THE VASCULUM
(SUBSTITUTE)

Vol. XXVII. No. 1. **APRIL 1942.** Price Sixpence

Edited by
J. W. HESLOP HARRISON, D.Sc., F.R.S.
KING'S COLLEGE, NEWCASTLE UPON TYNE.

It is well known that, on account of the increasing difficulties brought about by war conditions, it was decided to suspend the publication of the Vasculum in 1940. As that periodical had formed the recognised medium for announcing and recording the various activities of the Northern Naturalists' Union, its suspension rendered it necessary for us to seek for other means of publicity. The Council, therefore, decided, with the full approval of our members, to produce the "Vasculum Substitute" of which this forms the first number.

It will endeavour to continue the work of the Vasculum in giving accounts of the work of the Union and of our members and associates, and will be sent to the affiliated societies and others on precisely the same basis as the Vasculum.

OBITUARY NOTICES.

REV. E. PERCY BLACKBURN.

The Rev. E. Percy Blackburn has been connected with local Natural History since 1922 when he became Wesleyan minister at Haltwhistle. For many years prior to this, he had been interested in Land and Freshwater Mollusca, and he therefore soon began to contribute local lists to the "Vasculum." However, it was not until 1929, when he retired, that he came closely into touch with the local societies, joining in succession the Wallis Club, the Natural History Society and the Northern Naturalists' Union, to all of which he gave active and regular support. Then followed a round of hard duties for he quickly found himself in office. He served a term as Field President of the Natural History Society and was subsequently in the Council for some years.

In 1933 he became Secretary of the Wallis Club and, although in his 79th year, was still in harness when he died on November 27th, 1940.

During the same period most of his other energies were devoted to conchology and his enthusiasm drew round him a group of people of similar tastes. From these was constituted the Conchological Section of the Northern Naturalists' Union.

The special line of study, which he took up, was a study of the distribution of local snails, and he contributed many records to the Vasculum. Ultimately, all of these, with older accounts, were combined in a comprehensive " Survey of the Land and Freshwater Mollusca of Northumberland and Durham," published as Part 3, Vol. I of the Transactions of the Northern Naturalists' Union.

Since its appearance more records have accumulated and an appendix has been prepared. In addition, he made a detailed study of the variation and distribution of the endemic *Clausilia cravenensis (=dubia),* the results of which have just been published by the Conchological Society of which he was a member for 43 years.

Without doubt his papers, so useful to students, will serve as his monument for many years; nevertheless, it is for his high personal qualities that Mr. Blackburn will be long remembered. His enthusiasm kindled that of others, and his anxiety for the welfare of beginners was especially marked. To all whom he encountered, whether of like tastes to himself, or not, there was always the kindly look and smile and the encouraging word. His words of comfort to those in need of such were always ready. In a few words he was beloved by all and will be greatly missed by them. The writers of this are glad and proud to have been able to call him their friend.

ROBERT HASTWELL SARGENT.

By the death of Robert Sargent, the Darlington and Teesdale Naturalists' Field Club has lost one of its best-known and most enthusiastic members. His association with the Club dated back to about 1907; he had served as Treasurer since 1920 and had twice been President, in 1917 and 1936.

Robert Sargent was a man of many activities, scientific, religious and social, and had wide interests outside the successful but exacting business which he had built up. He was prominently associated with many Darlington societies and was connected with the Darlington Technical College, almost from its foundation in 1897, as a teacher of Botany and other scientific subjects. Largely self-taught, he had a natural aptitude for teaching others.

At the Field Club meetings he frequently took part as lecturer or lanternist. At the more informal summer meetings he always encouraged the display of specimens and would often give impromptu talks about the exhibits.

When the foundling of the Northern Naturalists' Union was broached he gave it his cordial support and in due course became one of its Presidents.

We in the Field Club, and indeed all who were associated with him in any of his many activities, were ever conscious of

his sympathetic nature and genial and generous disposition, the charm of his ready smile and friendly approachability.

So had this white-haired (from early years) and somewhat frail-looking but wiry man, without any material advantages in early life, but by sheer grit and ability, raised himself to a position of influence and respect in the town, and then, while yet at the height of his activity and usefulness, on the 5th July, 1940, at the age of 68, the end came, and he went, leaving behind the memory of a Christian and charming personality. C.P.N.

THE SOCIETIES.

NORTHERN NATURALISTS' UNION.

By the kindness of the Council of the Natural History Society the annual meeting was held in the Hancock Museum on Saturday, March 7th. Although the weather was very bad, and the country still under war conditions, the attendance in all probability formed a record, and the meeting must be regarded as one of our most successful. Mr. George Guy, our President, was in the chair, and both the Treasurer, Mr. J. E. Ruxton and the Secretary, Dr K. B. Blackburn, read most satisfactory reports after which the members tendered their heartiest thanks to both, and to Miss Ethel Bolton, for the excellent work they had done during the past year.

Except that Mr. J. B. Nicholson was elected President, and that Mr. Guy took his place as Vice-President, the officials and council chosen were the same as those for 1941.

The lecture was given by Dr. P. G. Fothergill of the Department of Botany, King's College, and he took for his subject "Inheritance in Man". His lecture, which was well illustrated by lantern slides, was extremely interesting, and should prove of great value to his hearers in bringing them into contact with modern views, and in correcting the erroneous opinions of the far from distant past.

After the lecture the members adjourned for tea, and to exchange views and news. The tea was so attractive that all expressed their amazement at its excellence. The best of thanks of our members was tendered to Dr. Blackburn and Miss Bolton for having so successfully overcome the prevalent conditions.

The usual investigation of the numerous exhibits followed. Mr. Ruxton, as we have learnt to expect, entertained us with his beautiful pictures, illustrative of various aspects of bird-life. Dr. K. B. Blackburn produced novelties in masses of shell marl from Haltwhistle with the snail shells derived from it. She also displayed snails taken from the stones when the ramparts of Gunner Crags were excavated; of these *Clausilia cravenensis* were by far the most important. Mr. Newton had for our inspection beautiful local forms of the Small Tortoiseshell butterfly, the most

interesting of which were var. *ichnusoides* Selys. Mr. R. B. Cooke, struck a new line in bringing for our inspection a fine series of Hebridean and local mosses. Dr. W. A. Clark, Professor J. W. Heslop Harrison and he had on view no fewer than five species of mosses new to the British Isles. Of these *Andreaea hartmanii* Thed. came from Hallival, Isle of Rhum, *A. blyttii* Schpr. from Sron an Toister and Toddun, North Harris, *Aongstroemia longipes* Sommerf. from two stations in the Trollaimul area, N. Harris, *Cirriphyllum boscii* (Schwgr.) Grout from the Whaling Station, N. Harris, and *Hypnum budium* Schpr. from Uisgnaval More, N. Harris. Mr. Cooke also showed mosses new to this area; these are listed elsewhere in this publication. Professor Heslop Harrison had on view several Fumitories from South Harris and Benbecula, probably to be referred to *Fumaria muralis* Sond., and thus constituting a new county record for v.-c. 110. In conjunction with Dr. Clark, Prof. Heslop Harrison displayed some rare Eyebrights, also from the Isle of Harris, which included *Euphrasia borealis* Towns, from Luskentyre, *E. foulaensis* Towns., Allt Tomnaval, *E, frigida* var. *laxa* Pugsl. from Clisham, and Uigsnaval More, *E. curta* var. *ostenfeldii* Pugsl., Isle of Scotasay, and Toddun, E. *occidentalis* Wetts., Bealach Yeoravat, S. Harris. They also showed five new species of *Hieracium* recently described. These specimens were before Mr. Pugsley when he drew up his descriptions, and, although reference to all is made in the Journal of Botany, the fact that some material was ours is not stated. They include *H. vennicontium* from Lingadale, N. Harris; *H. hebridense,* Sron an Toister, Oreval, Trollamarig, Allt Tomnaval, Glen Skeaudale, Laxadale Burn, North Harris and Glen Valtos, Lewis; *H. ebudicum,* Trollamarig; *H. scarpicum,* Uig and Little Bernera, Lewis; *H. beebyanum,* from many localities in Lewis, N. and S. Harris, Isle of Berneray (H.) and Barra (K.B.B.). Of the sedges brought by the same gentlemen, the most noteworthy were *Carex juncella* Fr. from Beesdale, N. Harris, Isle of Scotasay, Great Berneray, Lewis; *C. chordorrhiza* Ehr. near Loch Stioclett, S. Harris; C. *rostrata* Stokes X C. *vesicaria* L. from Lochans near Langraclett and Nisabost, S. Harris. Mr. G. W. Temperley had also prepared for our inspection land and freshwater mollusca from the Natural History Society's collections whilst Miss Scott had on view an imago and living pupa of the Death's Head Hawkmoth obtained locally.

