



THE

LINCOLNSHIRE

NATURALISTS UNION

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TRANSACTIONS

Edited by

F. T. BAKER, M.A., F.S.A., A.L.A., A.M.A.

Vol. XIV. No. I

DECEMBER, 1956

LINCOLN
Keyworth and Fry, Swanpool Court

Lincolnshire Naturalists' Trust Ltd.

FORMED 1949

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City and County Museum, Lincoln.

Formed by Lincolnshire naturalists to promote the conservation of our native vegetation and the rich and varied animal life which it supports. The Trust will acquire and maintain nature reserves and develop the study and protection of wild life throughout the County.

Membership of the Trust is open to everyone on payment of :—

A sum of not less than £10 for Life Membership,

or

An annual amount of not less than 10/- for Ordinary Membership.

A reserve fund has been established for the purchase of property and for providing a Field Centre at Gibraltar Point. Special donations to this fund would be welcomed.

Enquiries should be addressed to the Hon. Secretary, 51 West Street, Alford.

Lincolnshire Naturalists' Union

Founded June 12th, 1893

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STATEMENT OF ACCOUNT

from January 1st to December 31st, 1955

INCOME AND EXPENDITURE ACCOUNT

RECEIPTS	£	s	d	PAYMENTS	£	s	d
To Balance at 1st January, 1955	...			By Postages and small payments			36 15 0
Members' Subscriptions	...			" Notices of meetings, stationery			37 1 7
Publication Fund	...			" Hire of 'buses			38 6 0
'Bus Fares	...			" Subscriptions to B.S.B.I., B.T.O., B.H.S., B.B., etc.			5 5 0
Sale of <i>Transactions</i>	...			" Printing <i>Transactions</i> , Vol. xiii, No. 3			113 17 6
Sale of <i>Geology of Lincolnshire</i>	...			" Printing <i>Transactions</i> , Vol. xiii, No. 4			94 8 6
Sale of <i>Birds of Lincolnshire</i>	...			" Cost of off-prints from <i>Transactions</i>			6 10 0
Grant from Lincolnshire Naturalists' Trust	...			" Printing <i>Bird Report</i> , 1954			47 10 0
Realisation of value of Savings Certificates at 29th November, 1955	...			" Part cost of printing <i>The Birds of Lincolnshire</i>			300 0 0
Sale of Off-prints	...			" Advertising <i>The Birds of Lincolnshire</i>			3 11 9
	...			" Field Secretary's expenses, 1954/1955			9 19 10
	...			" Purchase of back parts <i>Transactions</i>			4 0 0
	...			" Cheque Book			5 0 0
	...			" Balance at Bank, 31st December, 1955			91 1 2
							£788 11 4

Audited, and found correct, 31st July, 1956.

ROBERT WITHERS, Hon. Auditor.

LIST OF MEMBERS

REVISED TO 30TH NOVEMBER, 1956

The symbol after each name indicates the subject in which the member is interested.

A —Arachnology	HS—History of Science
Ag —Agronomy	Hy —Hymenoptera
B —Botany	L —Lepidoptera
Bg —Biography of naturalists	M —Mammals
By —Bryology	Mi —Microscopy
Cl —Coleoptera	My—Mycology
Cn—Conchology	N —Nematology
E —Entomology (General)	O —Ornithology
Ea —Entomology (Applied)	Or —Orthoptera
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FB—Freshwater Biology	PP —Plant Pathology
G —General interest	Pn —Pollination
Gy—Geology	Z —Zoology

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Any corrections to the above list will be gladly received by the Hon. Secretary

SUBSCRIPTIONS

Members are reminded that subscriptions are due on January 1st of each year and should be paid to the Hon. Treasurer, Mr. F. T. Baker, City and County Museum, Lincoln, who will send membership cards as receipt.

The minimum annual subscription is 15/- payable in advance. A second member of a family will pay 10/-; Junior Members 5/- per annum. Affiliated Groups and societies may join on payment of £1 1s. 0d. Payment of one sum of £10 10s. 0d. constitutes Life Membership.

TRANSACTIONS AND BROCHURES

It is very desirable that much information regarding the Natural History of Lincolnshire which is in the hands of the recorders, should be published as soon as funds permit. No. 1 and No. 2 of a series of brochures are now available: *The Geology of Lincolnshire* by Professor H. H. Swinnerton and Dr. P. E. Kent, price 5/- and *The Birds of Lincolnshire* by A. E. Smith and R. K. Cornwallis, price 7/6d. and 15/- bound and inter-leaved.

There is available a limited number of back parts of *Transactions* at 7/6d. each. Application should be made to the Hon. Secretary.

The Hon. Secretary will be pleased to hear of any issues of the *Transactions* that members may be disposed to sell.

OBJECTS AND RULES

The Lincolnshire Naturalists' Union was formed to promote the thorough investigation of the fauna, flora, and physical features of the County, to bring together workers following the same pursuits, to increase the interest in, and study of, every branch of Natural History.

Field Meetings are held six or more times a year. Lectures and demonstrations are arranged at Lincoln during the winter. There is also the annual general meeting held at Lincoln, for the transaction of the business of the Society, and for the President's address.

At ordinary Field Meetings, when the Union is not entertained, members may introduce friends.

Ladies and gentlemen desirous of becoming members of the Union, should apply to the Hon. Secretary for nomination papers. A new member requires to be proposed and seconded and the paper must be countersigned by the President or one of the Vice-Presidents of the Union.

It is hoped that all members will interest themselves in the work of the Union, especially by obtaining new members and communicating with the Sectional Officers respecting new records, etc.

Resignation.—Any person wishing to withdraw from membership *must give notice in writing* to the Hon. Secretary. Such person will be liable for the current year's subscription and any arrears that may be owing.

Presidential Address

Delivered at Lincoln, 19th March, 1955

by

E. C. RIGGALL

NOTES ON LINCOLNSHIRE COLEOPTERA

Our County Coleoptera has received the attention of capable specialists. Canon W. W. Fowler, author of the standard work on Coleoptera, resided in Lincolnshire. The Rev. A. Thornley and Dr. W. Wallace published records for the whole county and these appeared in the *Transactions* 1907 to 1913. Mr. W. Bevins of Algarkirk collected in the southern half of the county. This indefatigable coleopterist recorded three hundred and twenty-two species of beetles from his garden. Unfortunately, his main collection was sold out of the district and so complete records are not available. In 1938, Professor F. Balfour-Browne listed the county water beetles in his paper: "Aquatic Coleoptera of North and South Lincolnshire." In the realm of Economic Entomology, Mr. A. Roebuck also contributed extensive records of beetles found on land broken for agricultural purposes. So the habitats attractive to the collector, and the land worked for crops, which is usually neglected by the coleopterist, received capable attention. It may seem that the county has been so well worked that little remains to be accomplished. This could well be true were it not for the fact that the coleopterous-fauna of Lincolnshire is subject to a changing ecology brought about by intensive farming, building, establishment of aerodromes, lowering of the water table, and felling and planting of woodlands. Beetles tend to reside in small favourable areas. These are often affected by the advance of industrialism. The ecology of the north-west corner of our county is very favourable to coleoptera but millions of airborne beetles must be lured to destruction by the glare from Scunthorpe Steel Works. In Lincolnshire the location of an "area" colonised by beetles is often the result of former quarrying. The county contains many abandoned excavations. A quarry traps flying beetles and offers attractions to species which like to shelter under stones. As herbage becomes established the area is colonised by species associated with plants. If the pit is in water-holding strata it may contain a pool. At first the water will lack vegetation and during this period will become populated by water-beetles which favour a silt-pond. As water-plants become established decaying vegetation changes the bottom to detritus. The silt-pond species leave and are replaced by beetles favouring a pond containing organic debris. It is probable that the margins of the pond will support a zone of lush vegetation attractive to some beetles. In such an area as this abandoned quarry, beetles will flourish until man finally has the last word by deciding that the excavation can be useful as a rubbish tip. The locality will thereafter deteriorate into a patch on the landscape

where few or no beetles exist. Since the publication of the Thornley-Wallace records our coleoptera has been affected by two wars. During the 1914 to 1918 period many hedges were allowed to grow and parts of the country were neglected to the benefit of insect life, but during both wars good collecting areas were spoiled by military occupation.

The county coleoptera not only alters its pattern as a result of the activities of man, it is also affected by unusually wet or dry seasons, inundation by the sea, and flooding from streams and rivers.

The replacement of sand-dunes by a concrete sea-wall, following the break through of the sea in 1953, did not at first sight appear in the best interests of a coleopterist, but the new sea defence is the alighting place of migration swarms. Beetles which would formerly have distributed themselves among the herbage of the sand dunes, now come down upon the concrete where they can be readily seen and collected with discrimination.

The records of half a century reveal some interesting changes in the beetle-fauna. Species once well established have lost foothold, others more adaptable have survived, a few notable species have moved in, and there are records of beetles which seem to come under the category of "chance arrivals." Beetles in the latter category may be found in migration swarms, or in tidal or flood refuse. I have sometimes seen water-beetles clinging to herbage far from any pond, and these insects are "chance arrivals" resting in the course of a flight.

ADEPHAGA

The Adephaga are the carnivora of the beetle race, and the highest in development. This suborder comprises species often referred to as "ground beetles." They have long and slender antennae. Some are winged, while others rarely take to the air. *Carabus violaceus* (Linnaeus) is a large black species with metallic edges to thorax and elytra. This beetle is being reduced in numbers by mechanical farming. In the memory of old men hay was mown by hand. To-day the hay harvest is reaped by machinery and baled as soon as possible. My daughter Daphne recently drew my attention to some flattened specimens of *Carabus violaceus* which she had found in bales of hay. Investigation showed that one bale could contain as many as three crushed specimens, but in fifty bales the average seemed about one beetle per bale. The hay was harvested from a thirty-one acre field, which had yielded two thousand, seven hundred bales. The hay had been gathered and compressed by machines. *Carabus violaceus* is specially vulnerable by reason of its size. The great numbers of small beetles which can be found in buildings where baled hay is stored indicates that smaller species can survive the process.

The 1953 inundation destroyed many beetles which resided on or near the coast. In 1943 I found specimens of *Licinus depressus* (Paykull) in a sandy lane to the north of Saltfleet. This beetle was new to the county, and so local that it had escaped the notice of earlier collectors.

The species is black, rather depressed and much pitted. Sometimes an uncommon species will persist in a small favourable area for a great length of time, especially when, as in the case of *Licinus depressus*, it is a wingless species. Unfortunately the area where the beetle occurred was overwhelmed by the high tide, and it seems probable that we can no longer claim this interesting species as a resident.

When searching tidal litter at Ingoldmells in July 1952 I found a live specimen of *Amara nitida* (Sturm) (*Plate 1, fig. 1*). This beetle is new to Lincolnshire. The species was introduced to the British Lists in 1887 on the authority of a specimen taken near Bath. Other specimens were subsequently reported from Lampton, Middlesex, and Knowle in Warwickshire. There are no other British localities. *Nitida* is very shining and the base of the thorax is slightly broader than the base of the elytra. The tibiae are red, and the femora and tarsi pitchy. I think it can be assumed that *nitida* was a chance arrival, and not a rare resident, previously overlooked. Possibly this single specimen had been flying over the sea, fallen into the water, and been washed up clinging to some flotsam.

HYDRADEPHAGA

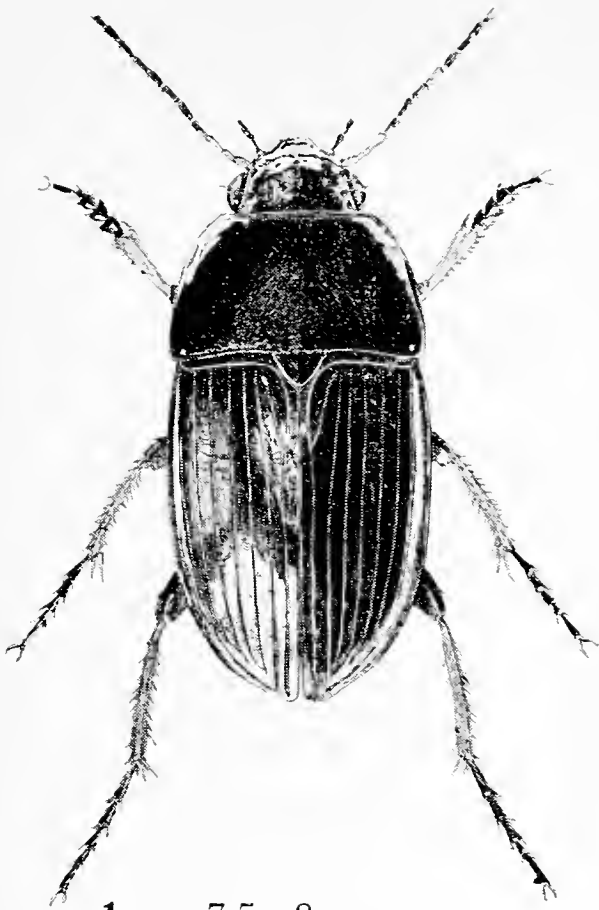
The suborder Hydradephaga comprises water-beetles which can be recognised from the way the oar-like hind legs are used for swimming. The tarsus can rotate sufficiently for the broad surface to meet the water during the stroke and the edge during the return movement. Beetles in the suborder have originated from land-beetles which after residing in damp places have made aquatic ventures and gradually adapted themselves to a life in water. They are unable to obtain oxygen from the new element and so breathe air which is stored under the wing-cases. They have to replenish this supply by rising to the surface at regular intervals. *Dytiscus marginalis* (Linnaeus) (*Plate 2, fig. 1*) appears to have become scarcer during recent years. As the beetle in both larval and imaginal stages is very fond of small fish it will be encouraged locally by the trout hatcheries established in the county.

The genus contains six British species, of which four have been found in Lincolnshire. They are easily separated by an underside character situated near the jointing of the posterior pair of legs and known as the post-coxal process. (*Plate 2, figs. 2-5*).

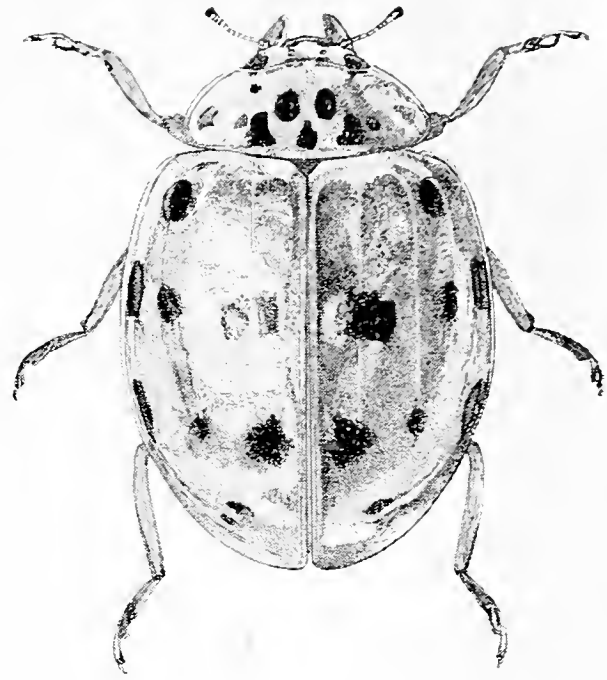
There are few county records of *Dytiscus semisulcatus* (Mueller), and the beetle is not really common. I found it at Saltfleet in 1946 and Chapel St. Leonards in 1952.

On December 1st, 1924 Dr. Wallace found a female specimen of *Dytiscus circumcinctus* (Ahrens) in a deep pond in Irby Dale Wood. There appear to be no further records until 1947 when a Junior Member, A. W. Hodson, found another female specimen in the Lincoln area. This beetle is a fen species well established in Cambridgeshire and Huntingdonshire and extending its range.

A single specimen of *Dytiscus circumflexus* (Fabricius) was found in the county in 1883 by Mr. R. W. Goulding, and it is strange that

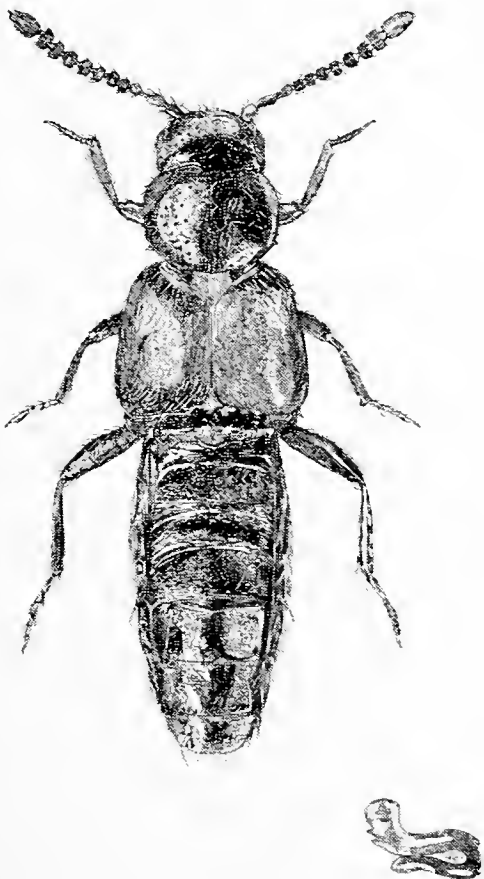


1 7.5—8 mm.

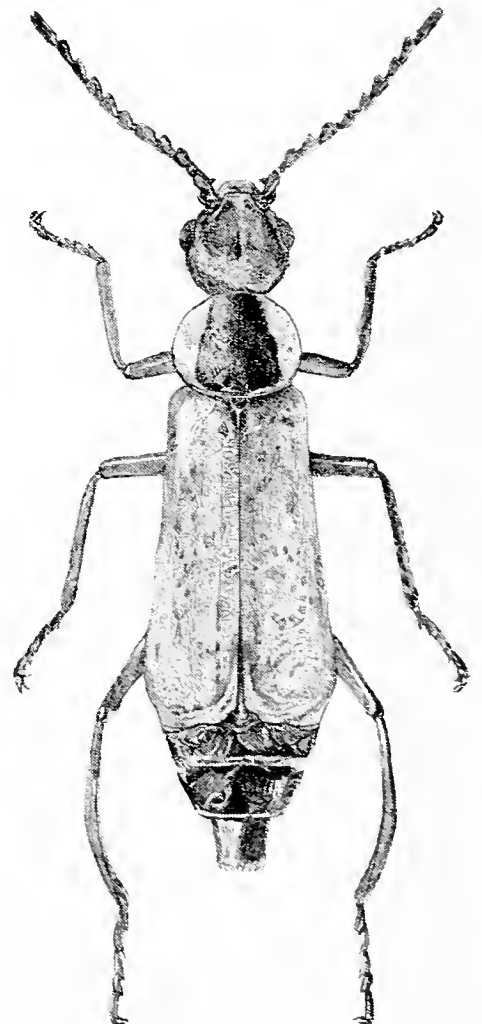


6.5—7 mm. 2

1. *Amara nitida* Stm.
2. *Harmonia quadripunctata* Pont.
3. *Atheta (Microdota) alpina* Benick.
female, and spermatheca.
4. *Anthocomus rufus* Herbst.



3 1.7—1.9 mm.



3.5—5 mm. 4

there seem to be no further records of this species until 1955 when Mr. T. C. Taylor found a single specimen in a water-tank at Skellingthorpe. The fact that the species was first recorded in 1883 suggests that the beetle is a very old resident.

The water beetle *Rhantus pulverosus* (Stephens) was not recorded for Lincolnshire prior to 1940, when my daughter found a specimen at Saltfleet. In 1944 I collected another at Cowbit Wash in the south of the county, and a third specimen in 1954 near Gibraltar Point. These three records seem to indicate that the species is moving into Lincolnshire.

Some water-beetles seem to prefer ponds which have a strong ammonical content due to contamination by cattle. In order to provide pure water for stock, Lincolnshire farmers are beginning to fill in the old fashioned ponds and pipe water to metal and concrete tanks. The Forestry Commission have also instituted static water tanks as a fire risk precaution. Although water beetles can be seen disporting themselves in them, these artificial water containers seem unsuitable for species requiring winter quarters, and may trap some of the beetles that visit them.

In bright sunny weather the surface film of any pond or ditch is likely to contain schools of beetles. These surface skaters are commonly called Whirligigs and comprise the order *Gyrinidae* (Linnaeus). They are able to swim beneath the surface but their principal habitat is the frontier between air and water. These beetles have middle and hind legs which have become modified into paddles. Thornley and Wallace recorded the species *Gyrinus natator* (Linnaeus) as very common in Lincolnshire. The beetle found commonly during 1907-13 was no doubt the variety *substriatus* (Stephens)—(Plate 3, fig. 1)—which is distinguished by weak sutural striae. At one time it was thought that the type-form (Plate 3, fig. 2), did not occur in the British Isles, but in 1902 specimens of the type *natator* were taken in Cumberland and subsequently in a few other localities. In the type-form the punctures of the elytral striae are well impressed, those nearest to the suture being almost as deep as those on the lateral margin. I found a single specimen of the type *Gyrinus natator* (Linnaeus) at Saltfleet in 1943. In 1955 Professor Balfour-Browne wrote: "It seems to me that the type form is becoming more common than it was a few years ago when I could scarcely find any specimens."

