Occasional Paper No. 5

AN ATLAS OF OXFORDSHIRE ORTHOPTERA

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Technical Papers

A new series of publications is always an exciting occasion and in launching Occasional Papers the Oxfordshire Museums hope to provide useful information for visitors and an outlet for work being undertaken by the staff.

These papers will allow publication of information relating to the history, natural history and culture of Oxfordshire, when such information would be inappropriate for the popular press and unlikely to find acceptance by learned journals catering for other than local knowledge.

The papers will not be restricted to any one academic discipline and so may not be collectable as a series by most people; however, it is convenient to adopt a recognisable format which is different from other series produced by the Museums of Oxfordshire.

James A. Bateman,
DIRECTOR

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INTRODUCTION

This atlas shows the distribution of the Oxfordshire Orthoptera, (crickets and grasshoppers) at tetrad level (see below). The status of these insects has been previously reviewed by the Victoria County History and for a twenty mile radius around Oxford in The Natural History of the Oxford District. Skelton, 1978, has published the British distribution of the Orthoptera at 10km. square level.

The distribution shown on the following maps is no more than a statement of our present data. Hopefully this atlas will encourage readers to fill in some of the many gaps. Ideally we wish to re-record each decade, so that many older records need to be updated. The maps show records in three time periods, pre-1950, 1950 to 1979 and 1980 onwards. Where records exist for the same tetrad in different periods, only the most recent is shown,

Although this is primarily an atlas, a few additional notes have been added.

THE OXFORDSHIRE BIOLOGICAL RECORDING SCHEME

The Oxfordshire Biological Recording Scheme (B.R.S.) was started in 1976 by the Oxfordshire County Council Department of Museum Services. The Scheme covers the administrative county of Oxfordshire, so that the part of Berkshire transferred during local government reorganisation in 1974, is included.

Details about the B.R.S. and an annual newsletter are available to recorders and potential recorders from, The B.R.S., O.C.C. Department of Museum Services, Oxfordshire County Museum, Woodstock, Oxford OX7 1SP.

The uses of the B.R.S. data are manifold. They include, planning, conservation, education and research.

TETRADS

The species recording is based upon the presence within tetrads. Tetrads are squares, 2kms. by 2kms. The boundaries of the squares are the even numbered national grid lines, shown on the Ordnance Survey maps. National mapping schemes are normally at 10km. square level.

The Oxfordshire base map shows the tetrads, and 10km. squares as a heavier line. The River Thames, the pre 1974 boundary between Oxfordshire and Berkshire is also shown.

ACKNOWLEDGEMENTS

Regrettably spaces does not allow a list of all the recorders that have contributed to this atlas. I hope that they will accept our sincere thanks.

Mr. Charles Elton has kindly allowed us to use the orthoptera data held in the Wytham Survey files. Mr. Hugh Carter has made available a list of all the orthoptera taken from Oxfordshire sites and held in the collections of

the Reading Museum and Art Gallery. We extend our thanks to both.

Dr. Malcom Scoble and the staff of the Hope Collections at the University Museum Oxford made the orthoptera collections available. Again we record our thanks.

Dr. D. Ragge of the British Museum Natural History most kindly made a copy available of various tapes of orthoptera calls. This helped considerably with field identification.

Lastly our thanks to Judith Barrows for typing this atlas and to Mr. James A. Bateman for his encouragement and advice.

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Lucas W. J. A Monograph of the British Orthoptera. Ray Society 1920

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Salzman L. F. (Edit.) Victoria County History of Oxfordshire. Vol. I OUP 1938.

Skelton M. J. Provisional Atlas of the Insects of the British Isles. Part 6 Orthoptera. Institute of Terrestrial Ecology 1978.

Walker J. J. (Edit.) The Natural History of the Oxford District. OUP 1926

Several tropical orthopterans have been found by greengrocers and fruiterers, but these exotics have not been included in this atlas.

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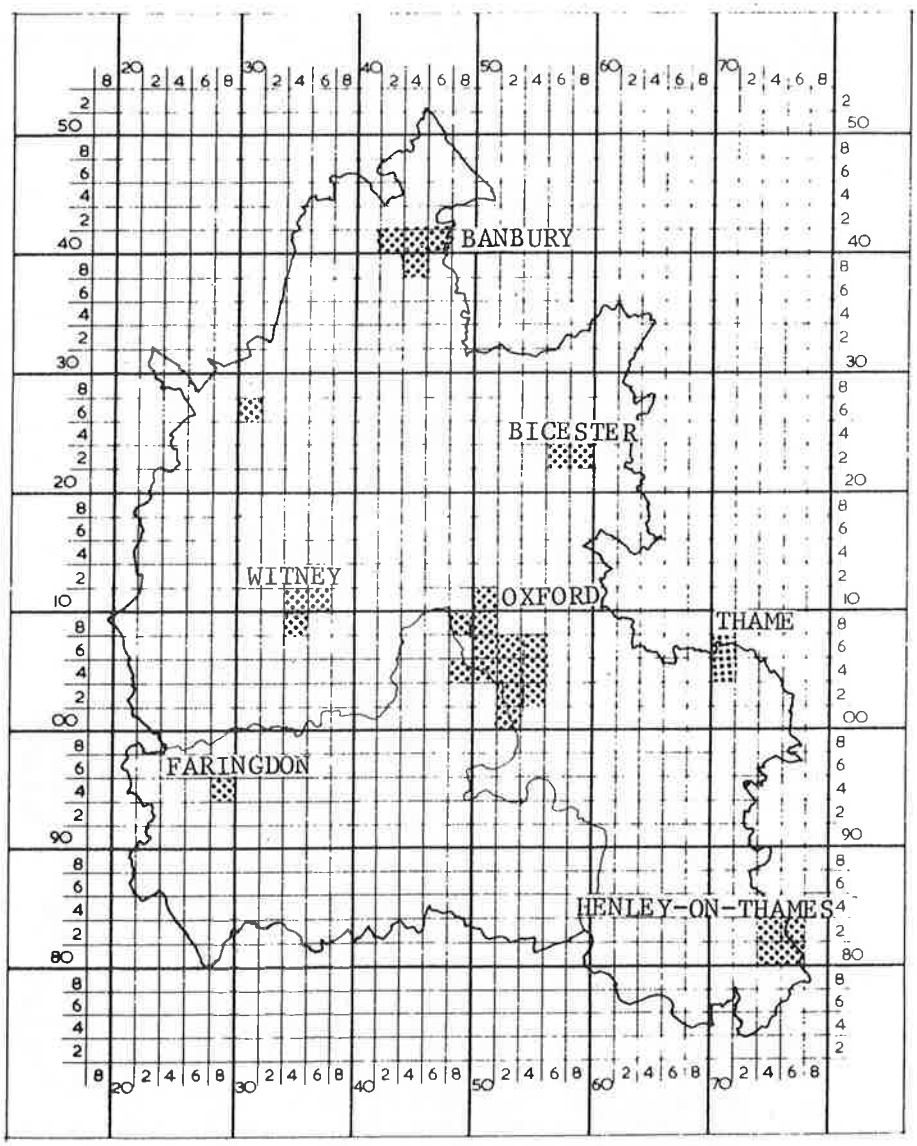
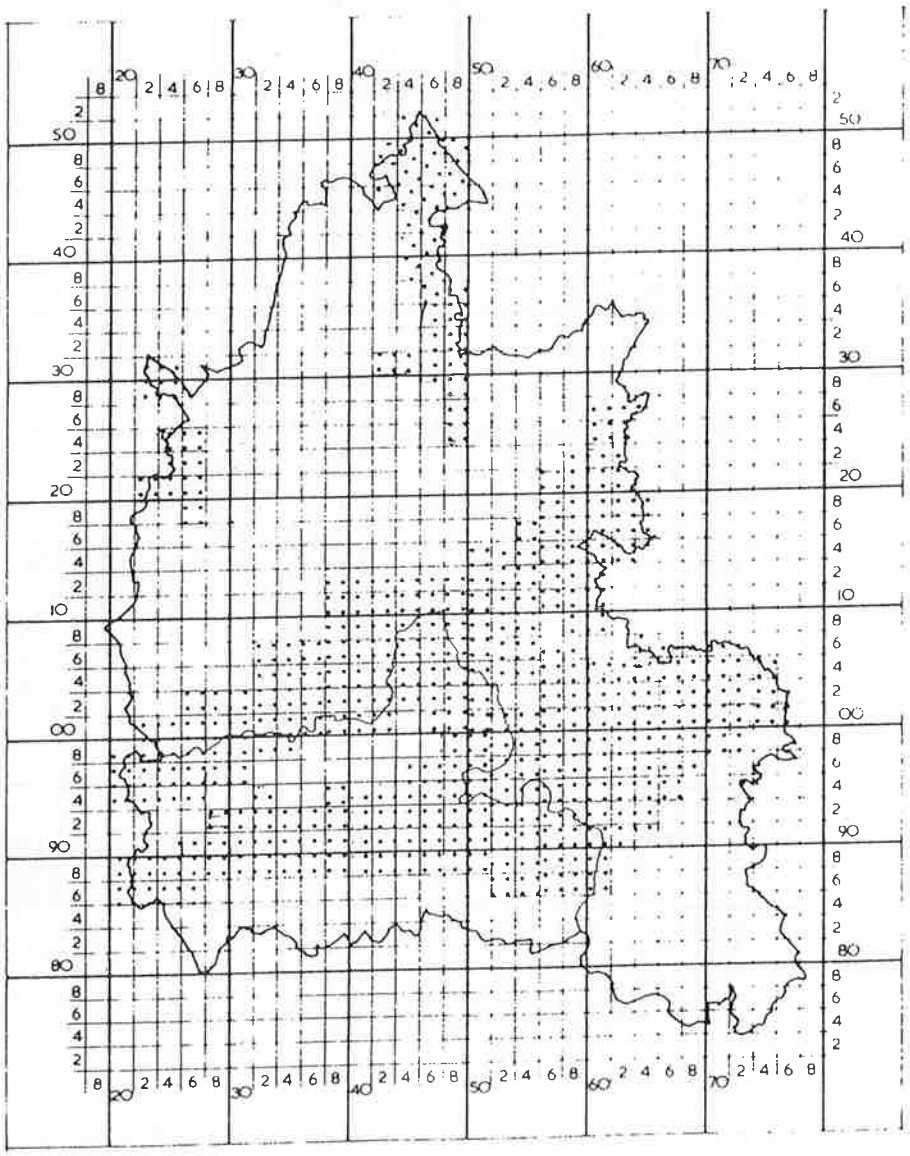
MAIN TOWNS



As an aid to orientation the location of several towns and the City of Oxford are shown. In most cases the towns do not cover completely the tetrads in which they are shown to occur.

CLAY VALES



The areas dominated by clays are indicated. In some places other rocks occur in the square and in other places the clay may be masked by gravels and alluvium.

The clays shown are, in the north and north west, Lower Lias, then Oxford Clay, whilst the Kimmeridge Clay and Gault form the most southerly band.

