also had a Merlin and a family party of Whinchats.

Long Mynd

In September we began to survey the micros of the Long Mynd for the National Trust. Unlike the macros, the micros of this locality seem never to have been studied. We have so far turned up very little, finding only a population of *Phyllonorycter messaniella* in the beeches around Pole Cottage, plus the distinctive spider *Nuctenea umbratica* there.

Alveley

Two interesting micros which turned up this year in my garden were *Choreutis pariana* and *Pyralis farinalis*. The former was discovered when I was trimming my Crab Apple bushes on 5 October. I planted these when I created a mixed hedge from scratch about six years ago, and in 2002 the following other species of micro were mining plants in the hedge: *Stigmella malella* (also on Crab Apple), *S. crataegella* and *S. hybnerella* (on Hawthorn) and *Phyllonorycter coryli* (on Hazel).

Other UK Localities

Away from Shropshire I continued my studies on inland sand dunes which support populations of Grey Hair-grass. In the course of these studies I made a number of finds of particular interest to me: at the Suffolk breckland sites near Wangford and Lakenheath the Spanish Catchfly, Bearded Fescue and Cream-spot Tiger moth were all new species for me; while at a coastal locality near Winterton, Norfolk, I found a colony of Five-spot Burnet moths on Greater Bird's-foot Trefoil. I was surprised how confidently I could ascribe the colony to this species rather than the closely-related Narrow-bordered Five-spot Burnet – the stubbier shape of the forewings was very apparent. Another good find during my studies was a breeding pair of Hobbies which raised a family close to my Kinver Edge (Staffordshire) research site. I also began studying the spiders of the sand-dune habitat this year, and was particularly pleased to discover the beautiful small wolf spider *Arctosa perita* living in burrows at the Kinver Edge locality.

Charles Derry

A quietish winter on the bird-feeders in my Coalbrookdale garden, with Siskins only in single figures. The occasional Goldfinch did feed on both peanuts and black sunflower seed, the first one being observed on 29 January. I have still not seen a Bullfinch on our feeders, although my brother-in-law in Donnington has them and Goldfinches throughout the year.

The first moth of the year was a Shoulder Stripe on 20 February. The trap did not go out until 17 March, when it attracted 13 species, the most interesting being Oak Beauty (two), Early Grey and Yellow-horned. I finally caught up with the two Bitterns at Venus Pool on 19 March, the one being visible from the car park! I also saw my first Sand Martin of the year that day. The moth-trap on 23 March revealed two Pale Pinions, a first record for me.

Trapping nights were far from ideal at the end of March and beginning of April, the only species of interest being a Streamer on 3 April. The days were improving, however, with 4 April bringing my first sightings of Orange Tip, Small White, Speckled Wood and Bee-fly *Bombilius major*, with a Blackcap singing in the background. The 8th brought the first Brimstone butterfly and Holly Blue in the garden, together with Early Bumblebee *Bombus pratorum* and Garden Bumblebee *B. hortorum*, followed two days later by *B. pascuorum* and Red-tailed Bumblebee *B. lapidarius*. I started the year with the intention of identifying all Bumblebees that found their way into my conservatory, but unfortunately this didn't last.

A poor night's moth-trapping on 17 April gave me only 12 moths, but Frosted Green and Yellow-barred Brindle were new records for the garden. The following day saw me at Allscott sugar-beet factory in anticipation of a Black-necked Grebe in full summer plumage: it had of course moved on. I did however manage to see Oystercatcher, Green Sandpiper, Swallow, Sand Martin and House Martin and heard Water Rail, Sedge Warbler and Willow Warbler. By 23 April *Pyrausta purpuralis* was flying in the garden and a Lunar Marbled Brown was in the trap. 9 May saw the first Chocolate-tip and Mullein Moth, along with good numbers of Sexton Beetles *Nicrophorus*

sp. and Cockchafers *Melolontha melolontha*. On 17 May the moth trap produced over thirty species including Iron and Pebble Prominents, Common Lutestring, Foxglove Pug, Oak Hook-tip and two White-pinion Spotted, the last being another new species for me. A month later on 15 June there were three "Green" species in the trap: Green Arches, Green Pug and Green Silver-lines.