POLYPHAGA

Beetles in the suborder *Polyphaga* have antennae with a club, and long palpi. Some are water-beetles with the hind legs modified for swimming. During the Autumn of 1956, Miss E. J. Gibbons identified specimens of the Great Silver Water Beetle, *Hydrophilus piceus* (Linnaeus) which had been dredged from a pond in Holton Park (Holton-le-Moor) during cleaning out operations. The pond is a very old established one and it seems likely that *Hydrophilus* had resided

there for a great length of time. With the possible exception of the Stag Beetle, *Lucanus cervus* (Linnaeus), *Hydrophilus piceus* is our largest British Beetle. *Hydrophilus* has completely adapted itself to aquatic existence. The larva is carnivorous and attacks water snails. After seizing a snail the larva can twist itself far enough to use its own back as a kind of snail stone. After a lively and predaceous larval existence the beetle lives out the remainder of its life as a rigid vegetarian. For this reason the adult beetle was over collected by professional naturalists who knew that it could be introduced to aquaria without damage to the other occupants. There are no written records of this fine beetle having been found previously in Lincolnshire, but it seems likely that it was formerly established in at least one other locality in the county. It is very possible that this inaccessible pond in a private park is now the insect's last refuge in Lincolnshire.

The common *Hydrobius fuscipes* (Linnaeus) resembles a scaled-down *Hydrophilus piceus*. It is aquatic with hind legs that can be used for swimming or walking. I have seen an airborne specimen perform a half-roll before touching down upon the surface of a pond. Having gained the water in an inverted position *fuscipes* kicked against the air and so impelled itself over the surface film until it reached the stem of a water-plant. Seizing the stem with its front legs the beetle drew itself beneath the surface. Unlike members of the Hydradephaga *fuscipes* does not store air beneath its elytra, but carries a silver bubble of air trapped among the hairs which cover its underside. As the air bubble tends to make the ventral surface buoyant, *fuscipes* finds it convenient to swim upside down. In July 1945 many specimens of this beetle descended upon the promenade at Sutton-on-Sea. All the specimens I saw were on their legs and none appeared to have alighted in an inverted position. It seems that the species can vary its method of terminating flight to suit circumstances.

The specimens which alighted at Sutton would probably adapt themselves to coastal conditions. The main food of this beetle is duck-weed readily obtainable in dykes and ponds situated close to the sea-wall. The species does not appear to mind salt water and I have seen one disporting itself in a pool left by the tide. It appears to be a beetle well able to take care of itself and capable of successful migration when it finds itself increased beyond the limits of its food supplies.

STAPHYLIONOIDEA

The suborder *Staphylionoidea* comprises elongate species with shortened wing-cases which leave most of the hind body exposed. In 1951, I found a single specimen of *Medon castaneus* (Gravenhorst) at Woodhall Spa. This elongate, brownish beetle has the posterior tarsi as long as the tibiae. It frequents sandy places where it can be found beneath stones. The species is new to Lincolnshire and very rare both in this country and on the Continent.

In 1952, Mr. A. E. Smith found a dead specimen of *Staphylinus latebricola* (Gravenhorst) in tidal litter at Gibraltar Point. This beetle can be separated from the commoner species in the genus by the bronzed appearance of the head and thorax, the pitchy-black antennae, and an underside character consisting of bands of pubescence on the ventral segments. It is a beetle usually found in moss or beneath stones, and sometimes in the company of the ant *Formica rufa*. *Staphylinus latebricola* is a rare insect and an interesting addition to the county records.

In 1921 Dr. Wallace found specimens of *Dianous coerulescens* (Gyllenhal) at Benniworth Haven. This record is of particular interest as the beetle is normally a mountain species occurring in waterfalls. In addition to being able to exist beneath water *Dianous* can also scoot on the surface film. It does not skate like *Gyrinus* under the impulse of legs converted to paddles. The force which enables *Dianous* to scoot appears to come from the volatising of a secretion from the soles of the tarsi. The beetle is easy to identify being a pretty blue colour with a yellow spot on each elytron. I was unable to find the species when I searched the locality in 1953, and fear that we can no longer claim that this interesting species is a resident.

The Staphylinid fauna of a district is the hardest to get to know and likely to produce surprise records. It is probably the least static.

In September 1956 another beetle new to Lincolnshire was found among a swarm that visited Ingoldmells Point. The species *Atheta (Microdota) alpina* (Benick)—(Plate 1, fig. 3)—was first found in the South Tyrol in 1936, subsequently a specimen was collected in the Central Alps, and two more reported to have been found on the Continent. In February 1953 specimens were found at Colyton, Devon by Mr. G. H. Ashe, who described the species as new to Britain. In determining some of the smaller species in the order the aedeagus of the male and in some cases the spermatheca of the female afford the only reliable distinctions by which a species may be known.

The pselaphidae are tiny beetles mostly under two millimetres in length. Some inhabit moss, and a few share the homes of ants. *Bryaxis puncticollis* (Denny) is very common in the county so far as female specimens are concerned, but I have been unable to find a male. In 1945 I found a pselaphid with distended legs which was assumed to be the male of *puncticollis*. The Rev. A. E. Pearce has established that the specimens with distended legs are actually males of another species, *Bryaxis validus* (Plate 3, fig. 4). In this country the male of *validus* is always represented by the type with distended legs. The male of *Bryaxis puncticollis*—(Plate 3, fig. 3)—is always normal. As there are no county records of *Bryaxis validus* the careful work of a specialist has added another species to our lists.

DIVERSICORNIA

The suborder *Diversicornia* includes the Glow Worm, *Lampyris noctiluca* (Linnaeus). The female is wingless and has the power of emitting light. The male has strongly developed eyes presumably to

enable it to search for the larviform and rather static female. The male beetle has powers of luminosity, but to a lesser degree. This interesting beetle was formerly found near Appleby district but was exterminated there by the Black-headed Gull. It has been known to disappear from other areas after chicken farms have been established.

In August 1952, Mr. G. N. Holland found a specimen of *Anthocomus rufus* (Herbst) at Sleaford (*Plate 1, fig. 4*). This small beetle is strikingly coloured with dark-green thorax bordered with red, and dull scarlet elytra. It is new to the county. This beetle is almost entirely confined to the fen districts and is locally common at Wicken Fen in Cambridgeshire. It is a winged species and may gradually extend its range into Lincolnshire.

The suborder includes species commonly called Skip Jack Beetles. Those whose larvae known as wire-worms feed upon grass-roots and corn are the dreaded enemies of farmer and gardener. The present tendency to plough up grassland will help to control species regarded as public enemies, while the maintenance of grass for aerodromes will encourage them locally. The beetles are long and narrow with hard wing-cases and toothed antennae. They possess a mechanism which enables them to right themselves when they chance to be overturned. This consists of a hook on the underside of the thorax which can be engaged with the prothorax. The beetle can then exert its muscles until the hook disengages with a snap and jolts the insect to such an extent that it spins up into the air and lands right side up.

Corymbites pectinicornis Linn. is rather local in the county but there are records dating from 1895. The discovery of specimens at Hainton and Skellingthorpe in 1946 and 1950 indicate that the species has maintained its foothold.

Denticollis linearis Linn.—(*Plate 4, fig, 2*)—is readily identified by its prominent eyes. The species has frequented our county woodlands for a half century. The female is rarely met with, but a single specimen was obtained from Irby Dale in July 1955.

CLAVICORNIA

During a Field Meeting at Holywell in 1951 my daughter June found a single specimen of the Clavicorn beetle *Triplax russica* (Linnaeus). This pretty beetle with red thorax and legs, and blue-black elytra is easy to identify. There are no previous records but the species is doubtless established in the Holywell district. It should be looked for in fungoid growths.

August 1932 was noteworthy for migration swarms along our coast, and one of the species represented in the greatest numbers was the lady-bird *Coccinella septempunctata* (Linnaeus). Lady-birds feed upon aphids. Unlike *Hydrobius fuscipes* which can find plenty of food in coastal waterways, the lady-birds were unable to obtain a sufficient supply of aphids and some of them lapsed into cannibalism. Migrating

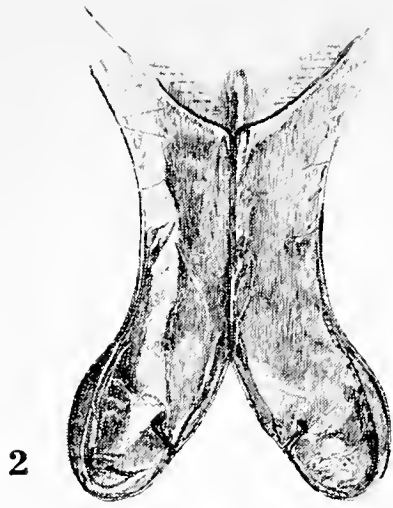


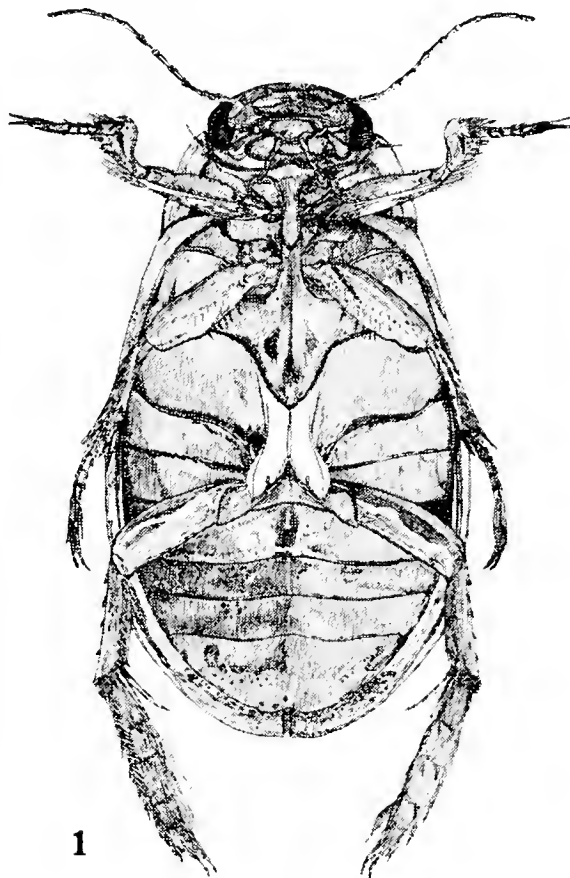
Fig. 1 *Dytiscus marginalis* L,
female, underside.

Fig. 2 Coxal process *Dytiscus*
semisulcatus Mull.

Fig. 3 Coxal process *Dytiscus*
marginalis L.



3



1

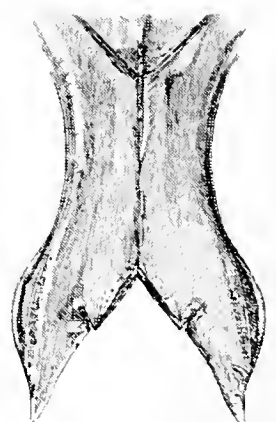
26—35 mm.



4

Fig. 4 Coxal process *Dytiscus*
circumflexus F.

Fig. 5 Coxal process *Dytiscus*
circumcinctus Ahr.



5

swarms of lady-birds have been noticed on many occasions. One such swarm seen approaching Brighton in 1848 from the direction of Calais and Ostend was described as having the appearance of a long column of smoke.

The lady-bird *Harmonia quadripunctata* (Pontoppidan) was first taken in this country in Blythborough Woods, Suffolk, by Claude Morley in 1941, and subsequently found at Tubley, Oxon. I found one specimen near Bacton, Norfolk, in 1951.

In 1954 I found a single specimen at Sutton-on-Sea. In 1955 the species alighted in great numbers at Ingoldmells Point. *Quadripunctata* is a pretty beetle, but after death the delicate pink which suffuses the elytra soon fades. Specimens collected at Ingoldmells included the nomino-typical form with two marginal spots on each elytron, and the fully spotted form, variety 16-*punctata* (Plate 1, fig. 2). The species is new to Lincolnshire, and it was unfortunate that in endeavouring to extend its range it migrated to a coastal area unsuited to its economy.

The *Teredilia* are mainly small insects with the head hidden in the thorax. Out of doors *Anobium punctatum* (Degeer) seeks out oak and beech trees which are beyond their prime or damaged by storm, but in houses it attacks seasoned wood causing the "worm-holes" in old furniture, panelling and rafters. Major infestations occur in bungalows or other structures where walls are lined with ply-wood, and this seems worse in coastal districts. As our county has a seaboard and an enormously potential pabulum there is no doubt that this species will cause great damage during the next few years.

The Death Watch Beetle, *Xestobium rufovillosum* (Degeer) is rather larger than *Anobium punctatum* and has patches of hairs which give it a mottled appearance. It appears to be scarce in Lincolnshire but there are two records from the south of the county. Both species produce the ticking sounds once supposed to predict the death of some member of a family.

Ptinus tectus (Boieldieu), which feeds upon a wide variety of stored products, was unknown in Britain prior to 1904, but has since been widely distributed. It is supposed to have originated in Tasmania. A beetle has no brain capable of planning invasion of another country. Yet beetles frequently migrate out of sheer force of biological numbers. Having arrived in another country the odds are great against the immigrants becoming established. They must obviously have suitable food at hand or be able to move rather quickly to some place where suitable food is to be found. A mated female must survive or a group of insects comprising both sexes. *Ptinus tectus* has successfully surmounted all difficulties. The earliest record of the species in Lincolnshire appears to have been made by Dr. Wallace who noted the species at Grimsby in 1910. Today the beetle is widely distributed in the county. As the female can lay six hundred eggs, the species is likely to become one of our most serious pests.

HETEROMERA

Beetles in the suborder *Heteromera* can be distinguished by counting the number of joints in the tarsi, the first and middle legs having five joints, and the hind legs only four.

An interesting species is the "Oil Beetle," *Meloe proscarabeus* (Linnaeus). The English name arises from the insect's habit of reflex bleeding by allowing an oily excretion to exude from the leg joints. There are several species in the genus, and two have been found in Lincolnshire. Thornley and Wallace have a single record of *Meloe violaceus* (Marsham), from Hubbard's Valley, Louth, in 1886, but there have been no later records of this species in the county. Canon Fowler stated that the other species, *Meloe proscarabeus* was not uncommon in Lincolnshire. In 1909 Dr. Wallace recorded *proscarabeus* from a sandy road leading to the shore at Humberstone. I have visited this area and the former sandy lane is now flanked by seaside residences. There was a single specimen of the insect in the collection of the late J. F. Beetlestone, taken by him on the Warren, Market Rasen, in 1920, but I can find no later records. In a note to the "Entomologist's Monthly Magazine," Mr. T. A. Allen gave his opinion that *Meloe proscarabeus* must be added to the growing list of species formerly common and generally distributed at all events in the south of England, but now very much more local and restricted. In the spring the female Oil Beetle lays about ten thousand eggs, but the increase of the species is controlled by a precarious larval existence. When the eggs hatch a few thousand of the larvae fail to survive. They are tiny yellow objects with long legs. Their first task is to climb the stem of a flower and they seem able to distinguish yellow flowers in which they can couch unnoticed. Several gather in one flower and cling together in a yellow ball. When a bee visits the blossom the oil-beetle larvae try to climb upon the visiting insect. On the bee reaching its nest the larva which has been successful in obtaining a lift, dismounts and becomes a lodger in the home of the bee, subsisting upon the bee's eggs and honey. The larva remains in this situation until the following spring. During this period it goes through several curious changes before emerging as a perfect Oil-Beetle. The household arrangements of some bees are unsuitable to the larva so that at the outset it must choose the right kind of bee. If the correct type of bee does not arrive very soon the waiting larva will perish. There are a number of dipterous flies which resemble bees and a ride on one of these is fatal to the interests of the larva. It is obvious that this precarious larval period is alone sufficient to control the beetle, and if, in addition to over specialisation, it is confronted by some other adverse factors such as areas suited to its economy being taken over as building sites, or turned into golf courses, this curious insect is soon exterminated.

Another heteromerous beetle once common on our coast is the Wharf Borer, *Nacordes melanura* (Linnaeus). This beetle is soft-bodied elongate, and reddish-brown in colour, with the apex of the elytra

black. It formerly burrowed extensively into the wooden groynes used as sea defences. The replacement of wood by concrete will displace the species from coastal areas. It will be unfortunate if it turns its attention to railway sleepers. There is a note in the "Entomologist's Monthly Magazine" for June 1949 to the effect that ninety-six specimens of this beetle emerged from railway sleepers that formed the floor of a workshop at Layerthorpe, York. Some of the beetles were suffused with black and it was suggested that this was caused by the sleepers being heavily soaked with mineral oil. An unusual dark form of the beetle was found at South Reston by Mr. T. C. Taylor, in 1948. Such melanic forms may result from the species having to establish itself further inland.

LAMELLICORNIA

The suborder *Lamellicornia* contains some of our largest species. The club of the antennae is always formed of a series of plates. The species have imperfect visual organs and often meet with disaster through colliding with some object during flight. Farming operations in the county favour the Cockchafer, *Melolontha melolontha* (Linnaeus). The grub of this beetle cannot exist in hard, rocky strata, but needs loose cultivated lands for its economy. Where the gay patchwork of cultivated land has been changed to large areas of grassland for aerodromes the Midsummer Chafer *Amphimallon solstitialis* (Linnaeus) is encouraged. The larva of this beetle attacks grass roots. At Cranwell the adult beetles often swarm in profusion and intrude into houses.

There are old records of the Stag Beetle *Lucanus cervus* (Linnaeus) from Grimsby and Boston, but the beetles concerned were probably introduced with timber.

Another lamellicorne which must also be regarded as a chance arrival is the Rose Beetle, *Cetonia aurata* (Linnaeus). There is one record from Grimsby in 1909, but the beetle concerned may have been of foreign origin. The author, R. D. Blackmoor was familiar with this beautiful insect and wrote: "All his back is emerald sparkles, and his front red Indian gold, and here and there he grows white spots to save the eye from aching." Unfortunately the Rose Beetle is becoming generally scarce, and part of the reason may be the present practise of excessive pruning of rose bushes. The larva was wont to tunnel in the old thick briars and this pabulum is becoming increasingly hard for the beetle to find. When airborne most beetles extend their elytra at the same time as the membraneous wings. It seems reasonable to suppose that air flowing over the extended wing-cases provides additional lift, and it is remarkable that the Rose Chafer does not extend the elytra at all during flight.

Serica brunnea (Linnaeus) has nocturnal habits and prefers sandy ground. It is encouraged in Lincolnshire by the existence of such tracts as Manton Common. I once found dead specimens in tidal rubbish at Chapel St. Leonards indicating that a migration swarm had

met with disaster. *Serica* is a feeble insect with inadequate legs. In consequence it frequently meets with misadventure by trapping itself in spiders webs or falling into water. This inherent feebleness seems to prevent the species from becoming abundant, and if the beetle experiences an additional setback such as finding an area suited to its economy too near to a growing town it will become rare in Lincolnshire.

PHYTOPHAGA

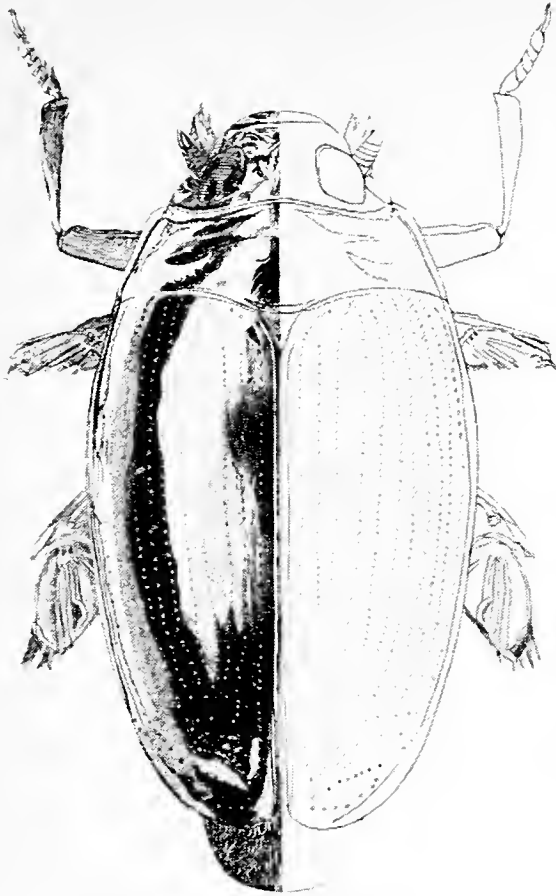
The suborder *Phytophaga* includes the Cerambycidae, or Long-horn beetles. The latter are easily distinguished by lengthy antennae and the structure of the four-jointed tarsi, in which joint three has two lobes or flaps. They are forest dwellers and prone to attack unseasoned wood. Since publication of the county records at least eight new species have been found. I am not counting the casual immigrants found crawling in the neighbourhood of our two sea-ports. Some of these may obtain temporary acclimatization or succeed in establishing themselves.

The pitchy-black *Tetrobium gabrieli* (Weise) was not recorded by Thornley and Wallace. The species was first noticed in this country in 1903, but is now well established. The specimens which I have collected at Hainton and Legsby are probably descendants of beetles introduced at our ports.

I think that the longicorn *Agapanthia villosoviridescens* (Degeer) may have been thinned out by over collecting. One hundred specimens of this beetle were obtained from one riding of Langworth Wood in 1885. In 1911 Thornley and Wallace wrote: "We have no information as to whether this beautiful insect is still found in its old haunts." Fortunately this elongate beetle, clothed with yellowish pubescence is still to be found in Lincolnshire where it frequents the grass verges of country roads as well as open spaces of woods. It is dependent upon *Heracleum sphondylium* and species of *Carduus* and the larvae inhabits the stems of both kinds of plant. If our County Councils substitute hormone weed-killer for the scythe, this species will become very rare.

In 1946 I found specimens of *Molorchus minor* (Linnaeus)—(Plate 4, fig. 1), near North Wood, Legsby. This small red and black longicorn is of striking appearance with abbreviated elytra and long legs and antennae. The beetles were on hawthorn blossom and I was unable to track down the tree or trees in which the species breeds. Fowler describes the beetle as very rare and there are no other records for the county.