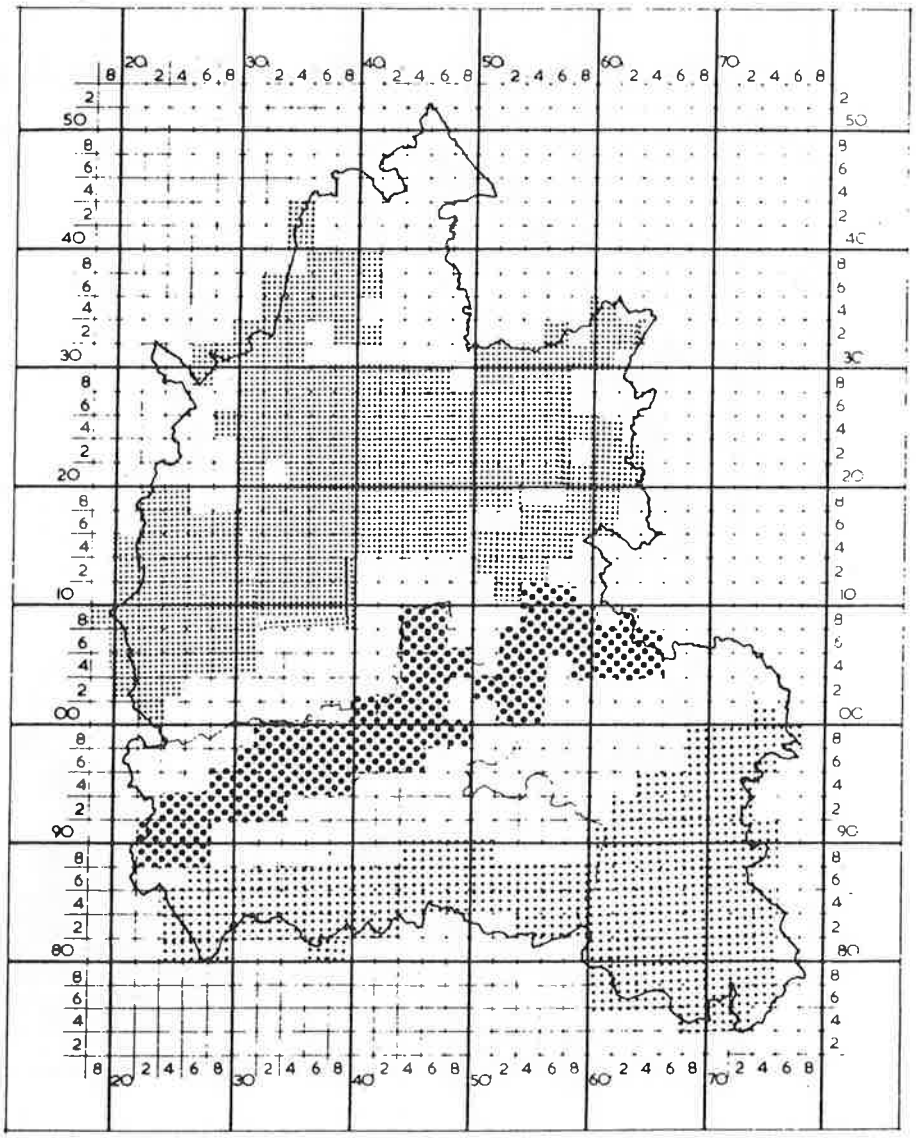
Smaller areas of clay, such as thos occuring as beds in the limestones, or as Pleistocene deposits are not shown.

CALCAREOUS ROCKS

CHALK

CORALLIAN

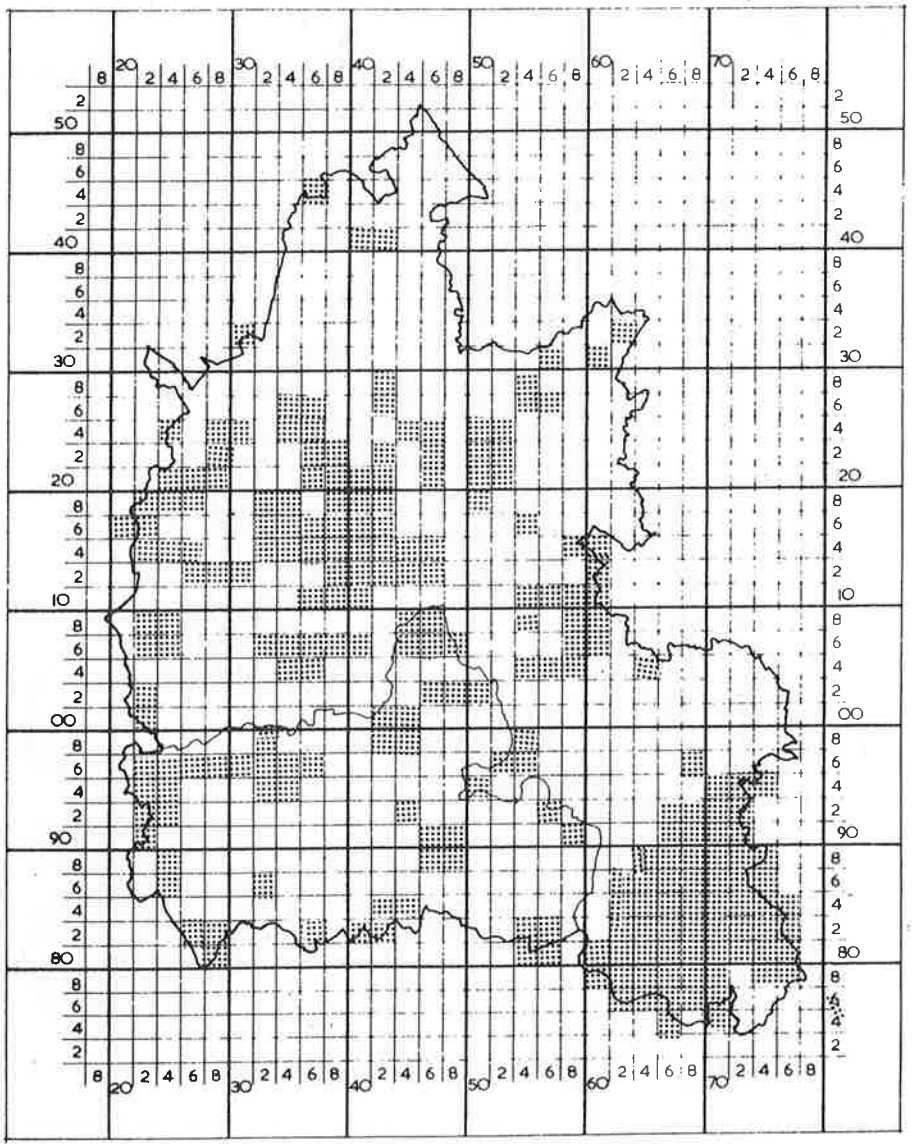
OOLITES



The Calcareous rocks produce grassland which is much favoured by certain species of orthoptera.

The Corallian is very variable. It includes sands which are neutral or even slightly acidic in places. Throughout Oxfordshire only small remnants of unimproved calcareous grassland remains.

WOODLANDS



Tetrads containing a wood or woods more than one eigth of a square kilometre in area are shown. The type and quality of the woodland varies considerably from conifer plantations to blocks of ancient forest such as Wychwood.

