



ELMBRIDGE NATURAL HISTORY SOCIETY

(formerly Weybridge Natural History and Aquarist Society)

BULLETIN
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SUMMER 2012 PROGRAMME

Study walks (led by Dave Page)

Wed 13 Jun Fairmile Common, to look for silver-studded blue butterflies and heathland flora and invertebrates: 09.30-11.30. Meet at Lakewood car park, A307 Portsmouth Road.

Wed 20 Jun Brooklands Community Park, Weybridge, to look for acid grassland flora, orchids and invertebrates: 10.00-12.00. Meet in the main car park off the roundabout.

Wed 27 Jun Molesey Heath, to look for birds and flora: 10.00-12.00. Meet at the end of Approach Road, West Molesey.

Wed 4 Jul Black Pond, Esher Common, to look for wetland flora and invertebrates e.g. dragonflies: 10.00-12.00. Meet in Horseshoe Clump car park, A307 Portsmouth Road.

Wed 11 Jul Oxshott Heath, to look for dry heath flora and invertebrates: 10.00-12.00. Meet in Sand-pit car park, A244 Warren Lane.

Wed 18 Jul Hurst Meadows, Molesey to look for meadow flora and invertebrates: 10.00-12.00. Meet in Graburn Way car park.

Wed 8 Aug Esher Common heathland, to look for dry heath flora, bees and wasps: 11.00-13.00. Meet in Copsem Lane car park, A244 Copsem Lane.

Moth trapping evenings

Fri 15 Jun Esher Common, Longy Down, 21.30 (meet in Copsem Lane CP, see above)

Fri 22 Jun Fairmile Common, 22.00 (meet in CP off ACS School access road, off A307 Portsmouth Road)

Fri 20 Jul Oxshott Heath, 21.00 (meet in CP by railway bridge off A244 Warren Lane)

Fri 17 Aug Esher Common, 20.00 (meet in Horseshoe Clump CP, see above)

Fri 14 Sep West End Common, 19.30 (West End Village Green, West End Lane)

Moth trapping may be cancelled if the weather is bad: if uncertain about this or the meeting location please contact Dave Page on 07850 739760.

Indoor meetings are held from September to April, at the Methodist Church Hall, Mayfield Road, Weybridge, at 8.00pm. Non-members are welcome to all meetings (£3.00 charge, refundable if you join the Society). Refreshments charge (winter meetings): 50p.

ENHS MEETING NOTES

Ladybirds, 8 February 2012

This illustrated talk, given to the society by Andrew Halstead, Principal Entomologist at RHS Wisley, introduced us to the fascinating world of British ladybirds in all their variety, making it quite clear that they don't simply have spots and eat aphids. There are about 40 species of ladybird resident in Britain, including some introductions. Many are insectivorous while others are herbivorous.

The two-spot ladybird (*Adalia 2-punctata*) is a familiar and easily recognised species which eats aphids, as does its black larva; the latter will get through some 400 aphids each before pupation, and as adults they eat more. The 24-spot ladybird (*Subcoccinella 24-punctata*) is a vegetarian that feeds on the top surface of red campion (*Silene dioica*) leaves; the bryony ladybird (*Henosepilachna argus*), discovered at West Molesey in 1997 by Ian Menzies' granddaughter Alysia, also feeds on the foliage of its host plant, white bryony (*Bryonia dioica*), which incidentally is the only member of the cucumber family native to Britain. Some ladybirds specialise in eating scale insects, including the kidney-spot ladybird (*Chilocorus renipustulatus*); this is a tree-dwelling species, black with a red spot on each wing case, and the larvae are spiny. Others feed on powdery mildew, e.g. the orange-spot ladybird (*Halyzia 16-guttata*) and the 22-spot ladybird (*Psyllobora 22-punctata*). The spider mite ladybird (*Stethorus punctillum*), only 1-2 mm long, feeds on red spider mites (*Tetranychus urticae*), a common greenhouse pest.