A long weekend in south Devon in August was disappointing after we had made the effort of taking the moth trap with us, although it was nice to see good numbers of Rosy Footman and a Little Egret. By mid-September several Small Tortoiseshells and Peacocks had already gone into hibernation in the cellar of my house, although there were still good numbers on the buddleias as well, including a wide range of colour forms of the Small Tortoiseshell, from brick red (typical in central Spain) through to dark, heavily-marked individuals (more usual in cool, damp climates.) A search through the Copper Underwings in the trap on 14 September produced at least one Svensson's Copper Underwing; there were also a Canary-shouldered Thorn and an Autumnal Rustic.

The drive down to Kempton Park on 5 October was made more interesting by seeing up to eight Red Kites from the M40, including one hovering over the centre lane. On the following day I saw my last Painted Lady of the year: numbers of Painted Ladies and Red Admirals were disappointing in 2002. As the year wound down, a Siskin on the peanuts made me think that there might be many this winter, as I have never previously seen one before Christmas. (I didn't in fact see another one until February 2003.) Finally, on Christmas Eve I looked up to see a pair of Ravens flying low above the garden, the one frequently barrel-rolling. They were then joined by a pair of Buzzards which were pair-bonding, presenting talons and food in flight. The Buzzards and Ravens then soared high up into the sky together, with no mobbing – obviously full of the joys of spring!

SIG Annual Report 2002: Scientific names of organisms mentioned in the text

Flora

Alder *Alnus glutinosa*
Aspen *Populus tremula*
Ash *Fraxinus excelsior*
Barren Strawberry *Potentilla sterilis*
Bearded Fescue *Vulpia ciliata* ssp. *ambigua*
Beech *Fagus sylvatica*
Bee Orchid *Ophrys apifera*
Bilberry *Vaccinium myrtillus*
Birch *Betula* sp.
Birdsnest Orchid *Neottia nidus-avis*
Black Bryony *Tamus communis*
Black Cumin *Nigella sativa*
Black Horehound *Ballota nigra*
Black Spleenwort *Asplenium adiantum-nigrum*
Blackthorn *Prunus spinosa*
Bluebell *Hyacinthoides non-scripta*
Blue Moor-grass *Sesleria caerulea*
Bog Asphodel *Narthecium ossifragum*
Bogbean *Menyanthes trifoliata*
Bog Rosemary *Andromeda polifolia*
Bramble *Rubus fruticosus* agg.
Broad Buckler Fern *Dryopteris dilatata*
Bugle *Ajuga reptans*
Butterbur *Petasites hybridus*
Carline Thistle *Carlina vulgaris*
Changing Forget-me-not *Myosotis discolor*
Climbing Corydalis *Corydalis claviculata*
Cloudberry *Rubus chamaemorus*
Coltsfoot *Tussilago farfara*
Common Bulrush *Typha latifolia*
Common Cotton-grass *Eriophorum angustifolium*
Common Lime *Tilia x europaea*
Common Milkwort *Polygala vulgaris*
Common Sallow *Salix cinerea*
Common Spotted Orchid *Dactylorhiza fuchsii*
Common Twayblade *Listera ovata*
Crab Apple *Malus sylvestris*
Crack Willow *Salix fragilis*
Creeping Thistle *Cirsium arvense*
Cross-leaved Heath *Erica tetralix*
Devil's-bit Scabious *Succisa pratensis*
Dog Rose *Rosa canina*
Dog's Mercury *Mercurialis perennis*
Dogwood *Thelycrania sanguinea*
Douglas Fir *Pseudotsuga menziesii*
Early Dog Violet *Viola reichenbachiana*
Early Purple Orchid *Orchis mascula*
Elder *Sambucus nigra*
Elm *Ulmus* sp.
Eyebright *Euphrasia* sp.
Fairy Flax *Linum catharticum*
Field Maple *Acer campestre*
Field Scabious *Knautia arvensis*
Field Woodrush *Luzula campestris*
Germander Speedwell *Veronica chamaedrys*
Goat Willow *Salix caprea*
Golden Saxifrage *Chrysosplenium oppositifolium*
Greater Bird's-foot Trefoil *Lotus uliginosus*
Greater Butterfly Orchid *Platanthera chlorantha*
Greater Stitchwort *Stellaria holostea*
Grey Hair-grass *Corynephorus canescens*
Ground Elder *Aegopodium podagraria*
Ground Ivy *Glechoma hederacea*
Hairy Woodrush *Luzula pilosa*
Hard Rush *Juncus inflexus*
Hard Shield Fern *Polystichum aculeatum*
Harebell *Campanula rotundifolia*
Hart's-tongue *Phyllitis scolopendrium*
Hawthorn *Crataegus monogyna*
Hazel *Corylus avellana*
Heather *Calluna vulgaris*
Hedge Garlic *Alliaria petiolata*
Herb Bennet *Geum urbanum*
Himalayan Balsam *Impatiens glandulifera*
Hogweed *Heracleum sphondylium*
Honeysuckle *Lonicera periclymenum*
Hornbeam *Carpinus betulus*
Ivy *Hedera helix*
Ivy Broomrape *Orobanche hederæ*
Jointed Rush *Juncus articulatus*
Knapweed *Centaurea* sp.
Laburnum *Laburnum anagyroides*
Lady's Smock *Cardamine pratensis*
Lamb's Ear *Stachys byzantina*
Large-leaved Lime *Tilia platyphyllos*
Lesser Bladderwort *Utricularia minor*
Lesser Bulrush *Typha angustifolia*
Lesser Celandine *Ranunculus ficaria*
Liquorice *Glycyrrhiza glabra*
Marsh Marigold *Caltha palustris*
Meadowsweet *Filipendula ulmaria*
Mistletoe *Viscum album*
Moschatel *Adoxa moschatellina*
Musk Mallow *Malva moschata*
Nettle-leaved Bellflower *Campanula trachelium*
New Zealand Willow-herb *Epilobium brunnescens*
Oak *Quercus* sp.
Pedunculate Oak *Quercus robur*
Perforate St John's Wort *Hypericum perforatum*
Pignut *Conopodium majus*
Primrose *Primula vulgaris*
Quaking Grass *Briza media*
Ramsons *Allium ursinum*
Red Campion *Melandrium rubrum*