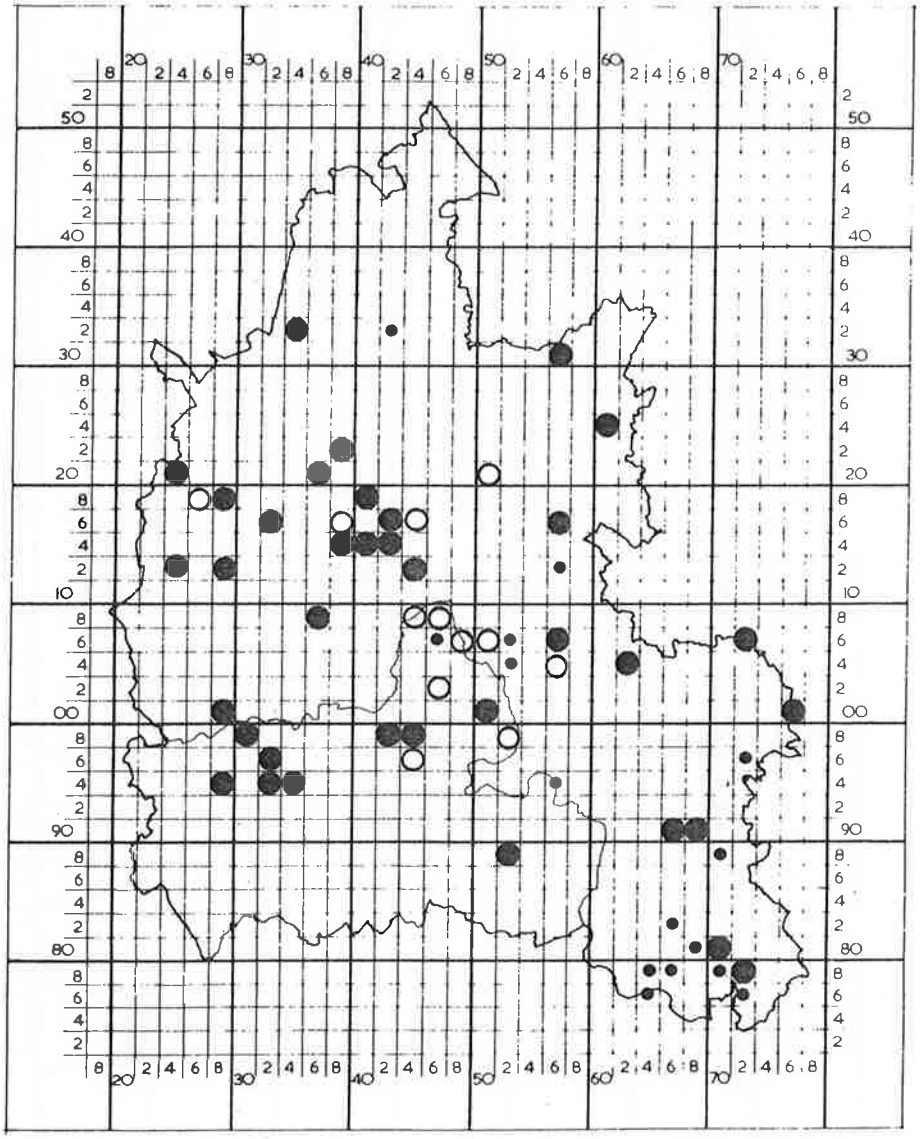
MECONEMA THALASSINUM

Oak Bush Cricket

● Post - 1980

• 1960 - 1979

○ Pre - 1960



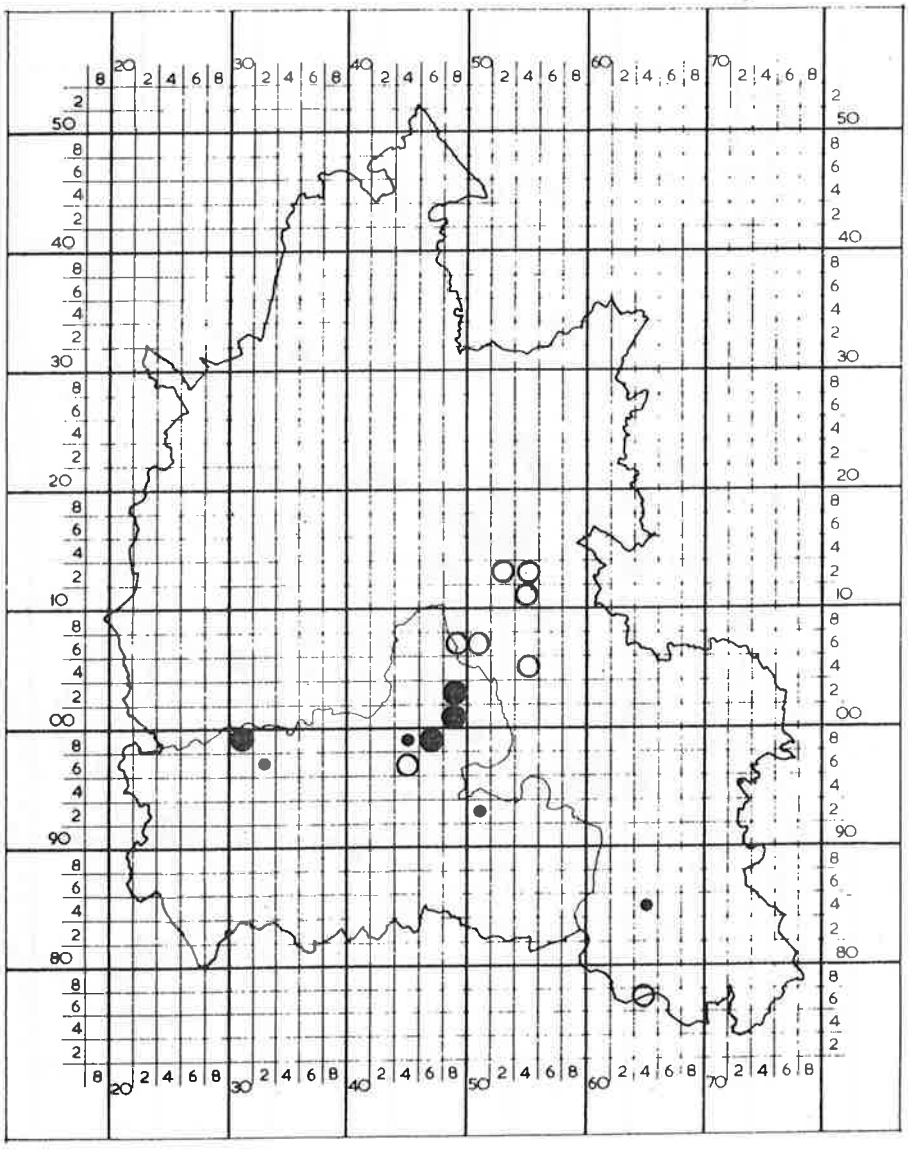
There are no additional 10km. records for squares where there is no tetrad record.

Occurs on most species of trees and in taller hedges.

TETTIGONIA VIRIDISSIMA

Great Green Bush-Cricket

● Post - 1980
• 1960 - 1979
○ Pre - 1960

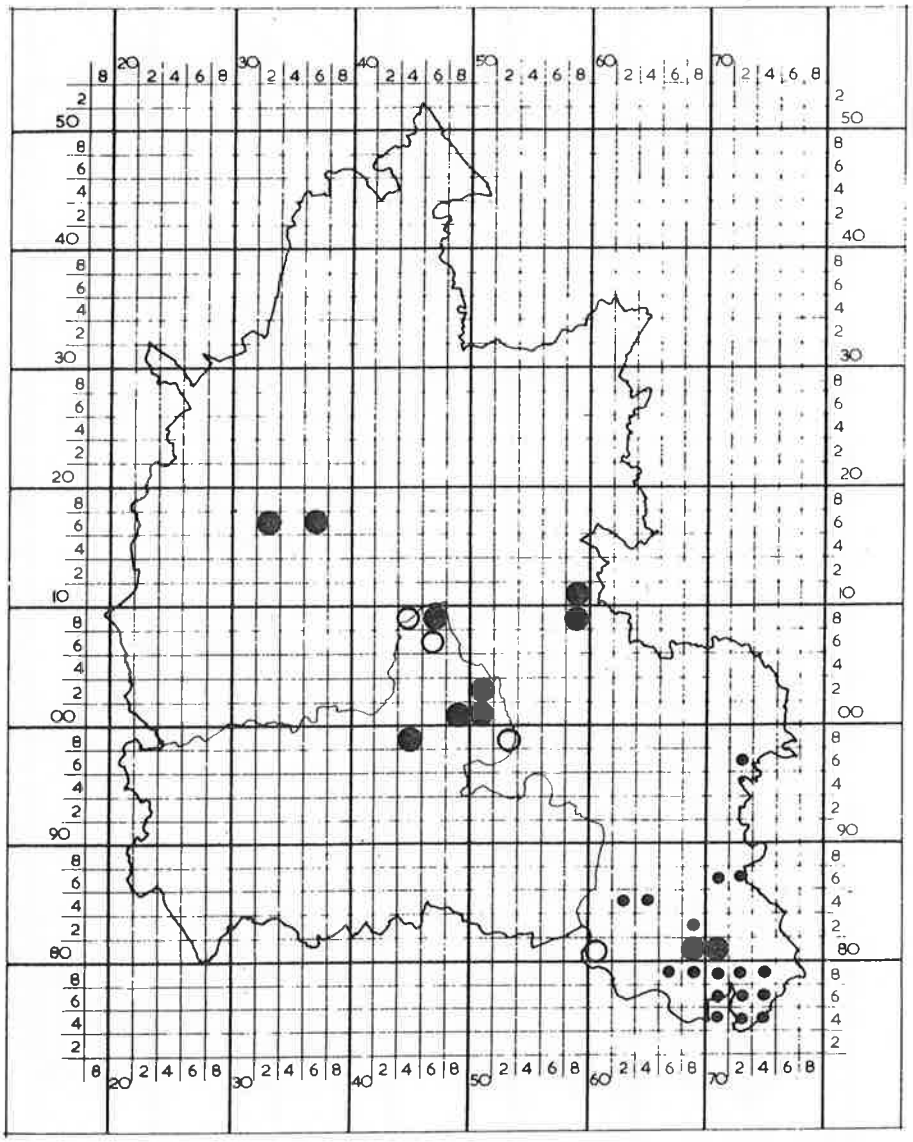


Prefers scrubby areas or those with tall vegetation, usually south facing in Oxfordshire.

PHOLIDOPTERA GRISEOAPTERA

Dark Bush-Cricket

● Post - 1980
• 1960 - 1979
○ Pre - 1960

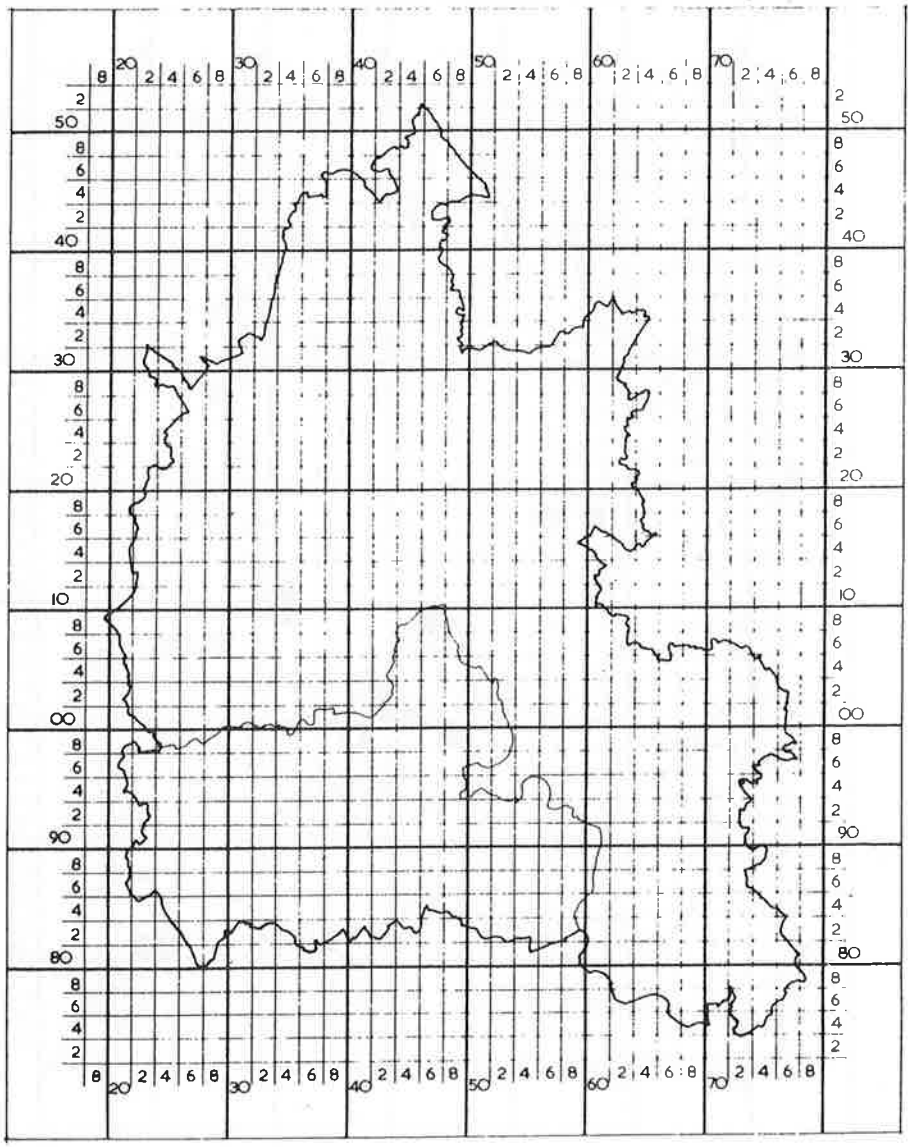


There are no additional 10km. squares for which no tetrad record is shown.

Usually in low bushes where it is exposed to the sun.

