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FROM ALL QUARTERS

BIOLOGICAL FLORA OF THE BRITISH ISLES

We have much pleasure in directing attention to a Flora, with the above title, now being published under the auspices of the British Ecological Society in their organ the *Journal of Ecology.* It is appearing in the form of exhaustive papers, dealing with one or more species, prepared by well-known specialists. Up to the present time *Juncus inflexus* L., *J. effusus* L., *J. conglomeratus* L., *J. subnodulosus* Schrank., *Zostera marina* L., Z. *hornemanniana* Tutin, *Cladium mariscus* R.Br., and *Aster tripolium* L. have been discussed, and the result is so excellent in every respect that we have no hesitation in recommending the work to our readers.

It sterns necessary, however, to mention that, in the case of *Cladium mariscus,* the sketch map which illustrates the geographical distribution of the species is defective as far as three vice counties are concerned. Workers taking part in the Biological Expeditions organized by the Department of Botany, King's College, Newcastle upon Tyne, have recorded the plant from the Isle of Coll in v.-c. 103 *(Proc. Univ. Durham Phil. Soc.* 10, p. 302), the Isles of South Rona, Soay and Muck in v.-c. 104 *(Ibid.* 9, p. 297; *Ibid* 10, p. 117), and the lsles of North Uist and Benbecula in v.-c. 110 *(Ibid.* 10, p. 264). Similarly, in the treatment of *Aster tripolium,* the map supplied indicates the areas in which exact details of habitats are regarded as lacking by means of broken lines. Again, we would refer readers to the *Proceedings of the University of Durham Philosophical Society,* 9, p. 282:10, p. 245; 10, p. 288; where; exact stations are given for v.-c.s. 104, 103 and 110, respectively., Lastly in the discussion relating to the same species, the, Greatham area near the Cerebos Salt Works in Co. Durham is, stated to be inland. Our readers scarcely need telling that the colonies of *Aster tripolium* located in that district are well within the limits of tidal influence.

KEY WORKS FOR THE IDENTIFICATION OF THE BRITISH FLORA AND FAUNA

Quite recently, (London 1942), the Association for the Study of Systematics in Relation to General Biology published a work entitled *"Bibliography of Key Works for the Identification of the British Flora and Fauna."* The book, whilst no doubt useful, is so defective in many of its sections that it ceases merely to be disappointing; in fact, it becomes misleading. For instance, take the Arachnida; despite the fruitful labours of Hull, Jackson and Falconer, one would look in vain for any references to the long series of important papers, so necessary to students of the spiders and mites, embodying the results of their investigations. Whilst the omissions occur throughout the Arachnida, we wish, in particular, to focus attention on the Acari; if a student relied on the publication under criticism, he would fail entirely to make contact with Dr. Hull's extensive publications dealing with the Oribatidae, Bdellidae, Gamasidae, Thrombidiidae, Analgidae and Tyroglyphidae. Moreover, as far as the Eriophyidae are concerned, one would be compelled to assume either that the group failed with us, or that no British workers had tackled it. To remedy the defect in respect to Dr. Hull's work on the British Acari, we append a list of his papers, for these are quite indispensable to anyone wishing to study the families involved: -

1914. *Naturalist:* British Oribatidae—22 sp. n.
1915. *Lancashire and Cheshire Naturalist:* British Oribatidae—2 sp. n.
1915. *Vasculum:* Bdellidae—2 sp. n.
1916. *Lancs. and Cheshire Naturalist:* Terrestrial Acari—3 sp. n., 3 gen. nov.
1916. *Trans. Nat. Hist. Soc. Northd., Durham* &c: British Oribatidae. All the species, with identification tables.—7 sp. n., 6 gen. nov.
1917. *Vasculum:* Gamasidae—2 sp. n.
1918. *Trans. Nat. Hist. Soc. Northd., Durham*, &c.: Gamasidae and Thrombidiidae. Complete catalogue, with identification tables.—38 sp. n., 2 gen. nov.
1918. *Lancs. and Cheshire Naturalist:* Terrestrial Acari—2 sp. n.
1921. *Vasculum:* Tarsonemi and Uropidinae—6 sp. n.
1925. *Annals and Mag. Nat. Hist.* Gamasidae—30 sp. n.
1931. *Vasculum:* Analgidae—1 sp. n., 2 gen. nov.
1932. *Trans. Northern Nat. Union:* Tyroglyphidae. Complete list with identification tables.—One sp. n.
1934. *Trans. Northern Nat. Union:* Analgidae. Full catalogue with revised classification.—1 sp. n. and 7 gen. nov.

We trust that in any future editions of the book the work of provincial workers will receive due recognition.

A HANDBOOK TO THE GEOLOGY AND NATURAL HISTORY OF NORTHUMBERLAND AND DURHAM

Some time ago, we were presented with a copy of a little known book published under the above title at Newcastle. This has interested us so much that we feel it must be introduced to our readers. The copy before us, which purports to be the Second Edition, as regards Northumberland, bears the date 1886. Inside, it provides the reason for this curious description of the edition, for it contains the preface to the so called "First Edition" which appeared in 1878 with the title "*Outlines of the Geology of Northumberland.*"

Both are the work of the late Professor G. A. Lebour, and, naturally, we are led to anticipate a first class treatment of the subject. In this, if due allowance is made for the date of publication and the limited space available, no disappointment will arise, for the later edition contains a clear, succinct and accurate account of the subject, illustrated by well chosen sketches, just such as one would expect from the pen of Professor Lebour.

Of the Botany and Zoology little can be said; the accounts are little more than a collection of compilations and extracts from various lists which have appeared in the *"Natural History Transactions of Northumberland and Durham"* and other local publications. However, the chapter labelled "The Fungi of Northumberland and Durham," whilst of little value, is interesting as being the original work of Mr. Faraday Spence of Hexham.

OBITUARY NOTICES

WILLIAM JOHN FORDAM

By the death of Dr. W. J. Fordham at Barmby Moor, Yorkshire, at the age of 60, another breach has been made in the little band of naturalists who were responsible for the founding of the Wallis Club in 1923.

Dr. Fordham was the son of a missionary, and, after qualifying in medicine, he took up a practice at Sheffield and then at Bubwith. Later, he held official appointments at Sheffield and Gateshead. Obviously, the latter post gave him opportunities of working with Tyneside naturalists. A keen entomologist, he took an active part in all the preliminary meetings leading to the establishment of our club, including the historic occasion in the Drawing Room Cafe. When a choice of president had to be made, his seemed the most likely name; thus he became the first president of the Wallis Club, holding office during the session 1923 to 1924.

Owing to pressure of work, his opportunities of attending our meetings were few; nevertheless, his presence was felt in the stream of notes appearing in the *Vasculum*, in which he recorded his captures of Diptera, Hymenoptera and Coleoptera. Then a calamity occurred; during the course of his duties at Gateshead, he contracted that illness which led to his resignation in 1928.

After resigning from his official duties, he retired to The Garth, Barmby Moor, where, within the limits of his powers, he took an active interest in the welfare of ex-servicemen, for he was for some years chairman of the local Benevolent Committee. There, too, he continued his natural history work, remaining to the end an enthusiastic member of the Yorkshire Naturalists' Union. He was its Coleoptera recorder and chairman of one of its most important committees.

During the course of these services, he compiled a unique card index of British insects which has been of great value to many prominent entomologists locally and elsewhere. This index, very fortunately, he has left in charge of the Union. It, with the pleasant memories, which we who came into contact with him still retain, will serve as a fitting monument.

WILLIAM CHARLTON

Mr. W. Charlton, who passed away suddenly on December 10th, 1942, was very fond of telling us that he was not a naturalist in the strict sense of the term. He insisted that he was not concerned with first dates or rare specimens, but that he was an admirer of the countryside. Some years ago, he, with a friend, rented a pond, with 20 acres of water, at Billingham and stocked it with trout; later, however, he transformed it into a bird sanctuary, this giving practical expression to his views. Thus it came that "My Pond" served for his Presidential address to the N.N.U. two years ago.

He was a member of the Cleveland Naturalists' Field Club for 32 years, and was Honorary Treasurer from 1929 to 1942. He was responsible on a number of occasions for organizing excursions to Upper Teesdale and to various parts of Durham.

In private life, he was very a successful banker, as he was manager of the Middlesborough Branch of Martin's Bank from 1903 until his retirement in 1935, during which time he was a member of the Council of the Institute of Bankers. In 1936 he was elected a member of the Town Council of West Hartlepool where he lived.

He was a man of many interests, with a sound judgment of Art, both in painting and in its more practical expression, architecture. Moreover, he displayed a wide knowledge of English literature.

He influenced all who came into close contact with him and will be missed by many.

THE SOCIETIES

THE WALLIS CLUB

Early in May, the Club proposes to commence a series of Saturday afternoon excursions to places of interest within very easy reach of Newcastle. Members should send suggestions for such outings to Professor Heslop Harrison or to Dr. Blackburn.

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB

The first half of our winter programme of lectures has been unusually well attended. The first of the series, given by Miss E. Bolton M.Sc. dealt with "Medicinal Plants and their Uses in Wartime". Its excellence provoked widespread interest and comment; moreover, it stimulated our activities so that increased attendances of members and visitors, as well as the enrolling of new members resulted. This impetus was maintained by Mr. D. R. Hughes, B.Sc., in his "Snapshots of Northern England"; he showed many slides of local value. "At the Turn of the Tide" by Miss R. E. Dowling, M.Sc., imparted, in an attractive way, a wealth of information gleaned by the speaker in her own seashore rambles; it, too, was suitably illustrated. Members' Night concluded a very successful session.

