The Hundred Parishes

An introductory article about INSECTS

In springtime, as the weather warms, we look forward to an abundance of flowers offering food for bees, hoverflies and butterflies. A report in 2023 by the Essex Wildlife Trust indicated that such sightings may be much reduced. During 2022, members of the Trust participated in the UK citizen science Bugs Matter Survey, recording 'bug splats' on vehicle number plates to monitor flying insect abundance. The numbers of insects recorded on 277 journeys across Essex suggested that insect numbers have declined by 60% since 2004.

Although numbers are down, many species can be seen across the Hundred Parishes. You are encouraged to keep a camera handy when out and about – close-ups can reveal fascinating details. We hope some of the images in this article may help you to appreciate or identify some of our little local creatures, starting with a bee and a pair of ladybirds.

The decline in insect numbers is a worrying trend as it has implications for the survival of many other organisms. The majority of plants rely on insect pollinators to set seed, including wild and garden flowers and three quarters of our food crops. Many song-birds feed on insects, and seed eaters such as skylarks and house sparrows nourish their young on insects.

The reasons for this decline are complex, but as most arable crops are grown without any weeds this reduces the variety of food supplies for caterpillars, aphids and bugs. Fewer flowers mean less food for bees, adult butterflies and moths.

Fortunately, many insect species are resilient, and we can help with the survival of some. You are encouraged to plant up your gardens with native hedgerow shrubs, a tree or two and install a bug hotel as these provide many habitats where insects can over-winter. Accepting flowery lawns and planting a wide selection of flowers is not only attractive to humans but provides nourishment for an abundance of insects too.

Here, we show a dragonfly on the left and a thick-kneed beetle below on the right.

In springtime, many fields across the Hundred Parishes turn yellow as the oil-seed rape flowers, with farmers hoping for a bountiful harvest. Fortunately for them, research by the Centre for Ecology & Hydrology found a positive but unexpected increase in key bee species responsible for pollinating flowering crops such as this. Between 1980 and 2013, the scientists had measured the presence of 353 wild bee and hoverfly species across the country. Overall, they noted that one-third of species had declined, one tenth increased, while evidence for the status of other species was inconclusive. Pollinating insects are vital for adequate seed production in crop plants as well as in other plant species including rarer native plants which often support more specialist insects.

Whilst honey bees may be familiar to most people, over 270 other species of bee have been recorded in the UK and many of these may be significant pollinators of specific wild flowers. Bumble bees are large and have hairy bodies, but many other species of bee are much smaller and easily overlooked. Mining bees live in holes in the ground and others in crevices in walls or in hollow stems.

The UK hosts about 20,000 species of insects, many of which get eaten by other creatures. We enjoy seeing brightly-coloured butterflies or dragonflies, but species like skylarks, swifts, blue tits, hedgehogs, shrews, bats and many fish require a cornucopia of moths, flies and beetles in order to survive. Assorted flies, beetles and wasps are also predators or decomposers helping to control pests and recycle dead material.

In 1996 an experimental wild flower garden was established in the grounds of the Natural History Museum in London. Covering an acre, it was designed with varied habitats with specific plants from woodlands, hedge banks, flower-rich grasslands and pond margins. Carefully managed since then, it now has 400 plant species

which support a wide range of small creatures as well as several nesting birds. By 2017 the species count had reached over 3,000, including rare species or species new to the UK! The list included some very specific pollinators which had flown in from elsewhere!

The statistics in the 2016 State of Nature Report show an alarming decline in the abundance of many insect species. The causes of this decline are complex, but intensification of farming, loss of wildflower meadows, hedgerow removal and changes in climate play a part. Widespread use of herbicides and pesticides is also implicated. Herbicides have reduced the variety of wildflowers; with limited foraging opportunities many insects have become scarce or extinct. The impact of pesticides on all insect populations has far-reaching consequences and is now subject to intense scrutiny to find answers.

Below, on the left is a cockchafer or May bug, and on the right a Minotaur beetle . . .

Planting suitable flowers in our own gardens will benefit insects and other forms of wildlife, especially if we garden organically! Establishing a wildflower patch in your own garden will help to support many insect species and the patch doesn't have to be large! Leaving part of your lawn uncut allows many plants other than grasses to flower; apparently some lawns may have 25 species, not just daisies, dandelions or clover! Sowing a wildflower mix is possible but do select ones likely to be found locally as this helps to retain a sense of local identity and may help support locally rare insects. Distribution maps of wild flowers are available on the website of the Botanical Society of the British Isles, www.bsbi.org. These show which species grow in different parts of the country and record changes in recent years.

Pasque flowers are especially associated with our local area, but primrose, cowslip, hedge mustard, honeysuckle, cuckoo flower, wild angelica, violet, and birds foot trefoil are still common. All these and more can be established in a wild flower patch in a garden and tend to be low maintenance, coping with periods of dry weather. Harebells, ragged robin and wild mignonette are disappearing in our area. Why not include them in your wild flower patch? A more diverse range of flowers will attract and support a wider range of insects including butterflies, bees, hoverflies and moths as well as ladybirds and other beetles.

Please remember that plants must not be uprooted from the wild. Not only is it damaging to the environment; it is illegal under the Wildlife and Countryside Act (1981) and is punishable by a fine of up to £1,000.

There are a number of suppliers of regionally-sourced wild flower seeds. For practical advice on gardening for wildlife see https://www.rhs.org.uk/wildlife or Adrian Thomas's book "*Gardening for Wildlife",* published by Bloomsbury in 2017.

Immediately below is a Large Red Damselfly, followed by a Mayfly.

To get involved with the Bugs Matter survey see https://www.buglife.org.uk

Visiting local gardens for helpful tips is fun too – see the spring and summer months of the What's On page of www.hundredparishes.org.uk

For details of nature reserves and events locally see https://www.wildlifetrusts.org/my-wild-life