METRIOPTERA BRACHYPTERA

Bog Bush-Cricket

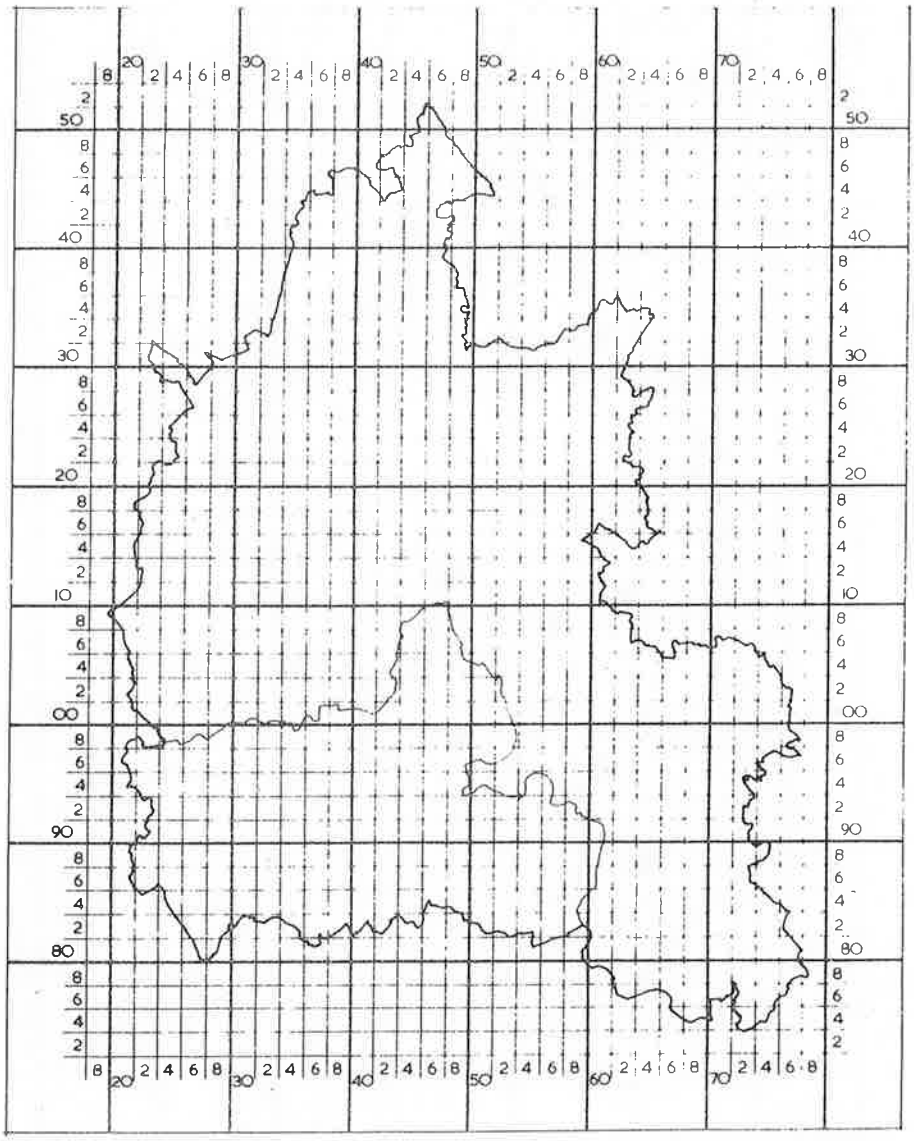


There is a specimen in the Hope collections labelled Bagley 1933, 10km. square 50/00.

Usually in acid bog conditions, parts of Bagley are slightly acid.

CONOCEPHALUS DORSALIS

Short-Winged Cone-Head



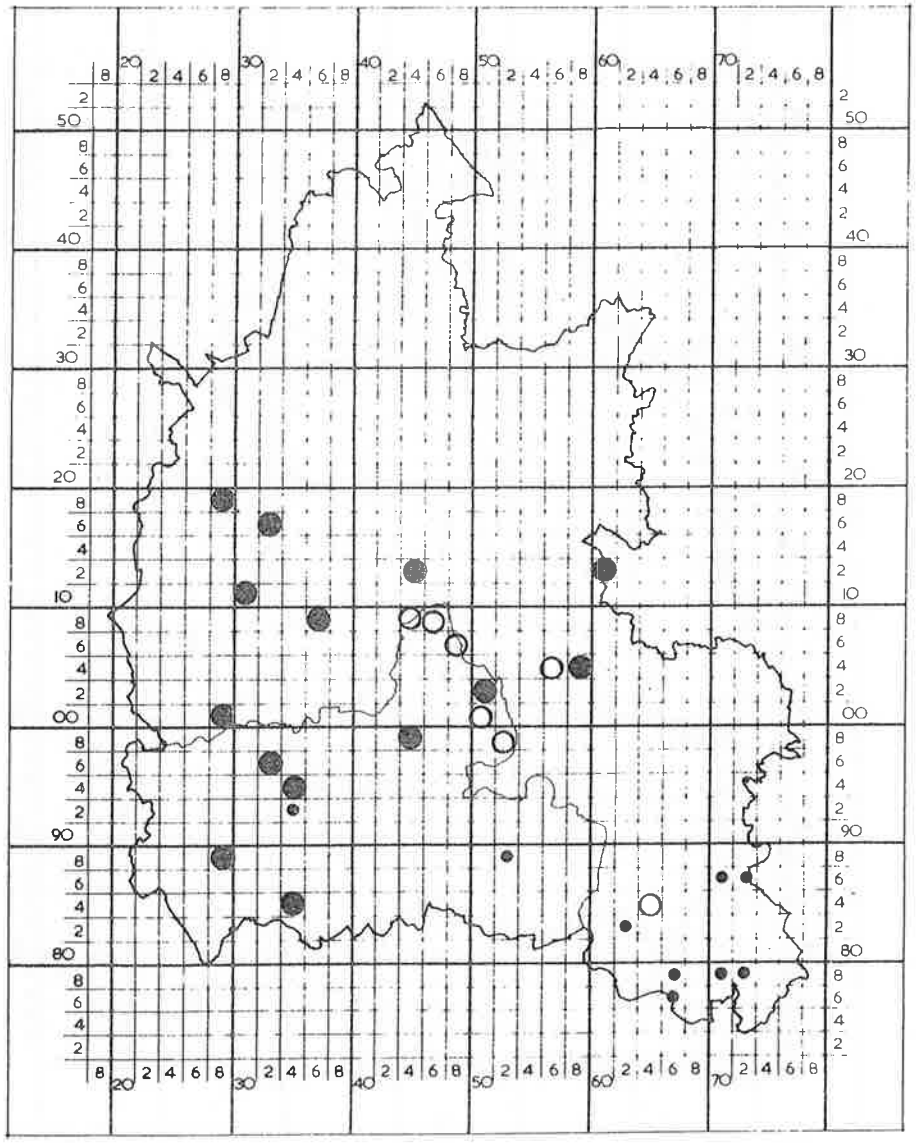
There is a speciment from Tubney c.1920 from the Reading Museum. The area of Tubney Woods falls into the 10km. squares 40/90 and 40/00. There is no way in which the locality can be narrowed down further.

Usually associated with rushes, sedges or reeds.

LEPTOPHYES PUNCTATISSIMA

Speckled Bush-Cricket

● Post - 1980
• 1960 - 1979
○ Pre - 1960



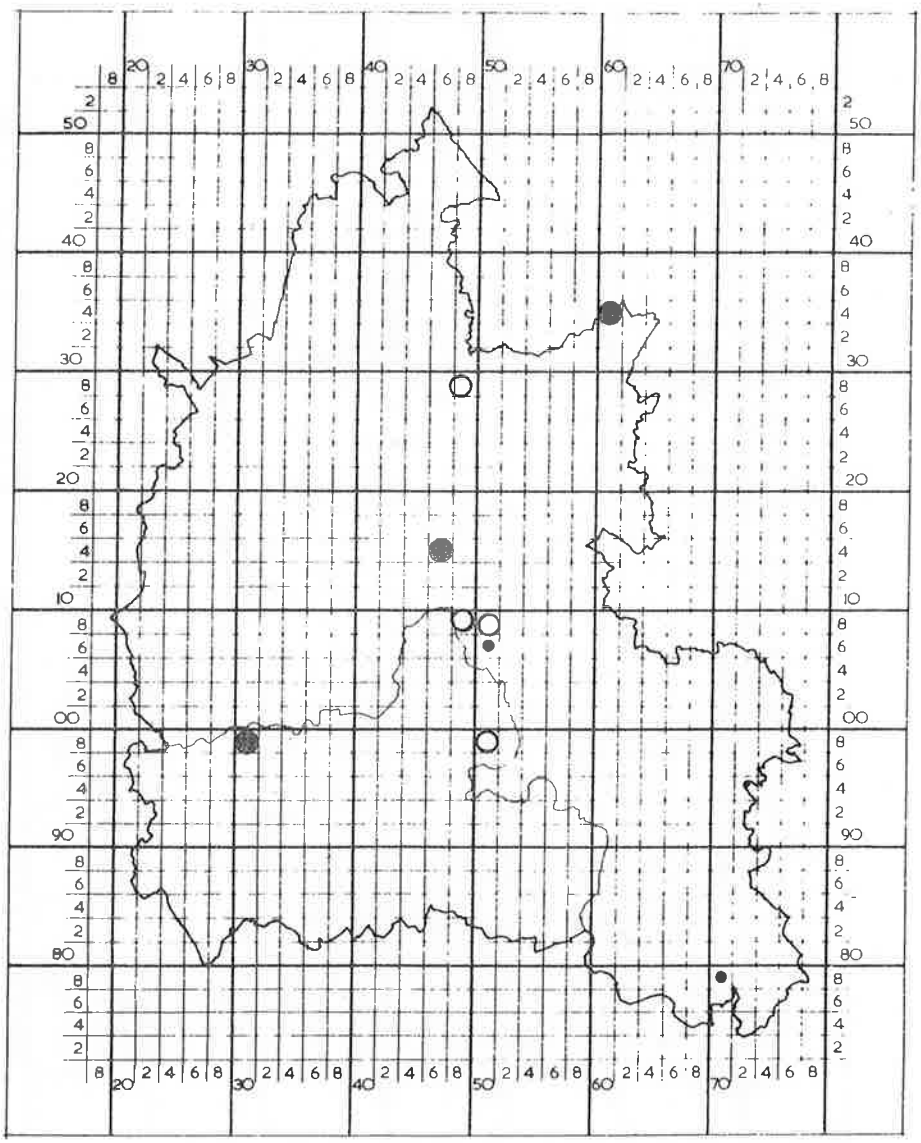
There are additional old records for several 10km. squares, but tetrad records for all of these squares are shown.

Usually associated with scrub, brambles and hedges.