NOTES AND RECORDS

NOTES

Jottings from Cullercoats.—This season no Clouded Yellows, and only a few Painted Ladies have appeared here. Nevertheless, although I have never seen them before, a lot of Peacock Butterflies have been observed; in fact they were as common as the Red Admirals flying with them. I caught several, some of which I gave to the school, which had only half a Peacock! Many other boys saw and collected this beautiful insect. Small Tortoiseshells, too, have been plentiful.

I have noticed some curious varieties this season. One Painted Lady Butterfly had blue centres to the black spots on the hind wings although the anal spot was not affected. I also took a couple of Red Admirals with a small white spot in the red band on the fore wing's. Small Tortoiseshells have been variable too; one specimen observed had an irregular black band in place of two of the usual black spots whilst another had a distinctly red ground colour. A Small Copper also aroused my interest; two of the spots on the under side of the fore wing's were pear-shaped but the spotting on the upper side was quite normal. Derek A. Robertson.

Wild Bees in Jesmond.—This year and last, early in the season, many bees were noted in Holly Avenue flying in and out of small holes between the paving stones and the base of the railing's. On investigation, I identified the bee as *Andrena trimmerana*. This bee is very fond of making its home in old walls, particularly in cutting's, and I used to find it in abundance in such places at Shotley Bridge. It occurs in similar places here in Alnwick. The home of the Andrenas is usually a burrow in the ground; a simple tunnel with short lateral branches shaped into the form of a cell in which a small ball of pollen mixed with honey is placed and an egg laid on the top. The grub hatched from the egg devours the ball.

A. trimmerana, which is so fond of old walls, probably burrows into mortar which has more or less perished in the course of time. In Spring, the males are the first to appear, easily distinguished from the females by their slender build; the females are more bulky, and their colouring and size make them easily mistaken for hive bees. Associated with *A. trimmerana*, and sometimes almost equally common, is the cuckoo bee, *Nomada marshamella* which looks like, and is often mistaken for a wasp, owing to its black and yellow colouring. It lays its eggs in the cells of *Andrena*, and the curious thing is that its host takes not the slightest interest in its appearance; so that it has no difficulty in obtaining access to the nest of its victim. Occasionally, both bees may be seen in August, but it is distinctly unusual in our northern climate. It is in the sunny days of May and June that both are at the height of their activities. They may then be seen flying slowly to and fro in front of the old stone walls, the Andrenas yellow with pollen which they are bringing to their burrows to store for the next generation. Nomada is destitute of hairs; she needs no pollen brushes for she collects no pollen. All the collecting is left to the unlucky Andrena whose offspring may be starved to death owing to the activities of the cuckoo bees which, in the larval condition, devour the good stored for the young Andrenas. J. E. Ruxton.

A note concerning frogs.—In mid November, when we had two inches of ice on the ponds at Ryton, I saw several full grown frog's swimming under it when I disturbed the mud at the bottom by standing on the ice above. At the point in question, the water was so shallow that the bending ice touched the frogs as they swam below. It seems rather extraordinary that, when faced with hibernation, some of the animals should choose to live under water, and others should bury themselves amongst leaves or retire to sheltered nooks like the angles of old walls, trees etc. where I have observed them in the depth of winter. Frank O'Neill.

A Correction.—The larva found in the garden of Crag' Cottage. Birkby, Ravenglass, in August 1942, and recorded in the October issue of "The Vasculum" as that of the Small Elephant Hawk Moth, *Metopsilus porcellus*, was really a young larvae of the Elephant Hawk Moth; it assumed the normal brown colour of that species at the second ecdysis after capture. R. G. Donald.

RECORDS

FLOWERING PLANTS

Potamogeton pusillus L. 66
Quite frequent in some of the drainage lodes in Billingham Bottoms. J.W.H.H.

P. millardii H.Harr. **(P. berchtoldii** Dandy & 66
Taylor non Fieber)
In a very striking form in the Butterby Marshes. Collected by the late Dr. B. Millard Griffiths. Det. J.W.H.H.

P. zosterifolius Schum. 66
Plentiful in a branch of Holme Fleet passing to the south near the earth wall; also in main drainage lodes leading to Greatham Creek and the sea. J.W.H.H.

P. lucens L. Shining Pondweed. 66
Always a scarce and very local plant with us. It may, however, be found in Holme Fleet in the extreme south east of Durham, but fails in Swallow, Toddlers' and Mucky Fleets. J.W.H.H.

P. pectinatus L. Fennel Pondweed. 66
In the main lode draining the Saltholme Marshes, persisting under brackish and even salty conditions; the form *salinus* occurs in some of the more permanent pans to the north of the slag wall. J.W.H.H.
Ranunculus trichophyllus Chaix. 67
This interesting water buttercup was quite plentiful amongst the "wash" on the shores of Crag Lough. W.A.C.
Salix Andersoniana Sm. 66
In the Alder carr on Waldridge Fell. As a result of my investigations in connexion with this "sallow," I have come to the conclusion that it may be found anywhere with us. J.W.H.H.

FUNGI

Rhizina inflata (Schaeff.) Karst. 66
On charred ground, Lambton Park.
Pyronema omphalodes (Bull.) Fckl. 65
On charred ground, Manfield. J.B.N
Mitrula phalloides (Bull.) Chev. 65
In Deepdale, December 29th, 1940 (Miss M. J. Shaw); and at Marske (Swaledale), January 12th, 1941 (Miss F. M. Spencer).

BIRDS

Larus hyperboreus Gunn. Glaucous Gull. 67
During this winter, as in last. Gulls of this species have been reported from the coast in some numbers. Mr. H. Tully reports a Glaucous Gull, a female in first winter plumage, at Newton Hall, Stocksfield on November 24th. It is unusual to find a Gull of this species so far from the coast. Its stomach contained the remains of a rabbit. G. W. Temperley.
Circus aeruginosus L. Marsh Harrier. 68
A male in first year plumage was caught in a trap near Thropton in Coquetdale on October 16th 1942. It is now in the Hancock Museum. G.W.T.
Nyroca fuligula L. Tufted Duck. 67
On Monday, December 14th, 1942, I observed eight Tufted Ducks (6 males and 2 females) on the Leazes Park Lake. I have been informed that examples have visited the lake about the same time of year for several winters, but have shifted the quarters when the lake was frozen over and did not return until the following December. When I last visited the lake before the vacation 5 drakes and 1 duck were present, and now (January 29th), a few are still on view. R. G. Donald.

LEPIDOPTERA

Plusia moneta L. Golden Ear. 70
About two dozen empty cocoons, and one full one of this beautiful insect were found on the leaves of Delphinium at Crag Cottage, Birkby, Ravenglass in August 1942. R. G. Donald.
Aegeria crabroniformis Lew. Hornet Clearwing. 66
Previously, in our area, I have only noted this "Clearwing" boring in Black Poplar, *Salix aurita* and *S. caprea* stems. Last season, however, I was surprised to find it at Birtley in the trunks of well-grown examples of the hybrid Red Osier *Salix rubra* (=S. *viminalis* x *purpurea).* J.W.H.H.

HYMENOPTERAA

Rhodites eglanteriae Htg 66
Owing to the pressure of work, I have devoted but little attention to Rose Cynipids this season. However, whilst studying *Rosa mollis* Sm. and its variety *glandulosa* in the Birtley area for other purposes, I noticed the smooth pea galls of the present insect on the under side of the leaves in some numbers. J.W.H.H..
R. rosae L. Bedeguar. 66, .67
Abundant this season on many rose species and varieties . *R. mollis, R sherardi, R. canina, R. dumetorum, R. glauca,* ; *R. coriifolia* and, in the garden, *R. rubrifolia.* J.W.H.H.

COLEOPTERA

Galerucella viburni Payk. 66
The Guelder Rose in the wood at Hookergate (High Spen) was infested with this insect in late summer. Frank O'Neill

NOTICES

During the suspension of the *Vasculum,* the Dept. of Botany, King's College, published four numbers (price one penny) of a periodical entitled *"Occasional Notes".* These deal, in the main, with the Hebridean pondweeds exhibited at the Union's meetings and may still be obtained. Other numbers will be produced as required.

The N.N.U. Recorder for Birds is now preparing the Ornithological Report for 1942. He will be grateful if readers will kindly send him, without delay, any notes or records that they may have made relating to that year. Observations on the distribution and numbers of the commoner species are just as important as records of the rarer species. Reports should be sent to George W. Temperley, "Restharrow", Stocksfield.

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FROM ALL QUARTERS

THE UNIVERSITY HONOURS LOCAL MEN

One of the functions of a university which is often overlooked is the fact that to it falls the duty and privilege of recognizing the achievements of local workers In the past, Durham University has not failed to carry out its obligations in this respect, and this session it has declared its intention to follow its old traditions in conferring honorary degrees on three local men at the June Congregation.

Of these, the Northern Naturalists' Union is naturally most interested in our old friend Mr. R. B. Cooke, one of our past presidents and a very active: member of the councils of the Natural History Society and of the Wallis Club. He is to receive the M.Sc degree in recognition of his services to botanical and horticultural science. Next of interest to us as naturalists is the name of Major J. G. G. Rea, the prominent North Northumberland agriculturalist, who gets the D.Sc. He is a member of the Council for Agriculture for England and Wales and chairman of the Northumberland War Agricultural Executive Committee.

Alderman W. Bramble, well known to many for his literary as well as for his civic merits, is to be awarded the degree of M.A.

MORE NEWSPAPER ENTOMOLOGY

We are always pleased to hear from Mr. J. E. Nowers, and in his latest letter he sends a copy of a note appearing in a contemporary. The note is entitled "A Butterfly has joined a Scarborough household"; it reads as follows. "Two butterflies entered the house of Mr. and Mrs. Topham in Seamer Road, Scarborough, last year. One left after a short time, but the other stayed on. It is still there and seems to have no inclination to leave. Although strange to its new surroundings following its invasion of the house, it quickly learned the lie of the land, and though it has the freedom of the place it is invariably in the dining room at mealtimes.