As one of Andrew's photographs demonstrated, ladybird excrement is a black tarry liquid. Most ladybirds lay clusters of pale yellow eggs placed upright on a plant, rather like the eggs of the large white butterfly (*Pieris brassicae*). They are not always laid close to aphids, so the young larvae may have a bit of a hike to find their prey; to help them on their way they eat their own eggshells and unhatched eggs (on the early bird principle). Ladybird larvae have their legs splayed out sideways, rather like miniature crocodiles. 14-spot (*Propylea 14-punctata*) larvae are black with creamywhite spots; those of the harlequin (*Harmonia axyridis*) are black with spines and a red band down the sides; those of the orange ladybird (*Halyzia 16-guttata*) have

yellow side bands and many black spots on a creamy-white ground. The seven-spot ladybird (*Coccinella 7-punctata*) larva has well defined orangey-red spots. *Scymnus* species ladybirds, found on oak (*Quercus* spp.) and other deciduous trees, have larvae with white fluffy coats.

During the pupal stage, as with other insects, the larva literally liquefies within the pupal case to re-form as an adult. Pupae are attached to a leaf at one end and can move up and down to discourage intruders; when they hatch they split down a weak middle line in the pupal case. Kidney-spot pupae are spiny, while harlequin pupae have white spines at one end, where the skin of the larva remains. The orange ladybird has colourful black-and-yellow pupae. When freshly emerged from the pupa, the seven-spot ladybird, our most abundant species, is bright yellow with no spots, but within a few hours becomes its familiar red and black

Ladybirds go into diapause in winter as adults, hiding under stones or bark or in the open, e.g. on a fence-post. Both seven-spot and 16-spot (*Tytthaspis 16-punctata*) do this (the latter is yellow and black). Successive generations may make use of the same hibernation sites and have a scent marking to enable their offspring (and perhaps a few interlopers) to relocate it.

Ladybird identification is not always simple. The 10-spot (*Adalia 10-punctata*), for instance, is very variable. It is the same size as the two-spot, which is also very variable, but the two species can be told apart by their legs, which are pale brown on the 10-spot, and black on the two-spot. The cream-spot (*Calvia 14-guttata*) is a chestnut-brown species which eats pollen as an adult. A similar, less common species, the 18-spot (*Myrrha 18-guttata*), has less even spots and occurs on pine trees. The 14-spot has a distinctive 'Aztec man' marking on its wing cases; the hieroglyphic ladybird (*Coccinella hieroglyphica*) is also eye-catching. A heathland species, it feeds on the larvae of the heather leaf beetle (*Lochmaea suturalis*) and sometimes occurs in black-and-orange or just black (melanic) forms.

An interesting species, *Nephus quadrimaculatus*, is found chiefly on ivy (*Hedera helix*), where it possibly feeds on the ivy spider mite (*Bryobia kissophila*). Only 2 mm long, it has hairy wing cases. The water ladybird (*Anisostica 19-punctata*) feeds on aphids on waterside grasses; it starts off bright red but fades to straw colour for the autumn/winter – good camouflage against dead foliage. The Adonis ladybird (*Adonia variegata*), smaller than the seven-spot, likes disturbed ground with weeds (on which it eats aphids) and has been increasing in abundance recently.

A number of species are conifer dwellers. The cream-streaked ladybird (*Harmonia 4-punctata*), related to the harlequin, arrived here in 1939. Like its relative, it comes in different colour forms; it feeds on conifer aphids, as do the larch ladybird (*Aphidecta oblitterata*), the striped ladybird (*Myzia oblongoguttata*), the eyed ladybird (*Anatis ocellata*), a handsome species with pale yellow rings around black spots on a red ground, and the scarce seven-spot ladybird (*Coccinella magnifica*), which has much more variable-sized spots than the common one. It chooses to live close to the nests of

the wood ant (*Formica rufa*) under pine trees. The ants ignore the ladybirds, which probably give off a pheromone to pacify them: the reason for this is not yet clear, as the ladybird's aphid prey is not confined to the proximity of ants' nests.

Natural enemies of ladybirds are not very numerous. Phorid parasitic flies (*Phalacrotophora* sp.) target freshly formed pupae, when the skin is still soft, and lay eggs in them. A parasitic wasp, *Perilitus coccinellae*, attacks the adults, laying eggs in the underside of the abdomen where there are soft parts. Its larva eventually paralyses its host and emerges to pupate in a silk cocoon under the ladybird, where it remains until the adult wasp emerges, protected by the host's warning markings. These have evolved to deter birds, in conjunction with 'reflex bleeding', which produces a bitter orange fluid which soon puts young birds off; they learn early that red-and-black is bad to eat.

