

The Victoria History of the
Counties of England

EDITED BY H. ARTHUR DOUBLEDAY

A HISTORY OF
NORFOLK

VOLUME I

THE
VICTORIA HISTORY
OF THE COUNTIES
OF ENGLAND
NORFOLK



DAWSON
FOR
THE UNIVERSITY OF LONDON
INSTITUTE OF HISTORICAL RESEARCH

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INSCRIBED
TO THE MEMORY OF
HER LATE MAJESTY
QUEEN VICTORIA
WHO IN HER LIFETIME GRACIOUSLY
GAVE THE TITLE TO
AND ACCEPTED THE
DEDICATION OF
THIS HISTORY

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GENERAL ADVERTISEMENT

THE VICTORIA HISTORY of the Counties of England is a National Survey showing the condition of the country at the present day, and tracing the domestic history of the English Counties back to the earliest times.

Rich as every County of England is in materials for local history, there has hitherto been no attempt made to bring all these materials together into a coherent form. There are, indeed, histories of English Counties ; but many of them—and these the best—are exceedingly rare and costly ; others are very imperfect ; all are out of date.

THE VICTORIA HISTORY will trace, county by county, the story of England's growth from its prehistoric condition, through the barbarous age, the settlement of alien peoples, and the gradual welding of many races into a nation which is now the greatest on the globe. All the phases of ecclesiastical history ; the changes in land tenure ; the records of historic and local families ; the history of the social life and sports of the villages and towns ; the development of art, science, manufactures and industries—all these factors, which tell of the progress of England from primitive beginnings to large and successful empire, will find a place in the work and their treatment be entrusted to those who have made a special study of them.

Many archæological, historical and other Societies are assisting in the compilation of this work, and the editor also has the advantage of the active and cordial co-operation of The National Trust, which is doing so much for the preservation of places of historic interest and natural beauty throughout the country.

The names of the distinguished men who have joined the Advisory Council are a guarantee that the work will represent the results of the latest discoveries in every department of research. It will be observed that among them are representatives of science; for the whole trend of modern thought, as influenced by the theory of evolution, favours the intelligent study of the past and of the social, institutional and political developments of national life. As these histories are the first in which this object has been kept in view, and modern principles applied, it is hoped that they will form a work of reference no less indispensable to the student than welcome to the man of culture.

Family History will, both in the Histories and in the supplemental volumes of chart pedigrees, be dealt with by genealogical experts and in the modern spirit. Every effort will be made to secure accuracy of statement, and to avoid the insertion of those legendary pedigrees which have in the past brought discredit on the whole subject. It has been pointed out by the late Bishop of Oxford, a great master of historical research, that 'the expansion and extension of genealogical study is a very remarkable feature of our own times,' that 'it is an increasing pursuit both in America and England,' and that it can render the historian useful service.

Heraldry will also in this Series occupy a prominent position, and the splendours of the coat-armour borne in the Middle Ages will be illustrated in colours on a scale that has never been attempted before.

The general plan of Contents, and the names of the Sectional Editors (who will co-operate with local workers in every case) are as follows:—

Natural History. Edited by AUBYN B. R. TREVOR-BATTYE, M.A., F.L.S., etc.

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THE
VICTORIA HISTORY
OF THE COUNTY OF
NORFOLK

VOLUME ONE

DAWSON
FOR
THE UNIVERSITY OF LONDON
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CONTENTS OF VOLUME ONE

	PAGE
Dedication	v
The Advisory Council of the Victoria History	vii
General Advertisement	vii
The Norfolk County Committee	xiii
Contents	xv
List of Illustrations	xvii
Preface	xix
 Natural History	
Geology	By H. B. WOODWARD, F.R.S., F.G.S.
Palæontology	By RICHARD L. LYDEKKER, B.A., F.R.S., F.G.S. . .
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Menthæ	" "
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Insecta (<i>Insects</i>)	By J. EDWARDS, F.E.S.
Orthoptera (<i>Grasshoppers, etc.</i>)	By J. EDWARDS, F.E.S.
Neuroptera (<i>Dragonflies</i>) and Trichoptera (<i>Caddis-flies</i>)	" "
Hymenoptera (<i>Bees, etc.</i>)	By CHARLES G. BARRETT, F.E.S.

CONTENTS OF VOLUME ONE

	PAGE	
Coleoptera (<i>Beetles</i>)	By J. EDWARDS, F.E.S.	110
Lepidoptera (<i>Butterflies and Moths</i>)	By CHARLES G. BARRETT, F.E.S.	135
Hemiptera (<i>Bugs and Cicadas</i>)	By J. EDWARDS, F.E.S.	162
Myriapoda (<i>Centipedes, etc.</i>)	By R. I. POCOCK	171
Arachnida (<i>Spiders, etc.</i>)	By F. O. PICKARD-CAMBRIDGE, M.A.	173
Crustacea (<i>Crabs, Lobsters, etc.</i>)	By the Rev. T. R. R. STEBBING, M.A., F.R.S., F.L.S.	183
Pisces (<i>Fishes</i>)	By JOHN LOWE, M.D., F.L.S.	200
Reptilia (<i>Reptiles</i>) and Batrachia		
(<i>Batrachians</i>)	By THOMAS SOUTHWELL, F.Z.S.	217
Aves (<i>Birds</i>)	" " "	220
Mammalia (<i>Mammals</i>)	" " "	246
Early Man	By GEORGE CLINCH, F.G.S.	253
Romano-British Remains	By F. HAVERFIELD, M.A., F.S.A.	279
Anglo-Saxon Remains	By REGINALD A. SMITH, B.A.	325

LIST OF ILLUSTRATIONS

	PAGE
Norwich Cathedral, by William Hyde	<i>Frontispiece</i>
Palæolithic Implements	255
Palæolithic Implements	256
The Weybourne Pits	264
Section through one of the Pits at Weybourne	264
Neolithic Implement	266
Bronze Tools found at Carlton Rode	268
Bronze Palstave found at Stibbard	269
Bronze Spearhead found at Stibbard	269
Bronze Celt-mould found in Unthanks Road, Norwich	270
Bronze Dagger found at Little Cressingham	272
Late Celtic Horse-trappings found at Saham Toney	<i>full-page plate, facing p.</i> 273
Late Celtic Pot found at Mundesley	274
" " "	274
Late Celtic Ornament	281
Coins of the Iceni	285
Outline of Caister-by-Norwich	289
Wall of Caister-by-Norwich	<i>full-page plate, facing p.</i> 290
Building outside the Walls of Caister	291
Terracotta Fragment	291
Small Bronze Bust	292
Small Bronze Objects	292
Gold Coin of Nero	292
Plan and Section of Kiln near Caister	<i>full-page plate, facing p.</i> 292
Bronze Mirror	292
" " "	292
Roman Well and Urns found in it, Ashill	<i>full-page plate, facing p.</i> 295
Plan of Enclosures near Ashill	295
Iron Knife, etc., from Roman Well, Ashill	<i>full-page plate, facing p.</i> 296
Key, Threxton	298
Sketch Map to illustrate Roman Roads	300
Plan of Brancaster	304
Section of Wall, Brancaster	304
Plan of Brancaster	305
Seal of Ring	305
Bronze Objects from Felmingham	308

LIST OF ILLUSTRATIONS

	PAGE
Sandhill containing Urns, Felmingham	309
Pottery from the Sandhill, Felmingham	309
Pewter Dish from Welney	310
Silver Dish found at Mileham	<i>full-page plate, facing p.</i> 310
Gold Ring from Poringland Heath	311
Urn alleged to have been found at North Elmham	<i>full-page plate, facing p.</i> 312
Samian Cup from Beachamwell	313
Glass Vessel, Geldeston	317
Bronze Object, Geldeston	317
Bronze Statuette, Hayford	317
Urn, Hedenham	317
Brooch from Swaffham	321
Brooch and Cinerary Urns with Details	329
* Gold Ornaments, etc	<i>coloured plate, facing p.</i> 340

LIST OF MAPS

† Geological Map of West Norfolk	<i>facing p.</i> 1
† Geological Map of East Norfolk	" 14
• Botanical Map	" 39
Pre-Historical Map	" 253
Roman Map	" 279
Anglo-Saxon Map	" 325

* Reproduced in black and white in this edition.

† Not reproduced in this edition owing to technical difficulties.

• Reproduced in black and white with red over print.

P R E F A C E

THE Advertisement of the *Victoria History* sets forth the scheme under which the *History of Norfolk* is projected. Only a small part of the whole undertaking there detailed finds a place in this volume, and it will therefore suffice to refer here only to the subject matter now presented to the reader.

The principle underlying the plan of the *Victoria History* is that of co-operation between local students of history and archæology and those who possess expert knowledge in certain periods of history or departments of archæological research. The contributors to this volume have cheerfully acquiesced in these conditions, and it is hoped that by the method adopted greater accuracy has been obtained than could otherwise have been secured.

The investigations which have been made in the course of compiling the natural history of Norfolk have brought to light the want of special studies from which the county suffers in various departments.

The tastes and inclinations of students of local natural history lie mostly in certain directions, and the less popular orders in Botany and Entomology have received comparatively little attention. Much difficulty has therefore been experienced in obtaining representative lists for some of these orders. While the imperfections to which this work must plead guilty are to be deplored, it is possible that the energies of local naturalists may be directed thereby to those departments of the flora and fauna which require further study.

It has been reluctantly decided that the Domesday Survey of Norfolk cannot be dealt with on the same lines as those adopted for other counties. Its abnormal length is but one of the difficulties; more serious are those which arise from the unsatisfactory state of the text and from the obscurity of its *formulæ*, even when the text is sound. Any translation would in fact be almost unintelligible. Those who are most competent to judge are of opinion that the time for dealing with this most difficult record is not yet ripe, and its contents are at present so imperfectly known that Professor Maitland has to speak in his *Domesday*

PREFACE

Book and Beyond,¹ of that period, as yet in the future, ‘when the Domesday of East Anglia has been fully explored.’ Its evidence, however, will of course be used for ascertaining the ownership of the manors in 1086, and it is hoped that if his other engagements permit, Mr. Round may be able to contribute, in another volume, something on the special features of interest that it possesses.

The editor desires to express his indebtedness to Mr. Thomas Southwell for assistance in many directions; and for permission to use certain of the illustrations reproduced in this volume he wishes to thank Sir John Evans, K.C.B., George C. Castor, Esq., the Curator of the Liverpool Museum, the Committee of the Norwich Castle Museum, the Society of Antiquaries, the Royal Archæological Institute, and the British Archæological Association.

¹ *Domesday Book and Beyond*, p. 106.

INSECTS

ORTHOPTERA

This order comprises the earwigs (*Forficulidæ*), the cockroaches (*Blattidæ*), the common grasshoppers (*Acridiidæ*), the long-horned grasshoppers (*Locustidæ*), and the crickets (*Gryllidæ*). In Norfolk we have besides the common earwig (*Forficula auricularia*), two other kinds, namely the small earwig, which is about half the size of the common kind and is frequently to be found flying in the day-time; and *Chelidura albipennis*, which may readily be distinguished from the common earwig by the absence of wings and the straighter and narrower pincers. It is not uncommon in the Norwich district, and may be obtained by beating mixed hedges in the autumn. It is a curious fact that although the common earwig is quite as well provided with wings as its smaller relative, it is very rarely seen on the wing, or found in situations to which it must necessarily have been transported by flight. Earwigs are said to be fond of their young, and the writer has on more than one occasion found a female of the common earwig with a dozen or more small young ones hidden away under a stone. In this case, however, it cannot be said that the young showed any disposition to avail themselves of parental protection, since mother and young promptly dispersed and ran into hiding in different directions. The cockroaches (*Blattidæ*) present two groups: the out-door, truly native species, which are small pale insects less than half an inch long; and the indoor, more or less naturalized species, which are of a dark mahogany brown colour, and in some cases attain a length of more than two inches. The common house cockroach, or so-called ‘black-beetle’ (*Periplaneta orientalis*), is easily known in the male sex by the shape of the upper wings, which appear as if they had been cut off straight across at some distance from the end of the body. In the females the upper wings are small and scale-like, and the lower pair are quite rudimentary. The song or chirp of the grasshoppers (*Acridiidæ*) is of course well known, but it is, perhaps, not so generally known that each kind has its own song, and that it is possible with a little attention to the difference in the sounds produced to distinguish some of the common grasshoppers (*Stenobothrus*) even when the insects are not in sight. The sound, which is produced by rubbing together the outer face of the upper wing and the inner face of the hind thigh, is the result of a rapid vibration of the upper wing set up by the friction between one or more

A HISTORY OF NORFOLK

projecting veins on the latter and a row of minute bead-like prominences, or some similar apparatus, situate on the thighs of the hind pair of legs. The common grasshoppers, especially the females of *Stenobothrus parallelus*, which may be known by their abbreviated upper wings, afford excellent examples of what is known as 'protective coloration,' the colour of the insects often exhibiting a marked similarity to that of the ground vegetation. A few stragglers of the migratory locust have from time to time been found in Norfolk ; but it may be remarked, in passing, that the 'locust' of the country folk is *Rhizotrogus solstitialis*, a rather stout pale brown hairy beetle about three-fourths of an inch long, which may be seen in hundreds flying round trees and hedgerows in the summer twilight. Perhaps the best-known member of the long-horned grasshoppers (*Locustidæ*) is the great green grasshopper (*Locusta viridissima*). This insect is not uncommon in Norfolk, but is very intermittent in its occurrence ; it often betrays its presence by its peculiarly harsh cry. Another member of the same group (*Xiphidium dorsale*), a pale green insect, reddish on the back, with very slender antennæ more than twice as long as the body, may be found commonly by sweeping low herbage in the fens of east Norfolk ; its female is remarkable for its large sword-shaped tail, which is nearly as long as the body of the insect. The crickets (*Gryllidæ*) are well represented in this county, the house and field crickets are both abundant, and that grand insect, the mole cricket (*Gryllotalpa vulgaris*), will probably prove to be generally distributed if properly searched for.

The name of *Œcanthus pellucens* has been retained in the following list because the Norfolk record is the only one of its occurrence in Britain. The record of an insect of which a single specimen only has been taken, and that, probably, some time prior to the year 1812, is necessarily attended with some doubt, which in the present case is somewhat increased by the fact that the late Professor Westwood, who purchased the insect at the sale of Haworth's collection, said that the specimen had been misnamed, and was in no manner related to the insect in question. This statement would have been entitled to more weight had the learned professor stated what the proper name of the insect really was. I have ascertained from Professor Poulton, the present custodian of Westwood's insects at the Oxford Museum, that this specimen ex coll. Haworth cannot now be found; and Mr. Malcolm Burr, a specialist in Orthoptera who has often been through the Orthoptera collections there, has not been more successful in his endeavours to find it. There is evidence that Haworth collected at Halvergate, where his brother-in-law Robert Scales had a farm between the years 1808 and 1812 ; and the fact remains that the entomologists of his day believed that he had taken a specimen of *Œcanthus* there ; and as the insect had already been figured by Panzer there appears no initial reason for assuming an error of identification. On the continent the species has occurred as far north as Fontainebleau.

In the following list two species which have not occurred to the

INSECTS

author have been given on the authority of J. F. Stephens (*Illustrations of British Entomology*).

FORFICULIDÆ

- Labia minor, L.
Forficula auricularia, L.
Chelidura albipennis, Meg. *Norwich*
BLATTIDÆ
Ectobia panzeri, Steph.
Phyllodromia germanica, L.
Periplaneta orientalis, L.

ACRIDIIDÆ

- Mecostethus grossus, L. *Horning*
Stenobothrus viridulus, L.
— bicolor, Charp.
— elegans, Charp. *Cley*, October
— parallelus, Zett.
Gomphocerus maculatus, Thunb.
Pachytylus migratorius, L. *Yarmouth*
(Stephens)

ACRIDIIDÆ (*continued*)

- Tettix bipunctatus, L.
— subulatus, L.

LOCUSTIDÆ

- Leptophyes punctatissima, Bosc.
Meconema varium, Fab. *Arminghall*
Xiphidium dorsale, Latr. *Horning, Ran-*
worth

Locusta viridissima, L.

- Thamnotrizon cinereus, L.

GRYLLIDÆ

- (?) *Œcanthus pellucens*, Scop. *Halvergate*
(Haworth *fide* Stephens)
Gryllus campestris, L.
— domesticus, L.
Gryllotalpa vulgaris, Latr. *Stoke Holy Cross*

NEUROPTERA¹

Three families in this order, namely, the stone-flies (*Perlidae*), the May-flies (*Ephemeridae*), and the alder-flies (*Sialidae*), contain insects which are well known to anglers as excellent baits. Owing to the absence from Norfolk of swift torrents and waterfalls the *Perlidae* are represented by very few species, although individuals are sufficiently numerous in the neighbourhood of water. The *Ephemeridae*, apart from the interest attaching to the mode of flight in some species, are worthy of notice on account of the development of the eyes. These organs, which are more highly developed in the males than in the females, are very large and prominent. The males of certain species bear on the head, in addition to the two globose compound eyes and the three simple eyes (*ocelli*), two short, stout, slightly diverging pillars, the top of each of the latter being occupied by a large compound eye; so that the insect has in fact, seven eyes in all. The dragon-flies (*Odonata*), notwithstanding their forbidding appearance, may really be caught and handled without risk of injury—although it would be difficult to persuade a rustic to handle a ‘horse-stinger,’ as they are sometimes called. They may occasionally be taken when at rest after sundown or in dull weather, but otherwise the capture of the larger species calls for the exercise of much patience

¹ In the following list of *Neuroptera* the determinations of species recorded from the collection of the author have been made or confirmed by R. McLachlan, F.R.S. In the case of species which have not occurred to the author, the names of the captors or recorders have been added after each entry. The entomologists referred to in this list are: C. G. Barrett, F.E.S.; John Curtis, in *British Entomology*; W. E. Leach, M.D., etc.; W. J. Lucas, F.E.S., in *The Entomologist*, xxxiii. p. 201; R. McLachlan, F.R.S.; Edward Newman, F.L.S., F.Z.S.; C. J. and J. Paget, in *A Sketch of the Natural History of Great Yarmouth and Neighbourhood*; J. F. Stephens, in *Illustrations of British Entomology*; H. J. Thouless of Norwich.

For the *Trichoptera* the nomenclature and sequence is that of McLachlan, *Trans. Ent. Soc. Lond.*, 1882, p. 329; and for the *Ephemeridae* that of Eaton, *Ent. Mo. Mag.* xxv. p. 10, *et seq.*

A HISTORY OF NORFOLK

and considerable dexterity in the use of the net. So far as the number of different kinds is concerned, these insects are scarcely so well represented in Norfolk as might reasonably be expected, several species which occur not uncommonly in the London district being as yet unrecorded for this county. On the other hand, Norfolk appears to be the only county where one particular species of *Æschna* is now to be found. This is *Æschna isosceles*, Mull., an insect about $2\frac{1}{2}$ inches long, having a bright sienna-brown body with a triangular yellow spot just behind the base of the hind-wings. Something like sixty years ago it appears to have been not uncommon at Yarmouth, but it has been entirely lost sight of for many years, the most recent recorded examples being one taken by my colleague Mr. Thouless in the Norwich district within the last few years and two taken near Norwich in 1871 by Mr. Barrett. The snake-flies (*Rhaphidiidæ*) are easily recognized by their comparatively broad flat head and the neck-like appearance of the parts succeeding it; they are rare insects, and occur only in wooded districts, where their larvæ are believed to feed on insects that harbour in old timber. The females have a long slender exserted ovipositor. We have in Norfolk three out of the four British species, and with regard to one of these (*R. cognata*, Rbr.) Mr. McLachlan writes that he had never previously seen a native example less than sixty or more years old. The specimen in question was taken by Mr. Thouless in Foxley Wood, on the 14th June, 1886. The lacewing-flies (*Chrysopidæ*), sometimes called 'golden-eyes,' are really common insects, though not frequently noticed. They are however of considerable importance since their larvæ, which feed most voraciously on aphides, are to a great extent instrumental in keeping these pests in check. The aphidivorous habits of the larvæ of the allied family *Hemerobiidæ* are equally noteworthy; and the larvæ of some at least of the species in that family have the habit of covering themselves with the empty skins of the aphides which they have sucked. The scorpion-flies (*Panorpidae*), so called from the resemblance of the hind part of the body in the male to the tail of a scorpion, are also remarkable for the shape of the head, which is drawn out into a broad deflexed beak. Besides the common and well known scorpion-flies (*Panorpa*), the family *Panorpidae* contains *Boreus hiemalis*, which is of local interest from the fact that the first recorded British example was taken by Dr. Leach very many years ago at Costessey. The *Boreus* is a curious little insect about one-fourth of an inch long, and looks like a minute wingless scorpion-fly; it occurs occasionally in moss from October to March, but has not, apparently, been taken in Norfolk for more than seventy years. The caddis-flies (*Trichoptera*) are moth-like insects of small or moderate size, sober colours and retiring habits; the surface of their upper wings is more or less closely covered with hairs. Their larvæ are aquatic, and the curious cases which they make of pieces of grass stems, small fresh-water shells, and aquatic debris generally are probably more familiar to non-entomological observers than the perfect insects.

INSECTS

PSEUDO-NEUROPTERA

PSOCIDÆ

- Atropos divinatoria, Müll.
- Psocus longicornis, F.
- nebulosus, Steph.
- variegatus, F.
- fasciatus, F.
- sexpunctatus, L.
- bifasciatus, Latr.
- quadrimaculatus, Latr.
- morio, Latr. *Thetford* (Curtis)
- Stenopsocus immaculatus, Steph.
- cruciatus, L.
- Cæcilius pedicularius, L.
- flavidus, Steph.
- vittatus, Dalm.
- Peripsocus phæopterus, Steph.
- Elipsocus unipunctatus, Müll.
- flaviceps, Steph.
- abietis, Kolbe

PERLIDÆ

- Leuctra geniculata, Steph.
 - (?) fusciventris, Steph. It is probable that two species are included under this name
 - Nemoura variegata, Ol.
 - (?) cinerea, Ol.
- EPHEMERIDÆ**
- Ephemera vulgata, L.
 - danica, Müll. *Booton Common*
 - Leptophlebia marginata, L.
 - submarginata, Steph.
 - Habrophlebia fusca, Curt.
 - Ephemerella ignita, Poda.
 - Cænis dimidiata, Steph.
 - halterata, F.
 - Baëtis binoculatus, L.
 - vernus, Curt.
 - pumilus, Burm.
 - niger, L.
 - Centroptilum luteolum, Müll.
 - Cloëon dipterum, L.
 - Rhithrogena semicolorata, Curt.
 - Heptagenia sulphurea, Müll.
 - Ecdyurus venosus, F.
 - insignis, Etn.

ODONATA

LIBELLULIDÆ

- Sympetrum striolatum, Charp.
- Platetrum depressum, L.
- Libellula quadrimaculata, L.
- fulva, Müll. *Sprowston* (Curtis)
- cancellatum, L. *Horning, Fakenham* (Curtis)

CORDULIIDÆ

- Cordulia ænea, L.

GOMPHIDÆ

- Cordulegaster annulatus, Latr.

ÆSCHNIDÆ

- Brachytryon pratense, Müll.
- Æschna juncea, L.
- cyanea, Müll.
- grandis, L.
- isosceles, Müll. *Yarmouth* (Newman); *Halvergate* (Stephens); near *Norwich* (Barrett); *Drayton Drewray* (Thouless)

CALOPTERYGIDÆ

- Calopteryx virgo, L.
- splendens, Harr.

AGRIONIDÆ

- Lestes sponsa, Hans.
- Platycnemis pennipes, Pall. *Norfolk* (Curtis)
- Pyrrhosoma nymphula, Sulz.
- Ischnura pumilio, Charp. *Norfolk*, 1899 (Lucas)
- elegans, Lind.
- Agrion puella, L.
- Enallagma cyathigerum, Charp.

NEUROPTERA-PLANIPENNIA

SIALIDÆ

- Sialis lutaria, L.

RAPHIDIIDÆ

- Raphidia xanthostigma, Schum.
- cognata, Ramb. (Thouless)
- maculicollis, Steph.

HEMEROBIIDÆ

- Micromus variegatus, F.
- paganus, L.
- Hemerobius micans, Ol.
- humuli, L.
- marginatus, Steph.
- stigma, Steph.
- pini, Steph.
- subnebulosus, Steph.
- lutescens, F.
- concinnus, Steph.

CHRYSOPIDÆ

- Chrysopa flava, Scop.
- vittata, Wesm.
- alba, L.
- vulgaris, Schn.
- abbreviata, Curt. *Yarmouth*, June (Paget)
- perla, L.
- Nothochrysa capitata, F.

CONIOPTERYGIDÆ

- Coniopteryx psociformis, Curt. *Norfolk* (Curtis)
- tineiformis, Curt.

PANORPIDÆ

- Panorpa communis, L.
- germanica, L.
- cognata, Ramb.
- Boreus hyemalis, L. *Cossey*, December, before 1826 (Leach)

A HISTORY OF NORFOLK

TRICHOPTERA

INÆQUIPALPIA

PHRYGANEIDÆ

Neuronia ruficrus, Scop.

Phryganea grandis, L.

Agrypnia pagetana, Curt.

LIMNOPHILIDÆ

Colpotaulus incisus, Curt.

Grammotaulius nitidus, Müll.

— *atomarius*, F.

Glyphotælius pellucidus, Retz.

Limnophilus rhombicus, L.

— *flavicornis*, F.

— *marmoratus*, Curt.

— *lunatus*, Curt.

— *centralis*, Curt.

— *affinis*, Curt.

— *auricula*, Curt.

— *xanthodes*, McLach. *Norfolk Fens* (Winter, *fide McLachlan*)

— *politus*, McLach. *Norfolk Fens* (McLachlan)

— *griseus*, L.

— *bipunctatus*, Curt. *Norfolk Fens* (McLachlan)

— *extricatus*, McLach.

— *luridus*, Curt. *Norfolk Fens* (McLachlan)

— *sparsus*, Curt.

— *fuscicornis*, Ramb.

Anabolia nervosa, Curt.

Stenophylax stellatus, Curt.

— *concentricus*, Zett.

— *vibex*, Curt. *Norfolk* (Curtis)

Halesus radiatus, Curt.

— *digitatus*, Schrank.

LIMNOPHILIDÆ (*continued*)

Drusus annulatus, Steph.

Chætopteryx villosa, F.

SERICOSTOMATIDÆ

Notidobia ciliaris, L.

Goëra pilosa, F.

Silo pallipes, F.

— *nigricornis*, Pict.

Brachycentrus subnubilus, Curt.

Lepidostoma hirtum, F.

ÆQUIPALPIA

LEPTOCERIDÆ

Beræa pullata, Curt.

Odontocerum albicorne, Scop.

Leptocerus bifasciatus, L.

— *fulvus*, Ramb. *Fens* (McLachlan)

Mystacides azurea, L.

Œcetis furva, Ramb. *Norfolk Fens* (Winter, *fide McLachlan*)

HYDROPSYCHIDÆ

Hydropsyche angustipennis, Curt.

Plectronemia conspersa, Curt.

Polycentropus flavomaculatus, Pict.

Holocentropus dubius, Ramb. *Fens* (McLachlan)

— *picicornis*, Steph.

Tinodes wæneri, L.

Ecnomus tenellus, Ramb. *Fen district* (Winter, *fide McLachlan*)

RHYACOPHILIDÆ

Rhyacophila dorsalis, Curt.

HYDROPTILIDÆ

Agraylea multipunctata, Curt.

HYMENOPTERA

The sawflies of the following list have mostly been collected in the neighbourhood of Norwich ; but a few have been obtained elsewhere by Messrs. F. Norgate and E. A. Atmore. Doubtless much more could be done in this group by working the eastern part of Norfolk. There are a few notices in Paget's *Natural History of Yarmouth*, Curtis's *British Entomology* and *Farm Insects*, and Stephens's *Illustrations of British Entomology*, which have been used.

The economy of the sawflies is extremely interesting. They are, in the larval state, vegetable feeders. The majority feed on the outside of the leaf, but a few are leaf-rollers, some mine the leaves, others form galls on the leaves of various species of willow and on poplar, and two or three make woolly galls on the young shoots of willows.

In some species the male fly is very rare, and in a few instances

INSECTS

quite unknown. The male of the common sawfly which makes the galls found on almost every willow (*Nematus gallicola*), is exceedingly rare. The late Mr. J. B. Bridgeman, of whose arduous labours the present list is a result, thought himself fortunate to rear one. The male of the very common *Eriocampa ovata*, the female of which abounds everywhere among alders, is quite unknown. This is a case of *parthenogenesis*, the eggs of the virgin female producing larvæ in due course, and ultimately the perfect insects. These have been reared by Messrs. Cameron and J. E. Fletcher.

On working out the Aculeates much help has been given by the Rev. J. Landy Brown, Messrs. H. D. Geldart, T. G. Bayfield, and E. A. Atmore; the late Mr. Frederick Smith of the British Museum confirmed the accuracy of many of the captures, and Mr. Edward Saunders has brought several species to light which had been mixed with others and so overlooked. Several entomologists early in the century collected species of this group in Norfolk. The Rev. W. Kirby, author of *Monographia Apum Angliae*, mentions four bees which he had taken near Norwich; Curtis, Stephens and Paget, already alluded to, added to this information; and Mr. F. Smith published the results of his collecting at Cromer and Mousehold in the *Entomologists Annual* for 1868-69.

In Curtis's *Entomology* two bees are recorded which, though not included in the following list, should be noticed. The first is *Andrena kirbii*. It is figured and described, and the following note is appended:—

‘The rare insect figured was in the collection of the late Mr. W. Griffin of Norwich, and was probably taken in the neighbourhood of that city; it now enriches the cabinet of Mr. Stephens.’ With the rest of Mr. Stephens’ treasures it is now in the collection of the British Museum, and was included in the first edition of the *Catalogue of British Bees*, by Mr. F. Smith, but was deleted in the second edition, published in 1877, in the introduction to which the following remark appears: ‘Ten species are entirely new additions to this part of the British fauna, whilst two, formerly believed to be British, have been omitted, *Sphecodes fuscipennis* and *Andrena kirbii*.’ The other species is *Heriades truncorum*, a very rare insect, of which Curtis says, ‘I believe that my female came from Norfolk.’ Concerning both species some doubt exists, and it is very uncertain whether the first named is a British insect.

Of the *Ichneumonidæ* this list is doubtless far from complete. Parasitic Hymenoptera have been much neglected in this county, especially the Ichneumons, owing doubtless to the absence of any handbook on the subject in the English language. Much assistance has been given by the Rev. T. A. Marshall; and lepidopterists have supplied information of the species inadvertently reared by them from larvæ of their favourite groups, as well as of those which they have captured. Many species also were obtained by sweeping herbage by the side of ditches, and the banks beneath hedges; also in dull weather by beating hedges into an old umbrella, but this will not serve when the sun shines, since the insects are then far too active to be thus secured. When a good hunting ground

A HISTORY OF NORFOLK

is found it does not seem to matter how often it is visited, as something fresh is almost sure to be taken.

There is a peculiar habit found in the larva of *Limneria kreichbaumeri* when in the cocoon ; it has the power of leaping a considerable distance into the air. The cocoon is semitransparent, and when held up to the light the larva may be seen to bend itself into the shape of a U ; then press its head and tail against one side of the cocoon, and suddenly release them so that they strike the opposite side, hitting it a sharp blow which causes it to make a leap. When held in the fingers the tap may distinctly be felt and heard.

TENTHREDINIDÆ

- *Tenthreda livida*, Linn. *Norwich*; common, June and July
- *colon*, Klug. *Norwich*; one female on *Mousehold*
- *solitaria*, Scop. *Sparham*; two females taken by Mr. F. Norgate in June
- *rufiventris*, Panz. *Sparham*; three females taken by Mr. F. Norgate in June
- *dispar*, Klug. Twice taken in the county ; once at *Felthorpe* in June
- *maculata*, Fourc. Taken by Mr. Norgate, probably at *Sparham*
- *bicincta*, Linn. Common
- *mesomela*, Linn. Common at mid-summer
- *obsoleta*, Klug. Taken at *Lynn* by Mr. E. A. Atmore
- *olivacea*, Klug. One female taken by Mr. Norgate and another by Mr. Atmore
- *punctulata*, Klug. Common
- *viridis*, Linn. Common
- *lateralis*, Fab. *Norwich*; in May and June, not common
- *gibbosa*, Fall. Common, occurring as early as April
- Tenthredopsis cordata*, Fourc. *Norwich*; apparently uncommon
- *microcephala*, Sep. *Norwich*, *Lynn*
- *caliginosa*, Step. Once taken
- *nigricollis*, Cam. *Norwich*, *Lynn*; common
- *ornata*, Sep. *Salhouse*, June
- *tristis*, Step. Taken by Mr. E. A. Atmore at *Lynn*, in June
- *dorsivittata*, Cam. *Earlham*; end of May, uncommon
- *inornata*, Cam. *Norwich*; June
- *nassata*, Linn. } Common in June
- *sordida*, Klug. }
- Synærema rubi*, Panz. Recorded in *Norfolk* by Stephens
- Pachyprotasis rapæ*, Linn. Very common
- *simulans*, Klug. One specimen taken

TENTHREDINIDÆ (*continued*)

- by Mr. F. Norgate, probably near *Sparham*; rare
- Macrophyia blanda*, Fab. *Norwich*; June, common
- *neglecta*, Klug. *Norwich*; June, common
- *12-punctata*, Linn. Twice taken : once at *Wroxham*; once at the osier-carr at *Heigham*—this locality since destroyed
- *albicincta*, Sch. *Brundall*; end of May
- *ribis*, Schr. *Brundall*, *Eaton*; single specimens, at the end of May and beginning of June
- *rustica*, Linn. Very common
- *punctum-album*, Linn. *Norwich*; in privet hedges, in June
- Allantus scrophulariæ*, Linn. *Brundall*, *Postwick*; about *Scrophularia nodosa*
- *tricinctus*, Fab. *Brundall*; August, not common
- *marginellus*, Fab. *Earlham*; June, not common
- *arcuatus*, Först. Very common
- Dolerus vestigialis*, Klug. *Norwich*, *Brundall*; two specimens, in May and June
- *triplicatus*, Klug. Very rare ; one taken by Mr. F. Norgate at *Sparham*, in June, 1880
- *fulviventris*, Scop. Common among *Equisetum*
- *anticus*, Klug. *Brundall*; end of April
- *arcticus*, Thom. *Brundall*; two males, May and June
- *gonagra*, Fab. Very common
- *puncticollis*, Thom. *Brundall*; uncommon, end of May
- *hæmatodes*, Schr. Common
- *anthracinus*, Klug. Rare ; one at *Eaton*, in May
- *fissus*, Hgt. Common
- *varispinus*, Hgt. Rare ; *Norwich*, three taken in spring
- *intermedius*, Cam. *Norwich*, *Brundall*; not uncommon, April and May

INSECTS

TENTHREDINIDÆ (*continued*)

- *Dolerus niger*, Linn. Common in June
- *æneus*, Hgt. *Norwich, Lynn*; May, June, not uncommon
- *elongatus*, Thom. Not uncommon
- Strongylogaster cingulatus*, Fab. Female common among ferns
- Selandria serva*, Fab. Very common at midsummer in marshes
- *sixii*, Voll. *Norwich, Brundall*
- *flavescens*, Klug. *Norwich, Brundall*; May, June, July
- *straminipes*, Klug. *Norwich, Salhouse*, on fern; May, June
- *morio*, Fab. *Brundall*; August
- *aperta*, Hgt. *Buckenham*; one female only
- Taxonus equiseti*, Fall. Common
- *glabratus*, Fall. Common
- Pœcilosoma luteolum*, Klug. Not uncommon in marshy places; larva feeding upon *Lysimachia vulgaris*
- *pulveratum*, Retz. *Sparham, Brundall, Lynn*
- *longicornis*, Thom. *Norwich*; May, June
- *submuticum*, Thom. *Strumpshaw, Brundall*; end of May and June
- *excisum*, Thom. *Earlham*; one male only, taken in August
- Eriocampa ovata*, Linn. Common on alder; the female only is known
- *annulipes*, Klug. *Norwich, Brundall*; common, June, July
- *varipes*, Klug. *Norwich, Brundall*; not scarce, June to August
- *limacina*, Retz. *Norwich*; common, on fruit trees
- *cinxia*, Klug. *Earlham*; one female in August, 1878
- *rosæ*, Harris. *Norwich, Wroxham*; common in May
- Blennocampa sericans*, Hgt. *Brundall*; one male in May, 1882
- *nigrita*, Fab. *Norwich*; end of May, not uncommon
- *albipes*, Gmel. *Norwich, Brundall*; common in May
- *ruficruris*, Brullé. *Norwich, Brundall*; May, in numbers
- *nigripes*, Klug. *Heigham*, August
- *fuscipennis*, Fall. *Brundall*; marshy places, in June
- *ephippium*, Panz. *Brundall, Hellesdon*; common at midsummer
- *fuliginosa*, Sch. *Norwich, Brundall*; May to July
- *subserrata*, Thom. *Brundall*; May to July

TENTHREDINIDÆ (*continued*)

- Blennocampa pusilla*, Klug. *Norwich*; common in May and June
- *betuleti*, Klug. *Mousehold*; one female in August, 1880
- *assimilis*, Fall. *Norwich*; two females only, in May
- Hoplocampa ferruginea*, Panz. Recorded by Stephens as rare in Norfolk
- *cratægi*, Klug. *Norwich*; about flowers of whitethorn at the end of May
- Emphytus togatus*, Panz. *Earlham, Sparham*; rare
- *cinctus*, Linn. Common on wild and garden roses
- *calceatus*, Klug. *Brundall*; August
- *tibialis*, Panz. *Sparham*; taken by Mr. Norgate in September
- *carpini*, Hgt. *Norwich*; frequent in May
- *grossulariæ*, Klug. *Norwich*; not uncommon, May to July
- *tener*, Fall. *Norwich*; common at midsummer
- *perla*, Klug. *Norwich*; rare
- Phyllotoma vagans*, Fall. Common on alder, the larva mining in the leaves
- *microcephala*, Klug. *Norwich, Brundall, Lynn*; July and August
- *fumipennis*, Cam. A single specimen taken on alder at *Brundall*, May, 1878. Found to be a new species
- Fenusia melanopoda*, Cam. *Norwich*; on alder, in July
- *pumilio*, Hgt. *Norwich*; May and August
- *pygmæa*, Klug. *Earlham, Lynn*; single specimens only
- *pumilla*, Klug. *Norwich*; bred from leaves of birch
- *ulmi*, Sun. *Norwich*; end of May and June
- Athalia ancilla*, Sep. Common in June
- *spinarum*, Fab. Formerly a destructive pest among turnips; I do not know that it has recently been taken at all
- *rosæ*, Linn. Abundant everywhere
- *lugens*, Klug. *Brundall*; scarce, May and August
- Hemichroa alni*, Linn. Female common on alder in June; male rare
- *rufa*, Panz. *Norwich*; rare
- Dineura stilata*, Klug. Abundant everywhere in hedges
- *verna*, Klug. *Norwich, Lynn*; single specimens only
- *viridorsata*, Retz. *Norwich*; rare, May, June

A HISTORY OF NORFOLK

TENTHREDINIDÆ (continued)

- *Cladius pectinicornis*, Fourc. Common, usually in gardens
- *rufipes*, Sep. One at Eaton in August, 1881
- *eradiatus*, Htg. *Norwich*; April to June; also bred from perforated bramble sticks collected in winter
- *drewseni*, Thom. *Norwich*; May, June, scarce
- *padi*, Linn. Very abundant
- Cræsus latipes*, Villaret. *Lynn*; taken by Mr. Atmore in May, 1887
- *septentrionalis*, Linn. *Downham*; Mr. Norgate
- Nematus fulvipes*, Fall. *Brundall*; July, August
- *hibernicus*, Cam. Two specimens at *Norwich* and one at *Lynn*
- *crassicornis*, Htg. *Norwich*; May to July
- *appendiculatus*, Htg. *Norwich*; two females only
- *cæruleocarpus*, Htg. *Eaton*; two males in June
- *lucidus*, Panz. *Norwich*, *Sparham*; May, June
- *capreæ*, Panz. Common
- *obductus*, Htg. *Norwich*, *Brundall*; end of May to July
- *leucogaster*, Htg. *Norwich*, *Brundall*, *Felthorpe*; July, August
- *curtispina*, Thom. *Heigham*; one, in June
- *viridescens*, Cam.
- *glutinosæ*, Cam. *Lynn*; one male, by Mr. Atmore in June
- *miliaris*, Panz. Common on willows
- *tibialis*, Newm. A single female taken many years ago
- *myosotidis*, Fab. Common; June to August
- *abdominalis*, Panz. A single specimen taken in *Heigham Osier Car*
- *ruficapillus*, Gmel. Very common
- *ribesii*, Scop. Very common on gooseberry bushes
- *albibennis*, Htg. *Norwich*, *Brundall*, *Felthorpe*
- *xanthogaster*, Foer. *Norwich*, *Brundall*; April to August, common
- *leucostictus*, Htg. *Brundall*, *Lynn*; May, June
- *gallicola*, West. Female abundant on willows, the male is very rare
- *bridgemanii*, Cam. *Brundall*; from galls on sallow
- Cimbex sylvarum*, Fab. Stephens says that it has been taken in *Norfolk*

TENTHREDINIDÆ (continued)

- *Trichiosoma lucorum*, Linn. *Sparham*; taken by Mr. Norgate
- *betuleti*, Klug. *Norwich*; common on whitethorn hedges
- Abia sericea*, Leach. *Brundall*, on flowers of scabious; *Dilham*, on alder
- Hylotoma ustulata*, Linn. *Eaton*, *Cringleford*, *Brundall*; May, not uncommon
- *atrata*, Foer. *Sparham*; one female taken by Mr. Norgate
- *melanochroa*, Gmel. *Eaton*; June, twice captured
- *cyanocrocea*, Foer. *Norwich*; common
- *rosæ*, Linn. Generally distributed
- Lyda sylvatica*, Linn. *Norwich*; two specimens only

Xyela pusilla, Dalb. Recorded in *Norfolk* by Curtis

- Cephina pygmæus*, Linn. Very common
- *pallipes*, Klug. *Felthorpe*, *Lynn*; July
- *floralis*, Klug. One specimen recorded by Stephens
- *tabidus*, Fab. *Earlham*; one female specimen

CHRYSIDIDÆ

- Cleptes semiauratus*, Linn. *Norwich*, *Yarmouth*; July, common
- *nitidulus*, Fab. *Yarmouth*; on the sand-hills
- Ellampus panzeri*, Fab. *Eaton*, *Mousehold*; three specimens from flowers in August, 1875
- Homalus auratus*, Linn. Common
- *cæruleus*, de G. Common
- Hedychrum lucidulum*, Fab. *Eaton*, *Mousehold*; July; in plenty at the latter locality about a mixed colony of *Cerceris arenaria*, *C. labiata* and *C. ornata*
- *ardens*, Curt. *Eaton*; taken sparingly in June
- *roseum*, Rossi. *Mousehold*; two specimens, in August
- Chrysis ignita*, Linn. Abounds from the end of May about old posts, rails and walls
- *viridula*, Linn. *Harford Bridges*; June
- *cyanea*, Linn. Abundant everywhere
- *austriaca*, Fab. *Eaton*, two specimens in June, one at *Brundall*

ACULEATA

HETEROGYNA

- Formica fusca*, Linn. Abundant everywhere
- *fuliginosa*, Latr. Common about decayed trees
- *nigra*, Linn. Abundant everywhere
- *flava*, de Geer. Generally common

INSECTS

HETEROGYNA (*continued*)

Camponotus herculanea, Linn. Females and neuters found alive (among timber from *New Brunswick*) in a sawyard at *Norwich*, in April, 1877

Tetramorium lippula, Nyl. One male taken near *Norwich* in 1878

Myrmica ruginodis, Nyl. *Norwich*; not very common

— *scabrinodis*, Nyl. Very common

— *lævinodis*, Nyl. Plentiful in the *Norwich* district

— *lobicornis*, Fab. *Mousehold*; taken by Mr. Thouless in 1886; a rare species

Leptothorax acervorum, Fab. Neuters were taken from the trunk of an old tree at *Earlham* in 1888

Diplorhoptrum domesticum, Shuck. This little pest, the red house-ant, is to be found in some of the houses in *Norwich*

FOSORES

Mutilla ephippium, Fab. *Norwich*; on dry sunny banks, in August

Myrmosa melanocephala, Fab. *Norwich* district; end of July

Tiphia femorata, Fab. *Norwich, Cromer*; on *Umbelliferæ*, end of July and in August

— *minuta*, Lind. *Eaton, Mousehold*; a few females, end of June and beginning of July

Sapyga 5-punctata, Fab. *Brundall*; July

Pompilus fuscus, Linn. Common everywhere

— *trivialis*, Dahlb. On every dry bank

— *consobrinus*, Dahlb. *Norwich*

— *pectinipes*, Linn. *Mousehold*

— *plumbeus*, Fab. *Yarmouth, Cromer, Bawsey Heath*

— *niger*, Fab. Recorded in Paget's list

— *rufipes*, Linn. *Yarmouth, Earlham*; August

Priocnemis sepicola, Smith. In hedgerows, commonly in the spring

— *affinis*, Lind. Recorded in Mr. Smith's catalogue, in *Norfolk*, in August and September

— *exaltatus*, Fab. Everywhere, in July and August

— *hyalinatus*, Fab. *Norwich*, in garden; *Mousehold*, in July, August and September

— *parvulus*, Dahlb. *Mousehold*; two females, September

Agenia hircana, Fab. *Earlham, Eaton*; two females and one male on trunks of trees, in June and July, 1878

FOSORES (*continued*)