It will flutter down on the table and apparently enjoy nibbling at green vegetables. When it was missing from its usual place one day, it was found on the counterpane on the bed in which Mr. Topham was resting". Even decent well-behaved butterflies like the Small Tortoiseshell acquire bad habits—in newspapers!

MIGRATION RECORDS, 1942

Nowadays, most naturalists are aware of the fact that many of our insects are migratory in their habits and have the power of crossing wide stretches of sea, finally to invade this and other countries. Every year, Capt. T. Dannreuther, R.N., is responsible for compiling a general summary of such migratory movements to, and in, the British Isles, and we should like to draw attention to his excellent presentation of the facts concerning insect movements in 1942; it appears in the Entomologist for March, 1943. In it he demonstrates the paucity of our visitors compared with the numbers characterizing an ordinary year; nevertheless, he records the advent of such far travelled wanderers as the Black-veined Brown *(Danaus plexippus)* and the American Painted Lady *(Pyrameis virginiensis).* In addition, he mentions the appearance as vagrants of the Camberwell Beauty, the Swallow Tail, the Bedstraw Hawk and other interesting species.

We should, however, like to point out that his quotation *(l.c.* p. 79) from our note *(Entom.* ***75,*** p205) is inexact in several respects.

ONCE AGAIN VITAMIN C IN ROSE HIPS

In the Vasculum for December 1942, we indicated that Darlington (Nature, **150,** 575), on the basis of evidence which actually negatives the deduction, had stated that "the principle of vitamin-chromosome correlation . . . is indeed a valid inference". Now (Thirty third Annual Report, John Innes Horticultural Institution March 1943, p. 14) the same writer more than slightly waters this down to "chromosome numbers . . . and vitamin C content are probably correlated within systematic groups". He still fails to recognize the real and obvious correlation of vitamin content and earliness of ripening in rose hips!

THE HERB CAMPAIGN

This brings us to the great and growing need to assist the nation by collecting all those valuable herbs which we now lack, and which are so necessary. No one is better qualified than our members and associates for organizing efforts which can only end in a mighty success. Let us take one instance only. Under the able leadership of Mr. T. Hutton, Surveyor to the Consett Urban District Council, the united efforts of the N.W. Durham Women's Institutes, Youth Organizations, school children and

members of the Consett Naturalists' Field Club brought together, in rose hips alone, nearly 11 tons, which is equivalent to 8,550 bottles of rose hip syrup. If one district can display such success, what would a real push by all the districts covered by the Union produce in the way of rose hips and herbs generally?

OBITUARY NOTICES

ALBERT WILLIAM BARTLETT

We are exceedingly sorry to have to record the death of Mr. A. W. Bartlett, one of our most valued members.

Mr. Bartlett came to this area in 1920, after a very varied career, to become Lecturer in Botany at what was then Armstrong College. His education commenced at Hurstpierpoint College whence he proceeded firstly to Aberystwyth College (1891) and then to the Royal College of Science, London, (1895) to prepare for a science degree. On accomplishing his aim in 1896, he was appointed Science Master at the Secondary School at Henley, only to leave it in 1899 to resume his studies at the University of Cambridge, where he obtained a 1st Class in Nat. Sci. Trip. Part II in Botany. Almost immediately afterward he applied for, and received, the post of Curator of the Botanic Gardens, Georgetown, British Guiana. This carried with it additional duties in the form of the Editorship of the Journal of the Board of Agriculture for British Guiana.

Returning home in 1909, he took a post as Lecturer in Botany at Sheffield University.

On the outbreak of war in 1914, as his intimate friends would consider characteristic of him, he enlisted as a private in the R.A.M.C. with which he went through the whole of the campaigns in Gallipoli and Palestine. After his demobilization in 1919, he returned to Sheffield, but, what marked a real gain to us, he came to Newcastle in 1920. Since then, he has been absolutely indispensable in every form of natural history effort locally. For long periods he was on the Councils of the Northern Naturalists' Union, the Natural History Society and the Wallis Club. He held high office in all, becoming President of the Wallis Club in 1931, of the Northern Naturalists' Union in 1938 and, lastly, Editor of the Transactions of the Union in 1939. Unfortunately, the latter duties, so congenial to him, came to a premature end when he was struck down so suddenly only a few weeks after his appointment.

Throughout the period 1920-1939, many generations of Botany students passed through his hands, all to speak with gratitude of the keen personal interest he took in their welfare and of his unfailing kindliness. On the purely academic side, he was famous

for his carefully prepared lectures, his intimate knowledge of practical work in the field as well as in the laboratory, and his success in bringing the best out of his students. He made a mark on botanical teaching at King's College which will not be erased easily.

As a man he was of a retiring, modest disposition, but of sterling worth; one who endeared himself to all with whom he was brought into contact. He never spared himself in doing kindly actions; of him it can be truly said that he never let his left hand know what his right hand was doing. He was indeed one of the best!

THE SOCIETIES

NORTHERN NATURALISTS' UNION

Once again, by the kindness of the Council of Natural History Society, our annual meeting was held in the Hancock Museum, Newcastle upon Tyne. The President, Mr. J. B. Nicholson was in the chair, and the attendance not only turned out to be a record one but nearly doubled that of 1942, itself a record.

After our two new Societies, King's College Naturalists and the Annfield Plain and Stanley Naturalists' Field Club had been duly admitted and welcomed, the usual reports were read by the Treasurer, Mr. J. E. Ruxton, and by the Secretary, Dr. K. B. Blackburn; both were exceedingly satisfactory and revealed the flourishing condition of the Union. Incidentally, it was pointed out that the Vasculum (Substitute) was practically self-supporting. To the Treasurer, Secretary and Assistant Secretary, hearty votes of thanks were accorded.

The election of officers followed, and Miss W. M. Lomas, B.Sc. was elected President in place of Mr. Nicholson.

When the formal business was concluded the presidential address was given by Mr. Nicholson, for his title he took *"Some* Familiar Fungi". The lecturer dealt with his subject in an informative and entertaining manner by discussing a careful selection of common fungi of diverse types with the aid of a beautiful series of coloured lantern slides. The talk proved of real value to the novice as well as to the expert.

Immediately after the lecture members partook of a very enjoyable tea and discussed the work of the past season and the prospects for 1943. Here, again, we have to thank the ladies who, as on previous occasions, had so successfully surmounted difficulties in preparing such a splendid meal. A special word of thanks is due to the ladies of the Consett and District Nauralists' Field Club for their valuable contribution to the success of the tea.

The proceedings concluded with an inspection of the usual exhibits which members had assembled. Amongst these, the bird pictures by a new exhibitor, Mr. Bird, deserve very special mention. They displayed a delicacy of handling and a novel

technique which earned the admiration of all. Mr. Nicholson, too, had on view an interesting series of photographs of fungi. Last year, Mr. R. B. Cooke, owing to the inclement weather was unable to stage his display of spring flowers and shrubs; ample compensation was given this year on the quantity and quality of his plants. Mr. R. Milburn brought a carefully mounted selection of British plants which demonstrated what a beginner can do when endowed with zeal and enterprise. By way of a change, Miss Bolton had set out a series of postcards illustrative of prehistoric animals. Professor J. W. Heslop Harrison brought the results of a selection experiment with the Buff Ermine Moth *(Spilosoma lubricipeda)* carried out over a period of years. The work commenced with the progeny of a wild female, typical in aspect. These displayed very slight variation; nevertheless, the darkest specimens available were selected for breeding purposes. Progressively, the pattern became darker and the spots to coalesce into bands. Finally, selection produced no further effects. Professor Harrison demonstrated the exhibit and pointed out that spotting and pattern in this species were based on a multiple factor system, and that selection massed the factors concerned so that darker, more heavily marked insects resulted. Clearly, a limit is set to the massing of such factors.

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

The Annual Conversazione was held on January 30th, when .the President (Mr. C. P. Nicholson) addressed an attendance of 52 on "The Stanwick Earthworks" and discussed the various theories which have been advanced to account for their origin in the light of the evidence available from local place names, from relics found in the district and from more general considerations. The exhibits at this meeting included a collection of the seeds of about 50 British plants made last year by Mr. J. E. Nowers.

There has been a marked revival of interest in Geology; during recent months, evidenced by lectures on "Local Geology" (Mr. C. Walker) and "The Effects of Glaciation in Cleveland" (Miss M. S. Carmichael) and by a visit, on April 10th, to two whinstone quarries near Bolam, where the Cleveland Dyke was inspected.

Other addresses have dealt with "Fungi of Winter and Spring" (Mr. J. B. Nicholson); "Life in India for the European" (Dr. H. P. Budgen); "Hormones" (Mr. W. W. Allen); "Wanderings in the Highlands" (Mr. A. Stainthorpe); "Some of our Trees" (Miss E. M. Clegg); "Notes on the Early History of Britain" (Mr. R. Watkin); "Yeast and Brewing" (Mr. J. E. Nowers); and several members have entertained us with reminiscences of pre-war holidays, in Austria (Miss N. Chatterton), in Britanny (Miss E. I. J. Martineau) and in Switzerland (Miss S. C. Brown).

The Annual Meeting was held on April 20th. The Council's Report for 1942-3 revealed a high level of activity during the past year, with a total of 72 indoor and outdoor meetings. Twenty four lectures and papers were given during the winter, all but three of these by our own members. Miss E. M. Clegg was elected President for the coming year; Mr. F. E. Soar, Treasurer; Mr. J. B. Nicholson, Secretary; and the Geological Section was resuscitated under the leadership of Mr. C. Walker.