The mealybug ladybird (*Cryptolemus montrouzieri*) has been introduced to Britain for use in glasshouses to control the pest from which it gets its name. It needs warm conditions to thrive and eat lots of bad bugs; its larvae resemble mealybugs themselves but are bigger, white and waxy. The vedalia ladybird (*Rodolia cardinalis*) feeds on fluted scale insects (*Icerya purchasi*), which are becoming more common in the UK due to climate warming, for example in central London where winters are rarely frosty, coming in on imported acacia, citrus etc. The vedalia ladybird was first used in California to control scale insects in 1889, almost the beginning of biological pest control, and its great success led to its being introduced to other countries with scale insect problems. It was first discovered in England in 2003 in a Chelsea pub garden with a huge infestation of fluted scale.

Another recent and much better known arrival in the UK is the harlequin ladybird with its very wide range of markings and colour variation. About the same size as the seven-spot, it has either fewer or up to 21 spots. The native two-spot is 4-5 mm long as against the harlequin's 6-8 mm. The harlequin arrived here in 2004, hailing



originally from Japan, and was soon billed as one of the worst ecological disasters of modern times. Although Andrew feels this is exaggerating somewhat, populations of some of our native ladybirds have declined since the harlequin arrived,

Typical cluster of overwintering harlequin ladybirds in a house loft.

especially the two-spot. In North America it was introduced as a biological control, and in parts has succeeded at the expense of their native species by taking their food (aphids) and eating the larvae and eggs of butterflies etc. Introduced to glasshouses in The Netherlands, it soon escaped and arrived in Britain on

plants from there, being found first in Essex; now it is very abundant in southern England and the Midlands and is still spreading. Sometimes yellowish in winter, it often overwinters in houses, clumping together in curtains, ceiling corners, or window surrounds, all waking at once in spring, or sometimes dying in large numbers if woken too often by warmth. Harlequins have a voracious appetite and are far more effective aphid killers than our native species. (It should be remembered that many exotic pest aphids have also become established in the UK.) Harlequin ladybirds and their larvae may be affecting hoverfly numbers by eating their larvae, and they breed faster and more frequently than the natives - at least three generations in a year as against our native ladybirds' one or two - and often appear on sunny days in October in mass flights when preparing to hibernate. In the larval stage they can eat their own kind, as well as aphids etc., and the adults will happily bite humans. But unfortunately, like global warming, it looks like they are here to stay.

RICHARD JEWELL

From Pits to Paradise, 14 March 2012

This talk was given by Simon Elson, a biogeographer employed by Surrey County Council (SCC) Planning Department. His job is to consider schemes for the restoration of disused mineral extraction and similar sites. His terms are: "If you want to dig a hole in Surrey, you are going to pay a high price by way of restoration". This contrasts with the old idea of people digging holes then charging others to fill them in. The new approach is to turn these sites into places of value in themselves, particularly as wildlife habitats. Three sites, described below, were singled out to demonstrate the kind of project with which he is involved.

Papercourt, Send

This is an early example of Simon's intervention, at a large area of former gravel pits. Twenty years ago one part of the site, the sailing lake, became a SSSI because of its birds. Other pits were filled with rubbish and finally restored to agriculture. The last was about to be filled when SCC intervened, 20 years ago and it became what is now the Papercourt Marsh nature reserve. Careful nurturing has produced an area of open water and reedbeds, whose recent visitors have included bittern (*Botaurus stellaris*).

Bessborough Waterworks, Molesey

This has recently become redundant and work is in progress to turn it into a wildlife area, with only the perimeter and viewpoints open to the public. The water was drained out when the plant closed, and the sandy sediment is being extracted. As reeds have developed on the drained beds, some have been saved and transferred to areas where the sediment has been extracted. Sapling willows have been kept in check by mowing, prior to the re-flooding of the beds. Some concrete walls between beds have been demolished and the rubble used to create islands. Ducks, including shoveler (*Anas clypeata*) and gadwall (*Anas strepera*), are already finding a haven here, and 17 species of dragonfly have been recorded. The reserve could open later this year, after the choice of the candidate to manage it has been made.