Ceropales maculata, Fab. *Norwich*; on *Umbelliferæ*, in August

Ammophila sabulosa, Linn. Abundant in May

— *viatica*, Linn. Less abundant, and appearing later

— *lutaria*, Fab. *Mousehold*; scarce

Miscus campestris, Latr. *Mousehold*; early in July

Tachytes pompiliformis, Panz. *Norwich, Cromer*; June, July, not rare

Astata boops, Schr. *Mousehold*; July, August, not common

Nysson spinosus, Fab. *Lakenham, Brundall*; May to July, frequent

— *trimaculatus*, Rossi. *Norwich, Heigham, Brundall*; July, August

— *dimidiatus*, Jurine. *Earlham, Eaton, Brundall*; July, August

Gorytes mystaceus, Linn. *Norwich, Brundall*; May and June, common

— *quadrifasciatus*, Fab. *Heigham, Brundall, Horning*; June, July

Hoplisus bicinctus, Rossi. *Eaton, Earlham, Mousehold, Brundall, Yarmouth, Bawsey Heath*; a fine female of this very rare wasp

Harpactus tumidus, Panz. Sandhills, *Yarmouth*, June; *Earlham, Eaton*, in July and August

Mellinus arvensis, Linn. *Eaton, Earlham, Mousehold, Brundall, Yarmouth, Bawsey Heath*; very common

— *sabulosus*, Fab. *Brundall*; July

Trypoxylon figulus, Linn. Very common

— *attenuatum*, Smith. Abundant

— *clavigerum*, St. Farg. Scarcer than the last two

Crabro clavipes, Linn. *Norwich, Harford Bridges, Earlham*; June to September

— *tibiale*, Fab. *Brundall*

— *signatus*, Panz. *Eaton*; one male, June, 1874; rare in this county

— *luteipalpis*, St. Farg. *Lynn, Norwich, Brundall*; June, July

— *podagratus*, Lind. *Brundall*; August, 1879

— *varius*, St. Farg. *Earlham, Brundall*; July, September

— *leucostoma*. *Norwich*; common

— *exiguus*, Shuck. *Earlham*; one specimen, July, 1874

— *walkeri*, Shuck. *Cromer*

— *wesmaeli*, Lind. *Cromer*; one specimen, August, 1877

— *obliquus*, Shuck. *Norwich, Brundall, Cromer*; August

— *quadrimaculatus*, Fab. Abundant, July and August

— *scutatus*, Fab. *Norwich*; July, August

A HISTORY OF NORFOLK

FOSSORES (*continued*)

- Crabro cephalotes*, Panz. *Horning, Cromer, Brundall*; August
- *cribarius*, Linn. } Very common
- *patellatus*, Panz. }
- *palmipes*, Linn. *Mousehold, Earlham*; males not rare
- *vagus*, Linn. *Brundall*; June, August
- *chrysostomus*, St. Farg. *Brundall*; June, August
- *albilabris*, Fab. *Norwich, Cromer*; very common
- *panzeri*, Lind. *Cromer*; taken by Mr. F. Smith, August, 1868
- *brevis*, Lind. *Norwich, Cromer*; abundant, August
- Oxybelus uniglumis*, Linn. Abundant in summer on every dry bank
- *mandibularis*, Dahlb. *Norwich*; one male, identified by Mr. E. Saunders
- Spilomena troglodytes*, Shuck. One specimen, flying about palings in *Norwich*, August, 1875
- Stigmus pendulus*, Panz. *Norwich*; abundant about old palings in garden, June, July
- Diodontus minutus*, Fab. Abundant everywhere
- *luperus*, Shuck. Equally plentiful with the last
- *tristis*, Lind. Less frequent than the last two
- Passalæcus cornigera*, Shuck. Generally distributed
- *brevicornis*, Thoms. Common
- *gracilis*, Curt. One specimen only taken
- Pemphredon lugubris*, Fab. Tolerably abundant
- Cemonus unicolor*, Lind. } Very abundant,
- *lethifer*, Shuck. }
- Psen pallipes*, Panz. } June to August
- Mimesa shuckardi*, Wesm. *Mousehold, Eaton, Brundall*; scarce
- *bicolor*, Jurine. Generally distributed, July, August
- Cerceris arenaria*, Linn. *Yarmouth, Mousehold*; July, August
- *labiata*, Fab. *Norwich, Bawsey Heath*; July, August
- *ornata*, Fab. Equally common with the last

DIPLOPTERA

- Odynerus sinuatus*, Fab. *Heigham, Brundall*; July
- *gracilis*, Brullé. *Postwick*; taken by the Rev. J. L. Brown
- *spinipes*, Linn. *Harford Bridges, Brundall*; July

DIPLOPTERA (*continued*)

- Odynerus melanocephalus*, Gmel. *Brundall*; one specimen, July, 1873
- *parientinum*, Linn. Not uncommon in some seasons
- *parietum*, Linn. Very abundant
- *quadratus*, Thoms. Equally abundant
- *trifasciatus*, Oliv. Not uncommon
- *pictus*, Curt. *Norwich*; occasionally taken
- *antilope*, Panz. *Lynn*; taken by Mr. E. A. Atmore
- Vespa crabro*, Linn. Generally distributed
- *vulgaris*, Linn. }
- *germanica*, Fab. }
- *rufa*, Linn. Not uncommon
- *sylvestris*, Scop. Not rare; a nest was taken in 1875, out of a bank; it is not its usual habit to build underground
- *norvegica*, Fab. *Witton*; a nest taken in July, 1875, by the Rev. J. Landy Brown contained all three sexes; not otherwise noticed in *Norfolk*

ANTHOPHILA

- Colletes succincta*, Linn. *Mousehold, St. Faiths, Bawsey*; abundant at heather bloom in August and September
- *fodiens*, Kirby. *Norwich, Yarmouth, Lynn*; July to September, at ragwort blossom
- *picistigma*, Thoms. *Norwich*; one female in July, 1875
- *daviesana*, Smith. About every sandy bank
- Prosopis communis*, Nyl. Common; June till August
- *confusus*. *Earlham, Brundall*; not common, at flowers of bramble
- *signata*, Panz. Generally common, at flowers of mignonette
- *hyalinata*, Kirby. Common
- *perforator*, Smith. *Earlham*; at bramble flowers
- *varipes*, Smith. *Norwich*; one male
- Sphecodes gibbus*, Linn. Generally distributed and common
- *rufiventris*, Wesm. Generally distributed and common
- *subquadratus*, Smith. *Brundall, Eaton*; uncommon
- *ephippius*, Linn. Very common
- *pilifrons*, Thom. } Taken with S.
- *similis*, Wesm. }
- *ferruginatus*, Schenck. *Brundall*; one female
- *variegatus*, v. Hag. } Taken with S.
- *dimidiatus*, v. Hag. }
- *affinis*, v. Hag. }

INSECTS

ANTHOPHILA (*continued*)

- Sphecodes puncticeps*, Thoms. One male only taken
- Andrena hattorfiana*, Fab. *Eaton, Worstead*; July, 1876, at flowers of *Knautia arvensis*
- *decorata*, Smith. *Norwich, Brundall, Costessey*; end of July and in August, plentiful at bramble blossom
- *cetii*, Schr. *Eaton*; on flowers of *Knautia arvensis* in August
- *cingulata*, Fab. *Norwich*; May, June, in flowers of *Veronica chamædrys*
- *pilipes*, Fab. *Norwich*; occasional in May and June
- *thoracica*, Fab. *Norwich, Brundall, Wroxham*; April and May, and if the weather is hot, again at the end of July
- *nitida*, Fourc. *Norwich, Brundall, Lynn*; not common; end of April to June
- *vitrea*, Smith. *Mousehold, Brundall*; at flowers of bramble, July, scarce
- *albicans*, Kirby. Common everywhere
- *analis*, Panz. *Felthorpe*; once taken in June, 1881
- *clarkella*, Kirby. *Yarmouth, Horning*; March
- *gwynana*, Kirby. Abundant in early spring on dandelion flowers
- *bicolor*, Fab. *Norwich, Brundall*; June, July
- *helvola*, Linn. *Norwich*; common, April to June
- *varians*, Rossi. *Norwich*; not so common
- *atriceps*, Kirby. One of the earliest of spring bees; abundant at sallow-bloom and other spring flowers
- *nigro-ænea*, Kirby. Abundant and generally distributed
- *trimmerana*, Kirby. *Norwich*; fairly common, April to June
- *picicornis*, Kirby. *Mousehold, Cringleford*; three females and two males only taken, April
- *bimaculata*, Kirby. *Norwich, Brundall*; very local, April
- *smithella*, Kirby. *Norwich, Brundall*; plentiful
- *nigriceps*, Kirby. *Norwich*; female plentiful on ragwort flowers in July and August; male very rare
- *pubescens*, Kirby. *Mousehold*; at heather bloom, August
- *tridentata*, Kirby. *Mousehold and Eaton*; males common on ragwort flowers in July; female scarce

ANTHOPHILA (*continued*)

- Andrena angustior*, Kirby. *Mousehold*; one female only, May, 1875
- *fucata*, Smith. *Carbrooke*; taken by the Rev. J. L. Brown
- *aprilina*, Smith. One specimen taken in April, 1873
- *fulvicrus*, Kirby. One male taken at *Brundall* in 1874 by the Rev. J. L. Brown
- *albicus*, Kirby. Generally distributed and common; April and May
- *labialis*, Kirby. *Eaton, Harford Bridges, Brundall, Yarmouth, Lynn*; in June, but not common
- *chrysosceles*, Kirby. *Carbrooke, Eaton*; very rare
- *coitana*, Kirby. *Norwich, Brundall*; common in July and August
- *parvula*, Kirby. Very common; end of March
- *minutula*, Kirby. *Norwich, Lynn*; July, August, uncommon
- *nana*, Kirby. *Eaton, Earham, Mousehold*; May, June
- *dorsata*, Kirby. Common at flowers of bramble; July, August
- *combinata*, Kirby. *Norwich, Brundall*; at sallow bloom; sometimes common
- *connectens*, Kirby. *Norwich*
- *fuscata*, Kirby. *Mousehold*; April, May
- *afzeliella*, Kirby. Common, April, May and end of July
- *convexuscula*, Kirby. *Norwich*; plentiful, April to June
- *collinsonana*, Kirby. Recorded by Kirby as taken in the county in June, 1799
- *xanthura*, Kirby. Generally distributed; April, May
- Cilissa haemorrhoidalis*, Fab. Frequent on flowers of *campanula*; July, August
- *leporina*, Panz. *Eaton, Brundall*; July, August, occasionally at the flowers of white clover
- Halictus rubicundus*, Kirby. Not uncommon at *Norwich*
- *leucozonius*, Schr. Very common
- *quadrinotatus*, Kirby. Abundant
- *cylindricus*, Fab. Common
- *malachurus*, Kirby. *Cromer*; taken by Mr. F. Smith
- *albipes*, Fab. Very common
- *fulvicornis*, Kirby. *Cromer*; taken by Mr. F. Smith
- *vilosulus*, Kirby. *Norwich, Cromer*
- *tumulorum*, Linn. Very abundant

A HISTORY OF NORFOLK

ANTHOPHILA (*continued*)

- *Halictus smethmanellus*, Kirby. *Norwich, Brundall, Cromer*; occasional
- *æratus*, Kirby } Very common
- *morio*, Kirby }
- *leucopus*, Kirby. *Norwich*; scarce
- *minutus*, Kirby. Generally distributed
- *nitidiusculus*, Kirby. Generally distributed
- *punctatissimus*, Schenck. *Norwich* district
- *minutissimus*, Kirby. Very common
- Dasypoda hirtipes*, Latr. *Caistor Marrams*, near *Yarmouth*; August
- Macropis labiata*, Panz. *Brundall*; on flowers of creeping thistle, wild peppermint, marsh potentilla, and yellow loosestrife
- Panurgus banksianus*, Kirby. *Mousehold, Eaton*; very abundant from the end of June till August
- Nomada ruficornis*, Linn. Very common, end of April to June
- *lateralis*, Panz. *Brundall, Cringleford*; April and May
- *ochrostoma*, Kirby. *Earlham, Eaton*; one female each in June, rare
- *armata*, Schäff. *Eaton*; four females only
- *obtusifrons*, Nyl. *Brundall*; July and August, on flowers of the creeping-rooted thistle
- *flavoguttata*, Kirby. *Lynn*; end of May
- *furva*, Panz. Not uncommon, flying about the burrows of the small Halicti at the end of May and in June
- *solidaginis*, Panz. Plentiful on ragwort flowers, July, August
- *jacobææ*, Panz. Plentiful in 1874, otherwise not common
- *lineola*, Panz. *Mousehold*; end of May and in June
- *sexfasciata*, Panz. *Norwich*; about a colony of *Eucera longicornis* in a bank near Thorpe Asylum, end of May, June
- *alternata*, Kirby } Very common from
- *succincta*, Panz. } April to June
- Epeolus variegatus*, Linn. *Bawsey Heath*, near *Lynn*; common about burrows of *Colletes daviesana* in July and August
- Melecta armata*, Panz. Generally common about burrows of *Anthophora acervorum* from the end of March till May
- Stellis aterrima*, Panz. *Norwich*; in garden at flowers of *Coreopsis*, scarce

ANTHOPHILA (*continued*)

- Stellis phæoptera*, Kirby. *Brundall*; one specimen, in August, 1879
- Cœlioxys quadridentata*, Linn. *Eaton, Postwick, Yarmouth, Lynn*
- *simplex*, Nyl. Very abundant, June, July
- *acuminata*, Nyl. Not uncommon
- *rufescens*, St. Farg. *Eaton, Mousehold, Brundall*
- Osmia rufa*, Linn. Abundant in early spring
- *ænea*, Linn. Not uncommon, April to June; female at red nettle
- *fulviventris*, Panz. *Norwich, Eaton, Brundall, Harford Bridges*; common, June, July
- *spinulosa*, Kirby. *Brundall*; two females from ragwort flowers, in July and August
- Chelostoma florisomne*, Linn. *Harford Bridges*, June, July
- *campanularum*, Kirby. *Norwich*, in gardens, about flowers of Campanula
- Anthidium manicatum*, Linn. Abundant at midsummer
- Megachile centuncularis*, Linn. Very common in gardens and at bramble flowers, from June to August
- *versicolor*, Smith. One female in the garden, 1873
- *circumcincta*, Kirby. *Norwich*; June, July
- *willughbiella*, Kirby. *Norwich*; plentiful, June to August
- *maritima*, Kirby. *Mousehold, Yarmouth*; not scarce, July and August
- Eucera longicornis*, Linn. *Norwich, Postwick*; end of May
- Anthophora retusa*, Linn. *Mousehold*; plentiful, May, or even end of April
- *acervorum*, Fab. Every dry bank; abundant in earliest spring
- *furcata*, Panz. *Eaton, Earlham, Mousehold, Brundall*; frequenting flowers of red nettle, middle of May till August
- Bombus muscorum*, Linn. Very abundant
- *agrorum*, Fab. *Norwich* district
- *venustus*, Smith. Not uncommon
- *elegans*, Seidl. *Mousehold, Brundall, Yarmouth, Cromer*
- *sylvarum*, Linn. Very common
- *derhamellus*, Kirby. Common
- *pratorum*, Linn. Abundant
- *jonellus*, Kirby. *Norwich*; two neuters in 1873

INSECTS

ANTHOPHILA (continued)

- Bombus lapidarius, Linn.
 - lucorum, Linn.
 - virginalis, Kirby.
 - hortorum, Linn.
 - latreillellus, Kirby. Generally distributed, but less common
 - subterraneus, Linn. Common
 - Apathus rupestris, Fab.
 - vestialis, Fourc.
 - barbutellus, Kirby
 - campestris, Panz. Males plentiful, but females quite scarce
 - Apis mellifica, Linn. Everywhere
- ICHNEUMONIDÆ*
- Chasmodes motatorius, Fab. Very common
 - Ichneumon consimilis, Wesm. *Cromer*; one female, end of May
 - lineator, Fab. *Brundall*; two males
 - impressor, Zett. *Lynn*, reared by Mr. Atmore from larvæ of *Gortyna flavago*
 - derasus, Wesm. *Eaton*; one male, July
 - bilineatus, Gmel. A common parasite of *Abraxas grossulariata*
 - molitorius, Linn. *Yarmouth*.
 - languidus, Wesm. *Eaton, Earlham*; two males, July, August
 - vaginatorius, Linn. Common
 - confusorius, Gmel. Males common, females less so
 - tempestivus, Holm. *Mousehold, Yarmouth*; Mr. Thouless
 - gracilentus, Linn. *Earlham*; one female, August
 - luctatorius, Linn. Common
 - macrocerus, Thom. *Brundall*; one male
 - labrator, Fab. *Earlham, Brundall, Cromer*
 - insidiosus, Wesm. *Brundall*; August
 - primatorius, Forst. *Mousehold*; one female taken by Mr. Thouless
 - emancipatus, Wesm. *Norwich*; one male
 - cessator, Müll. *Norfolk*; in June
 - gemellus, Gr. *Heigham, Earlham, Brundall, Lynn*; not common
 - saturatorius, Linn. *Earlham, Brundall, Lynn*
 - bimaculatorius, Panz. *Brundall*; one female, September
 - nigratarius, Gr. *Sparham*; taken by Mr. F. Norgate
 - curvinervis, Holm. *Norwich*
 - fugitivus, Gr. *Norwich*; common; perhaps a variety of *I. fabricator*
 - lanus, Gr. *Norwich*; common

ICHNEUMONIDÆ (continued)

- Ichneumon heracliana, Bridg. *Lynn*; has been reared from *Depressaria heracliana*
- leucomelas, Gmel. *Mousehold, Earlham*
- vestigator, Wesm. *Norwich*
- lepidus, Gr. *Brundall, Norwich*; males only
- anator, Fab. *Norwich*; two females
- bilunulatus, Gr. Common
- ochropus, Gmel. *Norwich*
- ridibundus, Gr. *Eaton*; one male, July
- plagiator, Wesm. *Eaton*
- albicinctus, Gr. Very common
- deceptor, Gr. *Norfolk*
- expectatorius, Panz. *Norfolk*
- Amblyteles palliatorius, Gr. *Mousehold, Brundall*
- amatorius, Forst. *Norwich*
- oratorius, Fab. *Mousehold*; two males in September
- vadatorius, Rossi. *Norwich*; one taken by Mr. Thouless
- occisorius, Fab. Common
- negatorius, Fab. *Norfolk*
- castigator, Fab. Common
- messorius, Gr. *Earlham*; two females
- funereus, Fourc. One male, at *Eaton*
- alticola, Gr. Common
- Trogus lutorius, Fab. *Norwich, Lynn*
- alboguttatus, Gr. *Norfolk*; in June
- Platylabris rufus, Wesm. *Lynn*; bred by Mr. Atmore from larvæ of *Cabera pusaria*
- pedatorius, Fab. Common
- viridipennis, Gr. *Norwich*
- dimidiatus, Gr. *Mousehold*
- pactor, Wesm. *Earlham*
- Apæleticus inclytus, Wesm. *Lakenham, Earlham*
- Herpestomus nasutus, Wesm. *Earlham*; August
- furunculus, Wesm. *Earlham, Eaton, Mousehold*; August, September
- intermedius, Wesm. *Eaton*; August
- striatus, Bridg. *Eaton, Earlham, Brundall*
- Colpognathus celerator, Gr. *Lynn*
- Diccelotus pumilus, Gr. *Mousehold*; June
- cameroni, Bridge. *Heigham, Earlham*; August
- Centeterus opprimator, Gr. *Brundall*; common
- Trachyarus corvinus, Thom. *Earlham*; July
- Phæogenes semivulpinus, Gr. *Norwich, Brundall*; common

A HISTORY OF NORFOLK

ICHNEUMONIDÆ (continued)

- Phæogenes planifrons, Gr. *Brundall*; August
- stimulator, Gr. *Norfolk*; June
- calopus, Wesm. Common generally
- varicolor, Wesm., and var. intermedius. *Gunton*; August
- fulvitarsus, Wesm. Common
- bellicornis, Wesm. *Brundall, Earlham*; May, September
- nanus, Wesm. *Eaton*
- ischiomelinus, Gr. Common
- trepidus, Wesm. *Hetherset, Wroxham*; May
- impeger, Wesm. *Earlham*; August, September
- argutus, Wesm. *Eaton, Earlham*; common
- collaris, Gr. *Eaton*; July
- Oiorhinus pallipalpus, Wesm. *Eaton, Earlham, Mousehold*; autumn
- Æthecerus longulus, Wesm. *Earlham*; August
- discolor, Wesm. *Earlham*; one female in September
- nitidus, Wesm. *Earlham, Lakenham, Heigham, Gunton, Lynn*; reared from larvæ of *Cosmia diffinis*
- dispar, Wesm. Common
- Ischnus nigricollis, Wesm. *Norwich*
- Epitomus parvus, Thom. *Norwich*; taken occasionally
- Alomyia debellator, Fab. Male very common; female rarely seen
- Stilpnus gagates, Gr. *Brundall*; July
- pavoniæ, Scop. *Eaton*; July
- blandus, Gr. *Norwich*; June, August
- Phygadeuon caliginosus, Gr. *Sparham*
- nigrita, Gr. *Earlham, Eaton*; September
- flavimanus, Gr. *Mousehold*; July
- dumetorum, Gr. Common, July, August
- variabilis, Gr. Common in May
- fumator, Gr. Very common and variable
- inflatus, Thom. } *Norfolk*; localities
- scaposus, Thom. } not recorded
- dimidiatus, Thom. }
- troglodytes, Gr.
- jejunator, Gr. } Common
- æreus, Gr.
- brevitarsis, Thom. *Earlham, Wroxham*; August, September
- nitidus, Gr. *Earlham, Eaton, Heigham*; September
- ovatus, Gr. *Earlham*; August
- exiguis, Gr. *Norwich*
- brevis, Gr. *Earlham*; August
- improbus, Gr. *Earlham*; September

ICHNEUMONIDÆ (continued)

- Phygadeuon hopei, Gr. *Lakenham*; September
- vagabundus, Gr. Common
- cinctorius, Fab. *Acle*; a female taken by Mr. Thouless
- quadrispinus, Gr. *Brundall*; October
- graminicola, Gr. *Brundall, Lakenham*
- abdominalis, Gr. *Eaton*
- jucundus, Gr. Very common
- arridens, Gr. Common
- oviventris, Gr. *Earlham*
- erythrinus, Gr. *Norwich, Horning, Foxley*
- brachyurus, Thom. *Earlham*; June
- flavipunctatus, Bridg. *Mousehold*; October
- perspicillator, Gr. *Earlham, Lynn*; bred by Mr. Atmore from *Trachæa piniperda*
- Phygadeuon rotundipennis, Thom. *Mousehold*; August
- nanus, Gr. *Earlham*
- sperator, Gr. *Felthorpe*
- lacteator, Gr. *Earlham, Brundall*; July, August
- hercynicus, Gr. *Eaton, Heigham, Brundall*; July, August
- subtilicornis, Gr. *Heigham*; June
- parvulus, Gr. *Brundall, Heigham, Lynn*
- Cryptus viduatorius, Fab. *Norwich*
- lugubris, Gr. *Heigham, Brundall, Horning*
- tarsoleucus, Schr. } Common
- moschator, Fab. }
- parvulus, Gr. *Heigham, Brundall*
- anatorius, Gr. *Mousehold*; August
- stomaticus, Gr. *Eaton, Earlham*; June
- titillator, Gr. *Eaton*; June
- dianæ, Gr. *Lynn*
- obscurus, Gr. Generally common
- hostilis, Gr. *Earlham*; July, September
- porrectorius, Fab. *Eaton*; July, September
- analis, Gr. Generally common
- peregrinator, Linn. *Norwich, Brundall, Cromer*; June, August
- ornatus, Gr. *Eaton, Brundall*; May, August
- amænus, Gr. *Norwich*
- migrator, Fab. Generally common
- cimbicis, Tsch. *Norwich*; reared from larva of *Trichiosoma betuleti*
- pygoleucus, Gr. Generally common
- carnifex, Gr. *Brundall*; July, September
- elegans, Desv. *Brundall*; July, October

INSECTS

ICHNEUMONIDÆ (*continued*)

- Cryptus antennatus*, Bridg. *Eaton*; two females only; April
- *incubitor*, Stroem. *Norwich*; reared from larva of *Saturnia carpini*
- *signatorius*, Fab. *Norwich*; reared from perforated bramble sticks
- Mesostenus obnoxius*, Gr. *Brundall*; parasitic on *Zygæna filipendulae*
- Nematopodius ater*, Brisch. *Norwich*; males only taken
- Hemiteles biannulatus*, Gr. *Brundall*; May
- *subannulatus*, Bridg. *Earlham*; September
- *hadrocera*, Thom. *Earlham*; July
- *fulvipes*, Gr. Common generally; bred from both moth and bee larvæ
- *submarginatus*, Bridg. *Mousehold*; reared from cocoons of *Apanteles congestus*
- *rufipes*, Bridg. *Earlham*; June
- *areator*, Panz. Generally common; parasitic on moth and saw-fly larvæ
- *bicolorinus*, Gr.
- *aestivalis*, Gr. } Generally common
- *cingulator*, Gr.
- *aberrans*, Gr. *Brundall*; one male in June
- *chionops*, Gr. *Earlham, Eaton*; May, August, September
- *sordipes*, Gr. *Aylsham*; has been reared from galls of *Cynips kollari*
- *similis*, Gr. Generally common.
- *obscurus*, Bridg. *Eaton*; two reared from spiders' eggs
- *tibialis*, Bridg. *Earlham*; September
- *conformis*, Gr. *Lynn*; reared by Mr. Atmore from larvæ of *Lithocolletis frolichiella*
- *scabriculus*, Thom. *Eaton*; July
- *castaneus*, Tasch. *Earlham*; July; parasitic on *Trichiosoma betuleti*
- *inimicus*, Gr. *Eaton, Earlham*
- *pictipes*, Gr. *Earlham*; July
- *furcatus*, Tasch. Frequent; has been reared from larvæ of *Gracilaridæ*
- *oxyphinus*, Gr. *Earlham*; September
- *incisus*, Bridg. *Earlham, Heigham*; July, September
- *balteanus*, Thom. *Norwich*; August
- *varicoxis*, Tasch. *Earlham*; July
- *imbecillis*, Thom. *Norwich, Brundall*; generally common
- *floricolator*, Gr. *Earlham, Lakenham*
- *stagnalis*, Thom. *Norwich, Brundall*; reared from spiders' eggs
- *fragilis*, Gr. Generally distributed; reared from spiders' eggs

ICHNEUMONIDÆ (*continued*)

- Hemiteles ruficaudatus*, Bridg. *Wroxham, Earlham*; July
- *gyrini*, Parf. *Brundall*; May
- *formosus*, Gr. *Earlham*; June, July
- *gracilis*, Thom. *Norwich, Brundall*; parasitic on spiders' eggs
- *validicornis*, Thom. *Eaton*; September
- *mixtus*, Bridg. *Brundall*
- Orthopelma luteolator*, Gr. Common; reared from rose gall-flies = *Rhodites elegantriæ*
- Catoglyptus mangeri*, Gr. *Brundall, Horning*; rare; June, September
- Agrothereutes abbreviator*, Fab. *Mousehold*; one female in August
- *hopei*, Gr. Common; parasitic on Micro-lepidoptera
- Aptesis nigrocincta*, Pz. *Eaton, Household*
- Hemimachus piceus*, Bridg. *Mousehold*; August
- *rufipes*, Bridg. *Norwich*; July
- *ovatus*, Bridg. *Brundall*; September
- *rufotinctus*, Bridg. *Felthorpe*; June
- Pezomachus tener*, Fst. *Norwich*; common
- *zonatus*, Fab. Common; reared from eggs of a spider, *Agelena brunnea*
- *timidus*, Fst. *Norwich*; one female
- *nigritus*, Fst. *Earlham, Eaton, Brundall*
- *spinula*, Thom. *Norwich*; one male
- *posthumus*, Fst. *Mousehold*
- *costatus*, Bridg. *Norwich*; common
- *rufulus*, Fst. Generally common
- *corruptor*, Fst. Common; reared by Mr. Thouless from larva of *Cionus scrophulariae*
- *ochraceus*, Fst. Generally common
- *mandibularis*, Thom. *Norwich*; one male in September
- *distinctus*, Fst. *Mousehold*
- *intermedius*, Fst. *Norwich*; common
- *mülleri*, Fst. *Mousehold*
- *incertus*, Fst. } *Norwich*; common
- *faunus*, Fst.
- *juvenilis*, Fst. *Eaton*
- *xylochophilus*, Fst. *Brundall, Horning*
- *analis*, Fst. Generally common
- *agilis*, Fst. *Norwich*; one male
- *viduus*, Fst. *Norwich*; three females
- *hortensis*, Gr. *Brundall*; one male
- *transfuga*, Fst. Common; reared from eggs of a spider, *Agelena labyrinthica*
- *rufocinctus*, Gr. Common; parasitic upon moths of the family Tineina
- *detritus*, Fst. *Mousehold*; females reared from larvæ of *Apanteles congestus*

A HISTORY OF NORFOLK

ICHNEUMONIDÆ (continued)

- Pezomachus vagans, Gr. *Buckenham* ; parasitic on spiders' eggs
- tonsus, Fst. *Mousehold* ; females reared from larvæ of *Apanteles congestus*
- fasciatus, Gr. Common ; parasitic on bees as well as on spiders' eggs
- impotens, Fst. *Earlham* ; one female in July
- insolens, Fst. *Lynn* ; parasitic upon Micro-Lepidoptera
- avidus, Fst. *Norwich* ; one male
- anguinus, Fst. *Norwich*
- Eniscospilus merdarius*, Gr. *Norwich* ; reared from larvæ of *Trachea pini-perda*
- *ramidulus*, Linn. *Heigham Osier Carr*
- Ophion obscurum*, Fab. *Sparham*
- *luteum*, Linn. Generally common
- *minutum*, Brisch. *Norwich*
- *distans*, Thom. *Norfolk*
- Anomalon xanthopus*, Schr. *Lynn* ; reared by Mr. Atmore from *Trachea pini-perda*
- *cerinops*, Gr. *Brundall, Sparham*
- *clandestinum*, Gr. *Lynn* ; reared by Mr. Atmore from *Eupithecia valerianata*
- *perspicuum*, Wesm. *Lynn* ; parasitic on *Noctuæ* and *Geometræ*
- *anomelas*, Gr. *Lynn* ; reared from *Retinia turionella* by Mr. Atmore
- *procerum*, Gr. *Lynn*
- Agypon flaveolatum*, Gr. *Lynn* ; parasitic on *Noctuæ*
- *tenuicorne*, Gr. *Lynn* ; parasitic on Micro-lepidoptera
- *canaliculatum*, Retz. *Lynn* ; indiscriminately parasitic on Lepidoptera
- Trichomma enicator*, Rossi. *Lynn* ; reared from larvæ of Tortrices
- Opheltes glaucopterus*, Linn. *Brundall* ; one female
- Paniscus cephalotes*, Holm. *Norfolk*
- *ocellaris*, Thom. *Norfolk*
- *testaceus*, Gr. Generally common
- Parabatus virgatus*, Gr. *Foxley*
- *tarsatus*, Brisch. *Lynn* ; reared by Mr. Atmore from *Eupithecia larvæ*
- *nigricarpus*, Thom. *Lynn*
- Campoplex falcator*, Thunb. *Sparham* ; reared from larvæ of *Pygæra bucephala*
- *augustatus*, Thom. *Lynn* ; from larva of *Cabera pusaria*
- *facialis*, Holm. *Norwich*
- *bucculentus*, Holm. *Cromer* ; August
- *xenocampus*, Fst. *Drayton*
- *terebrator*, Fst. *Earlham* ; May

ICHNEUMONIDÆ (continued)

- Campoplex leptogaster*, Holm. *Eaton* ; May
- *anceps*, Holm. *Norwich* ; August ; parasitic on *Pelurga comitata*
- *disclusus*, Fst. *Earlham* ; September
- *erythrogaster*, Fst. Generally abundant
- *confusus*, Fst. *Norwich*
- *zonellus*, Fst. *Lynn* ; reared from larvæ of *Eupithecia pulchellata*
- *tenuis*, Fst. *Eaton, Earlham* ; July
- *subolicita*, Fst. *Felthorpe* ; June
- Cymodusa leucocera*, Holm. *Mousehold, Eaton* ; October
- Thymaris fasciata*, Bridg. *Norwich* ; a single specimen ; very rare
- Sagaritis erythropus*, Thom. *Brundall* ; May, July
- *zonata*, Gr. Generally common
- *annulipes*, Tsch. *Brundall* ; June
- *brachycera*, Thom. } *Earlham* ; July
- *agilis*, Holm. } *Earlham* ; July
- *macrocera*, Thom. *Eaton* ; August
- *fasciatus*, Bridg. *Horning* ; June
- Casinaria orbitalis*, Gr. *Brundall, Sparham*
- Limneria aberrans*, Gr. *Earlham* ; one male, June
- *albida*, Gmel. Generally common ; reared from larvæ of *Eupithecia absynthiata*
- *apostata*, Gr. *Lynn* ; reared from *Depressaria assimilella*
- *argentata*, Gr. *Earlham* ; August
- *armillata*, Gr. *Norwich* ; common
- *barrettii*, Bridg. *Earlham* ; July, August
- *bicingulata*, Gr. *Earlham* ; August
- *brischkei*, Bridg. Generally common
- *carnifex*, Gr. *Mousehold*
- *chrysosticta*, Gr. *Earlham* ; July
- *consobrina*, Holm. *Eaton* ; July
- *concinna*, Holm. *Norwich* ; August
- *coxalis*, Bris. *Lynn* ; very rare
- *crassicornis*, Gr. *Earlham*
- *crassiuscula*, Gr. *Earlham*
- *cursitans*, Holm. Generally common ; August, September
- *cylindrica*, Bris. *Brundall*
- *dispar*, Gr. *Earlham* ; September
- *dolosa*, Gr. *Norwich, Brundall* ; reared from a larvæ of *Gastropacha quercifolia*
- *dorsalis*, Gr. *Norwich, Horning* ; June, August
- *elishæ*, Bridg. *Mousehold, Earlham* ; parasitic on Micro-lepidoptera
- *ensator*, Gr. Generally common ; parasitic on Tortrices and *Tineina*
- *erythropyga*, Holm. *Norwich, Brundall* ; June, July

INSECTS

ICHNEUMONIDÆ (continued)

- *Limneria erucator*, Holm. *Brundall*
- *exareolata*, Retz. *Earlham*
- *faunus*, Gr. Generally very common
- *femoralis*, Gr. *Norwich*; parasitic on small Micro-Lepidoptera
- *fenestralis*, Holm. *Mousehold*
- *fulviventris*, Gmel. *Norwich*; May, June
- *geniculata*, Gr. *Lynn*
- *hydropota*, Holm. *Brundall*; July
- *gracilis*, Gr. *Mousehold*, *Earlham*
- *interrupta*, Holm. Generally common
- *kreichbaumeri*, Bridg. *Brundall*; parasitic on *Tæniocampa instabilis*
- *latungula*, Thom. *Brundall*; July
- *longipes*, Müll. *Norwich*, *Lynn*; July
- *lugubrina*, Holm. *Earlham*; June
- *majalis*, Gr. Generally abundant
- *molesta*, Gr. *Lynn*
- *mutabilis*, Holm. *Norwich*; common
- *notata*, Gr. *Norwich*, *Harford Bridges*; July
- *paganæ*, Holm. *Earlham*; June
- *paludicola*, Gr. *Felthorpe*; June
- *ruficincta*, Gr. *Brundall*, *Earlham*, *Aylsham*
- *ramidula*, Bris. *Lynn*; reared from larvæ of *Retinia pinivora*
- *reticulata*, Bridg. *Brundall*, *Sparham*; June, July
- *rufiventris*, Gr. *Norwich*, *Eaton*, *Brundall*; July, August
- *robusta*, Woldst. *Earlham*, *Lynn*
- *tibialis*, Gr. *Norwich*; reared from larvæ of *Coleophora lineola*
- *tumidula*, Gr. *Aylsham*; one specimen
- *vestigialis*, Retz. Generally distributed; reared from willow galls = *Nematus gallicola*
- *virginalis*, Gr. *Norwich* district
- Canidia pusilla*, Retz. *Earlham*; July
- *trochantella*, Thom. *Earlham*; October
- *exigua*, Gr. *Brundall*, *Ganton*; July
- *subcincta*, Holm. *Eaton*; July
- Nemeritis macrocentra*, Gr. *Lynn*; reared from larvæ of *Ptycholoma lecheana*
- Meloboris gracilis*, Holm. *Brundall*
- Cremastus interruptor*, Gr. *Yarmouth*
- Atractodes vestalis*, Hal. Generally common
- *gilvipes*, Holm. *Lakenham*; May
- *exilis*, Hal. } *Norwich*; May, July
- *bicolor*, Gr. } *Norwich*; May, July
- *properator*, Hal. Generally common
- *splendens*, Gr. *Brundall*; July
- *compressus*, Thom. *Wroxham*; June
- Exolytus lavigatus*, Gr. Generally common; a very variable species

ICHNEUMONIDÆ (continued)

- *Mesochorus tenuicornis*, Thom. *Lakenham*; August
- *politus*, Gr. *Eaton*; July
- *nigripes*, Retz. *Lakenham*; June
- *pectinipes*, Bridg. *Earlham*; May
- *vitticollis*, Holm. *Eaton*, *Wroxham*; June
- *testaceus*, Gr. *Brundall*; May
- *sylvarum*, Hal. Generally common; July, August
- *crassimanus*, Holm. *Eaton*; August
- *vittator*, Zett. *Lynn*; common, reared from larvæ of *Nola cucullatella*
- *tenuiscapus*, Thom. *Brundall*; May
- *stigmaticus*, Thom. *Earlham*, *Sparham*
- *pictoralis*, Retz. *Mousehold*, *Earlham*; reared from larvæ of *Apanteles*
- *tachypus*, Holm. *Norwich*, *Salhouse*
- *confusus*, Holm. Generally common
- *convexicollis*, Thom. *Norwich*
- Aperileptus albipalpus*, Gr. *Earlham*; July
- Plectiscus spilotus*, Fst. *Eaton*; May, June
- *eurystigma*, Thom. *Earlham*; September
- *melanocerus*, Fst. *Buckenham*
- Idioxenus erythrostromus*, Gr. *Aylsham*; May
- *mediator*, Schio. *Brundall*; July
- Proclitus grandis*, Fst. *Earlham*; September
- Eusterinx obscurella*, Fst. *Earlham*; May
- Porizon hostilis*, Gr. *Brundall*; one female
- *harpurus*, Schr. *Eaton*
- Thersilochus carinatus*, Bridg. *Lakenham*; July
- *jocator*, Fab. Generally common
- *rufipes*, Holm. *Earlham*; end of August, September
- *triangularis*, Gr. *Norwich*, *Hethersett*; May, June
- *versatus*, Holm. *Earlham*; August, September
- *moderator*, Linn. *Norwich*; May, June
- *flavicornis*, Thom. *Eaton*; reared from galls of *Nematus gallicola*
- *morionellus*, Holm. *Brundall*; June
- Collyria calcitrator*, Vill. Generally common
- Exetastes osculatoria*, Fab. *Earlham*; June, July
- *calobatus*, Gr. *Earlham*; September
- *illusor*, Gr. *Harford Bridges*; July
- *albitarsus*, Gr. *Norwich*; common
- *guttatorius*, Gr. *Mousehold*
- Banchus falcator*, Fab. *Norwich*
- Scolobates auriculatus*, Fab. *Brundall*; one specimen, June

A HISTORY OF NORFOLK

ICHNEUMONIDÆ (continued)

- Mesoleptus testaceus, Fab. *Norwich*
- cingulatus, Gr. } Generally common
- typhæ, Gr. }
- fregax, Gr. *Norwich, Felthorpe*
- marginatus, Bridg. *Brundall*; May
- macrodactylus, Holm. *Horning*; June
- sulphuratus, Gr. *Brundall*; August
- Catoglyptus fortipes, Gr. *Norwich, Brundall*; June
- fusicornis, Gmel. *Lynn*; June
- Rhæstus bipunctatus, Bridg. *Earlham*; May
- Euryproctus nigriceps, Gr. *Norwich*; reared from cocoons of *Trichiosoma betuleti*
- sinister, Bris. *Earlham*; September
- minutus, Bridg. *Brundall*; May
- atomator, Müll. *Norwich, Brundall, Buckenham*; June, October
- geniculosus, Gr. *Norwich, Brundall*; July, August
- albopictus, Gr. *Brundall*; July, August
- Prionopoda stictica, Fab. *Mousehold*; July
- glaber, Bridg. *Norwich*; July
- Perilissus filicornis, Gr. Generally very common
- variator, Müll. } Usually common
- vernalis, Gr. }
- subcinctus, Gr. } Generally very common
- limitaris, Gr. }
- pictilis, Holm. *Norwich*
- gorskii, Retz. *Norwich, Lynn*; July
- pallidus, Gr. *Brundall, Horning*; June, July
- scotopterus, Gr. *Earlham*; June
- bucculentus, Holm. *Lynn*; June
- Eclytus ornatus, Holm. *Earlham*; Sept.
- fontinalis, Holm. *Mousehold*; on heath
- Mesoleius sanguinicollis, Gr. *Brundall, Cromer*
- hæmatodes, Gr. }
- furax, Holm. }
- aulicus, Gr. }
- dubius, Holm. }
- caninæ, Bridg. *Norwich*; reared from larvæ of *Eriocampa limacina*
- vigens, Holm. *Earlham*; August
- parvus, Holm. *Earlham*; August, one specimen
- filicornis, Holm. *Eaton, Mousehold, Brundall*
- transfuga, Holm. *Lynn*
- virgulatorum, Gr. *Eaton*; June, July
- multicolor, Gr. *Norwich*
- unifasciatus, Holm. *Earlham*
- dorsalis, Gr. *Earlham*; one female
- rufinotatus, Holm. *Earlham*
- difformis, Holm. *Norwich, Salhouse*

ICHNEUMONIDÆ (continued)

- Mesoleius pedatus, Bridg. *Brundall*; one female, September
- ignavus, Holm. }
- leptogaster, Holm. }
- calcaratus, Bridg. *Norwich, Brundall*
- erythrogaster, Holm. *Brundall*; one male
- armillatorius, Gr. *Brundall*
- rufilabris, Zett. Generally common
- hamulus, Gr. *Norwich, Lynn*
- semicaligatus, Gr. }
- insolens, Gr. }
- testaceus, Fab. *Norwich*
- Saotus compressiusculus, Thom. *Eaton*; June
- Trematopygus atratus, Holm. *Lynn*; reared from *Crœsus varians*
- procurator, Gr. *Buckenham Ferry*
- Dyspetus prærogator, Gr. Generally common in autumn
- Otoblastus luteomarginatus, Gr. *Norwich*
- Tryphon elongator, Fab. *Norwich*; common
- rutilator, Linn. Generally common
- trochanteratus, Holm. Generally common
- vulgaris, Holm. *Norwich*
- signator, Gr. Generally common
- ephippium, Holm. *Lakenham, Eaton*
- bicornutus, Holm. *Cringleford, Brundall, Felthorpe*; July, August
- confinis, Holm. *Brundall*; September
- mitigosus, Gr. *Earlham*
- albipes, Gr. *Earlham*; July
- Grypocentrus bipunctatus, Bridg. *Earlham*; June
- albipes, Ruthe. *Lakenham, Earlham*; reared from *Fenusia pumilio*
- anomalus, Bris. *Earlham, Brundall*
- Lathrolestes unguicularis, Thom. *Norwich*
- marginatus, Thom. *Mousehold*
- Rhæstus lativentris, Holm. }
- Adelognathus chrysopygus, Gr. }
- Monoblastus lævigatus, Holm. *Norfolk*
- neustriæ, Retz. *Brundall*
- caproni, Bridg. *Earlham*
- Polyblastus varitarsus, Gr. Generally common
- stenhammari, Holm. *Lynn*
- pastoralis, Gr. }
- marginatus, Holm. }
- carinatus, Holm. *Earlham*
- pinguis, Gr. Generally common
- Erromenus brunnicans, Gr. *Earlham*
- frenator, Gr. *Brundall, Eaton, Poringland*
- Acrotomus lucidulus, Gr. }
- Cteniscus erosus, Holm. }
- lituratorius, Linn. *Earlham*

INSECTS

ICHNEUMONIDÆ (continued)

- Cteniscus sexcinctus, Gr. Generally common
- triangulatorius, Gr. *Lynn*
- aparius, Gr. *Bawsey Heath, Lynn*
- pictus, Gr. *Norwich, Lynn*
- bimaculatus, Holm. } *Brundall*
- limbatus, Holm. } *Brundall*
- limbatus, Holm. *Eaton, Brundall*
- dahlbomi, Holm. *Horning*
- hostilis, Holm. *Lakenham*
- Exyston cingulum, Gr. Generally distributed
- Sphecophaga vesparum, Curt. *Norwich*. Parasitic on *Vespa vulgaris*
- Calpotrochia elegantula, Sch. Generally distributed
- Triclistus holmgreni, Bohn. *Lynn*; reared from larvæ of *Tortrix decretana* by Mr. Atmore
- nitifrons, Thom. *Mousehold, Bawsey Heath, Lynn*
- pubiventris, Thom. *Earlham*
- podagricus, Gr. *Lynn*
- globulipes, Desv. *Lynn*; reared from larvæ of *Paedisca semifuscana*
- niger, Bridg. *Earlham*
- Metacelus mansuetus, Gr. *Norwich*
- Exochus nigripalpus, Thom. Generally common
- flavomarginatus, Holm. *Norwich, Brundall, Lynn*
- consimilis, Holm. *Lynn*
- tibialis, Holm. *Mousehold, Earlham, Brundall*
- woldstedti, Holm. *Earlham*
- albicinctus, Holm. *Felthorpe*
- Chorinaeus cristator, Gr. Generally distributed; parasitic on Tortrices
- funebris, Gr. } Generally common
- talpa, Hal. }
- flavipes, Bridg. *Mousehold*; one specimen in August, 1872
- Orthocentrus anomalus, Gr. *Eaton, Earlham*
- affinis, Zett. Generally common
- longicornis, Holm. *Brundall, Earlham*; two males
- flavipes, Gr. *Mousehold*; on heath, July
- Bassus lœtatorius, Fab. Generally common
- varicoxa, Thom. *Mousehold*
- nemoralis, Holm. Generally common
- annulatus, Gr. *Mousehold*
- bizonarius, Gr. *Buckenham Ferry*; August
- lateralis, Gr. *Brundall, Lynn*
- cinctus, Gr. *Eaton*
- exultans, Gr. *Norwich, Lakenham, Mousehold*