KING'S COLLEGE NATURALISTS

The first meeting of the term was held on February 1st when Mr. T. A. Borshell gave an interesting talk on "Potato Blight," emphasising its destructiveness and economic importance, and indicating methods of control. On February 8th, Mr. G. N. Robinson discussed "Early Man". He first took up the question of the fossil remains of man, and examined the various views held in respect to Pithecanthropes and Eoanthropos. So, too, he dealt with Cromagnon as well as Neanderthal man. From this, he passed to Palaeolithic man, examining the effects of the Ice Age and the Interglacial Periods on his migrations and activities. Prof. Heslop Harrison lectured on March 1st on "Plant Galls, their Insect and Other Tenants". He illustrated the various types of galls, and showed the variety of their causers by means of lantern slides.

The last indoor meeting was held on March 15th when Prof. Hobson talked on "British Marine Shells" and brought many specimens to serve as illustrations.

A field meeting was held at Wylam on March 20th when special attention was paid to the wealth of willow species and to the mosses available.

NOTES AND RECORDS

NOTES

An Early Spring.—Plant life has been naturally responsive to the mildness of the winter and the sunshine of early spring. The earliness of the season has impressed itself on all observers the more so because it has followed three extremely backward springs. Yet it is unnecessary to go any further back than 1938 to find a season even earlier on the whole than 1943. Comparison of the "first flowering" dates at Darlington of plants blooming in January/April shows that, in 10 cases out of 14, 1938 was by a few days the earlier year. It would seem that the influence of the generally fine weather of the early months of the present year has been somewhat offset by the cool winds and lack of rain.

Nevertheless, both flowering and leafing have been unusually early. Hawthorn hedges were greening early in March; Plums were in white bud by the middle of that month and in blossom by its close; some Sycamores had their full summer foliage by mid April, while during the last week of April many Oaks and Beeches were coming into leaf. So, even more remarkably, were some Ashes (young

trees), after a prolific flowering season of which the first signs, in the shape of swollen flower buds, were already in evidence at the end of February.—J.B.N.

A hibernated Peacock Butterfly.—On Friday March 12th, attention was drawn to a strange butterfly flying in the sun on the Town Moor; this was identified later as *Nymphalis io.*—G.N.Robinson.

(This is only the second record for the Peacock .in Spring in our counties during the last 70 years. A second example was reported on March 14th and another on the 16th at Stocksfield by Mrs. T. E. Hodgkin. As a coincidence, the same post bringing Mrs. Hodgkin's note yielded a letter from the Duke of Argyll, informing me that Sir Norman Lament had observed two Peacocks at Aubrietia flowers on March 26th in Toward Argyll, opposite Bute.—J.W.H.H.)

A sinistral example of Cepaea nemoralis L.—On account of the genetical interest attached to the occurrence of left-handed shells, it is well to record that I found an example of *Cepaea nemoralis* monstr.*sinistrum.* dead but in perfect condition otherwise, amongst marram grass on the Seaton Sluice sand dunes.—J. S. Ash.

The peculiarities of the season.—On Friday, April 16th I had a brief opportunity of taking a short walk near Birtley, when I was astonished at the forward state of vegetation. Oak, ash, beech, birch, elm and alder were coming into leaf whilst, for the first time, I saw hawthorn in flower in April. In the woods to the west of Birtley, bluebells swarmed, and in like adjacent meadows unusual masses of blossoms of the Tuberous-rooted Bitter Vetch almost crowded out the early sedges and woodrushes. Not far away, a swamp, decked with Marsh Marigolds and Cuckoo Flowers, revealed the Green-veined White Butterfly fluttering about. Strangely enough, in the adjacent birch woods, the Small White, actually mating, abounded. Occasionally, on dandelions, Small Tortoiseshells jostled with solitary bees of the genus Andrena of which the commonest was the gorgeous *A. fulva* with *A. trimmerana* a good second. Oil Beetles were not uncommon on bank sides. South of Birtley, the woods and hedges supported the tale of an extremely early season, for Wood Stitchwort, Red Campion, Wood Forget-me-nots (of three colours). Cowslips (with the Cowslip-Primrose hybrid), Garlic, Moschatel, Scented Violets, Strawberry, Barren Strawberry, Wood Anemone, Jack-by-the-Hedge, and other flowers were plentiful near Chester-le-Street, the Toothwort was just coming over, with the Alpine Currant and the Dogwood nearly just at their best.—Jack Heslop Harrison.

Some Freak Vegetables.—Two peculiar Cabbages have come my way this season. The first ought to have been a Brussels Sprout but all its leaves were deeply cut giving long-pointed sections all round the leaf. The general growth of the plant was normal, but what should have been sprouts failed to close properly and gave rather the effect of a half open green chrysanthemum. The second freak formation occurred among some cabbages, and here the peculiarity was the appearance on the upper side of the midrib of a row of small leaflets on either side. These were rather variable, but usually semicircular and a little over half an inch in diameter. The leaflets apparently prevented proper hearting, because some plants did not heart at all and those that did were so loose that they were soft to the touch. It is not really surprising that a much cultivated plant like the cabbage should throw new sports but, in the nature of thing's, these useless forms will not be perpetuated whereas a really good variant would be.—K.B.B.

Rosa mollis var relicta, a new name for R. mollis var. fallax .—In the *Vasculum*, 18, p. 25 (1932) I published a paper with the title "A New Old Rose, *Rosa mollis* var. fallax " in which I discussed and described a rose which had interested Winch more than a hundred years ago, Recently, I discovered that the well known Norwegian botanist Axel Blytt had already described a *mollis* form to which he had applied the same name. This necessitates a change in the name of my rose, and it is hereby named *Rosa mollis* var *relicta*.—J.W.H.H.

Late feeding larvae of Pieris brassicae L.—On December 24th, I saw about a dozen larvae of the Large White Butterfly feeding on cabbage in our garden. On Christmas Day, a few were still feeding whilst on January 1st one was found crawling on the path near the cabbage. Finally, on January 2nd, a single specimen was still demolishing a cabbage leaf. This batch of larvae has been under observation for some time, but they have fed up very slowly. The last two larvae noted were taken into the house, so if possible I may breed the perfect insect. I cannot remember having seen larvae so late in the year throughout my nearly 70 years' experience. — John E. Nowers

Bees and Flies and their visits to the Common Tare, Vicia sativa.— On August 6th, I observed various bumble bees, the hive bee and flies swarming at the Common Tare. The two species, *Bombus hortorum* and *B. agrorum* probe the flowers legitimately, alighting on the wings of the flower and pressing them down to sip the nectar; the wings rise to the normal position after the visitor has departed. On the other hand, the shorter tongued bees, *B. lucorum* and *B. terrestris*, obtain nectar illegitimately by biting a hole in the corolla tube or by utilising a hole already made; they also work the stipular glands which contain an abundant supply of nectar. This, too, is the practice of the hive bee. Curiously enough, such individuals as work the flowers rarely, if ever, visit the stipules. Hive bees working the stipular·glands pass upward from the base of the plant as they do so. Similarly, I noted bluebottles and Syrphids at these glands pressing their proboscis into them quite systematically, but, instead of working all the stipules of one plant like the hive bee, they passed from plant to plant at random.

NOTICES

Once again we ask the Societies to send accounts of their doings to Prof. J. W. Heslop Harrison as regularly as possible. Interesting notes and records from our readers will always be appreciated.

The Secretary, Dr. K. B. Blackburn, King's College, Newcastle upon Tyne, will be glad to receive, at an early date, any outstanding subscriptions for this and the preceding volume.

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BY THE WAY

Again we have to ask the Societies to give us news of their various activities as promptly as possible. This invitation is extended to all of our members and associates; notes and records from them are interesting to all. Material should always be sent directly to Professor Heslop Harrison at the above address.

AN HONOUR WELL MERITED

All of our readers, more especially those interested in Agriculture, will welcome the news that Dr. R. W. Wheldon, F.R.S.E., has been appointed Professor of Agriculture by the University of Durham in recognition of his great services to the science, both locally and nationally. No one knows better than his friends and his students (who are also his friends!) how thoroughly Professor Wheldon has deserved this testimonial to his merits; they know that he reckons no effort on his part too great if only it assists the community in general and his pupils in particular.

LIFE OF THE WAYSIDE AND WOODLAND

This book by T. Coward M.Sc., is included on Warne's well known series of field books for the pocket. Owing to the war, it has been out of print for some time, but now a new issue is appearing with an addition in the form of a "Tabular Contents." This renders quick and easy reference possible, and acts as a kind of nature calendar. It is of special interest to members of the N.N.U. as it is the work of Mr. Earle L. Davison, the energetic secretary of the Cleveland Naturalists' Field Club.

THE DISTRIBUTION AND ORIGIN OF THE BRITISH LEPIDOPTERA

Here we wish to draw attention to an important paper (Proc. Roy. Irish Acad., **49,** Sect. B., 2759) by Dr. Bryan P. Beirne. In it the author points out that the British Lepidoptera fall into two sections; in one the species have a discontinuous distribution whilst, in the other, the forms possess a wide, continuous range and display little variation. From his studies he concludes that these two groups represent two distinct immigratory waves coming in at different periods. Judging from food habit and other facts, it is concluded that the species of wide distribution reached us in post-glacial times, and the others during the ”late glacial Zone II period”.