Redcurrant *Ribes rubrum*
Rhododendron *Rhododendron* sp.
Rosebay Willowherb *Chamerion angustifolium*
Round-leaved Sundew *Drosera rotundifolia*
Rowan *Sorbus aucuparia*
Sallow *Salix* sp.
Sanicle *Sanicula europaea*
Silver Birch *Betula pendula*
Slender St.John's Wort *Hypericum pulchrum*
Small-leaved Lime *Tilia cordata*
Small Teasel *Dipsacus pilosus*
Soapwort *Saponaria officinalis*
Soft Rush *Juncus effusus*
Spanish Catchfly *Silene otites*
Spring Sedge *Carex caryophyllea*
Spring Whitlow-grass *Erophila verna*
Star Sedge *Carex echinata*
Stinging Nettle *Urtica dioica*
Sweet Chestnut *Castanea sativa*
Sycamore *Acer pseudoplatanus*

Tormentil *Potentilla erecta*
Traveller's Joy *Clematis vitalba*
Tufted Hair-grass *Deschampsia caespitosa*
Wellingtonia *Sequoiadendron giganteum*
White Dead-nettle *Lamium album*
Wild Carrot *Daucus carota*
Wild Garlic *Allium oleraceum*
Wild Gooseberry *Ribes uva-crispa*
Wild Marjoram *Origanum vulgare*
Wild Thyme *Thymus polytrichus*
Wood Anemone *Anemone nemorosa*
Wood Sorrel *Oxalis acetosella*
Wood Spurge *Euphorbia amygdaloides*
Wych Elm *Ulmus glabra*
Yarrow *Achillea millefolium*
Yellow Flag *Iris pseudacorus*
Yellow Pimpernel *Lysimachia nemorum*
Yellow Star-of-Bethlehem *Gagea lutea*
Yellow-wort *Blackstonia perfoliata*
Yew *Taxus baccata*

Fungi

Jew's Ear Fungus *Auricularia auricula-judae*
King Alfred's Cakes *Daldinia concentrica*
Porcelain Fungus *Oudemansiella mucida*

Stinkhorn Fungus *Phallus impudicus*
Sulphur Tuft *Hypholoma fasciculare*
Tar Spot Fungus *Rhytisma acerinum*

