

THE DISTRIBUTION OF NATIVE SALTATORIA
IN SUSSEX (1965-70)

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This paper is compiled from the results of a survey carried out by the writer between 1965 and 1970. The survey was undertaken on behalf of The Sussex Naturalists' Trust Limited, and has covered all species of Orthoptera so far recorded with established breeding colonies in the county. It follows a pilot survey carried out on bush-crickets (Tettigoniidae) by Mr. R. McHugh in 1963-64.

The only comprehensive survey of Orthoptera previously carried out in Sussex seems to have been that by the remarkably versatile and painstaking naturalist, Mr. H. Guermontprez, between about 1870 and 1914. Many specimens collected during this survey are still in existence in the Bognor Regis museum. Mr. W. J. Lucas mentioned the most important of Guermontprez's records in his classic "*Monograph of the British Orthoptera*" (1920), as well as those of the few other early recorders in Sussex, notably the Rev. J. A. Bloomfield of Guestling.

Between 1920 and 1965 several naturalists have, in the course of their various activities, contributed further records of Sussex Orthoptera; particularly Dr. I. S. Menzies, who discovered the Long-Winged Cone-Head, *Conocephalus discolor* Thunberg in the county in 1945 and subsequently recorded its distribution; as well as recording that of the Field-Cricket, *Gryllus campestris* Linnaeus. In 1962 Mr. R. A. Farrow located Cepero's Groundhopper, *Tetrix ceperoi* (Bolivar) in what is still the only known locality for the species in the county; while Mr. R. M. Payne first recorded the spectacular Wart-Biter, *Decticus verrucivorus* (Linnaeus) in East Sussex, in 1955.

During the present survey it has become apparent that Sussex is rich in native Orthoptera, and perhaps third only to Hampshire and Dorset in this respect. Most species have proved to be easy to locate and identify because of their relatively large size, readily recognized diagnostic features and the often distinctive stridulation of the males. In addition, nearly all species occur in quite well defined colonies, in the appropriate habitats. For these reasons it has been possible to cover far more ground in the time than is likely to have been the case with practically any other group of insects. However, the progress of this survey has only been possible thus far because of the assistance provided by Dr. D. R. Ragge of the British Museum (Natural History), and by those whose help is most gratefully acknowledged in the relevant paragraph at the end of the paper.

HABITATS FOR ORTHOPTERA IN SUSSEX

Nearly all native species of Orthoptera seem to require natural or semi-natural, undisturbed habitats. Much of the Sussex coastline is under active and extensive urbanisation. Inland, great areas of ancient turf on the Downs or the Wealden Clay have been brought into arable cultivation during the last two or three decades. In these places such Orthoptera that still survive are confined to any building plots, thickets, hedge-banks and headlands or undrained marshes that yet remain. Fortunately there are many places in the county particularly suitable for Orthoptera, which have been saved from urbanisation because they are areas of outstanding beauty, or have escaped intensive farming development because of the unsuitable nature of the terrain. Much heath and downland in the county has been afforested, but the necessary, scrub-margined grassy rides and firebreaks have proved good territory for grasshoppers and bush-crickets, notably for the uncommon Woodland Grasshopper, *Omocestus rufipes* (Zetterstedt). The South Downs possess a very good Orthoptera fauna, as may be seen in the two downland National Nature Reserves, at Kingley Vale near Chichester, and Lullington Heath near Eastbourne; as well as in such extensive areas of undisturbed chalk turf as are to be found near Goodwood racecourse, Arundel Park, Malling Hill near Lewes, or on the coastal chalk between Seaford Head and Eastbourne. The relatively undisturbed coastal habitats in the vicinity of Chichester Harbour and Rye Harbour at opposite ends of the county are also comparatively rich in Orthoptera: while inland, the Orthoptera typical of southern heathland are well represented on the chain of heathy commons from Iping and Ambersham in the west to Chailey and the Ashdown Forest in the east.

The enlightened action of one land owner has probably ensured the survival of the Field-Cricket, *Gryllus campestris* Linnaeus in what seems to be one of the last two remaining localities for the species in Britain, on an area of sandy grassland in West Sussex.

The still surprisingly extensive Wealden oak woods of Sussex are of more interest to lepidopterists and coleopterists, as only a few kinds of native Orthoptera seem to occur in them. However, the surviving marshlands along the courses of the main, south-flowing rivers of the county: the Rothens of East and West Sussex, the Arun, the Adur, the Ouse and the Cuckmere, are all good places for Orthoptera.

The main habitat requirements observed for each species are dealt with under their separate headings. Such observations are of a superficial nature. The writer has done no fundamental investigations into habitat requirements of Orthoptera, but it has been necessary to rely upon visual inspection of terrain to decide which areas were

likely to prove worth a concentrated search in the limited time available.

EXTENT OF THE DISTRIBUTION SURVEY

The native Orthoptera appear to be sedentary insects, in that they usually remain within colonies which do not substantially vary in location from one year to another, so long as some suitable ground remains available to the species concerned. In this respect the distribution of native Orthoptera is essentially similar to that of wild plants. Consequently it has been considered worth while to base the county survey upon the tetrad (2 x 2 kilometre square) unit, which is being used for the flora survey. Search has so far been concentrated upon those tetrads that contain a reasonable amount of suitable, undisturbed habitat. Because the writer is resident in the extreme west of the county and has limited time available, more tetrads have been surveyed in West Sussex than in East Sussex, but it is felt that many of the most significant tetrads in East Sussex have now been covered. Eventually it is hoped that all the tetrads in the county will be investigated for Orthoptera, but most of the tetrads as yet unsurveyed are either of visually similar habitat type to nearby tetrads already covered, and are thus likely to contain a similar list of species to these, or cover terrain that is unlikely to produce more than a short list of the most widespread species. A report on the Orthoptera survey is therefore made at this stage, as it seems clear that the general distribution pattern of the various species in the county has now emerged. In addition, at least some portion of all but one significant 10 kilometre square in the county has now been examined during the period July-October, when most native species are adult. Along the line of the present vice county boundary tetrads are usually bisected. On the maps records from such tetrads are marked to the west or east of the boundary line, according to which side of the line the records have been made. For example in the St. Leonard's Forest area all records in bisected tetrads were made to the west of the line, and are thus West Sussex records and are marked as such. All the tetrad records have been mapped for the Sussex Naturalists' Trust by Mr. D. T. Streeter and Miss L. Burnham, and the maps adapted for this paper by Mr. J. R. Mellor.