ACHETA DOMESTICA

House Cricket

Post - 1980
1960 - 1979
Pre - 1960

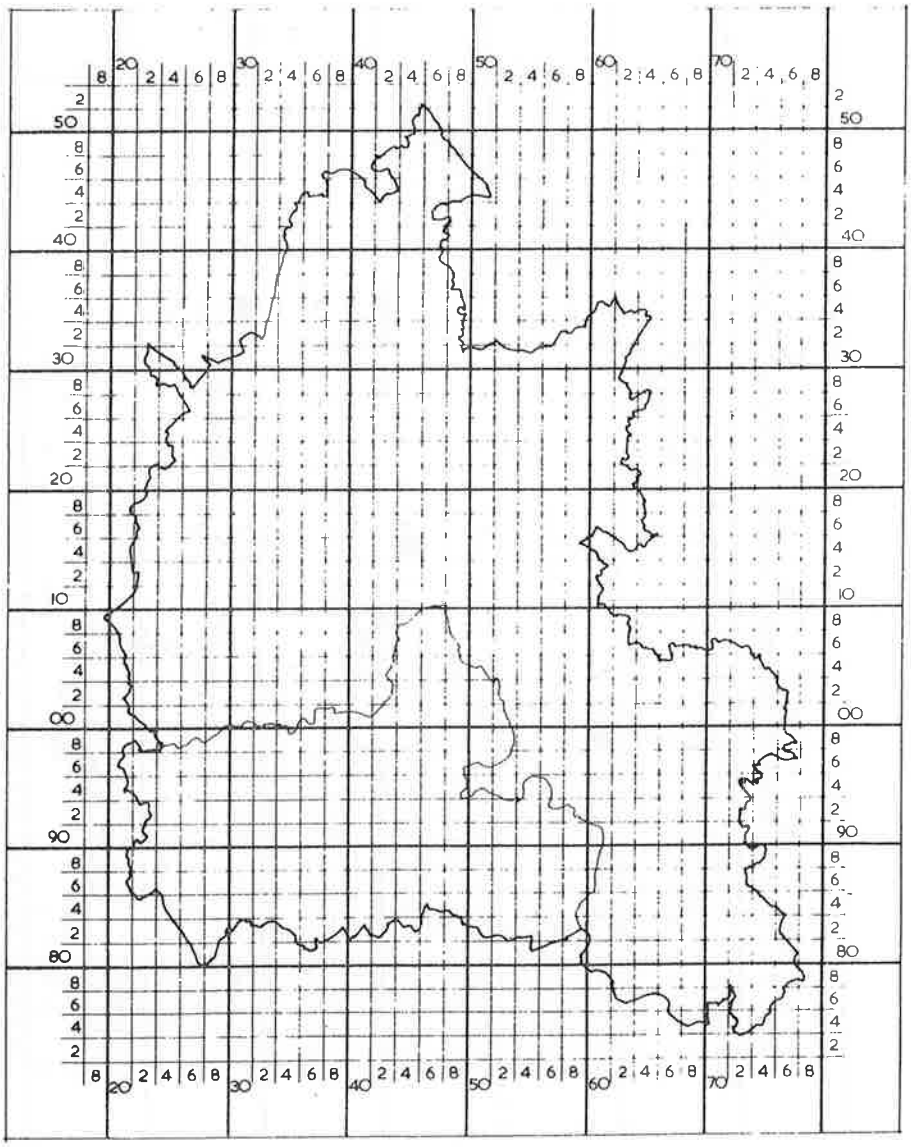


Additional records are only at 10km. level. 50/00 Cowley 1944, 70/70 Caversham between 1955 and 1973, 40/80 Harwell 1976.

The House Cricket probably originates from North Africa and South West Asia and reached Britain several centuries ago. Usually it lives indoors, but does survive on rubbish dumps, although the daily burying of rubbish may now pose a problem. In hot summers they survive out of doors.

GRYLLOTALPA GRYLLOTALPA

Mole Cricket

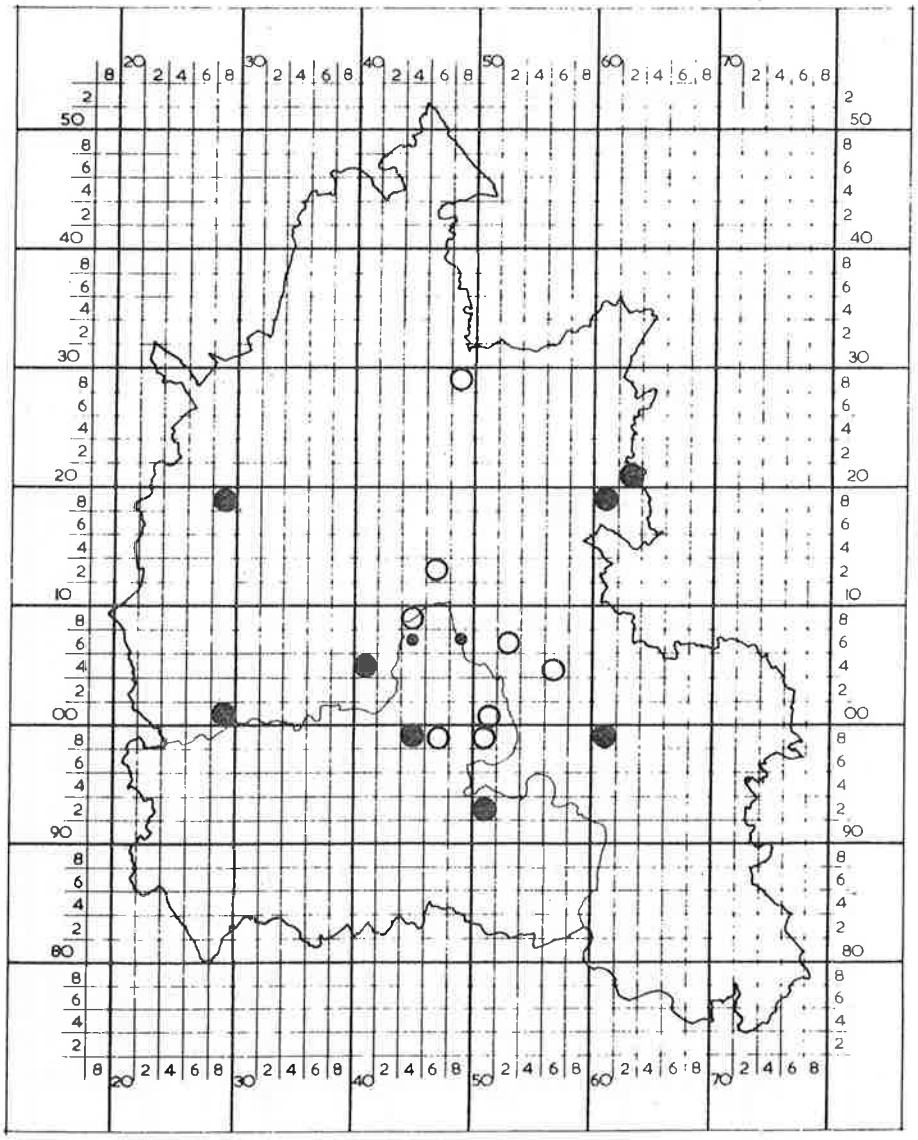


One was taken near Besselsleigh in 10km. square 40/00 in about 1928.

TETRIX SUBULATA

Slender Ground-Hopper

● Post - 1980
• 1960 - 1979
○ Pre - 1960



Additional 10km. records are 50/10 near Wood Eaton pre-1934, 70/00 Thame 1941, moister sites, along the margins of streams and ponds, and now in gravel pits.

