

Insects Attracted to Light (apart from moths!)

by Andy Swan

Everyone knows that nocturnal moths are attracted to light, and this is the basis of moth monitoring using ultra-violet light traps that are designed for the purpose. It may be a surprise to discover the huge range of other insects that join the moths in and around moth traps – it seems that flying towards light is the norm for nocturnal insects, rather than just a peculiarity of moths. Here are some of the insects that delight, puzzle or annoy moth enthusiasts - and some of them may be found attracted to any outside light, or even find their way indoors.

Mayflies (Ephemeroptera): These turn up occasionally in small numbers, ranging from the huge *Ephemera danica* to the tiny *Caenis* sp.

Bush-crickets (Orthoptera): The Oak Bush-cricket is attracted to light – it is well known for finding its way into bedrooms! – but is rare at moth traps. Speckled Bush-crickets occur occasionally.



Stoneflies (Plecoptera): On just one occasion, I found several of these of the genus *Leuctra* ("needleflies") in the moth trap.

Cockroaches (Dictyoptera): The number of species of native, outdoor UK cockroaches is only three (not counting some recent additions that may be aliens). Cockroaches are occasionally encountered locally in hedgerows, but I have seen them more often around the moth trap, all tentatively identified as Dusky Cockroach.



Heteropteran Bugs: Shieldbugs occur quite often but in small numbers, but a big surprise is the number of water boatmen (including *Corixa* sp.) that turn up on warm summer nights: they fly as a means of dispersal, which is sensible considering the temporary nature of ponds.



Homopterans Bugs: Froghoppers are occasional, but the number and variety of leafhoppers is extraordinary – light traps are surely an under-appreciated way of surveying for these neat and often colourful bugs. I have found some apparently uncommon species, and a light trap at Swan Barn Farm in our July 2025 bioblitz attracted a Pondweed Leafhopper (*Erotettix cyane*) – a national rarity!



Lacewings (Neuroptera): The attraction to light of lacewings leads to them appearing indoors, so it is no surprise that they occur in moth traps. *Dichochrysa prasine* is occasional.

Beetles (Coleoptera): The regular and/or numerous beetles are: 1) Cockchafers – these can reach nuisance levels in May/June! Brown Chafer and Summer Chafer also occur. 2) Sexton beetles – I have probably seen twenty times as many sexton beetles in the moth trap than I have in the wild; I



have recorded four species. 3) Water beetles - common in early summer; I have identified *Ilybius ater*; 4) Minotaur Beetles – I was astonished when the first one of these turned up, but they are now quite regular in autumn and spring. Other groups of beetles are quite random in the trap and include: ladybirds, weevils, click beetles, longhorns (the rare and giant Tanner Beetle appears quite regularly), and numerous tiny things that remain unidentified! That so many large beetles (chafers, sextons and Minotaurs) are on the wing at night indicates how important they are as food for larger bats and Nightjars.



Minotaur Beetle



Tanner Beetle

Caddisflies (Trichoptera): These are regulars at moth traps throughout the year, and are often in great numbers: their nocturnal behaviour evidently parallels moths. There are big caddisflies and micro-caddisflies, just as with moths, and care needs to be taken with some of the smaller ones so as to not confuse them with certain micro-moths. I haven't attempted to identify them all, but I would be surprised if there haven't been at least 30 species in and around my moth trap. Many have exceptionally long antennae.



Cinnamon Sedge Caddis



Leptocerus tineiformis

Flies (Diptera): These are bafflingly numerous and diverse. Some have the general form of small houseflies, but by far the most abundant are from the suborder Nematocera – midges, gnats, mosquitos, blackflies and crane flies. I haven't attempted to get to grips with these, but I reckon there must be hundreds of species. Some species appear in huge numbers just for a night or two: presumably a mass emergence or mating swarm. Surprisingly, I don't often get bitten – this seems to be due to only males being attracted to light – only the females need a blood meal! On one occasion, what I thought at first was a Hornet turned out to be a hornet-impersonator: the giant hover fly *Volucella zonaria*.



Simulium blackfly



Volucella zonaria

Wasps (Hymenoptera): Hornets are occasional nuisances: they prey on moths, and that's why they visit light traps; they seem to be happy to fly at night. The most abundant hymenopterans, though, are members of the group formerly known as "Parasitica", including ichneumons, cynipids (gall wasps) and braconids. The very large ichneumon *Ophion obscuratus* is a regular throughout the year, but most of the other Parasitica are tiny but can be distinguished from flies by their long antennae and, in the females, long ovipositors. Once again, it's only the lack of expertise that stops, probably, hundreds of species being found through the season.



Ophion obscuratus

One of the surprising things about this list of insects is the high percentage of groups with aquatic larvae, or even aquatic adults: mayflies, stoneflies, caddisflies, mosquitos, water boatman (over-represented among heteropteran bugs) and water beetles (over-represented among beetles). Presumably, flying nocturnally (to reduce predation) is a good choice for insects that spend only a small portion of their lives out of water, and they may all make the same navigational errors as moths when they see a light, perhaps trying to maintain a bearing on what they think is the moon. Interestingly, moths and butterflies are closely related to caddisflies, and there is speculation that their ancestors also had aquatic larvae.

Occasionally we find seldom-recorded moths in light traps; the potential for finding rarities (and even new species!) is even greater with less popular groups such as parasitic wasps and flies – a rich area of study for anyone with patience and enthusiasm for these difficult insects.