ICHNEUMONIDÆ (continued)

- Bassus pictus, Gr. *Norwich*; common
- pumilus, Thom. *Eaton*
- strigator, Gr. Generally common
- nigritarsus, Gr. *Mousehold, Eaton, Brundall*
- areolatus, Holm. *Heigham, Brundall, Buckenham Ferry*
- pulchellus, Holm. } Generally common
- cognatus, Holm. }
- dorsalis, Holm. *Norwich, Mousehold, Brundall*
- signatus, Gr. *Brundall, Eaton, Mousehold*
- festivus, Fab. *Cringleford*
- hygrobius, Thom. *Brundall*
- obscuripes, Holm. *Earlham, Buckenham Ferry*
- elegans, Gr. *Brundall*
- holmgreni, Bridg. *Brundall, Felthorpe*
- insignis, Gr. *Earlham, Buckenham Ferry, Lynn*
- pulcher, Holm. *Lakenham, Earlham, Brundall*
- ornatus, Gr. *Bawsey Heath, Lynn*
- Metopius migratorius, Fab. *Yarmouth, Brundall*; one specimen
- Rhyssa persuasoria, Linn. *Norwich, Sparham*
- Ephialtes imperator, Krei. *Norwich*. Reared from *Saperda populnea*
- tuberculatus, Fourc. *Norwich*. Reared from *Saperda populnea*
- Perithous mediator, Fab. } *Norwich*
- divinator, Rossi. }
- Pimpla examiner, Fab. } *Norwich*
- turionellæ, Linn. Generally common; parasitic on *Tortrix* larvæ
- rufata, Gmel. *Norfolk*
- flavonotata, Holm. *Norwich, Brundall*
- scanica, Vill. } Generally common
- instigator, Fab. }
- opacellata, Desv. *Norwich*
- occulatoria, Fab. *Earlham*
- graminellæ, Schr. Generally common; reared from larvæ of *Plusia festucæ*
- didyma, Gr. Generally common
- stercorator, Fab. *Earlham*
- brevicornis, Gr. Generally common
- similis, Bridg. *Earlham, Brundall*
- sagax, Retz. *Lynn*; reared from larvæ of *Retinia turionella* by Mr. Atmore
- detrita, Holm. Generally common
- pomorum, Retz. *Drayton*
- roborator, Fab. *Norwich*
- diluta, Retz. *Brundall, Lynn*
- punctiventris, Thom. *Mousehold*; parasitic on Micro-lepidoptera
- Polysphincta varipes, Gr. *Brundall*; May
- subrufa, Bridg. *Lynn*

A HISTORY OF NORFOLK

ICHNEUMONIDÆ (continued)

- Acrodactyla degener, Hal. *Norwich, Brundall*
- Clistopyga incitator, Fab. *Norwich*
- rufata, Holm. *Brundall*; only one female
- Glypta monoceros, Gr. *Brundall*
- ceratites, Gr. Generally common; reared from larvæ of *Phycis betulæ* by Mr. Atmore
- vulnerator, Gr. *Mousehold, Lynn*; reared from larvæ of *Catoptria scopuliana* by Mr. Atmore
- hæsitator, Gr. *Mousehold, Lynn*
- teres, Gr. *Norwich*
- mensurator, Fab. *Eaton*
- incisa, Gr. *Earlham, Lynn*; reared from larvæ of *Penthina picana* by Mr. Atmore
- biformata, Gr. Generally common
- resinanæ, Retz. *Lynn*; reared from larvæ of *Retinia turionella*
- flavolineata, Gr. *Eaton, Brundall*
- flavipes, Desv. *Lynn*; parasitic on larvæ of Tortrices
- trochanterata, Bridg. *Mousehold*; about heath, June
- pictipes, Tasch. *Earlham, Lynn*
- genalis, Möll. *Lynn*; reared by Mr. Atmore from larvæ of various Tortrices
- Lycorina triangulifera, Holm. *Lynn*, one male taken in May, 1887, by Mr. Atmore; very rare
- Schizopyga circulator, Panz. Not uncommon
- Lampronota nigra, Gr. *Bawsey Heath, Lynn*
- caligata, Gr. *Lynn, Earlham*

ICHNEUMONIDÆ (continued)

- Lissonota variabilis, Gr. *Lynn*; reared from larvæ of *Penthina picana*
- parallela, Gr. *Earlham*
- bellator, Gr. Generally very common
- commixa, Holm. Generally distributed
- cylindrator, Vill. Common everywhere
- insignita, Gr. *Eaton*
- sulphurifera, Gr. Generally common
- femorata, Holm. *Earlham, Brundall*
- linearis, Gr. *Mousehold*
- leptogaster, Holm. *Norwich, Strumpshaw*; common in autumn
- carbonaria, Holm. *Lynn*; reared from *Retinia turionella*
- transversa, Bridg. *Earlham*
- unicincta, Holm. *Brundall, Eaton, Earlham*
- errabunda, Holm. *Brundall*
- vicina, Holm. *Earlham*
- dubia, Holm. *Lynn*
- Meniscus setosus, Fourc. *Sparham*
- agnatus, Gr. *Earlham*
- impressor, Gr. Generally common
- suborbitalis, Gr. *Brundall, Mousehold*
- Phytodictus segmentator, Gr. *Norwich, Lynn, Wroxham*
- coryphæus, Gr. } Generally common
- obscurus, Desv. }
- Cryptopimpla blanda, Gr. *Earlham, Buckenham Ferry*
- Œdimopsis scabriculus, Gr. Moderately common
- Stilbops vetula, Gr. *Earlham*; May
- Zygonomus pilicornis, Gr. *Earlham*
- securicornis, Holm. *Earlham*
- Apanteles stauropodis, Marshall. *Norwich*; reared from a larva of *Stauropus fagi*

COLEOPTERA

Notwithstanding the fact that some eighteen hundred different kinds of beetles are known to occur in this county, not one per cent. of that number are at all likely to attract the attention of the non-entomological observer. In the house, *Blaps mucronata*, a dull black insect about an inch long, of slow movement and unpleasant odour, with its body drawn out into a short point behind, shares with the cockroaches (*Blattidæ*) the name of 'black-beetle.' The 'ladybirds' (*Coccinellidæ*), of which we have fifteen different kinds in Norfolk, are deserving of mention from the fact that they are largely instrumental in counteracting the ill effects to vegetation arising from the extraordinary fecundity of the plant-lice (*Aphides*); in their larval as well as their adult state they feed upon the latter insects, and as they are generally found in the largest numbers where the supply of food is greatest, they not

INSECTS

unfrequently get the blame for the blighted appearance of the aphis-infested trees on which they occur. Though of comparatively small size, they are for the most part brightly coloured. The red kinds with two or seven black spots (*Coccinella bipunctata* and *C. septempunctata*) are probably the most familiar, though *Coccinella 22-punctata*, of a bright lemon colour with about twenty-two roundish black spots, is one of the most elegant; it may be found on nettles by almost any roadside. There are probably few asparagus beds where the asparagus-beetle (*Crioceris asparagi*) is not to be found, both in the larval and perfect states, during the summer and autumn; but though this beetle is usually classed amongst the 'insect pests,' it may be doubted whether its presence has any deleterious effect on the crop, except in those cases where circumstances arise which favour its development to an abnormal extent. Though the asparagus-beetle is only about a quarter of an inch long, it is very effectively coloured; the head, antennæ and legs are blackish green, the thorax is red, the wing-cases are pale yellow with a very dark blue marking in the shape of a cross, and the whole insect shines as though it had a coat of varnish.

The rose-beetle (*Cetonia aurata*), a broad rather flat insect about three-fourths of an inch long, of a beautiful metallic green colour with a few irregular transverse wavy whitish lines on the hind part of the wing-cases, is usually accounted a common insect, and such it undoubtedly was in this county some five-and-twenty years since, when it was to be found abundantly on various kinds of showy flowers, particularly roses and white lilies, and four or five at a time might be taken from a single head of flowers of the mountain-ash in suburban gardens around Norwich. It is however now many years since the writer saw a living example of this fine species. One of the beetles most familiar to the ordinary observer of Nature is the 'dor-beetle,' 'dumbledore,' or 'clock' (*Geotrupes stercorarius*), a plump shining black insect about an inch in length, often found flying about roadways at dusk with a loud humming noise. When in full flight its steering powers appear to be defective, as it not unfrequently comes into collision with pedestrians; and, when the point of contact is the face, a stinging blow is the result. On the underside the black colour of the insect is relieved by metallic reflections of blue, purple, and green. When taken in the hand and forcibly detained the dor-beetle endeavours to bring about its release either by feigning death, in which case it stretches out its legs to their utmost extent in the most awkward and unnatural positions and then remains absolutely motionless for some time, or it sets up a feeble squeak, standing still and moving the hind part of its body up and down. The mechanism by means of which it produces this noise is worthy of notice. On that side of the basal joint of the hind leg which lies nearest to the body is a conspicuous oblique ridge, the surface of which bears a number of exceedingly fine transverse ridges, thus forming a sort of file, whilst the hinder edge of the cavity in which the joint works bears a fine smooth ridge; the friction between the latter and the file when the hind

A HISTORY OF NORFOLK

part of the body is moved a little up and down produces the squeak. This kind of file and scraper arrangement is not uncommon amongst beetles, but there is considerable diversity in the situation of the apparatus and the organs involved. The common oil-beetle (*Meloë proscarabæus*), a large heavy blue black insect with oval pointed wing-cases which overlap at the base, is so-called from the power which it possesses of exuding a clear yellow fluid from its joints when handled. On this account, although it is common enough in grassy places in the spring and early summer, it is by no means a prepossessing object. Its claim on our attention is due to its wonderful metamorphoses, the latter having been for the most part well ascertained. The female deposits an immense number of minute yellow eggs, in from two to four batches. These eggs are glued together and deposited in small holes in the ground, dug by the parent beetle. After an interval of from three to six weeks the young larvæ hatch out ; they are extremely small elongate orange yellow insects with the body nearly parallel in front and much narrowed behind, the tail bearing four very long hairs, two on each side ; the legs are very long and terminate in a single claw, on each side of which there is a slender hook-like process, so that the end of the legs appears to be split into three parts (hence the name *triungulin* which has been applied to this first form of the larva) ; this contrivance enables the little larvæ to cling very tightly to any object. They appear to remain dormant for some time, but under the influence of sufficient warmth exhibit great activity in running over low plants, chiefly those of the Natural Order *Ranunculaceæ*. From these they attach themselves to the hairy clothing of bees and other insects which visit the flowers. Such of the larvæ as happen to attach themselves to bees of the genus *Anthophora* are carried by the latter to their nests, where the larva, in the course of a period during which it devours the eggs of the bee and the food stored up by the latter for its own young, changes its form at least three times before it becomes an ordinary beetle pupa from which the perfect oil-beetle emerges. It will be seen that only a very small proportion of the offspring of the oil-beetle can possibly reach maturity ; and on this point Dr. Sharp says (*Cambridge Natural History*, vol. vi. p. 274) : ‘It is no wonder that the female *Meloë* produces 5,000 times more eggs than are necessary to continue the species without diminution in the number of its individuals, for the first and most important act in the complex series of this life-history is accomplished by an extremely indiscriminating instinct. The newly-hatched *Meloë* has to get on to the body of the female of one species of bee ; but it has no discrimination whatever of the kind of object it requires, and as a matter of fact passes with surprising rapidity on to any hairy object that touches it ; hence an enormous majority of the young are wasted by getting on to all sorts of other insects. These larvæ have been found in numbers on hairy *Coleoptera* as well as on flies and bees of wrong kinds. The writer has ascertained by experiment that a camel’s-hair brush is as eagerly seized, and passed on to, by the young *Meloë* as a living insect is.’ The oil-beetle cannot fly, and its

INSECTS

occurrence in situations apparently far away from any colony of the wild bees at whose expense it has passed its early stages, is not easily accounted for.

Turning now to the water-beetles, we shall find the whirligig beetles (*Gyrinidae*) conspicuous by reason of their numbers, and interesting on account of their structure. These insects are known to all from their habit of floating lightly on the surface of the water, and performing graceful complex curves round one another, apparently without colliding. They are admirably constructed for a mode of life which is comparatively rare in the insect world. They have four eyes, one pair on the upper surface and another on the lower, and very short antennæ which can be packed away in the space between the upper and lower pairs of eyes on each side of the head. They are able to dive to escape danger, and then carry with them a small supply of air under the wing-cases, from which a portion of it protrudes as a bright silvery bubble, but they do not stay long beneath the surface. When handled they exude a milky-white fluid which has a very disagreeable smell. Their two hind pairs of legs are beautifully modified so as to serve as paddles, expanding when moved in a backward direction and collapsing into an extremely small space directly the resistance they meet with is in the other direction. The construction of their fore feet is very peculiar. In other water-beetles the soles of the fore feet are directed downwards, but in the whirligigs the fore legs are so set on that the soles of the fore feet are not turned downwards, but towards one another, and the assemblage of suckers which constitutes the prehensile apparatus proper to the soles of the fore feet in the males of water-beetles is in these carried on what is really the side of the fore foot and not the sole. As might be expected from its physical features, Norfolk is especially rich in *Gyrinidae*, nine out of the eleven kinds known as British having already been found there. Some of the species congregate in immense numbers in the open water near the banks of rivers, whilst others perform their gyrations in the shelter of the stems of water-plants, and are rarely seen except by entomologists in search of them. In some kinds, as *Gyrinus elongatus*, found in ditches near the coast, and *G. bicolor*, a denizen of Hickling Broad, a small percentage of individuals are of a different form to the others, being quite parallel-sided; whether this abnormal form is of advantage or otherwise to the individual does not appear.

In the following list the names of the captors or recorders of species when other than the author are given after each entry. The entomologists referred to are: C. C. Babington, F.R.S., Professor of Botany at the University of Cambridge; T. Hudson Beare, F.E.S.; Alfred Beaumont, F.E.S.; E. C. Bedwell, F.E.S.; W. G. Blatch, F.E.S. (ob. 1900); J. B. Bridgman, F.L.S., F.E.S. (ob. 1899); Thos. Brightwell, F.L.S., formerly of Norwich; the Rev. J. Landy Browne of Norwich; the Rev. John Burrell, A.M., F.L.S., F.E.S., Rector of Letheringsett (ob. 1825); E. A. Butler, F.E.S.; G. C. Champion, F.Z.S., F.E.S.; the late Rev. Hamlet Clark; the late G. R. Crotch; the Rev. C. T.

A HISTORY OF NORFOLK

Cruttwell, sometime Vicar of Denton ; John Curtis, in *British Entomology* ; the Rev. J. F. Dawson, in *Geodephaga Britannica* ; Henry Denny, author of *Monographia Pselapidarum et Scyamænidarum Britanniæ*, Norwich, 1825 ; H. St. J. Donisthorpe, F.E.S. ; T. P. Dossetor, who lived in Norwich 1876-87 ; E. G. Elliman, F.E.S. ; the Rev. Canon Fowler, in *The Coleoptera of the British Isles* ; W. L. Fox of Harleston (ob. 1866) ; Charles Garneys, surgeon, formerly of Bungay ; William Garneys, formerly of Bungay ; M. J. Griffin, formerly of Norwich ; A. H. Haworth, F.L.S., author of *Lepidoptera Britannica* (ob. 1833) ; W. C. Hewitson ; Joseph Hooker formerly of Norwich ; the Rev. W. Kirby, F.R.S. ; W. E. Leach, M.D., F.L.S. ; John Lindley, F.R.S., Professor of Botany, University College, London ; the Rev. A. Matthews, in *Trichopterygia Illustrata et Descripta*, 1872 ; Frank Norgate, sometime of Sparham ; C. J. and J. Paget, in *A Sketch of the Natural History of Great Yarmouth and its Neighbourhood* ; Robert Paul formerly of Starston Hall ; the late J. A. Power, M.D. ; the late E. C. Rye, co-editor of *The Entomologist's Monthly Magazine* ; J. D. Salmon, sometime of Thetford ; Robert Scales of Halvergate and afterwards of Beachamwell (ob. 1828) ; David Sharp, F.R.S. ; the Rev. T. Skrimshire of Syderstone (circ. 1825) ; the late F. Smith of the British Museum ; Joseph Sparshall formerly of Norwich ; J. F. Stephens, in *Illustrations of British Entomology* ; the Rev. A. Thornley, F.E.S. ; H. J. Thouless of Norwich ; J. J. Walker, R.N., F.E.S. ; the late John Walton, F.L.S. ; C. O. Waterhouse of the British Museum ; Robert Wigham formerly of Norwich ; Simon Wilkin, F.L.S., formerly of Norwich ; the late T. V. Wollaston, F.L.S. ; the Rev. Theodore Wood, F.E.S.

CICINDELIDÆ

- Cicindela campestris, L.
- maritima, Dej.

CARABIDÆ

- CYCHRINA**
- Cychrus rostratus, L.
- CARABINA**
- Carabus catenulatus, Scop.
- nemoralis, Müll.
- violaceus, L.
- clathratus, L. *Halvergate* (Haworth
fide Stephens) ; *Burgh Marshes* (Paget) ;
Bungay (Garneys)
- granulatus, L.
- monilis, F.
- arvensis, F. *Norfolk* (Bridgman)
- Calosoma inquisitor, L. *St. Faiths Wood*,
before 1830 (J. Hooker)
- sycophanta, L. *Norwich* (Stephens)
- NOTIOPHILINA**
- Notiophilus biguttatus, F.
- substriatus, Wat.
- 4-punctatus, Dej. *Cromer, Yarmouth*
(Thouless)

NOTIOPHILINA (*continued*)

- Notiophilus aquaticus, L.
- palustris, Duft.
- rufipes, Curt. *Sparham* (Norgate) ;
Hunstanton (Fowler)

NEBRINA

- Leistus spinibarbis, F.
- fulvibarbis, Dej.
- ferrugineus, L.
- rufescens, F.
- Nebria livida, F. *Cromer* (Thouless) ;
Gimingham (Butler) ; *Happisburgh*
(Wood)
- brevicollis, F.

ELAPHRINA

- Blethisa multipunctata, L. *Bardolph Fen*
(Burrell) ; *Horning, Hethersett* (Curtis) ; *Norwich*, before 1829 (Wigham) ; *Yarmouth* (Paget)

- Elaphrus riparius, L.

- cupreus, Duft.

LORICERINA

- Loricera pilicornis, F.

SCARITINA

- Clivina fossor, L.

INSECTS

SCARITINA (*continued*)

- Clivina collaris, Hbst.
- Dyschirius thoracicus, Rossi. *Wretham Heath* (Thouless); *Gimingham* (Butler)
- politus, Dej. *Norfolk Coast* (Dawson)
- nitidus, Dej. " (Fowler)
- æneus, Dej. *Waxham* (Champion); *Hunstanton* (Thornley)
- globosus, Hbst.

BROSCINA

- Broscus cephalotes*, L.

PANAGÆINA

- Panagæus crux-major*, L. *Horning* (Wigham); *Caistor* (Paget)

LICININA

- Badister bipustulatus*, F.
- *sodalis*, Duft. *Harford Bridges*, *Norwich* (Beaumont)
- *peltatus*, Panz. *Brandon* (Thouless)
- Licinus depressus*, Payk. *Mousehold Heath*, 1810 (Curtis)

CHLÆNIINA

- Chlænius vestitus*, Payk.
- *holosericeus*, F. *Norfolk* (Skrimshire)

OODINA

- Oodes helopiooides*, F.

STENOLOPHINA

- Stenolophus skrimshiranus*, Steph. *Fakenham* (Skrimshire)
- *vespertinus*, Panz. *Norwich* (Griffin)
- Acupalpus meridianus*, L.
- Bradyceillus placidus*, Gyll. *Horning* (Thouless)
- *cognatus*, Gyll.
- *verbasci*, Duft.
- *harpalinus*, Dej.
- *collaris*, Payk.
- *similis*, Dej.

HARPALINA

- Harpalus rotundicollis*, Fairm. *Yarmouth*
- *punctatulus*, Duft.
- *azureus*, F. *Norfolk* (Stephens)
- *rupicola*, Sturm. *Hunstanton* (Fowler)
- *puncticollis*, Payk. *Lakenham* (Thouless)
- *rectangulus*, Thoms.
- *rufibarbis*, F.
- *ruficornis*, F.
- *æneus*, F.
- *consentaneus*, Dej. *Yarmouth*; *Hunstanton* (Fowler)
- *rubripes*, Duft.
- *discoideus*, F. *Brandon* (Walker)
- *latus*, L.
- *melancholicus*, Dej. *Yarmouth*
- *tardus*, Panz.
- *servus*, Duft. *Yarmouth*; *Hunstanton* (Fowler)
- *anxius*, Duft. *Yarmouth*
- *ignavus*, Duft. *Mousehold Heath*, *Holkham*

HARPALINA (*continued*)

- Harpalus picipennis*, Duft. *Thetford*, August, 1888. *Norfolk Coast* (Dawson)

ANISODACTYLINA

- Dichirotrichus pubescens*, Payk.
- Anisodactylus binotatus*, F. Banks of the *Yare* at *Postwick*

ZABRINA

- Zabrus gibbus*, F. *Norfolk* (Burrell's list)

PTEROSTICHINA

- Stormis pumicatus*, Panz.
- Platyderus ruficollis*, Marsh. *Norwich*
- Pterostichus cupreus*, L.
- *dimidiatus*, Ol. *Mousehold Heath*, 1883
- *lepidus*, F. *Norfolk* (Dawson)
- *madidus*, F.
- *aterrimus*, Payk. *Horning* (Curtis)
- *niger*, Schall.
- *vulgaris*, L.
- *anthracinus*, Ill. *Norfolk* (Stephens)
- *nigrita*, F.
- *minor*, Gyll.
- *strenuus*, Panz.
- *diligens*, Sturm.
- *picimanus*, Duft. *Hunstanton* (Fowler); *Denton* (Cruttwell); *Sparham* (Norgate)
- *ernalis*, Gyll.
- *striola*, F.

AMARINA

- Amara fulva*, Dej. *Mousehold Heath*
- *apricaria*, Sturm.
- *consularis*, Duft. *Mousehold Heath*; *Brandon*, *Hunstanton* (Fowler)
- *spinipes*, Auct.
- *convexuscula*, Marsh. *Cley*; *Hunstanton* (Fowler)
- *infima*, Duft. *Norfolk* (Stephens)
- *rufocincta*, Dej. *Yarmouth* (Thouless)
- *bifrons*, Gyll. *Postwick Grove*, 1875; *Cromer*, 1890 (Thouless)
- *ovata*, F.
- *similata*, Gyll.
- *acuminata*, Payk. *Mousehold Heath* (Thouless)
- *tibialis*, Payk.
- *lunicollis*, Schiod. *Mousehold Heath*, *Horning* (Thouless)
- *familiaris*, Duft.
- *lucida*, Duft.
- *trivialis*, Gyll.
- *communis*, Panz.
- *plebeia*, Gyll. *Norwich* (Thouless)

ANCHOMENINA

- Calathus cisteloides*, Panz.
- *fuscus*, F.
- *flavipes*, Fourc.
- *mollis*, Marsh.
- *melanocephalus*, L.

A HISTORY OF NORFOLK

ANCHOMENINA (continued)

- Calathus piceus, Marsh.
- Taphria nivalis, Panz.
- Pristonychus terricola, Hbst.
- Sphodrus leucophthalmus, L. *Lower Close, Norwich*
- Anchomenus dorsalis, Müll.
- albipes, F.
- oblongus, Sturm. *Near Norwich* (Griffin *fide* Stephens)
- livens, Gyll. *Norfolk* (Stephens)
- marginatus, L. *Norwich ; Yarmouth* (Paget) ; *Salthouse* (Thouless)
- sexpunctatus, L. *St. Faiths* (Brown)
- parumpunctatus, F.
- atratus, Duft. *Norwich* (Dossetor)
- viduus, Panz. ; var. *moestus*, Duft.
- fuliginosus, Panz.
- gracilis, Gyll.
- thoreyi, Dej. *Weybourne*
- puellus, Dej.
- Olisthopus rotundatus, Payk.

BEMBIDIINA

- Cillenus lateralis, Sam. *Cley*, before 1828 (Brightwell) ; *Heacham* (Fowler) ; *Cromer* (Thouless)
- Bembidium rufescens, Guer.
- quinquestriatum, Gyll.
- obtusum, Sturm.
- guttula, F.
- mannerheimi, Sahl. *Brundall*
- biguttatum, F.
- riparium, Ol. *Stoke Holy Cross, Bixley*
- æneum, Germ. *Trowse*
- fumigatum, Duft. *Ranworth*
- assimile, Gyll. *Brundall*
- clarki, Daws. *St. Faiths*
- articulatum, Panz.
- minimum, F. *Cley*, etc.
- normannum, Dej. *Hunstanton, Morston*
- lampros, Hbst.
- " var. *velox*, Er.
- nitidulum, Marsh. } *Gimingham* (Butler) ;
- affine, Steph. } *Cromer* (Elliman)
- stomoides, Dej. *Mousehold Heath*
- quadriguttatum, F.
- quadrimaculatum, Gyll.
- lunatum, Duft. *Norfolk* (Fowler)
- testaceum, Duft. *Mousehold Heath*
- femoratum, Sturm. *Aylsham* (Wood)
- bruxellense, Wesm. *Brumstead Common*
- saxatile, Gyll.
- anglicanum, Shp. *Gimingham* (Butler) ; *Cromer* (Elliman)
- littorale, Ol.
- pallidipenne, Ill. *Norfolk Coast* (Fowler)
- ephippium, Marsh. *Cley*, August, 1888
- flammulatum, Clairv.

BEMBIDIINA (continued)

- Bembidium varium, Ol. *Breydon Bank* (Paget)
- Tachypus pallipes, Duft. *Cromer* (Thouless ; Wood)
- flavipes, L.

TRECHINA

- Trechus discus, *Norfolk* (Stephens)
- micros, Hbst. *Denton* (Cruttwell)
- rubens, F. *Waxham* (Champion)
- minutus, F.
- secalis, Payk. *Norfolk Coast* (Stephens)
- Patrobus excavatus, Payk.

Pogonus luridipennis, Germ. *Salthouse* (Burrell, 1806 ; Brown, 1840)

— chalceus, Marsh.

MASOREINA

- Masoreus wetterhalii, Gyll. *Hunstanton* (Fowler)

CYMINDINA

- Cymindis axillaris, F. *Witchingham Heath*, 1810 (Curtis)

ODACANTHINA

- Odacantha melanura, Payk. *Brundall*, etc.

LEBIINA

- Lebia chlorocephala, Hoff.

- Aëtophorus imperialis, Germ. *Horning*, etc. (Fowler) ; *Palling*, April, 1889 (Cruttwell)

- Demetrius unipunctatus, Germ. *Holkham*

- atricapillus, L.

- Dromius longiceps, Dej. *Horning*

- linearis, Ol.

- agilis, F.

- meridionalis, Dej.

- quadrimaculatus, L.

- quadrinotatus, Panz.

- quadrifasciatus, Dej. *Norwich*

- melanocephalus, Dej.

- nigritrinitris, Thoms. *Norwich district* (Dossetor)

- Blechrus maurus, Sturm.

- Metabletus foveola, Gyll.

- truncatellus, L.

- obscur-guttatus, Duft. *Norfolk* (Fowler)

POLYSTICHINA

- Polystichus vittatus, Brull. *Cley* (Leach *fide* Stephens)

HALIPLIDÆ

- Brychius elevatus, Panz.

- Haliplus obliquus, F. } *Ranworth*, etc.

- confinis, Steph. }

- flavicollis, Sturm. *Colney, Heigham*

- fulvus, F. *Horning*

- variegatus, Sturm. *Ranworth*

- ruficollis, De G.

- fluviatilis, Aub.

INSECTS

Halipus striatus, Shp.

— *lineatocollis*, Marsh.

Cnemidotus impressus, F.

PELOBIIDÆ

Pelobius tardus, Hbst. *Swardston Common, Wretham Heath, Household Heath*

DYTISCIDÆ

NOTERINA

Noterus clavicornis, De G.

— *sparsus*, Marsh.

LACCOPHILINA

Laccophilus interruptus, Panz.

— *obscurus*, Panz.

HYDROPORINA

Bidessus unistriatus, Schr. *Hickling; Waxham (Champion)*

— *geminus*, F. *Brandon*

Hyphydrus ovatus, L.

Cœlambus versicolor, Schall.

— *inæqualis*, F.

— *decoratus*, Gyll. *Horning, Brandon; Waxham (Champion)*

— *confluens*, F. *Household Heath, Weybourne*

— *parallelogrammus*, Ahr. *Cley, Household Heath; Waxham (Champion)*

— *impressopunctatus*, Sch. *Brandon; Waxham (Champion)*

Deronectes assimilis, Payk. *Colney; Aylsham (Wood); Waxham (Champion)*

— *depressus*, F.

— *12-pustulatus*, F. *Colney; Stalham (Wood); Waxham (Champion)*

Hydroporus pictus, F.

— *granularis*, L. *Horning; Waxham (Champion)*

— *lepidus*, Ol.

— *davisi*, Curt. *Harleston district (Fox)*

— *halensis*, F. *Horning (Clark); Brundall (Sharp and Crotch)*

— *dorsalis*, F.

— *lineatus*, F.

— *scalesianus*, Steph. *Norfolk (Scales fide Stephens)*

— *neglectus*, Schaum. *Stratton Strawless, 1875*

— *umbrosus*, Gyll.

— *angustatus*, Sturm.

— *gyllenhali*, Schiod.

— *vittula*, Er.

— *palustris*, L.

— *incognitus*, Shp. *Arminghall*

— *erythrocephalus*, L.

— *rufifrons*, Duft. *Brandon*

HYDROPORINA (*continued*)

Hydroporus memnonius, Nic.

— *obscurus*, Sturm. *St. Faiths; Waxham (Champion)*

— *nigrita*, F. *Brooke; Waxham (Champion)*

— *pubescens*, Gyll.

— *planus*, F.

— *lituratus*, F.

— *ferrugineus*, Steph. *Horning*

— *oblongus*, Steph. *Brandon; Horning (Fowler)*

DYTISCINA

Agabus paludosus, F. *Eaton Common; Aylsham (Wood)*

— *uliginosus*, L. *Horning, March 5, 1840 (Brown); Yarmouth (Paget)*

— *unguicularis*, Thoms. *Brandon; Horning (Brown); Waxham (Champion)*

— *didymus*, Ol. *Household Heath (Thouless); Aylsham (Wood)*

— *congener*, Payk. *Norfolk (Stephens)*

— *nebulosus*, Forst.

— *conspersus*, Marsh. *Cley (Thouless); Waxham (Champion)*

— *striolatus*, Gyll. *Horning, March, 1839 and 1840 (Brown); not recorded as occurring elsewhere in Britain*

— *femoralis*, Payk. *Wretham Heath*

— *abbreviatus*, F. *Norfolk (Stephens)*

— *sturmii*, Gyll.

— *chalconotus*, Panz.

— *bipustulatus*, L.

Platambus maculatus, L.

Ilybius fuliginosus, F.

— *fenestratus*, F.

— *ater*, De G.

— *obscurus*, Marsh.

— *guttiger*, Gyll. *Horning, St. Faiths*

— *subæneus*, Er. *Brandon, Wretham Heath; St. Faiths (Thouless)*

— *ænescens*, Thoms. *St. Faiths*

Copelatus agilis, F.

Rhantus grapei, Gyll.

— *exoletus*, Forst.

— *pulverosus*, Steph.

— *notatus*, Berg.

— *bistriatus*, Berg.

— *adspersus*, F. *Norfolk (Stephens)*

Colymbetes fuscus, L.

Dytiscus punctulatus, F.

— *marginalis*, L.

— *circumflexus*, F. *Yarmouth (Paget); Burgh Castle (Thouless)*

— *dimidiatus*, Berg. *Yarmouth (Paget)*

Hydaticus transversalis, Berg. *Lakenham, Sept. 13, 1898*

Acilius sulcatus, L.

A HISTORY OF NORFOLK

GYRINIDÆ

- Gyrinus minutus*, F. *Hickling Broad, Horning*
 — *suffriani*, Scriba. *Horning, Ranworth, Hickling Broad, Roydon Fen*
 — *colymbus*, Er. *Ranworth, Hickling Broad*
 — *natator*, Scop.
 — *elongatus*, Aub.
 — *bicolor*, Payk. *Hickling Broad ; Horning* (Fowler)
 — *marinus*, Gyll.
 — *opuscus*, Sahl.
Orectochilus villosus, Müll.

HYDROPHILIDÆ

HYDROPHILINA

- Hydrophilus piceus*, L. *Horning (Wingham) ; Brundall (Brown) ; Yarmouth (Paget) ; Waxham (Champion)*
Hydrous caraboides, L. Burrell's list.
Yarmouth (Paget)
Hydrobius fuscipes, L.
 — *picirus*, Thoms
Anacæna globulus, Payk.
 — *limbata*, F.
 — *bipustulata*, Steph. *Arminghall*
Philydrus testaceus, F.
 — *maritimus*, Thoms
 — *nigricans*, Zett.
 — *melanocephalus*, Ol. *Brandon*
 — *minutus*, F. *Brandon, St. Faiths*
 — *coarctatus*, Gredl.
Cymbodyba ovalis, Thoms. *Horning*
Enochrus bicolor, Gyll.
Helochares lividus, Forst.
 — *punctatus*, Shp.
Laccobius sinuatus, Mots.
 — *alutaceus*, Thoms.
 — *minutus*, L.
 — *bipunctatus*, F.
Berosus spinosus, Stev. *Hunstanton (Fowler)*
 — *signaticollis*, Charp. *St. Faiths ; Yarmouth (Paget)*
 — *luridus*, L.
 — *affinis*, Brull. *Hunstanton (Thornley)*

- Limnebius truncatellus*, Thoms.
 — *papposus*, Muls.
 — *nitidus*, Marsh.
 — *picus*, Marsh. *Hunstanton (Fowler) ; Waxham (Champion)*
Chætarthria seminulum, Hbst. *Arminghall ; Waxham (Champion)*

HELOPHORINA

- Helophorus rugosus*, Ol.
 — *nubilus*, F.
 — *intermedius*, Muls. *Cley, etc.*

HELOPHORINA (*continued*)

- Helophorus aquaticus*, L.
 — *dorsalis*, Marsh. *Norwich*
 — *æncipennis*, Thoms.
 — *mulsanti*, Rye. *Wretham Heath*, May 26, 1890
 — *affinis*, Marsh. *Mousehold Heath*
 — *brevicollis*, Thoms. *Felthorpe*
 — *nanus*, Sturm. *Horning* (Fowler)
Hydrochus brevis, Hbst. *Horning ; Stalham (Wood)*
 — *elongatus*, Schall.
 — *carinatus*, Germ. *Brandon*, May, 1888
 — *angustatus*, Germ.
Octhebius marinus, Payk.
 — *pygmæus*, F.
 — *bicolor*, Germ.
 — *rufimarginatus*, Steph. *Morston*, 1887
 — *æratus*, Steph.
Hydræna riparia, Kug.
 — *gracilis*, Germ. *Lakenham*, Sept., 1898

SPHÆRIDIINA

- Cyclonotum orbiculare*, F.
Sphæridium scarabæoides, F.
 — *bipustulatum*, F.
 — " v. *marginatum*, F.
Cercyon littoralis, Gyll.
 — *depressus*, Steph. *Hunstanton (Thornley)*
 — *haemorrhous*, Gyll.
 — *haemorrhoidalis*, Hbst.
 — *aquaticus*, Muls. *Waxham (Champion)*
 — *flavipes*, F.
 — *lateralis*, Marsh.
 — *melanocephalus*, L.
 — *unipunctatus*, L.
 — *quisquilius*, L.
 — *nigriceps*, Marsh.
 — *pygmæus*, Ill.
 — *terminatus*, Marsh. *Norwich*
 — *analis*, Payk.
 — *lugubris*, Payk. *Norwich*
 — *granarius*, Er.
 — *minutus*, Muls.
Megasternum boletophagum, Marsh
Cryptopleurum atomarium, F.

STAPHYLINIDÆ

ALEOCHARINA

- Aleochara ruficornis*, Grav. *Norfolk (Lindley fide Stephens)*
 — *fuscipes*, F.
 — *brevipennis*, Grav.
 — *lanuginosa*, Grav.
 — *villosa*, Mann. *Arminghall*
 — *moesta*, Grav.
 — *nitida*, Grav.
 — " var. *bilineata*, Gyll.
 — *morion*, Grav.
 — *grisea*, Kr.

INSECTS

ALEOCHARINA (*continued*)

- Aleochara algarum, Fauv. *Hunstanton*
(Thornley)
- Microglossa suturalis, Sahl.
- pulla, Gyll. *Gimingham* (Butler)
- nidicola, Fairm.
- Oxypoda lividipennis, Mann.
- opaca, Grav.
- alternans, Grav.
- umbrata, Grav. *Gimingham* (Butler)
- longiuscula, Er.
- formiceticola, Märk.
- hæmorrhœa, Mann.
- Thiasophila angulata, Er.
- Ischnoglossa prolixa, Grav.
- Ocyusa maura, Er.
- picina, Aub. *Horning*
- Ocalea castanea, Er.
- Ilyobates nigricollis, Payk. *Brundall*; *Horning* (Fowler)
- Calodera nigrita, Mann.
- æthiops, Grav.
- Chilopora longitarsis, Steph.
- Atemeles emarginatus, Payk. Near *Norwich* (Wigham)
- Myrmedonia haworthi, Steph. *Norfolk* (Stephens)
- collaris, Payk. *Horning*; *Postwick* (Dossetor)
- limbata, Payk. *Norwich*
- humeralis, Grav. } *Norwich* (Dossetor)
- laticollis, Märk. }
- Astilbus canaliculatus, F.
- Callicerus obscurus, Grav.
- Alianta incana, Er. *Horning*, etc.
- plumbea, Wat.
- Homalota insecta, Thoms.
- gregaria, Er.
- littorea, Shp. *Salthouse* (Elliman)
- luteipes, Er. *Horning* (Sharp)
- fallax, Kr.
- luridipennis, Mann.
- gyllenhali, Thoms
- hygrotopora, Kr.
- elongatula, Grav.
- vestita, Grav.
- vicina, Steph.
- pagana, Er.
- graminicola, Gyll.
- halobrechta, Shp.
- puncticeps, Thoms. *Gimingham* (Butler)
- nigella, Er.
- æquata, Er.
- angustula, Gyll.
- linearis, Grav.
- debilis, Er.
- cæsula, Er. *Thetford*
- circellaris, Grav.
- immersa, Heer.
- cuspidata, Er.

ALEOCHARINA (*continued*)

- Homalota aubei, Bris. *Horning* (Sharp)
- analis, Grav.
- exilis, Er.
- depressa, Gyll.
- aquatica, Thoms.
- æneicollis, Shp.
- xanthoptera, Steph.
- euryptera, Steph.
- trinotata, Kr.
- fungicola, Thoms.
- ignobilis, Shp.
- boletobia, Thoms. *Gimingham* (Butler)
- coriaria, Kr.
- gagatina, Baudi
- palustris, Kies.
- atomaria, Kr.
- perexigua, Shp. } *Norwich* (Dossetor)
- sericea, Muls.
- atricolor, Shp. *Gimingham* (Butler); *Cromer* (Elliman)
- inquinula, Grav.
- nigra, Kr.
- hodierna, Shp. *Horning* (Sharp)
- cauta, Er.
- villosula, Kr.
- fuscipes, Heer. *Norfolk* (Crotch *fide* Fowler)
- atramentaria, Gyll.
- intermedia, Thoms.
- longicornis, Grav.
- sordida, Marsh.
- aterrima, Grav.
- pygmæa, Grav.
- muscorum, Bris.
- laticollis, Steph.
- montivagans, Woll. *Horning* (Fowler)
- orbata, Er. *Cromer* (Elliman)
- fungi, Grav.
- „ var. dubia, Shp.
- Schistoglossa viduata, Er. *Merton* (Crotch)
- Gnypeta labilis, Er.
- Tachyusa scitula, Er. *Gimingham* (Butler)
- flavitarsis, Sahl.
- umbratica, Er. *Waxham* (Champion)
- atra, Grav.
- Xenusula sulcata, Kies. *Hunstanton*, *Heacham* (Fowler)
- Falagria sulcata, Payk.
- sulcatula, Grav.
- thoracica, Curt. *Hunstanton*, 1807 (Kirby *fide* Stephens)
- obscura, Grav.
- Autalia impressa, Ol.
- rivularis, Gr.
- Encephalus complicans, Westw. *Hunstanton* (Fowler)
- Gyrophæna affinis, Mann.
- gentilis, Er.
- nana, Payk. *Hunstanton* (Fowler)

A HISTORY OF NORFOLK

ALEOCHARINA (*continued*)

- Gyrophæna fasciata*, Marsh. *Hunstanton*
(*Fowler*)
- *lævipennis*, Kr.
- *manca*, Er. } *Norwich* (*Dossetor*)
- Agaricohara lævicollis* } *Norwich* (*Dossetor*)
- Placusa infima*, Er. *Cromer* (*Elliman*)
- Epipeda plana*, Gyll.
- Silusa rubiginosa*, Er. *Wroxham* (*Fowler*) ;
Norwich, 1889 (*Walker*)
- Leptusa fumida*, Er.
- Bolitochara obliqua*, Er.
- Phylosus spinifer*, Curt. } *Waxham*
— *balticus*, Kr. } (*Champion*)
- Diglossa mersa*, Hal. *Hunstanton* (*Fowler*)
- Hygronomia dimidiata*, Grav.
- Oligota inflata*, Mann.
- *atomaria*, Er. *Horning*
- *punctulata*, Heer.
- Myllæna dubia*, Grav.
- *intermedia*, Er.
- *gracilis*, Matth.
- *brevicornis*, Matth.
- Gymnusa brevicollis*, Payk. *Horning*
- Deinopsis erosa*, Steph.

TACHYPORINA

- Hypocyptus longicornis*, Payk.
- *seminulum*, Er.
- *discoideus*, Er. *Horning* (*Fowler*)
- Conosoma littoreum*, L.
- *pubescens*, Grav.
- *immaculatum*, Steph.
- *lividum*, Er.
- Tachyporus obtusus*, L.
- *formosus*, Matth. *Aylsham* (*Wood*)
- *solutus*, Er.
- *pallidus*, Shp. *Horning* (*Fowler*)
- *chrysomelinus*, L.
- *humerosus*, Er.
- *tersus*, Er.
- *hypnorum*, F.
- *pusillus*, Grav.
- *brunneus*, F.
- *transversalis*, Grav.
- Cilea silphoides*, L.
- Tachinus humeralis*, Grav.
- *rufipes*, L.
- *subterraneus*, L.
- *marginellus*, F.
- *laticollis*, Grav.
- *collaris*, Grav.
- Megacronus analis*, F.
- Bolitobius lunulatus*, L.
- *trinotatus*, Er.
- *exoletus*, Er.
- *pygmæus*, F.
- Mycetoporus splendens*, Marsh.
- *lepidus*, Grav.
- *longulus*, Mann.
- *angularis*, Rey. *Waxham* (*Champion*)

TACHYPORINA (*continued*)

- Mycetoporus clavicornis*, Steph. *Waxham*
(*Champion*)
- *splendidus*, Grav.
- *longicornis*, Kr. *Horning*
- Habrocerus capillaricornis*, Grav.
- STAPHYLININA**
- Heterothops binotata*, Er. *Hunstanton*
(*Fowler*)
- *prævia*, Er.
- *dissimilis*, Grav. *Horning*
- Quedius microps*, Grav. *Hunstanton* (*Fowler*)
- *cruentus*, Ol.
- *cinctus*, Payk.
- *fuliginosus*, Grav.
- *tristis*, Grav.
- *molochinus*, Grav.
- *picipes*, Mann.
- *nigriceps*, Kr.
- *fumatus*, Steph.
- *maurorufus*, Grav.
- *rufipes*, Grav.
- *attenuatus*, Gyll.
- *semiæneus*, Steph. *Hunstanton* (*Fowler*)
- *boops*, Grav.
- Creophilus maxillosus*, L.
- Emus hirtus*, L. *Beechamwell* (*Scales fide Curtis*)
- Leistotrophus nebulosus*, F.
- Staphylinus pubescens*, De G.
- *stercorarius*, Ol.
- *erythropterus*, L. *Horning*
- *cæsareus*, Ceder.
- Ocyphus olens*, Müll.
- *cyaneus*, Payk. *Mousehold Heath*,
Lakenham; *Drayton* (*Thouless*)
- *brunnipes*, F.
- *cupreus*, Rossi.
- *pedator*, Grav. *Caistor* (*Paget*)
- *ater*, Grav.
- *morio*, Grav.
- *compressus*, Marsh. *Norwich*; *Hunstanton* (*Fowler*)
- Philonthus intermedius*, Boisd.
- *laminatus*, Creutz.
- *æneus*, Rossi.
- *decorus*, Grav.
- *politus*, F.
- *lucens*, Er. *Kirby Bedon*
- *varius*, Gyll.
- *marginatus*, F. *Mousehold Heath*
- *umbratilis*, Grav. *East Rudham* (*Wood*)
- *cephalotes*, Grav.
- *fimetarius*, Grav.
- *sordidus*, Grav.
- *ebeninus*, Grav.
- *debilis*, Grav.
- *sanguinolentus*, Grav.