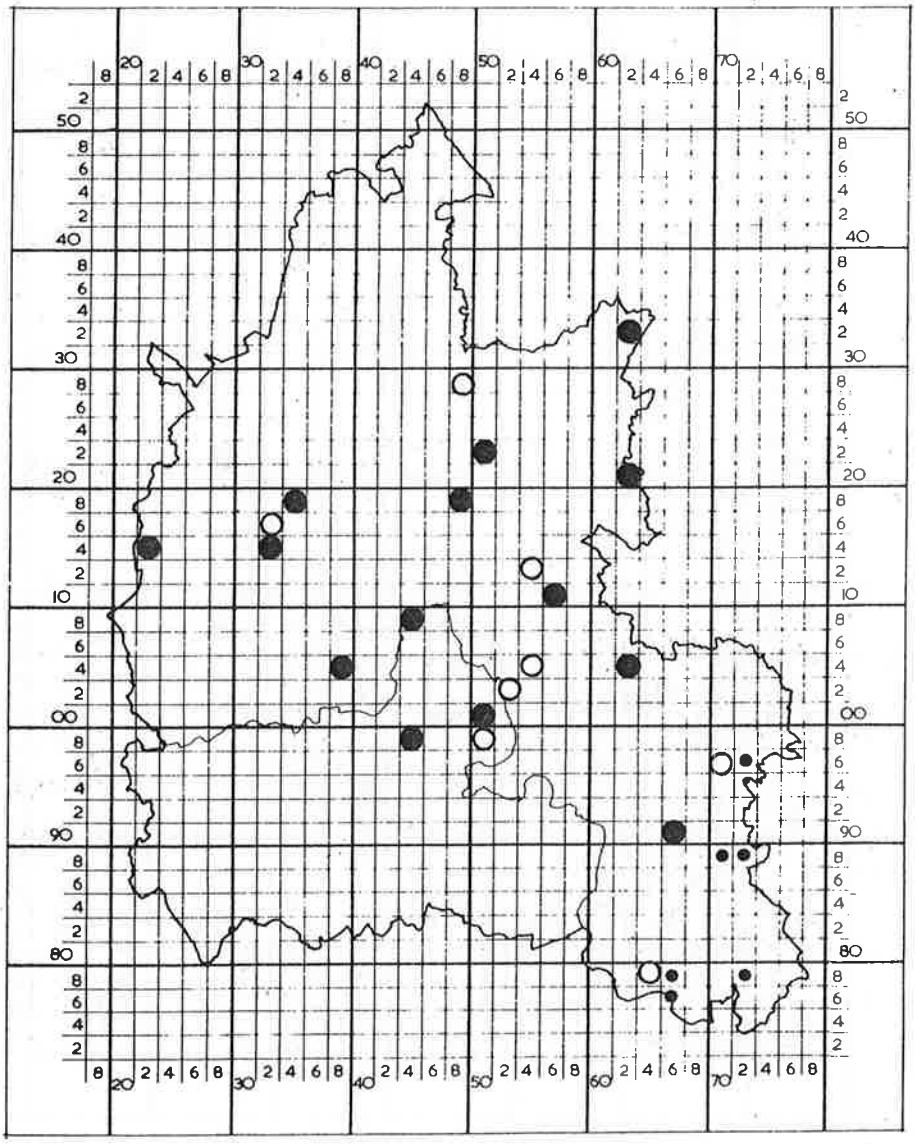
TETRIX UNDULATA

Common Ground-Hopper

● Post - 1980

• 1960 - 1979

○ Pre - 1960



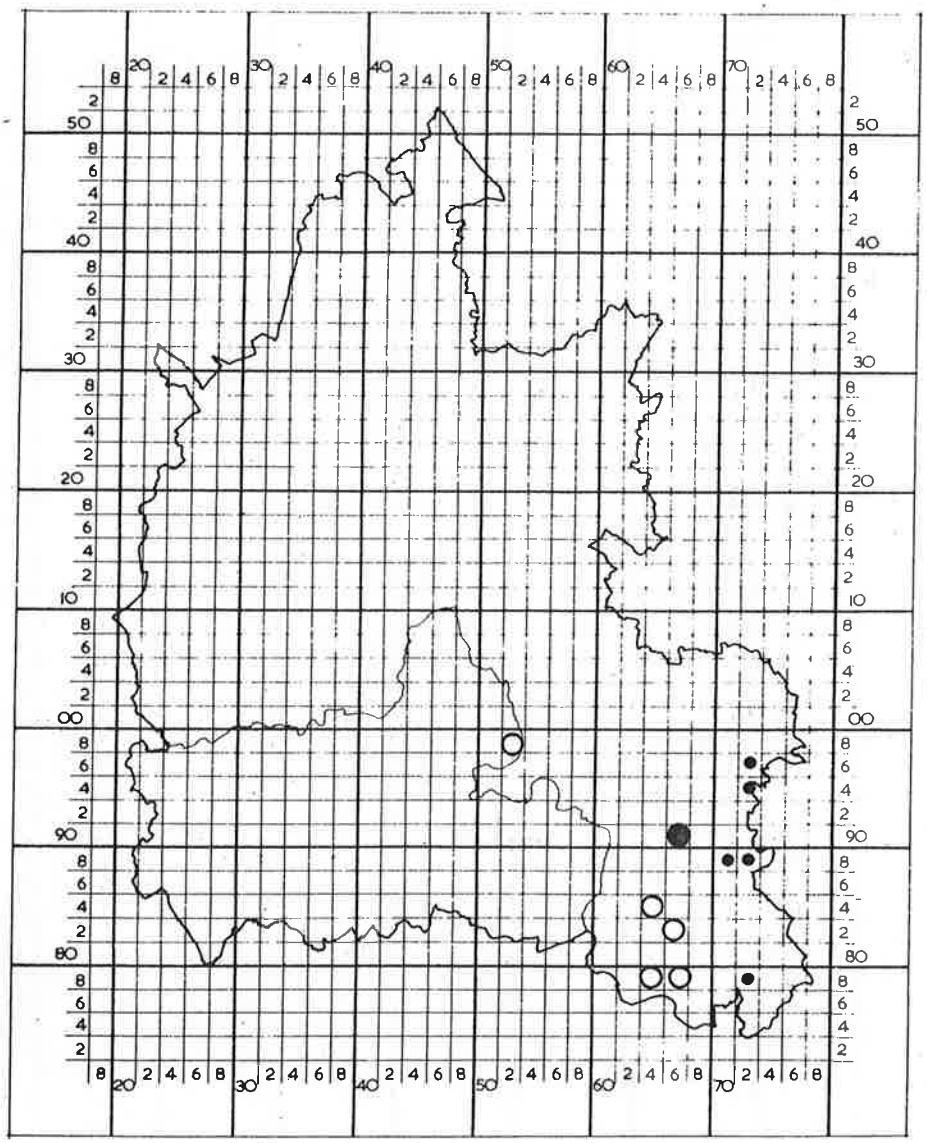
Additional 10km. square records are Wantage c.1920 square 30/80.

Widespread, ranging from the chalk escarpment to pond margins.

STENOBOTHYRUS LINEATUS

Stripe-Winged Grasshopper

● Post - 1980
• 1960 - 1979
○ Pre - 1960



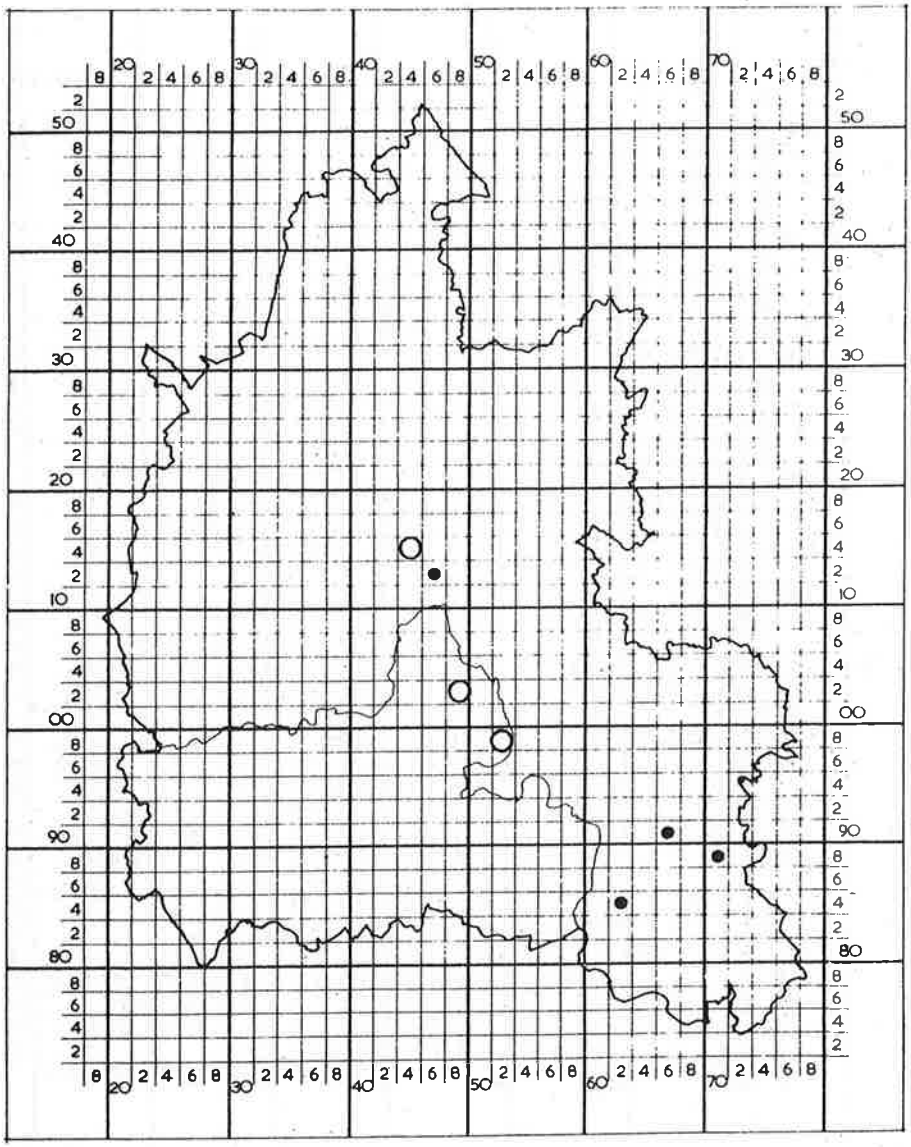
There are no additional 10km. square records.

Usually on dry calcareous banks which are south facing.

OMOCESTUS RUFIPES

Woodland Grasshopper

● Post - 1980
● 1960 - 79
○ Pre - 1960



Additional 10km. square records are pre-1958 near Iffley and Stanton St. John and Bagley 1897 all in square 50/00.

Usuaully associated with shady places in and around woodland.

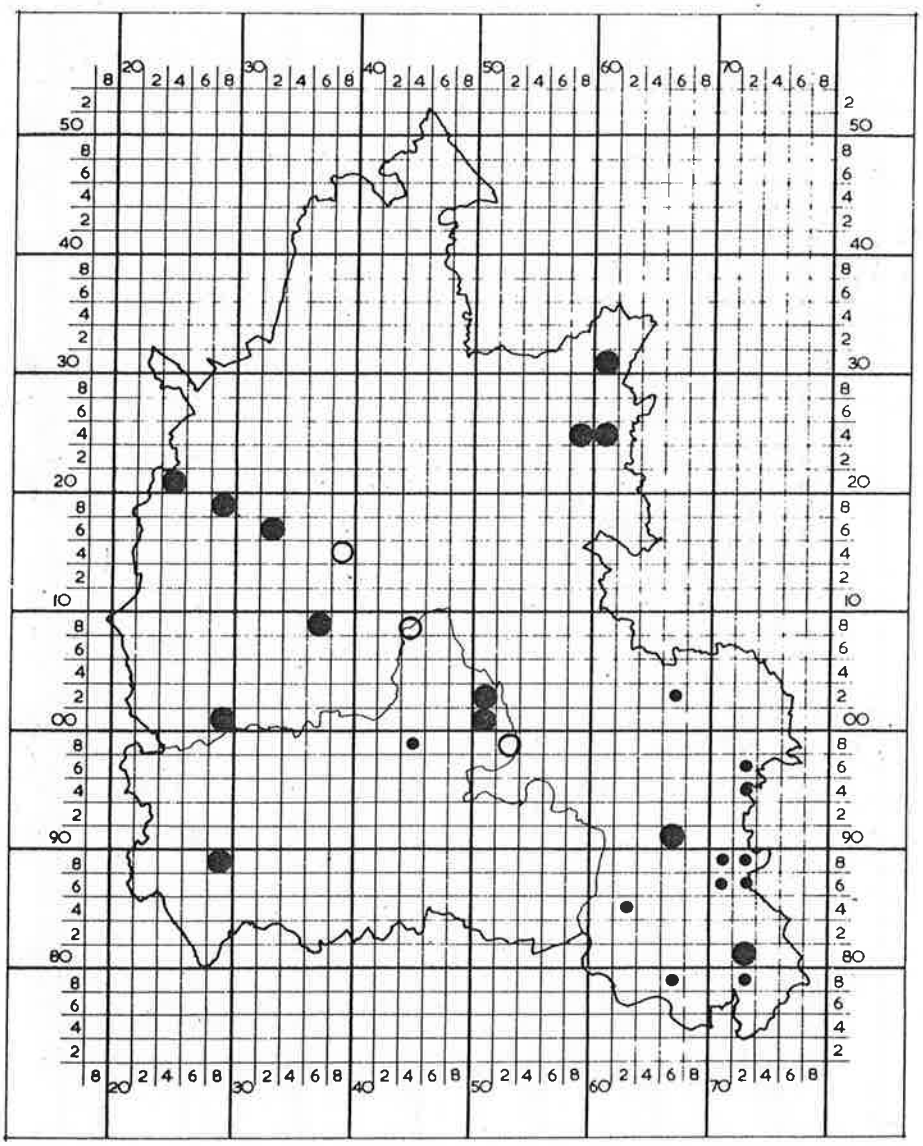
OMOCESTUS VIRIDULUS

Common Green Grasshopper

● Post - 1980

• 1960 - 79

○ Pre - 1960



There are no additional 10km. squares for which a tetrad record is not shown.

On a wide variety of grasslands, especially where the vegetation is more lush.