Nutfield Marshes, near Redhill

This area comprises 4.5 square miles of old fuller's earth pits. There are reserves of

this material, but extraction is now restricted by SCC, who consider that digging up the county for cat litter is not vital! The redundant pits are owned by four different companies, in two different districts and several parishes, making life complicated for Simon. But all have been brought together, and plans are in operation. Allowance has been made for some further landfill; higher ground to the south has been restored to agriculture and woodland. The lower, eastern ground is being converted to wetland, as 'Spynes Mere and Mercers East'. Sand banks are being kept for sand martin (*Riparia riparia*) and hymenoptera, there are areas of grassland already producing orchids, and smew (*Mergus albellus*) have come to the lakes. Much of the maintenance is done by volunteers including Simon.

Wey Manor Farm, New Haw

In answer to a question, Simon let us know that this site is likely to be occupying his attention before long, although little can be said at present.

Summing up, he left us with the clear message that we should not be too negative about mineral extraction; it can be a better option than intensive agriculture, and the aftermath can be brilliant for wildlife.

DICK ALDER

Outdoor Programme Walks 2012

For those who don't yet know about these walks (notice of the first ones came too late for the last issue, although a list was circulated by email), Dave Page's series of Wednesday walks is well under way. We have had two very worthwhile strolls, getting the benefit of his expertise and an insight into management plans.

On **18 April** we looked at **Winterdown Wood and The Ledges**. For those who (like me) haven't been to this area in spring it was a revelation, with bluebell (*Hyacinthoides non-scripta*), wood anemone (*Anemone nemorosa*), wood sorrel (*Oxalis acetosella*), moschatel (*Adoxa moschatellina*), dog's mercury (*Mercurialis perennis*), ramsons (*Allium ursinum*), opposite-leaved golden saxifrage (*Chrysosplenium oppositifolium*) and marsh marigold (*Caltha palustris*) in profusion. New for Dave was goldilocks (*Ranunculus auricomus*), near the river bank.

On **9 May** we did a circuit of the northern part of **Fairmile Common**. Of particular interest was the large, newly created clearing, a potential home for adder (*Viper berus*) and silver-studded blue butterfly (*Plebejus argus*). The weather wasn't ideal for insect-watching, but we did see a bloody-nosed beetle (*Timarcha goettingensis*), swarms of St Mark's fly (*Bibio marci*), and five lesser treble-bar moths (*Aplocera efformata*). On the old Flying Circle one white bryony plant (*Bryonia dioica*) harboured several bryony ladybirds (*Henosepilachna argus*). Dave pointed out wild basil (*Clinopodium vulgare*) on the roadside edge. A final surprise was a cornsalad (*Valerianella* sp.) growing in the verge of the Lakewood car park!

The next walk is on Fairmile Common on 13 June, when silver-studded blues should be about. These walks are only a couple of hours long and are highly recommended.

THE NATURAL HISTORY OF A HOLE

It's of modest size but bigger than it was. It's about 50 feet up in our oak tree in an almost horizontal branch. Sensibly, it looks down to keep the rain out. For several years it provided a home for a pair of barred woodpeckers (alternatively known as lesser spotted, although I've never managed to make out much by way of spots) which defended it fiercely. One flew straight at an over-inquisitive squirrel which fled, never to return. However, after some years, the woodpeckers had to yield to a flock of some ten or a dozen ring-necked parakeets. These enlarged the hole and presumably nested therein though I was unable to distinguish young from old. They used the hole for some years, returning usually in March and leaving in the summer with occasional out-of-season visits until this year. Now a squirrel family has taken over and seen the parakeets off. A single parakeet returned after couple of weeks, walked cautiously along the branch to the hole, stood on one leg for a few moments as if thinking and then flew off. There appear to be three resident squirrels. The largest one of these gave the other two a thorough all-over wash before leading them into the hole. I conclude that they are a mother and her offspring. I await the next instalment.

IAN DAVIDSON

NEW SURREY FUNGUS STUDY GROUP

The Surrey Fungus Study Group (SFSG) was launched in January this year, with the following aims:

- to study Surrey's mycota, by documenting and otherwise investigating the fungi of the county, including historical data and herbarium specimens;
- to encourage an interest in and understanding of the importance of fungi in the environment, with an emphasis on conservation;
- to develop a greater knowledge of fungi among ourselves, through taxonomic studies, as well as a small number of field excursions and workshops;
- and to promote the conservation of fungi.

Further details can be found at: <http://www.surreyfungi.co.uk>.