Entomology Day 2015, 'The Rare and the Commonplace' Chairman Brett Westwood

COMPILED BY SUSAN LIMBREY

Speakers from the left: Rosemary Winnall, Saul Herbert, Mick Blythe, John Bingham, Kevin McGee, Paul Brock, Caroline Uff, Brett Westwood, Harry Green — Helen Brock

The sound of a Mole Cricket in the New Forest drew us into the day's topic and into **Paul Brock's talk on Rare Insects in Britain.** He outlined his methodology, saying that all his recent records of rare insects had come from thorough preparation for targeted survey, searching old records, focussing on particular localities, including neglected areas, spending a lot of time watching sites, daytime and nocturnal survey, and beating particular trees. He prefers not to net. His examples came from East Anglia, his home territory of the New Forest, coasts from Kent to Cornwall and the Scilly Isles, and Scotland. Habitats included wetlands, woods, orchards, heaths, moors and bogs, gardens, churchyards and towns, cliffs and beaches, and mountains.

Paul started in the Norfolk Broads with the splendid very rare and local Swallowtail Butterfly *Papillio machaon britannicus,* and the endangered Fen Mason Wasp *Odynerus simillimus.* In the New Forest, a particular highlight was the search for the New Forest Cicada *Cicadetta montana*, a collaborative effort involving sound recorders and hunting for traces such as larval turrets and feeding scars on twigs. Last seen in 1992, long gaps in records are normal, and there have been possible records of its song up to 2004. Also in the New Forest, the larvae of the rare Goat Moth *Cossus cossus* host the endangered endoparasitoid tachinid *Xylotachina diluta*, and the sap run of a goat moth tree occupied by larvae for 45 years, emitting a pungent aroma of goat and of alcohol, also attracted other rare insects. These included the Hornet Rove Beetle *Velleius dilatatus*, which breeds in hornet nests, and the endangered Variegated Fruit Fly *Phortica variegata*. Very rare New Forest woodland moths include the Dark and Light Crimson Underwings, *Catocala sponsa* and *C. promissa*, and Clifden Nonpareil *C. fraxini,* the latter perhaps being a transient resident as well as migrant. The endangered Oak Mining Bee *Andrena ferox* lives in rabbit holes, making for novel search methods.

Moving on to heaths, mires and bogs, the New Forest has the endangered Southern Damselfly *Coenagrion mercuriale* and the Scarce Blue-tailed Damselfly *Ischnura pumilio*. As well as the endangered Mole Cricket *Gryllotalpa gryllotalpa*, orthopterans included the nationally scarce Bog Bush Cricket *Metrioptera brachyptera,* the vulnerable Large Marsh Grasshopper *Stethophyma grossum*, the endangered Heath

Paul Brock speaking at Entomology Day — Peter Shirley

Grasshopper *Chorthippus vagans*, and the nationally scarce Wood Cricket *Nemobius sylvestris*. Nationally scarce Dusky, Tawny and Lesser Cockroaches *Ectobius lapponicus, pallidus* and *panzeri* are found as well. Beetles included the very rare Heath Tiger Beetle *Cicindela sylvatica* and Kugelann's Ground Beetle *Poecilus kugelanni*. The endangered Black Bog Ant *Formica picea* lives in tussocks between wet heath and quaking bog.

The special environment of the Purbecks hosts the very rare Purbeck Mason wasp *Pseudepipona herrichii* and Heath Bee Fly *Bombylius minor*. The very rare Scarlet Malachite beetle *Malachius aeneus* can be found in gardens and flowery meadows close to thatched cottages, and gardens can also provide homes for the nationally scarce Sleepy Carpenter Bee *Chelostoma florisomne* and the endangered Flame Shouldered Blister Beetle *Sitaris muralis*.

Moving along the southern coast, at Dungeness, an endangered Beetle *Omophron limbatum*, our only member of its family, lives on sandy shores of beach pools, and a new arrival is the Tree Cricket *Oecanthus pellucens*. The Isle of Wight's southern coast provides an extreme UK edge to the range of the Glanville Fritillery *Melitaea cinxia*. Eype Mouth in Dorset has crumbling cliff suitable for the rare Cliff Tiger Beetle *Cylindrica germanica* and the endangered Chine Beetle *Drypta dentata*, which needs slippages near fresh water. Scavenging at the strandline at Branscombe, Devon, is the endangered Scaly Cricket *Pseudomogoplistes vicentae,* and at Prawle Point the nationally scarce Long-horned Bee *Eucera longicornis* burrows into the cliffs, and here too is the only UK site for the nomad bee *Nomada sexfasciata*.

An excursion into the Scottish Highlands showed us the rare Mountain Ringlet *Erebia epiphron* and endangered Chequered Skipper *Carterocephalus palaemon,* as well as rare Odonata, the Northern Damselfly *Coenagrion hastulatum* and White-faced Darter *Leucorrhinia dubia*.

Finally, a trip to the Scilly Isles introduced us to the stick insects which have gone native there.