IDENTIFICATION OF SPECIES

Because of the relative ease with which adult specimens of most British species of Orthoptera may be determined, records have been based upon identification in the field, with the important exceptions of the very similar Slender and Cepero's Ground-Hoppers, *Tetrix subulata* (Linnaeus) and *T. ceperoi* (Bolivar), where voucher specimens have been sent to Dr. D. R. Ragge for confirmation.

The only known native species not so far recorded from Sussex are:

Roesel's Bush-Cricket, *Metrioptera roeselii* (Hagenbach); Wood Cricket, *Nemobius sylvestris* (Bosc); doubtfully native Scaly Cricket, *Mogoplistes squamiger* (Fischer); Large Marsh Grasshopper, *Stethophyma grossum* (Linnaeus); Heath Grasshopper, *Chorthippus vagans* (Eversmann); and Lesser Mottled Grasshopper, *Stenobothrus stigmaticus* (Rambur). Of the remaining twenty-two species, only the Mole-Cricket, *Gryllotalpa gryllotalpa* (Linnaeus) has not been rediscovered during the present survey. The long established House-Cricket, *Acheta domesticus* Linnaeus has, on the other hand, been found to persist on at least two municipal rubbish tips, as well as in a number of buildings and glasshouses and has therefore been recorded with the true natives. The non-native Greenhouse Camel-Cricket, *Tachycines asymoronus* Adelung was recorded from a Hastings nursery early in the century, but is omitted, as there have been no subsequent records for the County.

SPECIES RECORDED (1965-70)

Tettigoniidae (Bush-Crickets)

Meconematinae

Meconema thalassinum (Degeer) (Oak Bush-Cricket)

Widespread throughout Sussex, in deciduous woodland, avenues, old gardens and thickets; it seems to be particularly associated with oak, lime, poplars and elder. In the present survey it has never been found in conifers, either in gardens or in forestry plantations. It is a free-flying, nocturnal species, attracted to light, consequently some of the records are based on specimens found on ceilings or street lamps, but always in wooded districts with deciduous trees. See Map 1.

Tettigoniinae

Tettigonia viridissima Linnaeus (Great Green Bush-Cricket)

At present very local and decreasing in West Sussex as destruction of suitable habitat continues, but still widespread and locally common in East Sussex, within a triangle, Brighton, Lewes and Eastbourne, with a few small colonies to the east, as far as Hastings. It occurs in scrubby places with rank herbage, both along the coast and on the South Downs. On the coast it does not occur in salt marsh vegetation but may be abundant in rough pasture immediately adjacent to tidal water. See Map 2.

Decticinae

Decticus verrucivorus (Linnaeus) (Wart-Biter)

First recorded from the county by R. M. Payne (in 1955) on downland in East Sussex. Several colonies have since been located. As this impressive insect may attract unscrupulous collectors, the Sussex Trust has decided not to publish the localities of the colonies. Specimens from Sussex are very similar in appearance to those in

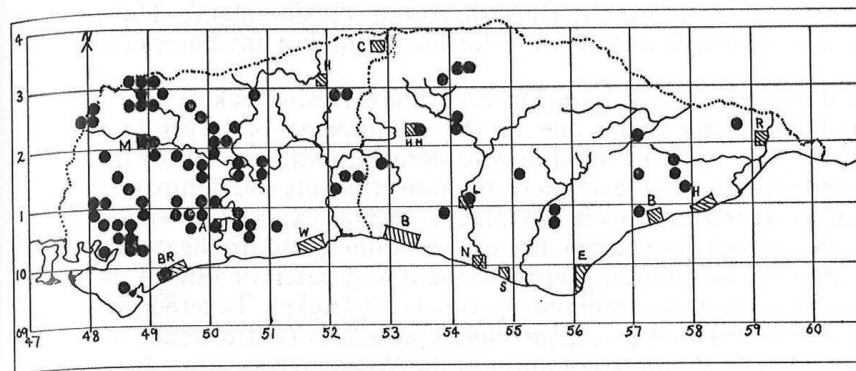


Fig. 1 *Meconema thalassinum* (Degeer).

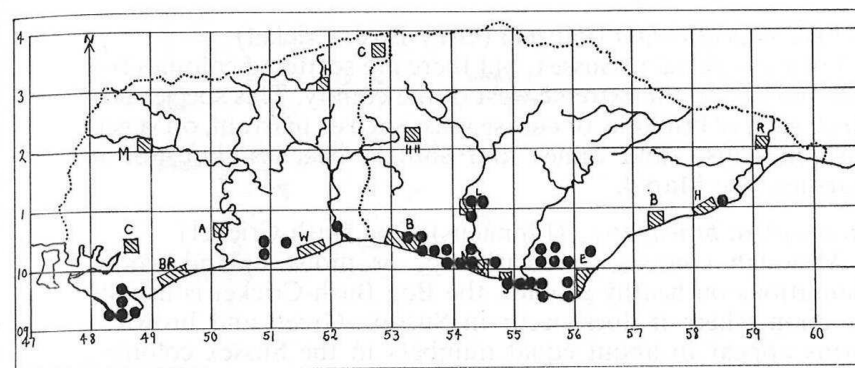


Fig. 2 *Tettigonia viridissima* Linnaeus.