With certain of his conclusions we are inclined to agree, but the validity of his arguments is often rendered questionable by serious errors involving distribution and other pertinent facts. Dr. Beirne, in many ways, shows a lamentable lack of acquaintance with much critical and essential literature. Let us mention a few examples. On the very front page we are informed that "with two possible exceptions, *Lysandra coridon* and *Maculinea arion*" the larvae of our lepidoptera are "all vegetable feeders." *L. coridon* is no exception; it feeds on *Hippocrepis comosa.* Again, on page 31, there appears the remarkable retrograde recognition of *Ectropis crepuscularia* as a race of *E. bistortata,* and, lower down, the strange statement that the ordinary form of the latter insect is double brooded and that its race *crepuscularia* is univoltine. Apparently, Dr. Beirne is quite unacquainted with the work of Tutt, Riding, Heslop Harrison and others in which the specific distinctness of the two insects is demonstrated conclusively, or with the fact that north of York *E. bistortata,* is single brooded. Then turning to page 33, we wonder what Mr. Wm. Carter, after all his work on *Aricia agestis,* will have to say about "the race *salmacis* of *A. agestis*" or of its being "mainly confined to mosses" where it jostles with *Antitype (Polio) chi.* Further (p. 31,32), we learn that *Operophtera brumata* race *myricaria* is confined to Cumberland and to the food plant *Myrica.* Neither statement is true; it occurs in Northumberland on birch! Finally, although such criticisms could be readily extended, we shall be glad to learn from Dr. Beirne what *Erebia aethiops* race *cassiope* (p. 31) represents.

OAKS IN BRITAIN

Dr. E. W. Jones, Imperial Forestry Institute, Oxford, wishes to secure the aid of our members in his studies of British oaks; we therefore print his explanatory notes below.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

The first outing took place in Chopwell Woods where an excellent attendance took advantage of the brilliant sunshine. Although the weather was fine, the previous heavy winds and low temperature had had adverse effects on vegetation. Nevertheless, we had a reminder that the climate of this part of Durham is very mild for, at Lintzford, we saw a magnificent Wisteria smothered in blossom. In the wood, all the usual May flowers, like the Bluebell, Garlic, Red Campion, Primrose, Water Avens, Bilberry, Tuberous-rooted Bitter Vetch, Cowslip, Wood Pimpernel, etc., were all past their best; the snow of the preceding Monday had suppressed their successors. However to compensate for this Hawthorn and Bird Cherry made a fine display.

Insects were few in numbers although we did see the Small Tortoiseshell and the three Whites with a reasonable number of the rarer Spruce Carpet, *Thera variata,* attached to spruce. Except for the two Autumnal Moths, *O dilutata* and *O autumnata,* only the usual Winter Moth larvae fell to the beating stick. The same weapon, likewise, yielded the three ladybirds, *Coccinella septempunctata, Adalia bipunctata* and *Halyzia 14-guttata* with *Phyllobius urticae, P. alneti* and one or two *Rhagium bifasciatum.* The hibernated queens of the various bumblebees seemed to be in their usual strength, and we were specially glad to see *Bombus muscorum* var. *pallidus* at bluebell flowers.

Thanks to Miss Lomas, we broke fresh ground at Brasside for our second outing on June 19th. There a representative contingent of our members worked the lanes and ponds with great success. In the lanes we were able to study all the usual roses, including *Rosa mollis,* but were surprised to find the rarer *R. tomentella* dominant in places. The same area produced the commoner sallows, with the Dusky Sallow in addition, as well as hybrids. Around the ponds the usual vegetation was encountered, the most striking plant being an orchid, almost certainly *Orchis majalis,* new to Durham.

The ponds themselves were disappointing; still we did find the local water snail, *Limnea stagnalis,* and amongst the plants, the Bulrush, Forget-me-not, the Ivy-leaved Duckweed, Water Mint, etc. However, the most noteworthy plant observed in the water was the Floating Liverwort, *Ricciocarpus natans.* Although it is not proposed to divulge the precise locality, it must be recorded that Dr. W. A. Clark detected the Royal Fern in the area; this provides the third Durham locality in which this magnificent plant has been seen recently.

The third meeting was arranged for Cassop Vale where glorious weather and a goodly attendance favoured us. As we did our round, we encountered all the usual limestone plants, including Rockrose, Thyme, Marjoram, Restharrow, Kidney Vetch, Wood Violet, Greater Knapweed, Carline Thistle, Small Scabious, Great Burnet, Salad Burnet, Hoary Plantain, Blue Grass, etc. Of special interest were the fine plants of the Black Bryony, climbing in wood and hedge alike, and the glorious masses of roses; in. the latter group *Rosa sherardii, R. pimpinellifolia* and hybrids were the most noteworthy. The usual "catches" of butterflies, moths, bees, etc., were made, but the capture of the Chalk Carpet so far inland struck a rather unusual note. Of the butterflies taken the Dingy Skipper supplied a new Durham station.

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

Limitations of space will not allow a detailed account of all our excursions during the last three months. Instead, let us briefly recall our visit to the Magnesian Limestone quarries at Aycliffe

on May 15th, when we were favoured with an excellent view of the display attitude of the male Cuckoo when calling; the All Night Ramble on May 22/23, when Redstarts were seen in pleasing numbers by the Marske Beck, a very subdued Dawn Chorus being recorded owing to the high wind; the Middleton Tyas excursion on May 29th, when the Church and Rectory garden were visited and the Beaked Parsley (*Anthriscus vulgaris)* was observed on a roadside wall; our inspection of the Carboniferous Limestone, packed with crinoid stems and occasional other fossils, at Barton, on June 26th, and the sight of a Painted Lady butterfly (Vanes*a cardui)* on the return journey; a view of a Pied Flycatcher at its nesting hole in the Flatts Woods, Barnard Castle, on June 5th, when the Dog Stinkhorn *(Mutinus caninus)* was found in the egg stage; the expedition to Escomb Church and to Binchester, where the Roman hypocaust was explored by torch and candlelight on July 3rd; and the ramble through Whitcliffe Woods, Richmond, on July 17th, when Miss C. M. Rob introduced us to the Small Teasel (*Dipsacus pilosus)* in its most northerly British station.

Numerous specimens have been exhibited at the indoor meetings. At different times Mr. Nowers has shown the eggs, larvae and chrysalis of the Orange Tip butterfly *(Euchloe cardamines)* on the Garlic Hedge Mustard *(Sisymbrium alliaria)* and two very small Large White Butterflies (11/2 and 21/16 inches respectively across the wings) bred from the exceptionally late feeding larvae mentioned on page 16. The Elephant Hawkmoth *(Chaerocampa elfenor)* has been exhibited on two occasions, both captures having been made in the near neighbourhood of the town.

Numerous "first dates" have been contributed by various members and we have followed with special interest Miss. Dealing's reports on the successful nesting of a pair of Redstarts not far from the centre of the town. Another unusual occurrence reported was that of swarms of the tiny orange larvae of the Oil Beetle *(Meloe)* on various plants by the riverside between Low and High Coniscliffe on May 29th.

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB

The Forty Sixth Annual Meeting of the above Club was held on the 17th April, 1943.

The Secretary, Mr. Wm. Ellerington, reported a satisfactory year, both at Summer Outings and Winter Lectures. The attendance at the Winter Lectures being the greatest in the history of the Club, which has been in existence since 1899.

The Treasurer Mr. J. J. Robson, gave an encouraging financial report, and showed the Club to have a credit balance of £29/19/71/2, and a fully paid up Membership of 152.

The retiring President thanked all officials and members for their help during the past year, and was later appointed a Vice-President.

Mr. David Scott was unanimously elected President for the ensuing year, the officials being the same as those for 1942, with one exception, Mr. George Tindle being elected as Auditor.

On May 29th the first summer outing was held. Meeting at Ebchester Church, the party proceeded over the river to Newlands where the road turns right to Hedley-on-the-Hill. A short distance along this road a halt was made at a sand quarry, when Mr. G. Guy, with the aid of a map, gave an interesting talk on the effects of the Ice Age locally. Here, too, we saw nests of the Sand Martin, and the plants Pepperwort and Dovesfoot Cranesbill.

Further along the road we discovered forty kinds of wild flowers, the most interesting of which was the Greater Celandine. An unusual feature was the sight of bluebells and primroses in flower along one side of the road whilst on the other perfectly ripe strawberries were gathered. As we entered Heugh Wood, the masses of Red Campion and Bistort, as well as Guelder Rose, Elder, and Holly in flower, were much admired.

Tea was taken under the oak trees overlooking Ebchester, and here our President, Mr. David Scott, described the site of the Roman Camp, and pointed out parts of the old wall. The camp covered an area of 31 acres and had the settlement within its limits, a feature resembling the conditions at Piercebridge.

As the outing finished, Mrs. Guy took the flowers collected, and discussed them with the children, thereby strengthening the prospects of the Club in years to come.

A unique event in War Time was the Meeting organised by .the above Club to hear the "Dawn Song." In the early hours of the morning of the 6th June, members proceeded to Allansford Bridge which spans the river Derwent at a point on the Durham-Hexham turnpike road, separating Durham County from Northumberland.

The morning was perfect. Mr. J. G. Jackson, of Dipton, a member of the Consett Club, and a keen bird watcher for upwards of 30 years, kept us informed on the various birds heard.

From 3 a.m. the tawny owl kept us company. At 3.53 a.m. the curlew's call was heard, and answered, and at 4 a.m. its full-throated piccolo like notes were loud and clear. A short silence, then the robin, 4.10; skylark, 4.12; hedge sparrow, 4.20; willow warbler, 4.35; blackbird, 4.37; song thrush, 4.40; cuckoo, 4.41; yellow hammer, 4.45; wood pigeon, 4.46; carrion crow, 4.58; swallow, 5.06; brown wren, 5.12; tree pipit, 5.14; pheasant, 5.15; chaffinch, 5.21; the full enchanting chorus continuing until 6 a.m.

ANNFIELD PLAIN AND STANLEY NATURALISTS' CLUB .