NOTES AND RECORDS

NOTES.

Casuals near Darlington.—The following plants were noted on the Corporation tip, Hundens, Darlington:—*Malva pusila* Sm., *Melilotus alba* .Desv., *M. arvensis* Wallr., *M. indica* All.. *Dipsacus sylvestris* Huds. *Senecio squalidus* L., *Phacelia ciliata* Benth., *Amsinckia* sp., *Anchusa offlcinalis* L., *Solanum nigrum* L., *Lycopersicum esculentum* Mill., and *Panicum crus-galli* L.—J.B.N.

Immigrant Lepidoptera in Durham and Northumberland in 1941. The year 1941 will always be remembered by local entomologists as the "great" Clouded Yellow *(Colias croceus* Fourc.) year. Never have so many specimens of this beautiful insect been seen with us and never have they been so widely spread. The early migrants, which were observed but rarely, began to appear late in June, but their descendants came out in full force in the following September. On railway bank sides and on coastal dunes, in fields, lanes and waste places from Barnard Castle to Berwick they were to be seen, a glorious sight as they dashed along in their gay array. Even the uninitiated layman took notice of their flight, and reported their presence. However, the usual immigrants like the Red Admiral, the Painted Lady, the Silver Y, the Death's Head, although of general occurrence, showed no similar abundance. The Camberwell Beauty *(Euvanessa antiopa)* also occurred casually. J.W.H.H.

The Hebridean Potamogetons exhibited at the Annual Meeting of the N.N.U. in March 1941.

Amongst the Pondweeds exhibited at our last annual meeting was an extremely interesting series of species and hybrids, some new to the Outer Hebrides and one hybrid new to the British Flora, all duly named by ourselves. These were recorded by us in three publications:(i) Occasional Notes from the Department of Botany, King's College, Newcastle upon Tyne. No. 1. March 14th, 1941; "Records of Hebridean Plants" by J. W. Heslop Harrison: (2) Occasional Notes. No. 2. April 28th 1941; " Hybrid Potamogetons on the Isle of Benbecula " by J. W. Heslop Harrison and W. A. Clark: (3) Proc. Univ. Durham Phil. Soc. X. 262-263, July 12th, 1940; " A Preliminary Flora of the Outer Hebrides "edited by J. W. Heslop Harrison. Since these records of ours appeared, they have been repeated from an examination of our material by Dandy and Taylor in the Journ. Bot. LXXIX, 97-101, (1940). In case, however, these repetitions of our records should be quoted as " first records" for v.-c. 110 we are obliged to point out that the last of our three papers appeared on July 12th 1941, whilst that of Messrs. Dandy and Taylor was published on July 24th, 1941. Independent of this are the obviously earlier dates of our other publications to which reference has been made. W.A.C., R.B.C., and J.W.H.H.

An Albino Swallow.

Several members of the Darlington Field Club visited Vince Moor West Farm, near Croft Spa, (vice-county 65), on July 20th, 1940, to investigate a report of a white Swallow. When we arrived, we found the bird conveniently perched on the stable eaves and had an excellent view of its pure white plumage before it flew off. Later, we watched it for some time as it circled over a neighbouring meadow, conspicuous as some great white butterfly against the dark woods beyond.

Although strong on the wing, it was clearly a bird of the year and we were informed that the other two members of the brood

had quite normal plumage. We were also shown the nest in which it had been reared. This was fixed to the side of a roof-beam, after the manner of a House Martin's, but much more shallow in outline and constructed of straw and mud. A second brood was being reared in it at the time of our visit and .the parent bird which flew off was a typical Swallow. J.B.N.

RECORDS.

INSECTA.

COLEOPTERA

Trypodendron lineatum Ol. 67
This species breeds in conifers and was collected from of 80 year old spruce on the Ray Estate near Sweethope.---K.B.B.

Neomyzaphis abietina Walker. 68
On Sitka Spruce at Kidlandlee.—A.S.

Paramerus (Dilachnus) vanduzei. Swain.
On Sitka and Norway Spruce at Kidlandlee.—A.S.

ODONATA.

Agrion splendens Harris. Demoiselle. 66
A single male on the Durham bank of the Tees below Middleton-one-Row, on June 22nd, 1940. This seems to be the first Durham record.—J.B.N.

LEPIDOPTERA.

Gnophos obscuraria Hb. Annulet. 67
Practically always restricted to our coastal areas, but now reported by Mrs. T. E. Hodgkin from Old Ridley, Stocksfield.

Eumorpha elpenor L. Elephant Hawk. 67
Also taken at Stocksfield by Mrs. Hodgkin on July 10th.

Coenonympha tullia Mull. Large Heath. 67
Captured in three distinct new stations in the Coquet area.
(Mrs. Hodgkin).

Vanessa io L. Peacock. 67
One taken on September 2nd at Stocksfield.

Elichloe cardamines L. Orange-tip. 67
Apparently increasing in numbers near Stocksfield and taken from the middle to the end of June.

Lycaena (Ghrysophanus) phlaeas L. Small Copper. 67
Although this butterfly is exceedingly common in many areas in our two counties, the var. *alba* Tutt, so often called *schmidtii*, occurs but rarely. However, it was taken on the dunes near Seaton Sluice in September 1941.

BIRDS.

Turdus merula merula L. 67
A single white blackbird was seen in the Exhibition Park; Newcastle, in February 1942.---D.B.B.

Numenius phaeopus phaeopus L. Whimbrel. 66
A party of five was observed on Greatham Creek on June 1st, 1940.

Larus marinus L. Great Black-backed Gull. 66
A single individual seen on Darlington Sewage Farm on September 7th, 1940.—A. Stainthorpe and J. B. Nicholson.

FLOWERING PLANTS.

Callitriche autumnalis L. Autumnal Starwort. 67
In Bolam Lake. Baker and Tate record it for v.-c.67 only from Prestwick Carr, a habitat long since destroyed.—K.B

C. obtusangula Le Gall. Starwort. 66
In a ditch on Birtley Fell; abundant when discovered now destroyed by the new road. A new county record.—J.W.H.H.
Hottonia palustris L. Water Violet. 66
Observed in a pond near Finchale when the N.N.U. worked the area in June, 1941.
Dianthus deltoides L. Maiden Pink. 67
Along the banks of the burn near Swinburn Castle.—J.W.H.H.
Hieracium schmidtii Tausch. 67
Growing on rocks near Swinburn Castle just above the stream; a new county record.—J.W.H.H.
Geranium lucidum L. Shining Cranesbill. 66
On the old disused slagheap, Birtley; the nearest point to the coast I have ever observed it.—-J.W.H.H.
Lamium galeobdolon (L.) Crantz. Yellow Deadnettle. 66
Collected when the N.N.U. worked the dune near Lumley Castle. Although its presence in the wood had been recognised previously, it had not previously been seen in flower. This likewise forms a welcome new county record.
Euphrasia spp.
Although the. aggregate *E. offlcinalis* had been recorded by Baker and Tate in 1868, the numerous microspecies into which it had been divided by recent workers had not been investigated by local botanists. Amongst recent collections Mr. H. W. Pugsley has recognised the following-
E. micrantha Reichb. 67
Rookhope and Harbottle.
E. micrantha Reichb. X **E. nemorosa** Pers. var. 66,67
collina Pugsl.
Rookhope and Stanton.—K.B.B.
E. confusa Pugsl. 67
Wark Burn.—R.B.C.
E. confusa f. albida Pugsl. 67
Ridsdale, Edmondbyers and Dipton.-—K.B.B.
E. nemorosa Pers. 67
Ross Links.—R.B.C.
E. brevipila Burnat & Gremli X **E nemorosa** Pers. 67
Rookhope and Corbridge.—K.B.B.
Rubus fissus Lindi. Bramble. 66
Sparingly at Butsfield and near Birtley.
R. suberectus Anders. Bramble. 66
Quite common on Waldridge Fell.
R. polyanthemus Lindeb. Bramble. 66
Common and widespread in Durham.
R. mucronatus Blox. Bramble. 66
Also far from rare in North Durham.
R. radula Whe. Bramble. 66
On banksides, on hedges, etc., between Tyne and Wear.
R. rivularis var. hirtiformis Sudri. 66
Near Pity Me, Co. Durham.
R. dumetorum var. conjungens Babs. 66
In the Team Valley district, probably generally distributed.
R. balfourianus Blox. ex Bab. 66
Lanchester; no doubt elsewhere.
R. caesius L. Dewberry. 66
Plentiful on railway banks, under hedges and walls, Birtley and Chester-le-Street.
R. corylifolius Sni. 66
Common in various forms.—J.W.H.H.