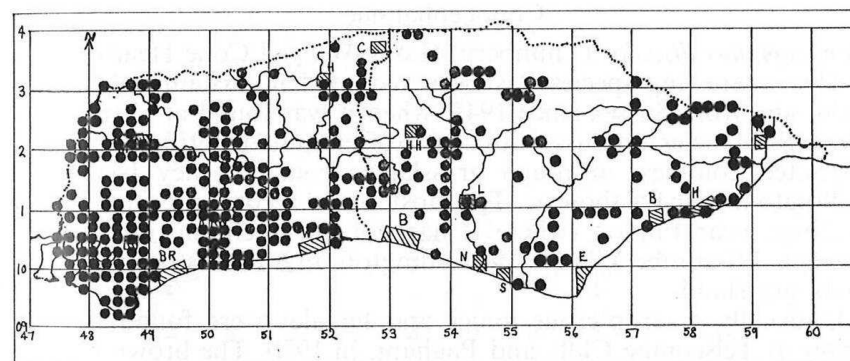


Fig. 3 *Pholidoptera griseoptera* (Degeer).

a recently re-discovered Kentish colony on downland. The brown variety, ab. *bingleyi*, has not so far been found in any Sussex colonies.

Pholidoptera griseoptera (Degeer) (Dark Bush-Cricket)

This appears to be one of the commonest of larger insects in Sussex, and may be found in considerable numbers, almost throughout the county, wherever there are moist thickets and damp, uncleared ditches. It is absent from dry places, such as exposed downland turf, thinly grassed shingle beaches or sand dunes, and dry heathland; but in almost every tetrad there is some damp patch or thicket which is almost invariably colonised by this bush-cricket. Together with the Meadow Grasshopper, *Chorthippus parallelus* (Zetterstedt), it is one of the few Orthoptera common in the Wealden clay zone. It is by far the most widespread bush-cricket in the county. From earlier records, it seems that it may have been scarcer in the last century than now. See Map 3.

Platycleis denticulata (Panzer) (Grey Bush-Cricket)

Entirely coastal in Sussex, but there are scattered colonies from the extreme east to the extreme west of the county. This species occurs in scrub such as bramble, or coarse grass such as marram, on vegetation-covered cliffs, sand dunes and shingle beaches, but not in salt marshes. See Map 4.

Metrioptera brachyptera (Linnaeus) (Bog Bush-Cricket)

Although confined to heathland, or moist upland woods and plantations on heathy ground, the Bog Bush-Cricket is usually very common where it does occur in Sussex. Green and brown colour forms appear in about equal numbers in the Sussex colonies. The macropterous form (f. *marginata* (Thunberg)) has not been found so far during the present survey and has not yet been recorded from Sussex. See Map 5.

Conocephalinae

Conocephalus discolor (Thunberg) (Long-Winged Cone-Head)

This interesting species has been recorded in Britain only since 1936, and from Sussex since 1945, when it was found at Ferring by Dr. I. S. Menzies. In Sussex it occurs (often quite plentifully) in very restricted colonies, in rough grassland, from Thorney Island to Lullington, near Eastbourne. The most inland records are from Long Furlong, near Findon (where it has not been refound during the survey), Telscombe Village and Lullington, in all cases on ungrazed chalk grassland.

Unusually macropterous males and females were found by the writer at Telscombe Cliffs and Pagham, in 1970. The brown colour variety has been found regularly at Pagham, Denton and Telscombe Cliffs during 1966-70. See Map 6.

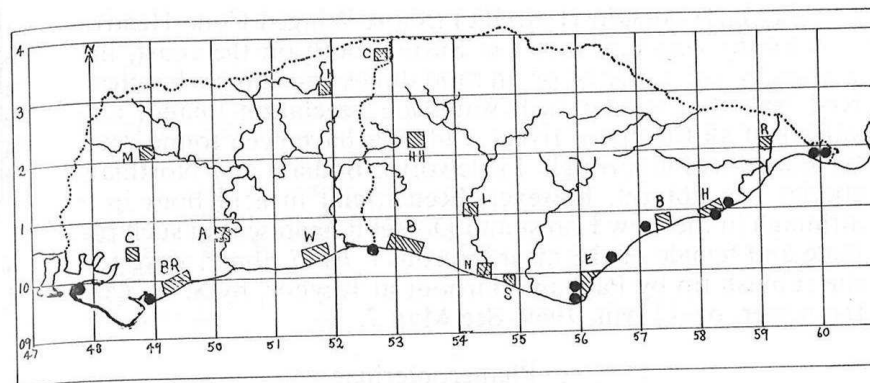


Fig. 4 *Platycleis denticulata* (Panzer).

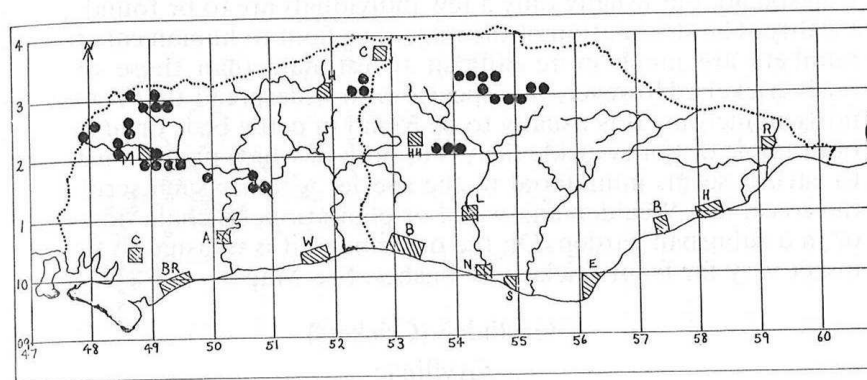


Fig. 5 *Metrioptera brachyptera* (Linnaeus).

