

ORTHOPTERA - Grasshoppers and Crickets in the North West

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The purpose of this short paper is to encourage members of the society to collect and record these insects. A national recording scheme has been running for a number of years and two provisional atlases have been produced. It is hoped to publish the final atlas in 1985, and records can be accepted until autumn 1984. The organiser of the scheme, Mr. E.C. Haes, has pointed out that there are few records for the north west, particularly Cheshire.

The Orthoptera are very much a southern group. Of the 31 British species only 13 are known or are likely to occur here. That includes the only northern speciality, the enigmatic Lesser Mottled Grasshopper known in Britain only from one peninsular at the south of the Isle of Man.

All species can be easily identified using D.R. Ragge (1965) 'Grasshoppers Crickets and Cockroaches of the British Isles' published in the Wayside and Woodland series by Frederick Warne & Co., but now regrettably out of print. Fortunately, our limited number of species means that identification presents few problems as I hope to show.

The most familiar group of Orthoptera are the grasshoppers, easily recognised by their jumping hind-legs and comparatively short antennae.

The commonest species is the Common Field Grasshopper

Chorthippus brunneus (Thunb.). This is usually brown but green forms can occur and a beautiful red form is found on Hilbre Island. The characteristic feature is the downy hair on the underside of the thorax, clearly visible if you hold the insect up to light. The white lines on the pronotum are sharply angled. It may well prove to be found everywhere in our region, in open grassy and scrubby places.

The Mottled Grasshopper Myrmeleotettix maculatus (Thunb.) is our other brown but also occasionally green grasshopper. Its most characteristic feature is the clubbed antennae. It is a small grasshopper, mottled as its name suggests and with strongly bent pronotal lines. The dry grasslands of heath and sand-dunes are where I have found this species. (The Lesser Mottled Grasshopper Stenobothrus stigmaticus (Rambur) from the Isle of Man resembles the Mottled Grasshopper, but lacks strongly clubbed antennae).

The Common Green Grasshopper Omocestus viridulus (L.) despite its name, does not seem to be common here. The sort of habitat it requires in this region is one of the intriguing questions that members may be able to discover. I have found it in grassy places of the mosses of Whixall, nearby Fenns, and Simonswood in south Lancashire. It usually has some green colour and lacks the downy thorax of the Common Field Grasshopper. The pronotal lines are moderately angled.

The Meadow Grasshopper Chorthippus parallelus (Zett.) is also usually green. The pronotal lines are hardly bent at all, and the almost parallel appearance of these on each side of the pronotum probably gives the species its latin name of parallelus. However, the most characteristic feature is the short wings. The female's wing cases are about half the length of the abdomen, or less, while the males are about three quarters. Neither sex has properly developed hind-wings, their vestiges can be seen if the wing-cases are lifted. This grasshopper seems to like the lush grass of old meadows, but I have also found it on moors in North Wales.

Our rarest grasshopper is the Lesser Marsh Grasshopper Chorthippus albomarginatus (DeGeer). It has not been seen for many years on the coasts of our counties so I was very surprised to find it on Fenns Moss, next to Whixall Moss in N. Shropshire. The pronotal markings are like the Meadow Grasshopper but it has reasonably developed wing-cases in both sexes and if they are lifted, fully developed wings will be found.

Grasshoppers are best collected in high summer. They can be pinned to the right of the mid-line of the thorax. If desired, the wings of one side can be set. They do change colour after death but not as seriously as the dragon-flies.

The characteristic chirping of the mature male grasshoppers is different for each species. It can be a useful clue that they are present in an area as mature individuals. The nymphs, which have short wing-cases cannot be identified without critical measurement under a microscope.

We have one representative of the group of orthoptera called ground-hoppers. The Common Ground-Hopper Tetrix undulata (Sowerby). It looks superficially like a small, dark, diamond shaped grasshopper. This shape is produced by the huge pronotum which extends back to cover the whole of the abdomen. It is a secretive animal which I have always come across incidentally while searching for other animals.

On a number of occasions I have been walking alongside a canal or pond when I have disturbed one of these animals which has jumped into the water, got into difficulties and consequently drawn my attention. I must pass hundreds unseen. Unlike our other Orthoptera it passes the winter as an adult and adults can be found throughout the year rather than just the summer.

All our remaining Orthoptera pass under the general name of crickets. They all have long antennae.

The Oak Bush-Cricket Meconema thalassinum (De Geer) is a green insect which has been recorded from the woodlands bordering the river Dee between Llangollen and Aldford and the lower Weaver valley. Despite its name it lives on a variety of trees and feeds on aphids and other insects, not on leaves. Most of my captures have been made when it suprisingly turns up on a beating tray being weilded for lepidopteran larvae.

The brown and purple Bog Bush-Cricket Metrioptera brachyptera (L.) with its short wings as the latin name suggests, lives on our mosses. It is one of the numerous fine insects known from Whixall and adjacent Fenns Mosses, from Abbot's Moss and recently recorded from a moss adjacent to Risley.

We should look out particularly for grey crickets. The Dark Bush - Cricket Pholidoptera griseoptera (DeGeer) likes thickets and is known recently from N.Wales and in the past recorded from Cheshire. It is also just possible that the green speckled with brown, Speckled Bush-Cricket Leptophyes punctatissima (Bosc.) which is known from the Llandudno area, may turn up further east.

I have not mentioned Orthoptera from alien habitats. Many fine exotics have been imported into our docks, and W.K. Ford, a past member of the society and Keeper of Invertebrate Zoology at Liverpool Museums, was very interested in these animals. An import probably accounts for the record of the Mole Cricket Gryllotalpa gryllotalpa (L.) from the Manchester area recently. An unmistakable animal if ever met, now thought to be restricted in Britain to only two colonies, in the south, and on the list of protected British species.

Most aliens fail to establish, but one which is a long-time native is the House Cricket Acheta domestica (L.). An animal of heated premises and not nearly as common as in the past. It cannot survive our climate but can breed in rubbish tips where the decomposition causes the necessary heat.

Because of this habit it is really little better than the cockroaches. Its strident, ventriloqual, and sometimes decidedly annoying, stridulation ' the singing cricket of the hearth' gives it a better reputation among laymen than the cockroach. The noise of these animals, I experienced on an evening walk over Bidston Rubbish Tip, is certainly one of the natural history experiences I cherish. In very hot summers, such as in 1976, they migrate from the tips and seek out compost heaps in gardens - to the bafflement of those unfamiliar with the call of this animal.