Atropa belladonna L. Deadly Nightshade. 66
Still growing on the cliff between Piercebridge and High Coniscliffe. This is doubtless the station referred to by Edward Robson in 1793.
Allium oleraceum L. Field Garlic. 66
On the Durham bank of the Tees below Middleton-one-Row. —J.B.N.
(Also noted when the N.N.U. investigated Urpeth Bottoms).
Paris quadrifolia L. Herb Paris. 67
Near Swinburne Castle.—J.W.H.H.
Potamogeton pusillus L. 66
Plentiful in an old clay pond south of Birtley, a new county record, identified by J.W.H.H.
Potamogeton pectinatus L. 66
In great abundance in the engine pond near the Ouston E Pit, Birtley.—J.W.H.H.
Scleropoa rigida (L.) Griseb. Rigid Fescue. 67
Thornborough Plantation near Corbridge; not previously recorded for v.-c.67 although known from v.-c. 66 (Durham) —K.B.B.
Brachypodium pinnatum (L.) Beauv. 68
In two places on the moor and in fields at East Bolton, near Alnwick; a new county record.—W. A. C.
Viola hirta L.Hairy Violet. 67
Rare enough in the Tyne Valley to be worth recording, by the Tyne below Howden Dene, Corbridge.
Utricularia vulgarls L. Common 67
Bladderwort.
What is presumed to be this was found by Sweethope Lough, but as it was not in flower it possibly might be *U. neglecta* Lehm., which has not yet been recorded for Northumberland.
Mimulus moschatus Dougl. Musk. 67
This N.W. American alien was established for 50-100 yards in a ditch near Stotsfold Farm, Hexhamshire.
Hordeum nodosum L. Meadow Barley. 66
In a hay field near Wynyard Park. Of this Baker and Tate say " grassy places, rare. especially in Northumberland.
Lycopodium alpinum L. Alpine Club-moss. 67
Two well grown plants seen on Dukesfield Fell.—R.B.C.

MOSSES.

Dicranum scoparium Hedw. var. **paludosum** Schp. 67
Muckle Moss.
Polytrichum strictum Banks. 67
Moorland near Sweethope Lough and Muckle Moss.
Amblystegium juratzkanum Schp. 67
Hawick Plantation near Sweethope.
Amblystegium varium Lindb. 67
Bearl Wood near Bywell.—R.B.C.
These four mosses are new records for v.-c. 67. Mr. J. B. Duncan has kindly checked them.
Grimmia unicolor Hooker. 110
Near the cairn, Toddun. N. Harris.
G. elongata Kautif. 110
On Uisgnaval More. N. Harris.
Philonotis wilsonii Braithw. 110
On a sandy exposure at the head of Glen Trollamarig, N. Harris,
Tetraplodon mnioides B. & S. 110
On Toddun, N. Harris.
Hypnym arcticum Sommerf. 110
On Uisgnaval More, N. Harris. W.A.C.

THE VASCULUM
(SUBSTITUTE)

Vol. XXVII. No. 2. **JULY 1942.** Price Sixpence

Edited by
J. W.HESLOP HARRISON, D.Sc., F.R.S.
KING'S COLLEGE, NEWCASTLE UPON TYNE.

Material for the present number of our Magazine has come in well, and we hope that this state of affairs will continue. Societies are therefore requested to supply us with accounts of their various activities as punctually as possible. Further invitation is extended to our members and associates, as well as to other readers, to send us notes and records of general interest These should be written in precisely the same form as formerly published in the Vasculum. We hope, however for obvious reasons, that our contributors will not forward communications which have appeared in other periodicals.

OBITUARY NOTICES.

FREDERIC CHARLES GARRETT.
Died December 19th 1940.

Dr. F C. Garrett was a member of the staff of what is now King's College, Newcastle upon Tyne for the thirty years preceding his retirement in 1921. He was a graduate of Manchester University, although he studied for some time at Göttingen. During his early research work, he became interested in the chemistry of coal and Trinidad pitch, which in the end secured for him a well-merited D.Sc.

He was a first-rate lecturer, a position he owed partly to his natural gifts, and partly to his care in preparing his work. He took great interest in students' activities, Athletic Clubs, Scientific and Debating Clubs, all receiving-his attentions. Similarly, he was one of the founders of the University of Durham Philosophical Society and served it firstly as secretary, and as editor of its Proceedings. Further, military science attracted him, and he was actively concerned in student training. This, at the end of the last war, secured him the O.B.E.

Always interested in field geology and natural history, after he left the army he turned his activities to developing local societies, for he played a great part in founding the Wallis Club

in 1923, and the N.N.U. in 1924. He was secretary of both for many years and acted as editor of our Transactions from 1933 to 1938. As secretary, he was fertile in new ideas, and, in carrying out the duties of his office, he took infinite pains to try these ideas out, and so to benefit the Societies and their members.

His interest in the military side of the Roman Wall led him to study local pre-history and quaternary geology which, in turn, so encouraged others that articles, inspired by him, but from many pens, have appeared in our Transactions. Dr. Garret's death is a real loss to local natural history and to replace him is difficult.

SOCIETIES

BENJAMIN MILLARD GRIFFITHS.

Few who came into contact with him will have failed to experience a personal loss in the death of Dr. Benjamin Millard Griffiths; whilst at the same time science has lost a devoted worker.

After a long illness, Dr. Griffiths passed away on March 25th in his fifty-sixth year. He was born at Kidderminster, and began a career of distinction when, in 1908, after graduation at the University of Birmingham, he was awarded a Research Scholarship. This enabled him to undertake researches in the freshwater algae for which he was awarded the degree of M.Sc. In 1923, he received the D.Sc. for published works dealing with the microflora of various lakes and pools in the English lowlands. This work led similarly to his election as a Fellow of the Linnean Society in 1922 and caused him to become one of the founders of the Freshwater Biological Association, and a member of its council.

Dr. Griffiths was best known in botanical circles as an authority on the phytoplankton of the smaller sheets of water in this country, which he investigated in various widely separated areas. However, his earlier publications included work on the sulphur bacteria and morphological subjects. Later, increasing disabilities caused him to study early botanical records. His last paper, appearing in 1939, dealt with " Early References to Water Bloom in British Lakes."

From a teaching post at West Bromwich, Dr. Griffiths passed in 1914 to the Queen's University, Belfast, as Demonstrator in Botany. After the outbreak of war, he volunteered for service as a bacteriologist in which capacity he served the Manx Government from 1917-1918. On his release from this post, he returned to Belfast but soon went as Lecturer in Botany to the University College, Reading in 1920.

His association with the University of Durham began the same year when he was appointed lecturer at Armstrong College. In 1924, however, he became Head of the Department of Botany at Durham, a post he held for fifteen years. To his initiative energy that Department owes its complete development. His retirement, due to ill-health, in 1939 was regretted by staff and students alike.

Dr. Griffiths' mental agility and clarity made him an excellent teacher. Many students remember with pleasure his deliberate but fluent lectures, interspersed with humorous references, and his kindly help in the laboratories.

From the moment of his arrival in the north, he took a great interest in local natural history activities. He was President of the N.N.U. in 1927, and gave many interesting lectures at winter meetings. The Algal Section of the Union owed much to him. Moreover, his extensive knowledge of the flora of local pools enabled him to make a start with a list of our freshwater algae. Material collected for this has often appeared as records in the Vasculum.

His dry whimsical humour, and his cheerful kindliness endeared him to everyone, and the calm courage with which he faced the inevitable end will never be forgotten. A real, unassuming, friend to all has passed away, and those left the poorer.

NORTHERN NATURALISTS' UNION.

The Forty-first Field Meeting of the Union was held on May 16th in the Winlaton Mill area. It proved one of the most satisfactory meetings we have ever had, for it was well attended by numbers of young and old alike, the Consett Field Club contingent being extremely prominent. Although few rarities were observed, many interesting spring flowers like the Wood Anemone, Woodruff, Bluebell, Moschatel, Bird Cherry, etc occurred in great numbers. One of the best plants observed, a novelty to us on these meeting's; was the horsetail, *Equisetum hyemale.* In view of the herb campaign members were shown various medicinal plants like valerian, wormwood, etc.; in particular, considerable time was spent in recognition tests in wild roses, especially *Rosa mollis.* Of the butterflies, only Green-veined White was in evidence, but crowds of young larvae of the various autumnal and winter moths were on the oaks, willows, and other trees. Many species of bees, including *Bombus hortorum, B. muscorum, B. terrestris, B. derhamellus* and *Andrea fulva*, of which a fine colony came under observation, were noted.