The Annfield Plain and Stanley Naturalists' have just completed the summer programme (1943). On the whole fine weather has favoured the outings, only one meeting having to be cancelled because of adverse weather conditions.

Our initial club outing was at Tanfield, so arranged as to

coincide with a visit by the Rev. E. P. Pestle, a former vicar of Tanfield, and a keen antiquarian. He conducted the party through the church and Tudor House, and after tea to the Causey Arch. The botanist found plenty of interest in Causey Wood.

On June 5th the outing to Pontop Hall and Dipton Woods was under the leadership of Mr. McKinney. It was a joint outing with the Consett Club. Mr. McKinney described the hall and its history. The hall proved such an attraction that little time was left for the naturalist in the nearby woods, so we decided that on July 17th we would devote our time entirely to exploring this "Botanist's Paradise." Some sixty different flowers were found and named.

On Whit Sunday morning over twenty members left their beds at an early hour and travelled to Greencroft Woods for the "Dawn Song." A beautiful morning and a good performance by the birds was the reward. Mr. Jackson acted as leader.

Another joint meeting with the Consett Club that proved a great success was the outing to Hown's Gill. Mr. Wade was guide, and briefly referred to the part the Ice Age had played in the valley's formation. He also described the ingenious engineering devices employed to cross Hown's Gill prior to the construction of the present viaduct.

In mid August a visit to Gibside was well attended and much enjoyed. Here we were greatly indebted to Mr. Hutton, of the Consett Field Club, for his concise history of the Bowes Family, and his masterly description of the hall, chapel, etc.

What should have been one of our finest outings of the summer—a visit to the Roman Camp at Lanchester—was marred by inclement weather. However, the twenty seven enthusiastic members who braved the elements thoroughly enjoyed the address given by the Rev. T. Romans.

This first year of our Naturalists' Club has been one of adventure and experiment. Travel restrictions have compelled us to re-explore our own immediate neighbourhood, and the wealth of interesting matter so close at hand must have been a revelation to many. A full winter programme of lectures has been prepared covering a wide field of interesting topics in Natural History and Archaeology.

KING'S COLLEGE NATURALISTS

An indoor meeting was held on May 3rd, when Dr. K. B. Blackburn gave an illustrated lecture on "Teesdale." She discussed its most noteworthy plants and their habits. The lecture was well attended and the beautiful slides were much admired.

The expedition to Upper Teesdale (June 21st-24th) attracted 19 members who stayed at Langdon Beck Youth Hostel. The geologists investigated the Whin Sill at various points, and the Sugar Limestone on Widdy Bank Fell. Specimens of barytes, fluorite and calcite, as well as fossil brachiopods, were collected.

Of the birds noted, the curlew and meadow pipit characterised areas above the 1,000 feet contour, whilst the sandpiper was found nesting at the head of Maize Beck. In High Cup Gill, a raven and the black-headed gull were noted. At 2,000 feet swifts were observed flying over Mickle Fell.

The plants collected were very interesting. Of the flowering plants the Birds' Eye Primrose, the Alpine Bartsia, Butterwort, Globeflower, Shrubby Conquefoil, the Viviparous Fescue, the Mountain Pansy, Mossy, Starry and Yellow Saxifrages were the most important. Other plants included the Parsley Fern, Prickly Shield Fern, Green Spleenwort, Common Spleenwort, with the Common Selaginella and the Common Lycopodium,

NOTES AND RECORDS

NOTES.

The Oaks in Britain.—There are many interesting problems concerning the distribution of the two species of oak, the pedunculate oak *(Quercus robur* L. = *Q. pedunculata* Ehrh.) and the sessile oak *Q. petraea* (Mattuschka) Lieblein = *Q.sessilis* Ehrh. = Q. *sessiliflora* Salisb.) in the woodlands of Britain. On the continent they show rather different distributions, *Q. robur* extending furthest north and east, though *Q. petraea* often ascends to higher altitudes in the mountains of Central Europe. In Britain there is an unmistakable tendency for the oak in the west of England and in Wales to be entirely sessile, and that in the Midlands, the eastern and south eastern counties to be entirely pedunculate; indeed over very large areas one of the species occurs almost alone, the other being far rarer, and not infrequently confined to places where it has probably been planted. There are, however, some complicating features to this otherwise simple distribution. Thus within the "pedunculate" regions are a number of enclaves of varying extent—e.g., in Hertfordshire and Kent—where the woodlands are composed of sessile oak. There may well be other enclaves of this kind which have so far escaped mention in published literature, and there may be unrecorded enclaves of pedunculate oak in the "sessile" regions. Some writers have attempted to explain this distribution in terms of soil factors, but in some of the sessile regions of the west there is no evidence at all of one species or the other showing any particular soil preference, and much suggests that the distribution, is fundamentally geographical.

I am gathering material for a fuller study of the distribution and forms of our oaks, and should be very grateful for information of the following kind from any district: District, Wood, etc. Which species present? Is either species preponderant? Present in hedgerows, avenues, woods, etc.? In woods is either species present alone in stands or are both mixed? Are presumed hybrids abundant?

History of Woods referred to. Are they known to have been or likely to have been planted? (e.g., are they on large estates where planting was likely): are the woods referred to in a well wooded district; are they fragments of ancient chase, or are there any features of position, flora, etc., or documentary record pointing to antiquity of woods?

Geological formation, and general nature of soil (e.g., deep or shallow, dry rocky, sand or clay, basic or acidic, etc.).

General character of ground vegetation and other trees present in woods.

The sessile oak as compared with the pedunculate oak is characterised by the following features:-

Acorn's sessile or nearly so; petioles long (e.g. 1/4"); leaf relatively broad, especially in lower half, with small shallow lobes. (Base of leaf very variable, usually with some "shouldering" and often with recurvature of margin—not a very reliable character).

Some pubescence of minute, stellate hairs on under surface of leaf (very variable in amount sometimes traces only. Pedunculate oak may have simple hairs, especially on leaves of epicormic shoots). Typically with conspicuous tufts of bunched hairs in axils of lower veins of leaf.

Veins running to sinuses of leaf absent, or poorly developed at base of leaf only.—E. W. Jones.

The Humming Bird Hawk Moth in Durham.—On Thursday, July 8th, at 10.45 p.m., I saw, an example of this interesting immigrant feeding at flowers of a cultivated Dianthus in a garden at Bishop Auckland.—R. G. Donald.

RECORDS.

FLOWERING PLANTS.

Potamogeton friesii Rupr. 67
In Bolam Lake, constituting a new county record for S. Northumberland.

P. praelongus Wulf. 66
Known in the subfossil condition from Durham, this pondweed has not been previously reported from the area in a living condition; now recorded from the River Wear.

P. lucens L. Shining Pondweed. 110
Up to the present only recorded doubtfully from the Outer Hebrides; now reported with certainty *(pace* Messrs. Dandy and Taylor!) from a swift runnel near Loch Kildonan, SouthUist.

P. obtusifolius M. & K. 110
In a somewhat interesting form; Loch Snigisclett, S. Uist; first record for 110.—J. W. H. H.

Ranunculus peltatus Schrank. 66
This pretty water buttercup seems, according to Baker and Tate, to be rare in Durham; it grows near Cassop.

Viola hirta L. Hairy Violet. 66

V. silvestris Lam. Wood Violet. 66
Both of these violets are of common occurrence in the scrub and woodland along Cassop Vale. The hybrid between *V. silvestris* and *V. riviniana* was also noted there.

Saponaria officinalis L. Soapwort. 66
A new locality for this is on the Team near Urpeth.

Rosa tomentella Lem. Dogrose. 66
This rose, in various forms, abounds near the old mine in Cassop Vale; found also near Ouston and Washington.

R. canina L. Dogrose. 66

R. dumetorum Thuill. Hairy Dogrose. 66
Counts made in North and Mid Durham, on the Coal measures and Magnesian Limestone, respectively, to determine the relative frequencies of the two forms revealed that, with casual variations, not correlated with the geological formations concerned, they may be regarded as of equal frequency in the two areas. *R. durnetorum* var. *typica* was common enough.

R. coriifolia var. **lintoni** Scheutz. . 66
Recent road making activities have destroyed the old colonies of this form north of Birtley; new stations near Vigo and Brown's Buildings have been detected.

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BY THE WAY

We repeat our invitation to Secretaries of the Societies and others to supply us with news of their doings. It seems necessary, however, to emphasise that notes and records should be cast in the proper form. Further, it should be noted that much valuable material sent in this season could not be used because such essentials as localities and dates were omitted.

VITAMINS IN ROSE HIPS

In recent numbers of the Vasculum we have drawn attention to the importance of collecting rose hips as a source of Vitamin C. As is now generally known, a lack of this vitamin may be responsible for bleeding gums and nose, and for flabby tissues in children. Now, investigations are being carried on in the Ovaltine Research Laboratories on the same material as a possible source of Vitamin A, the vitamin which raises the power of resistance to infection, and whose absence may check growth, and produce inflammation of the eyes, and other ill effects. Local samples of hips sent to Mr. Frank Wokes, who is in charge of the work, have once again proved their value, for Birtley *Rosa obtusifolia* fruits have yielded nearly 20,000 International Units of Vitamin A per 100 grams, or almost double that recorded by Svensson for the best Scandinavian forms. Further, the hybrid *R. dumetorum x R. mollis,* from the unique bush growing at Birtley, has shown a carotene content of almost 19,000 micrograms per 100 grams, equivalent to almost 30,000 International Units i.e. three times the yield of the best form examined previously. These facts should stimulate local collectors of rose hips to redouble their efforts.