Amphibians

Frog *Rana temporaria*
Palmate Newt *Triturus helveticus*

Reptiles

Grass Snake *Natrix natrix*
Slow Worm *Anguis fragilis*

Birds

Alpine Swift *Tachymarptis melba*
Bittern *Botaurus stellaris*
Blackcap *Sylvia atricapilla*
Black-headed Gull *Larus ridibundus*
Black-necked Grebe *Podiceps nigricollis*
Blue Tit *Parus caeruleus*
Bullfinch *Pyrrhula pyrrhula*
Buzzard *Buteo buteo*
Chiffchaff *Phylloscopus collybita*
Common Sandpiper *Actitis hypoleucos*
Cormorant *Phalacrocorax carbo*
Crag Martin *Hirundo rupestris*
Crow *Corvus corone*
Cuckoo *Cuculus canorus*
Curlew *Numenius arquata*
Dipper *Cinclus cinclus*
Gadwall *Anas strepera*

Goldfinch *Carduelis carduelis*
Goosander *Mergus merganser*
Great Spotted Woodpecker *Dendrocopos major*
Great Tit *Parus major*
Green Sandpiper *Tringa ochropus*
Green Woodpecker *Picus viridis*
Grey Wagtail *Motacilla cinerea*
Hawfinch *Coccothraustes coccothraustes*
Heron *Ardea cinerea*
Hobby *Falco subbuteo*
House Martin *Delichon urbica*
Kestrel *Falco tinnunculus*
Kingfisher *Alcedo atthis*
Lapwing *Vanellus vanellus*
Linnet *Carduelis cannabina*
Little Egret *Egretta garzetta*
Little Grebe *Tachybaptus ruficollis*

Little Owl *Athene noctua*
Long-tailed Tit *Aegithalos caudatus*
Mallard *Anas platyrhynchos*
Marsh Tit *Parus palustris*
Meadow Pipit *Anthus pratensis*
Merganser *Mergus serrator*
Merlin *Falco columbarius*
Nuthatch *Sitta europaea*
Osprey *Pandion haliaetus*
Oystercatcher *Haematopus ostralegus*
Peregrine *Falco peregrinus*
Pied Flycatcher *Ficedula hypoleuca*
Pied Wagtail *Motacilla alba yarrellii*
Raven *Corvus corax*
Red Grouse *Lagopus lagopus*
Red Kite *Milvus milvus*
Redstart *Phoenicurus phoenicurus*
Reed Bunting *Emberiza schoeniclus*
Rook *Corvus frugilegus*
Sand Martin *Riparia riparia*

Mammals

Badger *Meles meles*
Daubenton's Bat *Myotis daubentoni*
Fox *Vulpes vulpes*
Grey Squirrel *Sciurus carolinensis*
Mink *Mustela vison*
Noctule *Nyctalus noctula*

Lepidoptera

Angle Shades *Phlogophora meticulosa*
Antler Moth *Cerapteryx graminis*
Autumnal Rustic *Paradiarsia glareosa*
Brimstone *Gonepteryx rhamni*
Brown Argus *Aricia agestis*
Brown China-mark *Elophila nymphaeata*
Brown Silver-line *Petrophora chlorosata*
Canary-shouldered Thorn *Ennomos alniaria*
Chevron *Eulithis testata*
Chocolate-tip *Clostera curtula*
Cinnabar *Tyria jacobaeae*
Comma *Polygonia c-album*
Common Blue *Polyommatus icarus*
Common Carpet *Epirrhoe alternata*
Common Heath *Ematurga atomaria*
Common Lutestring *Ochropacha duplaris*
Common Marbled Carpet *Chloroclysta truncata*
Common Wave *Cabera exanthemata*
Copper Underwing *Amphipyra pyramidea*
Coxcomb Prominent *Ptilodon capucina*
Cream-spot Tiger *Arctia villica*
Drab Looper *Minoa murinata*
Lesser Swallow Prominent *Pheosia gnoma*
Lunar Marbled Brown *Drymonia ruficornis*

Sedge Warbler *Acrocephalus schoenobaenus*
Shoveler *Anas clypeata*
Siskin *Carduelis spinus*
Skylark *Alauda arvensis*
Snipe *Gallinago gallinago*
Song Thrush *Turdus philomelos*
Sparrowhawk *Accipiter nisus*
Stock Dove *Columba oenas*
Swallow *Hirundo rustica*
Swift *Apus apus*
Teal *Anas crecca*
Tree Pipit *Anthus trivialis*
Water Rail *Rallus aquaticus*
Whinchat *Saxicola rubetra*
Whitethroat *Sylvia communis*
Whooper Swan *Cygnus cygnus*
Willow Warbler *Phylloscopus trochilus*
Woodpigeon *Columba palumbus*
Wood Warbler *Phylloscopus sibilatrix*
Wren *Troglodytes troglodytes*