For the second outing of the year we visited the Cornsay district on June 20th. Again we were favoured with a fine day and a colossal attendance. Our investigations proved a great success for we detected many rare orchids, like the Butterfly, the Broad-leaved Helleborine, the Marsh Orchid, the Tway-blade and the Spotted Orchid, in goodly numbers. Other interesting plants collected were Sweet Cicely, Great Hedge Bed-straw, Wood Geranium, Kidney Vetch, the Dusky Sallow, the Tea-leaved Willow, Butterwort, Ivy-leaved Crowfoot, the Northern Yellow Rattle *(Rhinanthus stenophyllus)* Adder's Tongue Fern, Moonwort, and so on. Of the insects we found the Small Pearl Bordered Fritillary Butterfly quite abundantly, whilst Green Veins, Blues, Coppers, Small Heaths, with odd whites of the commoner species, were not infrequent. The moths included the Small Argent and Sable, Common Carpet, Silver Ground Carpet, Grass Rivulet, Bordered Magpie, Small Purple Bar and others; perhaps the Hook Tip was the best species to fall to the net. An account of this meeting would be incomplete without a note of appreciation of Mr. Hughes' efforts to provide us with tea. These proved a great success and we have to thank him and those at the farm for what they did for us.

The Third Field Meeting was arranged to take place in Lambton Park on July 4th. A goodly number of members put in an appearance, but as it rained the whole time, little, if any work was possible. We did see Red Campion colonies with considerable percentages of white forms present, quantities of the Alpine Currant, the Field and Wood Geraniums, the Common Spotted Orchid, the Meadow Fescue, the Millet Grass, the Canadian Pondweed and other things, but we were soon so wet that we were forced to return home. Members wish to express their thanks to Dr. Blackburn, Miss E. Bolton, M.Sc., and others who have laboured to make these well-planned outings possible.

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB.

Three typewritten volumes of Local Records have now been issued with a view to preserving accounts of current discoveries and other items of local interest which might otherwise: be lost. A fourth, reviewing in detail the Club's 50 years' progress and giving some account of other societies which have flourished in the neighbourhood in days gone by, is almost ready for circulation among members. A summary of the activities of these 50 years appeared in "*The North Western* Natur*ali*st" for December, 1941, and a copy may be obtained on application to the Hon. Secretary.

The Jubilee was celebrated quietly but enthusiastically on 29th April, 1941, when 80 members accepted the invitation of President, Miss R. E. Dowling, to partake of light refreshment following the Annual Meeting.

Despite war-time difficulties, the Club's activities have carried on with a minimum of interruption. The average attendance at last summer's excursions was 18 and at the winter indoor meetings 26. At the latter, twenty lectures were given, all but two by our own members. Two autumn evenings were again devoted to phenological reports, embracing detailed review of the plant, bird and insect life of the district during the previous year. The annual conversazione continues to be held each Year, catering difficulties being successfully surmounted by the ladies' committee, who on the last occasion provided for an appreciative gathering of 50.

We have suffered serious losses during the past year by the deaths of Mr. B. R. Lucas, our curator; Mrs. Sowe assistant secretary and Mr. J. Burgess. Mr. Lucas had for years devoted much time and expert attention to our collections to which he made numerous additions from time to time: his cabinet of eggs of British Birds being a gift of outstanding value;

The Annual Meeting on 28th April, 1942, was marked by the retirement from the Secretaryship, after 23 years in that office, of Mr. J. E Nowers. The President and several members expressed the deep appreciation which we all feel for his invaluable work on behalf of the Club and his unremitting devotion to its service. Mr. C. P. Nicholson was re-elected President at this meeting; Mr. H. Sowerby was appointed Hon. Treasurer and Mr. J Nicholson, Hon. Secretary.

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB.

Our winter session was ushered in by our annual Fungus Foray which was led in October by Mr. J. B. Nicholson, M.A. of Darlington. After that, the usual course of lectures followed the subjects in order, being " The Castles of Northumbria", Mr. C. J. Young, Newcastle upon Tyne; " Observations in a Day's Ramble" Mr. Milburn F.R.A.S.; "More Hebridean Adventures " Mrs. H. H. Clark, M.Sc.; and "Coal Forests" by Professor G. Hickling F.R.S. The whole of the lectures were well attended, and each was followed by interesting informative discussions and questions.

Two "Members Nights" appeared on our programme and on each occasion three club members gave lecturettes. Exhibits of objects of natural history and allied interests were brought for examination and discussion at all the meetings

The Forty-third Annual General Meeting was well attended, and Mr. Alfred Robinson was voted to the chair. The usual election of officers followed and these are:- President, Mr. Geo. Guy; Vice-Presidents, Sir Edward George, Miss Henderson, L.L.A., Mr. J. E. Ruxton, Mr. H. Bradley, M.Sc., Mr. T. Hutton, Mr. Horswill Jackson, Mr. A. Robinson, Mr. W. J. Dixon, Mr. D. Scott, Mr. F. Wade, Mrs. H. H. Clark, M.Sc., Miss C. Hudson, Mrs. Tindle; Field Meeting Organizer, Mr. T. Hutton; Assistant Organizers, Mr. J. J. Robson and Mrs. D. Scott; General Secretary and Curator, Mr. W. Ellerington; Hon. Treasurer, Mr. J. J. Robson; Auditor, Mr. A. Robinson; Lanternist, Mr. J. Horn; Committee, Mrs. Ramsay, Mr. Guy, Mrs. Dixon, Mrs. Rutter, Mr. D. Hudspith, Mr. J. Ellison, B.Sc., Mr. R. Fairlie, Mr. R. Brown, Mr. N. Raine, Mr. G. Tindle, Mr. J. F. Arkle, Mr. J. G. Piggins, Mr. S Bennison, Mr. W. Walton: Mr. T. Hutton was elected additional representative to the N.N.U.

It was agreed to give the proceeds (£3) of the annual social evening to the Red Cross Prisoners of War Fund. To help the National effort in connection with medicinal herbs a herb committee was formed with Mrs. Dixon as Secretary. Mr. Horswill Jackson sponsored an amendment to No. 8 of the Club's rules so that it shall read " Any person who shall cease to be a member of the club shall thereupon cease to have any proprietary interest in its assets.

THE NATURAL HISTORY SOCIETY OF NORTHUMBERLAND,. DURHAM AND NEWCASTLE UPON TYNE.

The Society has opened the Hancock Museum to the public, though, owing to the reduced staff, the hours are now restricted to between 1 p.m. and 5 p.m. Members of the Society, school classes, students and inquirers, however, can obtain admission in the mornings at any time after 11 a.m. by application at the Claremont Road entrance. Members of H. M. Forces are admitted free. In spite of the evacuation of so many school children, attendances at the Museum have steadily increased and the number of visitors is now nearly double that of pre-war years. Owing to the “black-out" lectures and other meetings have had to be suspended.

The Society is re-arranging its collections of the British Mollusca and will be grateful for donations of specimens of the rarer species, both local and otherwise. Herbarium specimens of British plants, particularly those of the more critical genera and recent additions to the flora, would also be very acceptable.

WEARDALE AND DISTRICT NATURALISTS' FIELD CLUB.

The activities of the club have been maintained during the year 1941-1942 though the number of meetings has been rather less than usual. Several members attended the series of summer field meetings very regularly but as yet no records of specimens have been kept. In the winter season lectures by, Dr. K. B. Blackburn, Dr. K. C. Dunham, Col. and Mrs. Sprot were greatly appreciated.

During the present season several well attended meetings have been held. The first of these on April 18th to Willow Green woods preceded the annual meeting. Botanical and geological specimens were exhibited after the routine business. *Daphne laureola* and *Gagea lutea* were perhaps the most notable plants in flower. During the winter a small group met regularly, for an introductory study of geology in preparation for the field season.

The Officials and Committee of the Club for 1942-43 are as follows. President, Mr. J. E. Hodgkin; Vice-Presidents, Rev. G. E. Minnear, Col. H. Sprot, Dr. Gray, Canon A. R. Dolphin, Mr. Lloyd Bentley, Mrs. J. F. McConchie, Miss M. E. Layton; Treasurer, Mr. J. L. Hilton, Secretary, Mr. D. R. Hughes, (Waskerley House, Wolsingham); Hon. Assistant Secretary, Mrs. J. H. English; Committee, Mrs. J. L. Hilton, Miss M. Graham, Miss J. Watson, Miss G. Dowson, Miss Pattinson, Miss O. Pickering, Miss A. Fleming, Miss C. Fleming, Mr. W. Carter, Mr. W. J. Skinner, Mr. J. H. English, Miss M. A. Stankley; Hon. Auditor, Mr. R. Hardy, Barclays Bank, Wolsingham.