CULINARY HERBS

Recently, we received an extremely interesting copy (Vol. XXXII, No. 1) of the Brooklyn Botanic Garden Record. This is actually intended to act as a guide to the Herb Garden and was issued in January, 1943. It is divided into two sections; one of these bears the title "Culinary Herbs: their Culture, Traditions and Use" whilst the other is headed "Cooking with

Herbs." Both are redolent of old-world gardens long since vanished, and the effect is enhanced by the mediaeval engravings which illustrate them. Names like Basil, Balm, Cumin, Clary and Rosemary meet the eye at every page to bring back memories of the oldest fashioned of English gardens whilst the recipes, likewise in many instances long forgotten on this side of the Atlantic, are often strangely attractive; in particular, we like to imagine the flavour of those classified as "Bouquets and Suggestions." How can anyone ignore the call of the following? " .....and the umbel of creamy blossoms of the elder make a delicious fritter. Cut at the very height of bloom, soak in brandy (!) with a stick of cinnamon for an hour. Dip each cluster into rich egg batter, and drop into deep, hot fat, frying until a light brown. Drain on brown paper, serve sprinkled with powdered sugar and orange or lemon juice.".

As the Brooklyn Botanic Garden is supported by "municipal appropriations", and serves as a public park, one is tempted at once to wonder why our local authorities fail to supply similar educative and practical facilities in the form of Herb Gardens.

THE RELATIONSHIPS AND ORIGINS OF THE LEPIDOPTERA OF THE OUTER HEBRIDES, SHETLANDS, FAROES AND ICELAND

This paper (Proc. Roy. Irish Acad. **49,** B, 91-99), from the pen of Dr. B. P. Beirne, is of considerable importance to the zoogeographer. Basing his deductions on the present distribution of the Lepidoptera, he concludes (a) that the Outer Hebrides and Shetlands were not connected with the mainland in postglacial times, but that such a link existed in the late glacial Zone II period (of Jessen), *(b)* that either in the last interglacial period, or just after the "New Drift" Glaciation there were land connections involving Europe, the British Isles, Faroes, and, temporarily, Iceland and (c) that at a still earlier period, probably pre-glacial, America was linked to the same areas via Greenland. It will be noted that (a) agrees with the conclusions set out in our paper (Nature, **143,** p. 1009, 1939) dealing with the Flora and Fauna of the Inner and Outer Hebrides.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

By kind permission of the Principal of Neville's Cross Training College, to whom we tender our sincerest thanks, the Autumn Meeting was held in Hatfield Hall, Durham, on October 16th. Again we had a good attendance, and again contingents from the Consett Naturalists' Field Club and its daughter society at Annfield Plain and Stanley were out in full force.

Miss Lomas, the President, was in the chair, and the address was given by Mr. W. Lyle Stewart, M.R.C.V.S., of King's College. He took as his subject "Upland Sheep and their Biological Environment."

Mr. Stewart, who aroused the keenest interest in all, began by describing in general terms the chief breeds and crosses reared in the Cheviots and discussed successively conditions on the farms, sheep parasites and diseases, and ended by dealing with the typical vegetation of a hill farm.

The talk was illustrated by a long series of lantern slides. After the well-merited vote of thanks had been given, we adjourned for tea. For preparing this our best thanks are due to Miss Lomas and her helpers.

A wide range of exhibits had been assembled. Of these priority of place must be given to the specimens of grasses, insects, ticks, etc. brought by Mr. Stewart to illustrate his lecture. Similarly, Miss W. M. Lomas had on display numerous interesting objects; these included feathers representing the plumage of various poultry breeds, spruce cones attacked by squirrels, a collection of cultivated barberries, plaster casts showing the footprints of the sparrow, starling and blackbird, experiments with the Large White Butterfly and some local fungi. Miss Frederick brought for our inspection an almost unique specimen of a living Axolotl in the newt or adult condition; its metamorphosis had been induced by feeding it with thyroid. Under normal circumstances, only rarely does the Axolotl assume the adult stage as a lung breeder, and then only as a response to special stimuli. Miss W. Beevers of Neville's Cross College had on view early stages in chick development; whilst Miss A. Barnes dealt similarly with later stages. Miss Chalklin brought specimens of flax and the shrubby cinquefoil and Prof. J. W. Heslop Harrison displayed various pondweeds, including *Potamogeton friesii* from S. Northumberland and S. Uist, P. *praelongus* from the Wear, *P. lucens* and *P. obtusifolius* from S. Uist, *P. pusillus* from Kirkcudbright and many others; he also showed a Rhum (Barkeval) specimen of *Carex pedata*, the first recorded British example.

WEARDALE AND DISTRICT NATURALISTS' FIELD CLUB

Meetings of the club continue to be supported by a small group of enthusiastic members, but the many competing calls upon the time and energy of so many of us have reduced the number of field meetings and practical work.

The President of the club, Mr. J. E. Hodgkin, in his address at the Annual Meeting on March 26th 1943, spoke about "Beauty Spots in County Durham." His lecture was illustrated by an admirable series of water colour sketches drawn during a number of years, mainly dealing with scenes in the upper parts of the Wear and Tees valleys. All present agreed that, in spite of its reputation, Co. Durham compared very favourably with the rest of Britain in scenic beauty.

During the summer session the field meetings were few in number and attendance rather thin. In June visits were made to the districts of St. John's Hall and Dryderdale to the south of Wolsingham, and in September a joint meeting with the Consett Club was held at Helme Park near Tow Law.

The winter session opened on October 23rd, with a lecture by Miss E. M. Clegg (of Darlington) entitled "Where Curlew Roam." This was an account of the birds and plants met with by Miss Clegg during rambles in various Pennine dales and moors. On November 13th, Miss W. Beevers, in a lecture entitled "Harmony in the Body", explained how everybody took for granted the coordination of the body, but only began to realize its complexity when disharmonies appeared. After discussing the essential features of the working of the nervous system, the lecturer gave an account of the chief hormones in man. The importance of chemical coordination in early development of animals, and of the importance of hormones during the diapause of insects and in the growth of plants, were mentioned in conclusion. The lecturer on November 27th was Mr. H. Beresford Barrett. In a lecture on forestry, he outlined some of the important reasons why the subject of afforestation must receive more attention in Britain in the future. Besides their obvious economic and strategic importance, well grown woodlands contribute to the appearance of the landscape, minimise soil erosion, prevent floods, help to maintain a more equable temperature, and, in exposed farm land, may provide important wind breaks, as well as fuel and fencing materials. After deploring the present unfortunate depletion of timber in Britain and most European countries, Mr. Barrett forecast a drastic change in timber policy in post-war years. Types of growth habit of forest trees and the effects of trees in soil conservation were illustrated by lantern slides.

NOTES AND RECORDS

NOTES.

Herb Paris in the Derwent Valley.—I am very pleased to be able to report that the colony of Herb Paris about a mile west of Allansford Bridge, and about a hundred yards from the Derwent on the Northumberland side still exists. Trees have been felled and swamps drained, but the plants live on. A plant was noted with five leaves. —G. Guy.

Shap Granite erratic.—A small boulder of granite 5" x 3" x 3", found in undisturbed subsoil about fifteen inches below the surface in the garden of Grosvenor House, Wolsingham, was identified by Professor Hickling (when in Wolsingham in 1942) as Shap Granite. Further examination of drift sections in the Wolsingham area may reveal other distant erratics. Though not uncommon further east and in Teesdale, the most westerly exposure containing lakeland erratics in Weardale previously recorded was near Wear Valley junction.—D.R.H.

Noteworthy Oaks.—I shall be glad to have records of oaks growing in Northumberland and Durham especially noteworthy for size or age.—Dr. E. W. Jones, Imperial Forestry Inst.. Oxford.

Some Abnormalities of the Rough Hawkbit, Leontodon hispidus L. My sister and I have been cultivating large numbers of this species for the purpose of studying variation in leaf form and hairy covering. In the course of the work, several abnormalities in structure were observed which seem worth putting on record.

Single dandelion like heads of flowers are characteristic of the species; in cultivation, stocks from two localities produced plants with some, or all, of the flowering stems carrying two heads, the younger on a branch in the axil of a small bract. This resembles a condition often seen in starved forms of Cats-ear or Autumnal Hawkbit which however normally have more flower heads.

In a plant from Tarset the florets had the corolla tubular except at the very tip, instead of having a slit down one side to form a strap. I have seen a similar condition in a Dandelion.

The pistil, though composed of two carpels, normally produces but a single ovule and seed. Here two cases were observed in which the ripe fruit contained two sound seeds. Lastly, among the seedling's some were observed in which one of the cotyledons was bifurcated, sometimes looking as though there were three cotyledons.—K.B.B.

Red Squirrels.—One afternoon recently, as I was watching goldcrests in a wood in Weardale, a red squirrel came from a nearby bush; it jumped on to the path and ran towards me, stopping a yard or so away. Then it sat up, rearing its gorgeous tail behind it and gently clapped with its forepaws. It did this for about two minutes, looking at me all the time. Next it ran to the nearest bush, climbed to the top, tossed itself into the air, caught the lowest branches of a small tree, and sprang from branch to branch until it gained the top of the highest tree, seeming to be more often flying through space, than on the trees. It looked down to see that I had appreciated the performance, then continued to play amongst the branches until finally I lost sight of it.—D. Blackburn.

In our garden at Brampton we have a red squirrel which we see playing about and passing from tree to tree. Last winter, presumably owing to the mild weather, we saw our friend so frequently that, if hibernation occurred at all, it could only be for very short period. —J. Seymour.

Abnormal blackberries.—During the past season I observed a panicle of blackberries in which the tip displayed fasciation. Four berries were fused into a roundish head; of these two were below the others and had ripened earlier. The stem, as is usual in such cases, was flattened.—H. H. Clark.

During September I noted a similar example involving only two berries.—J.W.H.H.

