Nature Notes from Somerset
March 2020

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This is the first in a series of Nature Notes, possibly monthly, from a base near Yeovil in south-eastern Somerset. For well-known reasons all this month's observations were made in our garden, admittedly quite a large garden so affording a variety of flowers, shrubs, trees and micro-habitats. After a very wet winter, March has had a good number of warm sunny days, although ending with a chill north wind.

Highlight of the Month

A well-stocked flower bed of grape hyacinths (*Muscari*) provides a useful food source for early insects and immediately the sun came out so did the bee flies.

Bee flies (Diptera: Bombyliidae) are large furry bee-mimics. They have a long proboscis and feed, like hummingbirds, by hovering at the flowers scarcely alighting. Photography is challenging and this shot (left) used a shutter speed of 1/4000s to freeze the motion. Seeing the wings is important as the markings tell you which species it is. This is our most common species, the Dark-edged Bee Fly, *Bombylius major*, with a continuous dark marking along the leading edge of the wings.

Bee flies will settle on the ground and a few days later I noticed some basking on a patch of sun-warmed gravel (right). This one is different! It has less colour on the leading edge and a series of dots on the wing. The body is also darker with a black tail. This is the Dotted Bee Fly (*Bombylius discoloright)*, a nationally scarce UK BAP species found across the southern counties of England.

Unlike butterflies which coil up their proboscis, and bugs which fold theirs under their body, the bee fly's impressive "sword" is permanently fixed, like a tiny narwhal.

Please report any bee fly sightings to the Bee Fly Watch www.brc.ac.uk/soldierflies-and-allies/bee-fly-watch

A Possible Connection

Bee flies are parasites which lay their eggs in the nests of solitary bees. They can be seen hovering, flicking their eggs, covered with sand to make them “fly” better, to land in or just outside the nest entrance. The bee fly larva then eats the bee larva before pupating and emerging the following spring. The biology of the Dotted Bee Fly is not known for certain, but the most likely host in the UK is listed as the Yellow-legged Mining Bee (*Andrena flavipes*) (Hymenoptera: Andrenidae) and here it is in our garden on the flowers of Viburnum (left).

This bee also has a distribution across the southern half of England. So “all” I need to do to establish the connection is find the nests of the mining bee, usually located on sunny south-facing banks and watch out for bee flies doing their stuff.

Butterflies

Peacock Butterflies (below left) have been common, also making use of the grape hyacinths, and a few Commas (below right) were also in evidence. I also saw a Brimstone, but as usual for this butterfly, it flew without pause at high speed and disappeared into the wide blue yonder.

Other Connections

A caterpillar (above left) found this month is that of the Large Yellow Underwing (*Noctua pronuba*) (Lepidoptera: Noctuidae), an adult of which I disturbed in leaf litter in our garden last summer (17th July) (above right). This moth is common and widespread. The interesting connection is finding the parasitic wasp *Ichneumon stramentor* (Hymenoptera: Ichneumonidae) (below), among whose target hosts is, yes you guessed it, the Large Yellow Underwing.

Ichneumon wasps are notoriously difficult to identify and most require microscope examination, but the female of *I. stramentor* is one of the few which can be reliably determined from a photograph. The key features are an abdomen with entirely yellow second and third segments and with a yellow spot at the tip (just visible in the photo), and hind tibiae with a clear yellow band at the base, black at the apex. There is an excellent guide to easily identifiable British Ichneumon wasps by Nicola Prehn and Chris Raper, "Beginner's guide to identifying British ichneumonids", available on the Natural History Museum website.

On the subject of parasitism, this bee (above left) is one of the many species of cuckoo bees which parasitize the nests of solitary mining bees. This is *Nomada marshamella* (Hymenoptera: Apidae) and listed among its host species is *Andrena haemorrhoa* (Hymenoptera: Andrenidae) a female of which was also seen this month (above right).

Bugs and Beetles

The plant-sucking bugs which are seen early in the year are those which overwinter as adults. Among these is the Common Green Shield Bug (*Palomena prasina*) (Hemiptera: Pentatomidae). They change colour to bronze-brown before hibernation, so this photo (left) shows one which is still dark and another which has presumably already changed back to its summer green raiment. This species is common and feeds on a wide range of deciduous trees and shrubs.

The Box Bug (*Gonocerus acuteangulatus*) (Hemiptera: Coreidae) was in the 19th century only known from Box Hill in Surrey. Since about 1990 it has been spreading across the south-east and has now evidently made it as far west as east Somerset. When I first saw it, I thought, "Oh that's the Dock Bug (*Coreus marginatus*)", which looks similar and is very common, so it is worth checking old photos. The Box Bug likes box bushes as its name suggests but is also partial to *Rosa rugosa*, of which there is a lot in our garden.

I saw a few 7-spot Ladybirds, and none of the alien Harlequins (yet), which is nice to see as the native 7-spots have been under pressure in recent years from the alien invaders. This is the Pine Ladybird (Exochomus quadripustulatus) (Coleoptera: Coccinellidae) which frequents a wide range of trees, not just pine. It is one of the first ladybirds to come out of hibernation. The "comma" shaped red spots are distinctive as is an upturned flange at the edge of the elytra. Also, the Cream-spot Ladybird (*Calvia quattuordecimguttata*) (below right). Both are aphid predators.

This beautifully coloured beetle (right) is only about 5mm from nose to tail. A new one on me, it turns out to be a very common and significant pest species, feeding on and causing significant damage to cereal crops, the Cereal Leaf Beetle (*Oulema melanopus*) (Coleoptera: Chrysomelidae). Apart from pesticides, nematodes and parasitic wasps have been tried as biological control agents to control infestations.

And Finally

Studying leaves can be a good way to find insects. The larvae of many micro-moths and flies, especially of the family Agromyzidae, burrow between the upper and lower surfaces of leaves producing a leaf mine which is characteristic of the species of insect. Is this a leaf mine? (right)

The plant is Cherry Laurel (*Prunus laurocerasus*) (Rosaceae), not actually a laurel but a member of the rose family. A short search for diseases of this cultivated shrub revealed that this is not a leaf mine but is produced by a bacterium *Pseudomonas syringae*. The plant reacts to attack from the bacterium by isolating and severing the infected tissue, which eventually drops away leaving holes in the leaves. This disease is therefore commonly known as ‘shothole’.

Stay at home, stay safe and enjoy nature on your doorstep!

Mike Ashworth, 9th April 2020