In 1949 a specimen of *Leptura rubra* (Linnaeus) was found by Mr. M. P. Gooseman near the Wing Ironstone Mine at Ashby Ville, Scunthorpe. The beetle was a female with red thorax and elytra and legs with black femora and yellow tibiae. The male has a black thorax and red elytra. The English habitat of this rare beetle was formerly confined to a small plantation in Norfolk, but more recently there have



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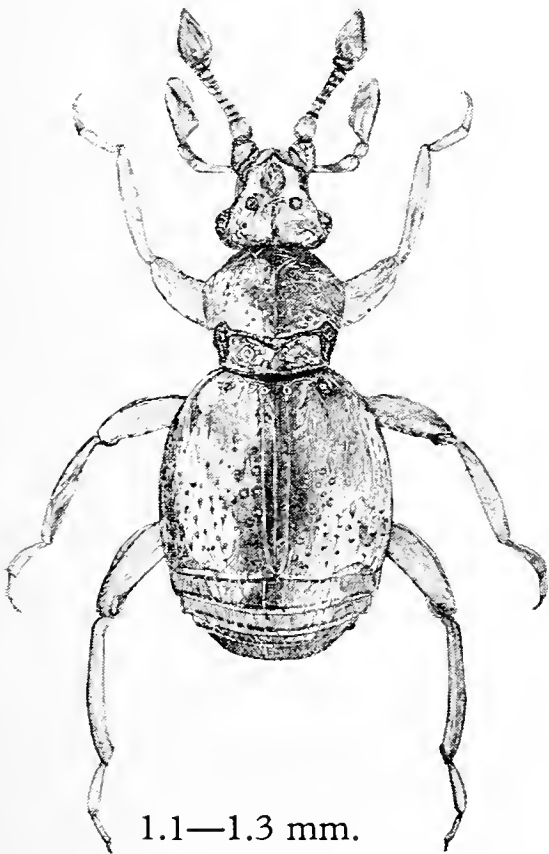


2

Male: 5—6 mm. Female: 5.5—6.5 mm.

Male: 4.8—5 mm. Female: 5.3—5.6 mm.

1. *Gyrinus natator* L. var. *substriatus*.
2. *Gyrinus natator* L. type form.
3. *Bryaxis puncticollis* Denny., male.
4. *Bryaxis validus* Aubé., male.



3

1.1—1.3 mm.



4

1.33 mm.

been one or two records from the Thames Basin. I visited Ashby Ville in 1950 but found the locality had been extensively excavated. It is unfortunate if this rare insect has established itself on the outskirts of a spreading town. On the other hand as the beetle collected by Mr. Gooseman was caught during flight the insect might have been in a "chance situation."

Strangalia quadrifasciata (Linnaeus) appears to have improved its foothold. In 1912 Dr. Wallace described the beetle as "a rare species," and the county record was based on a solitary specimen. I have collected a good series of the insect from flowers on the road verges between Market Rasen and Sixhills, and have seen the species at Scotter. It is a black insect with reddish-yellow bands on the elytra. The female can be distinguished by a reddish apex to the antennae.

Rhagium bifasciatum (Fabricius) is the most widely distributed longhorn in these islands, but remains very scarce in Lincolnshire. There are old records from Lincoln dating 1894 and 1898, but no further records until 1948 when Mr. F. L. Kirk recorded a solitary specimen from Woodhall. The species is black and rather shining with reddish and testaceous marking on the elytra.

Phymatodes testaceus (Linnaeus) is a very variable species with the elytra ranging in colour from violaceous to reddish-testaceous. My daughter June found a single specimen on the promenade at Sutton-on-Sea in 1954 in the company of a swarm comprising many different species. It is new to Lincolnshire. Unlike the majority of imported longhorn beetles which prefer unseasoned timber, *Phymatodes testaceus* can spread infestation throughout a yard because the female lays eggs in the bark of both old and new stocks of wood.

There are old records of the Musk Beetle, *Aromia moschata* (Linnaeus) from the Lincoln area dating 1885, and the species also appears to have been found in the neighbourhood of Cowbit Wash and other localities in the south. In 1953 Miss M. N. Read found a single specimen of this large metallic green beetle in a marshy area near Skellingthorpe. Unfortunately, this fine insect has become very scarce in Lincolnshire. Unlike some beetles which can distil unpleasant odours it has the distinction of being able to diffuse a pleasant odour similar to that of roses.

The handsome reed beetles of the genus *Donacia* are exclusively attached to water plants and have larvae which tap the roots in order to share the oxygen supply of the plant. There are old records of *Donacia marginata* (Hoppe) from Cadney, Theddlethorpe, and Tetney, but the species appears to have become extremely local. A small colony exists in the neighbourhood of some fish ponds in North Thoresby. The species has a metallic appearance with silvery underside, and elytra red-purple at sides and base. The main habitat of the genus has been the herbage along the edges of our marsh drains, and as the pupae are fastened to the roots of water-plants, the beetles have always been adversely affected by the processes of cleaning and widening

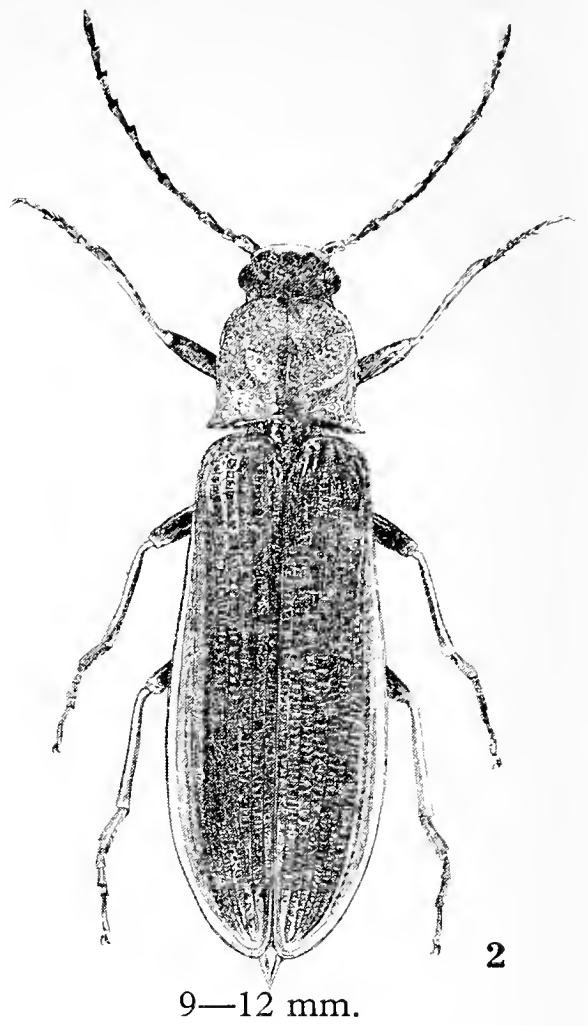
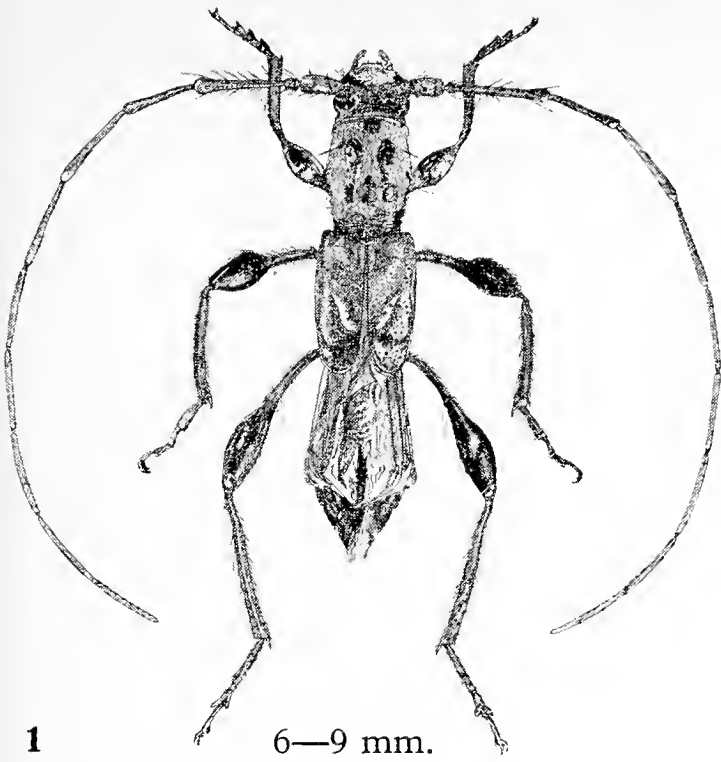
dykes. The latest heavy-handed method of using mechanical shovels will cause rapid depletion of the species which remain, and I think the herbage bordering our deepened and widened marsh drains will no longer be decorated by living gems basking in the sunshine. Instead a few isolated colonies of *Donacia* will continue to exist in undisturbed reedy places on the banks of fish ponds in private estates.

The genus *Cryptocephalus* contains a number of brilliant species, but these are elusive insects only to be seen during fine weather and in the hottest part of the day. They allow themselves to drop into the undergrowth at the mere shadow of an approaching collector. Dr. Wallace considered that the little black *Cryptocephalus exiguus* (Schneider) was one of the most interesting species ever found in Lincolnshire. The thorax of *exiguus* has a diagnostic feature consisting of a number of fine scratches only visible under considerable magnification. The species once occurred very locally at Woodbastwick, near Horning, in Norfolk, but disappeared from this locality. It was rediscovered at Freshney Bog near Grimsby in 1898, and turned up commonly in this habitat for a number of years. Dr. Wallace wrote: "Here in this little area of fenland we have it well established year by year and this is the only known locality in the British Isles." The beetle was still in residence in 1908. In 1909 the area was set on fire and it seemed as though the beetle must have been exterminated, but in July 1910 *exiguus* was still in its favourite spot. Strangely enough this beetle which existed at Freshney Bog for at least twelve years and survived a fire has since disappeared. It has been suggested by Mr. A. E. Smith that the beetle may have lost foothold because the area was not scythed out and became too overgrown to suit the insect's economy. If so, the beetle was the victim of having fitted too well into conditions that no longer exist. The fire in 1908 may have lengthened its span by temporarily providing more living space.

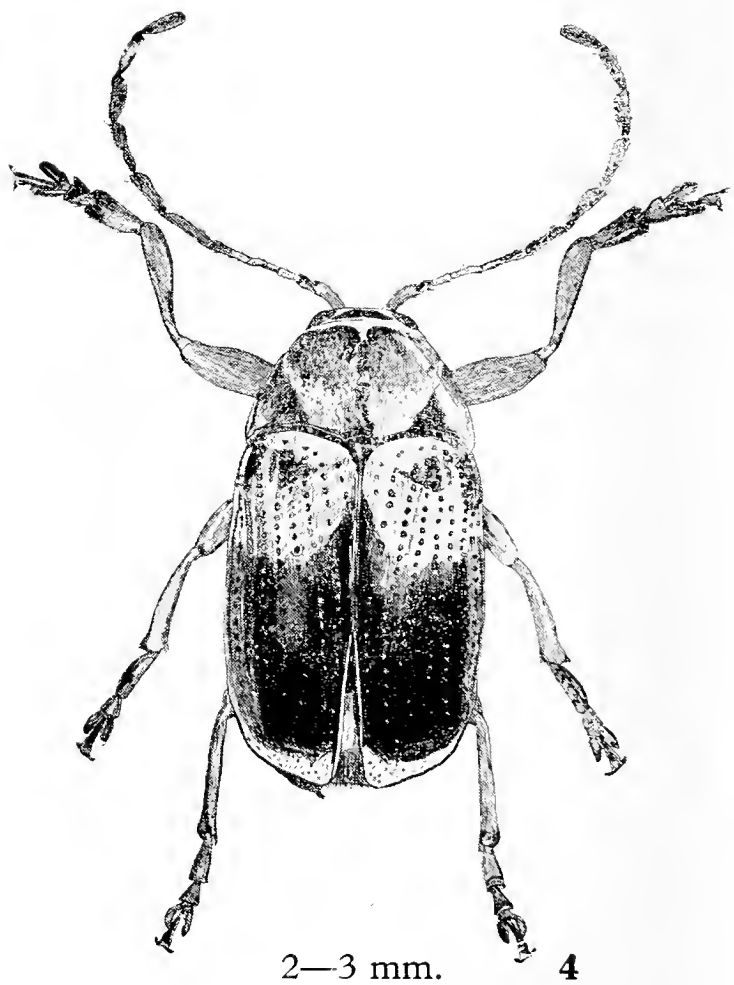
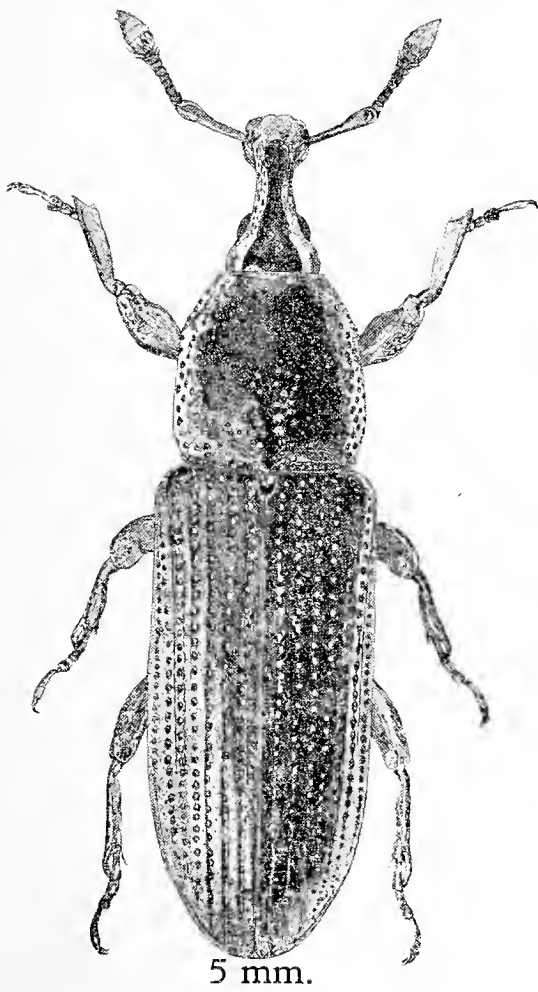
As some compensation for the loss of *exiguus*, four species new to Lincolnshire have been recorded in recent years.

Mr. M. P. Gooseman found the silky-green coloured *Cryptocephalus aureolus* (Suffrian) at Holywell in 1951. The red *Cryptocephalus coryli* (Linnaeus) appears well established on the Warren at Market Rasen. This rare beetle was once confined to the London district, but has since been taken in Nottinghamshire. One specimen of the little dark-blue *Cryptocephalus parvulus* (Mueller) was found by Mrs. M. J. Riggall at Scotter. The very local *Cryptocephalus fulvus* (Goez)—(Plate 4, fig. 4), which is a rufo-testaceous colour was found by Christopher Davis in Scotgrove Wood, Bardney.

The suborder contains many species regarded as pests. Among these is *Bruchus rufimanus* (Boheman) sometimes erroneously described as the Bean Weevil. The species does not seem to have been common half a century ago as Thornley and Wallace wrote: "Our only records: Mablethorpe 8. 1901, Court Leys 25.5.1899." In later years the beetle has made great headway and can now be collected from hawthorn



1. *Molorchus minor* L.
2. *Denticollis linearis* L.
3. *Cossonus linearis* F.
4. *Cryptocephalus fulvus* Goez.



blossom in hedgerows. This species appears to have been originally an importation and has succeeded in becoming naturalised. The adult overwinters in warehouses or sheltered places out-of-doors. In the spring the females lay eggs on the developing bean pod. Before pupating, the larva, which has developed inside a bean, bites a hole toward the exterior but leaving a thin covering over the weakened spot. When ready to emerge the beetle forces its way to freedom through the escape panel prepared by the larva.

RHYNCHOPHORA

The suborder *Rhynchophora* comprises beetles commonly described as weevils. The head is extended in front of the eyes in the form of a snout.

When the Trent overflows great numbers of beetles are washed out of winter quarters and are soon riding the flood clinging to any kind of flotsam. Where the refuse carried by the river is held up by some obstacle such as a bridge the coleopterist can obtain material which abounds in beetles.

In November 1950 I found one specimen of the rare weevil *Tropiphorus obtusus* (Bonsdorff) in flood refuse from the Trent. This good beetle *Tropiphorus obtusus* closely resembles a common species *Tropiphorus terricola* (Newman), and the latter has been erroneously described as the female of *obtusus*. The species can be separated by examination of the basal margins of the elytra. In *terricola* the margin of the elytra projects a short distance beyond that of the thorax. In the rare *obtusus* the basal margins of elytra and thorax are of the same length. *Tropiphorus obtusus* is new to Lincolnshire. It has been found in Derbyshire, Cumberland, and Scotland. A record from flood refuse affords no clue to the habitat of the beetle which may have been carried a great distance by the river. Rare beetles, not previously associated with Lincolnshire, have been found near high tide mark at Ingoldmells Point. In 1952 I found a specimen of *Cossonus linearis* (Fabricius) at Ingoldmells. (Plate 4, fig. 3). This elongate, pitchy coloured weevil has a snout or rostrum terminated by an abrupt dilation. The beetle was first found in England in 1939 when a specimen was discovered at Ranworth Broad. The species was later found in some numbers at Mildenhall, Suffolk, and some of the latter specimens are in the British Museum. The record of a rare beetle washed up by the sea is as frustrating as the finding of an uncommon species in the flotsam of a river in spate. In the case of *Cossonus linearis* it is possible that the beetle was washed out to sea on a log.

A single specimen of *Platystomus albinus* (Linnaeus), a red and black weevil with distinctive white markings on the forehead and apex of elytra, was found on a cut log in Skellingthorpe Wood in 1947. The species is new to Lincolnshire. The male beetle has antennae nearly as long as its body, and is thought to be a possible transition between the weevils and longhorn beetles.

There is a record in the *Transactions* which indicates that the Nut Weevil, *Curculio nucum* (Linnaeus) has a very old footing in the county. The Rev. E. A. Woodruffe-Peacock wrote: "The late Dr. Ellis, of Crowle, showed me nuts from the peat found twenty feet below the bed of the Trent at Gunness taken out of the caissons in constructing the bridge: he assured me that some of these nuts were pierced by "nut weevils." The larva of *Curculio nucum* makes the well-known round hole in a hazel nut. The beetle has a rostrum as long as its body. Thornley and Wallace did not find *Curculio nucum* but I have collected specimens from Muckton, Scotgrove Wood, and Skellingthorpe, which indicates a wide distribution, so that the species appears to have increased its foothold.

In reviewing the county records I have tried to indicate that among other influences causing fluctuation and change among the species comprising our beetle-fauna, a last natural selection is taking place of which man is the delegated agent.

The wingless *Carabus violaceus* is caught and crushed by farm machinery because it has the misfortune to be large, and the too specialised; *Meloe proscarabeus* disappears before the advance of human culture.

Lincolnshire is an agricultural county, and every farming operation interferes with nature. Looking to the future it is obvious that the farmer now possesses deadly weapons to wage chemical war upon insects, and the shadow of the helicopter is upon the land. The long-term effect upon our beetle fauna cannot yet be assessed.

Our newly-planted forests will be better managed than some of the older woodlands which formed part of private estates, and there will be less opportunity for beetles to establish themselves in unhealthy trees and felled logs. Scientific farming and efficient forestry are bound to bring down the fauna, and many of our resident beetles will be increasingly affected. Meanwhile an occasional alien beetle will move in secretly with stores, imported grain, or empty bags, and migration swarms visiting our coast will continue to provide us with records of "chance arrivals."

Nomenclature: Kloet, G. S. and Hincks, W. D., *A Check List of British Insects*, 1945.

Acknowledgement and thanks are given to the following:—

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B. C. James for loans of specimens.

G. W. Whatmough, M.P.S., and T. C. Taylor for extensive collecting on my behalf.

To the members of the Union who have assisted me in every way.

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The author wishes to acknowledge help from the following publications:—

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|--------------------------------|--|
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REPORT OF THE HON. SECRETARY AND TREASURER 1955

The year under review has been busy in many directions and generally successful. The analysis of membership figures shows no diminution in the numbers of individuals who find in the pursuit of a general study of natural history a hobby offering stimulating outdoor relaxation but few seem to be prepared to go further. It is good to see a continuation of the wider interests which may lead to later specialisation, but the need of this, and other natural history societies, is to build up the ranks of specialists who are ready to apply themselves to research in a defined branch of study and so make a real contribution to the investigation of the natural history of this region. In recent years, encouragement has been given to our members to undertake such work but the response has been very limited. More specialists are needed if the research work of former years is to be continued and developed.