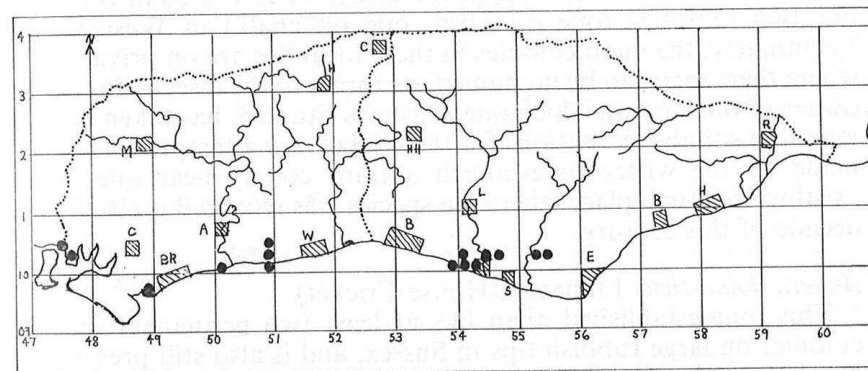


Fig. 6 *Conocephalus discolor* (Thunberg).

Conocephalus dorsalis (Latreille) (Short-Winged Cone-Head)

A locally common insect in Sussex, both on the coast, in coarse grasses by salt marshes, or on sand dunes and shingle beaches and in reed beds and similar lush waterside vegetation inland, along the valleys of all the major rivers. Colonies have been found recently as far inland as Pulborough, Fittleworth, Bodiam and Northiam. This species has not yet, however, been found in acid bogs in Sussex, although in the New Forest and Dorset it is present in such places. A male and female of the macropterous f. *burri* Ebner, were found on the rubbish tip by Pagham Harbour at Keynor, by S. N. Cross and the writer, on 12. viii. 1969. See Map 7.

Phaneropterinae

Leptophyes punctatissima (Bosc) (Speckled Bush-Cricket)

The distribution of the Speckled Bush-Cricket in Sussex is widespread, but usually only a few individuals are to be found in any locality. The stridulation of the male is so faint to human ears that its numbers are much more difficult to estimate than those of most bush-crickets. However, this species is so widespread that it must be fairly numerous. It is usually to be found in nettle beds or in thickets of bramble or honeysuckle (leaves of both of which plants it is known to eat). It seems immaterial to the species whether such scrub is on the coast, in a Wealden oak wood or plantation, on chalk downland, or in a suburban garden. On the other hand it is unusual to find this insect very far from thickets or bushes. See Map 8.

Gryllidae (Crickets)

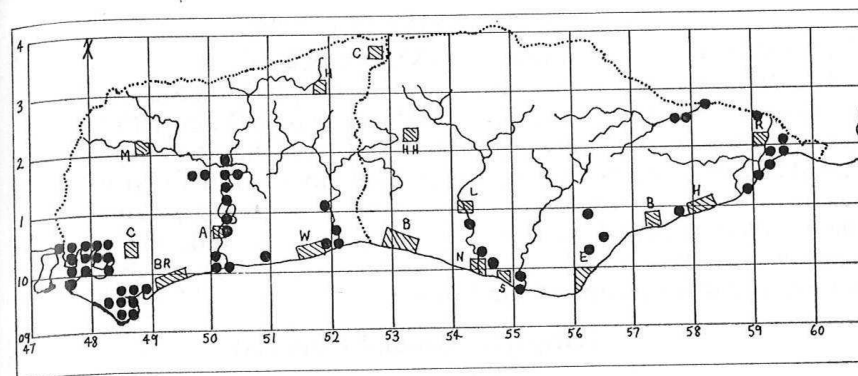
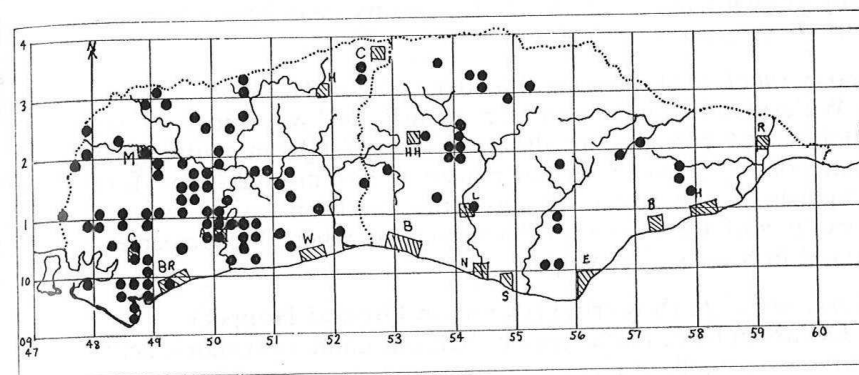
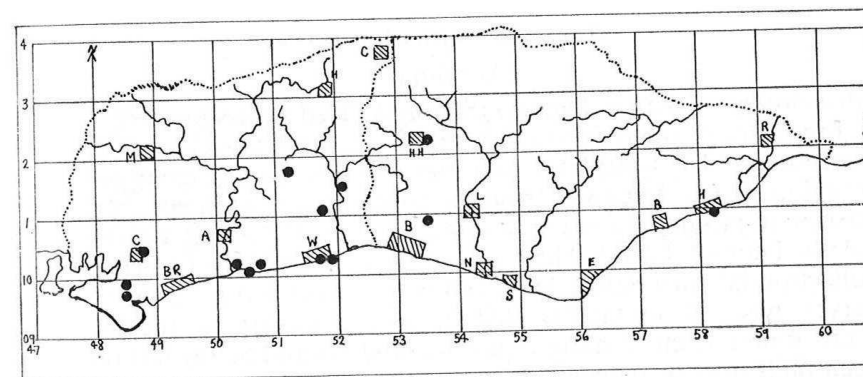
Gryllinae

Gryllus campestris Linnaeus (Field-Cricket)

Although once locally common in parts of southern and eastern England, the Field-Cricket appears now to be restricted in Britain to but two localities (one on sand, one on chalk) in West Sussex. Fortunately, the main colonies in these localities are on private land, where there seems to be no immediate threat to the insects. In fact the owner of the land on which one colony is situated, has taken steps to maintain suitable conditions for the cricket. An attempt is also being made by the writer to establish a third colony near one of the existing ones, in a place where the species was recorded up to the first decade of this century.