INSECTS

STAPHYLININA (*continued*)

- *Philonthus cruentatus*, Gmel.
- *longicornis*, Steph.
- *varians*, Payk.
- *agilis*, Grav. *Ringland*, 1876
- *vernalis*, Grav. *Hunstanton* (Blatch)
- *discoideus*, Grav. *Norwich*; *Cromer, Aylsham* (Wood)
- *quisquiliarius*, Gyll.; var. *dimidiatus*, Er.
- *nigrita*, Nord. *Ringland*, 1876
- *fumarius*, Grav. *Arminghall*, 1876; *East Rudham* (Wood)
- *micans*, Grav.
- *trossulus*, Nord.
- *fulvipes*, F. *Norfolk Coast* (Skrimshire fide Stephens)
- Cafius xantholoma*, Grav.
- Actobius cinerascens*, Grav. *Arminghall*, October, 1876
- Xantholinus fulgidus*, F.
- *glabratus*, Grav.
- *punctulatus*, Payk.
- *ochraceus*, Gyll.
- *tricolor*, F. *Hunstanton* (Fowler); *Cromer* (Wood)
- *linearis*, Ol.
- *longiventris*, Heer.
- Leptacinus batychrus*, Gyll. *Cromer* (Wood)
- *linearis*, Grav.
- Othius fulvipennis*, F.
- *laeviusculus*, Steph.
- *melanocephalus*, Grav.
- *myrmecophilus*, Kies. *Dunston Common*, September, 1874

PÆDERINA

- Lathrobium elongatum*, L. *Ranworth*
- *fulvipenne*, Grav.
- *rufipenne*, Gyll. *Horning* (Fowler)
- *brunnipes*, F.
- *quadratum*, Payk. *Waxham* (Champion)
- *terminatum*, Grav.
- *pallidum*, Nord. *Cromer* (Elliman)
- *multipunctum*, Grav. *Postwick Grove*, September, 1874
- Achenium humile*, Nic. *Salthouse*, October, 1890
- Stilicus rufipes*, Germ.
- *orbiculatus*, Er. *Hellesdon*, April, 1879
- *affinis*, Er.
- *subtilis*, Er. *Roughton*, August, 1900 (Beare)
- Scopæus sulcicollis*, Steph. *Cromer* (Elliman)
- Medon propinquus*, Bris.
- *melanocephalus*, F.
- Lithocharis ochracea*, Grav.
- Sunius diversus*, Aub. *Ranworth*, Oct., 1888

PÆDERINA (*continued*)

- *Sunius augustatus*, Payk.
- Pæderus littoralis*, Grav.
- *riparius*, L. *Waxham* (Champion)
- EVÆSTHETINA**
- Evæsthetussaber*, Thoms. *Norfolk* (Denny fide Stephens)
- STENINA**
- Stenus bipunctatus*, Er. *Cromer* (Elliman)
- *guttula*, Müll. *Gimingham* (Butler); *Cromer* (Elliman)
- *bimaculatus*, Gyll.
- *juno*, F.
- *longitarsis*, Thoms. *Trowse*, Feb., 1877
- *proditor*, Er. *Horning* (Crotch)
- *speculator*, Er.
- *providus*, Er.; var. *rogeri*, Kr.
- *lustrator*, Er. *Waxham* (Champion)
- *bupthalmus*, Grav.
- *melanopus*, Marsh. *Norfolk Fens* (Rye)
- *incrassatus*, Er. *Waxham* (Champion); *Aylsham, East Rudham* (Wood)
- *melanarius*, Steph. *Horning* (Fowler)
- *atratulus*, Er. *Gimingham* (Butler)
- *canaliculatus*, Gyll. *Aylsham, East Rudham* (Wood)
- *nitens*, Steph. *Horning* (Crotch); *Waxham* (Champion)
- *pusillus*, Er.
- *fuscipes*, Grav. *Horning* (Crotch)
- *vafellus*, Er. *Horning* (Crotch); *Waxham* (Champion)
- *opticus*, Grav. *Horning, Ranworth* (Crotch); *Potter Heigham* (Wood)
- *carbonarius*, Gyll. *East Rudham* (Wood); *Horning, Ranworth* (Crotch)
- *argus*, Grav. } *nigritulus*, Gyll. } *Horning* (Crotch)
- *brunnipes*, Steph.
- *ossium*, Steph.
- *palustris*, Er. *Horning* (Fowler)
- *impressus*, Germ.
- *ærosus*, Er. *Hunstanton* (Fowler)
- *erichsoni*, Rye. *Aylsham* (Wood)
- *flavipes*, Steph.
- *pubescens*, Steph.
- *binotatus*, Ljun.
- *pallitarsis*, Steph.
- *bifoveolatus*, Gyll.
- *nitidiusculus*, Steph.
- *picipes*, Steph.
- *cicindeloides*, Grav.
- *similis*, Hbst.
- *solutus*, Er. *Horning* (Fowler)
- *tarsalis*, Lynn.
- *paganus*, Er. *Ringland*; *Waxham* (Champion); *East Rudham* (Wood)
- *latifrons*, Er.

A HISTORY OF NORFOLK

STENINA (*continued*)

Stenus fornicatus, Steph. *Stratton Strawless*; *Horning* (Fowler); *Waxham* (Champion)

OXYPORINA

Oxyporus rufus, L.

OXYTELINA

Bledius taurus, Germ. *Salthouse*; *Wells*, etc. (Fowler)

— *tricornis*, Hbst. *Salthouse* (Brown); *Hunstanton* (Fowler)

— *unicornis*, Germ. *Hunstanton* (Fowler)

— *fuscipes*, Rye. *Gimingham* (Butler); *Cromer* (Elliman)

— *subterraneus*, Er. *Cromer* (Fowler)

— *longulus*, Er. *Gimingham* (Butler)

— *fracticornis*, Payk. *Norwich*

— *opacus*, Block. *Hunstanton* (Fowler)

— *atricapillus*, Germ. *Wells* (Fowler); *Waxham* (Champion)

Platystethus arenarius, Fourc.

— *cornutus*, Gill. *Norwich* (Dossetor)

Oxytelus rugosus, Grav.

— *sculptus*, Grav.

— *laqueatus*, Marsh.

— *inustus*, Grav.

— *sculpturatus*, Grav.

— *nitidulus*, Grav.

— *complanatus*, Er.

— *tetracarinatus*, Block.

Haploderus coelatus, Grav.

Trogophlæus bilineatus, Steph.

— *elongatus*, Er.

— *fuliginosus*, Grav. *Norfolk* (Fowler)

— *pusillus*, Grav.

Syntomium æneum, Müll. *Gimingham* (Butler)

Coprophilus striatulus, F.

OMALIINA

Lesteva longelytrata, Goeze.

— *punctata*, Er. *Trowse*; *Waxham* (Champion)

Acidota crenata, F. *Norwich*

Olophrum piceum, Gyll.

Lathrimæum atrocephalum, Gyll.

— *unicolor*, Steph.

Philorhinum sordidum, Steph. *East Rudham* (Wood)

Omalium rivulare, Payk.

— *læviusculum*, Gyll.

— *riparium*, Thoms.

— *excavatum*, Steph.

— *cæsum*, Grav.

— *pusillum*, Grav.

— *rufipes*, Fourc. *Norfolk* (Fowler)

— *vile*, Er.

— *planum*, Payk. *Norfolk* (Fowler)

— *concinnum*, Marsh.

— *deplanatum*, Gyll. } *Norfolk* (Fowler)

— *striatum*, Grav. } *Norfolk* (Fowler)

OMALIINA (*continued*)

Anthobrium minutum, F.

— *ophthalmicum*, Payk.

— *torquatum*, Marsh.

PROTEINA

Proteinus ovalis, Steph.

— *brachypterus*, F.

— *atomarius*, Er. *Hunstanton* (Fowler)

Megarthrus denticollis, Beck. *Thorpe*,

September, 1876

— *depressus*, Lac.

— *sinuatocollis*, Lac.

— *hemipterus*, Ill. *Norfolk* (Fowler)

Phloeobium clypeatum, Müll.

PIESTINA

Prognatha quadricornis, Lac. *Norfolk* (Denny fide Stephens)

PSELAPHIDÆ

PSELAPHINA

Pselaphus heisei, Hbst. *Norfolk* (Denny)

— *dresdensis*, Hbst. *Horsford Heath*, Aug. 17, 1886; *Loddon*, *Woodbastwick* (Denny)

Tychus niger, Payk.

Bythinus puncticollis, Denny } *Horning*

— *validus*, Aub. } (Denny)

— *bulbifer*, Reich.

— *curtisi*, Denny

— *burrelli*, Denny. Near *Letheringsett*, April, 1824 (Burrell)

Bryaxis sanguinea, L. *Waxham* (Champion); *Congham* (Wood)

— *fossulata*, Reich.

— *helferi*, Schmidt. *Weybourne*

— *hæmatica*, Reich.

— *juncorum*, Leach

— *impressa*, Panz. *Horning*; *Congham* (Wood)

Trimium brevicorne, Reich. *Norfolk* (Denny)

Euplectus karsteni, Reich. } *South Creake*

— *nanus*, Reich. } (Skrimshire)

— *sanguineus*, Denny

— *ambiguus*, Reich. *Horning* (Denny)

SCYDMÆNIDÆ

Neuraphes elongatulus, Müll.

— *angulatus*, Müll.

— *sparshalli*, Denny. *Arminghall Wood*, November, 1823 (Sparshall)

Scydmænus scutellaris, Müll.

— *collaris*, Müll.

— *exilis*, Er. *Norwich* (Fowler)

Euconnus denticornis, Müll. Near *Loddon* (Denny)

— *hirticollis*, Ill. *Horning* (Fowler)

— *fimetarius*, Chaud.

Eumicrus tarsatus, Müll.

Cephennium thoracicum, Müll.

INSECTS

SILPHIDÆ

CLAMBINA

- *Calyptomerus dubius*, Marsh. *Horning* (Elliman)
- *Clambus pubescens*, Redt. *Gimingham* (Butler)
- *armadillo*, De G.
- *minutus*, Sturm. *Horning* (Fowler)

ANISOTOMINA

- *Agathidium atrum*, Payk. Near *Norwich* (Kirby *fide* Stephens)
- *seminulum*, L.
- *lævigatum*, Er. *Dunston Common*
- *marginatum*, Sturm. *Norfolk Fens* (Fowler)
- *Amphicyllis globus*, F. *Cromer* (Elliman)
- *Liodes humeralis*, Kug. *Stratton Strawless*
- *orbicularis*, Hbst. *Ringland*, June, 1877
- *Cyrtusa minuta*, Ahr. *Postwick Grove*, June, 1875

- *Anisotoma dubia*, Kug. *Stratton Strawless*; *Waxham* (Champion)
- *badia*, Sturm. *Mousehold Heath*
- *scita*, Er. *Hunstanton* (Fowler)
- *punctulata*, Gyll. *Cromer* (Elliman)
- *calcarata*, Er.
- *curta*, Fairm. Near *Norwich* (Brown)
- *rugosa*, Sahl. *Mousehold Heath* (Griffin *fide* Stephens)
- *Agaricophagus cephalotes*, Schmidt. *Ringland*, September, 1876
- *Hydnobius punctatissimus*, Steph. *Weybourne*, October, 1888.

SILPHINA

- *Necrophorus germanicus*, L. *Norfolk* (Burrell *fide* Curtis); *Mousehold Heath* (Stephens)
- *humator*, F.
- *mortuorum*, F.
- *vestigator*, Heer
- *ruspator*, Er.
- *interruptus*, Steph. *Norwich*; *Hunstanton* (Fowler)
- *vespillo*, L.
- *Necrodes littoralis*, L.
- *Silpha tristis*, Ill. Burrell's list
- *obscura*, L. Burrell's list. *Burgh Castle* (Paget)
- *quadripunctata*, L. } Burrell's list
- *reticulata*, F. }
- *opaca*, L. *Norfolk* (Burrell *fide* Curtis)
- *thoracica*, L. *Ringland*
- *rugosa*, L.
- *sinuata*, F.
- *dispar*, Hbst. *Norfolk* (Stephens)
- *lævigata*, T. Burrell's list
- *atra*, L.

CHOLEVINA

- *Choleva angustata*, F.
- *cisteloides*, Fröhl.

CHOLEVINA (*continued*)

- *agilis*, Ill. *Mousehold Heath*, Oct., 1884
- *velox*, Spence
- *wilkini*, Spence. *Thorpe*, August, 1875
- *anisotomoides*, Spence
- *fusca*, Panz.
- *nigricans*, Sp. Near *Norwich* (Dossetor)
- *coracina*, Kell. *Brooke*, October, 1888
- *grandicollis*, Er. *Brandon*
- *tristis*, Panz.
- *kirbyi*, Spence. *Norwich*
- *chrysomeloides*, Panz.
- *fumata*, Spence
- *watsoni*, Spence
- *Ptomophagus sericeus*, F.
- *Colon brunneum*, Latr. *Stratton Strawless*, September, 1875

HISTERIDÆ

- *Hister unicolor*, L.
- *merdarius*, Hoff. *Norwich*; *Aylham* (Fowler)
- *cadaverinus*, Hoff.
- *stercorarius*, Hoff. *Norfolk* (Stephens)
- *purpurascens*, Hbst.
- *neglectus*, Germ. *Framingham Earl*, May, 1882
- *carbonarius*, Ill.
- *12-striatus*, Schr. *Thorpe Hamlet*, April, 1876
- *bimaculatus*, L.
- *Carcinops minima*, Aubé.
- *Dendrophilus punctatus*, Hbst. *Norwich* (J. Hooker *fide* Stephens)
- *pygmæus*, L. *Norfolk* (Fowler)
- *Myrmetes piceus*, Payk. Burrell's list. *Norwich* (Fowler)
- *Gnathoncus nannetensis*, Mars. *Norfolk* (Norgate); *Cromer*, 1889 (Walker)
- *punctulatus*, Thoms. Near *Norwich* (Dossetor)
- *Saprinus nitidulus*, Payk.
- *æneus*, F. *Thorpe Hamlet*; *Waxham* (Champion)
- *immundus*, Gyll. *Hunstanton* (Fowler)
- *virescens*, Payk. *Norwich* (Fowler); *Fornett* (Brown)
- *metallicus*, Hbst.
- *rugifrons*, Payk. *Yarmouth*; *Hunstanton* (Fowler); *Waxham* (Champion)
- *maritimus*, Steph.
- *Teretrius picipes*, F. Near *Norwich* (Paul *fide* Stephens)
- *Abraeus globosus*, Hoff. Burrell's list
- *Acritus minutus*, Hbst.
- *Onthophilus sulcatus*, F. *Mousehold Heath*; *Roudham Heath*, May, 1893 (Thouless); *Great Witchingham Heath* (Curtis); also in Burrell's list

A HISTORY OF NORFOLK

Onthophilus striatus, F. *Norwich*; *Norfolk Marshes* (Curtis)

SCAPHIDIIDÆ

Scaphidium quadrimaculatum, Ol. *Norfolk* (J. Hooker *fide* Burrell)
Scaphisoma agaricinum, L. *Foxley Wood*, August, 1888
 — *boleti*, Panz. *Hunstanton* (Fowler)

TRICHOPTERYGIDÆ

Ptinella denticollis, Fairm.
Trichopteryx atomaria, De G.
 — *grandicollis*, Mann.
 — *lata*, Mots.
 — *fascicularis*, Hbst.
 — *sericans*, Heer.
 — *bovina*, Mots.
 — *kirbyi*, Matth. *Ranworth*, April, 1863 (Matthews)
 — *longula*, Matth.
 — *montandonii*, All. } *Hunstanton*
 — *guerinii*, All. } (Fowler)
Smicrus filicornis, Fairm. *Hunstanton* (Fowler); *Denton* (Cruttwell)
Nephanes titan, Newm.
Ptilium marginatum, Aub. *Norfolk Fens*, 1868 (Matthews)
 — *exaratum*, All.
 — *foveolatum*, All.
Nossidium pilosellum, Marsh. *Hunstanton* (Blatch)
Ptenidium nitidum, Heer.
 — *evanescens*, Marsh.
 — *atomaroides*, Mots. *Brandon* (Fowler)
 — *kraatzi*, Matth. *Dunston Common*, July, 1883

CORYLOPHIDÆ

Orthoperus kluki, Wank.
 — *atomus*, Gyll.
Corylophus cassidoides, Marsh. *Horning* (Elliman); *Gimingham* (Butler)
Sericoderus lateralis, Gyll.

COCCINELLIDÆ

Subcoccinella 24-punctata, L. *Whitwell Common*, *Booton Common*
Hippodamia variegata, Goeze
Anisosticta 19-punctata, L. *Weybourne*; *Yarmouth* (Fowler)
Adalia oblitera, L.
 — *bipunctata*, L.
Mysia oblongoguttata, L.
Anatis ocellata, L.
Coccinella 10-punctata, L.
 — *hieroglyphica*, L. *Drayton*, *Mousehold Heath*, etc.

Coccinella 11-punctata, L.

— *5-punctata*, L. Burrell's list.
 — *7-punctata*, L.

Halyzia 12-guttata, Poda.

— *14-guttata*, L.
 — *18-guttata*, L.
 — *conglobata*, L.
Micraspis 16-punctata, L.
Scymnus redtenbacheri, Muls. *Gimingham* (Butler)
 — *frontalis*, F.
 — *suturalis*, Thunb.
 — *limbatus*, Steph. *Waxham* (Champion)
 — *haemorrhoidalis*, Hbst. *Bixley Wood*
 — *capitatus*, F.
Chilocoris similis, Rossi.
 — *bipustulatus*, L.
Exochromus quadripustulatus, L. *Ringland*
Rhizobius litura, F.
Coccidula rufa, Hbst.
 — *scutellata*, Hbst. *Weybourne*; *Horning* (Fowler)

ENDOMYCHIDÆ

Mycetæa hirta, Marsh. *Mousehold Heath*
Lycoperdina bovisetæ, F. Burrell's list
Endomychus coccineus, L. *Norfolk* (Skrimshire *fide* Burrell)

EROTYLIDÆ

Dacne humeralis, F.
 — *rufifrons*, F.
Triplax russica, L. *Harford Bridges*, February, 1891 (Beaumont)

PHALACRIDÆ

Phalacrurus corruscus, Payk.
 — *substriatus*, Gyll. *Hunstanton* (Fowler)
 — *caricis*, Sturm.
Olibrus corticalis, Panz.
 — *æneus*, F.
 — *millefolii*, Payk. *Brandon*; *Horning* (Fowler)
 — *pygmæus*, Sturm. *Horning*; *Cromer* (Fowler)
Eustilbus testaceus, Panz.
 — *oblongus*, Er. *Horning* (Fowler)

MICROPEPLIDÆ

Micropeplus porcatus, Payk. } Burrell's list
 — *staphylinoides*, Marsh. }
 — *margaritæ*, Duv. *Ringland*, April, 1877

NITIDULIDÆ

Brachypterus gravidus, Ill.
 — *pubescens*, Er.
 — *urticæ*, F.

INSECTS

- Cercus pedicularius*, L.
 — *bipustulatus*, Payk.
 — *rufilabris*, Latr.
Epuraea decemguttata, F. *Eaton*
 — *aestiva*, L.
 — *oblonga*, Hbst. *Cromer* (Elliman)
 — *floreæ*, Er.
 — *deleta*, Er.
 — *pusilla*, Er.
Omosiphora limbata, F. *Ringland*, September, 1875; *Hunstanton* (Fowler)
Nitidula bipustulata, L.
 — *rufipes*, L. *Norfolk* (Stephens)
 — *quadripustulata*, F. *Ringland*; *Hunstanton* (Fowler)
Soronia grisea, L.
Omosita colon, L.
 — *discoidea*, F.
Pocadius ferrugineus, F. *Cossey Park* (Curtis)
Pria dulcamaræ, Scop.
Meligethes rufipes, Gyll.
 — *lumbaris*, Sturm.
 — *fulvipes*, Bris. *Hunstanton*, September, 1874
 — *coracinus*, Sturm. *Ringland*; *Hunstanton* (Blatch)
 — *aeneus*, F.
 — *viridescens*, F.
 — *difficilis*, Heer.
 — *memnonius*, Er.
 — *brunnicornis*, Sturm.
 — *bidens*, Bris. *Whitlingham*.
 — *ovatus*, Sturm. *Horning* (Elliman)
 — *picipes*, Sturm.
 — *serripes*, Gyll. *Brandon*; *Cromer* (Fowler)
 — *murinus*, Er.
 — *obscurus*, Er. *Cromer* (Elliman)
Cychramus luteus, F.
Cryptarcha strigata, F. *Cossey*, April, 1874
 — *imperialis*, F. *Fornett* (Brown)
Ips quadripustulata, L. *Norfolk* (Skrimshire *fide* Burrell)
Pityophagus ferrugineus, F. *Norfolk* (Stephens)

COLYDIIDÆ

- Orthocerus muticus*, L. Burrell's list.
Winterton (Wood); *Yarmouth* (Paget)
Synchita juglandis, F. *Thetford* (Crotch)
Cerylon ferrugineum, Steph. *Stratton Strawless*, June, 1884

CUCUJIDÆ

- Rhizophagus cribratus*, Gyll. *Earlham*
 — *depressus*, F.
 — *parallelcollis*, Er. *Waxham* (Champion)

- Rhizophagus dispar*, Gyll. Burrell's list
 — *bipustulatus*, F.
Pediacus dermestoides, F. *Cromer* (Elliman)
Læmophloeus ferrugineus, Steph. *Norwich* (Fowler)
 — *ater*, Ol. *Norfolk* (Stephens)
Psammœchus bipunctatus, F.
Hypocoprus latridioides, Mots. *Brandon* (Crotch)
Nausibius dentatus, Marsh. *Norwich*
Silvanus surinamensis, L. *Yarmouth* (Paget)

MONOTOMIDÆ

- Monotoma brevicollis*, Aub.
 — *picipes*, Hbst.
 — *quadricollis*, Aub.
 — *rufa*, Redt.

LATHRIDIIDÆ

- Holoparamecus depresso*, Curt. *Norfolk* (Fowler)
Lathridius lardarius, De G.
 — *angulatus*, Humm. *Trowse*
Coninomus nodifer, Westw.
Enicmus minutus, L.
 — *transversus*, Ol.
 — *testaceus*, Steph.
Cartodere ruficollis, Marsh.
Corticaria pubescens, Gyll.
 — *crenulata*, Gyll.
 — *denticulata*, Gyll.
 — *fulva*, Com.
 — *elongata*, Humm.
Melanophthalma gibbosa, Hbst.
 — *fuscula*, Humm.

CRYPTOPHAGIDÆ

- Telmatophilus sparganii*, Ahr. *Horning* (Sharp)
 — *caricis*, Ol.
 — *typhae*, Fall. *Cromer* (Fowler); *Waxham* (Champion)
 — *schoenherri*, Gyll. *Arminghall*; *Horning* (Fowler)
Antherophagus nigricornis, F. *Brandon* (Fowler)
 — *pallens*, Gyll. *Dunston Common*, *Kettering Common*
 — *silaceus*, Hbst. *Hunstanton* (Fowler)
Cryptophagus lycoperdi, Hbst.
 — *pilosus*, Gyll.
 — *populi*, Payk. Near *Norwich* (Stephens)
 — *dentatus*, Hbst. *Gimingham* (Butler)
 — *acutangulus*, Gyll.
 — *cellaris*, Scop.
 — *affinis*, Sturm. *Cromer* (Walker)
Micrambe vini, Panz.
Paramecosoma melanoccephalum, Hbst. *Cromer* (Fowler)

A HISTORY OF NORFOLK

Atomaria barani, Bris.

- *nigriventris*, Steph.
 - *umbrina*, Er.
 - *linearis*, Steph.
 - *elongatula*, Er. *Norwich*, July, 1875
 - *fuscipes*, Gyll. *Cley, Aylsham* (Wood)
 - *munda*, Er.
 - *fuscata*, Schön.
 - *pusilla*, Payk.
 - *atricapilla*, Steph.
 - *basalis*, Er. *Woodbastwick* (Fowler);
Aylsham (Wood)
 - *rhenana*, Kr. *Yarmouth* (Rye)
 - *mesomelas*, Hbst. *Ringland*, May,
1876
 - *gutta*, Steph. *Horning* (Elliman)
 - *apicalis*, Er.
 - *analis*, Er.
 - *ruficornis*, Marsh.
- Ephistemus globosus*, Waltl. Near *Norwich* (Dossetor)

MYCETOPHAGIDÆ

Typhæa fumata, L.

- Triphylus punctatus*, F. *Arminghall*;
Fornsett (Brown)
- Litargus bifasciatus*, F. *Cromer* (Elliman)
- Mycetophagus quadripustulatus*, L.
- *piceus*, F. *Norfolk* (Fowler)
- *populi*, F. *Harleston* (Fox)
- *multipunctatus*, Hellw. Burrell's list;
Fornsett (Brown)

BYTURIDÆ

Byturus sambuci, Scop.

- *tomentosus*, F.

DERMESTIDÆ

Dermestes murinus, L.

- *undulatus*, Brahm. *Blakeney*
- *lardarius*, L.

Attagenus pellio, L.

Tiresias serra, F. Burrell's list

Anthrenus musæorum, L.

- *claviger*, Er.

BYRRHIDÆ

Syncalypta spinosa, Rossi. } *Norfolk*
— *hirsuta*, Shp. } (Fowler)

Byrrhus pilula, L.

- *fasciatus*, F.
- *dorsalis*, F.
- *murinus*, F. *Mousehold Heath*

Cytillus varius, F. *Mousehold Heath*; *Waxham* (Champion); *Aylsham* (Wood)

Simplocaria semistriata, F.

Limnichus pygmæus, Sturm. *Cromer*
(Elliman)

Aspidiphorus orbiculatus, Gyll. *Horning*
(Elliman)

GEORYSSIDÆ

Georyssus pygmæus, F. *Arminghall*

PARNIDÆ

Elmis æneus, Müll.

- *volkmari*, Panz. *Ketteringham Common*
- *cupreus*, Müll. *Whitwell Common*
- Limnius tuberculatus*, Müll.
- *troglodytes*, Gyll. *Eaton*
- sp? *Honing*
- sp? *Colney, Horning*
- Parnus prolifericornis*, F.
- *auriculatus*, Panz.
- *algiricus*, Lucas. *St. Faiths*; *Horning*
(Power)

HETEROCERIDÆ

Heterocerus flexuosus, Steph. *Hunstanton*
(Fowler)

- *marginatus*, F. Burrell's list. *Yarmouth* (Paget)

— *lævigatus*, Panz. Burrell's list

LUCANIDÆ

Lucanus cervus, L. *Kirby Bedon* (Wigham)

Dorcus parallelopipedus, L.

Sinodendron cylindricum, L. Burrell's
list. *Norfolk* (Wigham)

SCARABÆIDÆ

COPRINA

Onthophagus ovatus, L. *Mousehold Heath*;
Roudham Heath (Thouless)

- *cœnobita*, Hbst. Burrell's list. *East Carlton*, July, 1874.

— *vacca*, L. *Norfolk* (Hooker *fide* Burrell)

— *fracticornis*, Payk.

— *nuchicornis*, L. *Yarmouth*; *Hunstanton*
(Fowler)

Aphodius erraticus, L.

— *subterraneus*, L.

— *fossor*, L.

— *hæmorrhoidalis*, L.

— *fœtens*, F.

— *fimetarius*, L.

— *scybalaria*, F.

— *ater*, De G.

— *granarius*, L.

— *nitidulus*, F. *Hunstanton*

— *sordidus*, F. *Norwich*

— *rufescens*, F. *Swanton Morley*, Eaton
Common; *Hunstanton* (Fowler)

— *plagiatus*, L. *Norwich* (Fowler)

— *porcus*, F.

— *tristis*, Panz. *Norwich*

INSECTS

COPRINA (*continued*)

- *Aphodius pusillus*, Hbst.
- *quadrimaculatus*, L. Burrell's list.
Roudham Heath, May, 1893 (Thouless)
- *merdarius*, F.
- *inquinatus*, F.
- *sticticus*, Panz.
- *punctatosulcatus*, Sturm.
- *prodromus*, Brahm.
- *contaminatus*, Hbst.
- *obliteratus*, Panz.
- *luridus*, F.
- *rufipes*, L.
- *depressus*, Kug. *Postwick Grove*, May, 1875 ; *Horning* (Wigham)
- Heptauleacus sus*, Hbst. *Norwich* (Fowler)
- Oxyomus porcatus*, F.
- Psammobius sulcicollis*, Ill. *Norfolk* (Fowler)
- Ægialia arenaria*, F.
- Odontæus mobilicornis*, F. Burrell's list.
Mousehold Heath (Sparshall *fide* Curtis)
- Geotrupes typhaeus*, L. *Mousehold Heath*, *Wretham Heath*
- *spiniger*, Marsh.
- *stercorarius*, L.
- *mutator*, Marsh.
- *sylvaticus*, Panz.
- Trox sabulosus*, L. Burrell's list
- *scaber*, L. *St. Martin's Lane*, *Norwich* (Thouless) ; *Brandon* (Fowler) ; Burrell's list

MELOLONTHINA

- Hoplia philanthus*, Füss. Burrell's list.
Yarmouth (Paget) ; *Fornett* (Brown)
- Homaloplia ruricola*, F. *Norfolk* (Stephens) ;
Roudham Heath, May, 1893 (Thouless)
- Serica brunnea*, L.
- Rhizotrogus solstitialis*, L.
- Melolontha vulgaris*, F.

RUTELINA

- Phyllopertha horticola*, L.
- Anomala frischii*, F. *Coast Sands*, also at *Brandon*

CETONIINA

- Cetonia aurata*, L. Formerly common
- Gnorimus nobilis*, L. *Norwich Market-place* (Thouless), one example

BUPRESTIDÆ

- Agrilus laticornis*, Ill. *Horsford*, *Arminghall* (Thouless)
- *angustulus*, Ill. *Hethersett*, *Howe Grove*, *Booton Common* (Thouless)
- *viridis*, L. Burrell's list
- Trachys minuta*, L. *Poringland* (Wigham)
- *troglodytes*, Gyll. *St. Faiths* (Power)

THROSCIDÆ

- Throscus dermestoides*, L.

EUCNEMIDÆ

- Melasis buprestoides*, L. *Gawdy Hall Wood* (Garneys)
- Microrrhagus pygmæus*, F. *Norfolk* (Wilkin *fide* Stephens)

ELATERIDÆ

- Lacon murinus*, L.
- Cardiophorus asellus*, Er. Near *Norwich* (Dossetor) ; *Westacre*, *Brandon* (Thouless)
- *ruficollis*, Linn. *Norfolk* (Skrimshire *fide* Burrell)
- *thoracicus*, Er. *Norfolk* (Hooker *fide* Burrell)
- Cryptohypnus riparius*, F. *Brundall*, etc.
- *quadripustulatus*, F. *Norfolk* (J. Hooker *fide* Burrell)
- Elater balteatus*, L. Burrell's list
- Ischnodes sanguinicollis*, Panz. *Norfolk* (Stephens)
- Melanotus rufipes*, Hbst.
- *castanipes*, Payk. *Stratton Strawless*, June, 1895 (Thouless)
- Athous niger*, L.
- *longicollis*, Ol. *Norfolk* (Stephens)
- *hæmorrhoidalis*, F.
- *vittatus*, F. *Sprowston* (J. Hooker *fide* Burrell)
- Limonius cylindricus*, Payk. *Brandon*
- *minutus*, L.
- Adrastus limbatus*, F.
- Agriotes sputator*, L.
- *obscurus*, L.
- *lineatus*, L.
- *sordidus*, Ill.
- *pallidulus*, Ill.
- Dolopius marginatus*, L.
- Corymbites castaneus*, L. *Mousehold Heath* (W. Hooker *fide* Stephens)
- *cupreus*, F. *Mousehold Heath* (Hewitson *fide* Stephens)
- *tessellatus*, F. *Horning* (Fowler) ; *Cingleford* (Brown) ; *Waxham* (Champion)
- *quercus*, Gyll. *Drayton* (Thouless)
- *holosericeus*, F. *Mousehold Heath* ; *Yarmouth* (Thouless) ; *Congham* (Wood)
- *aeneus*, L. *Mousehold Heath*
- *metallicus*, Payk. *Foxley Wood* (Thouless)
- *bipustulatus*, L. Burrell's list
- Campylus linearis*, L.

A HISTORY OF NORFOLK

DASCILLIDÆ

- Dascillus cervinus*, L. Burrell's list
Helodes minuta, L.
Microcara livida, F.
Cyphon coarctatus, Payk. *Wacton*, August, 1883
 — *nitidulus*, Thoms.
 — *variabilis*, Thunb.
 — *pallidulus*, Boh. *Framingham Pigot*, May, 1876
 — *padi*, L. *Horning*, etc.
Prionocyphon serricornis, Müll. *Chapel Field Gardens*, *Norwich*, July, 1894 (Thouless)
Scirtes hemisphaericus, L.
 — *orbicularis*, Panz. *Brundall*, July, 1885
Eubria palustris, Germ. *Whitwell Common*, June, 1895 (Thouless)

MALACODERMIDÆ

LYCINA

- Platycis minutus*, F. *Norfolk* (Stephens)

LAMPYRINA

- Lampyris noctiluca*, L.

TELEPHORINA

- Silis ruficollis*, F. *Horning*, etc.; *Brandon* (Fowler)
Telephorus fuscus, L.
 — *rusticus*, Fall.
 — *lividus*, L.
 — *pellucidus*, F.
 — *nigricans*, Müll.
 — " var. *discoideus*, Steph. *Sparham* (Norgate); *Eaton* (Brown)
 — *lituratus*, F. *Hellesdon*, *Morston*; *Waxham* (Champion)
 — *figuratus*, Mann. *Horning*
 — *bicolor*, F.
 — *haemorrhoidalis*, F. *Ketteringham*
 — *oralis*, Germ. *Howe Grove*, *Cley*; *Waxham* (Champion)
 — *flavilabris*, Fall. *Cley*; *Horning* (Brown); *Waxham* (Champion)
 — *thoracicus*, Ol. *Ranworth*, *Poringland*, *Eaton Common*; *Aysham*; (Wood)
Rhagonycha fuscicornis, Ol. *Horning*, July 2, 1835 (Brown)
 — *fulva*, Scop.
 — *testacea*, L.
 — *limbata*, Thoms.
 — *pallida*, F.
Malthinus punctatus, Fourc.
 — *fasciatus*, Ol. *Dunston*, *Cossey*; *Hunstanton* (Fowler)
 — *balteatus*, Suff. *Dunston*; *Hunstanton* (Fowler)
 — *frontalis*, Marsh. *Hethersett*, August, 1879; *Hunstanton* (Fowler)
Malthodes marginatus, Latr.

TELEPHORINA (*continued*)

- Malthodes flavoguttatus*, Kies. *Aylsham* (Wood)
 — *dispar*, Germ.
 — *minimus*, L.
 — *nigellus*, Kies. Near *Norwich* (Dossetor)

MELYRINA

- Malachius æneus*, L. Burrell's list; *Long Stratton* (Brown)
 — *bipustulatus*, L.
 — *marginellus*, Ol. *Norfolk* (Stephens)
Axinotarsus ruficollis, Ol. *Dunston Common* (Thouless); *Horning* (Brown); *Brandon* (Fowler)
Anthocomus rufus, Hbst. *Horning*; *Oby* (Paget)
 — *fasciatus*, L.
 — *terminatus*, Mén. *Horning*, *Ranworth*
Dasytes flavipes, F.
 — *ærosus*, Kies.
Psilocephala nobilis, Ill. Near *Norwich* (Dossetor); *Harford Bridges* (Thouless)

CLERIDÆ

- Tillus elongatus*, L. *Harleston district* (Fox)
Thanasimus formicarius, L. Burrell's list
Trichodes apiarius, L. *Norfolk* (Stephens)
Necrobia ruficollis, F.
 — *violacea*, L.
Corynetes cæruleus, De G.

PTINIDÆ

PTININA

- Ptinus germanus*, F. *Norfolk* (Fowler)
 — *lichenum*, Marsh.
 — *fur*, L.
Niptus hololeucus, Fald.
Hedobia imperialis, L.

ANOBIINA

- Dryophilus pusillus*, Gyll. *Earlham*, *Foxley Wood*, *Ringstead Downs*; *Brandon* (Fowler)
Priobium castaneum, F.
Anobium domesticum, Fourc.
 — *paniceum*, L. *Yarmouth* (Paget)
Xestobium tessellatum, F.
Ernobius mollis, L. *Thorpe*, June, 1874
Ptilinus pectinicornis, L. *Swardeston Common*; *Yarmouth* (Paget)
Ochina hederæ, Müll.

- Cœnocara bovisetæ*, Hoff. *Norwich*; *Horning*, *Ashwicken* (Power)
Dorcatoma chrysomelina, Sturm. *Denton* (Cruttwell)

BOSTRICHIDÆ

- Bostrichus capucinus*, L. Near *Cromer* (Stephens)

INSECTS

LYCTIDÆ

Lyctus canaliculatus, F. *Earlham*, July, 1885; *Wroxham* (Fowler)

CISSIDÆ

Cis boleti, Scop.
— *bidentatus*, Ol. *Harleston district* (Fox); *Horning* (Elliman)
— *nitidus*, Hbst. *Sparham* (Norgate)
— *festivus*, Panz.
Octotemnus glabriculus, Gyll. *Cromer* (Elliman)

CERAMBYCIDÆ

PRIONINA

Prionus coriarius, L.

CERAMBYCINA

Aromia moschata, L. *Norwich* (Thouless); *Sparham district* (Norgate); *Oby* (Paget)
Hylotrupes bajulus, L. *Cromer* (Lewcock *fide* Donisthorpe)
Callidium violaceum, L. *Norfolk* (Stephens); *Norwich* (Thouless)
— *variabile*, L. *Norwich* (Thouless)
Clytus arcuatus, L. Burrell's list
— *arietis*, L.
Gracilia minuta, F. *Norwich*; *Sparham* (Norgate); *Yarmouth* (Paget)
Molorchus minor, L. *Westacre*, 1900 (Thouless)
Rhagium inquisitor, F. Burrell's list.
— *Horning* (Wigham)
— *indagator*, Gyll. *Edgefield Wood* (Wigham)
— *bifasciatum*, F. *Brundall*; *Horsford* (Thouless)
Toxotus meridianus, Panz. *Arminghall*; *Sparham district* (Norgate); *Hellesdon* (Thouless)
Leptura sanguinolenta, L. *Norfolk Fens* (Winter *fide* Waterhouse)
— *livida*, F.
Strangalia quadrifasciata, L. *Ranworth*; *Horning* (Wigham); *Oby* (Paget)
— *armata*, Hbst.
— *nigra*, L. *Norfolk* (Fowler)
— *melanura*, L. *Foxley Wood*
Grammoptera tabacicolor, Dej. *Brandon* (Thouless)
— *ruficornis*, F.

LAMIINA

Acanthocinus ædilis, L. *Norwich*
Leiopus nebulosus, L. *Foxley Wood, Howe Grove*, *Booton Common* (Thouless); *Aylsham* (Wood)
Pogonocherus fasciculatus, De G. Near *Norwich* (Stephens)

LAMIINA (*continued*)

Pogonocherus bidentatus, Thoms. *Gimmingham* (Butler)
— *dentatus*, Fourc.
Monochammus sartor, F. *Norfolk* (Stephens)
— *sutor*, L. *Norwich* (Stephens)
Agapanthia lineatocollis, Don. *Norfolk* (Stephens); *Oby* (Paget)
Saperda carcharias, L.
— *populnea*, L. *Foxley Wood*
Tetrops præusta, L. *Postwick Grove, Ringland*; *Norwich* (Thouless)
Phytœcia cylindrica, L. *Ketteringham*; *Eaton, Gawdy Wood* (Brown); near *Norwich* (Bridgman); *Yarmouth* (Paget)
Oberea oculata, L. *Downham*, 1888 (Norgate)

BRUCHIDÆ

Bruchus cisti, F. Near *Norwich* (Doster)
— *pisi*, L.
— *rufimanus*, Boh.
— *atomarius*, L. *East Rudham* (Wood)
— *loti*, Payk. *Swanton Morley*; *Rudham* (Fowler)
— *villosus*, F. *Eaton, St. Faiths*; *Rudham* (Fowler); *Aylsham, Potter Heigham* (Wood)

CHRYSOMELIDÆ

EUPODA

Donacia crassipes, F. *Ranworth*
— *dentata*, Hoppe. *Lakenham*
— *versicolorea*, Brahm. *Hickling Broad*; *Booton Common, Horning* (Thouless); *Aylsham* (Fowler)
— *sparganii*, Ahr.
— *dentipes*, F.
— *limbata*, Panz.
— *bicolora*, Zsch. *Harford Bridges*, May, 1875; *Horning* (Thouless)
— *thalassina*, Germ. *Lakenham, Arminghall*; *Brundall* (Thouless)
— *impressa*, Payk. *Ranworth, Lakenham*; *Horning* (Thouless)
— *simplex*, F.
— *vulgaris*, Zsch. *Arminghall*; *Cringeford, Fornett* (Brown); *Harford Bridges* (Thouless)
— *clavipes*, F.
— *semicuprea*, Panz.
— *cinerea*, Hbst. *Ranworth*
— *sericea*, L.
— *discolor*, Panz. *Whitwell Common*
— *braccata*, Scop. *Horning, Ranworth*; *Surlingham* (Thouless)
— *affinis*, Kunze. *Ranworth* (Thouless)

A HISTORY OF NORFOLK

EUPODA (*continued*)

- Hæmonia curtisi, Lac. Near *Fakenham*
(*Skrimshire fide Stephens*), *Cley*
(*Babington fide Sharp*)
- Zeugophora subspinosa, F.
- Lema cyanella, L.
- lichenis, Voet.
- melanopa, L.
- Crioceris asparagi, L.

CAMPTOSOMATA

- Cryptocephalus coryli, L. } *Edgefield Wood*
— lineola, F. } (*Burrell*)
- aureolus, Suffr. } *Burrell's list*
- moræi, L. }
- bilineatus, L. *Norfolk* (*Fowler*)
- fulvus, Goeze. *Mousehold Heath*
- pusillus, F. *Sprowston, Foxley Wood*
- labiatus, L.
- exiguis, Schneid. *Eaton Common, August, 1888*; *Horning* (*Thouless*);
Woodbastwick (*Power*)
- frontalis, Marsh. *Foxley Wood*, July,
1885

CYCLICA

- Lamprosoma concolor, Sturm. *Norfolk*
(*Stephens*)
- Timarcha tenebricosa, Fab.
- violaceonigra, De G.
- Chrysomela marginalis, Duft.
- banksi, F. *Kirby Bedon*
- staphylea, L.
- polita, L.
- orichalcia, Müll. *Lakenham, June, 1883*
- hæmoptera, L. *Weybourne, Oct., 1890*
- varians, Schall. *Foxley Wood, September, 1891*
- goettingensis, L. *Burrell's list. Workhouse Lane, Norwich, April, 1880*
- graminis, L. *Burrell's list*
- menthrasti, Suffr. *Norfolk* (*Stephens*)
- fastuosa, Scop. *Burrell's list*
- didymata, Scriba
- hyperici, Forst.
- Melasoma populi, L. *Ranworth; Horning*
(*Thouless*); *Oby* (*Paget*)
- longicolle, Suffr. *Burrell's list*
- Phytodecta rufipes, De G. } *Brandon*
— viminalis, L. } (*Fowler*)
- olivacea, Forst.
- affinis, Suffr. *Norfolk Fens* (*Winter fide Waterhouse*)
- Gastroidea viridula, De G.
- polygoni, L.
- Phædon tumidulus, Germ.
- armoraciæ, L.
- cochleariæ, F.
- Phyllodecta vulgatissima, L.
- cavifrons, Thoms.
- vitellinæ, L.
- Hydrothassa aucta, F. *Burrell's list*

CYCLICA (*continued*)

- Hydrothassa marginella, L.
- Prasocuris junci, Brahm.
- phelandrii, L.
- Phyllobrotica quadrimaculata, L. *Horning*,
Brundall; *Surlingham* (*Thouless*);
Oby (*Paget*)
- Luperus nigrofasciatus, Goeze. *Mousehold Heath*
- rufipes, Scop. *Stratton Strawless* (*Thouless*)
- flavipes, L.
- Lochmæa capreæ, L. *Stratton Strawless*,
etc.; *Potter Heigham* (*Wood*)
- suturalis, Thoms. *Mousehold Heath*
- crataegi, Forst.
- Galerucella viburni, Payk. *Foxley Wood*,
Howe Grove
- nymphæ, L. *Horning*, etc.
- sagittariæ, Gyll.
- lineola, F.
- calmariensis, L.
- tenella, L.
- Adimonia tanaceti, L.
- Sermyla halensis, L.
- Longitarsus anchusæ, Payk. *East Rudham*
(*Wood*)
- ater, F. *Caistor, Norwich*; *Ditchingham*,
Ashwicken (*Power*)
- holsaticus, L. *Horning*, etc.
- quadriguttatus, Pont. *Burrell's list*
- castaneus, Duft.
- luridus, Scop.
- brunneus, Duft.
- fuscicollis, Steph.
- atricillus, L.
- melanocephalus, All.
- nasturtii, F. *Norwich District*; *Ditchingham* (*Power*)
- ballotæ, Marsh.
- flavigornis, Steph. } *Ditchingham*
- femoralis, Marsh. } (*Power*)
- pusillus, Gyll. *Aylsham, Hunstanton*
(*Fowler*)
- tabidus, F.
- jacobeæ, Wat.
- rutilus, Ill. *Eaton, August, 1875*
- ochroleucus, Marsh.
- gracilis, Kuts.
- lævis, Duft. *Gimingham* (*Butler*)
- pellucidus, Foudr. *Ditchingham* (*Power*);
Hunstanton (*Fowler*)
- Haltica lythri, Aub.
- ericeti, All. *Mousehold Heath, Roudham Heath*
- coryli, Brit. Coll. *Foxley Wood*
- oleracea, L.
- palustris, Weise. *Whitwell Common*, etc.
- Phyllotreta nodicornis, Marsh. *Norwich*;
Aylsham (*Wood*)

INSECTS

CYCLOPS (continued)

- Phyllotreta consobrina, Curt. *Norfolk*
(Fowler)
- punctulata, Marsh. *Ditchingham*
(Power)
- atra, Payk.
- cruciferæ, Goeze
- vittula, Redt.
- undulata, Ruts.
- nemorum, L.
- ochripes, Curt.
- sinuata, Steph.
- tetrastigma, Com.
- exclamatoris, Thunb.
- Aphthona lutescens, Gyll. *Ranworth*,
Horning, etc.
- nonstriata, Goeze.
- venustula, Kuts. *Ringland*
- atrocœrulea, Steph. *Bixley*, June,
1875
- virescens, Foudr. *Ditchingham* (Power);
Hunstanton (Fowler)
- Batophila rubi, Payk. *Ketteringham*
- ærata, Marsh.
- Sphaeroderma testaceum, F.
- cardui, Gyll.
- Apteropeda orbiculata, Marsh.
- globosa, Ill. } *Hunstanton* (Blatch)
- splendida, All. } *Hunstanton* (Blatch)
- Podagrion fuscicornis, L.
- Mantura rustica, L. *Framingham Earl*,
June, 1878
- obtusata, Gyll.
- Ochrosis salicariæ, Payk.
- Crepidodera transversa, Marsh.
- ferruginea, Scop.
- rufipes, L.
- ventralis, Ill. *St. Faiths* (Fowler)
- nitidula, L. Burrell's list
- chloris, Foudr. *Thorpe*, July, 1874
- aurata, Marsh.
- Hippuriphila modeeri, L.
- Chætocnema hortensis, Fourc.
- sahlbergi, Gyll. *Honing Common*, July,
1887
- Plectoscelis concinna, Marsh.
- Psyllodes chrysocephala, L.
- napi, Koch.
- cuprea, Koch. *Arminghall*, September,
1877
- affinis, Payk.
- marcida, Ill.
- dulcamaræ, Koch. *Hickling*; *Horning*
(Fowler)
- chalcomera, Ill. *Hunstanton* (Fowler)
- hyoscyami, L. Burrell's list
- picina, Marsh. *Brundall*, April, 1886

CRYPTOSOMATA

- Cassida murræa, L. *St. Faiths Wood*
(Wigham)

CRYPTOSOMATA (continued)

- Cassida nebulosa, L. *Ludham*, *Woodbastwick* (Thouless)
- vibex, F. *Stoke Holy Cross* (Thouless);
Ditchingham (Fowler)
- sanguinolenta, F. *Heigham Osier Carr*,
June, 1877; *Mousehold Heath*
(Thouless)
- vittata, Vill. *Norfolk* (Skrimshire)
- nobilis, L. *Norfolk* (Burrell)
- flaveola, Thunb. *Dunston*, *Mousehold Heath*; *Aylsham* (Wood)
- equestris, F.
- viridis, F.