Attendances at the monthly meetings and lectures have been good, interest has been well maintained and marked progress had been made in the field of publications. The year saw the appearance of the second Natural History Brochure, *The Birds of Lincolnshire* by Mr. A. E. Smith and Mr. R. K. Cornwallis. This publication was keenly anticipated by all ornithologists. It was well reviewed and, although sales have been slower than anticipated, already 327 copies have been sold. As a necessary economy, the membership list was closely reviewed and letters sent to all members more than two years in arrears with subscriptions. As a result, many deletions had to be made but the total membership shows very little variation and remains about 400. The amount realised from subscriptions—£157 6s. 6d.—was the highest in the history of the Union. Many members voluntarily contributed an additional amount to bring their subscriptions into line with the new rates fixed for 1956. This made a substantial difference to our income. The acute financial difficulties forecast last year have been evident. However, in spite of rising costs, it has been possible this year to pay for *Transactions*, 1953; to publish and pay for *Transactions*, 1954 and to produce the *Birds of Lincolnshire* on which, of the total bill amounting to £397 10s. 0d., a sum of £97 10s. 0d. was owing to the printers at the end of the financial year. To achieve this it has been necessary to realise on all our assets in the form of invested Life Members' subscriptions. The future programme of publications will depend on our ability to accumulate fresh reserves for this purpose. Indexes to Volumes XII and XIII of *Transactions* have been prepared and await publication when funds are available. A new arrangement this year enabled us to publish the Bird Report, 1954, in advance of the *Transactions* to meet requests for this information to be available earlier in the year. The Lincolnshire Naturalists' Trust made a grant of £25

towards this report. Administrative costs and stationery have remained constant and compare favourably with last year. The balance at the Bank at the end of the year was £91 1s. 2d., against which we owed £97 10s. 0d.

The following lectures were held in the Lincoln Technical College. The Lincolnshire Naturalists' Trust combined with the Union in making these arrangements. On 22nd January, Mr. James Fisher spoke on his work on the Fulmar; on 19th February, Mr. J. F. Burton, Assistant Secretary of the British Trust for Ornithology introduced the subject of British Waders and used B.B.C. recordings as illustrations. This was followed by a film of the Skegness and Gibraltar Point Nature Reserve taken and shown by Mr. Harold Hems, F.R.P.S. A joint meeting in association with the Royal Society for the Protection of Birds was held on 19th November. Mr. Philip E. Brown, secretary of the Royal Society, spoke on "Some aspects of Bird Protection." A film entitled "Bird Life at Home and Abroad" was projected.

The Annual General Meeting was held in Lincoln on March 19th. Mr. E. C. Riggall presided. Miss G. M. Waterhouse, M.Sc., of the Commonwealth Mycological Institute, was elected President, 1955-6 and Mr. Reg. May of Limber, president-elect. The Honorary General Secretary-Treasurer, F. T. Baker was re-elected. Mr. Bruce C. James was re-appointed Honorary Field Secretary and Mr. A. D. Townsend, Honorary Assistant Treasurer. The Honorary Auditor, Mr. Robert Withers was re-appointed and thanked for his services. The following changes were made in the appointments of Sectional Officers: Mr. R. K. Cornwallis was appointed Ornithological Secretary to succeed Mr. S. A. Cox and Mr. R. J. Batters, secretary of the microscope section to follow the late Mr. Ernest Wainwright. The following six representatives were appointed to serve on the Council of the Lincolnshire Naturalists' Trust for 1955-6: Professor C. G. C. Chesters, Professor W. D. Evans, Dr. R. Hull, Mr. R. K. Cornwallis, Miss E. J. Gibbons and Mr. A. Roebuck. Dr. S. H. Robinson was elected to represent the Union on the Lindsey and Holland Rural Community Council and Miss E. J. Gibbons on the Wild Plant Conservation Board. The annual subscriptions were raised with effect from 1st January, 1956 as follows: Ordinary members, 15/-; second member of a family 10/-; Junior Members, 5/- and Life Members £10 10s. 0d. The President delivered his address on "Some notes on Lincolnshire Coleoptera." Mr. F. L. Kirk expressed the thanks of the Union to the President for his address and his enthusiastic lead to the Union's affairs during his year of office.

Membership.

Compared with last year, the total membership shows a decrease of 5, but there has been a welcome increase in the number of Junior

Members. The details are as follows:—

Life Members	18	} 398
Ordinary Members	..	..	..	326
Junior Members	..	..	..	50
Groups in Membership	..	..	..	4

Twenty Ordinary Members and seventeen Junior Members joined during the year. There have been losses by death, resignation and lapsed subscriptions.

The following have been elected during 1955:—

ORDINARY MEMBERS:

Miss J. Allison, The Hill, Louth
 Mr. P. G. M. D'Arcy Baker, 24 Hartsholme Drive, Swanpool, Lincoln.
 Mrs. H. D. Canter, 11 Weelsby Road, Grimsby
 Mr. R. Coultas, 71 Edge Avenue, Grimsby
 Major W. J. R. Cragg, Threekingham House, Nr. Sleaford
 Dr. J. A. Galletly, M.A., Bourne, Lincs.
 Mr. P. E. Gipps, 10 South Street, Louth
 Mr. J. Hossack, 13 Tennyson Road, Ruskington
 Mr. H. J. Houghton, 128 Bridge Street, Gainsborough
 Mrs. D. Knott, "Irby Croft," St. Mary's Lane, Louth
 Mr. J. W. Lawson, Tealby, Lincoln
 Mr. J. N. Leaning, 51 Silver Street, Barnetby
 Miss E. D. Maddock, M.A., Westwood, Wrawby Road, Brigg
 Mr. R. J. H. Reeves, B.A., 244 West Parade, Lincoln
 Mr. D. O'Neill Sealy, 16 West Street, Cleethorpes
 Mrs. M. E. Wainwright, Low Fields Farm, Owmbly-by-Spital
 Mr. C. M. Walker, 5 Castle Terrace, Sleaford
 Mrs. C. H. Walters, 12 Massey Road, Lincoln
 Mr. T. J. Winnall, C.B.E., Thornton House, Westgate, Louth

JUNIOR MEMBERS:

Mr. G. Bird, "Carsholme," Grimsby Road, Humberston
 Mr. P. Burnett, 3 Thoresway Drive, Lincoln
 Mr. D. N. Egerton, "Marlyn," Skellingthorpe, Lincoln
 Mr. J. Ferrier, 194 Hainton Avenue, Grimsby
 Mr. D. Friskney, 80 Macaulay Drive, Lincoln
 Mr. A. J. Gray, "Bowness," Town Road, Tetney, Grimsby
 Miss J. Irving, "Sandham," 13 Broadway, Lincoln
 Mr. D. G. Kermode, 6 Moorland Avenue, Lincoln
 Mr. R. D. Ley, 66 Ripon Street, Lincoln
 Mr. J. W. Porter, 107 Scorer Street, Lincoln
 Mr. M. J. Scrimshaw, 20 Chelmsford Street, Lincoln
 Mr. D. J. Sowter, 11 Campden Crescent, Cleethorpes

Miss G. M. Steele, 6 Ferry Road, Fiskerton
Mr. G. Sykes, 63 Queen Mary Avenue, Cleethorpes
Mr. P. Taylor, Totmoor, Owmbly-by-Spital
Miss H. C. Wilson, 32 Laughton Way, Lincoln

It is with regret that I record the loss of two Life Members during the year. Mr. Joseph Billiat of London had been a Life Member for twenty years; although not resident in the County he took a lively interest in our activities. Major S. F. Hopwood, M.C., joined in 1948 after settling at Louth; he was constantly in correspondence on matters of mutual interest.

REPORT OF HON. FIELD SECRETARY, 1955

Eight field meetings were held during the year. Once again the Field Secretary is very much indebted to the leaders of the meetings and to numerous people who suggested meeting places and helped with the local arrangements.

The first field meeting of the year, the 276th in the history of the Union, took place at Girsby on May 7th. Miss E. J. Gibbons led the meeting. The area was very picturesque with many Marsh Marigolds and Forgetmenots in bloom. There were some interesting ornamental trees near the Hall. One of the many plants observed was a female Butterbur with greyish pink blooms. There was a fair number of song birds present including the Blackcap and Nightingale. A pair of Pied Wagtails were observed nesting in a timber pile. Few insects were observed, though it was quite a good day for spiders.

The 277th meeting, arranged to hear the "Dawn Chorus," was held at Twigmoor on May 22nd and led by Mr. Reg May. Entomologists had rather a dismal evening and night; "dusking," sugar and light all failed to attract moths. However, quite a large number of caterpillars were found feeding on the ground herbage. The first bird to be heard was the Woodcock at 3-26 a.m. but the first true songster was the Skylark at 3-35 a.m. This was followed by the Song Thrush, Robin and Cuckoo at 3-50 a.m., Blackbird and Tree Pipit 3-53 a.m. and later, as dawn broke, the other birds, usually associated with Scawby and Twigmoor, joined in the chorus.

The 278th meeting was at Irby Dales on June 26th and was led by Mr. G. A. T. Jeffs. The area was interesting geologically and was covered by a profusion of various chalk loving grasses and other plants. No insect rarities were found with the exception of the Sandy Carpet which is quite local. Lead Belle and Clouded Magpie were amongst the moths seen. Cardinal and Wasp beetles were the most notable beetles recorded. The woods were almost silent at first but a little bird-song was heard later in the day. Tracks of a deer and its fawn were noted where they had passed through a muddy patch.

The 279th meeting took place at Stubton Hall on July 16th by invitation of Mr. K. J. Beaney who led the meeting. Although the

area was rather artificial and not particularly extensive, the day was very hot and much of interest seen. Stubton Hall was particularly interesting for its variety of trees including a very large *Ginko*. There were several interesting fungi, particularly one on Cocksfoot grass which had dead flies attached: the hyphae of the fungus had penetrated the flies whilst still alive. Ornithologists saw a Spotted Flycatcher and heard a Bullfinch. Very few insects were seen but the record of a Small White Butterfly pairing with a Green-veined White was of particular note; interbreeding of species is very rare.

The 280th meeting was held out of the county on July 30th at the famous Borough Fen Duck Decoy in Northamptonshire. Mr. Billy Williams, in whose family the decoy has remained for over 400 years, made the day very interesting for members. He told much of the history of the decoy and explained the intricacies of netting wildfowl with the aid of dogs. Mr. Williams explained that in bygone days many thousands of duck were sent to the London markets but now all birds are ringed on behalf of The Wildfowl Trust and then released.

On September 3rd Miss S. R. Amner led the 281st meeting at Bicker Haven and Surfleet. Members saw remnants of the old haven (Saltergate Flaws) which is now several miles away from the sea. Sea Milkwort, a relic of salty conditions was found. At Surfleet, the next site to be visited, a wealth of water plants was found in the freshwater part of the Welland. Below the lock gates in the tidal part of the Welland, nine Herons were seen all within a few yards of each other; nearby were three Redshanks. There were many of all the species of White butterflies; Common Blue and Wall butterflies were noted on lucerne and four Privet Hawk moth caterpillars were found feeding on wild privet.

Mr. E. I. Abell led the 282nd meeting on September 24th at the Railway Ballast Pits, Lincoln. Waterfowl observed included Mallard, Pochard, Teal and Great-crested Grebe. Botanically the area was very rich in marsh plants, the Great Water Parsnip being very noticeable. The weather was too windy for many insects to be on the wing, but the larvae of Dot moth, Peppered and Coxcomb Prominent moths were all found feeding on birch.

The final field meeting of the year, the Fungus Foray, was led by the President, Miss G. M. Waterhouse, and took place at Belton Park near Grantham on October 22nd. Because of the previously very dry weather very few fungi were found on the ground, most of the species recorded were on tree stumps. In one instance nine species were found on the same tree stump and many trees were destroyed by the Honey Agaric. No birds of special interest were seen and all the summer migrants had departed. Some interesting beetles and spiders were found but lepidoptera were very scarce. Very prominent in Belton Park was the fine herd of deer.

More detailed accounts of observations at field meetings will be found in the respective Sectional Officers' reports.

SECTIONAL OFFICERS' REPORTS

BOTANY

MISS E. J. GIBBONS

A late, wet spring was followed by a wonderfully sunny July, August and September. The common wild rose usually seen between June 1st and 15th was not observed until June 21st

Girsby. A fine day in new country on the wolds with some woodland and the young river Bain, which was followed for about a mile towards its source. Butterbur (*Petasites hybridus*), the female form, was plentiful, Water Avens (*Geum rivale*) and Early Purple Orchis (*O. mascula*) were seen and a few Bluebells (*Scilla nutans*). One member found a Twayblade Orchid (*Listera ovata*). At Wykeham, above the lake, Marsh Marigolds (*Caltha palustris*) and the Great Panicked Sedge (*Carex paniculata*) were growing under willows. West of the main gates at Girsby there was much Giant Horsetail (*Equisetum telmateia*), one bush of Alpine Currant (*Ribes alpinum*), male, presumably planted there. A patch of Primroses in full flower not far from the Hall was also a relic of cultivation.

Irby Dales. The chalk hillside was a mass of calcareous grasses in flower with Rockrose (*Helianthemum Chamaecistus*), Restharrow (*Ononis arvensis*) and Wild Thyme (*Thymus*) but no Orchids. Wild Barberry (*Berberis vulgaris*) was seen in the hedge above. In the wood and watery swamp beyond, Yellow Flag (*Iris pseudacorus*) and Bladder Sedge (*Carex vesicaria*) were abundant. Herb Robert (*Geranium Robertianum*) was growing in luxuriance under the trees.

Stubton. The garden and shubberies were planted with many unusual trees and plants over a hundred years ago; some of these still remain, one is the Yellow Figwort (*Scrophularia vernalis*) but they can hardly be allowed as naturalised Lincolnshire records. About twenty new indigenous plants for the district were recorded by Mr. and Mrs. R. L. Howitt.

Bicker Haven and Surfleet. This was undoubtedly the most exciting meeting this year botanically. A visit was made first to a grass field with clay pits near some ancient saltworks where there was once an estuary. Sea Milkwort (*Glaux Maritima*) was presumably a relic of maritime conditions, Strawberry clover (*Trifolium fragiferum*) and Brookweed (*Samolus valerandi*) do not necessarily need salt but often grow near the sea. (This part of Bicker Haven is actually in Gosberton parish). Going on to Surfleet, a stop was made near the church to look for water weeds and other plants before going on to Surfleet Seas End. Hairy Buttercup (*Ranunculus sardous*), *Polygonum nodosum*, Lake Club-rush (*Scirpus lacustris*), Male Fern (*Dryopteris filix-mas*) were growing near by, also various pondweeds, Hornwort (*Ceratophyllum demersum*)

and Marestalk (*Hippuris vulgaris*). Further on at Surfleet Seas End were saltmarsh plants Sea Aster (*Aster tripolium*), Seablite (*Suaeda maritima*) and Marsh Samphire (*Salicornia herbacea*). The River was full of all kinds of water plants, and when searching for them with two junior members, Valerie Kirton and Jennifer Churchill, a strange water plantain was seen. With some difficulty one whole plant was loosened from the river bed and it proved to be *Alisma gramineum*, widespread in Europe flowering under water and only known so far in one other place in England.

Lincoln Ballast Pit. This was also an excellent day for water plants, both in the Ballast pit and in the dyke beside it. Yellow Loosestrife (*Lysimachia vulgaris*), Great Water Parsnip (*Sium Latifolium*), Bladderwort (*Utricularia vulgaris*), Shoreweed (*Littorella lacustris*) and Small Reedmace (*Typha angustifolia*) in the pool, and in the dyke about six kinds of pondweed, Knotted Pearlwort (*Sagina nodosa*), Water Violet (*Hippuris vulgaris*) and Least Marshwort (*Apium inundatum*).

Belton. It was too late for much besides fungi but Golden Saxifrage (*Chrysosplenium*) and Bogbean (*Menyanthes trifoliata*) were found.

Humberstone. Dumped soil on the sea bank produced further Mediterranean plants in great variety, many not found in 1953. Sunflowers, Hemp, Linseed, and Millet suggest birdseed, and Mr. S. A. Cox has discovered a birdseed merchant's warehouse whose rubbish is dumped on the sea bank, which may account for these aliens.

On Sept. 8th Mr. J. E. Lousley, Secretary of The Botanical Society of the British Isles, visited Lincolnshire on his way north, calling at Surfleet in order to see *Alisma gramineum*, with three or four other enthusiasts. The plant was found to be most abundant near the sluice and to extend up the R. Glen for two miles. Three other habitats have since been found by Miss S. R. Amner nearer Spalding.

NEW COUNTY RECORDS

<i>Alisma gramineum</i>	17 L.N.U. (E.J.G. conf. J. E. Lousley).
<i>Eleocharis palustris</i> var. <i>microcarpa</i>	17 E.J.G. det. S. M. Walters.
<i>Eleocharis uniglumis</i> (1954)	6 R. Hull & E.J.G. (det. S.M.W.)
<i>Impatiens capensis</i> (1954)	16 J.H.C.

NEW DISTRICT RECORDS

<i>Althaea hirsuta</i>	9 E.V.W.
<i>Apium inundatum</i>	17 L.N.U.
<i>Artemisia Absinthium</i>	17 S.R.A.
<i>Asplenium ruta-muraria</i>	10 M.N.R.
„ <i>Trichomanes</i>	18 E.J.G.

<i>Avena fatua</i>	10 M.N.R.
” ”	15 R.C.L.H. & B.M.H.
<i>Calamagrostis epigeios</i>	4 E.J.G.
<i>Calystegia sylvestris</i>	17 L.N.U.
<i>Cardamine flexuosa</i>	8 L.N.U.
<i>Chenopodium rubrum</i>	17 S.R.A. & E.J.G.
” <i>polyspermum</i>	15 R.C.L.H. & B.M.H.
<i>Descurania sophia</i>	17 S.R.A. & E.J.G.
<i>Dryopteris filix-mas</i>	17 ” ”
” ”	18 ” ”
<i>Eleocharis pauciflora</i> (1954)	6 R. Hull & E.G.J.
” <i>acicularis</i>	13 E.J.G.
” ”	14 R.C.L.H. & E.J.G.
<i>Erigeron acris</i>	4 R. & A. Sowerby
” <i>canadensis</i>	16 J.H.C.
<i>Festuca bromoides</i>	2 E.J.G.
<i>Lemna gibba</i>	17 S.R.A.
” <i>polyrrhiza</i>	14 R.C.L.H. & B.M.H. & E.J.G.
<i>Limonium bellidifolium</i>	11 E.J.G. & A. E. Smith, etc.
<i>Orchis ericetorum</i>	3 S.A.C. & E.J.G.
<i>Phyllittis scolopendrium</i>	16 J.H.C.
” ”	18 E.J.G.
<i>Polystichum angulare</i>	4 E.J.G.
<i>Potamogeton coloratus</i>	14 B.M.H.
” <i>crispus</i>	17 L.N.U.
” <i>decipiens</i>	14 R.C.L.H. & B.M.H. & E.J.G.
” <i>natans</i>	17 L.N.U. all det. G. Taylor
” <i>perfoliatus</i>	17 ” ” ”
” <i>pusillus</i>	17 ” ” ”
<i>Scirpus fluitans</i>	14 R.C.L.H. & B.M.H. & E.J.G..
<i>Senecio squalidus</i>	17 & 18 S.R.A.
<i>Teucrium scorodonia</i>	11 E.J.G.
<i>Trifolium filiforme</i>	4 L.N.U.
” <i>fragiferum</i>	17 L.N.U.
” <i>incarnatum</i>	17 S.R.A.

HUMBERSTONE ALIENS, 1955

<i>Amaranthus blitoides</i>	<i>Plantago lagopus</i>
<i>Bupleurum protractum</i>	” <i>psyllium</i>
<i>Cannabis sativa</i>	<i>Polygonum patulum</i>
<i>Carthamus tinctorius</i>	” <i>pulchellum</i>
<i>Chenopodium murale</i>	<i>Rapistrum rugosum</i>
” <i>opulifolium</i>	<i>Ridolfia segetum</i>
<i>Dipsacus sativus</i>	<i>Scolymus hispanicus</i>
<i>Helianthus annuus</i>	<i>Salvia reflexa</i>
<i>Linum usitatissimum</i>	<i>Setaria viridis</i>
<i>Ononis mitissima</i>	<i>Trifolium echinatum</i>
<i>Panicum miliaceum</i>	” <i>Lappaceum</i>

Phalaris canariensis
 „ *paradoxa*
Picris sprengeriana

Urochloa panicoides
Vicia bithynica

LIST OF CONTRIBUTORS

S.R.A.	—	Miss S. R. Amner
J.H.C.	—	Mr. J. H. Chandler
S.A.C.	—	Mr. S. A. Cox
E.J.G.	—	Miss E. J. Gibbons
R.C.L.H. & B.M.H.	—	Mr. & Mrs. R. L. Howitt
M.N.R.	—	Miss M. N. Read
E.V.W.	—	Mr. E. V. Wray

MYCOLOGY

MISS G. M. WATERHOUSE, M.SC.

The Autumn foray at Belton Park on October 22nd demonstrated the effect of the summer weather on fungi. In the parkland itself there were no larger fungi on the ground amongst the grass. Even in the woods round the lakes, the dampest part of the area, there were very few fungi on the ground and most of these were small species. Obviously the drought had prevented the development of the fruiting bodies. On tree stumps and fallen logs, however, it was another matter. These retain moisture for a long time and the fungi are able to grow even in a dry season. One large beech stump was a veritable fungus garden, bearing no less than nine different larger fungi, their fructifications rising tier upon tier. They were *Armillaria mellea*, which was widespread throughout the woodland at the base of nearly all the dead trees and stumps, *Pluteus cervinus*, a common pink-spored fungus on decaying wood, *Hypholoma hydrophilum*, which forms dense clusters like the sulphur tuft but is brown, *Polyporus giganteus*, the giant polypore, *P. adiposus*, a white lumpy polypore looking rather like lumps of grease, *Polystictus versicolor*, the common agate stump flap, *Trametes gibbosa*, a polypore with its pores looking like a maze, *Ganoderma applanata*, a hard red-brown polypore which we often found in association with *A. mellea* and these together must have been responsible for the death of many of the trees, and *Trichia varia*, a common yellow myxomycete.