Acheta domesticus Linnaeus (House-Cricket)

This long-established alien has at least two permanent outdoor colonies on large rubbish tips in Sussex, and is also still present in a number of glasshouse nurseries and public buildings, as well as in several private houses in the county. See Map 9.

Fig. 7 *Conocephalus dorsalis* (Latreille).Fig. 8 *Leptophyes punctatissima* (Bosc.).Fig. 9 *Acheta domesticus* Linnaeus.

Gryllotalpidae (Mole Crickets)

Gryllotalpa gryllotalpa (Linnaeus) (Mole-Cricket)

The Mole-Cricket has occurred in several places in Sussex during this century, but the last recorded sighting was in August 1939, near Bexhill, by Mr. J. Manwaring-Baines. Likely habitats have been visited in early summer during the present survey, but so far without success. There are three specimens in the Guermonprez collection, one of them labelled Fittleworth 1909, and the old, unploughed meadows by the Rother at Fittleworth would still appear to be suitable for this moisture-loving insect.

Tetrigidae (Ground Hoppers)

Tetriginae

Tetrix ceperoi (Bolivar) (Cepero's Ground-Hopper)

First recorded in Sussex by Mr. R. A. Farrow in 1962, and so far only known from a single marshy locality near Rye (where it occurs with *T. subulata*). See Map 10.

Tetrix subulata (Linnaeus) (Slender Ground-Hopper)

Widespread throughout the county on wet mud by streams, ditches and ponds; but although recorded from within one kilometre of the coast in several places, it has not yet been found by brackish or salt water. It may often be found with *Conocephalus dorsalis* and *Chorthippus albomarginatus* where these species occur inland in Sussex. See Map 11.

Tetrix undulata (Sowerby) (Common Ground-Hopper)

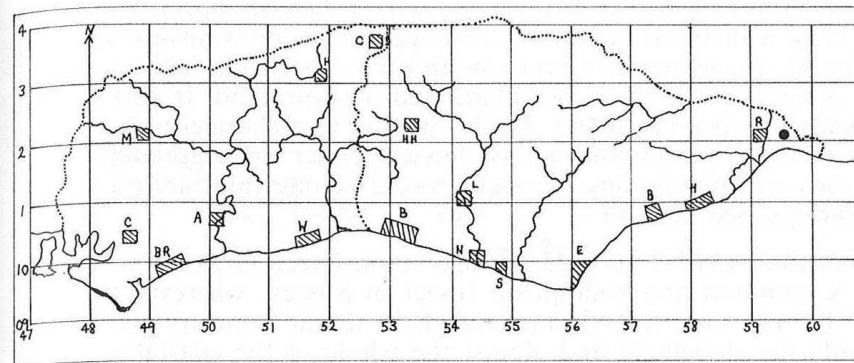
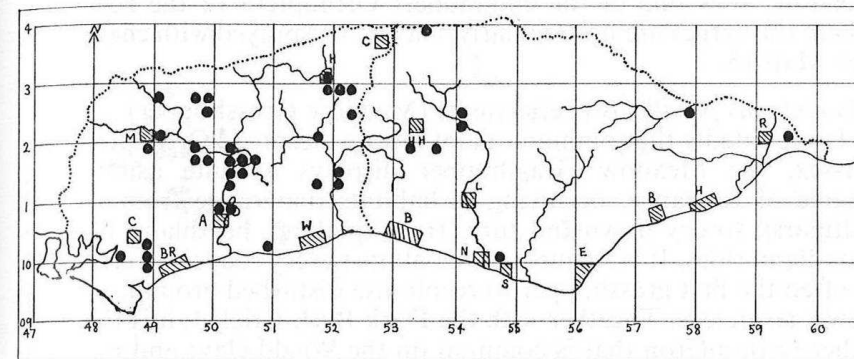
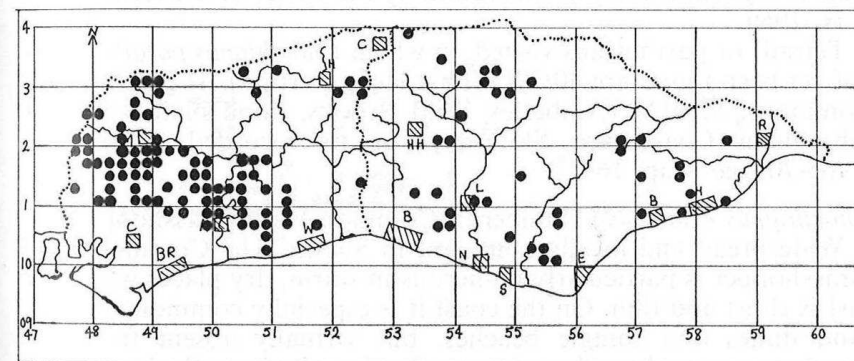
Occurs in three main types of habitat: chalk downland, heathland, and in woodland, or plantation rides and clearings. This species seems to be absent from the coastal plain in West Sussex, but is otherwise widespread and locally common in many parts of the county. See Map 12.

Acrididae (Grasshoppers)

Acridinae

Stenobothrus lineatus (Panzer) (Stripe-Winged Grasshopper)

Frequent on open downland turf, from the Hampshire border to Eastbourne. No heathland localities for this species have yet been found in Sussex, but away from the Downs there is a small colony on pasture adjacent to a sea wall containing chalk rubble, on the west side of Thorney Island. There is also a specimen in the Guermonprez collection labelled Selsey 1898, but careful search during the present survey has not so far resulted in its rediscovery in the locality. Unfortunately, much natural pasture land around Selsey has recently been built over or turned into caravan parks, so comparatively little potentially suitable habitat now remains there. See Map 13.

Fig. 10 *Tetrix ceperoi* (Bolivar).Fig. 11 *Tetrix subulata* (Linnaeus).Fig. 12 *Tetrix undulata* (Sowerby).