TENEBRIONIDÆ

- Blaps mucronata, Latr.
- Crypticus quisquilius, L. *Sandy coast*, also
Brandon
- Heliopathes gibbus, F. *Yarmouth*, etc.
- Microzomus tibiale, F. *Sandy coast*, also
Brandon
- Phaleria cadaverina, F. *Yarmouth*; *Hunstanton* (Fowler)
- Heledona agricola, F. *Norfolk* (Fowler)
- Scaphidema metallicum, F. *Arminghall*
- Tenebrio molitor, L.
- obscurus, F.
- Gnathocerus cornutus, F. *Norwich* (Fowler)
- Tribolium ferrugineum, F. } *Norfolk*
- Hypophleæus bicolor, Ol. } (Fowler)
- Helops coeruleus, L. *Lower Close*, *Norwich*;
Yarmouth (Paget)
- striatus, Fourc. *Sparham district* (Nor-gate); *Horsford* (Thouless)

CISTELIDÆ

- Cistela luperus, Hbst.
- murina, L.
- Eryx ater, F. *Norwich* (Fowler)
- Ctenopus sulphureus, L.

LAGRIIDÆ

- Lagria hirta, L.

MELANDRYIDÆ

- Tetratoma fungorum, F. *Whitlingham*
(Wigham); *Fornett* (Brown)
- desmaresti, Latr. *Harleston district* (Fox)
- Orchesia micans, Panz. *Fornett*, *Broome*
(Brown)
- Hallomenus humeralis, Panz. *Lakenham*
- Conopalpus testaceus, Ol. *Dunston Common*,
July, 1883
- Melandrya caraboides, L. Burrell's list.
Yarmouth (Paget)

PYTHIDÆ

- Salpingus castaneus, Panz. *Stratton Straw-less*, etc.

A HISTORY OF NORFOLK

Salpingus æratus, Müll. *Norwich*

Rhinosimus ruficollis, L.

— *viridipennis*, Steph.

— *planirostris*, F.

Tropideres albirostris, Hbst. *Near Norwich*
(Stephens)

— *niveirostris*, F. *Norfolk* (Stephens)

Choragus sheppardi, Kirby. *Fornsett* (?)
(Brown)

OEDEMERIDÆ

Oedemera nobilis, Scop. *Postwick* (Dose-
setor)

— *lurida*, Marsh.

Oncomera femorata, F. *Starston* (Paul fide
Burrell)

Nacerdes melanura, Schmidt. *Mousehold
Heath*; *Yarmouth* (Paget)

Ischnomera cœrulea, L. *Eaton*, Kirby
(Brown); *Yarmouth* (Paget)

CURCULIONIDÆ

ATTELABINA

Apoderus coryli, L. } *Foxley*
Attelabus curculionoides, L. } *Wood*

RHYNCHITINA

Byctiscus betuleti, F. } *Foxley Wood*
— *populi*, L. }

Rhynchites cupreus, L. *Burrell's list*

— *æquatus*, L.

— *æneovires*, Marsh. *Burrell's list*

— *cœruleus*, De G.

— *minutus*, Hbst.

— *nanus*, Payk. *Burrell's list*; *Cawston
Heath* (Wood)

— *uncinatus*, Thoms. *Horning* (Elliman)

— *pubescens*, F. *Foxley Wood*

Deporaüs betulæ, L. *Foxley Wood*, *Brooke
Wood*, etc.

APIONINA

Apion pomonæ, F.

— *craccæ*, L. } *Norfolk* (Fowler)

— *subulatum*, Kirby }

— *ulicis*, Forst.

— *malvæ*, F.

— *urticarium*, Hbst.

— *miniatum*, Germ.

— *hæmatodes*, Kirby

— *rubens*, Steph.

— *pallipes*, Kirby. *Ditchingham* (Fowler)

— *rufirostre*, F.

— *viciae*, Payk. *Waxham* (Champion)

— *diforme*, Germ.

— *varipes*, Germ.

— *apricans*, Hbst.

— *bohemani*, Thoms. *Yarmouth*

— *trifolii*, L.

— *dichroum*, Bedel

— *nigritarse*, Kirby

— *confluens*, Kirby

— *hookeri*, Kirby. *Waxham* (Champion)

— *æneum*, F.

— *radiolus*, Kirby

— *onopordi*, Kirby

— *carduorum*, Kirby

— *flavimanum*, Gyll.

— *virens*, Hbst.

— *punctigerum*, Payk.

— *pisi*, F.

— *æthiops*, Hbst.

— *ebeninum*, Kirby. *Ashwicken* (Fowler)

— *striatum*, Kirby

— *immune*, Kirby. *Thorpe*, Oct., 1875

— *ononis*, Kirby

RHIPIDOPHORIDÆ

Metœcus paradoxus, L. *Burrell's list*.
Cossey (Wigham)

ANTHICIDÆ

Notoxus monoceros, L.

Anthicus floralis, L.

— *antherinus*, L. *Yarmouth* (Thouless)

XYLOPHILIDÆ

Xylophilus populneus, F. *Heigham*

— *oculatus*, Gyll. *Dunston Common*

MELOIDÆ

Meloë proscarabæus, L.

— *violaceus*, Marsh. *Reepham* (Thouless)

Lytta vesicatoria, L. *Norwich*, 1877.

Once taken by William Hooker and
once by Skrimshire (fide Burrell)

ANTHRIBIDÆ

Brachytarsus fasciatus, Forst. *Norfolk*
(Hooker fide Burrell)

Anthribus albinus, L. } *Norfolk*

Platyrrhinus latirostris, F. } (Stephens)

INSECTS

APIONINA (*continued*)

- Apion spencei, Kirby
- ervi, Kirby
- vorax, Hbst. *Aylsham* (Wood)
- gyllenhali, Kirby. *Gimingham* (Butler)
- meliloti, Kirby. *Ditchingham* (Fowler)
- scutellare, Kirby
- loti, Kirby
- senicum, Kirby
- tenue, Kirby
- simile, Kirby. *Hunstanton* (Fowler)
- curtisi, Walt. *Norfolk* (Fowler)
- limonii, Kirby
- marchicum, Hbst. *Waxham* (Champion)
- violaceum, Kirby
- hydrolapathi, Kirby
- humile, Germ.

OTIORRHYNCHINA

- Otiorrhynchus raucus, F. *Cromer* (Fowler);
Roughton, August, 1900 (Beare)
- scabrosus, Marsh.
- picipes, F.
- sulcatus, F.
- ligustici, L. Burrell's list
- ovatus, L.
- muscorum, Bris. *Hellesdon*
- Trachyphloeus aristatus, Gyll. *Gimingham* (Butler)
- squamulatus, Ol. *Ringland*, Sept., 1876
- scaber, L.
- scabriculus, L.
- spinimanus, Germ. *Cromer* (Walton)
- Cænopsis fissirostris, Walt. } *Mousehold*
— waltoni, Schön. } *Heath*
- Strophosomus coryli, F.
- capitatus, De G.
- retusus, F. } *Mousehold Heath*
- faber, Hbst. } *Mousehold Heath*
- lateralis, Payk.
- Brachysomus echinatus, Bonsd.
- Sciaphilus muricatus, F.
- Tropiphorus carinatus, Müll. *Norfolk* (Burrell)
- Barypeithes sulcifrons, Boh. *Sparham district* (Norgate)
- Liophlebus nubilus, F.
- Polydrusus micans, F. *Foxley Wood*
- tereticollis, De G. Burrell's list
- pterygomalis, Boh.
- flavipes, De G. *Brooke Wood*, *Ketteringham Common*
- cervinus, L.
- chrysomela, Ol. *Wells*, *Brancaster*
- confluens, Steph. *Brandon* (Fowler)
- Phyllobius oblongus, L.
- urticæ, De G.
- pyri, L.
- argentatus, L.
- maculicornis, Germ.

OTIORRHYNCHINA (*continued*)

- Phyllobius pomonæ, Ol.
 - viridæris, Laich.
 - viridicollis, F. *Brandon*, May, 1888 ;
Yarmouth (Fowler)
 - Tanymecus palliatus, F. *Cromer* (Fowler) ;
Waxham (Champion)
 - Philopedon geminatus, F. *Yarmouth* ;
Waxham (Champion)
 - Atactogenus exaratus, Marsh. *Mousehold Heath*
 - Barynotus obscurus, F. *Hellesdon*, May, 1879 ; *Caistor* (Paget)
 - elevatus, Marsh. *Aylsham* (Fowler)
 - Alophus triguttatus, F. Burrell's list
- CURCULIONINA**
- Sitones griseus, F.
 - regensteinensis, Hbst.
 - crinitus, Hbst.
 - tibialis, Hbst.
 - hispidulus, F.
 - humeralis, Steph.
 - flavescens, Marsh. *Gimingham* (Butler) ; *Horning* (Bedwell)
 - puncticollis, Steph.
 - suturalis, Steph. *Gimingham* (Butler)
 - lineatus, L.
 - sulcifrons, Thunb.
 - Gronops lunatus, L. *Mousehold Heath*
 - Hypera punctata, F.
 - fasciculata, Hbst. } *Norfolk* (Stephens)
 - arundinis, Payk. }
 - pollux, F. *Heigham Osier Carr*, May, 1875 ; *Aylsham* (Wood)
 - alternans, Steph. *Rudham* (Fowler) ; *Waxham* (Champion)
 - polygoni, L. *Felbrigg*, August, 1883
 - suspicosa, Hbst. *Hellesdon*, July, 1874
 - variabilis, Hbst.
 - plantaginis, De G. *Fornett*
 - meles, F. *Yarmouth*, *Foxley Wood*
 - nigrirostris, F.
 - Cleonus sulcirostris, L. *Mousehold Heath*, *Holkham* ; *Yarmouth* (Fowler)
 - albidus, F. *Hellesdon* (Hooker *fide* Stephens) ; *Thetford*, before 1837 (Salmon)
 - nebulosus, L. Burrell's list. *Mousehold Heath*
 - Lixus paraplecticus, L. *Halvergate* (Stephens) ; *Horning* (Thouless)
 - Liosoma ovatum, Clairv.
 - Liparus coronatus, Goeze. Burrell's list
 - Hylobius abietis, L. *Stratton Strawless* ; *Sparham district* (Norgate) ; *Arminghall Wood* (Wigham)
 - Pissodes notatus, F. *Yaxham* (Wollaston *fide* Walton)
 - Orchestes quercus, L.

A HISTORY OF NORFOLK

CURCULIONINA (*continued*)

- Orcheses scutellaris, Gyll. *Drayton Drew-ray*, June, 1889 ; *Norfolk* (Smith)
- alni, L.
- „ var. ferrugineus, Marsh.
- ilicis, F.
- avellanæ, Don.
- fagi, L.
- rusci, Hbst. *Brandon*, July, 1882
- stigma, Germ. *Foxley Wood*
- salicis, L.
- saliceti, Payk. *Norfolk* (Stephens)
- Ramphus flavicornis, Clairv.
- Orthocætes setiger, Beck. *Mousehold Heath* ; *Yelverton* (Brown)
- Procas armillatus, F. *Norfolk* (Stephens)
- Grypidius equiseti, F. *Cringleford* (Brown) ; *Aylsham* (Wood)
- Erirrhinus bimaculatus, F. *Norfolk* (Fowler)
- acridulus, L.
- Thryogenes festucæ, Hbst. *Horning*, etc.
- nereis, Payk. *Horning* (Fowler)
- Dorytomus vorax, F.
- tortrix, L. *Lakenham*
- hirtipennis, Bedel. *Thorpe*, Sept., 1876
- maculatus, Marsh.
- costirostris, Gyll. *Stoke Holy Cross*
- agnathus, Boh. *Cromer* (Fowler)
- pectoralis, Gyll.
- salicinus, Gyll. *Horning*, May, 1889 ; *Hoveton* (Power)
- Smicronyx jungermanniæ, Reich. *St. Faiths* (Power)
- Tanysphyrus lemnæ, F.
- Bagous alismatis, Marsh
- petro, Hbst. *Brandon*, *St. Faiths Common*
- binodulus, Hbst. Near *Norwich* (Stephens)
- tempestivus, Hbst.
- lutosus, Gyll. *Norfolk* (Stephens) ; *Wretham Heath*, August, 1890
- Anoplus plantaris, Naez.
- Elleschus bipunctatus, L. *Stratton Strawless*, *St. Faiths*
- Tychius quinquepunctatus, L. *South Creake* (Stephens)
- venustus, F. *Norfolk* (Stephens)
- meliloti, Steph. *Ditchingham* (Fowler)
- tibialis, Boh. *Yarmouth*, June, 1883
- Miccotrogus picirostris, F.
- Miarus campanulæ, L. *Barton Bendish*, August, 1881
- plantarum, Germ. *Bixley*, Sept., 1878
- Gymnetron villosulus, Gyll.
- beccabungæ, L.
- melanarius, Germ. *Ashwicken* (Fowler)
- rostellum, Hbst. *Harford Bridges*, May, 1878
- pascuorum, Gyll. *Postwick Grove*, June, 1875

CURCULIONINA (*continued*)

- Gymnetron labilis, Hbst. *Norfolk* (Fowler)
- antirrhini, Payk.
- linariæ, Panz. *Norfolk* (Stephens)
- Mecinus pyraster, Hbst.
- Anthonomus ulmi, De G.
- rosinæ, Des Gozis
- pedicularius, L.
- pomorum, L.
- rubi, Hbst.
- Nanophyes lythri, F.
- Cionus scrophulariæ, L.
- thapsus, F. *Framingham Pigot*, June, 1878
- hortulanus, Marsh. *Eaton*, *Earlham* ; *Fornsett* (Brown)
- blattariæ, F.
- pulchellus, Hbst.
- Orobitis cyaneus, L. *Foxley Wood* ; *Waxham* (Champion) ; *Yarmouth*, *Yelverton* (Brown)
- Cryptorrhynchus lapathi, L. *Heigham Oiser Carr*, *Eaton Common* ; *East Rayham* (Wood)
- Acalles ptinoides, Marsh. *Mousehold Heath*
- turbatus, Boh. *Ringland* ; *Bircham Newton* (Fowler)
- Cœliodes quercus, F.
- ruber, Marsh. *Dunston Common*, *Thetford* ; *Ashwicken* (Fowler)
- cardui, Hbst.
- quadrimaculatus, L.
- geranii, Payk. *Norfolk* (Stephens)
- Poophagus sisymbrii, F.
- nasturtii, Germ. *East Rudham* (Wood) ; *Heacham* (Fowler)
- Centhorrhynchus assimilis, Payk.
- setosus, Boh. *Ringland*, June, 1877 ; *St. Faiths* (Fowler)
- constrictus, Marsh.
- cochleariæ, Gyll.
- ericæ, Gyll. *Mousehold Heath*, etc.
- erysimi, F.
- contractus, Marsh.
- cyanipennis, Germ.
- chalybaeus, Germ.
- quadridentus, Panz.
- geographicus, Goeze. *Thetford*
- pollinarius, Forst.
- viduatus, Gyll. *Horning* (Elliman)
- quercti, Gyll. *Horning*. All the recorded British examples of this species come from this locality
- pleurostigma, Marsh.
- alliariæ, Bris. *East Carlton*, June, 1879 ; *Brandon*, May, 1888
- resedæ, Marsh. *Horning* ; *Waxham* (Champion) ; *Cromer* (Walker)
- rugulosus, Hbst. *Morston*, May, 1888 ; *Waxham* (Champion)

INSECTS

CURCULIONINA (*continued*)

- Centhorrhynchus melanostictus*, Marsh.
- *asperifoliarum*, Gyll.
- *chrysanthemi*, Germ. Near *Norwich* (*Sparshall fide Stephens*)
- *triangulum*, Boh. *Mousehold Heath*, July, 1886; *Brandon* (Walker)
- *trimaculatus*, F.
- Centhorrhynchidius floralis*, Payk.
- *hepaticus*, Gyll. *Ditchingham* (Fowler)
- *pyrrhorhynchus*, Marsh.
- *pulvinatus*, Gyll. *Hunstanton* (Blatch)
- *melanarius*, Steph.
- *terminatus*, Hbst. *Gimingham* (Butler)
- *horridus* F.
- *troglodytes*, F.
- Tapinotus sellatus*, F. *Horning*, 1838
(Brown); one specimen which remains unique as British
- Amalus haemorrhous*, Hbst. *Ringland*, May, 1878; *Bowthorpe*, June, 1879; *Ashwicken* (Fowler)
- Rhinoncus pericarpinus*, L.
- *gramineus*, Hbst. *Hickling*, June, 1888; *Brandon*, May, 1889
- *perpendicularis*, Reich.
- *castor*, F. *Mousehold Heath*; *Waxham* (Champion)
- *bruchoides*, Hbst. *Mousehold Heath*, June, 1883; *Ashwicken* (Power)
- Eubrychius velatus*, Beck. *Eaton Common*; *Aylsham* (Wood); *Waxham* (Champion)
- Litodactylus leucogaster*, Marsh.
- Phytobius comari*, Hbst. *Heigham*, *Brumstead Common*
- *waltoni*, Boh. *Woodbastwick*, *Horning* (Fowler)
- *quadrituberculatus*, F. *Norfolk* (Fowler)
- *canaliculatus*, Fahr. *Poringland*, July, 1888; *Waxham* (Champion)
- Limnobaris T-album*, L.
- Baris laticollis*, Marsh. Burrell's list.
- *picicornis*, Marsh. *Cromer*, *Sherringham*

CURCULIONINA (*continued*)

- Baris lepidii*, Germ. *Swanton Morley*, August, 1888
 - Balaninus venosus*, Grav. *Ringland*, *Beeston Park*, *Foxley Wood*
 - *nucum*, L. *Foxley Wood*
 - *turbatus*, Gyll. *Dunston* (Thouless)
 - *betulae*, Steph. *Eaton*, May, 1888
 - *rufidus*, Gyll. *Ringland*, September, 1875; *Ashwicken* (Power)
 - *villosus*, F. *Brundall*, May, 1883
 - *salicivorus*, Payk.
 - *pyrrhoceras*, Marsh.
 - Magdalis armigera*, Fourc.
 - *cerasi*, L.
 - *pruni*, L. *Aylsham* (Wood)
- CALANDRINA**
- Calandra granaria*, L. } *Norwich*
 - *oryzae*, L. }

SCOLYTIDÆ

- Scolytus destructor*, Ol.
- *multistriatus*, Marsh. *Eaton*, August, 1893 (Thouless)
- Hylastes ater*, Payk.
- *opus*, Er. *Ringland*, June, 1877
- *palliatus*, Gyll. *Stratton Strawless*, etc.
- Hylesinus crenatus*, F. *Cromer*, etc. (Fowler); *Aylsham* (Wood)
- *oleiparda*, F. *Bowthorpe*, June, 1879; *Cromer* (Fowler); *Aylsham* (Wood)
- *fraxini*, Panz.
- Phloeophthorus rhododactylus*, Marsh. *Weeting*, May, 1888
- Cryphalus abietis*, Ratz. *East Carlton*, May, 1877
- Pityophthorus pubescens*, Marsh. } *Cromer*
- Dryocætes coryli*, Perris. } (Elliman)

STYLOPIDÆ

- Stylops melittæ*, Kirby. Several times bred from *Andrena* by Bridgman

LEPIDOPTERA

The county of Norfolk, from its somewhat peculiar geological formations, its extensive coastline, and its very considerable area of fens and marshes, possesses a more than usually extensive, rich and varied entomological fauna. The total number of species of Lepidoptera is at least 1,460, and so large a proportion of these are of interest from their local distribution or actual rarity, that a local list, to be of value, must be of exceptional length.

A HISTORY OF NORFOLK

A slight preliminary sketch of its more important features may be useful. By great good fortune, records are preserved of some of the more interesting species in this county from a much earlier date than in most others. Thus with regard to that extraordinary species, *Hypogymna dispar*, of which the sexes are totally unlike each other ; which has so mysteriously disappeared altogether from this country, and yet by accidental introduction to the United States of America has so devastated vast tracts of woodlands that it has cost and is now costing the government of that country hundreds of thousands of dollars in the struggle for its extermination ; we are supplied with indubitable evidence of its former abundance with us. Mr. John Curtis writes thus (*British Entomology*, 1825-40) : ‘It is not easy to conceive the delight I experienced when a boy on finding the locality for the “Gypsy moth.” After a long walk I arrived at the extensive marshes of Horning in Norfolk, having no other guide to the spot than the *Myrica gale*, and on finding the beds of that shrub, which grows freely there, the gaily-coloured caterpillars first caught my sight. They were in every stage of growth, some being as thick as swan’s quills. I also soon discovered the moths, which are so different in colour as to make a tyro doubt their being partners. The large loose cocoons were also very visible, and on a diligent search I found bundles of eggs covered with the fine down from the abdomen of the female. With eggs, caterpillars, chrysalides and moths I speedily returned, enjoying unmixed delight in my newly-gained acquisitions.’ Now, although *Myrica gale* still flourishes in abundance at Horning there is no trace of the moth, and no evidence exists as to the date or means of its extinction. The Rev. T. H. Marsh however records its existence further west, at Cawston, not uncommonly, till 1861. Since that date it has apparently never been seen in Norfolk ; and except in most rare and casual instances, not within the British Isles.

The fens of Norfolk extending for many miles along the banks of the Yare, the Bure, the Thurn and the Ant form still, with those of Cambridgeshire, the sole haunts in these islands of that handsome and striking butterfly the swallow-tail (*Papilio machaon*), a species which abroad is by no means confined to fens, but flies at large in most parts of Europe, even ranging over mountain districts, and in hotter regions, as in Asia, especially affecting such situations. Why it should with us so scrupulously attach itself to fens, hardly ever flying a mile away from them, is probably an insoluble mystery. Happily the fens themselves are so situated, and so extensive, that there is little risk of its extermination. This advantage it shares with species of similar proclivities, such as *Spilosoma urticæ*, *Arsilonche venosa*, *Nonagria neurica*, *Meliana flammæa*, *Herminia cribralis*, *Schœnobius mucronellus*, *S. gigantellus*, *Peronea shepherdana*, *P. lorquiniana*, *Phoxopteryx paludana*, *Ergatis subdecurtella*, *Xystophora palustrella*, *Laverna phragmitella*, *Cosmopteryx lienigiella* and *C. orichalcea*, all of which are common to the Cambridgeshire fens as well as these. This protection is perhaps even more important in the cases of *Lithosia muscerda*, *Calamia brevilinea*, *Chilo paludellus* and *Sericoris doubledayana*, which seem

INSECTS

not to be found in Cambridgeshire, and except perhaps in the case of *L. muscerda*, nowhere else in the United Kingdom. *Calamia brevilinea* has a wonderful, and even a rather complete history, so far as the history of any species can be completely worked out. It appears certain that it had no existence in Ranworth Fen at the time, forty years ago, when W. Winter collected for two or three years largely there, sending his captures to purchasers everywhere, and showing himself to be a very skilful and accurate collector. In 1864 the first specimen was captured in the same fen, and after much hesitation and enquiry was described and published as a new British species. Several years elapsed, and then another was taken, and immediately afterwards a few more ; after this it steadily increased in numbers, until it is now in some seasons almost the most frequent noctua to be seen in an August night, at 'light,' in the fen. Moreover it has now spread to other fens at least ten miles away. Yet no record exists of its occurrence, except as a single example in Belgium, in any other part of the world ! Much the same may be said of the pretty little *Sericoris doubledayana*, which I had myself the pleasure of discovering in the same fen in plenty in 1872, which continues commonly there, but of which I have no certain knowledge anywhere else.

Another species of interest is *Macrogaster arundinis*, which, conversely, used to be found only in the Cambridge fens, and which I tried to introduce, in the egg, into Norfolk about the year 1868. The capture of two males in the same spot ten years later seemed to indicate success, but no more have been found there ; yet within the last ten years specimens have been secured in other fens at more than ten miles distance, giving colour to the belief that it may after all be one of the ancient inhabitants of the county, hitherto overlooked.

Leaving the interesting subject of the fens there is another tract of country to which especial attention must be drawn, that lying around Brandon, Thetford, Watton, Merton, and extending into the west of Suffolk and the east of Cambridgeshire. It is known as the 'Breck-sand,' the soil consisting of sand so loose that a field, if ploughed up in the daytime, may not unfrequently be blown level again by a strong wind in the night. It is understood to be the ancient sandy coast of the sea of the later Post-Glacial period, but now has lost the peculiar botanical features of the sea-coast, except in the existence still in plenty of two species of sea-side plants—a grass and a sedge—yet to all appearance its insect fauna remains unchanged, such sea-side species as *Agrotis valligera*, *Mamestra albicolon*, *Anerastia lotella*, *Bryotropha desertella*, *Lita marmorea* and *Argyritis pictella* being still to be found, often in abundance ; and more rarely *Agrotis præcox* and *Mesotype lineolata*. All these as is well known are otherwise distinctively the ordinary inhabitants, almost exclusively, of coast sandhills, and most of them are to be found on the present coast of Norfolk, distant twenty or thirty miles. But this 'Breck-sand' also furnishes a home to another series of species of even greater attractions, since though well known on the continent of Europe, they are for some reason of too delicate organization to exist at all, or only very rarely, on any

A HISTORY OF NORFOLK

other soil in these islands, yet in the district now under notice are often abundant. Such are *Agrophila sulphuralis*, *Acidalia rubricata*, *Lithostege nivearia*, *Oxyptilus distans*, *Tinea imella*, and more rarely *Dianthecia irregularis*.

A circumstance which must not be overlooked is the geographical position of the county, and the great probability of its serving as a refuge for insects driven by the occasional migratory impulse from the opposite shores of the Netherlands, Denmark, the Baltic coast, or Scandinavia. To such an impulse in themselves or in their progenitors may possibly be ascribed the occurrence of such exceedingly rare species as *Syrichthus alveus*, *Notodonta torva*, *Noctua flammatra*, *Cloantha perspicillaris*, *Heliothis scutosa* and *Ophiodes lunaris*; while to more successful immigrations may be due the presence as residents of such species as *Eupithecia extensaria*, *Cateremna terebrella*, *Tortrix decretana*, *T. lafauryana*, *Coccyx ochsenheimeriana* and *Bryotropha tetragonella*; possibly also some which we have been accustomed to look upon as restricted to northern mountain districts—*Mixodia palustrana*, *M. rubiginosana* and *Cedestis gysselinella*.

There is work of abundant interest to be found also in the extensive tracts of heath land, interspersed with bog and marsh, lying between Sandringham and King's Lynn, with their apparently inexhaustible riches in Micro-Lepidoptera; also in the chalk districts around Swaffham and elsewhere, or at Ringstead near Hunstanton, with their casual or frequent production of the insects of the South Downs. In the following list universally common species have not been enumerated:—

RHOPALOCERA

Papilio machaon, Linn. In the fens of the *Bure*, *Yare* and other rivers. This fine species, which is very extensively distributed over the globe, is in this country usually confined to two counties, of which Norfolk is one. Here, flying swiftly along the fen drains, and the banks of the slower rivers, or haunting the beds of wild flowers in swampy spots, it is by no means uncommon, and its larva may often be found feeding upon the leaves of the milk parsley (*Peucedanum palustre*). From the difficult or almost inaccessible nature of much of this ground there is good cause for hope that it will not readily be exterminated in this county.

Pieris crataegi, Linn. Formerly taken in the county; but, as in most other parts of England, now extinct.

Colias edusa, Linn. Extremely irregular and uncertain in its appearances, but at intervals widely spread in the county.

— *hyale*, Linn. *Norwich*, *Lynn*, *Hal-*

vergate, *Potter Heigham*, *Merton*, *Thetford*, *Aldeby*; very uncertain; common in the years 1868 and 1900.

Thecla betulæ, Linn. Found at *Sall* by the Rev. T. H. Marsh, and also recorded by Curtis (*British Entomology*, p. 264) as found in Norfolk.

— *w.-album*, Ill. Very local; *Newton St. Faiths*, *Lynn*, *Denton*, *Stoke Holycross*

— *quercus*, Linn. Local, upon the outskirts of woods and occasionally in the fens.

— *rubi*, Linn. *Norwich*, *St. Faiths Heaths*, *Swannington*, *Stody*, *Merton*, *Thetford*, *Broome Heath*, and commonly at *Cawston*.

Chrysophanus phlaeas, Linn. Common. Varieties with pale clouding on the fore wings are not unfrequent on boggy heaths, and a form having the hind wings wholly black, and the fore wings broadly bordered with the same colour, while the usual spots are nearly obliterated, has been taken near *Lynn*.

INSECTS

- Polyommatus ægon*, Bork. Locally common on boggy heaths
- *agestis*, Schiff. (medon, Esp.; astrarche, Bgs.). *Norwich, Hunstanton, Lynn, Merton, Thetford, Broom Heath*
 - *corydon*, Fab. Abundant at Ringstead Downs; found casually at *Hunstanton, Lynn and Snettisham*
 - *argiolus*, Linn. *Cawston, Booton, Thetford, Broome and Gillingham*; but not common
 - *alsus*, Fab. (*minima*, St. C.). *Cromer and South Creake*, scarce; but found plentifully near *Swaffham* by Mr. Atmore in 1898
 - *acis*, Sch. (*semiargus*, St. C.). Recorded in this county by Haworth and Stephens in the early parts of the century, but, as in other parts of England, long since extinct
- Apatura iris*, Linn. *Foulsham, Dersingham*, but rare; formerly at *Whitlingham*; not scarce in *Foxley Wood*
- Vanessa c.-album*, Linn. Very rare in the county. The Rev. W. F. Welch informed Lord Walsingham that he saw a specimen in his garden at *Steadsett* in October, 1858, and took one in the same place in September, 1861; the Rev. J. W. Colvin took one in the Rectory garden at *Yarmouth*; and Mr. E. A. Atmore reports a specimen at *Walpole*
- *polychloros*, Linn. Widely distributed and formerly common; now very uncertain in appearance
 - *antiopa*, Linn. An occasional migrant. In 1872 it was suddenly observed quite commonly in the county, especially at its north-east corner, and a considerable number were taken. Within a few days the course of the migrating flock was traced in some degree across the county and onward until specimens reached scattered localities in the West of England. It has been recorded casually in the county so early as 1834, and in various other years to 1891
- Argynnis paphia*, Linn. Generally uncommon; much more plentiful in *Foxley Wood*
- *aglaia*, Linn. Almost confined to the east coast, but once found commonly at *Whitesley*
 - *adippe*, Linn. Local in the woods of the north and west of the county
 - *lathonia*, Linn. Excessively rare. I have seen a specimen which was taken at *Plumstead*, near *Norwich*; others are recorded at *Beechamwell, Halvergate, Caistor and Booton*
- Argynnis euphrosyne*, Linn. Local in this county. *Stratton Strawless, Horsford, Tindall Wood, Cawston, Runton, Middleton*; in woods
- *selene*, Fab. Local in most of the same woods; also at *Hoveton St. John, Hethel and Wootten*
- Melitaea artemis*, Fab. (*aurinia*, St. C.). In marshy meadows; very local. *Norwich, St. Faiths, Horning, Cawston, Aldeby and Beachamwell*
- Melanargia galathea*, Linn. Found locally at *Kirby Cane* by Dr. W. M. Crowfoot, who also noticed that it moved from one spot to another almost every season. Recorded in *Norfolk* by Curtis
- Satyrus semele*, Linn. Common on coast sandhills and inland heaths
- Pararge ægeria*, Linn. *Norwich, Merton, Thetford, Ditchingham, Sparham*; uncommon in the county
- Epinephile tithonus*, Linn. Abundant
- *hyperanthus*, Linn. Plentiful in damp woods
- Syrichthus alveus*, Hüb. Several specimens were captured about twenty-five years ago in a damp hollow at the edge of a wood at *Cawston*, by the Rev. T. H. Marsh. These I found in his collection under the name of the next species, to which he had referred them—the latter being apparently absent from that district. The locality has been carefully searched in many subsequent years, but no more specimens have been found. This species is scarcely known otherwise as British, and it is supposed that a small migration from the other side of the North Sea may have taken place, but without causing a permanent settlement
- *alveolus*, Hb. *Woodton, Tyndall Wood, Ditchingham, Ketteringham, Horning*; scarce and very local in the county
- Hesperia comma*, Linn. Taken by Mr. Atmore, near *Swaffham*
- Cyclopides paniscus*, Fab. A single specimen was taken near *Thetford*, in the presence of the Rev. H. Williams
- Nisoniades tages*, Linn. *Ditchingham, Ketteringham, Cawston*; very local, yet recorded in the county by Haworth and Stephens

A HISTORY OF NORFOLK

HETEROCEA

- Smerinthus ocellatus*, Linn. Widely distributed, and rather common in the fens, feeding quite as frequently upon *Salix capræa* as upon the narrow-leaved willows
- *populi*, Linn. Common, and not confined to poplar, but feeding also upon broad-leaved sallows
 - *tiliæ*, Linn. Scarce, but found on lime near *Norwich*, *Merton*, *Thetford*, *Lynn*, *Raveningham*, *Sparham*, *Cawston* and *Horning*
 - Acherontia atropos*, Linn. Found occasionally in all parts of the county, but usually in the larva state
 - Sphinx convolvuli*, Linn. Also found occasionally in various parts of the county; in the year 1887 it suddenly appeared in considerable numbers, and many were taken—nearly thirty in my own garden at *King's Lynn*
 - *ligustri*, Linn. Generally common; its magnificent green larva, with lilac and white oblique side-stripes, and a caudal horn, may be found on privet bushes in the gardens, and at the road-sides
 - Deilephila galii*, Sch. Very rare, but taken at *Denton* in 1888 by the Rev. C. T. Cruttwell; also at *Gillingham* near *Becles* by Dr. Crowfoot; and at *Yarmouth*
 - *euphorbiæ*, Linn. I had the singularly good fortune to capture a male specimen, hovering at flowers of verbena, in my garden at *King's Lynn*, on September 7th, 1887. This I believe to be the only example ever taken in the county
 - *livornica*, Esp. There is a reliable record of the capture of a single specimen at *Thetford* in 1857; and another of the occurrence of an example at the electric light at *Carrow* near *Norwich* in 1891. Stephens gave this rare species as an inhabitant of the county (*Illustrations*, vol. i. p. 127), but without locality
 - Chærocampa celerio*, Linn. Also recorded by Stephens, but without definite locality
 - *porcellus*, Linn. *Norwich*, *Yarmouth*, *Ketteringham*, *Horning*, *Lynn*, *Hunstanton*, *Cawston*, *Merton*, *Thetford*, *Broome*; not very common
 - *elpenor*, Linn. Generally distributed, especially frequenting marshy spots
 - Macroglossa stellatarum*, Linn. Widely distributed; rather common on the coast; most attractive from its habit of poising itself at flowers like a humming-bird
 - Macroglossa fuciformis*, Linn. *Merton*, *Heydon*, *Cawston*, *Horsford*, *Briston*, *Drayton* and around *King's Lynn*; not common
 - *bombyliformis*, Esp. *Woodbastwick*, *Cawston*, *Horsford*; scarce
 - Sesia spheciiformis*, Sch. Taken by the Rev. T. H. Marsh at *Horsford* near *Norwich*; possibly wherever alder is abundant
 - *tipuliformis*, Linn. *Norwich*, *Yarmouth*, *Lynn*; in gardens
 - *myopiformis*, Bkh. *Norwich*; in gardens, among old apple trees
 - *culiciformis*, Linn. *Norwich* and *Dilham*; rare
 - *formiciformis*, Esp. *Norwich*, *Brundall* and *Kings Lynn*; among osier
 - *ichneumoniformis*, Sch. Recorded by old authors as having been taken at *South Creake* in 1823. It does not seem to have been noticed in the county since that date
 - Sphæcia apiformis*, Linn. Common around *Norwich*; also found at *Costonsey*, *Mortham*, *Cawston* and elsewhere, on poplars; more frequent in the eastern counties than elsewhere in the United Kingdom
 - *bembeciformis*, Hb. *Foxley*, *Hockering*, *Sparham*, *Hindolveston*, *Kerdiston*, and *Neatishead*; among sallow
 - Procris statices*, Linn. *Brandon*; recorded by Paget long ago at *Caistor*; found recently in plenty by Mr. Atmore near *Lynn*; and singly at *Hemsby* by Mr. Knights
 - Zygæna trifolii*, Esp. Near *Norwich* and *Lynn*, also at *Cawston*, *Ranworth*, *Horning* and *Neatishead*; in damp meadows and fens
 - *loniceræ*, Esp. *Foxley Wood* and *Aldeby*; local
 - *filipendulæ*, Linn. *Thetford*, *Aldeby*, *Cawston* and near *Lynn*; but uncommon and very local in this county; abundant in many parts of England
 - Macrogaster arundinis*, Hb. Two specimens were taken at *Ranworth Fen* in June, 1878, by Mr. W. H. B. Fletcher; three near *Horsey* in August, 1898, by Mr. Percy C. Reid, and one this year near *Hickling*, by Dr. F. D. Wheeler
 - Zeuzera æsculi*, Linn. *Norwich*, *Lynn*, *Yarmouth*, *Thetford*, *Merton*, *Denton*, *Geldstone*, *Whitwell*; scarce. Dr. Plow-

INSECTS

- right discovered, at *Lynn*, that the greater spotted woodpecker extracts the larvæ of this species from their burrows in the twigs of trees, and thereby doubtless prevents its becoming common
- Cossus ligniperda*, Fab. Generally distributed, and very destructive to willow, poplar, ash, and oak trees, its larva burrowing under the bark and through the solid wood, and causing decay
- Hepialus sylvinus*, Linn. Locally common on heaths
- *hectus*, Linn. Local, but common in woods
- Limacodes testudo*, Sch. *Cawston, Drayton, Felthorpe, Horsford*; scarce
- Hylophila prasinana*, Linn. In woods generally; not scarce
- *quercana*, Sch. *Merton, Foxley Wood, Horsford*; rather common at *Croxton* and *Lynn*
- Earias chlorana*, Linn. *Norwich, Barton Turf, Horning, Ranworth* and other fens; not scarce at *Lynn*
- Nola cucullatella*, Linn. Generally distributed among hawthorn and blackthorn, and in gardens about fruit trees
- *strigula*, Sch. Recorded by Paget at *Yarmouth*
- *confusalis*, Hb. Not scarce around *Norwich* and at *Foxley, Cawston, Sparham* and *Hockering*; also found at *Lynn* and *Denton*
- Nudaria senex*, Hb. Very common in the fens, and to be found more sparingly in marshy spots generally
- *mundana*, Linn. *Merton, Aldeby, Yarmouth, Cawston* and *Horning*; not common
- Calligenia miniata*, Forst. Widely distributed in woods and on wooded heaths
- Setina irrorella*, Linn. Mr. F. Norgate reports the capture of this local species in *Foxley Wood*
- *mesomella*, Linn. Widely distributed on boggy heaths, and in woods and even fens
- Lithosia muscerda*, Hb. Common at *Ranworth, Horning, Irstead, Dilham, Brundall* and elsewhere in the fens. Plentiful in some seasons; but almost confined to the fens of *Norfolk*, so far as the British Isles are concerned
- *aureola*, Hb. *Norwich, Merton, Denton, Sparham* and *Lynn*, occasionally; much more frequent in *Hockering* and *Foxley Woods*
- *helveola*, Ochs. *Cawston, Cromer, Stratton Strawless*; scarce
- Lithosia complana*, Bd. *Merton, Thetford, Yarmouth, Cawston, Lynn, Horning, St. Faiths* near *Norwich*. A variety tending towards that known as *L. molybdeola*, Gn., is found on heaths near *Brandon* and *Merton*
- *griseola*, Hb. Generally common, and abundant in the fens, where also its beautiful ochreous variety, *L. stramineola*, is not scarce
- *rubicollis*, Linn. Generally distributed in woods, but not common
- Genistis quadra*, Linn. *Norwich, Horsford, Merton, Barton Bendish, Drayton, Horning*; very uncommon
- Euchelia jacobæa*, Linn. Generally distributed; often abundant
- Callimorpha dominula*, Linn. Two specimens have been taken at *Burgh* near *Aylsham*, by Mr. Godfrey Burr
- Euthemonia russula*, Linn. Of general distribution on heaths
- Nemeophila plantaginis*, Linn. *Ketteringham*; very local
- Arctia villica*, Linn. *Norwich, Thetford, Merton, Brandon and Broome*
- Phragmatobia fuliginosa*, Linn. *Norwich, Merton, Brandon, Billingford, Sparham, Cawston, Horning*; scarce
- Spilosoma mendica*, Linn. *Norwich, Lynn, Cawston, Sparham, Merton, Horstead*; not common
- *urticæ*, Esp. *Norwich, Surlingham, Horning, Lynn, Barton Turf, Gillingham, Thetford*; mainly confined to fens
- Porthesia chrysorrhœa*, Linn. This species has been found at *Norwich, Yarmouth, Aldeby* and *Sparham*; but I know of no recent captures
- *auriflava*, Fab. Everywhere abundant about hedges
- Liparis salicis*, Linn. *Norwich, Yarmouth, Thetford, Gillingham, Horning, Hickling, Clenchwarton, Lyng, Barton*; formerly plentiful, but now apparently extinct in some of these localities, and generally greatly reduced in numbers
- Hypogymna dispar*, Linn. At the beginning of the present century, or the end of the last, very plentiful at *Horning*, where Curtis found it flourishing in such abundance that 'eggs, caterpillars, chrysalides and moths' could all be collected by him upon the same day. It was also found at *Cawston*, and there continued until the year 1861, since which period it has not, I think, been observed at large in the county, and scarcely in any other part of the British Isles
- Psilura monacha*, Linn. Near *Norwich*, also