The woods were very mixed, containing mainly beech, lime, sycamore, oak, yew, box, and elder with one or two exotic species planted for their decorative value. This lent great variety to the fungi growing there. Our most exciting find was *Pluteus minutissimus* growing on box wood. This is not only new to Lincolnshire but new to the British Isles. Another species *P. salicinus* on an old willow log was also a new record for the county, as were two smaller fungi growing on the ground. There were also four microfungi which were new records for the British Isles, one of which has not previously been published in this country.

Before lunch we made a small excursion through the meadows by a stream (a tributary of the River Witham) where we found the large cream-coloured *Pleurotus ulmarius* on a fallen elm.

Altogether 75 have been named, 8 being new county records and 43 new for division 15.

The remainder of the year also has reflected the effect of the summer weather on fungi; very few reports were sent in. Mr. Holland sent some micro-fungi from the Sleaford area, one of which proved to be a new record for the county (division 14) and four were new divisional records. Miss Gibbons sent a piece of cypress wood from a tree at Holton apparently killed by a fungus. The fungus proved to be new for that division (7).

I attended two field meetings and managed to pick up one or two micro-fungi, though I did not come across any larger ones. At Stubton Hall in July, four of the nine fungi I collected were new for division 15. At Bicker Fen and Sutton Bridge on 3rd September Miss Tyson and I found 14 fungi, one being a new county record and 7 were new for division 17. On *Alisma gramineum*, the rare water plant found by Miss Gibbons at this meeting, some brown spots on the leaves proved to be *Physoderma maculare*, which I feel sure must be a new record for the British Isles, though I haven't been able to check this yet.

Thus, although the year has been poor in the numbers of specimens we have been compensated by having some exciting new records; the total for the year is 13 county records and 57 for the various divisions. I am grateful to the Staffs of Kew Herbarium and of The Commonwealth Mycological Institute for help with identifications.

During the year Dr. R. W. G. Dennis of the Kew Herbarium showed me some paintings of Lincolnshire fungi which had been bequeathed to Kew. They were done by Mrs. C. B. Dickson, who was the wife of a Precentor of Peterborough Cathedral. Apparently, she often made excursions into the county, especially round East Barkwith and Panton Wood, to paint fungi between 1882 and 1894. Several of the specimens depicted have not previously been recorded in that area, and will add to our county fungus flora.

FUNGUS FORAY, BELTON PARK

OCTOBER 22ND, 1955

New records for the county.

Marasmius acervatus (Fr.) Pears. & Dennis

Pluteus minutissimus Maire on box

Pluteus salicinus (Pers.) Fr. on willow

Inocybe maculata Boud.

Corticium pruinosum Bres.

Tomentella sp. to be named later

Haplaria grisea Link ex. Chev.

Acladia conspersa (unpublished name)

New records for Division 15.

- Lepiota amianthina* (Scop.) Fr.
Collybia velutipes (Curt.) Fr.
Marasmius peronatus (Bolt.) Fr.
Marasmius rotula (Scop.) Fr.
Clitocybe infundibuliformis (Schaeff.) Fr.
Mycena gypsea Fr.
Mycena alcalina Fr.
Mycena metata Fr.
Mycena filopes Fr.
Mycena polygramma (Bull.) Fr.
Hygrophorus virgineus (Wulf.) Fr.
Russula ochroleuca Fr.
Lactarius plumbeus Fr.
Lactarius quietus Fr.
Pleurotus ulmarius (Bull.) Fr.
Pluteus cervinus (Schaeff.) Fr.
Pholiota spectabilis Fr.
Paxillus involutus (Batsch) Fr.
Crepidotus mollis (Schaeff.) Fr.
Lycoperdon saccatum (Vahl.) Fr.
Humaria granulata Sacc.
Hypoxylon multiforme (Fr.) Fr.
Stropharia aeruginosa (Curt.) Fr.
Stropharia semiglobata (Batsch) Fr.
Hypholoma hydrophilum (Bull.) Fr.
Hypholoma foenicicii (Pers.) Fr.
Psathyrella disseminata (Pers.) Fr.
Coprinus atramentarius (Bull.) Fr.
Coprinus lagopus Karst.
Polyporus giganteus (Pers.) Fr.
Polyporus betulinus (Bull.) Fr.
Polyporus picipes Fr.
Polyporus frondosus (Fl. Dan.) Fr.
Polyporus adustus (Willd.) Fr.
Ganoderma applanatum (Pers.) Pat.
Fomes ferruginosus (Schrad.) Masee
Trametes gibbosa (Pers.) Fr.
Fistulina hepatica (Huds.) Fr.
Peniophora quercina (Pers.) Cke.
Clavaria inaequalis (Müll.) Quéf.
Scleroderma aurantiacum (Bull.) W. G. Smith
Trichia varia Pers.
Tubifera ferruginosa Gmel.

Other identifications—not new records.

- Armillaria mellea* (Vahl.) Fr.
Collybia radicata (Rehl) Berk.

Mycena galericulata (Scop.) Fr.
Pholiota squarrosa (Mull.) Fr.
Hypholoma velutinum (Pers.) Fr.
Galera tenera (Schaeff.) Fr.
Inocybe geophylla var. *lilacina* (Sow.) Fr.
Psalliota campestris (L.) Fr.
Polyporus adiposus B. & Br.
Polystictus versicolor (L.) Fr.
Stereum purpureum (Pers.) Fr.
Stereum hirsutum (Willd.) Fr.
Clavaria cristata (Holmsk.) Fr.
Auricularia auricula-judae (L.) Schroet.
Auricularia mesenterica (Dicks.) Fr.
Dacromyces deliquescens (Bull.) Duby
Phallus impudicus (L.) Pers.
Coryne sarcoides (Jacq.) Tul.
Helvella crispa Scop.
Rhytisma acerina Pers.
Xylaria hypoxylon (Fr.) Grev.
Xylaria polymorpha (Fr.) Grev.
Nectria cinnabarina (Fr.) Fr.
Daldinia concentrica (Fr.) Ces. & de Not.

OTHER RECORDS, 1955

New records for the county.

<i>Colletotrichum spinaciae</i> Ell. & Halst. on spinach (1953)	?
<i>Dactylaria pyriformis</i> Juniper on dung (1953)	13
<i>Puccinia sonchi</i> Rob. on <i>Sonchus asper</i>	17
<i>Thecaphora seminis-convolvuli</i> (Duby) Liro on <i>Calystegia sepium</i>	14
<i>Physoderma maculare</i> Wallr. on <i>Alisma gramineum</i>	17

New divisional records.

<i>Coniophora laxa</i> (Fr.) Quél. on cypress	7
<i>Ustilago nuda</i> (Jens.) Rostr. on barley	15
<i>Puccinia triticina</i> Erikss. on wheat	17
<i>Puccinia taraxaci</i> Plowr. on dandelion	17
<i>Puccinia</i> (<i>Tranzschelia</i>) <i>pruni-spinosae</i> (Pers.) Diet. on plum	14
<i>Coleosporium tussilaginis</i> (Pers.) Lév. on groundsel coltsfoot, and <i>Sonchus asper</i>	17
<i>Torula herbarum</i> Link.	14
<i>Ramularia agrestis</i> Sacc. on <i>Viola hybrida</i>	14
<i>Volutella ciliata</i> (Alb. & Schad.) Fr. on <i>Stapelia</i>	16
<i>Empusa muscae</i> Cohn on flies on <i>Dactylis glomerata</i>	15
<i>Mucor hiemalis</i> Wehm.	15
<i>Peronospora variabilis</i> Gäum. on <i>Chenopodium album</i>	15, 17
<i>Pseudoperonospora urticae</i> (Lib. ex Berk.) Salm. & Ware on <i>Urtica urens</i>	17
<i>Bremia lactucae</i> Regel on <i>Sonchus arvensis</i> and <i>S. asper</i>	17

GEOLOGY

SGT. PHILIP CAMBRIDGE

Geologically the year was disappointing in the sense that there was no activity to report other than my own.

Some further Lincolnshire Limestone exposures were examined and work continued in identifying fossils collected last year from the same deposit.

A visit was made to Broughton, in company with Mr. T. B. Parks, who very kindly supplied transport, and the marl beds were examined. It was hoped that it might be possible to confirm the age of these beds but no peat was found nor did any artifacts occur in or below the white marls. However a section was made in the Tanyard Field, measured and a collection of shells made from accurately taken horizons in the beds.

A series of fossils was collected in Cranwell village and on the fields surrounding the village, in beds ranging from the Upper Estuarine Series to the Cornbrash. A slab with typical ammonites of the Upper Cornbrash was collected near the village and presented to Grantham Museum.

Mr. F. T. Baker called my attention to a "cockle-bed" discovered while excavating in Car Dyke. Unfortunately, owing to the state of the excavation at the time, it was not possible to measure a good section but samples of several beds were taken and revealed a good series of Fen Deposits including a marine silt. The silt contained numerous examples of the common cockle (*Cardium edule*), and thin dwarfed examples of *Macoma balthica*, *Littorina* and *Hydrobia ulvae*. Foraminifera were abundant, especially the characteristic Fenland species *Elphidium excavatum*. There also occurred the mandibles of a crab, ostracods, elytra of a beetle, and numerous plant remains varying from seeds and stems of plants to large pieces of wood. It is hoped to publish a list of the plant species at a later date, and that these may provide an approximate date for the deposits. The mollusca are all of living species.

Finally, I should like to convey my best wishes to all members of the L.N.U. My service duties now take me away from the county but I hope to renew my active connections with the Union at some future date.

ENTOMOLOGY

H. M. SMALL

Butterflies. The exceptionally fine weather which persisted throughout the greater part of the year appeared to be more favourable to moths than butterflies which, in comparison, had only a moderate season. The Rev. Canon G. Houlden suggested that the severe weather in the early months of the year may in some way have checked

them. The low numbers may, however, have been due to poor conditions during the previous breeding season.

Of our immigrant butterflies, the Large White and Small White (*P. brassicae* and *rapae*) were present in very large numbers, and caused considerable damage to our brassica crops. The Red Admiral (*V. atalanta*) was also plentiful in the autumn. Two other immigrants, often recorded in a fine year, the Clouded Yellow (*C. croceus*) and the Painted Lady (*V. cardui*), were not reported.

On May 30th, which Canon Houlden noted was one of the first really warm days, Chequered Skippers (*C. palaemon*) and Speckled Wood Butterflies (*P. aegeria*) were seen at Skellingthorpe. White Admirals (*L. camilla*) were seen there in July. Mr. M. P. Gooseman noted *camilla* at Dunsby Woods in south Lincs. on July 23rd, a new record, and White-letter Hairstreaks (*S.w.-album*). Mr. Gooseman also recorded the Dark-green Fritillary (*A. aglaia*) and Small Pearl-bordered Fritillary (*A. selene*) from Scotton Common on July 17th. He noted the Small Copper (*L. phlaeas*) was particularly plentiful at Bottesford; the species was seen on the wing as late as Nov. 24th.

Mr. J. H. Duddington remarked that the Green Hairstreak (*C. rubi*) has spread and become plentiful in the Scunthorpe area; he now knows of six different localities for it. The Large Heath (*C. tullia*) has not been seen this year in the locality where Mr. Duddington found it in 1954; he saw a single male last year.

A Silver-washed Fritillary (*A. paphia*) was seen at Sleaford by Mr. A. Pilkington feeding on Michaelmas Daisies in his garden. Mr. Pilkington also remarked on the numbers of Small Tortoiseshell (*A. urticae*), Peacock (*N. io*) and Red Admiral butterflies (*V. atalanta*) he had seen in the Sleaford district.

Moths. These insects were more plentiful than the butterflies. On some nights, collecting done with the aid of mercury vapour lamp was very productive. Mr. Bruce James, reporting on a night's collecting with Messrs. Jeffs, Gooseman and Duddington, said that the moths came so thick and fast to the light that they were unable to deal with them all.

The Hawk moths have not been too common, the species most commonly met with were the Poplar (*L. populi*) and Eyed Hawk (*S. ocellatus*); a few Humming Bird Hawks (*M. stellatarum*) were seen. Mr. M. P. Gooseman found four larvae of the Privet Hawk (*S. ligustri*) at Surfleet Seas End on Sept. 3rd.

The following are a few of the records made by Mr. Gooseman, taken from a very long and comprehensive account which he sent to me. Early Tooth-striped (*N. carpinata*) on April 24th at Linwood Warren; larvae of the Lilac Beauty Moth (*H. syringaria*) from Legsby, Laughton, Skellingthorpe and Kexby; Clouded Magpie (*A. sylvata*) and Bloomers Rivulet (*D. blomeri*) from Hendale Wood on June 18th; Scorched-wing (*P. dolabraria*) at Bottesford on 5th June, and the following species

taken with light on Manton Common on the night of July 28th:— Swallow Prominent (*P. tremula*), Lesser Swallow Prominent (*P. dictaeoides*), Pale Prominent (*P. palpina*), Straw Underwing (*T. matura*), True Lovers Knot (*A. strigula*), Peppered Moth (*B. betularia*), Miller Moth (*A. leporina*), Buff Arches (*H. derasa*), Common Footman (*L. lurideola*) and Large Emerald (*G. papilionaria*).

Mr. J. H. Duddington also sent in a goodly list, one of his best captures being a pale grey form of the Great Brocade (*E. occulta*) which he found on August 5th feeding on Buddleia blossom in his garden at Scunthorpe. Some of the other moths he mentions are: Angled-striped Sallow (*E. paleacea*), Lesser Lutestring (*A. diluta*), Blotched Emerald (*C. pusulata*), Large Broad-bordered Yellow-underwing (*L. fimbriata*), Oak Hook-tip (*D. binaria*) and Scalloped Hook-tip (*D. lacertinaria*) all from Scawby woodlands. Two moths which Mr. Duddington found to be very common this year were the Plain Golden Y (*P. iota*), which visited the flowers in his garden in great numbers, and the Green Brindled Crescent (*M. oxyacanthae*) which came plentifully to both sugar and light, half of the latter were var. *capucina*.

Sugaring in the Lincoln area was unsuccessful according to Mr. Bruce James, whereas in the Scawby and Laughton areas it was very productive. One of Mr. James' best captures was a Beautiful Hook-tip (*L. flexula*), which came to a mercury vapour lamp on Manton Common on July 28th.

A list of over one hundred moths of different species found this year in the Grimsby area was sent in by Mr. G. A. T. Jeffs. They include fifteen which he had not previously recorded for Grimsby: Wormwood Shark (*C. absinthii*), Great Brocade (*E. occulta*), White Satin Moth (*L. salicis*), Barred Red (*E. prosapiaria*) and Oak Hook-tip (*D. binaria*) were among those mentioned.

Mr. F. L. Kirk reports two unusual insects from Woodhall Spa. A dead male Snake Fly (*Raphidia* sp.) was found on a windowsill. This is the first time he has recorded this insect in Lincolnshire. He also notes the Digger Wasp (*Crabro dimidiatus*) storing stung Blue-bottles in cells in rotten wood.

In completing this report, which is my last as Entomological Secretary, I would like to thank all the members who made this, and my previous reports, possible by sending in such complete accounts of their yearly activities in the entomological field.

COLEOPTERA

E. C. RIGGALL

During the early spring the Trent flooded extensively in the Torksey area. The flood refuse which I obtained may have been deposited and refloated on successive occasions as the beetle content was disappointing. I found examples of the water beetle *Agabus didymus* which has already been recorded from North Lincolnshire.

This bronze-coloured beetle is easily identified by two pairs of yellow markings on the elytra. It is a running-water species found in streams and along the edges of rivers. The flood refuse also contained a Water Boatman (*Notonecta glauca*), I liberated the *Notonecta* and an *Agabus* in a garden pond. The former insect assumed its inverted swimming position but both insects remained on the surface film. After a few seconds the *Notonecta* moved stealthily toward the beetle. At close quarters the *Agabus* struck *Notonecta* a shrewd blow with one of its posterior legs. Under the impact the latter spun away like a car braked on ice, and showed no further inclination to interfere with the beetle.

I also found one specimen of the weevil *Poophagus sisymbrii*. This beetle is associated with Water Cress (*Nasturtium amphibium*), and is sometimes found under water. The species has been recorded from Freshney Bog and Irby Dale.

During April, Mr. F. T. Baker sent specimens of the heteromorous beetles *Gnathocerus cornutus* and *Tribolium confusum* which had been found at Lincoln in flour. *Gnathocerus cornutus* was recorded from the Grimsby area in 1910, and now appears to be widely distributed in the county. The other species, *Tribolium confusum* was not found by Thornley and Wallace, but the Ministry of Agriculture and Fisheries Infestation Control have previous records. The species is not included by Kloet and Hincks in "The Check List of British Insects." Later in the month Mr. Baker sent a specimen of *Trigogenius globulus* which had been found in parrika pepper at Bardney. This beetle which belongs to the suborder *Teredilia*, is a short, thick-set, convex beetle, with outstanding black setae. It is a rare beetle inhabiting grainaries. The species has been recorded from Tottenham and Birmingham, but is new to Lincolnshire.

In June my daughter Daphne found a specimen of the phytophagus beetle *Cassida viridis* at Scotgrove Wood. Species in the genus have thorax and elytra with the margins much expanded so that the underside of the body is completely covered. The legs are short and can be retracted out of sight. These peculiarities have caused the various species to be commonly called "Tortoise-beetles." *Cassida viridis* is a large conspicuous species, green on the upper surface, and black beneath, with the margins of the elytra reddish-yellow. Records for the County are few and Thornley and Wallace described the beetle as a rare species. Their list contains an undated record from Mr. A. Smith stating: "specimen given to me many years ago by C. R. Tero taken by him in the locality of Grimsby," and a record from Dr. Wallace; "One specimen at the side of Croxby Pond in June 1907." There does not appear to be any further record until June 1940 when I found two specimens by sweeping along the edge of a dyke at Saltfleet. During June 1954 a single specimen was found by Mr. G. N. Holland at Anwick. The beetle is associated with a species of *Mentha*. On the 20th of the month my daughter Daphne discovered a female

specimen of the elegantly shaped ground beetle *Cychrus rostratus* in our garden at Louth. The beetle was attacking a slug. The species is reputed to prey upon snails and it is assumed that the extremely narrow stretched out head is adapted to intrude into shells. This local species does not occur in town gardens, and the beetle had probably been transported in a load of hay brought to our stable from Welton Springs. In his address to the Union in 1912 Dr. Wallace described the species as uncommon in Lincolnshire. There is an old record from Grantham in 1900. I enclosed the beetle and its prey in a glass lidded box, but the beetle ignored the slug until the box had been covered to exclude light. After some time it was possible to uncover the glass and watch the beetle devour its prey. While the insect's jaws were at work the curious hatchet-shaped maxillary and labial palpi were extended to contact the slug, and it seems possible that the beetle may be a trifle short-sighted at close range and uses its palpi to measure distance.

On the 25th of June the Union visited Irby Dale. Mr F. L. Kirk found another tortoise beetle, *Cassida rubiginosa*. This species resembles the uncommon *Cassida viridis*, but is smaller and more oblong. *Rubiginosa* is associated with thistles. Mr. B. James found a specimen of the heteromerous Cardinal Beetle, *Pryochroa serraticornis*. Fifty years ago Mr. R. W. Goulding described this conspicuous scarlet beetle as common near Louth. The species appears to have become scarcer although odd specimens turn up in most years. *Serraticornis* is usually found sunning itself on a decayed stump, and the larva inhabits rotten wood. My daughter, June, found a curious dwarf variety of the longicorn Wasp beetle, *Clytus arietis*. In this specimen the usual yellow elytral bands are obscure and only at the extreme apex are the markings of normal width.

On June 19th, Mr. G. N. Holland found a specimen of the phytophagus beetle *Chrysolina sanguinolenta* near Ruskington. This oval, bluish beetle has margins broadly yellowish-red. It is found in grassy places on the flowers of Toad Flax (*Linaria* sp.) and is a local insect. The species is a new record for the county. During the month Sgt. P. Cambridge sent a specimen of the large weevil *Barynotus obscurus* which he had collected at Byard's Leap. Mr. Holland also recorded a specimen from Sleaford. The species was noted by Thornley and Wallace who commented: "Found singly and not common." The species in the genus are associated chiefly with cold and mountainous districts.

This year has been a poor one for pselaphids. Many of these tiny beetles are found in moss, and owing to exceptionally dry conditions searching for them in the usual habitat was unproductive. On July 1st I found a single specimen of the pselaphid *Euplectus nanus* in cut grass from Welton Springs. There is one previous record of this beetle concerning a specimen taken in Scunthorpe area in 1910.

In July, Mr. Baker sent me a specimen of the fine large longicorn *Monochamus sutor* which had been found in the packing shop of Ruston

and Hornsby at Lincoln. The beetle is a black insect with the thorax and elytra variegated by spots of yellowish-grey pubescence. The scutellum is mainly clothed with thick pubescence but there is a glabrous area in the centre. Dr. Wallace records a specimen from the vicinity of Grimsby Docks. In "British Coleoptera Delineated," Spry and Shuckard describe *Monochamus sutor*, and state that the beetle feeds upon ash trees and willows. Another species in the genus, *Monochamus sartor*, has been recorded from Grimsby, Lincoln, and Boothby Graffoe. The beetles are somewhat similar in appearance, but *Monochamus sartor* has no glabrous area in the centre of the scutellum. Both species appear to be importations. In 1933 the late Dr. Blair wrote: "For over a century two species of *Monochamus*, *M. sartor* F. and *M. sutor* L., have consistently appeared on our British lists, and though it has long been recognised that neither of these has any claim to be considered as indigenous or even as established in this country, our coleopterists appear to be loath to discard them altogether from our faunal lists.'