Omocestus rufipes (Zetterstedt) (Woodland Grasshopper)

Present methods of forestry management in West Sussex seem to suit this species and the insect now appears to be increasingly common in plantations, both on heathland and on downland. It also occurs locally on open heathland. The Woodland Grasshopper is, however, distinctly less common in East Sussex, either on heathland, or in woods and plantations. It usually occurs along rides and in sunny clearings. See Map 14.

Omocestus viridulus (Linnaeus) (Common Green Grasshopper)

A common and widespread insect in Sussex, wherever there is fairly lush, undisturbed grassland. It is absent from dry heathland, really dry downland and almost the whole of the coastal plain of West Sussex. However, where it occurs it seems equally satisfied by a grassy, downland coomb, a lush woodland ride—often in company with its relative *O. rufipes*, or a damp, though not flood-plain meadow. It is one of the commonest Orthoptera of the roadside, where the verges are not regularly shaved, or sprayed with chemicals. See Map 15.

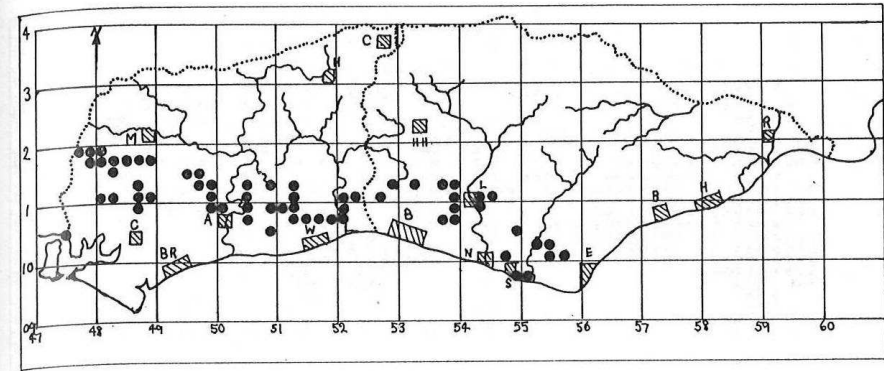
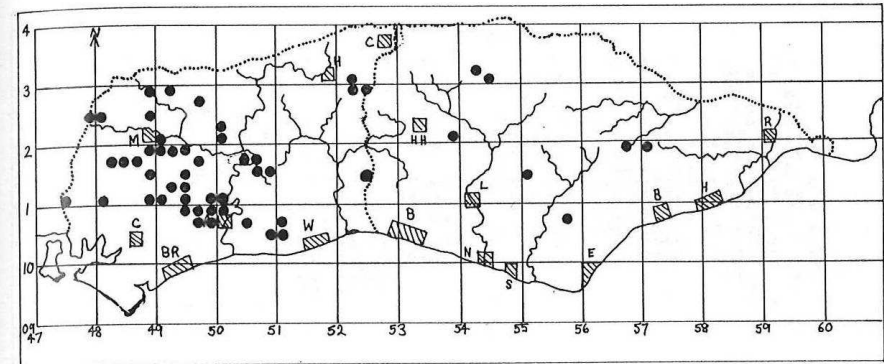
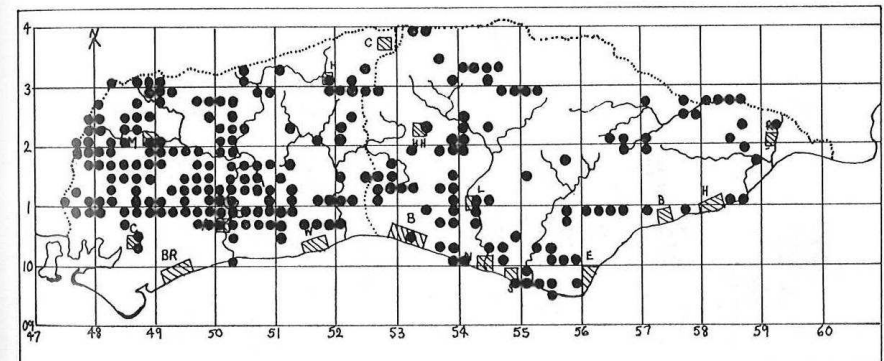
Chorthippus parallelus (Zetterstedt) (Meadow Grasshopper)

Undoubtedly the commonest and most widespread Orthopteron in Sussex, the Meadow Grasshopper displays a quite astonishing degree of tolerance, occurring in habitats that range from coastal saltmarsh to dry downland turf; from quaking, heathland bogs to woodland rides. It is frequent along almost every roadside verge, and is often the first grasshopper to recolonise disturbed ground, such as newly sown leys. Together with the Dark Bush-Cricket, it is the only other Orthopteron that is common on the Weald clay; and in much of the Sussex Weald it is the only grasshopper to be found readily. From over 300 tetrads so far investigated, the Meadow Grasshopper appears to be absent from less than half a dozen. A macropterous male f. *explicatus* (Selys), was found by the writer at Bulverhythe on 1. ix. 1969.

Tetrads or part tetrads visited, in which *Chorthippus parallelus* has not yet been found are 40/79D (East Head portion), 41/72P (Rogate Common), 51/01M (Amberley Wild Brooks, flood plain), 51/20M (Shoreham Coastguard Station). For its recorded distribution (1965-70) see Map. 16.

Chorthippus brunneus (Thunberg) (Common Field Grasshopper)

Widespread and locally abundant in Sussex. The Common Field Grasshopper is particularly numerous in warm, dry places where the turf is short and thin. On the coast it is especially common on cliffs, sand dunes and shingle beaches, but virtually absent from salt marshes except where there is an embankment above the level of the marsh. It is also very common on the South Downs, and along sunny

Fig. 13 *Stenobothrus lineatus* (Panzer).Fig. 14 *Omocestus rufipes* (Zetterstedt).Fig. 15 *Omocestus viridulus* (Linnaeus).