Otter *Lutra lutra*
Pipistrelle *Pipistrellus pipistrellus*
Polecat *Mustela putorius*
Polecat-Ferret *Mustela putorius x furo*
Rabbit *Oryctolagus cuniculus*
Roe Deer *Capreolus capreolus*

Early Grey *Xylocampa areola*
Five-spot Burnet *Zygaena trifolii*
Four-dotted Footman *Cybosia mesomella*
Foxglove Pug *Eupithecia pulchellata*
Fox Moth *Macrothylacia rubi*
Frosted Green *Polyphoca ridens*
Gatekeeper *Pyronia tithonus*
Grass Wave *Perconia strigillaria*
Grayling *Hipparchia semele*
Green Arches *Anaplectoides prasina*
Green Carpet *Colostygia pectinataria*
Green Pug *Chloroclystis rectangulata*
Green Silver-lines *Pseudoips fagana*
Green-veined White *Pieris napi*
Grey Dagger *Acronicta psi*
Haworth's Minor *Celaena haworthii*
Herald *Scoliopteryx libatrix*
Holly Blue *Celastrina argiolus*
Iron Prominent *Notodonta dromedarius*
Large Heath *Coenonympha tullia*
Large Skipper *Ochlodes venata*
Large White *Pieris brassicae*
Meadow Brown *Maniola jurtina*
Mullein Moth *Cucullia verbasci*

Narrow-bordered Five-spot Burnet *Zygaena lonicerae*
 Nettle-tap *Anthophila fabriciana*
 Oak Beauty *Biston strataria*
 Oak Hook-tip *Drepana binaria*
 Orange Tip *Anthocharis cardamines*
 Orange Underwing *Brephos parthenias*
 Painted Lady *Cynthia cardui*
 Pale Pinion *Lithophane hepatica*
 Peacock *Inachis io*
 Pebble Prominent *Eligmodonta ziczac*
 Pinion-streaked Snout *Schrankia costaestrigalis*
 Purple-bordered Gold *Idaea muricata*
 Purple Clay *Diarsia brunnea*
 Purple Hairstreak *Quercusia quercus*
 Purple Thorn *Selenia tetralunaria*
 Red Admiral *Vanessa atalanta*
 Red Chestnut *Cerastis rubricosa*
 Riband Wave *Idaea aversata*
 Rosy Footman *Miltochrista miniata*
 Satin Beauty *Deileptenia ribeata*

Scallop Shell *Rheumaptera undulata*
 Shoulder-stripe *Anticlea badiata*
 Silver-ground Carpet *Xanthorhoe montanata*
 Small Copper *Lycaena phlaeas*
 Small Tortoiseshell *Aglais urticae*
 Small Wainscot *Photedes pygmina*
 Small White *Pieris rapae*
 Snout *Hypena proboscidalis*
 Speckled Wood *Pararge aegeria*
 Speckled Yellow *Pseudopanthera macularia*
 Square Spot *Paradarisa consonaria*
 Streamer *Anticlea derivata*
 Svensson's Copper Underwing *Amphipyra berbera*
 Twin-spot Carpet *Perizoma didymata*
 Vapourer *Orgyia antiqua*
 Wall *Lasiommata megera*
 White-pinion Spotted *Lomographa bimaculata*
 Willow Beauty *Peribatodes rhomboidaria*
 Yellow-barred Brindle *Acasis viretata*
 Yellow-horned *Achlya flavicornis*
 Yellow Shell *Camptogramma bilineata*

Odonata

Azure Damselfly *Coenagrion puella*
 Black Darter *Sympetrum danae*
 Blue-tailed Damselfly *Ischnura elegans*
 Common Blue Damselfly *Enallagma cyathigerum*
 Common Darter *Sympetrum striolatum*
 Emerald Damselfly *Lestes sponsa*

Emperor Dragonfly *Anax imperator*
 Four-spotted Chaser *Libellula quadrimaculata*
 Hairy Dragonfly *Brachytron pratense*
 Large Red Damselfly *Pyrrhosoma nymphula*
 Migrant Hawker *Aeshna mixta*
 Red-eyed Damselfly *Erythromma najas*
 Ruddy Darter *Sympetrum sanguineum*