In July, the Union visited the Duck Decoy at Borough Fen, Northants. I was surprised to find the pretty green phytophagus beetle *Chrysomela aenea* in considerable numbers. I have found single specimens of this beetle in Hampshire, Berkshire, and Cambridgeshire, and Mr. G. W. Whatmough found one specimen near Lincoln. It would be interesting to know what ecological factors render this species very rare in Lincolnshire while it swarms in great numbers just over the county border. Another phytophagus beetle *Chalcoides aurata* was also quite common in Borough Fen. This species has a deep crimson thorax and green elytra. One specimen was being attacked by a scarlet mite which had established itself beneath an elytron. The mite was large enough to have forced the wing-case of the beetle out of position. *Chalcoides aurata* has also been recorded from Lincolnshire.

On September 8th a swarm of beetles made a landfall at Ingoldmells Point. The alighted mass of beetles darkened the top of the promenade, but the sombre hue of the swarm was relieved by regularly spaced stripings of colour. The lines of colour were caused by masses of lady-birds which preferred to swarm upon the jointing material between the concrete blocks of the sea wall. Lady-birds tend to cluster and during hibernation groups can be found under loose bark or similar sheltered spots. Some of the beetles were attacked by winged ants and here and there a beetle and ant could be seen rolling about locked in mortal combat. I mentioned the arrival of this large swarm of beetles to the very experienced collector Mr. G. H. Ashe, who commented: "I have never met with beetles in bulk, though the phenomenon is said to occur on Snowden where Dalton found a foot or so of mixed insects bordering the lake near the top."

Owing to the season being advanced I scarcely expected to see many species during the October Field Meeting at Belton Park, but the combined efforts of experienced collectors turned several species

out of their winter quarters. The most interesting record concerned the phytophagous beetle *Chrysolina orichalcea*. Mr. Holland found a single specimen of the steel-blue type form of the beetle beneath an accumulation of dead leaves, and a further examination of the locality discovered an elytron of the same type form. The type form of the beetle appears to be new to the county as previous records all refer to the variety *hobsoni* which has the upper surface deep black with an aenous reflection.

During November Miss E. J. Gibbons let me know that Dytiscines were being found during the cleaning of a pond in Holton Park. I was able to examine six specimens of *Dytiscus* and these proved to be a pure gathering of *Dytiscus marginalis*. When these beetles were placed in an aquarium a male appeared to recognise one of the females. The female held on to a stone with her front tarsi with the lighter end of her body inclining upwards. The male beetle made directly toward her and placed one of his dilated front tarsi on the female's elytra. As she felt the contact the female immediately extended her hind swimming legs at right angles in what appeared to be a stabilising movement. The male floated above maintaining contact like an acrobat balancing upon one hand. A *Dytiscus* cannot remain under water without foothold as its body is considerably lighter than its own bulk of water. When placed in shallow water the Dytiscines clustered in close proximity with the tips of their elytra just breaking surface seeming to enjoy a free communication with the air above. They refused food and remained entirely quiescent. It was possible to advance a hand close to them without causing any disturbance. Little seems to be known about the behaviour of water beetles during winter and I have not previously had the opportunity to study specimens obtained so late in the year. How far the behaviour of beetles in an aquarium corresponds with life under natural conditions is difficult to decide.

MAMMALS

FRANK NORRIS

As this is the first mammal report to have appeared in the *Transactions* for over 40 years, I had hoped it would cover many more of our native species. However, I hope the appearance of this list will encourage members to report any mammals they may come across in the future.

For many years the mammals have been a neglected branch of zoology, a state of affairs which we may hope will not last much longer. It is encouraging to see a national body 'The Mammal Society of the British Isles' has been formed to stimulate interest in the study of this branch of our fauna.

The studying of mammals is not made any easier by the fact that most of them are nocturnal in their habits. They cannot be heard twittering in the trees, be plucked from the ground and pressed be-

tween the pages of a book, nor pursued with a flashlamp and a butterfly net. Nevertheless a little patient observation will yield undreamed of results.

Much can be gained from the study of the pellets of the birds of prey, and I would be most grateful for any pellets which can be sent to me.

It may be felt that some mammals are so common in your district that they are not worth reporting. This may be true of the House Sparrow in the Ornithology section, and of the Daisy in the Botany section, but as we have no picture whatever of the county mammals then none is too common to report (as long as identification is certain).

Common Shrew. *Sorex araneus*.

A number was found dead near Scunthorpe during the Autumn. (FN).

Pigmy Shrew. *Sorex minutus*.

A specimen was captured on the Scotton Common Nature Reserve during August. (J. L. Cox).

Brown Hare. *Lepus europaeus occidentalis*.

Seen in most parts of North Lincolnshire. A pair was observed on the marshes at Gibraltar Point in June. (FN).

Short-tailed Vole. *Microtus agrestis hirtus*.

One captured at Scunthorpe during May, and one at Gibraltar Point during September. (FN).

Wood Mouse. *Apodemus sylvaticus*.

A number was captured at Gibraltar Point during September (FN).

Yellow-necked Mouse. *Apodemus flavicollis wintoni*.

A juvenile was captured at Gibraltar Point during September. Comparison was made with *sylvaticus* which were captured at the same time. (FN).

Stoat. *Mustela erminea stabilis*.

A white specimen and a normal coloured specimen were seen near Grantham on 31st January. (F. L. Kirk).

Common Seal. *Phoca vitulina*.

Present at Gibraltar Point throughout the year. Attempts were made to study the breeding of these animals during June, but unfortunately they kept to the outermost sand banks and no young were seen. (FN).

Common Porpoise. *Phocaena phocaena*.

One seen in the River Trent at Owston Ferry on 19th April.

ARACHNOLOGY

G. W. WHATMOUGH, M.P.S.

Climatically, the year in review has been almost completely opposite in every respect to its predecessor. The prolonged hot, dry spell from June onwards was not kind to the arachnid fauna, but made field work easy and pleasant; the general result being that the amount of material examined has been well up to average. Members continue to send in varied and interesting specimens from all types of habitat—from the large exotic mite which Sgt. P. Cambridge removed from a pet tortoise to the golden bodied spider (*Tibellus oblongus* (Walck.)) which Mr. L. Gates found in his bath!

The first specimens received in the new year were sparassids from imported fruit. Two immature males and an adult female with her flattened circular egg sac, came direct from Messrs. G. Hercock and Sons, the banana importers, who found them in a consignment from the British Cameroons. Another specimen was sent in by Mr. J. L. Cox of the Scunthorpe Naturalists' Society, while a further example arrived by a more devious route. Originally found in fruit at Mablethorpe, it was handed to the local Health Inspector who posted it without delay to the Public Health Laboratory in Lincoln. Fortunately Dr. J. M. Croll knew that I was interested in spiders so the creature was saved any further journeys. It was still alive, though rather lean in appearance, when I received it but I was able to identify it and to assure Dr. Croll of its harmless character. While on the subject of imported species, I must mention a young spider which was found in early July at Lincoln running on coal in a railway-engine tender. This spider was in such splendid condition that I decided to keep it alive as long as possible. At the time of writing she is still alive after seven months in captivity during which she has cast her final moult and is now adult. Diet during the summer months has been chiefly diptera (house-flies, "blue bottles" and crane-flies) but at the Belton Park field meeting Mr. M. P. Gooseman suggested that, as flies were becoming scarce, caterpillars might be acceptable. These were tried and accepted by the spider as were dipterous larvae. During the time she was building up a reserve of food prior to moulting she would attack and devour each insect offered without delay. On one occasion she leapt off the side of her box in pursuit of an active "bluebottle" caught it in mid-air and fell with it to the floor. As many as four of the largest flies which could be found were consumed in a day at this time, but quite suddenly all interest in food was lost. This condition lasted for three weeks. The spider remained motionless and occasionally flies touched her legs or palps and were immediately brushed away. Not once did I see an insect killed which was not required for food. This was probably due less to the kind nature of the spider, than to the fact that the jaws of the old outer skin were already becoming detached from the new ones forming within. The actual moult was not observed but only took a short time, afterwards a further week elapsed after which occasional

flies were accepted. It is evidently some days before the newly revealed jaws and mouth parts are hardened enough to attack, kill and crush food.

It was March before any interesting indigenous species were taken. Three specimens were found in rubbish by the roadside between Lincoln and Doddington, under several inches of snow. One of these *Agroeca brunnea* (Bl.) proved to be new to the County. It was sheltering from the freezing weather between the layers of an old cardboard box. Its nearest relative *A. proxima* Cambr. has only been taken twice in Lincolnshire and has not appeared since 1919. The genus might have been overlooked and several members should be found in leaves in old woods. The males appear to mature early, before field work has seriously started, and may have only a short season.

In April a female *Leptyphantès tenuis* (Bl.) was seen devouring what appeared to be an immature male of the same species. Sgt. P. Cambridge found a large number of false scorpions in a shed at Cranwell. They were eventually identified as *Cheiridium museorum* (Leach). Early sunshine brought out the swift-moving thomisids, a handsome male *Xysticus ulmi* (Hahn) being taken in dead leaves at Branston. The only previous specimens of this attractive spider I had seen, were taken by Mr. E. C. Riggall at Wicken Fen (Cambs.) a few years ago. Records show that it has appeared in Lincs. before at Maltby Wood and Newball where it was taken by Rev. E. A. W. Peacock in 1898-9. A visit to the ballast pits, Coulson Rd., Lincoln, yielded two males of the tiny species *Porrhomma convexum* (Westr.) an addition to the County list.

The first field meeting at Girsby was rather disappointing but a male and female *Dismodicus bifrons* (Bl.) were taken in damp grass with a solitary male *Oedothorax tuberosus* (Bl.) which has only been taken once before, in Boultham Park, about six years ago. Shortly afterwards, Mr. G. N. Holland added two new records for division fourteen, one spider *Dysdera crocota* C. L. Koch. and a harvestman *Platybunus triangularis* (Herbst.).

Thomisids were more plentiful in June and Mr. Riggall took another specimen of *Xysticus lanio* C.L.K. in Scotgrove Wood. Both sexes of this lovely spider were found in the same wood last year and it is evidently well established there. It prefers oaks and was taken in various mixed woods all over the County from 1886-1900. It appears to be rarer now and I have yet to capture it myself. The whole countryside around Irby has been well searched for spider life in the past, but in spite of this new records were made when the Union visited it again this year. The following are all additional records for division four:—

Clubiona reclusa. O.P.-Cambr. (Mr. B. C. James).

Theridion bimaculatum (Linn.). Several specimens from sweeping tall grass (Messrs. E. C. Riggall and F. L. Kirk).

Meta segmentata mengei (Bl.). Plentiful.

Tiso vagans. (Bl.). One female in grass roots.

Bathypantes migrinus. (Westr.).

Gonylidium rufipes. (Sund.).

Later in June Sgt. P. Cambridge sent in a number of spiders collected in divisions thirteen and fourteen, including *Stemonyphantes lineatus* (Linn.)—near Byard's Leap—and two house spiders *Tegenaria domestica* (Clerck) and *Herpyllus (Scotophaeus) blackwalli* (Thor.) from Cranwell, all new divisional records.

The most interesting event of July was the discovery of the southern house spider *Pholcus phalangioides* (Fuess.) inside the church at Tattershall. Large numbers were seen in extensive sheet snares under projecting mouldings around stone pillars at and above eye-level. This spider has never been taken in this County before. It is amusing that it should be found in church since its nearest relative *Physocyclus* is of quite a different character, being found only in old wine cellars!

I was unable to visit Borough Fen Decoy but several specimens were collected there including two harvestmen worthy of note, *Leiobunum rotundum* (Latr.) (Mr. P. F. Baker) and *Mitopus morio* (Fabr.) (Mr. E. C. Riggall). A little later yet another harvestman was added to the County list when my wife found *Nemastoma chrysomelas* (Herm.) in dead leaves at Woodhall Spa. There is now only one more species likely to be found in Lincolnshire, the remaining ones in the British list being found in localised areas in the extreme south of England.

The beautiful orb-spinner *Araneus marmoreus pyramidatus* Clerck. has been taken three times this year; first, in July a male was beaten into Mr. Riggall's collecting umbrella, a second male being found by Mr. P. F. Baker in Skellingthorpe Old Wood. Lastly a fine female was seen on the stonework of the stables at Belton Park during the field meeting. *Araneus quadratus* Clerck which is equally large and rather commoner than the above species, was sent in by Mr. I. E. Ketteringham of the Agricultural Advisory Service, it had been seen in numbers in a hay-field at Thorpe-le-Fallows.

Belton Park proved to be a wonderful area and the time just right for the collection of harvestmen. It would be most profitable to visit the area again in June or early July to obtain mature examples of the thomisids and salticids. The following harvestmen were taken:—

Oligolophus agrestis (Meade). Plentiful on tree trunks.

Leiobunum rotundum (Latr.). Plentiful on tree trunks.

Phalangium opilio Linn. Chiefly on buildings.

Opilio parietinus (Degeer). A few in grass.

Mitopus morio (Fabr.). Moderately plentiful.

Lacinius ephippiatus (C. L. Koch). One specimen in undergrowth under a tree.

The following spiders were the best captures of the day:—

Labulla thoracica (Wid.). Behind bark of fallen trees.

Theridion tinctum (Walck.). On iron railings.

Drapetisca socialis (Sund). A completely melanic specimen taken on the trunk of a lime by Messrs. Gooseman and Jeffs. None of the usual black, white and grey protective colouring could be seen but the spider was obviously this species.

A number of interesting discoveries this year has suggested areas worthy of intensive study in future years.

1. The bridge embankments at Saxilby on the borders of Notts. A large number of immature spiders probably of the genus *Singa* was seen here in August.

2. Woodhall Spa. The woods have already yielded a rare harvestman and the golf course an immature thomisid (Mr. P. F. Baker) thought to be *Philodromus histrio* (Latr.).

3. Skellingthorpe Wood. Mr. P. F. Baker found an immature female *Anyphaena accentuata* (Walck.) here. It is now rare but this is the type of area where it could be well established.

4. Bracebridge. Marshy ground lying between Brant Road and the Witham. Spider life seems to abound here even in excessively dry weather. Three rare linyphiids have already been found:—

Leptorhoptrum robustum (Westr.), *Bathyphantes approximatus* (Cambr.) which has only been taken once by L. A. Carr in 1919, and the coastal species *Erigone longipalpis* (Sund.). These finds indicate the possibilities of this area which is in very easy reach of Lincoln.

ORNITHOLOGY

R. K. CORNWALLIS, B.A., M.B.O.U. AND A. E. SMITH, M.A.

The increasing number of observations sent in by an increasing number of observers is welcome evidence of the liveliness of Lincolnshire ornithology. Unfortunately the continued rise in the cost of printing makes it impossible to publish records as fully as we would wish, although the measures being taken to save space in this Report are designed to allow the maximum number of records to be included.

It has been decided to omit scientific names. Instead, the number allotted to each species in the *B.O.U. Checklist of the Birds of Great Britain*, 1952, is quoted as reference. Dates are stated in figures only (e.g. 31/1=January 31st). Unless otherwise stated, each record is to be taken as of a single bird. No details of identifications are published but the original records are preserved for reference.

Throughout the Report Gibraltar Point is abbreviated to GP. By themselves the letters GP indicate that a bird occurred in the Skegness-Gibraltar Point Nature Reserve, and details will be found in the Bird Observatory log-books. If they are italicized, this indicates that full details are shown in the tables of commoner migrants. The reports from the Observatory should be read in conjunction with the review of East Coast migration that now appears annually in *British Birds*. The

abbreviation S-T Res stands for the Saltfleetby-Theddlethorpe Dunes Nature Reserve.

Regular watches have again been maintained at Lincoln Sewage Farm, (SF=Sewage Farm), Canwick and the occurrences there of the commoner waders are shown in tables (this is indicated in the species list by the letters LSF). Occurrences of rarer birds are noted in the species list.

The Cambridge Bird Club Report (obtainable, price 5/-, from A. E. Vine, 101 Victoria St., Littleport, Cambs.) again records many observations from the Lincolnshire Fens, and contains articles on Wisbech Sewage Farm which is partly in Lincolnshire, and on Migration in the Wash. The more important records are included below. Where a species in this report is also mentioned for Lincolnshire in the Cambridge Bird Club Report this is indicated by the letters CBC.

In addition to those included in the species list the following occurred in the county in 1955 (breeding species in italics).

Little Grebe, Sparrow Hawk, Red-legged Partridge, Partridge, Pheasant, Water Rail, Moorhen, Coot, Snipe (LSF), Jack Snipe (LSF), Common Sandpiper (LSF), Common Gull, Stock Dove, Woodpigeon, Cuckoo, Barn Owl, Little Owl, Tawny Owl, Nightjar, Kingfisher, Green Woodpecker, Great Spotted Woodpecker, Jackdaw, Magpie, Great Tit, Blue Tit, Coal Tit, Marsh Tit, Long-tailed Tit, Nuthatch, Treecreeper, Wren (GP), Mistle Thrush, Sedge Warbler (GP), Garden Warbler (GP), Whitethroat (GP), Willow Warbler (GP), Spotted Flycatcher (GP), Dunnock, Pied/White Wagtail (GP), Greenfinch (GP), Linnet (GP), Chaffinch (GP), Yellowhammer, House Sparrow.

LINCOLN SEWAGE FARM, CANWICK.

JULY

Days of the month	1	3	5	8	10	12	13	14	16	18	19	20	21	24	25	26	27	28	29	31
Lapwing	41	21	100	12	38	43	47	42	37	15	12	5	15	27	33	50	47	53	48	43
Common Snipe	-	-	-	-	-	-	-	-	-	5	3	3	3	6	4	3	12	4	1	2
Green Sandpiper	-	-	-	-	3	1	-	-	1	2	2	2	1	5	1	4	2	-	3	2
Wood Sandpiper	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	2
Common Sandpiper	1	-	-	-	-	-	-	-	1	2	-	-	-	-	-	1	1	-	1	1
Redshank	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1
Dunlin	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

AUGUST

Days of the month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	22	23	24	25	27	28	29	30	31
Lapwing	60	43	12	31	60	53	12	35	20	22	37	18	21	17	80	c100	36	27	23	51	19	39	37	28	73	56	17	24	47
Common Snipe	6	7	7	20	12	15	3	2	19	12	8	12	17	11	10	33	22	16	18	73	68	53	17	33	47	24	33	16	39
Green Sandpiper	2	9	5	4	2	-	3	7	4	3	-	3	7	3	3	1	2	1	4	8	5	13	5	4	1	-	3	1	-
Wood Sandpiper	1	2	2	2	2	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common Sandpiper	1	-	1	2	1	1	-	-	-	-	-	1	4	4	4	4	2	4	4	6	2	4	4	4	3	2	4	3	4
Greenshank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	2	7	2	2
Dunlin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	1	1	1	1	1	1	1	1
Ruff	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	10	10	3	7	9	7	8	3	9	3	3

SEPTEMBER

Days of the month	2	3	4	5	6	7	8	10	11	12	13	14	15	17	19	21	23	25	26	28	30
Lapwing	17	76	19	19	5	33	82	53	33	37	13	19	18	50	46	28	17	15	19	36	39
Common Snipe	37	38	33	25	47	18	53	37	36	74	29	28	29	36	85	78	45	75	73	65	62
Jack Snipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	4
Curlew	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green Sandpiper	2	-	4	2	1	1	1	1	2	2	2	2	2	2	1	2	3	2	4	1	1
Common Sandpiper	5	4	1	4	6	1	3	2	2	2	2	2	1	-	-	2	-	-	-	-	
Greenshank	2	2	2	3	3	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dunlin	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ruff	3	3	1	1	1	2	-	2	-	1	1	1	5	8	5	2	7	7	2	-	

OCTOBER

Days of the month	1	2	7	15	19	22	23	30
Lapwing	21	61	33	27	23	19	23	53
Common Snipe	c 100	83	39	29	33	27	31	33
Jack Snipe	-	-	-	-	-	-	-	1
Curlew	-	-	-	-	-	-	-	1
Green Sandpiper	1	1	1	1	2	1	1	2
Dunlin	-	-	-	-	-	-	-	-

NOVEMBER

Days of the month	6	12	13	20
Lapwing	19	5	1200†	83
Common Snipe	23	31	30	34
Jack Snipe	-	1	-	-
Curlew	-	-	-	-
Green Sandpiper	-	-	-	-
Dunlin	-	-	-	2

DECEMBER

Days of the month	3	14	18
Lapwing	73	52	72
Common Snipe	43	32	27
Jack Snipe	-	-	-
Curlew	-	-	-
Green Sandpiper	2	1	1
Dunlin	-	-	1

† Large numbers perhaps due to disturbance of flocks on nearby Heath.

EIA, CTB, ADT

SOME AUTUMN MIGRANTS AT GIBRALTAR POINT, 1955.

August	1	2	3	4	5	6	7	12	13	14	15	16	17	18	19	20	21	22	23	24	25	30	
Days of the Month	1	2	3	4	5	6	7	12	13	14	15	16	17	18	19	20	21	22	23	24	25	30	
Swift	-	-	2	2	11	5	2	-	-	-	12	-	15	1	1	-	-	-	-	-	-	-	
Skylark	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6	-
Swallow	*	*	*	*	*	*	*	*	*	*	*	*	20	*	*	*	*	*	*	*	*	30	-
House Martin	*	-	*	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	
Sand Martin	*	-	*	*	*	*	*	-	-	-	1	-	*	-	-	-	-	-	-	-	-	-	
Wren	*	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
Wheatear	2	2	2	1	4	4	3	1	1	4	-	5	5	4	2	5	1	-	2	5	-	-	
Whinchat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	1	6	
Redstart	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	
Robin	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	
Sedge Warbler	-	1	1	1	3	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Garden Warbler	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	
Whitethroat	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20	*
Willow Warbler	*	4	*	*	*	*	*	2	1	*	*	*	*	*	*	*	*	*	*	*	6	12	*
Spotted Flycatcher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
Pied Flycatcher	-	-	-	-	-	-	-	2	-	1	-	-	1	-	2	2	-	-	25	8	-	-	
Meadow Pipit	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50	-	-
Pied Wagtail	-	-	-	*	*	*	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	
Yellow Wagtail	-	-	1	1	1	1	1	1	-	-	1	4	*	4	-	38	-	-	-	-	10	-	
Starling	16	40	50	*	*	*	*	*	*	*	*	*	20	20	20	20	-	-	-	-	-	-	
Greenfinch	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Goldfinch	-	-	2	*	*	*	-	-	-	2	-	-	-	5	-	-	-	-	-	-	-	-	
Linnet	*	*	*	*	*	*	*	2	2	*	*	*	*	*	*	*	*	*	*	*	30	-	
Chaffinch	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reed Bunting	*	*	*	*	*	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes: M=1,000; * = present, not counted; - = not present.