NOTES AND RECORDS.

NOTES.

Notes on a Wear salmon.— On Saturday, May 16th, 1942, a salmon was seen in the Wear at Durham City just above Framwellgate Bridge but below the weir. When first seen it darted across the river, and then lay in the shallows beside the bank, only moving feebly and apparently stunned. It was dead about an hour later and severe bruises could be seen on its head. The fish was bright and silvery and clearly not spent. It was approximately 2 feet long and 4 Ibs. in weight. No others were observed. — G. M. Starkey.

The Cornflower once again.—It is a very long- time since I have seen the Cornflower in local cornfields, although I have observed it in plenty amongst oats etc. in the Moray Firth area of Scotland. However, it may now be seen in all its glory in an oatfield on Birtley Fell with other much more dangerous weeds. J.W.H.H.

The Flora of Easby Abbey Walls. — Since the Office of Works efficiently "cleansed“ the ruins of Easby Abbey, near Richmond, some years ago, many plants have re-established themselves on the old walls. A list of nineteen Flowering Plants and four Ferns were

compiled on a visit last year, the most noteworthy being the Viper's Bugloss *(Echium vulgare),* an uncommon plant in the district, though it also occurs on Richmond Castle. Some of the colonisers were doubtless bird-sown, e.g. Red Currant, Elder and Blackberry, but most were typical wall-lovers, such as Thale Cress *(Sisymbrium thaliana).* Vernal Whitlow-Grass *(Erophila verna*), Rue-leaved Saxifrage *(Saxifraga tridactylites*), Stonecrop *(Sedum acre),* Snapdragon *(Antirrhinum majus),* Wall Speedwell *(Veronica arvensis),* Pellitory of the Wall *(Parietaria ramiflora),* Wall Rue Fern *(Asplenium ruta-muraria)* and Brittle Bladder Fern *(Cystopteris fragilis),* and perhaps the two Scorpion Grasses *(Myosotis collina* and *arvensis)* might be included in this class. J.B.N.

NOTES AND RECORDS.

FLOWERING PLANTS.

Allium paradoxum G. Don. 68

This alien is reported to be naturalised " in several places near Cornhill-on-Tweed". See B.E.C. Report Vol. XXI 1938 p.60. G.W.T.

Potamogeton X nitens Weber. 67

This well-known hybrid between *P. gramineus* and P. *perfoliatus* has been claimed (*l.c.*. page 61) as a new county record on the basis of specimens taken from the Tyne at Broomhaugh, Riding Mill. G.W.T.

Cuscuta epithymum L Murray. Dodder. 66

On gorse etc., on the edge of Egglestone Moor, a very welcome new county record. J.W.H.H.

Medicago denticulata var. **apiculata** Wild. Toothed Medick. 66

One plant as a garden weed, Haughton-le-Skerne.

Datura stramonium L. Thorn-Apple. 65

One plant in a cornfield near Croft Spa.

Paris quadrifolia L. Herb Paris. 66

Still occurs in Flatts Woods, Barnard Castle, a confirmation of an old record. —J.R.N.

Alchemilla minor Huds. Lady's Mantle. 66

Fine and typical near St. John's Chapel in Weardale. J.W.H.H.

Gagea lutea Gawler. Yellow Gagea. 67

In a small birchwood between the river and the railway to the east of Corbridge, about half a dozen plants in April 1940. On both sides of the river Blyth in Plessey woods. These recent discoveries are interesting because it is seldom that this locally rare plant is recorded from new stations in our area. These were listed by Winch in his “Flora” in 1831 and few additions have since been made. G.W.T.

LEPIDOPTERA.

Butterflies and Moths.

Vanessa io I. Peacock Butterfly. 66

One visiting a bed of Aubrietia at Haughton-le-Skerne, May 11th, 1941. J.B.N.

Also on Waldridge Fell. J.W.H.H.

Argynnis aglaia L. Dark Green Fritillary. 66

In large numbers in Catkill Lane (north of Darlington) at the beginning of July, 1941, and one at Brampton on August 2nd. J. E. Nowers.

THE VASCULUM
(SUBSTITUTE)

OCTOBER 1942.

Vol. XXVII. No. 3. Price 2/6 per annum; post free

Edited by
J. W.HESLOP HARRISON, D.Sc., F.R.S.
KING'S COLLEGE, NEWCASTLE UPON TYNE.

OBITER DICTA

We trust that Societies will continue to send us accounts of their various activities as promptly as possible. In addition members and associates are invited to keep us supplied with notes and records of general interest. These should be cast in the same form as those appearing formerly in the Vasculum. All matter for publication should be sent directly to the Editor at the above address

THE ROSE HIP CAMPAIGN.

The demand for rose hips for the purpose of extracting essential supplies of vitamin C grows, and at least a hundred tons of hips must be collected in our area. Unfortunately the season for securing *Rosa mollis* hips is now over; nevertheless the peak period for those of *R. glauca* and *R. coriifolia* leaves about a fortnight for planning the campaign. May we appeal for a united and mighty effort from both counties to obtain as great a quantity as possible? The response from Northumberland has been fairly good, but that from Durham can be only be described as lamentable. It remains for our Societies to remove the stigma!

VITAMIN C IN ROSE HIPS.

Recently (Biochemical J. **36,** 336-339, 1942), Pyke and Melville have published an important paper with the above title. In it, however, there appear statements which are not incorrect but would, if left unchallenged, obscure certain important facts. They divide the British Roses into four arbitrary groups, the first of which is correctly described as indigenous to Scotland and the North of England. Of their second group, comprising *R. canina, R. dumetorum, R. rubiginosa* and *R. tomentosa* they remark that it is of "characteristically English distribution for the most part extending only to the south of Scotland and there

becoming rare." This is far from being the case, for *Rosa canina* reaches the Outer Hebrides and the Orkneys, and *R. dumetorum* ranges to the Isle of Rhum and the Orkneys; both are often very plentiful in their Scottish habitats! Moreover, *R. rubiginosa,* extending to Rhum and the Moray Firth, could not be more abundant than in some of these stations; even in north-east Northumberland it abounds. Their third group include *R. agrestis, R. micrantha, R. obtusifolia* and *R. spinosissima.* All four occur with us, the first two being restricted to Durham whilst *R. obtusifolia,* referred to by Pyke and Melville as "extending as far north as Yorkshire," is locally common with us and often, as at Stagshaw, Northumberland, appears as the dominant form; it actually reaches the Isle of Eigg! Again, their remark as to the coastal range of *R. spinosissima* will not hold; it is just as likely to occur far inland as on the coast. Let it be noted, too, that it occurs in Iceland.

Thus their view that there is a co-ordination between the latitudinal range of British rose species and their vitamin content falls to the ground; the actual co-ordination, as we have already pointed out, is between the time of ripening and the vitamin content, the earlier the period of ripening, the greater the content of vitamin C.

They also express the view that a possible source of variation is the presence of unrecognized hybrids; since all British roses except *R. arvensis* and *R. spinosissima* are already known to be crypthybrids reproducing, in general, apomictically, we fear that, like many previous workers, they will speedily jettison that opinion.

STUDIES IN THE MIGRATION OF LEPIDOPTERA.

Here again we wish to introduce our readers to a valuable and, interesting paper (Proc. R. Ent. Soc. Lond. **92.** 101-283, 1942) by Williams, Cockbill, Gibbs and Downes. It is too long to summarize satisfactorily, but those of us who came under the influence of the late Dr. F. C. Garrett and other local workers on the subject must read it to appreciate how far the study of insect migrations has progressed. We must, however, protest about the numerous gaps in the Bibliography which purports to include all references “that have been traced in the past ten years," and which have not been supplied previously by Williams. Apparently, the Vasculum has been scanned, but of all the observations published by Carter, Garrett, Heslop Harrison, Johnson and others, only two by Garrett have been picked up; we can point to a dozen which have been passed over.

THE STUDY OF BRITISH POTAMOGETONS.

Encouraged by the continued success of our investigations in the Potamogeton flora of the Inner and Outer Hebrides, Department of Botany, King's College, Newcastle upon Tyne has undertaken researches on the geographical distribution of the British Pondweeds, and its bearing on the problems of phytogeography. To assist this work in the meantime, we should be grateful for the use of collections of pondweeds from Durham and Northumberland, the Border Counties and Yorkshire. Material should be sent to the address just given.