John Bingham talked about Snow Fleas ***Boreus hyemalis,*** neither fleas nor particularly associated with snow, but winter scorpion flies, Mecoptera. Describing them as 4-5mm long, wingless and having a long beak and long antennae, he compared them to other scorpion flies, showing the absence of the scorpion-like male genitalia. They are rarely seen (except by Study Group members, led by the highly skilled and persistent John and Denise), being inconspicuous in their habit of crawling and jumping on moss in winter. Adults are carnivorous, whereas the larvae, which probably live in the soil, apparently feed on moss. They have remarkably strong antifreeze capability, and it is reported that they can die if held in a warm hand. UK distribution has concentrations in Cumbria and the London area, with a scatter in Wales, eastern England and Scotland.

For the Snow Flea's biology, John drew on a 1921 paper by Withycombe. He showed how the scorpion flies fit into the phylogeny of insects, and expressed his doubts that Snow Fleas really belong in that family. John showed pictures of characteristic Snow Flea habitat in the Wyre Forest, and of the remarkable mating behaviour which he has watched.

Snow Flea female John Bingham

Caroline Uff, in Soldier Beetles and some Local Gems, showed us the characteristics of Soldier Beetles, Cantharidae, their habitats and behaviours. Their common designation derives from their often orange and black colours; they characteristically have long parallel-sided elytra and long antennae. There are 7 genera and 41 British species, the genera of larger beetles being *Podarus, Silis* and *Ancistronycha,* with one species each, *Cantharis*, with 15 species, *Rhagonycha* with 7 species, while the smaller forms are *Malthinus* with 4 species and *Malthodes* with 12 species. They are conspicuous in spring and summer on flowers in a range of habitats, generally preferring tall vegetation, woodland edge, rides, hedges and wet areas. Adults are carnivores or omnivores, some eating nectar and honeydew, larvae mostly being ground-living carnivores eating worms, snails etc., even in winter ('snow worms').

Caroline introduced older and more recent field keys and field identification cards, and demonstrated some tricky identifications. Characteristics used in identification to species include size, patterns on the pronotum, and leg colour. Examples include the black patch on the pronotum of the black and red *Cantharis rustica*, and a greyish sheen, the pronotum pattern and leg colour of *C. nigricans*. The shape of the pronotum of *Silis ruficollis* distinguishes it from the click beetle *Denticollis linearis,* and the shape of the head and pronotum of *Podarus alpinus* is different to those of *Cantharis rufa*. *Cantharis figurata* can be confused with *C. rufa*, but in the male the antenna have distinctive openings on each segment; *C. obscura* has orange/yellow borders to the pronotum.

In the genus *Malthodes*, the terminal segments of the abdomen in the male are modified, providing a means of species determination.

Cantharis obscura easily identified by the yellow/orange margins to the pronotum. There are only a handful of loications for this beetle nationally and they include the Shropshire hills. G. Wenman

Caroline talked about the distributions and habitats of the rarer species. *Anastronycha abdominalis*, whose ecology is little known, is found on base-rich soils, particularly in limestone areas, mostly in the Pennines and the Yorkshire Wolds, with two sites in Wales and one in Cumbria. *Silis ruficollis* is mostly southern, but expanding. *Cantharus obscura* occurs in Scotland, Cumbria and Wales, in foliage of scattered trees on hillsides and in some lowland old forests, humidity perhaps being important. *Rhagonycha lutea* lives in the foliage of well-structured woodland and parkland, calcareous scrub and fen. *Malthodes guttifer* is associated with woodlands with willows in damp pastures and semi-natural oak and birch woods and had been assumed to be saproxylic, but is now known to emerge from rotten wood and bark at night to feed on eggs of the winter moth, little caterpillars etc.

Rhagonycha fulva the Common Soldier beetle. This is the one most people are familiar with and it is seen in July and August Caroline Uff

Saul Herbert and Mick Blythe, in Life and Death in the Canopy, presented the methodology and some of the results so far of a project to find out what's going on in the tree tops of the Wyre Forest. Saul explained the rationale behind the somewhat drastic fogging procedure, in terms of monitoring change in this least studied of habitats alongside monitoring changes in canopy structure and composition by Lidar imaging, and measuring effects of structural variation using data loggers to record light levels, temperature and humidity. Very early on still mornings three oak trees were fogged, toxic vapour being blown up through the canopy and the fallout collected on white tarpaulins. The project incorporated training for intern Katrina Dainton, and training and certification for NNR Reserve Manager Alice James. Some 2500 specimens were collected, and Katy has done the primary sorting.

Mick is proceeding with identification of flies. He presented tabulated findings, illustrated by photographs of significant species. Tree 1 contained significant numbers of decaying wood species including the Nationally Endangered *Heteromeringia nigrimana* (Clusiidae), four species of *Oedalea* and two of *Euthyneura*. The Nationally Notable *Ptiolina obscura* (Rhagionidae) was found in all three trees as were *Chrysotus gramineus* and *Sciapus platypterus* (Dolichopodidae) and *Bicellaria nigra* (Hybotidae). Other Nationally Notable species included *Neolimnophila carteri* (Limoniidae), *Aulogastromyia anisodactyla* (Lauxaniidae) and *Helina abdominalis* (Muscidae). *Oedalea apicalis* from tree 1 is Nationally Scarce.