RINGING RECOVERIES

m= male f=female n=nestling.

*Ringed**Recovered***Mallard.**

m, Slimbridge (Glos), 12.10.52. 5.11.55, nr. Gainsborough (HB).

Teal.f, Borough Fen (Northants),
20.2.52. before 4.54, Holbeach (WT).**Wigeon.**f, Borough Fen (Northants),
29.12.53. 16.1.54, Deeping St. James (WT).**Sparrow Hawk.**1st w.f, GP, 29.10.52. betw. 1.10 & 15.11.55, Ravels (An-
twerp), Belgium.**Kestrel.**

n, Lynford (Norfolk), 23.6.54. 10.8.54, Sutton-on-Sea (BTO).

Lapwing.*n, Wilsford, Sleaford, 4.6.55. 4.2.56, Olula del Rio (Almeria),
Spain (WMP).**Common Sandpiper.**

ad, Abberton (Essex), 23.7.52. 29.8.54, Crowle (BTO).

Fieldfare.ad, Sokndal (Rogaland), Norway, 21.1.56, Bottesford (EL).
28.10.55.**Song Thrush.**1st w, GP, 19.10.52. 5.3.54, Cabra (Cordoba), Spain.
Grantham, 27.6.53. 21.2.54, Corby (Northants)(WMP).**Blackbird.**1st w. m, GP, 2.11.54. c. 20.10.55, Egersund (Rogaland), Norway.
ad. m, GP, 9.11.52. 24.10.55, Nissedal (Telemark), Norway.
†ad. m, GP, 6.11.54. 12.4.55, Saffle (Varmland), Sweden.
1st w. f, GP, 27.10.54. 28.6.55, Markelo, Holland.
†ad. m, GP, 7.11.54. 5.4.55, Baarn (Utrecht), Holland.
ad. f, GP, 6.10.53. 26.3.56, Old Hunstanton (Norfolk).
ad. m, GP, 1.2.54. 29.5.55, Skegness.
ad. f, GP, 22.1.53. 12.8.55, Skegness.

*This is the first recovery of a Lincolnshire-bred Lapwing in southern Europe.

†These birds were part of the big immigration noted in the 1954 Report.

ad. f, GP, 2.10.54.
 †Spurn, 6.11.54.
 Spurn, 4.11.53.
 Spurn, 20.11.54.

19.2.56, where ringed.
 10.2.55, Cleethorpes.
 26.2.55, Skellingthorpe.
 22.3.55, Donington nr. Spalding (YNU).

Robin.

GP, 12.9.54.

14.2.56, Old Leake nr. Boston.

Whitethroat.

ad., GP, 12.9.54.

17.9.55, Frades de la Sierra (Salamanca),
 Spain.

juv., GP, 10.9.54.

22.5.55, Kirbymoorside (Yorks.).

ad., GP, 23.8.54.

c. 3.7.55, Butterwick nr. Boston.

juv., GP, 3.8.54.

c. 8.5.55, where ringed.

Starling.

Grantham, 31.1.53.

12.3.53, Rendsburg, Schl-Holstein.

Grantham, 27.11.52.

17.3.55, Hegenholz, Schl-Holstein.

Grantham, 28.12.52.

21.3.53, Whittlesey (Northants).

Grantham, 13.1.53.

31.12.53, Steeple Ashton, (Oxon.).

Grantham, 5.2.53.

21.3.53, Norwich (Norfolk).

Grantham, 10.12.53.

3.5.54, Melton Mowbray (Leics).

Grantham, 20.2.53.

17.9.55, New Balderton (Notts).

Grantham, 17.1.53.

16.4.54, Burton-on-Trent (Staffs).

Grantham, 14.1.54.

16.3.55, S. Elkington nr. Louth.

Grantham, 5.3.55.

19.8.55, Ropsley nr. Grantham.

Grantham, 29.11.52.

20.10.53, Grantham (WMP).

Alford, 20.1.53.

30.12.55, Lincoln (AES).

GP, 3.1.53.

5.12.55, nr. Hunstanton (Norfolk).

GP, 16.12.52.

c. 27.3.55, Ashby nr. Scunthorpe.

Monks' Ho. (Northum-
 berland), 9.1.54.

1.6.54, Corringham nr. Gainsborough.

Sandymount, Dublin,
 3.3.52.

27.7.54, Barton-on-Humber (BTO).

Leicester, 20.12.52.

-.2.55, Hatcliffe nr. Grimsby (RAOH).

Nysund (Orebro), Sweden,
 4.6.55.

trapped 22.2.56, Sleaford (WMP).

Chaffinch.

Grantham, 30.11.52.

29.12.54, Linth (Antwerp), Belgium
 (WMP).

ad. f, GP, 5.10.49.

14.2.56, Benningen, nr. Denckamp, Hol-
 land.

House Sparrow.

1st w. f, GP. 12.1.52.

30.3.55, Skegness.

†These birds were part of the big immigration noted in the 1954 Report.

GENERAL BIRD REPORT

The following have contributed observations:—

E. I. Abell	J. Mason
J. Ash	R. May
A. D. Bates	Nature Conservancy
A. T. Bell	R. Nickerson
C. T. Beverley	I. C. T. Nisbet
H. Birkett	F. Norris
S. van den Bos (SB)	C. L. Ottaway
British Trust for Ornithology	D. B. Peakall
F. Brewster	W. M. Peet
J. K. Burton	G. R. Porter
C. Colebrook	Geo. Posnett
R. K. Cornwallis	R. W. Powell
J. Cox	J. S. Rivers
W. J. R. Cragg	D. J. Sawter
P. B. Danby	A. E. Smith
A. W. S. Dean	A. H. Smith
W. Earnshaw	H. Smith
H. Fry	A. D. Townsend
J. H. Geeson	Trent Valley Bird Watchers
K. T. Green	D. I. M. Wallace
B. C. Hall	T. H. Wallis
G. Hall	C. M. Walker
R. A. O. Hickling	L. Watkinson
R. H. Higgins	Wildfowl Trust
B. James	T. J. Winnall
J. Kennington	M. Witting
E. Langford	Yorkshire Naturalist's Union

1. Black-throated Diver. Cowbit Washes, 26/2. Welland estuary, two, 30/1; one (+three dead), 2/4; one, 4/12. Witham outfall, 16/5 (a most unusual date). (CBC).

4. Red-throated Diver. GP, of eight seen four were identified as red-throated, 12/9. Dead birds, Wrangle, 24/4, and GP 5/4 and 24/6 (HF). Holbeach St. Matthew, one (dead), 9/1 (TVBW). Spalding, on Welland, four prior to 16/3 (two of them shot) (CBC).

5. Great Crested Grebe. Breeding records:—pair, Lambert Hill Pond, Brocklesby; pair, South Ferriby (new locality) (RM, RN); pair (two broods) L.N.E.R. Pits, Lincoln; pair, Burton Pit (EIA, CTB); pair, Sleaford Ballast Pits; two pairs, Culverthorpe (CMW); *c.* six pairs, Revesby res. (TJW); two pairs, Denton res. (JHG); at least four pairs, Deeping Pits; six birds present, 24/6, Tallington Pits (CBC).

6. Red-necked Grebe. Witham mouth, two, 20/11 (CBC).

8. Black-necked Grebe. Welland outfall, 2 & 10/4 (CBC).

- 16. Manx Shearwater.** GP, one (dead), 28/9.
- 26. Fulmar.** Surfleet Seas End, one (dead), late Mar. (CBC). Skegness, dead birds, 6, 16, 24 & 25/4 (HF).
- 27. Gannet.** Inland record; Deeping Towngate, one (exhausted), 27/10 (CBC). GP, CBC.
- 28. Cormorant.** Inland records; Four Mile Bar, R. Welland, 3/11 (HS); Newsham Lake, Brocklesby, 20/1 (RM). GP, CBC.
- 29. Shag.** Witham mouth, 20/11 (CBC). GP, one (dead), 26/12/54 (HF).
- 30. Heron.** Heronries (occupied nests):—Wharton, 54; Muckton, 22; Willoughby, 16; Old Hag Wood, 10; Troy Wood, 45; Evedon, 18; Deeping St. James, 85, (SB, GRP, CTB, CBC). All these counts, except that at Willoughby which is the same, are lower than in 1954. GP.
- 38. Bittern.** The bird at Eagle Hall, Swinderby, reported in 1954 remained there until 14/1 (ADB). L.N.E.R. Pits, Lincoln, 20/2 and 16/3 (ADT, CTB, EIA, BJ). A young bird was reported in the Press to have been picked up at Pyewipe, near Lincoln, in early summer; it seems possible, therefore, that they may have bred in the locality. Barton-on-Humber, probably at least two pairs bred (RM, RN, CTB, EIA).
- 45. Mallard.** Maxima: Welland Estuary, 1,000, 28/8 (CBC); Laughton, 800, Dec. (WT); Read's Is., 1,000, 13/11 (DBP). GP, CBC duck tables.
- 46. Teal.** Bred S-T. Res. (CLO) & Manton Warren (RM). Pair summered Cowbit Washes (CBC). Winter max: Read's Is., 1,500, Feb. (FN). GP, CBC duck tables.
- 47. Garganey.** Bred Cowbit Washes (CBC). Pair, Read's Is., 22/5 (RM). Male near Thoresby Bridge, 22/6 (CLO). Killingholme, three, 29/8 (DIMW). LSF, two, 22-24/8 and six, 15/9 (ADT, CTB). CBC.
- 49. Gadwall.** Wisbech SF, 24/7 (CBC). Earle's Pit, Barton-on-Humber, female, Nov.-Dec. (SB, JC, RM.) and one there 16/1 (SB).
- 50. Wigeon.** Summer: Welland Estuary, six displaying, 16/5 (CBC); S-T Res., male, 27 & 30/5 (CLO); present Deeping Pit and reported nesting, but probably descendants of captive stock (CBC). Winter max: Welland Estuary, 7,000, 2/1 and 2,200, 27/11 (CBC); Read's Is., 2-5,000, Jan-Feb (WT) and *c.* 3,000 Nov. (DBP). Inland records: Newsham Lake, Brocklesby, 34, 2/2 and *c.* 200, 29/11-1/12, with smaller numbers Sept. & Oct. (RM); floods in Brant Road area, Lincoln, *c.* 200, Jan.-Feb.; LSF, six, 23/1 and three, 30/1 (CTB); L.N.E.R. Pits, Lincoln, 12, 20/3; Grimsthorpe, 20, 6/2 (EIA); Culverthorpe, 12, Dec. (WMP); Twigmoor, eight, Dec. (WT). GP, CBC duck tables.

52. Pintail. Haverholme, 12/1 (Geo P); L.N.E.R. Pits, Lincoln, 23/1; Grimsthorpe, 6/2 (EIA); Tetney, pair, 27/2 and 13/3 (LW); S-T Res., male, 11/4 (CLO); near Gainsborough, female, 22/10 (HB); Grainthorpe Haven, three, Oct. (ATB); Newsham Lake, Brocklesby, 24, 13/11 and 1-4 till 4/12 (RM, SB, JK); GP, male, 24/12 (HF); North Cotes, 18/12 (RM, JK). CBC duck tables.

53. Shoveler. Burton Pit, two males, 3/2; L.N.E.R. Pits, Lincoln, two, 20/3 (EIA); Grantham S.F., pair, 24/5 (WMP); Tetney, two males, 25/5 (LW); Read's Is., three males, 26/5 (RM, RN); Burton Pit, pair, 6/6 (CTB); Thoresby Bridge, male, 22/6 (CLO); GP, up to eight, mid-Aug.; Wisbech S.F., max. 70, 25/9 (CBC); LSF, 8/9 (ADT, EIA); Laughton, 6-10, Sept.-Oct.; Twigmore, 4-18, Aug.-Dec. (WT); Brocklesby lakes, up to 12, Nov.-Dec.; Killingholme, 20/11 (RM, SB, JK). CBC Wisbech S.F. tables.

55. Scaup. L.N.E.R. Pits, Lincoln, male, 23/1 (EIA); Killingholme, 6/2 (SB); Saltfleet Haven, male, 27-28/7 (CLO); Wisbech S.F., 22-23/8 and 6/11 (CBC); Earle's Pit, Barton-on-Humber, up to nine, Nov. (SB).

56. Tufted Duck. Four pairs bred Deeping Pit (CBC). Winter max: Earle's Pit, Barton-on-Humber, 67, 28/11 (WT).

57. Pochard. Bred Twigmoor (RM) and four pairs, L.N.E.R. Pits, Lincoln (EIA). Winter max: L.N.E.R. Pits, 19, Mar. (EIA); New Holland, 40, 27/2 (DBP); Earle's Pit, Barton-on-Humber, 35, Dec. (SB).

60. Goldeneye. Holbeach St. Matthew, 9/1 (TVBW); Newsham Lake, Brocklesby, 9/1-6/2 (RM); Earle's Pit, Barton-on-Humber, 12, 30/1 (SB); Burton Pit, 8/4 (CTB, ADT); Fillingham Lake, three, 6/10 and five, 2/11 (Geo P); R. Slea at Sleaford, 25/10 (WMP); Earle's Pit, max: 35, 31/10 (SB) and 19, 4/12 (RM); Brocklesby lakes, 20/11 and 10/12 (RM). CBC.

61. Long-tailed Duck. Earle's Pit, Barton-on-Humber, female, 30/10 to end of year (RM, SB, JK, JC, DBP). Killingholme, male, 6/11 (RM, JK).

64. Common Scoter. A movement up-river in the Humber in July and early August has been noted over the past four years. At the Humber mouth they usually fly at sea-level but at East Halton, Goxhill and Barton they have been seen flying at 1,000 ft. and higher (LW). GP.

67. Eider. Witham mouth, 16/1 and 14 on 27/11. Unusual numbers were noted elsewhere in the Wash in Nov. and Dec. (CBC).

69. Red-breasted Merganser. Up to four in Wash Jan. and Oct.-Dec. (CBC). One shot Leverton, Jan. (JSR).

70. Goosander. Newsham Lake, Brocklesby, two, 2-3/2 (RM); Grimsthorpe, 11/12 (CTB, RKC, ADT). CBC.

71. Smew. Killingholme, 30/1 (SB); Cowbit Washes, three, 26/2 (CBC).

73. Sheld Duck. Wisbech S.F., 10-12 pairs in May, 4 broods raised; Tallington Pits, pair with two unfledged young, 24/6; Welland Estuary, est. 120 pairs, Apr.-May (CBC). Max: Welland Estuary, 1,000-1,200, Jan.-Feb. (CBC); Saltfleet, 100, Mar.; Grainthorpe Haven, 350, Mar. (ATB); Tetney, 273, 20/1 (LW); Killingholme, 150, Mar. (ATB); Read's Is., 701, 16/7 (LW). GP, CBC duck & Wisbech S.F. tables.

75. Grey Lag Goose. Two at GP in Aug. and Sept. were doubtless escapes. Croft Marsh, Skegness, 22+, 23/10 (CBC).

76. White-fronted Goose. Read's Is., four, 2/2 (DBP); Wash, 13/11 (CBC).

77. Pink-footed Goose. The number of recoveries of ringed Pinkfeet is now so large that they are no longer published in detail. In the Wildfowl Trust's Report for 1953-54, however, much material relating to Lincolnshire Pinkfeet is published in specialist articles on various aspects of the species.

Two, possibly pricked birds, spent May and June on a gravel-pit near Tattershall (RM).

Autumn. (1) *North Lincolnshire.* Limber, first recorded, 10/9; eight flying S.E. Humber Wildfowl Refuge, arrival 3rd week Sept. rising to maximum in mid-October. No really accurate counts available (est. 4,000, 22/10, by Wildfowl Trust) but more than for many years. Till 23/10 flighted with predictable regularity to barley stubble on Yorkshire wolds. Thereafter fed on Lincolnshire wolds and on marshland between Goole and R. Trent. By 12/11 very few left but numbers built up again somewhat by 20/11 (NC).

(2) *North-West Wash.* First arrivals, 27 on 18/9. Built up gradually to 650 on 8/10, 1,100 on 9/10 and 3,000 on 12/10. 3,500-4,000 late Oct. and early Nov.

(3) *South-West Wash.* Large numbers moved inland in 2nd week Nov. (unusually early) and for several weeks there were regular flighting movements from the coast to areas 25 miles inland (CBC).

80. Brent Goose. Freiston, c. 2,000, late Feb.; eight, 13/11; 500, 27/11; 1,200, 4/12; 1,600, 11/12 (CBC). Saltfleet, five pale-bellied (*B. b. hrota*), 13/3 (CLO). Tetney, 6/2 (PBD). Grainthorpe Haven, 12, Oct. (ATB).

81. Barnacle Goose. Holbeach, two, early Dec. (CBC).

82. Canada Goose. Grimsthorpe, max: 120, Oct.; Burghley Park, max: 22, Oct. (AWSD).

84. Mute Swan. In the national census of breeding Mute Swans 106 pairs were recorded in Lincolnshire distributed as follows:—

Isle of Axholme	5	Wolds	7
Trent Valley	3	Lincoln area	25
Ancholme Valley	2	S.W. Kesteven	15
Coastal strip-Barton-Grimsby	6	Central Kesteven	8
Coastal strip-Grimsby-Wainfleet	12	Holland	21
N.W. Lindsey	2		

Between 200 and 250 non-breeding birds were recorded, with the biggest concentration of 110 on the Brayford Pool at Lincoln. CBC.

85. Whooper Swan. GP, *c.* 20, 16/1; L.N.E.R. Pits, Lincoln, two, 16/1 (EIA); Skegness, 26, 20/1 (KTG); near Read's Is., 40, 24/1 (DBP); Cleethorpes, five, 26/1 (LW); Killingholme, two, 30/1 (SB); Limber, seven, 1/2 (RM). L.N.E.R. Pits, 20/3 (ADT, RWP, EIA). Washingborough, 8/4 (CTB). Killingholme, three, 30/10 & 20/11 (RM, JK, SB), and four there in Nov. (ATB); Tetney, two, Nov. (ATB); Holbeach, 23/10; Wisbech S.F., 6/11-24/12 (CBC); GP, eleven, 14/12.

86. Bewick's Swan. Goxhill, 50, 24/1 (SB). Holbeach St. Matthew, four, 7/1 (CBC). On R. Witham, Brant Rd., Lincoln, 25/2 for about three weeks (per CTB). Cowbit Washes, 23, 6/2; 24, 26/2; 32, 12/3. Wisbech S.F., 23/4-15/5—exceptionally late (CBC).

91. Buzzard. Goxhill, 24/1 (SB); Ancaster, 30/7 (WMP); GP, 7/8.

94. Goshawk. Frampton, one pursuing Kestrel, 2/4 (CBC).

98. Honey Buzzard. Limber, 2-3/7 (RM).

99. Marsh Harrier. Holbeach, 30/4, 31/7 & 7/8 (CBC). GP, 8/8 and a melanistic bird there 12, 17 & 19/8 and 21/9 (JHG, GP). Donna Nook, 29/8 (DIMW). Holbeach, 30/4, 31/7, 7/8 (CBC). Goxhill, 31/12 (SB).

100. Hen Harrier. Goxhill, female or immature, 2 & 17/1 (SB). Holbeach St. Matthew, 9/1 (TVBW). Holbeach, 20/2 & 2/4 (CBC). Saltfleetby, female, 24/3 (CLO).

102. Montagu's Harrier. Holbeach, 31/7 (CBC). GP, female, probably of this species, 15/5.

105. Peregrine. Cleethorpes, 13/1, 3/2, 6/3, 10/9 (LW). LSF, 10/9 (ADT). GP, 9/9, 24 & 25/9.

107. Merlin. Rauceby, 1st w. female (dead), 30/3 (JA). Cleethorpes, 13 & 19/3, 25/9 and 17/11 (LW). Muckton Bottom, 11/4. S-T Res., male, 19/5 (CLO). GP, 13 & 26/9. North Cotes, 2/10 (RM, SB). Dorrington Fen, 13/10 (BCH). CBC.