A HISTORY OF NORFOLK

- at *Merton, Denton, Cawston, Foulsham* and *Foxley Wood*; usually confined to large woods
- Dasychira pudibunda*, Linn. Generally distributed, sometimes common
- *fascelina*, Linn. *Norwich, Yarmouth*; found occasionally, in the larva state only, and generally on hedge-banks
- Demas coryli*, Linn. *Thetford, Foxley Wood*; local
- Orgyia gonostigma*, Linn. *Horning and Ranworth Fens*; scarce
- Fumea roboricolella*, Br. *Merton, Cawston, Foxley Wood*; probably widely distributed
- *betulina*, Z. *Ranworth and Horning*; scarce
- Poecilocampa populi*, Linn. Generally distributed, but not very common
- Trichiura crataegi*, Linn. *Norwich, Lynn, Sparham, Cawston, Hockering, Foxley Wood*; scarce
- Eriogaster lanestris*, Linn. Plentiful in some seasons, its larvæ forming large silken nests on the hawthorn hedges
- Clisiocampa neustria*, Linn. Generally distributed
- Lasiocampa rubi*, Linn. Widely distributed on heaths
- *quercus*, Linn. In all wooded districts
- Odonestis potatoria*, Linn. Common; more especially so in the fens
- Gastropacha quercifolia*, Linn. Widely distributed, but not very common
- Saturnia carpini*, Bkh. This usually heath-frequenting species, is here far more frequent in the fens, and seems to feed most freely upon *Spiraea ulmaria*
- Drepana falcataria*, Linn. Generally distributed, and sometimes abundant among birch
- *hamula*, Sch. Oak woods in the *Norwich district, Merton, Thetford, Barton Bennis, Wormegay, Foxley, Drayton, Felthorpe and Alderford*
- *unguicula*, Hb. *Merton and Thetford*; among beech, but very local
- Platypteryx lacertinaria*, Linn. *Merton, Northwold*, scarce
- Cilix spinula*, Sch. Generally common
- Cerura bicuspidis*, Bkh. Two larvæ of this very rare species were found upon alder at *Aylsham* in 1881 by Mr. F. Norgate. The cocoons (empty) have been observed at *Merton and Sparham*
- *furcula*, Linn. *Yarmouth, Thetford, Merton, Stratton Strawless, Hoveton, Irstead, Barton Turf*; most frequent in fens, and usually captured on sallow in the larva state
- Cerura bifida*, Hb. *Norwich, Thetford, Aldeby, Cawston and Drayton*; among poplar and aspen
- *vinula*, Linn. Generally distributed; quite common as a larva upon Canadian poplar in gardens in the suburbs of *Norwich*
- Stauropus fagi*, Linn. *Norwich, Horsford, Stratton Strawless, Thetford, Drayton, Cawston, Foulsham, Hockering Wood, Cromer*; always about woods or wooded heaths. A black variety was captured by Mr. Thouless at the *Carrow electric lights*. John Curtis is said to have found it in the beginning of the century in the Cathedral Close at *Norwich*; and more than two centuries ago it was said by Mouffet to be common in *Norfolk*
- Notodonta dictæa*, Linn. *Norwich, Cromer, Thetford, Merton, Gillingham, Foulsham*; not common
- *dictæoides*, Esp. *Norwich, Cromer, Thetford, Merton, Foulsham*; and Mr. Atmore reports that it has recently become of frequent occurrence near *Kings Lynn*
- *ziczac*, Linn. Apparently in all the fens and wet woods; usually found in the larva state on sallow
- *trepida*, Fab. *Norwich, St. Faiths, Stratton Strawless, Merton, Croxton, Drayton, Kings Lynn*; scarce
- *torva*, Linn. The only satisfactorily known British specimen was reared by Mr. F. Norgate from one of a batch of larvæ found by him upon white poplar in the north-west of *Norfolk*. The remaining larvæ unfortunately died
- *dromedarius*, Linn. *Norwich, Aylsham, Cawston, Runham, Lynn, Foxley, Drayton, Whitwell, Merton*; not common
- Drymonia chaonia*, Sch. *Norwich, Stratton Strawless, Howe, Drayton, Cromer, Cawston, Denton*; rare
- *dodonæa*, Sch. *Norwich, Rackheath, Stratton Strawless, Cromer, Cawston, Merton, Thetford, Denton, Gillingham*; scarce
- Lophopteryx camelina*, Linn. *Norwich, Lynn, Cawston, Thetford, Gillingham*; common in *Foxley Wood*
- *cucullina*, Sch. Very rare; once taken at *Norwich* by Dr. F. D. Wheeler; larvæ found at *Runton, Arminghall, Sheringham, Horning, Morton and Sparham*
- Philodontis palpina*, Linn. Widely distributed among poplar; sometimes rather common in marshes

INSECTS

- Petasia cassinea*, Fab. *Norwich, Merton, Thetford, Cawston, Sparham, Hockering, Lynn and Foxley Wood*
- Closteria curtula*, Linn. *Merton, Thetford, Hingham*; rare
- *anachoreta*, Fab. *Barton*. A colony introduced here from the south coast, is said to be thriving
 - *reclusa*, Sch. Apparently generally distributed on boggy heaths and in fens among the dwarf sallows
- Diloba cæruleocephala*, Linn. Generally distributed, and in some seasons plentiful. At *Denton Rectory* I saw larvæ feeding freely upon *Pyrus japonica*, its ordinary food being hawthorn or blackthorn
- Gonophora derasa*, Linn. Widely distributed in woods, but not common
- Thyatira batis*, Linn. Also rather uncommonly in similar situations
- Cymatophora duplaris*, Linn. *Norwich, St. Faiths, Merton, Aldeby, Foxley, Foulsham, Neatishead, Horning, Lynn*; not plentiful
- *or*, Sch. *Foxley, Foulsham, Denton, Neatishead*
 - *ocularis*, Linn. *Norwich, Lynn, Cawston, Foulsham, Yarmouth, Denton, Gillingham, Thetford*; not rare among poplar
- Asphalia diluta*, Sch. *Merton, Neatishead, Foulsham*; not generally common in the county, but plentiful in *Foxley Wood*
- *flavicornis*, Linn. *Merton, Drayton, Stratton Strawless*; common near *Lynn* and at *Wootton*
 - *ridens*, Fab. *Norwich, Stratton Strawless, Felthorpe, Cawston, Drayton, Denton*; not very common
- Diphthera orion*, Esp. Taken near *Aldeby* by Dr. Crowfoot; not observed elsewhere in the county
- Acronycta leporina*, Linn. *Norwich, Stratton Strawless, Lynn, Runham, Horning, Foulsham, Cawston, Foxley, Merton, Thetford*; not very common
- *aceris*, Linn. Generally distributed
 - *megacephala*, Sch. *Norwich, Yarmouth, Thetford, Merton, Aldeby, Foxley, Cawston, Horning*; sometimes common
 - *alni*, Linn. *Merton, Foxley, Cawston, Foulsham, Sall, Aylsham, Stratton Strawless*; always rare, but recorded in the county by Haworth and Stephens
 - *strigosa*, Fab. Recorded at *Foulsham* by the Rev. T. H. Marsh. Stephens writes: 'Mr. Haworth possesses a single specimen of this insect, which I believe was taken in Norfolk.' The headquarters of the species are in *Cambridgeshire*
- Acronycta tridens*, Sch. *Norwich, Dunston, Thetford, Merton, Aldeby, Lynn, Cawston, Horning, Barton Turf*; not very rare
- *menyanthesidis*, Esp. Two larvæ were found by Dr. F. D. Wheeler in fens, one at *Hickling Broad*, the other at *Barton Turf*; of these one was reared, and is unquestionably the present species. Usually quite a northern insect
 - *rumicis*, Linn. *Merton, Thetford, Aldeby, Cawston, Horning*; not common in this county
 - *ligustri*, Sch. *Merton, Thetford, Aldeby, Foxley, Cawston, Foulsham, Lynn*; not common
- Arsilonche venosa*, Bkh. (*albovenosa*, St. C.). *Ranworth, Horning, Reedham*; found only in the fens
- Agrotis valligera*, Sch. (*vestigialis*, St. C.). Common on all the sandhills of the coast, and also on the loose sands of the ancient coast known as the 'Breck-sand,' near *Thetford, Brandon* and *Merton*
- *suffusa*, Sch. Generally distributed
 - *corticea*, Sch. *Norwich, Merton, Thetford, Cawston, Lynn, Hingham, Horning*; not scarce; sometimes in very black forms on the coast
 - *puta*, Hb. *Norwich, Aldeby, Thetford, Lynn, Cawston, Hunstanton*; not very common
 - *ripæ*, Hb. *Caistor, near Yarmouth, Hunstanton, Heacham*; probably wherever *Salsola kali* grows on the sea-sands
 - *cursoria*, Bkh. Abundant on the sandhills of the coast, at *Yarmouth, Caistor, and Hunstanton*. Not found inland
 - *nigricans*, Linn. Generally distributed, and in great variety
 - *tritici*, Linn. Very abundant upon coast sand-hills, and richly and variably coloured; also, in similar rich forms, in plenty throughout the 'Breck-sand' district; and in more dull and ordinary forms to be found occasionally on all heaths
 - *aquilina*, Sch. *Norwich, Brandon, Thetford, Horning, Cawston, St. Faiths*; sometimes common
 - *agathina*, Dup. *Lynn*; on heaths, but rare
 - *porphyrea*, Sch. Common on heaths
 - *præcox*, Linn. *Yarmouth, Caistor, Hunstanton*; on the coast sand-hills; also rarely near *Thetford* on the 'Breck-sand'
 - *saucia*, Hb. *Norwich, Yarmouth, Lynn, Cawston, Dilham, Sparham, Thetford, Aldeby*; uncertain, usually scarce

A HISTORY OF NORFOLK

- Agrotis pyrophila*, Sch. Reported to have been once taken at *Yarmouth*; but very doubtful
- *ravida*, Sch. *Lynn, Hunstanton, Thetford*; scarce. Recorded as a Norfolk species by Haworth and Stephens
- Axylia putris*, Linn. Widely distributed
- Triphæna fimbria*, Linn. Generally distributed in woods, and rather common at *Foxley*
- *janthina*, Sch. Widely distributed
- *interjecta*, Hb. Also generally distributed; to be seen flying along hedges in the afternoon sunshine
- *subsequa*, Sch. *Thetford, Croxton, Brandon*, occasionally; more rarely at *Yarmouth* and *Lynn*
- Noctua glareosa*, Esp. *Thetford, Aldeby, Croxton, Sparham, Cawston, Neatishead, Lynn, West Winch*; common
- *augur*, Fab. Widely distributed, especially in fens
- *triangulum*, Ochs. In most woods sparingly, but common at *Foxley*
- *flammatra*, Fab. A single example of this great rarity was obtained at 'light' at *Cromer* in 1875, by Mr. W. H. Thorntwaite. It is figured in the *Lepidoptera of the British Isles*. One or two other British specimens are known
- *ditrapezium*, Hb. *Foxley Wood*; rare
- *rhomboidea*, Tr. *Thetford, Merton, Aldeby, Hackford, Sparham*; not common
- *brunnea*, Sch. Widely distributed in woods, but not very common
- *dahlii*, Hb. *Aldeby, Denton, Wootton, Horning*; scarce
- *neglecta*, Hb. *Denton*; taken by the Rev. C. T. Cruttwell
- Eurois herbida*, Sch. Very local here; found at *Cawston, Foulsham*, and *Neatishead*, and in abundance at *Foxley Wood*
- *occulta*, Linn. Very scarce, but has been taken at *Yarmouth, Geldestone, Thetford, Foulsham*, and near *Lynn*
- *adusta*, Esp. *Aldeby, Horning*; scarce; more plentiful at *Foxley Wood*
- Charæas graminis*, Linn. Generally distributed, but not common
- Heliophobus popularis*, Fab. General on grass land
- *cespitis*, Sch. *Norwich, Merton*; scarce
- Neuria saponariæ*, Esp. Widely distributed, but not common
- Aplecta advena*, Sch. *Aldeby, Thetford, Ketteringham, Hingham, Foxley, Cawston, Foulsham, Lynn*; rather local. Recorded in Norfolk by the older writers under the name of *nitens*
- *nebulosa*, Tr. *St. Faiths, Thetford, Hockering*; scarcer than *advena*
- *ing*, *Foxley, Cawston, Foulsham, Horning*, and near *Lynn*; not common
- Hadena thalassina*, Sch. *Norwich, Thetford, Aldeby, Cawston, Lynn*; not common
- *suasa*, Sch. *Norwich, Yarmouth, Aldeby, Thetford, Cawston, Lynn, Ranworth, Horning*; scarce
- *pisi*, Linn. Generally distributed
- *genistæ*, Bkh. *Horsford, Thetford, Brandon*; scarce
- *chenopodii*, Sch. *Norwich, Lynn, Cawston, Thetford, Brandon*; common in the 'Breck-sand' districts and on some parts of the coast
- Mamestra albicolon*, Hb. *Yarmouth, Hunstanton* and elsewhere on sandy coasts, and also rather commonly near *Thetford* and *Brandon* on the 'Breck-sand'
- Hecatera dysodea*, Sch. *Norwich, Thetford, Aldeby, Cawston*; local
- *serena*, Sch. Generally distributed
- Dianthecia irregularis*, Hufn. This rare species has been taken by the Rev. H. Williams and others at *Croxton* and elsewhere around *Thetford*
- *carpophaga*, Bkh. *Norwich, Merton, Thetford, Croxton, Foxley, Cawston, Cromer*; rather common in the 'Breck' district
- *cucubali*, Sch. Frequent in the fens and marshy places among *Lychnis flos-cuculi*
- *conspersa*, Sch. *Aldeby, Geldestone, Thetford, Ketteringham, Horning*; scarce
- Polia flavigincta*, Linn. *Norwich, Thetford, Kirby Cane, Yarmouth, Lynn, Horning*; often in gardens
- Dryobotia protea*, Sch. *Norwich, Thetford, Aldeby, Cawston, Lynn*; very local, occasionally common
- Cleoceris viminalis*, Fab. *Aldeby, Merton, Cawston, Ranworth, Horning*, in marshy places, but not common, more plentiful in *Foxley Wood*
- Chariptera aprilina*, Linn. Widely distributed in oak woods
- Miselia oxyacanthæ*, Linn. Generally common
- Cerigo cytherea*, Fab. Generally distributed
- Hama abjecta*, Hb. *Yarmouth, Horning*; rare; more frequently on the coast near *Lynn*
- *anceps*, Hb. Generally distributed
- Xylophasia sublustris*, Esp. *Yarmouth, Aldeby, Foxley, Cawston*; not common
- *rurea*, Fab. *Norwich, Merton, Aldeby, Cawston, Hingham*; rather uncommon
- *hepatica*, Linn. *Norwich, Aldeby, Hingham, Hockering, Cawston*
- *scolopacina*, Esp. *Geldestone, Gillingham, Hingham*

INSECTS

- Foxley, Wootton, Lynn, Cawston, Beeston St. Andrew*; scarce
- Apamea basilinea*, Sch. *Norwich, Kirby Cane, Thetford, Merton, Cawston*; not common
- *gemina*, Hb. *Norwich, Aldeby, Thetford, Cawston, Lynn*; not very common
 - *unanimis*, Hb. *Norwich, Brundall, Merton, Thetford, Aldeby, Foxley, Cawston, Ranworth, Horsey, Lynn*; in the fens and marshy meadows
 - *connexa*, Bkh. *Foxley, Foulsham, and Neatishead*; very local, and uncommon in the county
 - *ophiogramma*, Esp. *Norwich, Aldeby, Horning*; in fens among *Phalaris arundinacea*
- Celæna Haworthi*, Curt. *Lynn, Merton, Horning, Ranworth*; scarce, and here confined to fens, but larger and more brightly coloured than in its more usual northern localities
- Miana literosa*, Haw. *Norwich, Yarmouth, Hunstanton, Thetford, Aldeby, Foxley, Cawston, Horning, Thurn*; most frequent on the coast
- *fasciuncula*, Haw. *Norwich, Brundell, Yarmouth, Aldeby, Thetford, Cawston, Rising, Horning*; abundant in the damp meadows which border the fens
 - *furuncula*, Sch. *Norwich, Aldeby, Merton, Brandon, Thetford, Hunstanton, Wootton, Cawston, near Horning*; local, but abundant in rough fields on the coast, and in chalky fields inland
- Eremobia ochroleuca*, Sch. *Norwich, Aldeby, Thetford, Denton, Hackford, Hunstanton*; scarce
- Dipterygia pinastri*, Linn. Widely distributed in woods
- Cloantha perspicillaris*, Linn. The capture of a single specimen at *Yarmouth* was recorded in the *Entomologist*, 1st series, p. 128 (1841). After the lapse of half a century, a second was secured by Dr. E. W. Carlier at a gas lamp in the outskirts of *Norwich* in the year 1892. This is one of the rarest of British species
- Trachæa atriplicis*, Linn. *Thetford, Croxton, Middleton, and Bawsey near Lynn*; very scarce
- Helotropha fibrosa*, Hb. *Norwich, Surlingham, Aldeby, Cawston, Ranworth, Horning, Lynn*; common in the fens
- Hydræcia nictitans*, Linn. *Norwich, Merton, Hoveton, Horning, Hunstanton*
- *petasitis*, Dbl. I have seen a single specimen which was taken at *Costessey* near *Norwich*; probably it is in some degree overlooked
- Gortyna flavago*, Sch. *Norwich, Surlingham, Yarmouth, Merton, Thetford, Lynn, Cromer*; not very common
- Nonagria cannæ*, Och. Taken at *Barton Broad* by Dr. F. D. Wheeler, and also near *Stalham*. Strictly confined to the fens, and in them very local
- *typhæ*, Esp. *Norwich, West Caistor, Aldeby, Merton, Horning, Barton Broad*, abundant near *Lynn*; probably everywhere in wet places among *Typha latifolia*
 - *neurica*, Hb. *Yarmouth, Aldeby, Merton, Ranworth, Horning*; probably in all the fens, but of obscure and secret habits, and rarely taken except at 'light'
- Cœnobia rufa*, Haw. (*despecta*, Stn.). Probably in all the fens, flying plentifully at sunset over coarse grasses and herbage in the more open portions. Found even in small isolated marshes
- Tapinostola fulva*, Hb. Moderately common in all the fens, and also in damp woods
- *helmanni*, Evers. There is a record of a single specimen taken many years ago at *Yarmouth*. As a constant inhabitant of the fens of Cambridgeshire, its apparent absence from those of this county is especially noticeable
 - *elymi*, Tr. *Caistor, near Yarmouth, Hunstanton, Snettisham*; on the coast among *Elymus arenarius*
- Calamia lutososa*, Hb. *Norwich, Yarmouth, Aldeby, Lynn, Horning, Neatishead*; in the fens, and also especially frequenting the broad ditches which drain marshy tracts near the sea
- *phragmitidis*, Hb. Like the last, frequenting the fens, and also drains and ditches where reeds abound; common
 - *brevilinea*, Fenn. *Horning, Ranworth*, and other portions of the fens of the *Bure* and its affluents. The first known specimen was taken at *Ranworth* in 1864, by Mr. Chas. Fenn, and for some years it remained unique, but gradually the species appears to have become established, and has increased in numbers to such an extent that thirty specimens have been taken at 'light' in a single night, and the insect has become well known. It does not however appear to have spread more than a few miles; has not been found in any other British locality; and has been taken once only abroad—in *Belgium*
- Meliana flammea*, Curt. *Merton, Brandon*; rare; much more plentiful in the

A HISTORY OF NORFOLK

- neighbourhood of *Barton Broad* and in the fens of the *Bure*
- Leucania pudorina*, Sch. *Aldeby, Merton, Ketteringham, Cawston, Lynn, Ranworth*; probably in the outer portions of all fens and in many damp woods
- *straminea*, Tr. In all the fens, sometimes commonly
- *obsoleta*, Hb. Very scarce in the fens, noticed at *Horning*, and also at *Merton* and *Cawston*
- *littoralis*, Curt. *Yarmouth, Caistor, Horsey, Hunstanton*; frequent on sandy coasts among *Ammophila arundinacea*
- *conigera*, Sch. Generally common
- *lithargyria*, Esp. Widely distributed, doubtless in all woods
- *turca*, Linn. Recorded at *Foulsham* by the Rev. T. H. Marsh
- Panolis piniperda*, Esp. In all fir woods; sometimes common
- Tæniocampa miniosa*, Sch. Taken by Mr. F. Norgate in *Foxley Wood*
- *populeti*, Fab. *Gillingham, Cawston*; scarce. Mr. Atmore found its larva commonly near *Lynn* in 1897
- *instabilis*, Sch. Generally common
- *munda*, Sch. *Aldeby, Thetford, Cawston, Lynn*; not common
- *gracilis*, Sch. *Norwich, Aldeby, Thetford, Cawston, Lynn*; not rare in marshes
- Pachnobia rubricosa*, Sch. *Norwich, Aldeby, Beachamwell, Sparham, Cawston, Lynn*; not uncommon
- Rusina tenebrosa*, Hb. *Norwich, Merton, Aldeby, Cawston, Lynn*; not very common in this county
- Mania maura*, Linn. *Norwich, Aldeby, Merton, Thetford, Sparham, Lynn, Horning*; tolerably common
- Amphipyra pyramidea*, Linn. *Norwich, Yarmouth, Broome, Merton, Thetford, Ketteringham, Lynn*; very local; abundant in some seasons
- Toxocampa pastinum*, Tr. *Merton, Thetford, Aldeby, Cawston, Neatishead*, rather common near *Lynn*
- Hydrilla palustris*, Hb. A single specimen fell into my hands at a gas lamp in the outskirts of *Norwich* in June, 1869. I know of no other capture in the county. It is always rare, but occasionally taken in the Cambridgeshire fens
- *arcuosa*, Haw. *Norwich, Thetford, Foulsham*; not common
- Caradrina morpheus*, Hufn. *Norwich, Aldeby, Merton, Thetford, Lynn, Cawston, Horning*; common
- *alsines*, Bkh. *Norwich, Aldeby, Merton*,
- *Foxley, Cawston, Lynn, Neatishead, Horning*; not very common
- Grammesia trilinea*, Sch. *Norwich, Aldeby, Merton, Thetford, Wootton, Cawston*; apparently not common
- Dyschorista ypsilon*, Sch. Generally common among willows
- *spectata*, Hb. *Norwich, Thetford, Cawston, Lynn*; scarce
- Euperia fulvago*, Sch. Taken at *Tivetshall* by Mr. Upcher
- Calymnia diffinis*, Linn. *Merton, Gillingham, Thetford, Lynn, Cawston, Ketteringham, Kimberley*; local among elms
- *affinis*, Linn. *Norwich, Gillingham, Thetford, Lynn, Cawston, Ketteringham, Neatishead*; not common
- Tethea subtusa*, Sch. *Norwich, Cawston, Lynn, Croxton*
- *retusa*, Linn. *Merton, Hingham, Horning, Ranworth*; scarce
- Orthosia rufina*, Linn. (*helvola*, St. C.). *Norwich, Stratton Strawless, Kirby Cane, Thetford, Cawston*
- *lunosa*, Haw. *Norwich, Cawston, Thetford, Kirby Cane*
- *litura*, Linn. Generally distributed
- *lota*, Linn. *Norwich, Kirby Cane, Thetford, Cawston*; common
- *macilenta*, Hb. In the same localities; sometimes common
- Cirrædia xerampelina*, Hb. *Norwich, Gillingham, Merton, Thetford, Cawston, Lynn, Castle Rising*; very scarce
- Xanthia citrago*, Linn. *Norwich, Kirby Cane, Denton, Cawston*; very local
- *cerago*, Sch. Generally distributed
- *silago*, Hb. *Norwich, Kirby Cane, Merton, Thetford, Cawston, Sparham, Wootton*; not very common, more plentiful in *Foxley Wood*
- *aurago*, Sch. *Norwich, Aldeby, Kirby Cane*; very local and scarce
- *gilvago*, Esp. *Norwich, Denton, Merton, Thetford, Croxton, Lynn, Mintlyn, Sheringham*; a very local species, but not scarce in this county
- Cerastis ligula*, Esp. (*spadicea*, Stn.). Generally distributed
- Scopelosoma satellitia*, Linn. Generally common
- Xylina rhizolitha*, Sch. *Norwich, Reepham, Kirby Cane, Thetford, Cawston, Sparham, Sall, Foxley, Hockering, Whitwell*; in woods, occasionally
- Xylocampa lithoriza*, Bkh. *Norwich, Horsford, Coltishall, Merton, Thetford, Lynn, Cawston, Sparham*; not common
- Calocampa exoleta*, Linn. Widely distributed, but not common

INSECTS

- Calocampa vetusta*, Hb. *Thetford, Cawston*; scarce
- Cucullia verbasci*, Linn. Probably wherever in the county *Verbascum thapsus* and *V. pulverulentum* are found; rarely seen except in the larva state
- *scrophulariae*, Sch. Excessively rare, but a few specimens have been reared by Dr. F. D. Wheeler from larvæ found at *Bramerton*, and by the Rev. H. Williams from some found near *Croxton*, upon *Verbascum*
- *lychnitis*, Ramb. Found by Dr. W. M. Crowfoot at *Aldeby*; rare
- *asteris*, Sch. Stephens stated that this species occurred in Norfolk, but gave no locality. I took it sparingly at *King's Lynn*, and also found its larva feeding on *Aster tripolium* in salt marshes
- *chamomillæ*, Sch. *Norwich*, one specimen; several more obtained at *Cromer* by Mr. W. H. Thorntwaite
- *umbratica*, Linn. *Norwich, Yarmouth, Broome, Merton, Thetford, Lynn, Horning*; not very common
- Plusia chryson*, Esp. (*orichalcea*, Stn.). Curtis (*British Entomology*) says that this species was taken at *Hethersett*. I know of no more recent capture in the county; yet it is constantly obtained in Cambridgeshire
- *chrysitis*, Linn. Generally common
- *moneta*, Fab. This beautiful and most interesting species was discovered in the south of England—evidently then a migrant from the Continent—in the year 1870. From that time it has gradually spread and increased in numbers and in area of distribution, and in June, 1894, a specimen was captured at *Sprowston, Norwich*, by Mr. Eric Tillett. The following year another was taken in the same place by Mr. B. C. Tillett, and subsequently others, at *Norwich*, by Messrs. Hinde and Pittman
- *festucæ*, Linn. In fens and wet meadows generally, flying before sunset at the flowers of *Lythrum salicaria* and *Iris pseudacorus*
- *iota*, Linn. Widely distributed, but not common
- *pulchrina*, Haw. (v—*aureum*, Gn.). *Norwich, Denton, Aldeby, Hingham, Cawston, Sparham, Foxley*; scarce
- Habrostola urticæ*, Hb. Generally distributed
- *triplasia*, Linn. *Thetford, Cawston, Hemsby, Horning*; scarce
- Chariclea marginata*, Fab. *Caistor, Cromer*, *Sparham, Whitwell, Foxley, Merton*; scarce
- Heliothis armigera*, Hub. *Cromer, Holkham, Yarmouth*; rare
- *peltigera*, Sch. One taken at *Cromer* in 1875, and three more in 1884; rare
- *dipsacea*, Linn. *Yarmouth, Denton, Merton, Thetford, Brandon, Barton Bendish, Lynn*; most frequent upon the 'Breck-sand,' where it flies about fields of *Onobrychis*, *Anthyllis*, and other cultivated Papilionaceous plants. Also reared from larvæ found on *Linaria*, *Daucus*, and other flowers
- *scutosa*, Schl. Two specimens were obtained at 'light' at *Cromer* by Mr. W. H. Thorntwaite in 1875. One of these is in my possession. Another, in the collection of Dr. Mason, is labelled 'Captured by A. Coburn, flying in the sunshine, 24th June, 1880, near Attleburgh.' The insect is excessively rare with us
- Heliodes arbuti*, Fab. *Croxton, Denton, Broome, Cawston*; rather common near *Lynn*
- Acontia luctuosa*, Sch. *Merton, Thetford, Brandon*; confined, in this county, to the 'Breck' district, where it frequents fields of sainfoin and trifolium
- Hydrelia argentula*, Esp. Curtis (*British Entomology*) says, 'Taken at the end of June among reeds and rushes in bogs in *Norfolk* by Mr. Haworth.' A similar statement is made by Wood (*Index Entomologicus*), and by Westwood (*British Moths and their Transformations*). But Mr. Haworth did not himself mention this in the *Lepidoptera Britannica*, whence it seems probable that his captures of this species were subsequent to the publication of his great work. In a copy thereof, which formerly belonged to Mr. N. A. Vigors, is this statement in his own handwriting: 'A pair were given to me by Mr. Haworth which were taken in *Norfolk*.' The locality in *Norfolk* is understood to have been *Beachamwell*, but I can find no evidence of the existence of this species there since the time of Haworth—quite early in the present century. But I find that specimens were taken at *Stoke Ferry* by Mr. W. T. Cross of Ely within the last four years. Elsewhere it is an extraordinarily local species, but it is common in one of the Cambridgeshire fens
- Hydrelia uncana*, Linn. *Aldeby, Merton*

A HISTORY OF NORFOLK

- Surlingham, Hoveton, Horning, Ranworth, Cawston, Wormegay*; confined to the fens and marshes, but in them sometimes common
- Agrophila sulphuralis*, Sch. *Merton, Didlington, Croxton, Thetford, Brandon*; plentiful in the 'Breck' district among *Convolvulus arvensis*, not only in this county, but in *Suffolk* and *Cambridgeshire*. Very rare elsewhere in the British Isles
- Erastria fuscula*, Sch. *St. Faiths, near Norwich, Merton, Foulsham, Foxley*; in woods, usually of fir
- Bryophila glandifera*, Sch. Lord Walsingham has recorded the capture of a single specimen on the *Merton* estate
- *perla*, Sch. Abundant everywhere on walls
- Phytometra ænea*, Sch. *Merton, Holt Heath, Cawston, Wootton, Lynn, Horsford*; not very common
- Anarta myrtilli*, Linn. Generally distributed on heaths
- Sarrothripa revayana*, Sch. *Merton, Croxton, Felbrigge, Horsford, Cawston, Lynn*; in woods, scarce
- Gonoptera libatrix*, Linn. Generally common
- Ophiodes lunaris*, Sch. A single specimen of this, one of the rarest of British species, was captured at 'light' at *Stratton Strawless*, in 1878, by Dr. F. D. Wheeler
- Catocala fraxini*, Linn. Lord Walsingham has recorded the capture of a specimen of this noble species at *Holkham*; and the Rev. T. H. Marsh of another at *Cawston*. Dr. Paget noted the occurrence of an example at *Yarmouth*, and another has been taken at *Hunstanton*. The capture by Dr. E. W. Carlier of a fine specimen near *Norwich*, in 1894, was rendered less satisfactory by the discovery that two specimens reared that season in *Norwich* from foreign larvæ had accidentally escaped
- *nupta*, Linn. Generally distributed wherever willows abound
- *promissa*, Sch. *Foxley, Foulsham*, and once at *Hethersett*; an exceedingly local species
- Euclidia mi*, Linn. Widely distributed in meadows, but not common
- *glyphica*, Linn. *Aldeby, Merton, Cawston, Heydon, Horning, Neatishead, Hingham*; not common
- Aventia flexula*, Fab. *Norwich, Chedgrave, Merton, Thetford, Neatishead, Hingham*, and the *Lynn district*; very uncommon
- Herminia barbalis*, Linn. *Foulsham, Cawston, Horning, Denton, Castle Rising, Lynn*
- *tarsipennalis*, Tr. Generally distributed
- *grisealis*, Sch. Widely distributed; not very common
- *cribralis*, Hb. *Ranworth, Horning, Lynn, Merton, Aldeby, Diss*; very local in fens and marshes
- Hypenodes albistrigalis*, Haw. *Aldeby, Merton, Ranworth*; usually in fens
- *cortæstrigalis*, Steph. *Merton, Cawston, Horning, Ranworth*; scarce; more frequent on the boggy heaths near *Lynn*
- Schrankia turfosalis*, Wock. Very abundant at *Wootton, Bawsey* and elsewhere on boggy heaths in the *Lynn district*
- Hypena rostralis*, Linn. *Norwich, Aldeby, Thetford, Horning, Lynn*; not very common
- Rivula sericealis*, Sch. Widely distributed in marshes and damp woods
- Brephos parthenias*, Linn. *Thetford, Neatishead*, heaths near *Lynn*; very local
- *notha*, Hb. Has been taken at *Horsford* near *Norwich*
- Ourapteryx sambucata*, Linn. Common generally
- Angerona prunaria*, Linn. *Aldeby, Denton, Foxley, Foulsham, Lynn*; in large woods
- Venilia maculata*, Linn. *Merton, Haveringland, Cawston, Horning*; very local
- Cabera pusaria*, Linn. Mr. Atmore has succeeded in uniting this species with its variety *rotundaria* by rearing both
- Bapta temerata*, Sch. *Norwich, Ketteringham, Merton, Yarmouth, Neatishead, Cawston, Lynn*; not very common
- *taminata*, Sch. *Norwich, Merton, Thetford, Cawston, Sheringham, Lynn*; most frequent in *West Norfolk*, and in certain seasons abundant
- Macaria liturata*, Linn. Generally distributed in woods of Scotch fir
- Panagra petraria*, Hb. Generally common among brake-fern on heaths; a singularly pale variety has been found in *Ranworth* fen
- Strenia clathrata*, Linn. Generally distributed, and common in clover fields; variable in colour in this county
- Fidonia piniaria*, Linn. Abundant in all woods of Scotch fir
- Numeria pulveraria*, Linn. *Cawston, Foulsham, Hingham*
- Aspilates strigillaria*, Hb. *Horning*; scarce
- *citraria*, Hb. *Norwich, Merton, Thetford, Brandon, Hunstanton, Snettisham*; common in open fields in the 'Breck' district

INSECTS

- Eurytome dolobraria*, Linn. *Norwich, Costessey, Merton, Thetford, Aldeby, Foxley, Cawston, Wootton, Neatishead, Swaffham, Lynn*; always scarce
- Odontoptera bidentata*, Linn. *Norwich, Aldeby, Merton, Thetford, Cawston, Lynn*; not very common
- Ennomos alniaria*, Linn. (*tiliaria*, Stn.). *Norwich, Merton, Thetford, Lynn, Sparham, Ranworth, Neatishead*; frequent where alders grow in the neighbourhood of fens
- *fuscanaria*, Haw. *Norwich, Lynn, Denton*; scarce; more common in the fens which line the *Bure*
- *erosaria*, Sch. *Norwich, Merton, Denton, Brandon, Cawston, Lynn*; scarce; also more frequent in the fens of the *Bure*
- *angularia*, Sch. (*quercinaria*, St. C.). *Norwich, Merton, Thetford, Cawston, Lynn*; not common
- Crocallis elinguaria*, Linn. Widely distributed
- Himera pennaria*, Linn. *Norwich, Yarmouth, Merton, Thetford, Cawston, Lynn*
- Selenia illustraria*, Hb. *Thetford, Lynn, Barton Bendish*; scarce
- *lunaria*, Sch. *Merton*; once taken at *Norwich* by Dr. Wheeler
- Pericallia syringaria*, Linn. Widely distributed, but not very common
- Epione apiciaria*, Sch. Generally distributed; abundant in the fens
- *vespertaria*, Linn. Very rare; single specimens are said to have been captured at *Cawston* and *Neatishead*
- Elloia fasciaria*, Linn. In all woods of Scotch fir
- Biston hirtarius*, Linn. Common at *Norwich*; found at *Denton, Lynn, Watton, Cawston, Raveningham*; but more rarely
- *prodromarius*, Sch. *Norwich, Thetford, Lynn, Sall, Cawston, Raveningham*; not common
- *betularius*, Linn. Generally distributed; the black variety made its appearance in this county about seven years ago, but is still rare
- Phigalia pilosaria*, Sch. *Norwich, Sparham, Cawston, Raveningham, Lynn, Wootton*; not very common
- Gnophos obscurata*, Sch. *Merton, Barton, Northwold, Yarmouth*; scarce
- Cleora lichenaria*, Sch. Generally distributed
- Tephrosia biundularia*, Esp. *Horsford, Stratton Strawless, Foulsham, Lynn*; not common
- *extersaria*, Hb. *Foxley Wood*
- Tephrosia punctularia*, Sch. *Merton, Gillingham, Wootton, Foulsham, Lynn*; not common
- Boarmia rhomboidaria*, Sch. Everywhere common; a beautiful black variety is found, not very rarely, at *Norwich*
- Hemerophila abruptaria*, Thunb. *Norwich, Merton, Thetford, Cawston, Wootton, Lynn*; not very common
- Hibernia aurantiaria*, Hb. *Norwich, Merton, Thetford, Aldeby, Cawston*
- *leucophaearia*, Sch. In the same localities; not common
- *rupicapraria*, Sch. Probably everywhere in hedges
- Abraxas ulmata*, Fab. *Merton, Ketteringham, Aylsham, Mintlyn, Lynn*; scarce; much more common at *Castle Rising* and at *Sheringham*
- Ligdia adustata*, Sch. *Norwich, Aldeby, Merton, Thetford, Horning, Cawston*; common in lanes on the chalk
- Pseudoterpnia cytisaria*, Sch. On heaths among furze and broom, commonly; also in waste places on the coast
- Geometra papilionaria*, Linn. *Norwich, Surlingham, Merton, Gillingham, Thetford, Cawston, Irstead, Ranworth, Lynn*; rather frequent in the fens wherever birch and alder are in plenty
- Iodis vernaria*, Linn. *Denton, Yarmouth*; rare
- Nemoria viridata*, Linn. *Horning*, four specimens taken in 1873. It does not seem to have been noticed in the county since that date
- Phorodesma bajularia*, Sch. *Merton, Denton, Foxley, Foulsham, Lynn*; not common
- Hemithia thymiaria*, Linn. (*strigata*, St. C.). Generally common
- Ephyra porata*, Linn. *Lynn, Brandon, Horning*; scarce
- *punctaria*, Linn. Generally distributed, but not common
- *trilinearia*, Bkh. *Merton, Croxton, Stratton Strawless*
- *omicornaria*, Sch. Generally distributed among maple
- *pendularia*, Linn. *Foulsham, Wootton*; common near *Lynn*
- Hyria auroraria*, Gn. (*muricata*, St. C.). *Merton, Aldeby, Cawston, Hingham, Hoveton, Neatishead, Ranworth, Horning*, near *Lynn*; rather common in some portions of the fens
- Acidalia rubricata*, Sch. (*rubiginata*, St. C.). *Norwich, Merton, Brandon, Thetford, Cawston, St. Faiths, Mintlyn, Lynn*; very common in open fallow fields, and in lucerne fields, in the 'Breck' dis-

A HISTORY OF NORFOLK

- trict ; extending in very far smaller numbers and in darker colour on to some of the boggy heaths ; and occurring casually elsewhere. Except in this and the adjoining eastern counties, a great rarity
- Acidalia dilutaria*, Hb. (*interjectaria*, Bd. ; *osseata*, Stn.). Generally common
- *holosericata*, Dup. A single specimen of this very local species was taken some years ago by the Rev. H. Williams near *Thetford* ; the presence here of this one specimen seems inexplicable, except on the supposition that others are sometimes mistaken for the preceding species
- *promutata*, Gn. (*marginepunctata*, St. C.). *Norwich* suburbs ; *Merton*, *Aldeby*, *Yarmouth*, *Brandon*, *Leziate* ; locally common
- *ornata*, Scop. *Merton*, *Wood Dalling* ; local and scarce
- *subsericeata*, Haw. *Norwich*, *St. Faiths* ; common at *Stratton Strawless* ; *Merton*, *Thetford*, *Barton*, *Lynn* ; usually not very common
- *immutata*, Linn. Abundant in all the fens ; and found in many other marshy spots
- *remutata*, Hb. In woods and on wooded heaths, but less abundant than usual
- *inornata*, Haw. *Merton*, *Denton*, *Brandon*, *Wootton* ; rather local
- Timandra emutaria*, Hb. *Lynn*, *Wootton*, *Croxton* ; a scarce species, more particularly attached to salt marshes
- *imitaria*, Hb. Generally distributed ; most frequent on the coast
- Bradypterus amataria*, Linn. Widely distributed, but not very common
- Ania emarginata*, Linn. Generally distributed ; rather common in the fens
- Melanippe rivata*, Hb. *Lynn*, *Denton* ; scarce
- *galiata*, Sch. Said to occur rarely at *Cawston* and *Horning*
- Melanthis rubiginata*, Sch. In damp woods and fens among alder ; common
- *ocellata*, Linn. Generally distributed
- *albicillata*, Linn. *Norwich*, *Aldeby*, *Ormesby*, *Neatishead*, *Horning*, *Barton Bendish*, *Mintlyn* ; not common
- *procellata*, Sch. *Norwich*, *Aldeby*, *Denton*, *Cawston* ; scarce
- *unangulata*, Haw. *Norwich*, *Merton*, *Aldeby*, *Denton*, *Cawston*, *Lynn* ; not plentiful
- Anticlea sinuata*, Sch. (*cucullata*, St. C.). *Brandon*, *Thetford*, *Beachamwell* ; very scarce
- *rubidata*, Sch. *Aldeby*, *Denton*, *Merton*,
- Thetford*, *Brandon*, *Cawston*, near *Lynn* ; not common
- Anticlea derivata*, Sch. (*nigrofasciaria*, St. C.). *Norwich*, *Aldeby*, *Denton*
- *berberata*, Sch. *Brandon*, formerly at *Beachamwell*
- Coremia propugnata*, Sch. (*designata*, St. C.). *Norwich*, *Merton*, *Aldeby*, *Cawston*, *Horning*, *Ranworth* ; not common
- *quadrifasciaria*, Linn. *Norwich*, *Aldeby*, *Denton*, *Merton*, *Cromer*, *Cawston*, *Barton*, *Wootton* ; not common, but more generally distributed in the woods of *West Norfolk*
- *pectinitaria*, Fuess. *Norwich*, *Horsford*, near *Beccles*, *Merton*, *Ranworth* ; very local here
- *multistrigaria*, Haw. *Norwich*, *Yarmouth*, *Merton*, *Thetford*, *Cawston*, *Neatishead*, *Lynn* ; on heaths
- Asthena luteata*, Sch. *Norwich*, *Costessey*, *Denton*, *Barton*, *Cawston*, *Wootton*, *Mintlyn* ; among maple
- *candidata*, Sch. Widely distributed, but not plentiful
- *sylvata*, Sch. (*testacea*, St. C.). *Foxley*, *Foulsham* ; scarce
- Eupisteria hepatica*, Sch. (*obliterata*, St. C.). Generally common among alder
- Emmelesia affinitata*, Steph. *Merton*, *Cawston*, *Horning*, *Wootton* ; more common at *Castle Rising* and *Lynn*
- *alchemillata*, Linn. Widely distributed, but not very common
- *albulata*, Sch. Generally distributed in meadows among *Rhinanthus*
- *decolorata*, Hb. Widely distributed among *Lychnis vespertina*
- *unifasciata*, Haw. *Hingham*, *Lynn*, *Denton* ; scarce
- Cidaria psittacata*, Sch. *Thetford*, *Castle Rising* ; scarce
- *miata*, Linn. *Norwich*, *Yarmouth*, *Aldeby*, *Buxton*, *Cawston*, *Lynn* ; not uncommon
- *corylata*, Thunb. Generally distributed
- *picata*, Hb. *Merton*, *Aldeby*, *Cawston*, *Ketteringham*
- *sagittata*, Fab. *Norwich*, *Brundall*, *Aldeby*, *Thetford*, *Stoke Ferry* ; among *Thalictrum*, in fens
- *immanata*, Haw. Generally common
- *suffumata*, Sch. *Norwich*, *Aldeby*, *Denton*, *Cawston*, *Lynn* ; not common
- *silaceata*, Sch. *Norwich*, *Costessey*, *Foxley*, *Aldeby*, *Cawston*, *Foulsham*, *Lynn* ; in moist woods ; not common
- *prunata*, Linn. Generally distributed in gardens, but not common
- *dotata*, Linn. *Norwich*, *Yarmouth*, *Aldeby*, *Lynn*, *Horning* ; not common

INSECTS

- Cidaria pyraliata*, Bkh. *Norwich, Aldeby, Cawston, Horning, Lynn*
- *populata*, Bkh. *Cawston, Barton Bendish, Lynn*; on heaths, very scarce, but reliable
- *testata*, Linn. Everywhere common, but especially so in the fens
- Pelurga comitata*, Linn. *Norwich, Yarmouth, Aldeby, Thetford, Brandon, Lynn, Cawston, Horning*; common in this county
- Scotosia vetulata*, Sch. *Surlingham, Aldeby, Thetford, Denton, Horning, Ranworth, Lynn*; among buckthorn in wet copses in the fens
- *rhamnata*, Sch. *Norwich, Merton, Thetford, Ranworth, Horning*; in similar situations to the last named
- *undulata*, Linn. *Kings Lynn, Denton, Aldeby, Merton, Foulsham, Foxley, Barton Bendish*; not common
- *dubitata*, Linn. *Norwich, Aldeby, Merton, Cawston, Ranworth, Lynn*; not very common
- *certata*, Hb. *Norwich, Thetford, Cawston*; scarce
- Phibalapteryx fluviata*, Hb. *Horning, Foulsham*; very rare
- *lignata*, Hb. (*vittata*, St. C.). *Norwich, Brundall, Aldeby, Merton, Thetford, Brandon, Cromer, Ranworth*; especially in fens and the meadows bordering them
- *tersata*, Sch. *Denton, Ditchingham, Thetford, Foulsham*; local and scarce
- Thera firmaria*, Hb. *Norwich, Horsford, Plumstead, Hevingham, Thetford, Cawston, Lynn*; among fir
- Hysipetes ruberata*, Frey (*literata*, St. C.). *Kilveston, West Tofts, West Walton, Walsoken and Lynn*; not very common
- *impluviata*, Sch. Generally distributed among alder
- Oporabia dilutata*, Sch. *Norwich, Merton, near Beccles, Cawston*; probably in all woods
- Cheimatobia boreata*, Hb. *Narborough*; once taken
- Lobophora lobulata*, Hb. *Lynn, Croxton*; scarce
- *hexapterata*, Sch. *Barton Bendish*; extremely local
- *sexalata*, Hb. *Norwich, Surlingham, Aldeby, Geldestone, Merton, Foulsham, Horning, Ranworth, Lynn*; not scarce in fens and marshes, among sallow; sometimes sitting on the stems in the daytime among the thickest herbage
- *viretata*, Hb. *Geldeston, Ketteringham, Neatishead*; scarce
- Lithostege nivearia*, Sch. (*farinata*, St. C.); non griseata, Sch.). *Brandon, Thetford*; only very locally in the 'Breck' district; among *Sisymbrium sophia* and *S. cheiranthoides*
- Chesias spartiata*, Fab. *Norwich, Denton, Aldeby, Merton, Thetford*, common near Lynn; among *Spartium scorarium* (broom)
- *obliquaria*, Sch. *Norwich, Thetford, Lynn*; among the same food-plant as the last
- Anaitis plagiata*, Linn. Generally common
- Mesotype lineolata*, Sch. (*virgata*, St. C.). *Yarmouth* and *Cawston* sandhills, *Cromer*; also occasionally to be found still lingering on the 'Breck-sand' around *Thetford*
- Eubolia palumbaria*, Sch. Generally common on heaths
- *bipunctaria*, Sch. *Brandon, Merton*, scarce; said to have been taken at *Horsford*
- *cervinata*, Sch. *Norwich, Yarmouth, Kirby Cane, Thetford, Cawston, Lynn*; not scarce
- *mensuraria*, Sch. (*limitata*, St. C.). *Norwich, Gillingham, Merton, Thetford, Ranworth*; by no means so plentiful as is usually the case
- Collix sparsata*, Hb. *Surlingham, Aldeby, Shadwell, Ranworth, Horning, Barton Turf, Stoke Ferry, Lynn*; probably in all the fens
- Eupithecia venosata*, Fab. *Norwich, Horsford, Merton, Denton, Thetford, Cawston, Barton, Lynn*; among *Silene inflata*
- *consignata*, Bkh. (*insigniata*, St. C.). *Norwich, Shadwell*; very rare
- *extensaria*, Frr. On the coast, usually at the edges of salt marshes, from *Lynn* to *Hunstanton* and *Wells*; the larva feeding on the blossoms of *Artemesia maritima*. The first specimen was taken by my eldest son in July, 1887, and Mr. Atmore subsequently took others and also larvae. It is a species which appears to have migrated to this coast from the Baltic, and the only previous British specimens known had been taken on the coast of Yorkshire. It has now so increased in numbers in Norfolk that almost every cabinet is supplied
- *pulchellata*, Steph. *Lynn, Croxton*; not common
- *linariata*, Sch. *Norwich, Merton, Thetford, Brandon, Cawston, Lynn*; common among *Linaria vulgaris*
- *centaureata*, Sch. (*oblongata*, St. C.). Widely distributed, especially in gardens and waste ground