THE SOCIETIES

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

Local rambles have been arranged almost every Saturday during the summer. Outstanding among them was the All-Night Ramble, held in Swaledale on May 30th-31st.

The Fungus Foray, held in Raby Park on September 12th, produced 55 species, of which 22 were additional to the 92 listed five years ago.

At the weekly indoor meetings numerous specimen plants, insects, etc. have been exhibited and "first dates" and other nature notes exchanged in informal discussion. Among other topics, the Corncrake has been reported from Upper Teesdale and Arkengarthdale and Dunlin in breeding dress from Summer Lodge Tarn, Swaledale, where the Black-headed Gulls have been less numerous this year.

At one meeting, Mr. Nowers recounted recent observations of the Mason Wasp *(Odynerus spinipes)*, several nests of which he had found on stone gate-posts near his home. In an illustration of his remarks, he showed specimens of the female insect, larvae, pupae, the paralysed Winter Moth caterpillars with which its cells are provisioned, and the cocoons of a parasite.

Some of our members have been active in organizing Herb Collecting in the district. Miss R. E. Dowling, who has been appointed County Secretary, would be pleased to advise other Clubs willing to co-operate in this important work.

NOTES AND RECORDS

NOTES

Ornithological Report for Northumberland and Durham.—Owing to the suspension of "The Vasculum" the Reports, for 1939, 1940 and 1941. were published in "The Naturalist," the organ of the Yorkshire Naturalists' Union. The first appeared in the issue of August 1941, the second in September 1941 and the third, in March 1942. The Report for 1939 gives particulars of the large herds of Whooper Swans that visited Northumberland, breaking all previous records; that for 1940 gives an account of the effect of the severe winter of 1939-40 on bird life. The most important event recorded in the Report for 1941 is the nesting of the Goosander in Coquetdale, the first time that the Goosander has been known to nest south of the Border. Unfortunately, the nest was molested, and the birds deserted. There is also a description of the large "invasion" of Waxwings in the Autumn of that year. A Report for 1942 will be compiled. Owing to the war, only few ornithological observations are being made, but those members who have any should send them to the Recorder, G. W. Temperley, "Restharrow," Stocksfield.

A Hybrid Potamogeton new to British lists.— The work on Hebridean pondweeds carried out by the Department of Botany, King's College, Newcastle upon Tyne, in 1942, proved as productive as ever, two hybrids, one new to science, being added to our lists. The novelty, to be discussed fully in the Proc. Univ. Durham Phil. Soc. has been named *X Potamogeton* Heslop-Harrison mihi, and has the parentage *P.gramineus X P.berchtoldii.* It was found in Loch Grogary, N. Uist (v.-c. 110). The second form *X P. cooperi (=P. crispus X P. perfoliatus)* was detected on South Uist. W. A. Clark.

Note on a Chara Marl at Haltwhistle.—Owing to extensive use in the past for agricultural purposes few marls are now available for study. Last year, Mr. R. G. Carruthers of the Geological Survey discovered, in the river bank at Haltwhistle an excellent section of deposits, including marls, filling up a hollow in boulder clay and not visible till broken into by the river. The biological details were found to be of interest and dating, by their aid, proved possible.

The base of the deposit was a thick marl almost free from shells. Above this were several feet of laminated clay and a second marl with a large number of fresh-water shells belonging to the species *Limnaea peregra, Planorbis laevis, P. crista, P. complanatus, Valvata piscinalis, V. cristata, Sphaerium corneum* and *Pisidium sp.* Within the upper marl and above it were peaty layers containing seeds and fruits chiefly of White Water Lily, but also of Birch, Floating Pondweed, Bogbean and Sedges. In parts where the deposit was deeper, the seed layer became a drift-wood layer, with twigs of Willow, Hazel, Birch and Elm with Hazel nuts and a few seeds of Yellow Water Lily. Above this, the clay contained beautifully preserved leaves of several species of willow.

Pollen and other microscopical remains were examined from all layers. Up to the top of the upper marl were found remains of Desmids, *Pediastrum* and *Botryococcus;* pollen of Reed-Mace, *Myriophyllum alterniflorum.* Sedge, Grass and Heather, and spicules of Fresh-water sponge, but the only tree pollen besides Willow was that of Pine and Birch. At the top of the upper marl, the open water organisms begin to disappear, and Hazel and Elm

pollen and the spores of ferns are to be found. No other trees were represented in the deposit though alder was carefully searched for.

A comparison with known early post-glacial deposits seems to confirm the idea, derived from a general examination, that this was formed at that time. The association of species of the Mollusca, the presence of *Myriophyllum alterniflorum* and absence of forest trees other than Birch and Pine, all point to an early deposit, though the layers at the base, which might have shown evidence of the earliest arctic conditions, yielded no evidence. The appearance of the Hazel in the upper marl marks a recognized phase in the development of the surrounding forest, but it is clear that the hollow was completely filled before the time of appearance of Alder and therefore long before the end of the "Boreal" Climatic Period. K. B. Blackburn.

Notes on local pondweeds.—Researches in connexion with our local Potamogetons, although restricted, have been fairly satisfactory, eight species being noted. Of these, *Potamogeton densus* L. was observed only in a pond near Wallsend (v.-c. 67) whilst *P. crispus* L. seemed quite general, occurring in many ponds in v.-c's 66 and 67. *P. natans* L. and *P.* polygonifolius Pourr. were even more abundant in suitable habitats in both areas. On the other hand, *P. pectinatus* L. was a little less common in the engine pond at Birtley (v.-c. 66) than previously. Not faraway from it, in the River Wear, *P. perfoliatus* L. formed a .dense fringe for long stretches. That interesting pair, the species with tubular stipular sheaths, *P.pusillus* L. (sec. Dandy & Taylor) and the plant with open stipular sheaths, P. *berchtoldii* Fieb. (sec. Dandy & Taylor), were both encountered, the first named in a clay-pond near Birtley and it's ally in Hebburn Ponds (66) and near Brown's Buildings (66). We use the two names just cited with hesitation because, despite the masterly differentiation of the species by Hagstrom (1916) and Fernald (1932) under the names *P. panormitanus* Biv. and *P. pusillus* L. respectively, confusion still exists about them. Of open stipular material, i.e. *P. berchtoldii* from the Hebrides, borrowed from us by Dandy and Taylor for study purposes, some were labelled by them *P. berchtoldii* Fieb. and some *P. pusillus* L.! J.W.Heslop Harrison.

Note on the vegetative reproduction of Sedum villosum L.—In June plants of *Sedum villosum* were found in flower on the hill at Bavington, growing on a thin layer of soil over limestone rock. The typical flowering plant produces several branches of star-like pale pink flowers but without any barren shoots. Fruits are developed and the whole plant dies. Amongst the flowering plants were others forming a cabbage-like rosette of leaves. These were brought home and planted. They grew into a cluster of axillary branchlets, all, including the terminal, with a rosette of leaves at the tip. In July and August, these fell off, rooted at the nodes and became separate plants. Other plants investigated at Allenheads growing in damp soil near peat, also had barren shoots. From both stations, *a* few late flowering plants were found with both flowers and vegetative shoots, the latter seemingly replacing part of the inflorescence On looking up *Sedum villosum* in the floras it was described as annual or biennial, but there was no mention of vegetative reproduction. Babington classifies it as "without rooting shoots" whereas these reproductive shoots frequently develop roots before falling off. He also

says that it has "seedlings with a rosette". It has still to be determined whether these vegetatively produced plants flower the following year. D. K. Blackburn.

Bird Song at Dawn.— The Darlington Club's 15th All-Night Ramble was held in Swaledale on May 30th-31st. Mr. Stainthorpe once more led the party, which numbered 15, and was as indefatigable as ever in pointing out the notes of the various birds. The volume of song was less than usual, owing to the smaller number of thrushes, robins, blackbirds and larks taking part, but a good variety of species was recorded, the details being as follows ("double summer time" used):-

During the night:—1.05 a.m. Lapwing; 1.10 Snipe (drumming); 1.25 Lark (a few notes); 1.30 Tawny Owl; .1.50 Curlew.

At Dawn:—4.15 a.m. Woodcock; 4.26 Pied Flycatcher; 4.35 Curlew; 4.41 Song Thrush; 4.42 Blackbird; 4.54 Chiffchaff; 4.55 Robin; 5.00 Pheasant; 5.02 Wren; 5.08 Garden Warbler; 5.15 Woodpigeon; 5.16 Willow Warbler; 5.21 Whitethroat; 5.23 Wood Warbler; 5.24 Greenfinch; 5.30 Great Tit; 5.34 Chaffinch; 5.39 Tree Pipit; 5.45 Blackcap; 5.50 Blue Tit; 5.50 Green Woodpecker; 5.52 House Martin; 5.54 Cuckoo; 5.54 Rook; 5.55 Pied Wagtail; 5.56 Jackdaw. Later, three Nuthatches were seen. J.B.N.