A late date for tadpoles.—On October 10th some toad tadpoles were found in Allerdene Pond, near Low Fell, Gateshead. Many of these were in the earliest stages of development without any traces of legs, whilst others possessed hind legs only.—Sheila Collins.

Bird notes.—A pair of Common Buzzards were seen in Dipton Woods during the summer, whilst the Mallard (Wild Duck) successfully reared its young on the Derwent near Lintzford. Thirteen Crossbills were noted flying in a westerly direction at Castleside on July 14th and two days later a Siskin occurred near Stobb House, Dipton.—G.J. Jackson and J. J. McKinney.

Hedgehogs in Durham and Northumberland.—Many years have elapsed since I saw the hedgehog locally. However, in September two were seen near Birtley, and an observant roadman informed me that they had been quite common in the Team Valley during the past two seasons. I should also add that during the same month I observed the animal in North Northumberland and Kirkcudbrightshire.—J.W.H.H.

Late feeding larvae of Pieris brassicae L.—A few facts may now be added to my May note. The two larvae taken on January 1st and 2nd pupated eight and ten days later; they emerged on April 27th and 30th. Both were very small males, measuring one and a half and two and one sixteenth inches, respectively, whereas a wild male captured during the summer had a wing expanse of two and nine sixteenths inches. Another larva, taken on January 16th, in a cool greenhouse near the same spot, made an attempt to pupate on the floor of my cage without suspending itself in the casual manner; it did not appear to have sufficient vitality to complete the process and died.—J. E. Nowers.

Immigrant Lepidoptera in 1943.—With one exception, the Large White, it cannot be said that our usual visitors have been observed in great strength. However, most have been seen. The Red Admiral was reported by Dr. Hull at Belford, by Mr. Cooke at Corbridge and by many workers in other stations in the two counties. On the other hand, of the Painted Lady two records exist, one from Corbridge and the other from Pity Me. In addition, a single occurrence in N. Yorks. is on record. The Clouded Yellow put in an appearance in Southern England, but Chester-le-Street, where Mr. Hoy detected it, seems to have been its northern limit. The Hummingbird Hawk occurred singly to Mr. Donald near Bishop Auckland, whilst the Silver Y was not really rare anywhere.—J.W.H.H.

The Birtley Colony of Rosa agrestis Savi.—A few years ago these outliers of a very rare British species occupied a considerable space on a moraine near Birtley. Two years ago, however, when I re-examined them after a period of several years, they were found to be more or less swamped by a dense growth of elder and privet. In fact, only one bush, and that not fruiting, seemed to be healthy. I therefore cleared the area around it by removing overhanging ash branches, and cutting out smothering growths of elder and privet. Now, with the exception of this single bush, all the *Rosa agrestis* shrubs are dead. It, however, is a very vigorous bush and bore a fair supply of hips this season. Seeds from these have been sown, and, should anyone care to carry on a Durham rarity, I shall be glad to let them have seedlings in due course.—J.W.H.H.

Plague of Large White Caterpillars.—Early in August a swarm of Large White Butterflies appeared in Darlington; this was composed almost wholly of females. Later, these gave rise to caterpillars which defoliated cabbages in September and October.—J. E. Nowers.

RECORDS.

FLOWERING PLANTS.

Ranunculus flammula L. Lesser Spearwort. 66
A white-flowered form was collected in Butterby Marsh. —B. M. Lister.

Viola silvestris Lam. Wood Violet. 66
The commonest "dog-violet" with us is, of course *V. riviniana*, but its distribution is not precisely known owing to confusion with the present, and much more local species. Hence the necessity of giving a record for the Wood Violet from Tow Law.—K. Moses

Crataegus oxyacantha L. var. **eriocalyx** Dr. 69
This hawthorn is not recorded from Westmorland in Wilson's Flora of Westmorland (1938). Hence, despite the possibility of its having been planted, its presence in the form of var. *eriocalyx* Dr. in Brackember Wood is worthy of note. —F. M. Wilkinson.
Potentilla procumbens Sibth. Tormentil. 66
This segregate is sufficiently rare to warrant a note on its presence at Pittington.—M. Booth.
Rosa rubiginosa L. Sweet Briar. 66
As var. *echinocarpa* on the lake side, Lambton Woods.
R. sherardi Dav. Downy Rose. 78
In the form of the uniserrate var. *cinerascens* Dum. at Glenlair, Kirkcudbright.
R. canina L. Dogrose. 73
To help to correct the extraordinary notions now prevalent about the distribution of *R. canina* in Scotland, the following varieties are reported from Kirkcudbright: var. *lutetiana* Baker, var. *sphaerica* Gren., var. *separabilis* Desegl, var. *oxyphylla* Rip., var. *spuria* W.D., var. *globularis* Franch., var. *ramosissima* Rau. var. *syntrichostyla* Rip., var. *dumalis* Bechst., var. *biserrata* Mer., var. *eriostyla* Rip., var. *viridicata* Pug., var. *carioti* Chab., var *recognita* Rouy. var. *schlimperti* Hoffm., var. *sylvularum* Rip., and var. *verticillacantha* Baker.
R. dumetorum Thuill. Hairy Dogrose. 73
For a similar reason, we supply the following list of *dumetorum* segregates from Kirkcudbright: var. *urbica* Baker, var. *semiglabra* Rip., var. *calophylla* Rouy and *var.sphaerocarpa* Pug.
R.glaucophylla Winch. Northern Dogrose. 73
As forms of *sub canina* Christ, var. *reuteri* God., var. *subcristata* Baker, var. *adenophora* Gren. scattered everywhere in Kirkcudbrightshire. The absence of forms of *R. coriifolia* in lowland and upland areas alike seems very remarkable indeed.—J.W.H.H.
R. canina L. 67
Var. ·*verticillacantha* occurred near Callerton. —G. A. D. Jackson.
Rubus piletostachys Gren. & God. Bramble. 66
Plentiful on Birtley Fell and adjoining areas; of Rhineland. Switzerland distribution on the continent. Named by Mr. W. Watson.—J.W.H.H.
Stellaria nemorum L. Wood Stitchwort. 66
In the Woods at Dinsdale.—J. Pitcher.
Salix phylicifolia L. Tea-leaved Willow. 66
Two patches on a wagon-way at Birtley—the lowest I have seen it.—J.W.H.H.
Jasione montana L. Sheepsbit. 73
By a roadside, Glenlair.—J.W.H.H.
Potamogeton friesii Rupr. 73, 110
In Carlingwark Loch, Castle Douglas and in a drainage lode, Kildonan, Isle of S. Uist.
P. pectinatus L. 73, 80
In Carlingwark Loch, Kirkcudbright and in a mill race, Kelso.
P, pusillus L. and **P. millardii** Hesl.Harr. 73
Ditch near Kelso.—J.W.H.H.

P. alpinus Balb. 67
Pond near Mickley.
P. obtusifolius M.& K. 73
Apparently an addition to the flora of Carlingwark Loch.—J.W.H.H.
x **P. decipiens** Nolte. 68
Near the Union Bridge, R. Tweed; it seems possible the forms of this, or of *P. lucens*, form the basis of Baker and Tate's record of *P. praelongus* in N. Northumberland.—W.A.C.
P. perfoliatus L. 66
Apparently not on Dr. Griffith's list but occurring at Butterby.—B. M. Lister.
Menyanthes trifoliata L. Bogbean. 66
Plentiful in the pond near Old Cassop; the first time it has been noted on the Magnesian Limestone.
Salix andersoniana Sm. Dusky Sallow. 66
A single female bush in Cassop Vale near the old pit.
Carex otrubae Pod. **(=vulpina** auct.) Fox Sedge. 66
In full flower at Birtley, April 14th; Druce gives June!—J. W. H. H.

LEPIDOPTERA.

Colias croceus Fourc. Clouded Yellow. 66
On Thursday, Sept. 9th, I saw a single Clouded Yellow, in fine condition, cross the main street of Chester-le-Street and fly down to the fields by the riverside.—Donald Hoy. (This seems to be a "furthest" north record of descendants of the weak immigratory wave which reached this country this year.—J. W. H. H.)
Nymphalis io L. Peacock. 66
Seen in a garden in North West Durham on September 20th. It was accompanied by Red Admirals.—A. Raine.
Lycaena phlaeas L. Small Copper. 66
At Birtley on May 6th; my earliest date.—J. W. H. H.
Eumorpha elpenor L. Elephant Hawk. 68
Yesterday (Aug. 18th), I had a full fed larva of *E. elpenor* brought to me from Detchant. It was found crawling on the road so that its food plant cannot be ascertained. However, I conjecture that, in this case, it *was Epilobium hirsutum* (Hairy Willowherb.)—J. E. Hull.
Nymphalis io L. Peacock. *73*
In September this was by far the commonest butterfly in Kirkcudbrightshire, both in the upland areas and near Castle Douglas and Dalbeattie. Moreover I was informed it had been so established for some years.—J.W.H.H.
Lycaena phlaeas L. Small Copper. 67
The occurrence of dark forms of this species is unusual in the north; hence the capture of a form very strongly suffused with black scales is quite noteworthy. It must be regarded as var. *eleus*,—J. S. Ash. .
Eliclidimera mi L. Mother Shipton. 66
Very plentiful near Urpeth in May and June.
Achlya flavicornis L. Yellow-horned. 66
On birches near Birtley.
Apatele rumicis L. Knotgrass. 66
This was once one of the commonest moths in the Team Valley, and the larva could be found everywhere; then it vanished. During the past season it occurred in the larval condition on bramble everywhere, having made a complete recovery.
Ceramica pisi L. Broom Moth. 66
The position here is very similar to what has happened with the preceding. The recovery, however, has not been quite so complete.—J.W.H.H.