Fogging, Wyre Forest Katrina Dainton

Wyre Forest Study Group

Rosemary Winnall and Mick Blythe went Down in the Dung Heap to discover what lives and breeds in dung from animals kept free of pesticides. Two heaps are being studied, with a third providing further records. Rosemary talked about methods: night-time observation, surface collecting and scrabbling, digging out and spreading, mats as refuges to see what hid under them, and use of emergence traps. Probes recorded temperature, reaching 35˚C at I metre depth in one heap, 30˚C in the other, air temperature being 15˚C.

Mount Pleasant dung heap Rosemary Winnall

Huge numbers of the rare pruinose woodlouse, *Porcelionides pruinosus* scurried about in the drier dung, together with two other woodlice, *Armadillion vulgare* and another manure heap specialist, *Porcello dilatatus*, and Rosemary demonstrated identification features. There were the centipede *Crystops hodensi*, and pseudoscorpions, and worms and various fly and beetle larvae were also busily processing the dung. The Lesser Earwig was recorded as well as many different small beetles, including *Omonadus floralis* and *Atholus bimaculatus*. Rove beetles abounded including *Philonthus varian, Cilea silphoides* and the larger *Philonthus spinipes*. The only muscid fly breeding in the dung was the stable fly *Stomoxys calcitrans,* and, also breeding, the hover fly *Syritta pipiens.*

Emergence trap on dung heap Rosemary Winnall

A Ptinid beetle (Feather-winged beetle) Mick Blythe

Mick presented his results so far from the emergence traps which, in a gruel of springtails and mites as well as tiny feather-winged ptinid beetles, produced plenty of flies, including many species of black fungus gnat (Sciaridae), *Desmometopa sordida,* a dung heap specialist amongst the Milichiidae, *Drapetis assimilis* (Hybotidae), a common bark species the breeding place of which is little known, the little dung fly *Pullimosina vulgesta* (Sphaeroceridae) and the scatopsid midges *Coboldia fuscipes, Ectaetia clavipes* and *Swammerdamella.* The biting midge *Culicoides obsoletus* (Ceratopogonidae) was present in large numbers as were the small black terrestrial chironomid midges of the Smittia group.

Stomoxys calcitrans (Muscidae) used to be known as the Blood-sucking Housefly, but it is mainly associated with dung and cattle. It was the only muscid we bred from the dung heap but it was found regularly. The pseudoscorpions were all Lamprochernes nodosus. Photographed through the stereomicroscope. Mick Blythe

Wyre Forest Study Group

Kevin McGee's Hot Flushes and Bald Patches were unusual and often disturbed habitats that yielded some unexpected insects to his skilled observation and photography. Searching log piles, and dead trees and root plates in the open, he has recorded the rare White-clouded Longhorn beetle, *Mesosa nebulosa* and the jewel beetle *Agrilus cyanescens* in Hertfordshire, and the click beetle *Ampedus rufipennis* in Worcestershire. The spiny mason wasp *Odynerus spinipes* was another Hertfordshire record. Trampled paths provided the widespread but local mining bee *Andrena clarkella* and the cuckoo wasp *Hedychridium roseum*, a southern species, from Hertfordshsire. The Nationally Scarce Heath Tiger Beetle *Cicindela sylvatica* came from a Dorset heath, and the Nationally Scarce 6-belted clearwing moth *Bembecia ichneumanoformis* had found a suitable habitat on a man-made chalk cliff at a Hertfordshire reservoir.

Where seaweed was buried under a trampled rubbly path through dune slacks on the Ceredigion coast, the digger wasp *Oxybelus argentatus* had found a suitable breeding site; the dunes also yielded a colony of the beetle *Psammodius asper,* which Kevin was the first to record there, and the moth *Phytometra viridaria*. Among shingle of the River Ystwyth, the spider wasp *Anoplicus concinnus* was sharing this specialised habitat with the spider *Arctosa cinera* (who eats whom, I wonder?).

Anthophora bimaculata, Dorset 16 Aug 2014 Kevin McGee

Another shingle site, in Hampshire, housed the Copper Peacock carabid, *Elaphrus cupreus,* while the Green Socks Peacock *E. riparius* was recorded from riverine mud in Hertfordshire.

Now that Kevin is again living in Worcestershire, he is recording on the Shakenhurst estate, and has found the Nationally Scarce long-horned bee *Eucera longicornis*, and in Herefordshire, he has the Welsh Chafer, *Hoplia philanthus* on Bringsty Common. His Nationally Scarce records also include the Sallow Clearwing moth *Synanthedon flaviventris,* in Hampshire, the bees *Andrena florea*, in Berkshire, and *Melitta tricincta,* in Hertfordshire.

Six-belted Clearwing, College Lake, Tring, Hertfordshire 10 July 2015 Kevin McGee