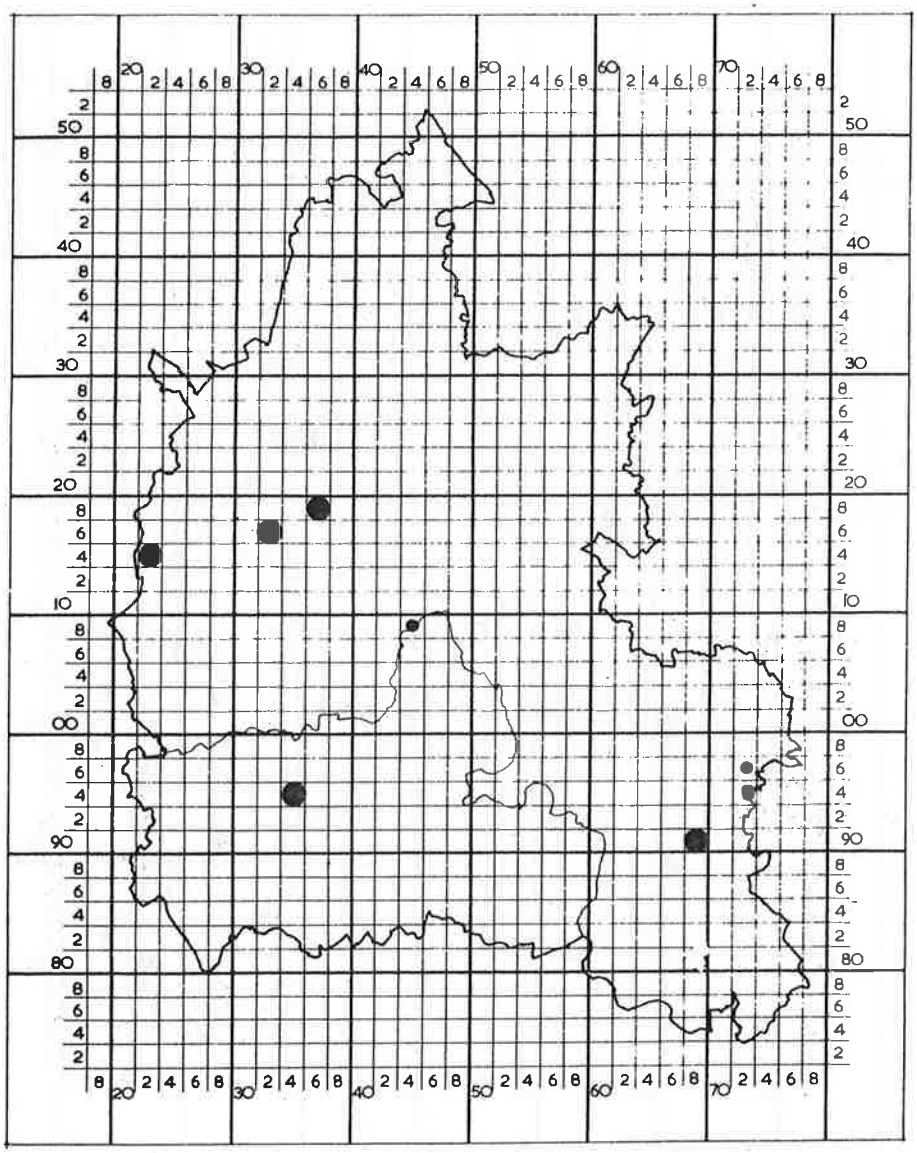
MYRMELEOTETTIX MACULATUS

Mottled Grasshopper

● Post - 1980

• 1960 - 1979

Pre - 1960



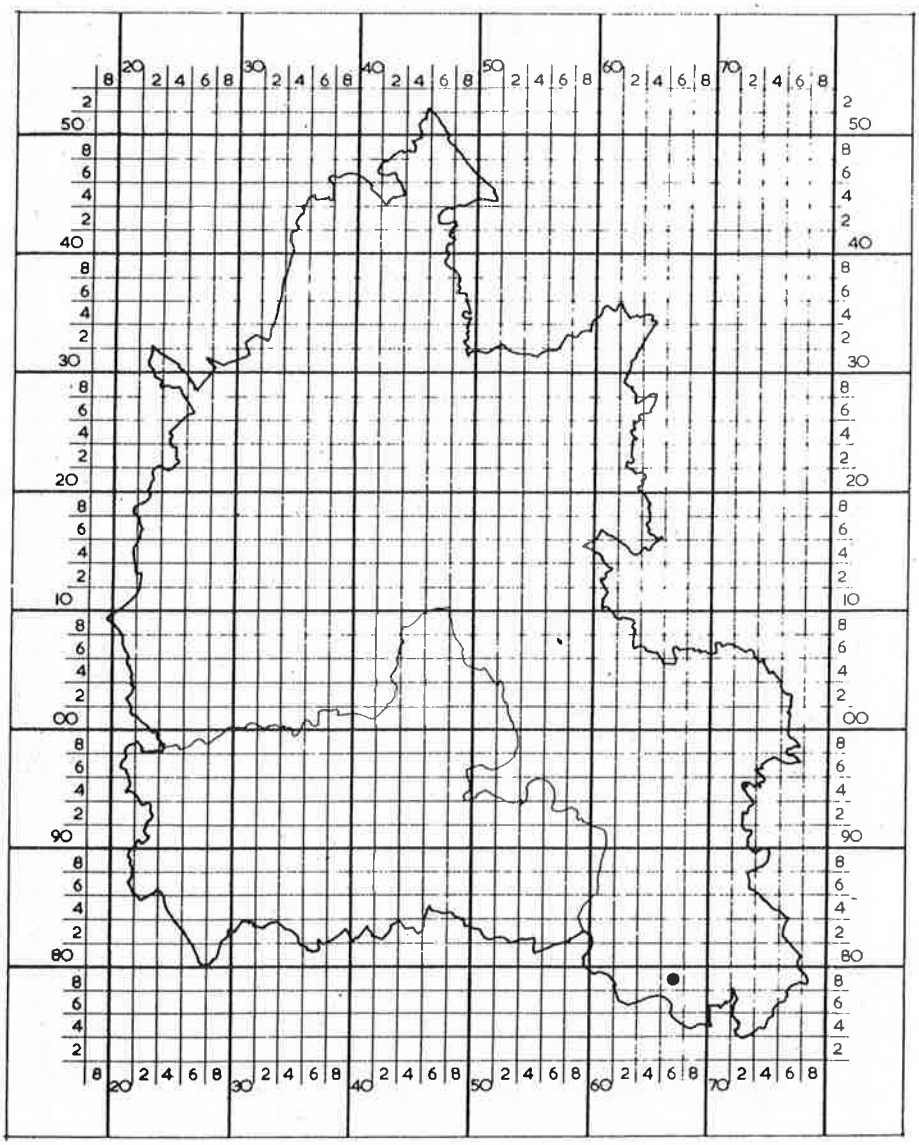
Additional 10km. square records are Henley on Thames 70/80 1920, 40/90 Tubney 1904, 40/00 Besselsleigh c.1920.

Usually on drier heaths, but in Oxfordshire on dry calcareous ground where there is a short vegetation cover with some soil exposed.

GOMPHOCERRIPUS RUFUS

Rufous Grasshopper

• 1960 - 1979



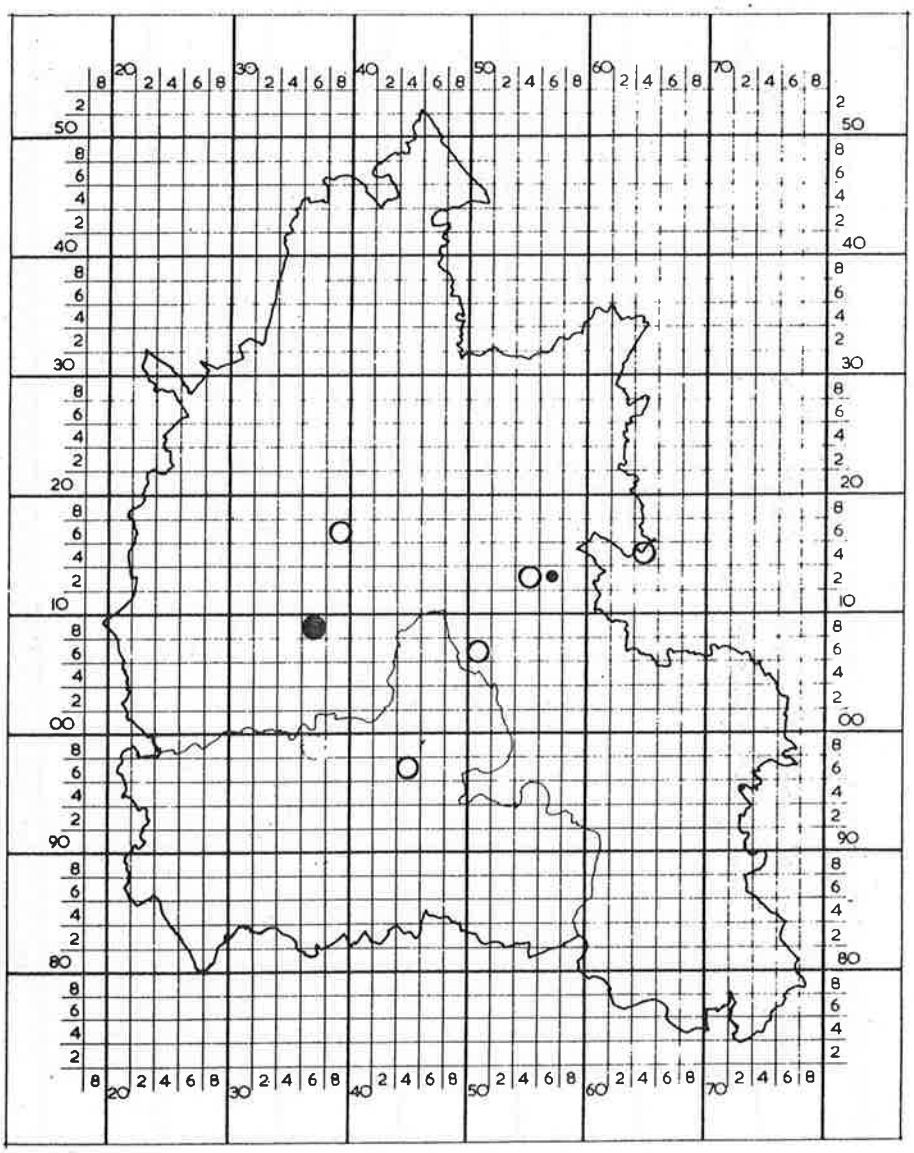
There are records from three sites in the one shown tetrad. The most recent records are 1961-1968.

Prefers limestone vegetation, but so far only recorded from the Oxfordshire chalk.