A HISTORY OF NORFOLK

- Eupithecia succenturiata*, Linn. *Norwich, Aldeby, Denton, Croxton, Hingham, Wootton, Hunstanton*
- *subfulvata*, Haw. *Norwich, St. Faiths, Ketteringham, Aldeby, Merton, Thetford, Lynn, Ranworth*; not scarce
- *subumbrata*, Sch. Taken near Stoke Ferry in July, 1891, by Mr. W. T. Cross
- *irriguata*, Hb. *Hunstanton, Merton, Denton*; rare
- *indigata*, Hb. *Horsford, Cawston, Mint-lyn*; in fir woods
- *lariceata*, Frr. *Merton, Shouldham, Mint-lyn, Sheringham, Denton*; in larch woods
- *virgaureata*, Dbld. *Horning*; apparently scarce
- *albipunctata*, Haw. *Horning, Lynn*; among Angelica
- *pimpinellata*, Hb. *Wells*; very local
- *satyrata*, Hb. Found near *Lynn* by Mr. E. A. Atmore
- *plumbeolata*, Haw. *Lynn, Denton*; scarce
- *isogrammata*, H.S. (*haworthiata*, Dbld.). *Lynn*; among Clematis
- *pygmæata*, Hb. *Lakenham near Norwich, Stoke Ferry*; found commonly by Mr. Atmore at *Wormegay* and *Bawsey* near *Lynn*
- *valerianata*, Hb. (*viminata*, Dbld.). *Norwich, Brundall, Merton, Ranworth*; in fens and marshes among Valeriana
- *fraxinata*, Crewe. *Norwich, Yarmouth, Lynn, Horning*; among ash
- *subnotata*, Hb. *Lynn, Wootton*; apparently not common
- *campanulata*, Crewe. *Merton*; rare
- *absynthiata*, Linn. *Aldeby, Merton, Cawston, Hingham, Horning*; local
- *minutata*, Hb. *Norwich, St. Faiths, Brandon, Cawston, Lynn*; common on heaths
- *assimilata*, Dbld. *Norwich, Lynn, Cawston, Hingham*; in gardens
- *tenuiata*, Hb. Common about sallows in fens and marshes
- *subciliata*, Gn. *Denton, Gillingham, Thetford, Cawston*; among maple
- *dodoneata*, Gn. *Lynn, Thetford*; among hawthorn and oak
- *abbreviata*, Steph. *Norwich, St. Faiths, Denton, Runton, Aldeby, Cawston, Lynn*; in oak woods
- *exiguata*, Hb. *Norwich, Aldeby, Lynn, Bawsey*; not very common
- *sobrinata*, Hb. *Norwich, Merton, Thetford, Brandon*
- *coronata*, Hb. *Merton, Aldeby, Hingham, Cawston, Horning, Lynn*
- *pumilata*, Hb. *Norwich, St. Faiths, Cawston*; apparently not common
- Pyralis fimbrialis*, Sch. *Merton, Cawston, Horning*; scarce
- *glaucinalis*, Linn. Generally distributed
- Pyrausta punicealis*, Sch. *Ringstead Downs*
- *ostrinalis*, Hb. *Kings Lynn*; not common
- *purplalis*, Linn. Generally distributed
- Herbula cespitalis*, Sch. Widely distributed in sandy places
- Endotricha flammealis*, Sch. *Norwich, Merton*; more frequent in the *Lynn district*
- Acentropus niveus*, Oliv. *Brandon, Merton, Ranworth, Barton Broad*; plentiful near *Lynn*
- Cataclysta lemnalis*, Linn. *Paraponyx stratiotialis*, Linn.; *Hydrocampus nymphæalis*, Linn.; and *H. stagnalis*, Don. All common about rivers, broads, and fen-drains
- Botys pandalis*, H. S. *Merton*; taken by Lord Walsingham
- *hyalinalis*, Hb. *Merton, Thetford*, scarce
- *lancealis*, Sch. *Beachamwell, Aldeby, Barton Bendish, Lynn* district; in marshy woods, local
- *fuscalis*, Sch. Generally distributed where yellow rattle grows in meadows, sometimes also in marshes
- Ebulea crocealis*, Tr. *Norwich, Gillingham, Thetford, Cawston, Barton, Hunstanton, Lynn*; among *Inula dysenterica*
- *verbascalis*, Sch. *Plumstead, St. Faiths, Aldeby, Croxton, Cawston*, the *Lynn district*, among *Teucrium scorodonia*
- *stachydalis*, Zinck. Taken at *Denton* by the Rev. C. T. Cruttwell
- Lemiodes pulveralis*, Hb. On July 27th, 1870, I captured a single specimen of this rare species upon the embankment of one of the drains at *Ranworth Fen*. So far as I know no other specimen has ever been taken in *Norfolk*, or indeed in any part of the United Kingdom except on the extreme south coast; and the occurrence of this single example, which I still possess, is to me inexplicable
- Pionea margaritalis*, Fab. Recorded at *Beachamwell* by Stephens and Curtis, but I know of no recent captures here
- *stramentalis*, Hb. Very widely distributed in fens and marshes
- Margarodes unionalis*, Hb. A single specimen of this rarity was captured at *Yarmouth* on June 15th, 1880, by Mrs. Wheeler. It was sitting upon a grass-culm on the sandhills. It has been placed by Dr. F. D. Wheeler in my collection
- Spilodes sticticalis*, Linn. *Merton, Thetford, Brandon, Beachamwell, Hunstanton*; rather common in the 'Breck' district

INSECTS

- Spilodes palealis*, Sch. In the year 1875 this species was obtained at *Croxton*, *Thetford*, *Booton*, and *Barton Bendish*, confirming the records of Curtis, Stephens and Wood of its presence in the county; so far as I know none have been observed since; and the species has become very scarce in the British Isles
- *cinctalis*, Tr. Generally distributed; occurring in clover fields
- Scopula lutealis*, Haw. *Norwich*, *Aldeby*, *Ketteringham*, *Lynn*, *Cawston*
- *ferrugalis*, Hb. Widely distributed, and occasionally common
- Eudorea basistrigalis*, Knaggs. *Norwich*, *Aldeby*, *Denton*; scarce
- *cembræ*, Haw. *Norwich*, *Aldeby*, *Wootton*, *Cawston*, *Hunstanton*
- *dubitalis*, Hb. (*pyralella*, Sch.) abundant; its pretty variety *ingratella* has been taken at *Brandon* and *Hingham*
- *lineola*, Curt. *Norwich*, *Croxton*, *Hingham*, *Denton*; very local
- *cratægella*, Hb. *Norwich*, *Cawston*, *Brandon*, near *Lynn*, not common
- *resinea*, Haw. *Norwich*, *Denton*, very local
- *truncicolella*, Stn. *Norwich*, *Horsford*, *Cawston*; abundant near *Lynn*, upon trunks of Scotch firs
- *coarctalis*, Z. (*angustea*, Curt.). *Norwich*, *Denton*, *Lynn*
- *pallida*, Curt. Abundant in fens and marshes
- Adactyla bennetti*, Curt. *Hunstanton*, *Lynn*, in salt marshes
- Platyptilia isodactylus*, Z. *Norwich*; among *Senecio aquaticus*, in marshes
- Amblyptilia acanthodactyla*, Hb. *Norwich*, *Aldeby*, *Croxton*, *St. Faiths*, *Cawston*, *Cromer*, *Lynn*
- Oxyptilus teucrii*, Greening. *Norwich*, *Merton*, *Croxton*, *Lynn*; local among *Teucrium scorodonia*
- *distans*, Z. *Merton*, *Thetford*, *Brandon*, *Swaffham*; principally upon the 'Breck-sand'; little known elsewhere in the United Kingdom
- *parvidactylus*, Haw. *Croxton*; very local
- Mimæsiptilus phæodactylus*, Hb. *Hunstanton*; taken by Mr. Atmore
- *plagiadactylus*, Fisch. *Norwich*, *Merton*, *Croxton*; among *Scabiosa columbaria*
- *zophodactylus*, Dup. *Norwich*, *Merton*, *Hunstanton*; among *Erythræa centaurium*
- Ædematophorus lithodactylus*, Tr. *Lynn*, *Hunstanton*; among *Inula*
- Leioptilus lienigianus*, Z. *Norwich*, *Ringland*, *Horning*, *Lynn*; very local among *Artemisia*
- Leioptilus microdactylus*, Hb. *Merton*, *Croxton*, *Ranworth*; among *Eupatorium cannabinum*
- *brachydactylus*, Tr. The only recorded occurrence of this species in Great Britain was in Norfolk; yet the locality is unknown. There seems no reason to doubt Mr. Farr's capture of it, which took place fifty years ago. This specimen was for forty years in the collection of Mr. J. Jenner Weir; and was recorded as British by Mr. H. T. Stanton
- Aciptilia galactodactyla*, Hb. *Norwich*, *Merton*, *Denton*, *Sparham*, *Foxley*, *Hockering*; among *Arctium lappa*
- *tetradactyla*, Linn. Taken at *Swaffham* by Mr. Atmore
- Platytes cerusellus*, Sch. *Merton*, *Brandon*, *Wootton*; locally abundant
- Crambus alpinellus*, Hb. *Yarmouth*, *Hunstanton*; on sea sandhills, rare
- *falsellus*, Sch. *Brandon*, *Cawston*, *Ranworth*, *Denton*, *Lynn*; scarce
- *sylvellus*, Hb. (*adipellus*, Tr.). Not scarce in the fens
- *hamellus*, Thunb. *Croxton*, *Little Saxton*; frequent on heaths near *Lynn*
- *uliginosellus*, Z. Common in fens and marshes
- *pinetellus*, Linn. Generally distributed, but not very common
- *latistrius*, Haw. *Norwich*, *Croxton*, *Cawston*; abundant on the denes near *Yarmouth*, and frequent on the heaths about *Lynn*
- *perellus*, Scop. Abundant; curious varieties approaching and even actually representing the form known as *C. warringtonellus*, have been taken at *Brandon*, *Croxton*, *Hunstanton*, near *Lynn*, and elsewhere
- *selasellus*, Hb. Common in the fens, and in some marshes
- *salinellus*, H. In a salt marsh at *Lynn*
- *contaminellus*, Hb. Taken near *Hunstanton* by Mr. Atmore
- *fascelinellus*, Hb. *Yarmouth*, *Hunstanton*, *Heacham*, on the sandhills. So far as I know this handsome species is only found with us in the county of Norfolk
- *chrysonechellus*, Scop. *Merton*, *Thetford*, *Croxton*, *Brandon*, *Swaffham*, *Ringstead*; in chalky places
- Chilo paludellus*, Hb. *Ranworth*, *Horning*, and other fens, particularly those of the *Bure* and its tributaries. Not known elsewhere in the United Kingdom
- *phragmitellus*, Hb. Common in the fens and marshes

A HISTORY OF NORFOLK

- Schoenobius forficellus*, Thunb. Generally distributed in weedy ditches and the higher portions of the fen and marsh drains
- *mucronellus*, Scop. *Norwich, Barton Turf, Horning*; abundant at *Ranworth*; found also at *Merton* and near *Lynn*, in fens
 - *gigantellus*, Sch. *Diss, Merton, Barton Turf, Horning, Ranworth*; on rivers, and in the deepest fens, among the great reed-beds
- Anerastia lotella*, Hb. *Yarmouth, Caistor, Hunstanton*, on coast sandhills; and also at *Thetford* and *Brandon*, still common on the 'Breck-sand'
- *farrella*, Curt. The original specimens were taken near *Yarmouth* more than sixty years ago by Mr. Farr. His locality was lost at his death shortly after, and the insect was not rediscovered till 1881, when many specimens were secured by Mr. Atmore nearer to *Hunstanton*
- Cateremna terebrella*, Zk. *Merton, Lynn*, among *Pinus abies* (spruce), its larva feeding in the young cones. Discovered by Lord Walsingham, and, so far as I know, not to be found in any other part of the United Kingdom
- Ilithya carnella*, Linn. Once taken near *Horning*; not in the fen
- Myelophila cribrella*, Hb. *Merton, Thetford, Croxton, Brandon*, principally upon the 'Breck-sand.' Larva in the stems of *Onopordum acanthium*
- Homoeosoma nimbella*, Dup. *Caistor, near Yarmouth*, on the denes; abundant
- *senecionis*, Vaugh. *Norwich, Lynn, Hunstanton*; uncommon
 - *nebulella*, Hb. *Norwich, Merton, Croxton, Brandon, Horning, Lynn, Denton*; locally common
 - *eluviella*, Gn. *Merton, Brandon*; very local
- Nyctegretes achatinella*, Hb. On the sandhills near *Caistor, Yarmouth*, in the more settled portions, this insect is sometimes common. It is a rare and excessively local species elsewhere in these islands
- Epeorus kuhniella*, Z. This species, which is known to have reached Europe within the last twenty or thirty years, and this country much more recently, has now become common in flour mills and stores in *Norwich, Lynn*, and *Downham*
- *ficulella*, Bar. *Norwich, Lynn*; in seed and oilcake warehouses
 - *passulella*, Bar. Common at *Norwich* and *Lynn* in similar places
- Epeorus pinguis*, Haw. *Norwich, Cawston*; on old ash trees
- *artemisiella*, Steph. *Norwich, Lynn*, among *Artemisia*
- Cryptoblabes bistriga*, Haw. *Horning, Shouldham, Lynn*; scarce
- Plodia interpunctella*, Hb. *Norwich, Lynn*; abundant in grain stores
- Phycis carbonariella*, Fisch. *Norwich, Croxton, Lynn*; on heaths
- *betulae*, Goetz. *Merton*; common among birch near *Lynn*
 - *dilutella*, Steph. *Hunstanton*; very local, taken by Mr. G. Balding
 - *splendidella*, H.S. *Merton*; one specimen reared from a cone of *Abies*
 - *abietella*, Sch. *Norwich, Merton, Croxton, Brandon, Lynn*
 - *roborella*, Sch. *Norwich, Horsford, Merton, Croxton, Lynn*
- Pempelia palumbella*, Sch. Generally distributed on heaths
- Rhodophaea formosa*, Haw. *Norwich, Cawston*; scarce
- *consociella*, Hb. Generally distributed in oak woods
 - *advenella*, Zinck. *Norwich, Croxton, Cawston, Lynn*; not common
 - *marmorea*, Haw. *Norwich, Croxton*; scarce
 - *suavella*, Zinck. *Norwich, Horsford, Cawston*; scarce
 - *tumidella*, Zinck. *Lynn, Denton*, among oaks
- Oncocera ahenella*, Sch. *Merton, Brandon, Barton Bendish, Swaffham*
- Galleria cereana*, Linn. *Norwich, Thetford, Croxton, Wootton, Sparham*
- Meliphora alveariella*, Gn. *Thetford, Croxton, Denton, Sparham, Lynn*; this and the last named species are both very destructive in beehives
- Corcyra cephalonica*, H.S. Has been found in a grain warehouse at *Lynn* by Mr. Atmore
- Tortrix crataegana*, Hb. *Barton Bendish*; very local
- *decretana*, Tr. *Lynn*; the only known British locality
 - *sorbiana*, Hb. Common in oak woods
 - *lafauryana*, Rag. *Lynn*, on boggy heaths; among *Myrica gale*; discovered by Mr. Atmore; the only known British locality
 - *cinnamomeana*, Tr. *Merton, Easton, Cawston*; scarce
 - *corylana*, Hb. Widely distributed in woods
 - *costana*, Sch. Generally distributed; very common in the fens

INSECTS

- Tortrix viburnana*, Sch. *St. Faiths, Wootton, Lynn*; on boggy heaths
- *icterana*, Fröl. *Merton, Aldeby, Hingham, Wootton, Cromer, Lynn*, local
- Dichelia grotiana*, Fab. *Merton, Brandon, Deopham, Hingham, Lynn*
- Leptogramma literana*, Linn. *Merton, Denton, Cawston, Lynn*; scarce
- Peronea sponsana*, Fab. *Merton, Hingham, Norwich*; among beech
- *rufana*, Sch. Taken at *North Wootton* by Mr. Atmore
- *mixtana*, Hb. *Merton, Horsford, Lynn*; on heaths
- *schalleriana*, Linn. Common among sallow in fens and marshes
- *comparana*, Hb. *Ketteringham, Ranworth*; not common
- *perplexana*, Bar. *Lynn, Ranworth*
- *comariana*, Z. *Merton, Lynn, Ranworth, St. Faiths*
- *cristana*, Sch. *Merton, Cawston*; scarce
- *hastiana*, Linn. Widely distributed, among sallow
- *lorquiniana*, Dup. *Ranworth*; taken in 1878 by Dr. Wheeler and Mr. W. H. B. Fletcher; previously not known nearer than the Cambridgeshire fens
- *ferrugana*, Sch. *Norwich, Merton*; not common
- *tristana*, Hub. *Denton*; taken by the Rev. C. T. Cruttwell
- *aspersana*, Hb. Common in fens and marshes
- *shepherdana*, Steph. *Norwich, Surlingham, Merton, Ranworth, Horning*; in fens and local, but sometimes abundant
- Teras caudana*, Fab. Common in the fens
- Dictyopteryx holmiana*, Linn. Generally common among hawthorn
- *forskaleana*, Linn. Widely distributed among maple
- Ditula semifasciana*, Haw. *Merton, Ranworth, Horning, Wootton*; not common
- Penthina picana*, Frol. *Merton, Cawston, Costessey, Horning, the Lynn district*
- *betuletana*, Haw. Widely distributed among birch
- *capreana*, Hb. Found near *Lynn* by Mr. Atmore
- *prælongana*, Gn. *Merton, Lynn*; scarce
- *ochroleucana*, Hb. *Norwich, Ketteringham, Cawston, Horning, Croxton, Mintlyn*; not common
- *sellana*, Hb. *Croxton, Swaffham*; very local
- *marginana*, Haw. *St. Faiths Bogs, Merton, Cawston, Ranworth*; very local
- *carbonana*, Dbld. Recorded by the older writers. Taken at *Lynn* by Mr. Atmore
- *Antithesia salicella*, Linn. *Merton, Croxton, Glencwarton, Hingham*
- Spilonota lariciana*, Z. *Norwich, Lynn*; local
- *aceriana*, Mann. *Norwich, Yarmouth, Denton, Lynn*; common
- *neglectana*, Dup. *Norwich, Denton*; local
- *rosæcolana*, Dbld. *Norwich, Cawston, Lynn*; in gardens feeding on rose-buds
- Sericoris bifasciana*, Haw. *Norwich, Merton, Thetford, Denton, Croxton, Lynn*; among Scotch fir
- *fuligana*, Haw. *Lynn*, larvæ found feeding on *Carduus arvensis*
- *doubledayana*, Bar. *Ranworth, Horning*; discovered in these fens, and sometimes found there in plenty; hardly known elsewhere
- *littoralis*, Curt. Salt marshes on the coast beyond *Lynn*
- *cespitalis*, Hb. *Yarmouth, Merton, Brandon, Swaffham*
- *conchana*, Hb. *Norwich, Surlingham, Merton, Ranworth*
- *micana*, Hb. *Merton, Croxton, Hingham, Horning, Ranworth, Lynn*; local
- Mixodia rubiginosana*, H.S. *Lynn, Thetford, Shouldham*; usually a Scottish species
- *palustrana*, Linn. Taken once near *Lynn* by Mr. Atmore
- *ratzeburghiana*, Sax. *Merton, Lynn*; among fir. Lord Walsingham finds the larva commonly on *Abies smithiana*
- Euchromia purpurana*, Haw. *Denton, Hunstanton*; scarce
- Orthotænia antiquana*, Hb. *Wormegay, Carbrooke, Mintlyn, Cawston*; not common
- *striana*, Sch. *Norwich, Yarmouth, Lynn*; not scarce
- *ericetana*, Bent. *Norwich, Merton*, near *Lynn*; not rare
- Eriopsela fractifasciana*, Haw. *Merton, Swaffham*; very local
- Phtheochroa rugosana*, Hb. *Norwich, Merton, Lynn*
- Cnephasia lepidana*, Curt. *St. Faiths, Merton, Lynn*; on heaths
- Sciaphila nubilana*, Hb. *Norwich, Merton, Denton, Lynn*; common
- *pascuana*, Hb. *Castle Rising, Lynn*; local
- *alternana*, Sch. *Norwich*; very local
- Sphaleroptera ictericana*, Haw. *Yarmouth Denes*, common
- Clepsis rusticana*, Tr. *Merton, Horning, Ranworth, Lynn*; in fens and on boggy heaths
- Bactra furfurana*, Haw. Taken at *Walsoken* by Mr. A. Balding
- Phoxopteryx siculana*, Hb. *Cawston, Hingham, Ranworth, North Wootton*; in wet woods

A HISTORY OF NORFOLK

- Phoxopteryx unguiculana*, Linn. *Merton, St. Faiths*; scarce
 — *biarcuana*, Steph. *Merton, Ranworth, Lynn* district; local
 — *inornatana*, H.S. In the same places as the last, more frequent
 — *uncana*, Hb. Heaths near *Lynn*; local
 — *paludana*, Bar. *Ranworth, Horning*; only in the fens
 — *derasana*, Hb. *Merton, Lynn*; scarce
 — *diminutana*, Haw. *Merton, Ranworth, Wootton, Wormegay, Lynn, Denton*; very local
 — *mitterbacheriana*, Sch. *Merton, Cawston, St. Faiths*; not common
Grapholitha nisana, Linn. *Merton, Wootton, Ranworth*; local, among sallow
 — *cinerana*, Haw. *Merton, Lynn*; local, about poplars
 — *nigromaculana*, Haw. *Norwich, Merton, Cawston, Lynn*
 — *minutana*, Hub. *Yarmouth*; on poplar
 — *obtusana*, Haw. *Merton, Foxley*; common near *Lynn*
- Phloeodes immundana*, Fisch. *Norwich, Merton, St. Faiths, Ranworth, Lynn, Wormegay*; among alder
 — *demarniana*, Fisch. *Wormegay*; common in some seasons near *Lynn*
- Poedisca bilunana*, Haw. Widely distributed, among birch
 — *oppressana*, Tr. *Norwich, Ranworth, Lynn*; on poplars, very local
 — *profundana*, Sch. *Merton, Ketteringham, Rackheath, St. Faiths*
 — *occultana*, Dgl. *Norwich, Merton, Lynn*; among larch
 — *ophthalmicana*, Hb. *Lynn, Denton*; scarce
 — *semifuscana*, Haw. *Ranworth, Horning, Lynn*, in fens; very variable
 — *sordidana*, Hb. Generally distributed among alder
- Steganoptycha rufimitrana*, H.S. Taken, and reared, from *Abies cephalonica*, at *Merton* by Lord Walsingham
- Halonota bimaculana*, Don. *Merton, Cawston, Wootton, Lynn*
 — *cirsiana*, Z. Widely distributed
 — *scutulana*, Sch. *Norwich, Merton, Cawston, Lynn*; not very common
 — *brunnichiana*, Sch. *Croxton*; not common in this county
 — *foeneana*, Linn. *Norwich, Merton, Horning*; among mugwort
 — *trigeminana*, Steph. Common among ragwort
 — *tetragonana*, Steph. *Ketteringham, Stoke Ferry*; scarce
 — *nigricostana*, Haw. *Merton, Denton, Ringland, Lynn*
- Halonota ravulana*, H.S. *Lynn*; rare
 — *ephippiana*, Hb. *Merton, Ranworth, Wootton*; scarce
Olindia ulmana, Hb. *Merton, Hingham, Brooke, Lynn*
Semasia spiniana, Fisch. *Norwich, St. Faiths, Merton, Ranworth*; not scarce
 — *janthinana*, Dup. *Norwich, Lynn, Horning*; local
 — *rufillana*, Z. *Norwich, Merton*
 — *wœberana*, Sch. Generally distributed among fruit trees
- Coccyx strobilella*, Linn. *Merton*; among spruce
 — *splendidulana*, Gn. *Merton, Lynn, Runceton*
 — *pygmæana*, Hb. *Merton, Lynn*, frequent; usually a great rarity
 — *ochsenheimeriana*, Z. *Merton, Denton, Lynn*
 — *distinctana*, Bent. *Merton*; common near *Lynn*
 — *nigricana*, H.S. *Merton*, near *Lynn*; not common; among *Pinus picea*
 — *nanana*, Tr. *Norwich, Merton, Lynn*; locally abundant
- Heusimene fimbriana*, Steph. *Merton, Cawston, Wootton, Lynn*
- Retinia buoliana*, Sch. Common in all fir woods
 — *pinicolana*, Dbd. *Merton, Cawston*
 — *turionana*, Linn. *Norwich, Merton, Croxton, Lynn*; with it at this last locality, its supposed variety, *posticana*, Zett., has been found by Mr. Atmore
 — *pinivorana*, Z. Common among Scotch fir
- Carpocapsa splendana*, Hb. Widely distributed among oak trees
 — *grossana*, Haw. *Merton, Croxton, Swaffham, Lynn*
 — *pomonella*, Linn. Generally abundant in orchards
- Opadis funebrana*, Tr. *Norwich*, rare; among plum
- Endopis nebritana*, Tr. Generally distributed in pea fields
- Stigmonota orobana*, Tr. *Stoke Ferry*
 — *coniferana*, Rtz. *Norwich, Merton, Croxton, Shouldham*
 — *perlepidana*, Haw. *Merton, Cawston, Lynn*
 — *nitidana*, Fab. *Merton*; scarce; taken by Lord Walsingham
 — *weirana*, Dougl. Taken by the Rev. H. Williams at *Croxton*
 — *erectana*, Bar. The only known specimen of this species was taken among broom at *Merton* by the Hon. Mrs. Carpenter

INSECTS

- Stigmonota internana*, Gn. *Norwich, Merton, Lynn*; locally abundant
 — *composana*, Fab. *Norwich, Merton, Ranworth*; among clover
 — *regiana*, Z. *Norwich, Merton, Cawston, Lynn, Holt*; local
 — *roseticolana*, Z. *Norwich, Merton, Swaffham, Lynn, Ringland, St. Faiths*; among wild rose
Dicrorampha politana, Sch. *Norwich, Seething, Merton, Cringleford, St. Faiths*; locally abundant
 — *alpinana*, Tr. Taken near *Lynn* by Mr. Atmore
 — *sequana*, Hb. *Norwich, Merton, Denton*; very local
 — *saturnana*, Gn. *Merton, Lynn*
 — *plumbagana*, Tr. *Merton, Brandon*; locally abundant
 — *simpliciana*, Haw. *Norwich, Merton, St. Faiths*; among mugwort
 — *acuminatana*, Z. *Merton, Gayton*; local
 — *consortana*, Steph. *Merton*; scarce
Pyrodes rhediella, Linn. *Norwich, Merton, Lynn*; common
Catoptria albersana, Hb. *Merton, Lynn*; scarce
 — *juliana*, Curt. *Norwich, Merton, Cawston, Horning, Wootton*
 — *microgrammana*, Gn. *Yarmouth Denes*; scarce
 — *conterminana*, H.S. *Hingham*; scarce
 — *fulvana*, Steph. *Norwich, Merton, Denton, Croxton, Brandon, Swaffham*; locally common
 — *expallidana*, Haw. *Norwich, Yarmouth, Denton, Lynn*; rare
 — *candidulana*, Nlk. *Lynn*, in salt marshes, among *Artemisia maritima*; excessively local
 — *citrana*, Hb. *Norwich, Merton, Croxton, Brandon, Swaffham*; rather common in the 'Breck' district
Trycheris mediana, Sch. *Denton, Horning, Lynn*; very local
Lobesia permixtana, Hb. (*reliquana*, Stn.) *Merton, St. Faiths, Wormegay, Wootton*; not common
Eupoeelia nana, Haw. *Costonsey, Horsford, Merton, Croxton, Lynn*; among birch
 — *sodaliana*, Haw. (*amandana*, H.S.). Taken near *Swaffham* by Mr. Atmore
 — *dubitana*, Hb. *Croxton, Gaywood, Lynn Docks*, among *Crepis tectorum*
 — *pallidana*, Z. *Yarmouth Denes, Middleton* near *Lynn*; scarce
 — *atricapitana*, Steph. *Norwich, St. Faiths, Merton, Brandon, Wormegay, Lynn*; among ragwort
 — *maculosana*, Haw. *Norwich*; scarce
 — *Eupoeelia hybridella*, Hb. *Hingham*; scarce
 — *vectisana*, West. *Hunstanton*; common in salt marshes
 — *affinitana*, Dougl. *Lynn, Hunstanton*; in salt marshes
 — *udana*, Gn. *Merton, Horning, Ranworth*; in fens, scarce
 — *manniana*, F.R. Once taken near *Lynn* by Mr. Atmore; a very rare species
 — *geyeriana*, H.S. *Brundall, Ranworth, Lynn*; in fens and marshes among *Pedicularis palustris*
 — *notulana*, Z. Also in fens, among *Mentha*, but not common
 — *rupicola*, Curt. *Merton, Lynn*; among *Eupatorium cannabinum*
 — *degreyana*, McL. *Norwich, Merton, Brandon, Croxton, Denton, Lynn*; discovered by Lord Walsingham in Norfolk and named in his honour; reared by him from *Plantago lanceolata*, and by Mr. Atmore from *Linaria vulgaris*
 — *ciliella*, Hub. *Merton, St. Faiths Bags*; in the latter locality is a remarkable local race of this species
 — *erigerana*, Wlsm. *Norwich, Merton, Brandon, Croxton, Swaffham*, near *Lynn*; rather plentiful on the 'Breck-sand' among *Erigeron* acre. This species was long mistaken for *E. anthemidana*, Curt.
Xanthosetia zoegana, Linn. Generally distributed; its pretty var. *ferrugana* is taken occasionally
 — *inopiana*, Haw. *Lynn district*; among *Inula dysenterica*
Chrosis tesserana, Sch. *Yarmouth, Merton, Brandon, Ringland*; very local
Argyrolepis baumanniana, Sch. *Hingham, Ketteringham*; scarce
 — *subbaumanniana*, Wlk. *Norwich, Merton, Ashill, Croxton, Swaffham*; local, but sometimes common in old chalk-pits
 — *badiana*, Hb. *Merton, Brandon, Lynn district, Denton*; scarce
 — *cnicana*, Dbld. *Croxton, Wootton, Cawston, Ranworth*; among thistles
Conchyliis francillonana, Fab. Taken near *Swaffham* by Mr. Atmore
 — *smeathmanniana*, Fab. *Merton, Cawston*; scarce
Aphelia pratana, Hb. *Theford, Horning*; local in this county
Tortricodes hyemana, Hb. *Merton, Croxton*; in oak woods
Choreutis scintillulana, Hb. *Norwich, Merton, Wormegay, Holme-next-the-Sea*; among *Scutellaria galericulata* in marshes

A HISTORY OF NORFOLK

- Xylopoda pariana*, Linn. *Denton, Cawston*; scarce
Epigraphia steinkellneriana, Sch. *Norwich, Lynn*; among blackthorn
Xysmatodoma melanella, Haw. (*monilifera*, Geoffr.). *Merton*; very local, but not uncommon
Ochsenheimeria birdella, Curt. *Merton*
— *bisontella*, Linn. *Merton, Lynn*
Scardia carpinetella, Gn. *Merton, Brandon, Horning*; among fir
— *corticella*, Curt. *Lynn*, about a decaying oak
— *granella*, Linn. *Norwich, Merton, Wootton, Lynn*; in granaries, sometimes in multitudes about even the adjacent streets
— *ruricolella*, Stn. In woods, frequent
— *arcella*, Fab. *Norwich, St. Faiths, Merton, Denton, Ranworth*
Tinea imella, Hb. *Brandon*, not rare; otherwise a very scarce insect
— *ferruginella*, Hb. *Norwich, Thetford, Brandon, Lynn*
— *misella*, Z. *Norwich, Merton, Wootton, Lynn*; in granaries
— *merdella*, Z. *Lynn*; in houses
— *pallescentella*, Stn. *Norwich, Lynn*; about houses
— *nigripunctella*, Haw. *Lynn*; rare
— *semifulvella*, Haw. *Norwich, Merton, Denton, Swaffham, Lynn*
— *bistrigella*, Haw. *Merton, Lynn district, Beccles*
Lampronia quadripuncta, Fab. *Norwich, Wormegay*; scarce
— *luzella*, Hb. *Merton*; not common
— *prælatella*, Sch. *Merton, Brooke, Ranworth*
— *rubiella*, Bjer. *Merton, Ranworth*; common near *Lynn*
Incurvaria pectinea, Haw. *Lynn*
— *œhlmanniella*, Hb. *Lynn, Wormegay*; local
— *capitella*, Linn. *Lynn*; among currant
Nemophora metaxella, Hb. *Norwich, Merton, Ranworth, Lynn*
Adela rufimitrella, Scop. *Wormegay*
— *cuprella*, Fab. *Lynn, Horning*; not rare
Nemotois scabiosellus, Scop. *Norwich*, common at *Merton*
— *cupriacellus*, Hb. *Swaffham*, taken by Mr. Atmore
— *minimellus*, Z. *Merton, Ranworth*
Swammerdamia oxyacanthella, Z. *Lynn*; locally abundant
Scythropia cratægella, Linn. *Lynn*; scarce
Hyponomeuta vigintipunctatus, Rtz. *Hickling Fen, Carbrooke*
Hyponomeuta plumbellula, Sch. *Norwich, Surlingham, Merton*
— *evonymella*, Linn. *Sprowston, Merton*; among *Prunus padus*
Anesychia funerella, Fab. *Brandon Fen*; one at *Lynn*, at 'light'
Plutella porrectella, Linn. *Merton, Lynn*; among *Hesperis matronalis*
Cerostoma sequella, Linn. *Merton, Denton, Carbrooke*
— *vittella*, Linn. Generally distributed among elm
— *costella*, Fab. *Merton*
— *sylvella*, Linn. *Norwich, St. Faiths, Merton, Hingham, Carbrooke*
— *alpella*, Sch. *Merton*; among oak
— *lucella*, Fab. *Denton*; taken by the Rev. C. T. Cruttwell
Harpipteryx scabrella, Linn. *Norwich, St. Faiths, Merton*
— *horridella*, Tr. *Merton*; taken by Lord Walsingham
— *nemorella*, Linn. *Merton, Lynn*
Pteroxtia caudella, Linn. *Norwich*; among *Euonymus europæus*
Orthotælia sparganiella, Th. Common in fens and marshes among *Sparganium*
Enicostoma lobella, Sch. *Norwich, Merton, Denton, Lynn, Gayton*
Exerætia allisella, Stn. Taken at *Lynn* by Mr. Atmore, recorded from the 'coast of Norfolk' by the late Mr. Stainton
Depressaria scopariella, Sch. *Norwich, Yarmouth, Merton, Brandon*
— *rhodochrella* (?) H.S. *Norwich, Yarmouth*; scarce
— *vaccinella*, Hb. *Norwich, Merton, Denton, Ranworth*
— *hypericella*, Hb. *Merton, Denton*; among *Hypericum*
— *conterminella*, Z. Common in the fens
— *yeatiana*, Fab. Common in the fens
— *ciliella*, Stn. *Merton, Denton, Ranworth*
— *granulosella*, Stn. *Norwich, Merton, Denton, Brandon*; very local
— *albibipunctella*, Hb. *Norwich, Merton, Denton*
— *pulcherimella*, Stn. *Norwich*; among *Bunium flexuosum*; taken by Lord Walsingham commonly at *Merton*
— *weirella*, Stn. *Norwich, Merton, Brandon*
— *chærophylli*, Z. *Norwich, Merton, Denton*
— *badiella*, Hb. *Norwich, Yarmouth, Cromer*
— *nervosa*, Haw. Taken at *Hoveton* by Mr. Norgate
Psoricoptera gibbosella, Z. *Lynn*; scarce. Formerly at *Merton*

INSECTS

- Gelechia nigra*, Haw. *Croxton, Lynn*; scarce
 — *muscosella*, Z. *Ranworth*; rare
 — *rhombella*, Hb. *Norwich*; among crab-apple; scarce
 — *distinctella*, Z. *Norwich, Merton, Yarmouth, Brandon, Lynn*; locally common
 — *sororculella*, Hb. *Merton, Ranworth*; among sallow
Brachmia mouffetella, Sch. *Merton*; among honeysuckle
 — *lathyri*, Stn. *Merton, Irstead, Wormegay, Lynn*; in fens
Bryotropha politella, Dgl. *Lynn*, rather common; *Merton*
 — *desertella*, Stn. Most abundant on the 'Breck-sands,' as well as on the present coast
 — *senectella*, Z. *Norwich, Merton, Lynn, Hunstanton*; abundant
 — *mundella*, Dgl. *Yarmouth*, on the sands
 — *similis*, Dgl. Near *Lynn, Merton*
 — *umbrosella*, Z. *Yarmouth, Lynn heaths*; abundant
 — *tetragonella*, H.S. *Hunstanton*; excessively local
Lita artemisiella, Tr. *Merton, Swaffham*, among thyme
 — *atricipicella*, Fisch. Near *Hunstanton*, on the coast
 — *instabilella*, Dgl. *Hunstanton, Thorneham*
 — *obsoletella*, Fisch. In salt marshes on the coast
 — *suedella*, Rich. *Hunstanton, Heacham*; common among *Sueda fruticosa*; a newly-described species—hardly found elsewhere
 — *plantaginella*, Stn. On the coast; common among *Plantago coronopus*
 — *acuminatella*, Stn. *Norwich, Merton*; not common
 — *hübneri*, Haw. *Croxton*; rare
 — *maculiferella*, Mann. *Norwich, Merton, Lynn*; local
 — *semidecandriella*, Th. *Merton, Croxton, Thetford, Lynn*
 — *vicinella*, Dgl. *Hunstanton, Heacham*; rare
Teleia scriptella, Hb. *Lynn, Hingham, Denton, Merton*; among maple
 — *sequax*, Haw. *Denton*
 — *fugitivella*, Z. *Norwich, Merton, Lynn, Denton*; on elm
 — *humeralis*, Z. *Merton*; taken by Lord Walsingham
 — *notatella*, Hb. *Norwich, Merton, Ranworth*; not common
 — *luculella*, Hb. *Merton, Lynn*
 — *dodecella*, Linn. Not uncommon among fir
- Recurvaria leucatella*, Linn. *Norwich*; scarce
Poecilia albiceps, Z. *Lynn, Merton*
 — *gemmella*, Linn. *Norwich, St. Faiths, Lynn, Denton*
Argyritis pictella, Z. *Yarmouth, Hunstanton, Merton, Croxton, Brandon*; on the 'Breck-sand' even more commonly than upon the present coast. With it Lord Walsingham has taken the form hitherto supposed to be a distinct species, under the name of *tarquiniella*, Stn.
Nannodia nævifera, Z. *Norwich, Merton, Lynn*, among *Chenopodium*
 — *hermannella*, Fab. *Wootton*; very local
Apodia bifractella, Mann. *Lynn*; very local
Sitotroga cerealella, Oliv. *Norwich*, rare; abundant about grain warehouses at *Lynn*
Ptocheuusa subocellea, Steph. *Merton*, scarce
 — *inopella*, Z. *Lynn*; among *Inula dysenterica*
 — *osseella*, Stn. *Norwich*; rare
Ergatis subdecurtella, Stn. *Ranworth*; among *Lythrum salicaria*; rare
 — *ericinella*, Z. Near *Norwich, St. Faiths, Merton, Lynn*; on heaths
Xystophora palustrella, Dgl. *Ranworth, Horning, near Beccles*; in fens, rare
 — *arundinetella*, Z. *Merton*; rare
 — *lucidella*, Stph. *Merton*, abundant; *Lynn*, very local
 — *suffusella*, Dgl. *Ranworth*; rare
 — *morosa*, Z. *Ranworth, Lynn*; scarce
 — *servella*, Z. Taken by Mr. Atmore, near *Lynn*; recognized and recorded by Lord Walsingham. I know of no other locality for this species in the British Isles
Monochroa tenebrella, Hb. *Norwich, St. Faiths, Brandon, Merton, Denton, Lynn*. *M. tenebrosella* is now recognized as its female
Lamprotes atrella, Haw. *Merton, Ranworth, Surlingham, Denton, Lynn*
 — *unicolorella*, H.S. *Lynn*; on heaths
Aproærema ligulella, Z. In the fens among *Lotus major*
 — *tænirolella*, Tr. *Cringeford, Croxton, Denton, Lynn, Hunstanton*
 — *albipalpella*, H.S. *Lynn*; on heaths
Acanthophila alacella, Dup. Several taken at *Merton* by Lord Walsingham, and one at *Lynn* by Mr. Atmore
Ceratophora rufescens, Haw. Frequent in the fens, also found at *Merton* on dry sandy ground
Cladodes geronella, Z. Not scarce in the fens

A HISTORY OF NORFOLK

- Parasia metzneriella*, Dgl. *Merton, Lynn*; local
Cleodora cytisella, Curt. *Merton, Easton*; more common near *Lynn*
Chelaria conscriptella, Hb. *Merton, Denton, Lynn*
Anarsia spartiella, Schr. Widely distributed among furze
Nothris verbascella, Sch. *Norwich*; among *Verbascum pulverulentum*; hardly known elsewhere in the United Kingdom
Ypsolophus schmidiiellus, Heyd (durdhamella, Stn.). Near *Swaffham*, among *Ori-ganum*
— *marginellus*, Fab. *Merton, Stanford*; locally very common
Sophronia parenthesella, Linn. *Norwich, Merton, Cringleford, Lynn*; locally abundant
Harpella geoffrella, Linn. *Norwich, Denton, Hingham*; common
Pleurota bicostella, Linn. *Merton, Lynn*; abundant on heaths
Cataplectica fulviguttella, Z. (*flavimaculella*, Stn.). *Merton, Ranworth*; among *Angelica*
Œcophora minutella, Linn. *Norwich, Merton*
— *trisignella*, Z. *Norwich, Denton, Lynn*
— *lambdella*, Don. *Merton*; one specimen taken by Mr. Durrant
— *lunaris*, Haw. *Norwich, Cringleford, Denton, Merton*
— *tinctella*, Tr. *Norwich, Merton, Denton, Lynn*
— *unitella*, Hb. *Merton*
— *flavifontella*, Hb. *Norwich*; very local
Butalis grandipennis, Haw. *Norwich, Horning*; among furze
— *fusco-ænea*, Haw. *Lynn*; taken by Mr. Atmore
— *fusco-cuprea*, Haw. *Swaffham*
Amphisbatis incongruella, Stn. *Horsford, near Lynn*; scarce
Pancalia leuwenhoeckella, Linn. *Merton*; scarce
Acrolepia autumnitella, Curt. *Merton, Denton, Ranworth*
Glyphteryx oculatella, Z. *Denton*
— *equitella*, Sc. *Norwich, Brandon*; among *Sedum acre*
— *schoenicoella*, Stn. *Merton, Ranworth, Barton Turf*; common in the fens; its only other locality in this country seems to be in *Cornwall*
Æchmia dentella, Stn. *Norwich, Easton, Merton, Denton, Lynn*; local
Perittia obscuripunctella, Stn. *Merton, Denton, Lynn*
Tinagma sericeella, Haw. Widely distributed among oak
— *hammomiella*, Sorh. Taken among birch near *Lynn* by Mr. Atmore, and the mines found at *Merton* by Lord Walsingham
— *resplendella*, Dgl. *Merton, Ranworth, Lynn, Wormegay*
Douglasia ocnerostomella, Stn. *Merton, Brandon, Thetford*; among *Echium vulgare*, in the pith of which the larva feeds
Argyresthia ephippella, Fab. *Merton, Denton, Lynn*; local
— *conjugella*, Z. *Costessey, St. Faiths, Merton*; among mountain ash
— *semifusca*, Haw. *Norwich, St. Faiths, Denton*; among hawthorn
— *spiniella*, Z. *Lynn, Wootton, Merton*
— *glaucinella*, Z. *Merton, Ringland*; among oak
— *atmoriella*, Bks. *Lynn*; discovered by Mr. Atmore; *Merton*, larvæ found in the shoots of *Pinus larix*
— *dilectella*, Z. *Merton, Wootton*; among juniper
— *curvella*, Linn. *Norwich, Merton, Denton, Lynn*; among apple
— *arceuthina*, Z. *Norwich, Denton*; very abundant at *Merton* among juniper
— *præcocella*, Z. *Merton*; taken by Lord Walsingham
Cedestis gysselinella, Kuhl. *Merton, Croxton*; usually a northern insect, but abundant at *Merton*
Zelleria insignipennella, Stn. *Merton*; local
Gracilaria hemidactyla, Hb. *Merton*
— *phasianipennella*, Hb. *Lynn*; scarce
— *semifascia*, Haw. *Denton*
— *omissella*, Dgl. *Norwich*; among *Artemisia vulgaris*
— *auroguttella* Steph. *Merton, Ranworth*; among *Hypericum quadrangulum*
Coriscium brongniardellum, Fab. *Norwich, Merton*
— *cuculipennellum*, Hb. *Merton*; among privet
— *citrinellum*, Fisch. *Merton, Sandringham*
Ornix betulae, Stn. *Norwich, Merton, Denton, Lynn*; among birch
— *torquillella*, Stn. *Norwich, Denton, Merton*; among sloe
— *scoticella*, Stn. Near *Lynn*, taken by Mr. Atmore; reared at *Merton*
— *guttea*, Haw. *Norwich, Merton, Lynn, Gayton*; among apple
Coleophora spissicornis, Haw.; (*fabriciella*, Stn.) *North Runton, Merton, Denton*
— *deauratella*, Z. Taken at *Merton* by Mr. J. Hartley Durrant
— *lixella*, Z. *Merton, Swaffham*