The Mushroom Crop of 1941.—The prolific Mushroom crop of 1941 was remarkable in two respects. In the first place, it occurred in a season when other similar fungi (i.e. toadstools generally) were extremely scarce. And secondly, it was a double crop. Mushrooms first appeared in great numbers towards the end of August, but their season was apparently cut short by the September drought. Towards the middle of October, however, the rain-softened ground permitted a fresh crop to develop and thence until the first week of November, they were to be found in rare plenty—quantities of "button" mushrooms appearing at a season when one usually sees only a few old specimens. J.B.N.

Random notes from Belford and elsewhere.—Since the beginning of July, we have had our annual "rainy season" which seems to have established itself permanently. Just before it got fairly started the Ringlet Butterfly, *Aphantopus hyperantus* L. paid me a visit (June 29th-July 2nd), the first time I have seen it in the garden. One or two Cinnabars turned up, and one day this week I found a larva feeding on groundsel.

On June 11th, I had sent me a very fine specimen of *Alchemilla hybrida* Mill. from the farm, Blackshaws, Cumbrian side of the Irthing. Later, on July 21st, from the same locality I received a collection of orchids. This included *Platanthera bifolia, Gymnadenia conopsea, Coeloglossum viride, Listera ovata, Orchis incarnata, O. purpurella, O. fuchsii and O. elodes.* The latter species seems very variable.

At last I have succeeded in finding *Valeriana offlcinalis* L. *{=mikanii* Syne); it turned up amongst rather sparse grass on a dry roadside near Swinhoe Farm, Middleton. J.E.H.

Food of the Grey Lag Goose. — Recently I received from Mr. S. Cook at the Hancock Museum the contents of the stomach of a Grey Lag shot near the Estuary of the Tay. lt consisted almost entirely of tubers, about the size of a hazel nut, with various amounts of scales

still attached. Two of the least digested ones began .to grow and ultimately produced long rough leaves like those of the Sea Club Rush, *(Scirpus maritimus).* Few of our floras refer to the underground parts though Hooker's Students Flora says "rootstock often tuberous". An old work on the Scandinavian Cyperaceae by Anderssen seems to solve the riddle. He draws the plant with rhizomes ending in what looks like the dropper of a tulip and is probably the tuberous structure eaten by the goose.—K.K.B.

RECORDS.

FLOWERING PLANTS

Allium oleraceum L. Field Garlic. 66

On the bank of the Tyne on the Durham side, one mile above Ryton; reported by W. Eltringham, August, 1940. G.W.T.

Cakile maritima Scop. Sea Rocket. 62,66

Has increased surprisingly along the beaches at seaside resorts owing to barbed-wire protection!

Melilotus alba Desr. White Melilot. 66

A casual weed, seen this year near Blackwell (on waste ground) and near Piercebridge (in a field of sown cloves).

Scirpus sylvaticus L. Wood Club-Rush. 66

By the Tees side at Blackwell, along with *Carex pendula.* J.B.N. .

Onopordum acanthium L. Cotton Thistle. 66

One plant reported from the bank of the Tees, near Neasham. J. E. Nowers.

X Potamogeton decipiens Nolte ex Koch. 68

South Bank of the Tweed, a little west of Cornhill. K.B.B.

Potamogeton acutifolius Link. 67

Very sparingly in a backwater between Riding Mill and Corbridge; a new county record. J.W.H.H.

X P. zizii Koch ex Roth. . 67

This hybrid between *P. gramineus* and *P. lucens* also a N.C.R., turned up in Crag Lough. J.W.H.H.

Calamagrostis epigejos Roth. 66

A grass, rare in our counties, but discovered in quantity on the east bank of the North Tyne below Chollerford. K.B).B.

Vicia sylvatica L. Wood Vetch. 67

This beautiful plant has been observed recently in fair quantity, and flowering well, in Plessey Dene. K.B.B.

Hypericum acutum Moench. 66

On a pond edge, Brown's Buildings. J.W.H.H.

Alchemilla alpestris Schm. Lady's Mantle. 66

On bank sides, Quarrington Hill. J.W.H.H.

Rosa canina var. beatricis Burn. & Grem. 66

Several bushes on the old Target Heap, Birtley; apparently a "furthest north" record. J.W.H.H.

R. dumetorum Thuill. Hairy Dog-rose. 66

A few bushes, almost typical except for their hispidulous peduncles, found in Lambton Park. Some descriptions give such peduncles to var. *corymbifera* Borkh. and perhaps to that form the plant should be referred. J.W.H.H.

Epilobium hirsutum L. . Hairy Willowherb. 66

Well characterized plants of the variety *mllosissimum* were gathered near Bowburn. J.W.H.H.

E. obscurum x E.parviflorum (=X **E.dacicum** Brb.) 66

With the parents around the lake in Lambton Park. J.W.H.H.

Centaurea nemoralis Jord. Knapweed 66
The prevalent segregate on the Magnesian Limestone in the Quarrington Hill area; the other segregate *C. obscura* Jord. Seems abundant in most districts J.W.H.H.

Datura stramonium L. Thornapple 66
This poisonous plant with it's variety *Tatula* L., has appeared in plenty in newly broken ground along the river-side in Lambton Park; this seems puzzling as it is far from any likely source. J.W.H.H.

Echium vulgare L. Viper's Bug-loss. 66
In the same area, but rarer. J.W.H.H.

MOLLUSCA

Manorbis corneus L. 66
In Hebburn Ponds; in Durham and therefore an extension to its known Durham range.—J.W.H.H.

Anodonta anatina L. 66
Also in Hebburn Ponds and much more abundant there than the preceding; likewise new to Durham .J.W.H.H.

LEPIDOPTERA

Argynnis agiaia L. Dark Green Fritillary. 66
Taken at Stanhope in fresh condition on July 27th, and worn at Sherburn on August 16th. T. W. Jefferson.
[The second record, falling in line with those of Mr. J. E. Nowers in our last issue, is very important for it reveals, as in the case of the Peacock, an attempt to regain lost ground. —J.W.W.H.]

Nymphalis io L. The Peacock. 66, 67
Noted in July at Birtley and also on the Vigo railway on September 13th; observed on Buddleias in the College Garden in the early part of September. J.W.H.H.,,

Vanessa cardui L. Painted Lady. 70, 67
Crag Farm, Birkby, Ravenglass, 27th August, 1942. R. G. Donald.
In the College Garden, Newcastle. J.W.H.H.

Metopsihis porcellus L. Small Elephant 70
Hawk.
Larvae on Galium at Birkby, Ravenglass, Cumberland. R. G. Donald.

Eurnorpha elpenor L. Elephant Hawk. 67
Larvae brought to me from Ponteland by Prof. G. W. Todd. J.W.H.H.

Nonagria typhae Thnbg. 66
Evidently not uncommon at Hebburn Ponds; a new locality and replacing that recently destroyed at Low Fell. J.W.H-H.

DIPTERA

Perrisia persicariae L. 66
Found galling *Polygonum arnphibium* near Hebburn Ponds.—J.W.H.H.

Rhabdophaga rosaria H. Low. 66
Making its characteristic rosettes on *Salix rubra* near Hebburn Ponds; this yields a new local substrate for the species.—J.W.H.H.

HYMENOPTERA

Cimbex femorata L. Birch Sawfly. 66
From Croft Spa, per Mr. H. A. Innes.---J.B.N.

THE VASCULUM
(SUBSTITUTE)

DECEMBER 1942.

Vol. XXVII. No. 4. Price 2/6 per annum; post free

Edited by
J. W.HESLOP HARRISON, D.Sc., F.R.S.
KING'S COLLEGE, NEWCASTLE UPON TYNE.

BY THE WAY

Once more we express our hope that the Societies will continue to supply us with news of their doings at the earliest possible moment. In addition, we repeat our request to members and associates to send us notes and records of general interest. The latter invitation is extended to the Training colleges and Schools; we know that they have suitable material at their disposal. We should like to point out that, with the issue of this number, subscriptions for 1943 become due.

NEW SOCIETIES.

We have the greatest pleasure in welcoming two societies to our ranks. The first of these, King's College Naturalists, has been founded, as its name indicates, at King's College. Its object is to combine the basic studies inside the College with the equally important, but often neglected, activities in the field. The foundation of the other, the Annfield Plain and District Naturalists' Field Club, affords us one more proof that interest in natural history in North-West Durham is as much alive as ever. We hope that it will have a measure of success as great as that of its sister club in the Consett area.