CHORTHIPPUS ALBOMARGINATUS

Lesser Marsh Grasshopper

● Post - 1980
• 1960 - 1979
○ Pre - 1960

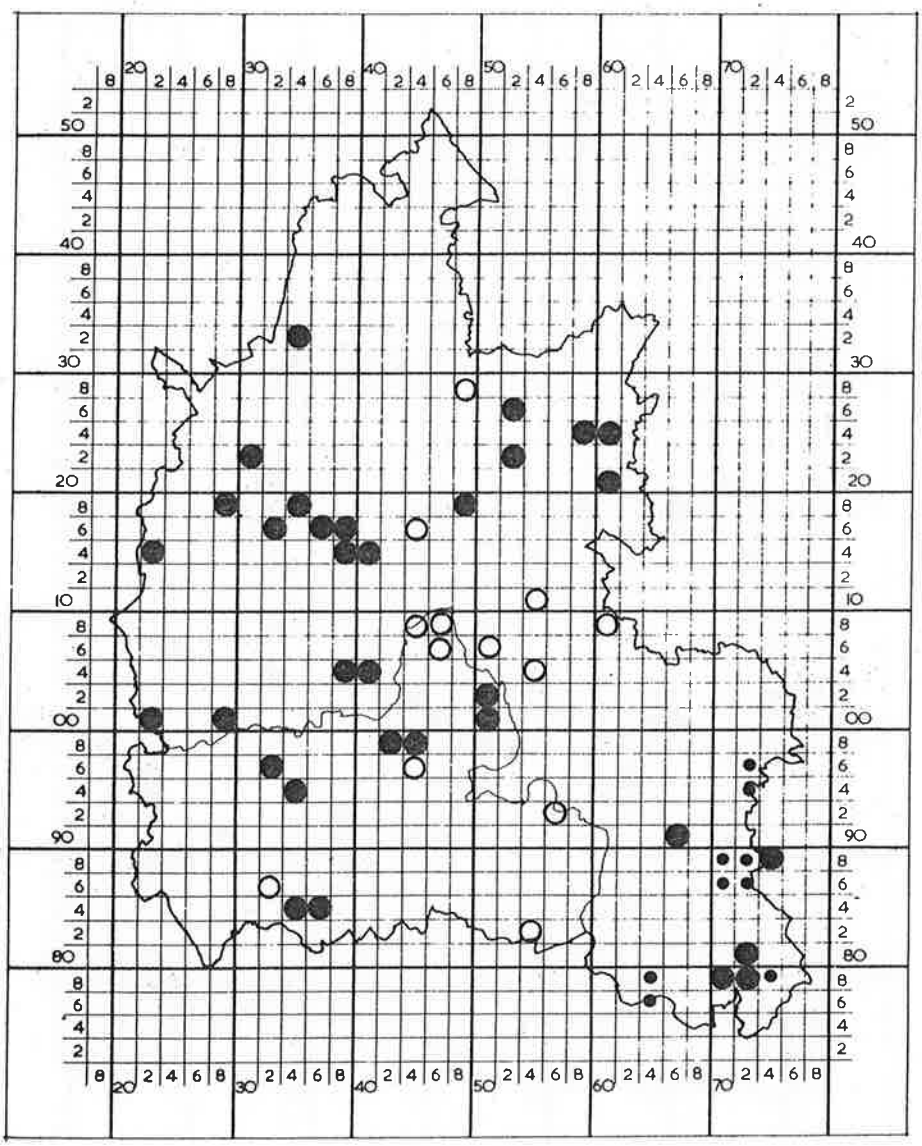


Additional records 50/00 Cowley 1900 and 50/10 Stowe Wood. Careful searching could well prove this species to be much more widespread. The 1983 record was from a grazed meadow by the River Windrush bordered by a well vegetated, but only five years old, ditch.

CHORTHIPPUS BRUNNEUS

Common Field Grasshopper

● Post - 1980
• 1960 - 1979
○ Pre - 1960



At 10km. level 60/80 or 70/80 Nettlebed pre 1938 is the only square for which there is no record. The Provisional Atlas gives 20/20, 21/80, but they are probably from the adjacent counties.

Prefers dryish sites with short grass.

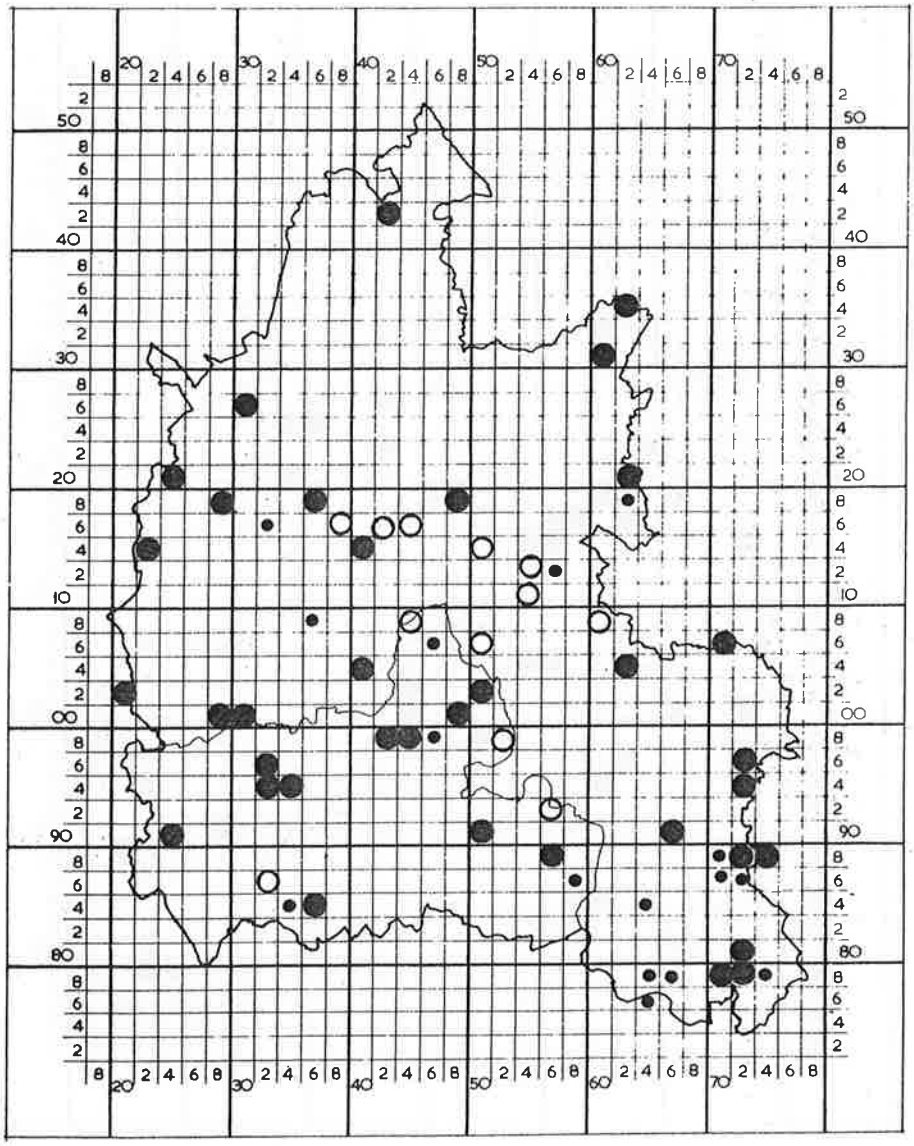
CHORTHIPPUS PARALLELUS

Meadow Grasshopper

● Post - 1980

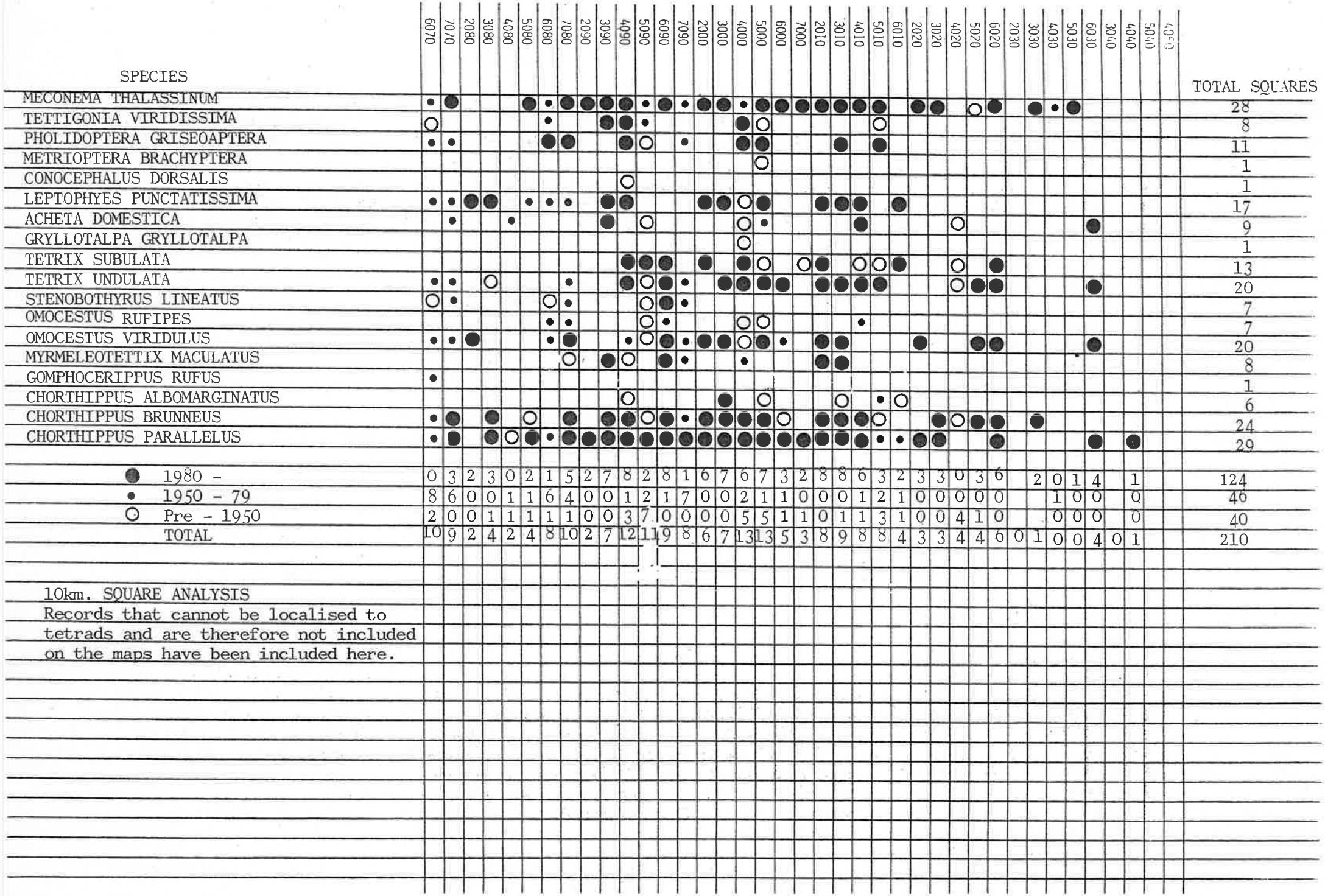
• 1960 - 79

○ Pre - 1960



40/80 Wantage c.1920 is the only 10km. square for which there is no tetrad record.

Prefers moister sites with more lush vegetation. It occurs on inland marshes.



10km. SQUARE ANALYSIS

Records that cannot be localised to tetrads and are therefore not included on the maps have been included here.