110. Kestrel. GP, small S.W. passage, 27 & 28/9.

- 117. Quail.** Elsham Hill, 15/6 (at midnight on road) (RM).
- 124. Little Crake.** Major W. J. R. Cragg has kindly presented to the City & County Museum a female that was caught by his grandfather's dog at Spanby near Threkingham in 1910. There are no previous authentic records but the species may now be admitted to the Lincolnshire list.
- 125. Corncrake.** Stone Farm, Walesby, two calling, 15/7 (RM). Scothern, 29/8 (CTB). Legsby, 6/9 (RKC).
- 129. Little Bustard.** Gosberton Cheal, one shot, 30/12 (per THW and AHS). The bird was identified at the Norwich Museum as being of the Western race *Otis tetrax occidentalis*. The only one of the five birds previously recorded in Lincolnshire that was racially determined was of the Eastern race, *O. t. orientalis*.
- 131. Oystercatcher.** Breeding records: Holbeach, at least 16 pairs behaving as if breeding (CBC). North Cotes, one pair. Saltfleet, one pair, c/4 (RM, JK). Inland record: Wisbech S.F., two, 23/10 (CBC). Max: GP, c. 2,000, 3 & 4 /9, 10 & 29/10. CBC wader tables.
- 133. Lapwing.** Cleethorpes, spring: 120, N.W., 24/1; 70 N.W., 25/1; 40 N.W. and 61 S., 29/1; 392 N.W. and 89, S., 30/1; 75 N.W., 14/3; 26 N. across Humber, 15/3. Autumn: c. 6,000 N.W. 29/10; c. 10,000 N.W. in two hours, 1/11 (LW). GP, large immigration 29/10. W. movement through Lincoln gap, 14 & 15/10 (ADT). LSF.
- 134. Ringed Plover.** Breeding records: GP, c. 20 pairs; Saltfleet c. three pairs; North Cotes, one pair (RM). A bird with a nearly white head and incomplete breast-band at GP throughout summer (HF). Inland records: LSF, two, 19/9 and one, 31/8, 17/9, 15/10 and 23/10 (ADT, EIA). CBC wader tables.
- 135. Little Ringed Plover.** Breeding records: at the original breeding site one and perhaps two pairs (RM, CC); at a gravel pit in another part of the county a pair bred and at least three other adults there, 24/6 (new site) (CBC). Grantham S.F., five, 24/5 and one, 12/6 (WMP). Holbeach, 24/7 (CBC). S-T Res., 18 & 19/8 (CLO). Lincoln S.F., 31/8 & 2/9 (ADT). GP, 22/9.
- 139. Grey Plover.** Inland records: Wisbech S.F., 1,000 (perhaps 1,500), 27/11; 100, 10/12; 300, 17/12 (CBC). These numbers are most unusual. Max: Holbeach, 1,250, 21/8 (CBC). GP, CBC wader tables.
- 140. Golden Plover.** Croft Marsh, albino bird, 12/11 (JKB). Summer record: Seacroft, 3/7 (RHH). GP, CBC wader tables.
- 143. Turnstone.** GP, unusual numbers (c. 1,000), 13/11 (JKB). GP, CBC wader tables.
- 148. Woodcock.** Bred Burwell Wood, (two pairs) (CLO); Welton Wood (AES); Elsham (BJ).

150. Curlew. Bred Twigmoor (RM, CC, CTB, BJ). Maxima: Welland estuary, 5,000, 14/8 (CBC); Read's Is., 1,000, 29/8 (DIMW). LSF, GP, CBC wader tables.

151. Whimbrel. Late record: GP, 13/11 (JKB). GP, CBC wader tables.

154. Black-tailed Godwit. Spring: Wisbech S.F., seven, 23/4 & 1/5. Welland estuary, 2/4 (CBC). Autumn: GP, two, 6/8. Anderby, 18/8 (MW). Cowbit, three, 26/8. Welland estuary: max. 160, 28/8; 33 still there 27/11 (CBC). CBC wader tables.

155. Bar-tailed Godwit. GP, up to 50 throughout summer (HF). Maxima: Welland estuary, 600, 14/8 (CBC); GP, 200, 7 & 15/9. CBC wader tables.

156. Green Sandpiper. Winter: Horncastle, 1/1, and at least three to end Mar. (ADT); Deeping GP (CBC); two, Lincoln S.F. (ADT, EIA). R. Welland, Deeping, three, 19/11 and 10/12 (CBC).

Spring: Cleethorpes, 10/4 (LW); Lincoln S.F., four, 4/4 (ADT); Sleaford S.F., two, 12/3 (EIA).

Summer: Cleethorpes, 2/7 (LW); Dalderby, 22/7 (RHH); Tattershall, 26/6 (RM); Grantham S.F., one 26/6, two 2/7, four 20/7, six 30/7; Sleaford S.F., two 30/6 & 11/7 (WMP).

Autumn: Cleethorpes, two 28/8, one 14/9 (LW); North Cotes, two, 18/8 (RM); Donna Nook, 29/8 (DIMW); Saltfleet Haven, 11/8; S-T Res. 1-2 regularly 14/8 to 8/9 with three on 24/8; Louth S.F. 31/8 (CLO); Horncastle, three, 28/8 (ADT); GP 1-2 most days 7/8 to 14/9 with four on 24/8; Sleaford S.F., 5-10 regularly 18/7 to 11/9 with 19 on 2/9, then 1-2 till end Sept.; Grantham S.F., three 30/8 and twenty 31/8 (WMP). LSF, CBC wader tables.

157. Wood Sandpiper. Wisbech S.F., two, 15/5 (CBC); this is only the third spring record for Lincolnshire. S-T Res., 14 & 19/8, 8/9. Hubbard's Hills, Louth, 3-13/10 (CLO). GP, three 4/8, 20/8, 11 & 16/9. Nene mouth, 17/8 (CBC). LSF, CBC wader tables.

161. Redshank. Frampton-Kirton saltings: estimated breeding population one pair to 2-3 acres—*c.* 700-1,000 pairs in all (CBC). LSF, GP, CBC wader tables.

162. Spotted Redshank. Unusual numbers both in spring and autumn in south Lincolnshire (CBC wader tables)—max: at Wisbech S.F. 40 on 25/9 with stragglers to 10/12; Holbeach, up to seven in Aug. GP, 20 & 25/8, three 3/9, one 4/9. Grantham S.F., 30/8, two 31/8 (WMP).

165. Greenshank. Inland records: Grantham S.F., four 30/8, twelve 31/8; Sleaford S.F., two, 18/7 and singles 23/7, 10 & 14/9 (WMP); Tattershall Pits, 31/8 (RHH); Lincoln S.F. see tables; R. Bain nr. Horncastle, two, 28/8 (ADT). GP, CBC wader tables.

169. Knot. Inland record: Wisbech S.F., 23/9 (CBC). Maxima: Welland estuary, 4,500, 25/9 (CBC); GP, 20,000, 4/9. *c.* 5,000 at GP on 5/8 was unusually early for such a large number. CBC wader tables.

170. Purple Sandpiper. Witham mouth, 27/11 (CBC).

171. Little Stint. Inland records: Lincoln S.F., 28/7 (ADT); Wisbech S.F., 7/8, 2/9 and up to eight 17/9 to 15/10 (CBC). GP, 28/8. CBC wader tables.

175. White-rumped (Bonaparte's) Sandpiper. (*Calidris fuscicollis*). Wisbech S.F., one caught and ringed, 13-17/11 (CBC). This is the first Lincolnshire record. (Full details in *British Birds*, xlix, p.150).

176. Pectoral Sandpiper. Wisbech S.F., 30/10-12/11 (CBC). The second Lincolnshire record.

178. Dunlin. Inland records: Cowbit Washes, 60, 13/3; Wisbech S.F., max. 450, 28/10 (CBC); three, S. Cockerington, 11/1 (CLO) LSF, GP, CBC wader tables.

179. Curlew Sandpiper. Inland records: Grantham S.F., 30/7 and 6/8; Sleaford S.F., 11/9 (WMP); Wisbech S.F., *c.* 100, 28/9 (CBC, see also wader tables). Cleethorpes, 3/9 (LW). Read's Is., two, 29/8. Donna Nook, 29/8 (DIMW). In view of the scarcity of the species on the coast this year the number at Wisbech S.F. is surprising.

181. Sanderling. Inland records: Wisbech S.F., 26/5, 17 on 30/5, & three, 9/6 (CBC); Lincoln S.F., 25/8 and 22/10 (ADT). GP.

184. Ruff. Grantham S.F., six, 20/7; seven, 30/8; nine, 31/8. Sleaford S.F., up to three regularly 11/7 to 4/9 with six on 2/9; 3-10, 19/9 to 6/10, max. on 24 & 25/9 (WMP). Lincoln S.F., see tables. GP, 19-20/8; two, 5/9; 11/9; two, 16/9. Louth S.F., two, 29/8 to 1/9. S-T Res., two, 14-22/8 (CLO).

Late records: Wisbech S.F., 45 in Nov.-Dec; Sutton Bridge, 4/12 (CBC). CBC wader tables.

193. Arctic Skua. Inland record: Cowbit Washes, 20/9 (CBC). GP.

194. Great Skua. GP, 26/8/1954 (RHH).

198. Great Black-backed Gull. Inland records: LSF, two, 2/2, 12/11 and 20/11 (ADT) CBC, GP.

199. Lesser Black-backed Gull. Winter records: R. Bain nr. Horncastle, one (probably of the Scandinavian race), 30/1 (ADT); Sleaford refuse dump, two, 27/11 and five, 4/12; Grantham S.F., 6/3; winters regularly in Boston, sometimes 5-6 together in the Market Place (ICTN). GP.

200. Herring Gull. Nene mouth, *c.* 2,000 flew inland in one hour early on 4/12 (CBC). GP.

202. Glaucous Gull. Cleethorpes, 29/1 (LW).

207. Little Gull. Wisbech S.F., two, 13/11 (CBC).

208. Black-headed Gull. Grantham S.F., *c.* 30 pairs bred, (WMP); Kirton and Frampton saltings, 600-800 pairs bred; Wisbech S.F., at least one nest built (CBC); near Donna Nook, *c.* 12 pairs attempted to breed on saltings (DIMW). GP.

211. Kittiwake. GP, again very few recorded; max: 10 on 6/9. CBC.

212. Black Tern. Spring: Barton-on-Humber, three, 26/5 (RM, RN); L.N.E.R. Pits, Lincoln, four, 8/6 (CTB). Autumn: Barton-on-Humber, two, 23/9 (SB, RM); Tetney Haven, 6/7 (LW); Saltfleet Haven, 27/7 (CLO); GP, one, 17/8, three, 4/9, fourteen 6/9, two 9 & 12/9, one 18/9; Holbeach, a few, 3/7 and 31/7 to 25/9 but 150+ flew inland on 11/9; R. Witham, eight flew inland, 21/8 (CBC); Wisbech S.F., see CBC wader tables. Late record: Cowbit Washes, 4/11 (CBC).

217. Common Tern. Inland breeding records: Burton Pits, Lincoln, one pair (unsuccessful) (CTB, EIA); Tattershall, several birds present but no nests found, 26/6 (RM, CC); Baston Common Pit, one pair nested; Langtoft Pit, three pairs nested; Tallington Pit, one pair present 24/6; Cowbit Washes, up to five birds present in summer (CBC). Also nested on coast at Frampton (CBC).

Inland record: Coningsby, two, 10/8 (JHG). GP.

218. Arctic Tern. Inland records: LSF, 26/7 and two, 28/7 (ADT). GP.

222. Little Tern. Breeding records: Humberston, one pair (DJS); North Cotes, several (but probably washed out); Saltfleet, one nest and several washed-out eggs (RM); GP, *c.* 15 nests.

Late record: Sandilands, five, 9/10 (CLO).

223. Sandwich Tern. GP, max. recorded, *c.* 100 on 24/8. Holbeach, 50-60 on 11/9 and 15 on 9/10 flying S.W. inland. Wisbech S.F., 27/8 (CBC).

224. Razorbill. GP, 12/9.

226. Little Auk. There were unusual numbers in the southern North Sea in late autumn, but owing to the absence of storms there was no major 'wreck.' The following were recorded: Claxby nr. Alford, one found dead, 22/10; Hogsthorpe, 23/10 (AES); GP, 23/10; Nene mouth, 23/10; Holbeach, 13/11 (CBC); Messingham nr. Scunthorpe, 3/12 (FN); Witham mouth, 4/12 (CBC); GP, long dead, 31/12 (HF).

230. Puffin. GP, dead birds 8/1 and 2/5 (HF). GP, two on 12/9 and three on 14/9. Holbeach, two, 9/10 (CBC)

235. Turtle Dove. Holbeach-Kirton, 120 moving south, 16/5 (CBC); this movement was not noted at GP.

[**Collared Turtle-Dove.** The Manton bird spent the winter there; previously it has disappeared from Oct. to April.]

248. Long-eared Owl. Moulton, a pair, late March (CBC). Manton Warren, one calling, 21/4. Scotton Common Nature Reserve, 24/7 (RM). GP, a bird probably of this species 11-14/9.

249. Short-eared Owl. Rather numerous in 1955.

Jan.-Mar: S. Ferriby, 27/2 (DBP); Goxhill, 17/1 (SB); Ingoldmells, 28/2 (CTB); Holbeach St. Matthew, two or three, 9/1 (TVBW).

Spring: Rauceby, several, 1/4 (JA); Billingham, 5/4 (BCH); GP one on 4 days in Apr. and 3 days in early May, with three on 3/4; GP, one flying East out to sea, 7/5 (HF); Wash, pair displaying, May (CBC).

Summer: GP, 18/6.

Autumn: Barton-on-Humber, 23/9 (SB, RM); Killingholme, 6/11 (RM, JK); North Cotes, 9/8 (RM, WE); S-T Res. 14 & 18/8, 4/9 (CLO); GP, 4 days in Sept. & 20/10.

255. Swift. Strong westerly movement through Lincoln Gap, 4/5 (ADT). Marked southerly movement southwards over the Wash, 28/6 (HF). GP.

261. Hoopoe. GP, 21-29/9.

264. Lesser Spotted Woodpecker. Bred, Limber (RM). Doddington woods, 15/5 (CTB). Weelsby Wood, 24-25/4 (FB). Muckton Wood, 17/3 (CLO).

271. Woodlark. Bred Manton-Twigmoor area (RM, DJS). Risby Warren, two, 21/6 (RM, JK). Skellingthorpe Pits, two, 30/5 (BCH). Goxhill, three on passage, 27/9 (SB).

272. Skylark. At least two pairs immediately colonised the newly felled Mother Wood, Aby (CLO). GP.

273. Shore Lark. GP, three, Jan./Feb., and two, Dec.

274. Swallow. Late record: N. Owersby, 23/11 (CTB). GP.

276. House Martin. Late records: Skegness, 5/11 (JM). Louth, 10/11 (CLO). GP.

277. Sand Martin. Early record: Sleaford, 31/3 (WMP). Large movement to E. & N.E., Fosdyke, 6-7/8; movement to S.W. (1,000 per hour), Cowbit Washes, 26/8 (CBC). Neither of these movements noted at GP. GP.

280. Carrion Crow. Barkston Aerodrome, nest built on the supporting projection of a hanger door (CTB). GP, small immigrations coming in from the east off the sea, 25 & 27/10.

281. Hooded Crow. Risby Warren, adults and young, 21/6 (RM, JK). Late spring record: GP, 11/5 (HF). Inland records: Grantham S.F., 30/1 (WMP) and three, 5/12 (CTB). More numerous on coast in autumn than in 1953 and 1954—e.g. up to ten, Cleethorpes (LW) and 120-150, GP in Nov. Large immigration (100+) from east, GP, 10/11.

282. Rook. Sleaford, autumn brood (CMW). GP.

286. Jay. Cleethorpes, two to S.E. along coast, 10/10 (LW).

300. Dipper. One again wintered at Louth (CLO).

302. Fieldfare. Late spring record: GP, 9/5. Daylong westward passage through Lincoln Gap past Washingborough 16/10; this continued on a smaller scale until 23/10 (CTB, ADT). GP was not manned at this time but there were large numbers of Fieldfares in the large immigration of 23/10.

303. Song Thrush. GP, many with other *turdidae*, 23/10.

304. Redwing. GP, large numbers, 23/10.

307. Ring Ouzel. Cleethorpes, 23/10 (LW).

308. Blackbird. GP, very large immigration, 23/10.

311. Wheatear. Bred, South Common, Lincoln (Geo. P) (new locality). Cleethorpes, spring passage normal; many less than usual in autumn (LW). CBC, GP.

317. Stonechat. Cowbit Washes, pair again seen in summer (CBC). GP, one on 5 days in May, with two on 15th.

318. Whinchat. Bred, Humberston (RN). Distribution on Cowbit Washes 4-5 pairs per mile (JR). CBC, GP.

320. Redstart. Bred Limber and Twigmoor (RM, CTB). CBC, GP.

321. Black Redstart. Sleaford, adult female, 16 & 17/4 (WMP). GP, 14/4.

322. Nightingale. GP, 11/4 and 10/5.

325. Robin. Holbeach, c. 45, 23/10 (CBC); c/f immigration of this and other spp. at GP. GP.

327. Grasshopper Warbler. Burwell Wood, c. eleven singing (CLO); Newball c. two singing (ADT, BJ); Louth S.F., one singing (CLO); Kirmington, one singing (RM).

- 333. Reed Warbler.** GP, only two passage records, 4/8 & 10/9.
- 343. Blackcap.** GP, scarce, single birds, 30/6, 22/9, 11 & 23/10.
- 344. Barred Warbler.** GP, 8-10/9, 18/9 and two 19/9 [S-T Res., 23/10 (CLO, AES), probably this species.]
- 348. Lesser Whitethroat.** GP, 16 & 25/8; five, 4/9; 10/9. CBC.
- 356. Chiff-Chaff.** Winter records: one haunted reed-bed at Newsham Lake 6/2 to 20/3 and survived hard weather (RM); Canwick Park, Lincoln, 15-25/2 (CTB); bred Maltby Wood (CLO). GP, 26 & 27/3.
GP.
- 357. Wood Warbler.** Limber, 8-13/6 (RM).
- 364. Goldcrest.** GP, very scarce in autumn; two, 23/10.
- 368. Pied Flycatcher.** Cleethorpes, 29 & 30/8, 1 & 18/9 (LW). Donna Nook, eight, 14/8 and three, 21/8 (RM, SB). S-T Res., four, 22/8; 24/8; 8/9.
GP.
- 370. Red-breasted Flycatcher.** S-T Res., 23-24/10 (CLO, AES)
- 373. Meadow Pipit.** Cowbit Washes, passage to W.S.W. (320 per hour), 10/10 (CBC). Passage to W. along R. Witham near Lincoln S.F., 2/10 (ADT).
GP.
- 376. Tree Pipit.** Two singing males, Burwell Wood, and two, Maltby Wood, throughout breeding season (CLO). CBC.
- 379. Rock Pipit.** Inland record: Wisbech S.F., many records from 2/10 to end of year with four, 26/11, and eight, 18/12 (CBC). GP.
- 381. Grey Wagtail.** Autumn passage: GP, 22 & 26/9; Sleaford S.F., 11/9 (WMP). Winter records: Market Rasen, 21/12 (JHG); Hubbards Hills, Louth, 2-3, Oct.-Nov. (CLO); Horncastle Canal (Horncastle-Dalderby), a bird at each lock, total 5, 23/10 (ADT); Lincoln S.F., up to four in winter (CTB, ADT); Sleaford S.F., 2/12 (WMP).
- 382. Yellow Wagtail.** A request to members for reports of breeding Yellow Wagtails confirmed previous knowledge. Except for the known breeding areas—the southern Fens, the north-eastern coastal marshes and the Trent valley—it appears to be confined largely to a few favoured spots such as Lincoln S.F. (at least six pairs) and Grantham S.F. (four pairs).
GP.
- 383. Waxwing.** Louth, two, 20/11 (CLO). Skegness, 30/11 (HF).
- 384. Great Grey Shrike.** Skegness, 22/10 (HF); GP, 23/10; S-T Res., 24/10 (CLO); Cleethorpes, 24/10 (LW). All these birds in the same large-scale immigration of winter visitors.

388. Red-backed Shrike. Ulceby, female, 29/8 (DIMW). GP. juvenile, 23/8.

389. Starling. Cleethorpes, N.W. movements 22/10 (*c.* 19,000), 29/10, (*c.* 24,000) and 1/11 (*c.* 100,000 in two hours) (LW). *c/f.* GP.

390. Rose-coloured Starling. Skegness, first year bird, 11/12, (KTG), remaining at least until April 1956 (fourth Lincolnshire record). Seen by several observers.

391. Hawfinch. Greetwell, three, 9/7 (RM).

393. Goldfinch. Gate Burton nr. Gainsborough, three broods in three separate nests, the last leaving the nest about 18/9 (CTB) GP.

394. Siskin. GP, 19 & 20/9; two, 27/9; 28/9.

396. Twite. Maxima. Witham mouth, *c.* 1,000, 27/11; Holbeach, *c.* 1,000, 24/12 (CBC). GP.

397. Redpoll. St. Hilda's Avenue, Grimsby; pairs bring their young annually in July/Aug. to feed on birch seed in this street—one pair and two young in Aug. 1955 (FB). GP, 27/2; two, 19/6 (unusual date); 1-2 daily 26-29/9; two, 26/11; two, 26/12.

401. Bullfinch. GP, female, 9/1; male, 30/1. S-T Res., male, 3/11 (CLO). It is unusual on the coast.

408. Brambling. GP, scarce in autumn—nine, 28/9; two, 29/9; *c.* 20, 23/10, *c/f.* CBC.

410. Corn Bunting. GP, *c.* 50, 10-12/5. Metheringham, gathering of a flock of *c.* 200 observed, the birds arriving from the south in parties of 5 to 20, 16/9 (ADT).

421. Reed Bunting. Priest's Pond, Limber; a male again (see '54 Report) sang 11/3 to 5/4, but no mate arrived (RM) GP.

422. Lapland Bunting. Holbeach, two, 20/2. Wisbech S.F., 25/9 (CBC)—an unusual inland record. GP, two, 12-13/11 (JKB). Witham mouth, five, 20/11 (CBC).

423. Snow Bunting. GP, 25-30 from 26/11, increasing to *c.* 60 in late Dec. Inland record: Wisbech S.F., one or two, 6-20/11 (CBC).

425. Tree Sparrow. GP, scarce in autumn, single birds being seen twice in Aug., once in Sept. and twice in Oct.