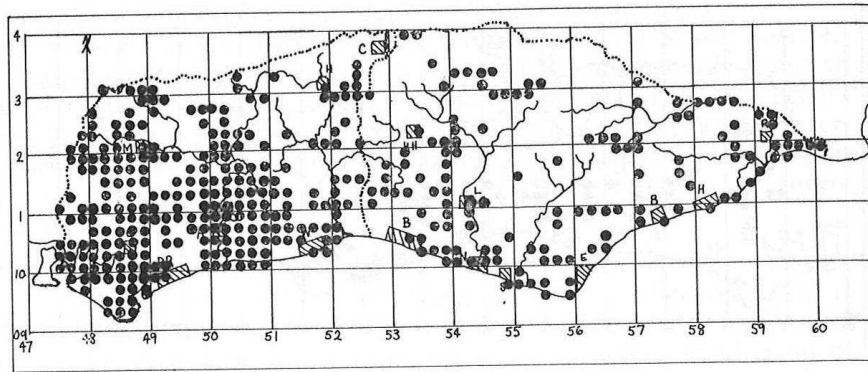


Fig. 16 *Chorthippus parallelus* (Zetterstedt).

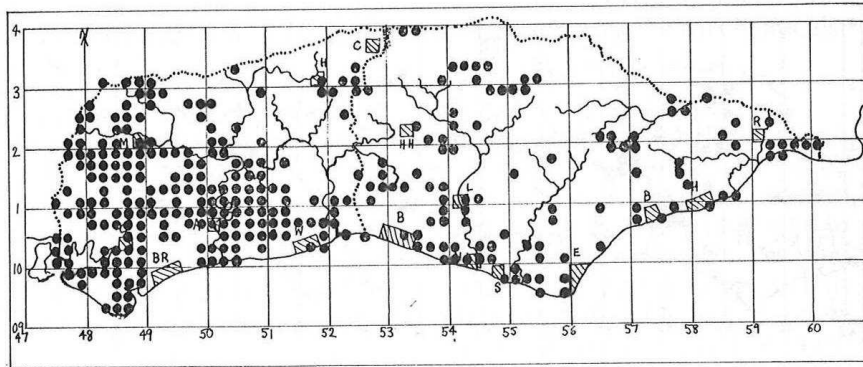


Fig. 17 *Chorthippus brunneus* (Thunberg).

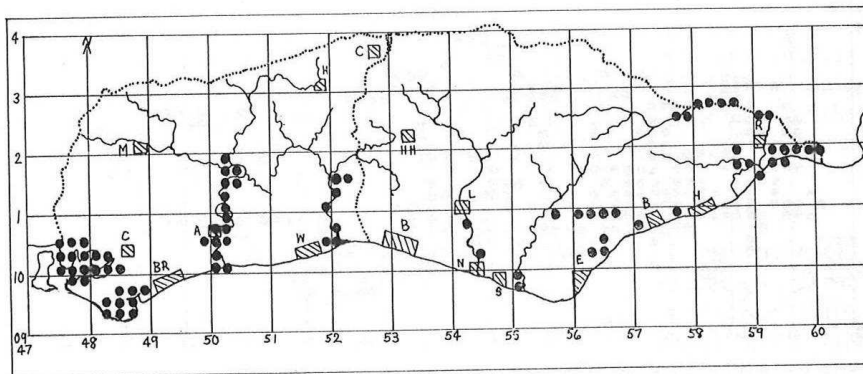


Fig. 18 *Chorthippus albomarginatus* (Degeer)

rides and earth banks in woods and plantations. Inland, in the Weald, it is noticeably local and largely confined to railway embankments and cuttings, or the drier portions of heathy commons and steep and well drained verges of roads and tracks.

The distribution of this species is somewhat complementary with that of *Omocestus viridulus*, in that the Common Green Grasshopper is practically absent from the coastal plain, where the Common Field Grasshopper abounds, while on the Downs or in woodland clearings, the latter is confined to the short turf and bare ground and the former to the longer grass. This is particularly noticeable on downland, where the Common Green predominates near the cooler summits and in the lush vegetation at the foot of the coombs, and the Common Field on the slopes between. It is significant that in such places, the Meadow Grasshopper (*Chorthippus parallelus*) overlaps the territories of both and usually seems to outnumber either. See Map 17.

Chorthippus albomarginatus (Degeer) (Lesser Marsh Grasshopper)

This species has been found in four distinct types of habitat in Sussex: the vicinity of salt marshes; on coastal sand dunes and well vegetated shingle beaches; and inland, on waterside vegetation along all the major Sussex rivers—as well as on damp grass-heath at Oreham Common, and Milton Hide (where it now occurs in a plantation ride). In many water side localities it is found in the company of *Conocephalus dorsalis*. It is worth noting that in the extensive flood plain at Amberley Wild Brooks, these two species, together with *Tetrix subulata*, are the only well-established Orthoptera present, and all three species appeared to survive, in the adult stage, the week-long immersion there, following the severe flood of 14.ix.1968.

The Lesser Marsh Grasshopper is sometimes very common in suitable localities in Sussex, particularly around Chichester, Pagham and Rye harbours. See Map 18.

Gomphocerippus rufus (Linnaeus) (Rufous Grasshopper)

Although there is a single, old, ambiguous record for East Grinstead, this fascinating species has not been found in East Sussex recently. However, in West Sussex it is locally common on sheltered, south-facing hollows on the chalk, between Arundel Park (abundant by Swanbourne Lake) and Linch Down (where it was first recorded by Guermonprez in 1872). All its colonies are tree-sheltered except at St. Roche's Hill, on the south face of the Trundle, where it is common on open downland. See Map 19.