INSECTS

- Coleophora tricolor*, Wlsm. *Merton*, 1899 ; taken by Lord Walsingham ; not yet detected elsewhere
- *paripennella*, Fisch. *Lynn* } These four
— *potentillæ*, Bankes. *Lynn* } taken by
— *wilkinsoni*, Stn. *Lynn* } Mr. Atmore
— *pyrrhulipennella*, Z. *Lynn*
— *ibipennella*, Heyd. *Merton, Ranworth*
— *currucipennella*, Fisch. *Ranworth, Denton* ; rare
— *niveicostella*, Fisch. *Merton*
— *genistæ*, Stn. *Merton, St. Faiths, Lynn* ; among Genista anglica
— *leucapennella*, Hb. The only known British specimen of this rather distinct species was taken by the Rev. C. T. Cruttwell, near Denton, in 1890
— *saturatella*, Stn. *Merton*
— *inflatæ*, Stn. *Merton, Croxton, Brandon* ; among Silene inflata
— *graminicolella*, Heine. *Lynn, Ranworth* ; rare
— *siccifolia*, Stn. Taken at Merton by Lord Walsingham
— *glaucicolella*, Wood. *Lynn* ; among Juncus
— *alticolella*, Z. *Hunstanton, Merton* ; among Juncus lamprocarpus
— *murinipennella*, Dup. *Merton, Norwich*
— *mæniacella*, Fab. In salt marshes on the coast near Lynn
— *salinella*, Stn. (?) *Hunstanton* ; among Salsola kali
— *tripoliella*, Hm. Most abundant in salt marshes at Lynn
— *artemisiella*, Scott. *Norwich* ; scarce
— *juncicolella*, Stn. *St. Faiths, Lynn* ; on heaths
— *gryphipennella*, Bouché. *Merton, Denton, Lynn* ; among rose
— *olivacea*, Stn. *Merton* ; taken by Mr. Durrant
— *chalcogrammella*, Z. *Merton* formerly ; *Brandon, Croxton*, near Lynn
Stathmopoda pedella, Linn. *Lynn* ; local
Cosmopteryx orichalcea, Stn. *Merton, Ranworth, Barton Turf, Lynn*.
— *druryella*, Z. *Lynn* ; taken by Mr. Atmore
— *lienigiella*, Z. *Ranworth, Horning, Wormegay* ; among reed and reed-grass
Batrachedra pinicolella, Z. *Norwich, St. Faiths, Merton, Brandon, Wootton* ; among Scotch fir
Oinophila v-flava, Haw. *Norwich, Merton* ; in cellars
Chauliodus illigerellus, Hb. *Merton, Ranworth, Brundall, Lynn* ; in fens
— *chærophyllellus*, Goed. *Norwich, Merton* ; scarce
- Laverna propinquella*, Stn. *Norwich, Sur-*
lingham ; in fens
— *lacteella*, Stn. *Denton*
— *miscella*, Sch. *Ringstead*
— *ochraceella*, Curt. *Merton, Denton*
— *phragmitella*, Bent. *Brundall, Merton, Ranworth, Horning* ; always about Typha latifolia
— *epilobiella*, Roem. (*langiella*, Hb.). *Denton* ; scarce
— *decorella*, Steph. *Merton, Denton*
— *subbistrigella*, Haw. *Merton, Denton*
— *vinolentella*, H.S. *Norwich, Lynn* ; among apple and Siberian crab
— *rhamniella*, Z. *Ranworth, Merton, Lynn*
Chrysoclista schrankella, Hb. *Merton* ; taken by Lord Walsingham
Asynchna æratella, Z. *Swaffham* ; rare
Antispila pfeifferella, Fab. *Merton* ; among *Cornus sanguinea*
Stephensia brunnicella, Linn. *Norwich* ; among *Clinopodium vulgare*
Elachista gleichenella, Fab. *Merton, Denton, Ranworth*
— *magnificella*, Tengs. *Merton* ; a beautiful buff variety of this handsome little species has also been taken here by Mr. Durrant
— *apicipunctella*, Stn. *Wormegay, Denton, Bawsey* ; scarce
— *poæ*, Dgl. *Merton* ; among *Poa aquatica*
— *bedellella*, Sirc. Taken at *Ringstead* by Mr. Atmore
— *kilmunella*, Stn. *Norwich, St. Faiths, Ranworth, Merton* ; in fens
— *cinereopunctella*, Stn. *Merton*
— *subnigrella*, Dgl. *Merton, Denton*
— *cerussella*, Hb. Common in the fens
— *paludum*, Frey. *Surlingham, Ranworth, Denton, Lynn* ; among *Carex*
— *megerrella*, Z. *Denton*
— *triatomea*, Haw. *Norwich, Plumstead, Merton* ; in chalk-pits
— *ochreella*, Stn. *Wormegay, Lynn* ; in marshes
Lithocolletis hortella, Fab. *Merton, Denton, Middleton*
— *quinqueguttella*, Stn. *Merton, Ranworth* ; among dwarf sallow
— *lautella*, Z. *Norwich, Horstead, Merton* ; the pretty var. *irradiella* has also been found by Lord Walsingham at Merton
— *carpinicolella*, Stn. *Merton, Horstead* ; among hornbeam
— *sorbi*, Frey. *Denton* ; probably widely distributed.
— *oxyacanthæ*, Frey. *Merton*
— *concomitella*, Bankes. *Merton*
— *spinolella*, Dup. *Merton, Denton*
— *viminetorum*, Stn. *Lynn*

A HISTORY OF NORFOLK

- Lithocolletis scopariella, Fisch. *Merton, St. Faiths, Lynn*
- ulicicolella, Vaugh. *Lynn*; abundant at *Norwich* among furze
- heegeriella, Z. *Merton, Denton*
- sylvella, Haw. *Norwich, Merton, Denton*; among maple
- emberizæpennella, Bou. *Wormegay, Mintlyn, Denton*; among honeysuckle
- frolichiella, Z. *Merton, Lynn*; common among alder
- kleemannella, Fab. *Lynn*; taken by Mr. Atmore
- stettinensis, Nic. *Merton, Ranworth, Lynn*; among alder
- schreberella, Fab. *Norwich, Merton, Denton*; among elm
- tristrigella, Haw. *Merton, Lynn*; among elm
- Lyonetia clerckella*, Linn. *Norwich, Merton, Denton, St. Faiths*; not scarce
- Phyllocnistis suffusella*, Z. *Norwich, Merton, Lynn*; among poplar
- saligna, Z. *Merton*; among sallow
- Cemostoma spartfoliella*, Hb. Among broom; *C. laburnella*, Heyd., among laburnum; *C. scitella*, Z., among hawthorn; all generally distributed
- lotella, Stn. *Merton*; among *Lotus major*
- Opostega salaciella*, Tr. *Norwich, Brandon*, scarce; abundant at *Roydon*, near *Lynn*, and at *Merton*. Its probable variety, *reliquella*, found with it at *Merton* by Lord Walsingham
- auritella, Hb. *Ranworth Fen*; rare
- crepusculella, Fisch. Common in all the fens; also in marshes
- Bucculatrix aurimaculella*, Stn. *Norwich, Lynn, Merton*; common among ox-eye daisy
- cidarella, Fisch.; *B. ulmella*, Mann.; *B. cratægi*, Dup.; all three generally distributed; among alder, oak and hawthorn respectively
- maritima, Stn. In the salt marshes of the coast among *Aster tripolium*
- demaryella, Dup. Near *Lynn*; among birch
- boyerella, Dup. *Norwich, Lynn, Denton*; among elm
- frangulella, Gn. *Ranworth Fen*, and marshy heaths near *Lynn*; among *Rhamnus frangula*
- Bucculatrix cristatella*, Fisch. *Norwich, Merton*; among yarrow
- Nepticula atricapitella*, Haw.; *N. ruficapitella*, Haw.; *N. pygmaella*, Haw.; all near *Norwich* and *Merton*, among oak and hawthorn
- septembrella, Stn. Among *Hypericum*; *N. oxyacanthella*, Stn.; *N. alnetella*, Stn., among alder; *N. basalella*, H.S.; *N. turicella*, H.S.; *N. confusella*, Wlsm.; *N. fletcheri*, Tt.; and *N. acetosæ*, Stn.; all found at *Merton* by Lord Walsingham and Mr. Durrant
- cryptella, Frey.; *N. gratioella*, Stn.; *N. plagicolella*, Stn.; *N. prunetorum*, Stn.; *N. continua*, Stn.; *N. lapponica*, Wk.; *N. sorbiella*, Stn.; *N. aucupariæ*, Stn.; *N. desperatella*, Frey.; *N. ulmivora*, Stn.; and *N. sertella*, Stn.; all taken in the *Lynn district* by Mr. Atmore
- catharticella, Stn. Taken at *Croxton* by the Rev. H. Williams, and at *Merton* by Mr. Durrant
- trimaculella, Haw. *Denton*; among poplar
- microtheriella, Stn. *Horstead*; among hazel
- ignobilella Stn.; *N. malella*, Stn.; and *N. atricollis*, Stn.; all found near *Norwich*
- Trifurcula pulverosella*, Stn. *Norwich*; among wild apple
- Bohemannia quadrimaculella*, Boh. *Ranworth*, and near *Lynn*; not rare
- Eriocephala calthella*, Linn. *Merton*
- aruncella, Scop. *Brooke woods*; not scarce
- seppella, Fab. *Norwich, Merton*; on *Veronica chamædrys*
- mansuetella, Z. *Merton*, common; *Ranworth*, scarce
- thunbergella, Steph. *Merton*
- Micropteryx purpurella*, Steph.; *M. semi-purpurella*, Steph.; *M. unimaculella*, Z.; all abundant among birch at *Merton* and near *Lynn*
- sangii, Stn. Found by Mr. Atmore near *Lynn*
- sparmannella, Bosc. *Merton*, among birch; also not uncommonly near *Lynn*

HEMIPTERA

The order Hemiptera or Bugs consists of insects of small or medium size which are for the most part readily recognizable by the possession of

INSECTS

a more or less long and pointed beak. The latter is carried on the under side of the fore part of the body and in some species reaches as far as the base of the hind legs. The order is divided by systematists into two main sections: the Heteroptera, in which the front of the head is quite free from the base of the forelegs, and the Homoptera, in which that part which should be the front of the head is closely applied to the base of the forelegs so that the beak appears to rise from the middle of the breast. The Heteroptera, which may be termed 'running-bugs,' in contradistinction to the Cicadina and Psyllina, which are essentially 'jumping-bugs,' comprises a number of species exhibiting considerable diversity of form and habits. Few, if any, of them are likely to attract the notice of the casual observer, though the habits of many species are very interesting. The female of *Acanthosoma interstinctum*, a species common on birch trees in the autumn, has been observed to take charge of its eggs and young in a fashion very unusual among insects. The Rev. John Hellins observed that the female *Acanthosoma* laid her eggs on the underside of a birch leaf, in number between thirty and forty; they were laid close together, the outer on their side and the inner ones stood up on end in a somewhat diamond-shaped patch, about the size of the body of the parent insect. The latter then stood brooding over the patch of eggs, and after about three weeks the young bugs were found clustered beneath their mother amongst the empty egg-shells. At first the mother showed no fear and barely moved when touched, only altering her position so as to protect the side on which the danger threatened. In a few days, however, when the young ones had accomplished their first moult and commenced to run about on the leaf, she moved about amongst them in a state of apparent anxiety, and fluttered her wings rapidly if they were disturbed. If the sun shone out and the leaf was still there was a great deal of running to and fro, but at night and when the wind blew roughly, the mother contrived to get the young ones under her, and sat covering them as at first. This state of things continued for about a couple of days, when the young dispersed in small parties, but even at this point the mother seemed desirous to continue her ministrations. A few species associate with ants to which they bear considerable resemblance, especially when in motion; *Systellonotus triguttatus* furnishes a good example of these. This species is found not uncommonly on the celebrated Household Heath running on the ground in company with a blackish ant; its male is a bug-like insect about three-sixteenths of an inch long, with reddish brown upper wings traversed by two broad snow-white bands, whilst the female has the merest rudiments of wings, and the body is pinched in at the waist and widened behind so as to give the creature a very ant-like appearance. Passing over the water-boatmen (*Notonecta*), which are too well-known to call for remark, we have in *Ranatra linearis* a very curious and interesting form. This is a narrow pale-brown insect with a body about $1\frac{1}{4}$ inch long, and two thread-like tails almost as long as the body, and which when brought together form a tube along which air passes to the breathing organs situate at the tip

A HISTORY OF NORFOLK

of the body ; its antennæ are very short and inconspicuous, but its mode of carrying its forelegs is such that the latter have much the appearance of antennæ. It may be dredged from the bottom of the water at Hickling Broad and elsewhere, but it is by no means easy to see when mixed up in the water-net with broken and decayed pieces of sedge and other rubbish, as it is very deliberate in its movements.

The Homoptera are divided into three sections. The Trimera, the first of these, has three joints to the feet, and comprises the various families of jumping-bugs proper (*Cicadina*). The members of the second section, the Dimera, have but two joints to the feet : this section contains the *Psyllidæ*, small insects having somewhat the facies of a Cicada in miniature ; the plant-lice (*Aphidæ*) ; and the *Aleurodidae*. The latter are very minute insects with four milk-white wings, and are excessively abundant on cabbage. The third section, the Monomera, in which the feet are formed of a single joint, contains only the scale-insects (*Coccidæ*). The Cicadina are particularly well represented in Norfolk, the proportion occurring in the county being 78 per cent. of the number known to occur in the British Islands. These insects are for the most part small, and with the exception of the cuckoo-spit frog hopper (*Philænus spumarius*), and some of the yellow species of *Typhlocyba*, small, delicate, cylindrical insects which frequently get blown on to one's clothing from trees and fences in the fall of the year, none of them are very likely to be seen unless searched for. The patches of froth in which the nymph of *P. spumarius* lives are conspicuous objects on various low plants, and the perfect insects are remarkable for the variety of colour patterns which they exhibit ; some of these varieties show simply variation in degree, but others, such as the entirely black and the entirely pale forms, those black with a pale head, black with a pale border to the upper wings, etc., are perfectly distinct in appearance and might well be considered by a non-entomological observer to belong to different species. *Tettigonia viridis* is a strikingly beautiful insect which occurs in profusion amongst low plants growing in damp places ; the male is about one-third of an inch long, and has the upper wings of a rich deep blue ; the female is a little larger and of a delicate pale green colour closely resembling that of the lower part of the stems of the grasses and rushes amongst which the insect lives. The capture of jumping-bugs uninjured for the collection is really quite a sporting business, the chances of escape being at least ten to one in favour of the insect ; this is more especially the case with those species which live near the roots of herbage in marshes and by the sides of ditches, as these tiny animals have a provoking habit, even when they do not at first jump quite away, of retiring to the opposite side of the stem on which they are perched on the approach of the would-be captor's hand ; and of the species that can be got into the sweeping or beating-net only a comparatively small portion find their way into the collector's killing bottle, owing to the extreme activity of his temporary captives.

INSECTS

In the following list the names of the captors or recorders of species when other than the author are given after each entry. No particulars are appended to species generally distributed or of frequent occurrence in the county. The entomologists referred to in this list are : the late W. G. Blatch, F.E.S. (1840-1900) ; the late J. A. Brewer of Reigate ; the late J. B. Bridgman, F.L.S., F.E.S., of Norwich (1837-99) ; the Rev. J. Landy Brown of Norwich ; E. A. Butler, F.E.S. ; G. C. Champion, F.Z.S., F.E.S. ; John Curtis (*British Entomology*, 1838) ; the late T. P. Dossetor who lived in Norwich, 1876-87 ; the Rev. Canon Fowler of Lincoln ; Frank Norgate formerly of Sparham ; C. J. and J. Paget (*Sketch of the Natural History of Great Yarmouth and its Neighbourhood*, 1834) ; the late Dr. J. A. Power of London (1810-86) ; Edward Saunders, F.L.S. (*Hemiptera Heteroptera of the British Islands*, 1892) ; the Rev. T. Skrimshire of Syderstone (circ. 1825) ; H. J. Thouless of Norwich ; J. J. Walker, R.N., F.E.S.

HETEROPTERA

SCUTELLERIDÆ

Corimelæna scarabæoides, Linn. *Eaton*,
near *Norwich*, April, 1874 ; *Howe
Grove*, July, 1888, *Thouless* ; *Nor-
wich*, *Dossetor*

Odontoscelis fuliginosa, Linn. *Sand-hills,
Burnham*, *Skrimshire*

Podops inuncta, Fab. *Eaton*, July, 1874 ;
Mousehold Heath, *Thouless*

CYDNIDÆ

Sehirus bicolor, Linn.

Gnathoconus albomarginatus, Fab. *Arm-
inghall*

— *picipes*, Fall. *Yarmouth*, *Norwich*

PENTATOMIDÆ

Ælia acuminata, Linn. *Caister Marrams*,
Curtis

Neottiglossa inflexa, Wolff. *Howe Grove*,
Thouless

Pentatoma baccarum, Linn. *Foxley Wood*,
Norgate ; *Drayton Drewray*, *Thouless*

— *prasina*, Linn. *Yarmouth* ; ‘on firs, very
common,’ *Paget*

Strachia festiva, Linn. *Norwich*, *Saunders*

Piezodorus lituratus, Fab.

Tropicoris rufipes, Linn.

ASOPIDÆ

Picromerus bidens, Linn.

Asopus punctatus, Linn. *Mousehold Heath*

Podisus liridus, Fab. *Sparham*, *Norgate* ;
Drayton Drewray, *Thouless*

Zicrona cœrulea, Linn. *Coxford*, August
10th, 1887 ; one example

ACANTHOSOMIDÆ

Acanthosoma hæmorrhoidale, Linn.

— *dentatum*, De G.

— *interstinctum*, Linn.

COREIDÆ

Pseudophlæus falleni, Schill. *Brandon*,
Walker

Bathysolen nubilus, Fall. *Sparham district*,
Norgate ; *Norwich*

Coreus denticulatus, Scop. *Mousehold
Heath*, *Dossetor*

ALYDIDÆ

Alydus calcaratus, Linn. *Mousehold Heath*,
Dunston Common ; *Southrepps*, *Butler*

CORIZIDÆ

Therapha hyoscyami, Linn. *Caistor Mar-
rums*, *Paget*

Corizus parumpunctatus, Schill. *Drayton
Drewray*, September 5th, 1884 ; one
example

Myrmus myriformis, Fall.

Chorosoma schillingi, Schml. *Caistor Mar-
rums*, *Paget*

BERYTIDÆ

Neides tipularius, Linn. *Hunstanton*, July
30th, 1885 ; one example

Berytus clavipes, Fab. *Norfolk*, *Curtis*

— *minor*, H.S. } *Mousehold Heath*

— *signoreti*, Fieb. } *Mousehold Heath*

— *montivagus*, Fieb. *Thetford* ; *Mouse-
hold Heath*, *Thouless*

METACANTHIDÆ

Metacanthus punctipes, Germ. *Yarmouth*,
Thouless ; *Gimingham*, *Butler*

LYGÆIDÆ

Nysius thymi, Wolff.

CYMIDÆ

Cymus glandicolor, Hahn.

— *melanocephalus*, Fieb.

— *claviculus*, Fall.

Ischnorhynchus resedæ, Panz. *Stratton
Strawless*, *Ringland*

— *geminatus*, Fieb.

A HISTORY OF NORFOLK

ARTHENEIDÆ

Chilacis typhæ, Perr. *Swanton Morley*

HETEROGASTRIDÆ

Heterogaster urticæ, Fab. *Lynn, Bridgman; Holkham*

PACHYMERIDÆ

Ploциomerus fracticollis, Schill. *Horning, etc.*

Rhyparochromus prætextatus, H.S. *Mousehold Heath, Thetford Warren, Curtiss; Earlham*

— *dilatatus*, H.S. *Mousehold Heath, Dossetor*

— *chiragra*, Fab.

— *sabulicola*, Thoms. *Yarmouth, Thouless*

Ischnocoris angustulus, Boh.

Macrodema micropterum, Curt.

Plinthisus brevipennis, Latr.

Acompus rufipes, Wolff. *Eaton, Horning; Thouless* found a macropterous example at the latter place

Stygnus rusticus, Fall. A macropterous example, *Stoke Holy Cross, September, 1884*, Thouless; *Gimingham, Butler*

— *pedestris*, Fall.

— *arenarius*, Hahn.

Peritrechus geniculatus, Hahn. *Mousehold Heath, Yarmouth*

— *nubilus*, Fall. *Foxley Wood, Thouless*

— *luniger*, Schill.

Trapezonotus agrestis, Panz. *Mousehold Heath*

Aphanus pedestris, Panz. Common under bark throughout the *Norwich district*

— *lynceus*, Fab. *Hunstanton, Fowler*

— *pini*, Linn. *Mousehold Heath*

Eremocoris fenestratus, H.S. *Hunstanton, Blatch*

Drymus sylvaticus, Fab.

— *brunneus*, Sahl.

Notochilus contractus, H.S. *Ringland*

Scolopostethus pictus, Schill. *Horning, Brewer*

— *puberulus*, Horv. *Horning*

— *affinis*, Schill.

— *neglectus*, Edw.

— *decoratus*, Hahn.

Gastrodes abietis, Linn. In cones of spruce fir, *Merton Park, Lord Walsingham*

— *ferrugineus*, Linn.

PIESMIDÆ

Piesma quadrata, Fieb.

— *capitata*, Wolff.

TINGIDIDÆ

Serenthia lœta, Fall. *Dunston Common, Weybourne*

Orthostira cervina, Germ. *Swanton Morley*

TINGIDIDÆ (*continued*)

Orthostira parvula, Fall.

Dictyonota crassicornis, Fall. *Hellesdon, Mousehold Heath, Cley; Gimingham, Butler*

— *strichocera*, Fieb.

Derephysia foliacea, Fall. *Norwich*

Monanthia ampliata, Fieb. *Ketteringham Common; Wretham, Thouless*

— *cardui*, Linn.

— *dumetorum*, H.S. *Stratton Strawless*

— *humuli*, Fab. *Arminghall, Eaton*

HEBRIDÆ

Hebrus pusillus, Fall. *Arminghall*

HYDROMETRIDÆ

Hydrometra stagnorum, Linn.

VELIIDÆ

Microvelia pygmæa, Duf. A macropterous example, *Hickling Broad, Thouless*

Velia currens, Fab.

GERRIDÆ

Gerris rufoscutellata, Latr. *Mousehold Heath, Drayton Drewray, Thouless; Horning*

— *thoracica*, Schum.

— *gibbifera*, Schum.

— *lacustris*, Linn.

— *odontogaster*, Zett.

— *argentata*, Schum. *Arminghall*

EMESIDÆ

Ploaria vagabunda, Linn.

— *culiciformis*, De G. *Norwich*

REDUVIIDÆ

Reduvius personatus, Linn. *Yarmouth, Paget; Norwich*

Coranus subapterus, De G.

NABIDÆ

Nabis lativentris, Boh.

— *major*, Costa

— *boops*, Schiödte. *Mousehold Heath*

— *flavomarginatus*, Scholtz

— *limbatus*, Dahl.

— *lineatus*, Dahl. *Horning, Surlingham, Cley*

— *ferus*, Linn.

— *rugosus*, Linn.

— *ericetorum*, Scholtz

SALDIDÆ

Salda pilosa, Fall.

— *saltatoria*, Linn.

— *pallipes*, Fab.

— *pilosella*, Thoms. *Salthouse, Cley*

— *opacula*, Zett. *Salthouse*

— *orthochila*, Fieb.

— *muelleri*, Gmel. *Brumstead Common, July 21st, 1887*, one male; *Ranworth, Champion*

— *littoralis*, Linn. *Postwick, Lakenham*

— *lateralis*, Fall.

— *cincta*, H.S.

INSECTS

SALDIDÆ (*continued*)

- Salder cocksii, Curt. *Heigham 'Canser'*
 CERATOCOMBIDÆ
Ceratocombus coleoptratus, Zett. *Stratton Strawless ; Ditchingham*, Power

CIMICIDÆ

- Cimex lectularius*, Linn.
 — columbarius, Jen. *Norwich*
 — pipistrelli, Jen. *Merton Hall, Lord Walsingham*
 — hirundinis, Jen. *Stoke Holy Cross, Norwich*

ANTHOCORIDÆ

- Lyctocoris campestris*, Fall.
Piezostethus cursitans, Fall. *Honing*
Tennostethus pusillus, H.S.
Anthocoris confusus, Reut.
 — nemoralis, Fab.
 — sarotheamni, D. & S. *Hellesdon, Eaton*
 — visci, Dougl. *East Carlton*
 — sylvestris, Linn.
Tetraphleps vittata, Fieb. *Arminghall*
Acompocoris pygmaeus, Fall.
 — alpinus, Reut. One example on fir in a plantation beyond *Mousehold Heath*, Dossetor

TRIPHLEPIDÆ

- Triphleps nigra*, Wolff
 — majuscula, Reut.
 — minuta, Linn. *Mousehold Heath*
Xylocoris ater, Duf. *Norwich*
 MICROPHYSIDÆ
Microphysa pselaphiformis, Curt. *Cossey, Swanton Morley*
 — elegantula, Baer. *Norwich*, in several localities, Thouless, Gimmingham, Butler

MYRMECOPTERA

- Myrmedobia distinguenda*, Reut. *Gimmingham ; Southrepps*, Butler

CAPSIDÆ

- Pithanus maerkeli*, H.S.
Acetropis gimmerthalii, Flor. *Stratton Strawless, Bawdeswell, Drayton Drewray*
Miris calcaratus, Fall.
 — lavigatus, Linn.
Megaloceraea erratica, Linn.
 — longicornis, Fall.
 — ruficornis, Fourc.
Teratocoris antennatus, Boh. *Hunstanton, Weybourne, Ranworth*
 — saundersi, D. & S. With the last ; also at *Brundall* and *Surlingham*
Leptopterna ferrugata, Fall.
 — dolobrata, Linn.
Monalocoris filicis, Linn.
Bryocoris pteridis, Fall.
Pantilius tunicatus, Fab.
Lopus gothicus, Linn. *Dunston Common*
 — var. *superciliosus*, D. & S. *Horsford, Thouless*

CAPSIDÆ (*continued*)

- Phytocoris distinctus*, D. & S.
 — intermedius, Reut.
 — populi, Linn.
 — tiliæ, Fab.
 — longipennis, Flor.
 — dimidiatus, Kbm.
 — reuteri, Saund.
 — varipes, Boh.
 — ulmi, Linn.
Calocoris striatellus, Fab. *Ringland*
 — fulvomaculatus, De G. *Foxley Wood*
 — bipunctatus, Fab.
 — chenopodii, Fall.
 — tincinensis, Mey. *Honing, Ranworth*
 — roseomaculatus, De G. *Swanton Morley, Postwick*
 — infusus, H.S. *Beeston near Norwich ; Earlham, Thouless ; Southrepps*, Butler
 — striatus, Linn. *Stratton Strawless, Thouless*
Oncognathus binotatus, Fab.
Dichrooscytus rufipennis, Fall. *Norwich*
Lygus pratensis, Fab.
 — atomarius, Mey. *Stratton Strawless*, on silver fir ; not recorded as occurring elsewhere in England
 — rubricatus, Fall.
 — contaminatus, Fall.
 — viridis, Fall.
 — lucorum, Mey.
 — spinolæ, Mey.
 — pabulinus, Linn.
 — viscicola, Put. *East Carlton*
 — pastinacæ, Fall.
 — cervinus, H.S.
 — kalmii, Linn.
Zygimus pinastri, Fall. *Sprowston, Attlebridge*
Pœciloscytus gyllenhali, Fall. *Cossey*
 — unifasciatus, Fab. *Cossey*
 — vulneratus, Wolff. *Yarmouth* ; discovered by Thouless, September, 1897 ; not recorded as occurring elsewhere in Britain
Camptobrochis lutescens, Schill. *Ringland*
Liocoris tripustulatus, Fab.
Capsus lanarius, Linn.
 — scutellaris, Fab. *Hindolveston*, Power
Bothynotus pilosus, Boh. A macropterous male, *Booton Common*, July 8th, 1886
Rhopalotomus ater, Linn.
Pilophorus cinnamopterus, Kbm. Scotch fir, *Trowse*, August 24th, 1877 ; *Sprowston*, Dossetor
 — clavatus, Linn. *Lakenham, Thetford*
Systellonotus triguttatus, Linn. *Mousehold Heath*
Eroticoris rufescens, Burm. *Stratton Strawless, St. Faiths, Drayton Drewray*

A HISTORY OF NORFOLK

CAPSIDÆ (continued)

- Halticus apterus*, Linn. *Bramerton*, Thouless
- Strongylocoris leucocephalus*, Linn. *Dunston Common*, Hethersett
- Labops saltator*, Hahn. *Yarmouth*, *Mousehold Heath*
- *mutabilis*, Fall. *Bixley*, Thouless
- Macrolophus nubilus*, H.S. *Swardesdon*, May 15th, 1880
- Dicyphus epilobii*, Reut.
- *errans*, Wolff. *Mousehold Heath*, Thouless
- *stachydis*, Reut.
- *pallidicornis*, Fieb. *Ringland*
- *globulifer*, Fall.
- *annulatus*, Wolff.
- Campyloneura virgula*, H.S.
- Cyllocoris histrionicus*, Linn.
- *flavonotatus*, Boh.
- Ætorhinus angulatus*, Fab.
- Globiceps selectus*, Fieb. *Swanton Morley*
- *dispar*, Boh.
- Mecomma ambulans*, Fall. *Ringland*
- Cyrtorrhinus caricis*, Fall. *Stoke Holy Cross*
- *pygmæus*, Zett. *Coxford*, *Hellesdon*
- *flaveolus*, Reut. With the last ; also at *Ranworth* ; *Weybourne*, Butler
- Orthotylus bilineatus*, Fall. *Stratton Strawless*, Thouless
- *flavinervis*, Kbm.
- *marginalis* Reut.
- *tenellus*, Fall.
- *nassatus*, Fab. *Cossey*, *Heigham*
- *viridinervis*, Kbm.
- *prasinus*, Fall. *Trowse*
- *scotti*, Reut.
- *diaphanus*, Kbm. *Cringeford*
- *flavosparsus*, Sahl. *Hunstanton*, *Brancaster*
- *chloropterus*, Kbm.
- *concolor*, Kbm.
- *adenocarpi*, Perr.
- *rubidus*, Fieb. *Yarmouth*, *Wells*
- *ericetorum*, Fall.
- Loxops coccinea*, Mey. *Cossey*, *Ringland*
- Heterotoma merioptera*, Scop.
- Heterocordylus genistæ*, Scop. *Wacton Common*, on *Genista tinctoria*
- *tibialis*, Holm.
- Malacocoris chlorizans*, Fall.
- Onychumenus decolor*, Fall. *Hunstanton*
- Macrotylus paykulli*, Fall.
- Conostethus salinus*, J. Sahl. *Hunstanton*
- *roseus*, Fall. *Mousehold Heath*, *Drayton Drewray*, *Horning*
- Macrocoleus molliculus*, Fall.
- *tanaceti*, Fall. *Mundesley* ; *Gimingham*, Butler
- Amblytylus affinis*, Fieb. *Dunston Common*
- Harpocera thoracica*, Fall.

CAPSIDÆ (continued)

- Byrsoptera rufifrons*, Fall. *Hellesdon*, *Dunston*
- Phylus palliceps*, Fieb.
- *melanocephalus*, Linn.
- *coryli*, Linn.
- Atractotomus mali*, Mey. *Norwich*
- *magnicornis*, Fall.
- Psallus ambiguus*, Fall.
- *betuleti*, Fall.
- *obscurellus*, Fall.
- *variabilis*, Fall.
- *lepidus*, Fieb.
- „ var. *roseus*, D. & S.
- *alnicola*, D. & S.
- *varians*, H.S.
- *diminutus*, Kbm.
- *sanguineus*, Fab.
- *salicellus*, Mey. *Foxley Wood*
- *rotermundi*, Scholtz
- Plagiognathus albipennis*, Fall.
- *viridulus*, Fall.
- *arbustorum*, Fab.
- *roseri*, H.S. *Eaton*
- *pulicarius*, Fall.
- *saltitans*, Fall.
- Asciodesma obsoletum*, D. & S.
- NAUCORIDÆ**
- Naucoris cimicoides*, Linn.
- Aphelochirus æstivalis*, Fab. *Cossey* ; *Earlham*, Brown
- NEPIDÆ**
- Nepa cinerea*, Linn.
- Ranatra linearis*, Linn. Near *Sparham*, Norgate ; *Hickling Broad*
- NOTONECTIDÆ**
- Notonecta glauca*, Linn.
- *maculata*, Fab.
- Plea minutissima*, Fab.
- CORIXIDÆ**
- Corixa geoffroyi*, Leach
- *atomaria*, Ill. *Horsford Heath*, *Wretham Heath*
- *lugubris*, Fieb. } *Weybourne*, *Salthouse*,
- *selecta*, Fieb. } *Cley*
- *hieroglyphica*, Duf.
- *sahlbergi*, Fieb.
- *linnæi*, Fieb.
- *limitata*, Fieb. *Ditchingham*, Power
- *semistriata*, Fieb. *Honing*, August, 1888 ; *Horning*, April, 1899
- *striata*, Linn.
- *falleni*, Fieb.
- *distincta*, Fieb.
- *fossarum*, Leach
- *mœsta*, Fieb.
- *fabricii*, Fieb.
- *præusta*, Fieb.
- *concinna*, Fieb. *Hunstanton*, Fowler
- *bonsdorffii*, Sahl.

INSECTS

CORIXIDÆ (continued)

- Corixa coleoptrata, Fab.
- Sigara minutissima, Linn. *Whitwell Common, Brundall, Horning*
- scholtzii, Fieb. *Dilham Canal*

HOMOPTERA

CICADINA

MEMBRACIDÆ

- Centrotus cornutus, Linn. *Foxley Wood, Ketteringham*
- Gargara genistæ, Fab. *Santon Downham, Norgate*

ISSIDÆ

- Issus coleoptratus, Geoff. *Norwich, Cossey, Swanton Morley*

CIXIIDÆ

- Cixius pilosus, Ol.
- cunicularius, Linn.
- nervosus, Linn.
- brachycranus, Fieb.
- similis, Kbm. *Drayton Drewray, St. Faiths*

DELPHACIDÆ

- Asiraca clavicornis, Fab. *Earlham; Lakenham, Thouless.*
- Delphax pulchella, Curt.
- Chloriona glaucescens, Fieb. *Ranworth, Cley*
- prasinula, Fieb. *Dersingham, Cley, Whitwell Common*
- smaragdula, Stål. *Ranworth*
- Liburnia notula, Germ.
- quadrimaculata, Sign. *Booton Common, Ranworth, Flordon Common*
- thoulessi, Edw. *Ranworth, August, 1866, Thouless; not recorded as occurring elsewhere in Britain*
- lineola, Germ.
- fuscovittata, Stål. *Roydon Fen*
- vittipennis, J. Sahl
- guttula, Germ.
- pallidula, Boh. *St. Faiths, Stratton Strawless*
- punctulum, Kbm.
- scotti, Fieb.
- collina, Boh.
- elegantula, Boh.
- boldi, Scott. *Yarmouth, Holkham*
- signoreti, Scott. *Brundall, Surlingham*
- reyi, Fieb. *Weybourne, August, 1887; not recorded as occurring elsewhere in Britain*
- lepida, Boh. *Weybourne, Ranworth, Surlingham*
- fieberi, Scott
- leptosoma, Flor.
- niveimarginata, Scott. *Booton Common, Swardston Common*

DELPHACIDÆ (continued)

- Liburnia pellucida, Fab.
- difficilis, Edw.
- discreta, Edw.
- discolor, Boh.
- forcipata, Boh.
- denticauda, Boh. *Foxley Wood, Ketteringham Common*
- exigua, Boh. *Cley, Ringstead Downs*
- venosa, Germ. *Dunston Common, Booton Common*
- aubei, Perr.
- striatella, Fall.
- fairmairei, Perr.
- brevipennis, Boh.
- straminea, Stål. *Mousehold Heath, Stratton Strawless*
- limbata, Fab.
- lineata, Perr. *Weybourne, Arminghall*
- mesomela, Boh.
- Dicranotropis hamata, Boh.
- Stiroma albomarginata, Curt.
- pteridis, Boh.
- affinis, Fieb.
- bicarinata, H.S. *Booton Common*
- nigrolineata, Scott. *Morston*

CERCOPIDÆ

- Aphrophora alni, Fall.
- salicis, De G. *Horning, Foxley Wood*
- Philænus spumarius, Linn.
- campestris, Fall.
- exclamationis, Thunb.
- lineatus, Linn.

LEDRIDÆ

- Ledra aurita, Linn. *Ringland; Fulmodeston Severals, Foxley Wood, Norgate*

ULOPIDÆ

- Ulopa reticulata, Fab.

PAROPIIDÆ

- Megophthalmus scanicus, Fall.

BYTHOSCOPIDÆ

- Macropsis lanio, Linn.
- Bythoscopus alni, Schr.
- rufusculus, Fieb.
- flavicollis, Linn.
- Pediopsis scutellatus, Boh.
- tibialis, Scott.
- fuscinervis, Boh. *Howe*
- impurus, Boh.
- ulmi, Scott. *Eaton*
- cereus, Germ.
- virescens, Fab.
- Idiocerus adustus, H.S.
- varius, Fab. *Whitlingham*
- herrichii, Kbm. *Stratton Strawless, Caistor near Norwich; not recorded as occurring elsewhere in Britain*
- tremulæ, Estl. *Howe*
- cupreus, Kbm. *Brandon, May, 1896, one female, Thouless; the insect*

A HISTORY OF NORFOLK

BYTHOSCOPIDÆ (continued)

- here recorded and the type appear to be the only specimens known
Idiocerus viduatus, Edw. *Foxley Wood*, September 10th, 1885; the type of this species still remains unique
— *laminatus*, Flor.
— *lituratus*, Fall.
— *pœcillus*, H.S. *Cossey, Wacton*
— *vitreus*, Fab. With the last and at *Trowse*
— *aurulentus*, Kbm. *Cossey*
— *fulgidus*, Fab.
— *populi*, Linn.
— *confusus*, Flor.
— *albicans*, Kbm.
Agallia puncticeps, Germ.
— *venosa*, Fall.

TETTIGONIDÆ

- Evacanthus interruptus*, Linn.
— *acuminatus*, Fab.
Tettigonia viridis, Linn.

ACOCEPHALIDÆ

- Strongylocephalus agrestis*, Fall.
— *megerlei*, Scott. *Horning, Ranworth, Surlingham*
Acocephalus nervosus, Schr.
— *bifasciatus*, Linn. *Hellesdon*
— *albifrons*, Linn.
— „ var. *interruptus*, Scott } In salt marshes
— „ var. *polystolus*, Scott } marshes
— *brunneo-bifasciatus*, Geoff.
— *histrionicus*, Fab. *Mousehold Heath*
— *flavostriatus*, Don.
Eupelix cuspidata, Fab.
Doratura stylata, Boh.
— *impudica*, Horv. *Hunstanton, Holkham*
Paramesus nervosus, Fall.
— *phragmitis*, Boh. *Ranworth, Cley*
Glyptocephalus proceps, Kbm.

JASSIDÆ

- Athysanus sordidus*, Zett.
— *sahlbergi*, Reut.
— *grisescens*, Zett.
— *communis*, J. Sahl
— *obscurellus*, Kbm.
— *obsoletus*, Kbm.
— *melanopsis*, Hardy. *Coxford Heath*
Deltoccephalus abdominalis, Fab.
— *pascuellus*, Fall.
— *citrinellus*, Kbm. *Cringleford*
— *ocellaris*, Fall. *Hellesdon*
— *repletus*, Fieb. *Stratton Strawless*, and *Brumstead, Whitwell and Dunston Commons*
— *picturatus*, Fieb. *Dunston Common, Ringland*
— *flori*, Fieb.
— *distinguendus*, Flor.
— *falleni*, Fieb.

JASSIDÆ (continued)

- Deltoccephalus paleaceus*, J. Sahl. *Brooke Wood*; not recorded as occurring elsewhere in Britain
— *socialis*, Flor. *Barton Bendish*
— *sabulicola*, Curt.
— *striatus*, Linn.
— *normani*, Scott. *Norwich*
— *punctum*, Flor.
— *argus*, Marsh. *Mousehold Heath*
— *costalis*, Fall. *Ranworth*, September 30th, 1886; not recorded as occurring elsewhere in Britain
— *coroniceps*, Kbm. *Coxford Heath*, August 10th, 1887, one example; not otherwise known as a British insect
— *maculiceps*, Boh. *St. Faiths*
— *pulicaris*, Fall.
Allygus commutatus, Fieb. *Brooke Wood, Trowse, Arminghall*
— *modestus*, Fieb.
— *mixtus*, Fab.
Thamnotellix prasina, Fall. } *Stratton Strawless*
— *dilutior*, Kbm. }
— *subfuscula*, Fall.
— *variegata*, Kbm.
— *plebeja*, Fall. *Norwich*
— *striatulella*, Edw. *Roudham Heath*; not recorded as occurring elsewhere in Britain
— *splendidula*, Fab.
— *crocea*, H.S.
— *attenuata*, Germ. *Mousehold Heath*
Limotellix striola, Fall.
— *antennata*, Boh.
— *5-notata*, Boh. *Ranworth*; not recorded as occurring elsewhere in Britain
— *4-notata*, Fab.
— *sulphurella*, Zett.
Cicadula metria, Flor.
— *opacipennis*, Leth. *Ranworth*; not recorded as occurring elsewhere in Britain
— *septemnotata*, Fall.
— *variata*, Fall.
— *fasciifrons*, Stål. *Drayton Drewray, Cley, Brooke*
— *sexnotata*, Fall.
— *fieberi*, Edw. *Weybourne, Cley, Brooke*
— *livida*, Edw. *Weybourne*, October, 1888; not recorded as occurring elsewhere in Britain
Gnathodus punctatus, Thunb. *Ringland, Earlham*

TYPHLOCYBIDÆ

Alebra albostriella, Fall.
Dicranura flavipennis, Zett.
— *citrinella*, Zett.

MYRIAPODA

TYPHLOCYBIDÆ (continued)

- Dicraneura similis, Edw. *Stratton Strawless, St. Faiths*
- mollicula, Boh.
- variata, Hardy
- Kybos smaragdulus, Fall.
- Chlorita flavescens, Fab.
- viridula, Fall.
- Eupteryx vittatus, Linn.
- notatus, Curt.
- urticae, Fab.
- stachydearum, Hardy
- collinus, Flor. *Lakenham*
- melissæ, Curt.
- auratus, Linn.
- atropunctata, Goeze
- signatipennis, Boh.
- tenellus, Fall. *Unthams Road, Norwich; Earlham*
- abrotani, Dougl.
- germari, Zett.
- pulchellus, Fall.
- concinna, Germ.
- Typhlocyba jucunda, H.S. *Stoke Holy Cross, Cossey*
- sexpunctata, Fall. *Ringland, Bixley*
- debilis, Dougl. *Norwich*
- ulmi, Linn.
- tenerima, H.S.
- aurovittata, Dougl. *Porland, Felthorpe*
- douglasi, Edw.
- gratiosa, Boh.
- cratægi, Dougl.
- lethierryi, Edw.
- rosæ, Linn.
- salicicola, Edw.
- pruni, Edw. *Arminghall*; the type of this species remains unique
- quercus, Fab.
- nitidula, Fab.
- „ var. norgueti, Leth.
- geometrica, Schr.
- Zygina alneti, Dahl.
- coryli, Tollin
- flammigera, Geoff.
- tiliæ, Geoff. By beating firs and ivy in spring; *Ringland, Drayton*

TYPHLOCYBIDÆ (continued)

- Zygina hyperici, H.S. *Swanmington*
- parvula, Boh. *Eaton, Bramerton*
- scutellaris, H.S.

PSYLLINA

LIVIIDÆ

- Livia juncorum*, Latr.

APHALARIDÆ

- Rhinocola ericæ, Curt. *Mousehold Heath*
- aceris, Linn. *Ringland*
- Aphalara exilis, Web. & Mohr.
- calthæ, Linn. *Wretham Heath*
- artemisiæ, Först.
- nervosa, Fall.

PSYLLIDÆ

- Psyllopsis fraxinicola, Först.
- fraxini, Linn.
- Psylla pruni, Scop.
- cratægi, Schr.
- costalis, Flor.
- simulans, Först.
- pyricola, Först.
- salicicola, Först.
- venata, Edw. *Stratton Strawless*; the type of this species remains unique
- visci, Curt. *East Carlton*
- hippophaes, Först. *Winterton*
- hartigii, Flor.
- pineti, Flor.
- betulæ, Linn.
- costalis, Flor.
- peregrina, Först.
- mali, Schmdbg.
- alni, Linn.
- försteri, Flor.
- buxi, Linn.
- spartii, Guér. *Hellesdon*
- Arytæna genistæ, Latr. *Hellesdon, Eaton*

TRIOZIDÆ

- Trioza albiventris, Först.
- rhamni, Schrk.
- urticæ, Linn.
- remota, Först.
- galii, Först.

MYRIAPODA

Systematic collecting of Myriapoda has never been carried on in Norfolk. Hence the materials available for forming a list of the species occurring in the county are most inadequate. The species enumerated below were casually picked up by Mr. F. Pickard-Cambridge and Mr. Oldfield Thomas on or near the broads, and by the former at West Runton, a small sea-coast village lying to the north of Cromer. All the species are forms widely distributed throughout the south of England.