Myrmeleotettix maculatus (Thunberg) (Mottled Grasshopper)

The Mottled Grasshopper is widespread but very local in Sussex. Colonies are confined to patches of very short, long-established turf on downland, heathland or on sand dunes and shingle beaches. The

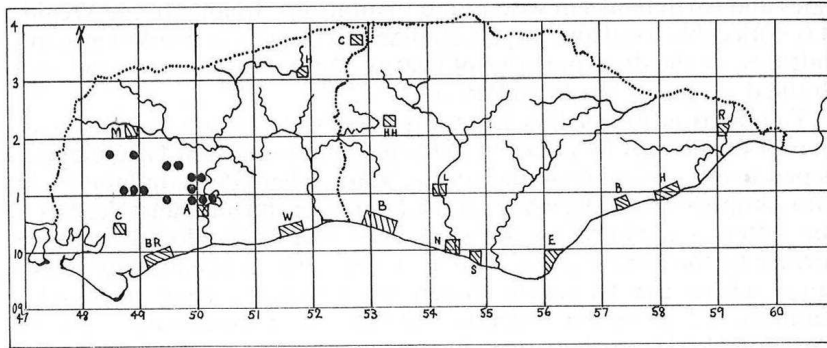


Fig. 19 *Gomphocerippus rufus* (Linnaeus).

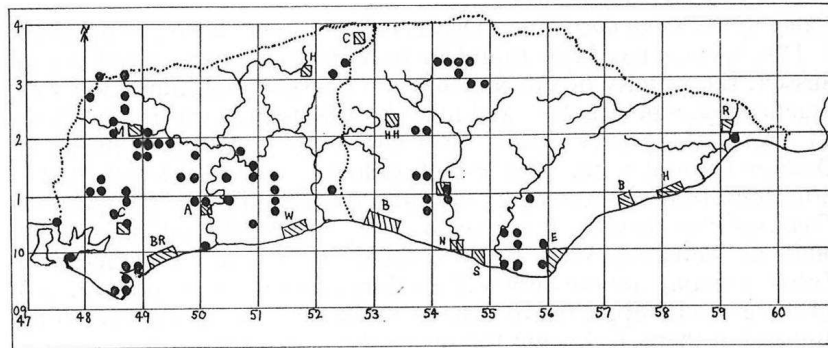


Fig. 20 *Myrmeleotettix maculatus* (Thunberg).

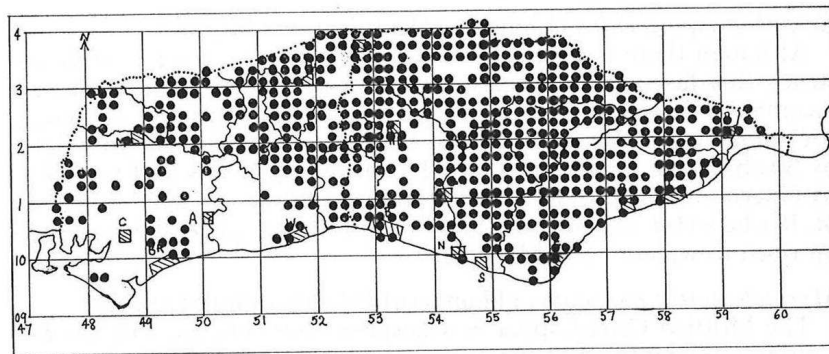


Fig. 21 Unworked tetrads.



Fig. 1 *Decticus verrucivorus* (Linnaeus), ♂, on downland turf in East Sussex, 13.ix.1966.

Fig. 2 *Omocestus rufipes* (Zetterstedt), ♀, Rewell Wood, West Sussex, 10.viii.1970.

presence of lichens in very close turf often indicates suitable habitat. Many colonies seem to be very small, covering only a few square yards of ground, and the few adults in these small colonies have often vanished by early August, so that it is necessary to search for the species from mid-June onwards, to determine its presence in a likely locality. See Map 20.

UNSURVEYED TETRADES AND FUTURE PROGRESS

Tetrads so far completely or largely unsurveyed are shown on Map 21. The majority of these tetrads cover either unproductive urban areas, or Wealden farmland. From general impressions gained from those areas already visited, the Weald clay has a relatively poor orthopterous fauna. Nevertheless, both *Pholidoptera griseoptera* and *Chorthippus parallelus* are almost certain to be present over the whole of the Weald, wherever there still are thickets, unploughed pasture or wide road verges. If there are dry embankments or similar warm slopes, *C. brunneus* may also be expected. *Tetrix subulata* seems likely to occur anywhere where there are rarely cleared ditches or swampy hollows. It is very unobtrusive and easily overlooked. There is also a possibility that *Chorthippus albomarginatus* may be thinly but widely scattered in marshy places on the Weald clay; many of its recorded colonies, in tetrads that have been investigated, have not proved to be at all easy to locate. Where woods and copses of broad-leaved trees remain, *Meconema thalassinum* and *Leptophyes punctatissima* could be present, perhaps with *Tetrix undulata* on patches of bare ground beneath, but none of these species are as obviously common on clay as they are in sandy or chalky localities.

There are a few cases where a species is obviously very common in at least part of an unsurveyed tetrad. In such cases one record for the species has been included on the appropriate map.

Several downland tetrads also remain unsurveyed. Most of these are in the vicinity of Brighton or Seaford, where there is either urban development or very extensive arable cultivation, so that little natural turf remains.

For the immediate future, the most worthwhile extension of the survey would seem to be into those parts of the Weald clay where there are appreciable areas of marshy ground, to investigate the possible presence of *C. albomarginatus* and *T. subulata*. A very thorough search of the marshy ground between Eastbourne, Bexhill and Polegate also seems worth attempting, to check for the continued existence of *G. gryllotalpa*.

It is rather unlikely that any native species of Orthoptera now remains undetected in Sussex, but in view of the relatively recent detection of *Conocephalus discolor* and *Decticus verrucivorus*, such a remote but exciting possibility will exist while there are substantial

tracts of the county unworked. Thus offers of help with the survey, especially in East Sussex, would be much appreciated by the writer, and by the Sussex Trust for Nature Conservation.

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Fig. 1 *Decticus verrucivorus* (Linnaeus), ♀, on downland in East Sussex, 5.ix.1971.