MORE ABOUT VITAMIN C IN ROSE HIPS.

In the last number of the Vasculum we discussed attempts to correlate the latitudinal range of British roses with Vitamin C values, and pointed out that such "correlation" only became possible by ignoring the actual distribution of our roses. Recently, Darlington (Nature,**150,** 404,1942) tried to forge a similar link between increasing degrees in polyploidy and ascorbic acid content. In a criticism (Nature, **150**, 514) we showed that this view was untenable as *mollis*, possessing, on the average, the highest amount of Vitamin C, is only tetraploid, whilst the bulk of our roses higher on the polyploid scale, reveal a lower ascorbic content. On the same page *(l.c.)* Melville and Pyke give further correlations, including that of Darlington, as well as our own, which in the very words of Melville, "they had discarded as it

had turned out that the whole of the section of Pimpinellifoliae consists of early ripening species"—a really amazing explanation. However, in the present note we propose to confine ourselves to a further consideration of the alleged vitamin-polyploidy correlation.

In their original article (Biochem, J., **36,** 336), Pyke and Melville give four lists of species, graded according to their Vitamin C values. The first, consisting of 5 species, said to be richest in Vitamin C, includes 2 diploids, 1 tetraploid, and 2 hexaploids, whilst the third on the scale displays 2 diploid, 2 tetraploid and 3 hexaploid species, with one hexaploid hybrid and a hybrid (probably diploid) of uncertain origin. Their fourth and lowest contains *R. helenae* (diploid) only, but, against regarding this as significant, should be set the fact, seemingly disregarded in the polyploidy-vitamin correlation, that *R. cinnamomea,* placed abnormally high in respect to vitamin content by Russian workers, is likewise diploid!

Clearly the facts, exactly as in the case of British roses, are very far indeed from supporting the proposed correlation; yet upon this flimsy basis, Darlington (Nature, **150,** 575) reaches the very remarkable conclusion "Dr. Melville and Dr. Pyke now make it clear that the principle of vitamin-chromosome correlation . . . is indeed a valid inference." Further comment seems a waste of time; the facts speak for themselves!

THE BRITISH VALERIANS

Some time ago, Dr. Drabble wrote a paper (B.E.C. Report, 1932) attempting to clear up the muddle involving the British members of the Officinalis section of the genus Valeriana. His findings were summarized in a paper in this Journal (22) No. 2, 1936). It was urged that our commonest plant was not the rare *V. sambucifolia,* but a broad-leaved form of *V. officinalis.* A narrow-leaved variety of the same species was that illustrated in Butcher and Strudwick's "Further Illustrations" as *V. mikanii* Syme, whilst a form with still narrower foliage was regarded as *V. angustifolia* Host. Dr. Drabble, therefore, recognized four different forms which he regarded as differentiated by definite combinations of leaf, fruit and stolon characters. However, as these distinctions were found to break down in the field, a new attack was planned, depending upon the knowledge that continental forms had races with different chromosome complements. Dr. Barbara Todd undertook the re-investigation, and has devoted several years to it. Her cytological work on plants from 29 localities, well distributed in Britain, has produced negative results, for every wild plant had the same chromosome number (56). The morphological results likewise yielded no evidence of the existence of sharplv marked species.

V. angustifolia proved quite elusive, as plants answering most nearly to the description changed under cultivation to broad-leaved forms. Some plants corresponding exactly to named varieties of *V. officinalis* and *V. sambucifolia* did turn up but many more displayed transitional characters. This was particularly evident when small populations were studied in detail; Raasay populations, agreeing in leaf form with *V. sambucifolia*, showed fruit types covering the whole Dr. Drabble's range; a Northumberland population, in addition to producing individuals with no stolons at all, gave a range of stolon length of 2 to 20 cms.; moreover, leaves in the colonies worked almost invariably covered the ranges of at least two of the described forms!

The problem was further complicated by the discovery that changes in environment will alter the characters of a plant those proper to one form to those characteristic of another. This had been suspected previously from the study of colonies showing ecological differences within their habitats, and transplant experiments, although few in number, seemed to confirm the idea.

Dr. Todd's experimental work does not afford complete proof, but the large body of evidence, derived from wild material points to the great probability that in Britain the forms belonging to the Officinalis group must be regarded as representing the single polymorphic species

THE SOCIETIES

NORTHERN NATURALISTS' UNION

The Autumn Meeting was held by .the kind invitation of our Darlington friends, in their rooms in Skinnergate. It was a very successful and enjoyable meeting, attracting a large number of members to hear the lecture given by Dr. K. B. Black on the "Elk Pond at Neasham and Other Prehistoric Pools" The lecture was a very interesting one, and Dr. Blackburn traced the various geological events which led to the development of the pool and the presence of the elk there. Further, from the evidence provided by the elk, and the plant remains accompanying it, she showed how important were the deductions which could be made in respect to the climate prevailing after the close of the Ice Age and even later. There was a brief discussion after which the President conveyed the best thanks of the members present to Dr. Blackburn for her excellent and useful lecture.

There was quite a number of exhibits, but pride of place must be given to Mr. J. E. Ruxton's display of bird photographs; they were truly magnificent. Dr. Blackburn had on view some Northumbrian pondweeds, whilst Professor Heslop Harrison brought for inspection a series of Durham Eyebrights, and Potamogetons from Northumberland and from the Outer

Hebrides, the latter including *Potamogeton rutilus* from the Isle of N. Uist, new to v.-c. 110, *P. friesii* from Baleshare (110) and the new hybrid *P. gramineus* x P. *berchtoldii.*

Tea was served in the Rooms by kindness, of the Darlington and Teesdale Naturalists' Field Club, and all the visiting members wish to congratulate the Club for its excellence and**,** in particular, to thank the ladies for all they had done to bring it together.

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB.

Although the outstanding feature of the Autumn Session has been the visit of the Northern Union on October 17th, we have had a. succession of interesting lectures on such subjects as "Saxon Darlington" (Mr. C. P. Nicholson), "Yorkshire Dialect" (Mr. E. L. Davison), "Seeing and Hearing" (Miss E. M. Clegg), "Wood Borers" (Miss R. E. Dowling), and "Some Problems of Food Storage" (Mr. C. Walker). In addition, the usual annual reports have been given on plants (Mr. J. B. Nicholson), insects (Mr. J. E. Nowers) and birds (Mr. A. Stainthorpe); these summarize a good deal of quiet observational work carried on throughout the year by a dozen or so of our members. A number of enjoyable rambles have been arranged informally during the autumn for the purpose of collecting rosehips and similar desiderata.

KING'S COLLEGE NATURALISTS.

The first field, meeting was held in Plessey Dene on Saturday, November 14th

Fungi and Mycetozoa were found in great abundance, perhaps the most interesting being *Lachnea setosa* Phil., *Radula orbiculare* Tul., *Coryne sarcoides* Tul., and two species of *Trichia, T. varia* and *T. botrytis.* Liverworts and mosses, too, were plentiful and included *Lunularia* with gemmae, and *Dicranella heteromalla* Schpr.

Ferns and flowering plants were less common, but amongst the few observed were the prickly shield fern, the red campion, sow thistle, welted thistle and the three-nerved sandwort.

The entomologists recorded the males, as well as the wingless females, of the Mottled Umber and Winter Moths, whilst one of the highlights of the afternoon was the sight of kingfishers by the river.

NOTES AND RECORDS.

NOTES.

Quarrington Hill Jottings.—On September 2nd, advantage was taken of the beautiful weather to walk from Bowburn to Quarrington Hill to work the limestone plants there. At first sight, the countrvside looked disappointing as so much land had been ploughed out, but our spirits soon began to rise as we noted the plants in the

hedgerows. There in one damp spot we observed no less than three species of Willow-herb growing together, including *Epilobium hirsutum*, *E. parviflorum* and their hybrid. The Hoary Ragwort, *Senecio erucifolius* occurred there in quantity with the Saxifrage, the Burnet Rose, the Great Burnet, Salad Burnet, Restharrow, the Fragrant Orchid, Twayblade, Guelder Rose and Slender False Brome Grass.

Arriving at the limestone exposures, we directed our efforts to the detection of *Primula farinosa*, the Bird's-eye Primrose which, to our joy, was still present in plenty. At this point, we found late blossoms of *Viola sylvestris* as well as a very Iarge bush of R. *mollis x R. spinosissima*, completely sterile.

Eyebrights were also plentiful on the banks with *Gentiana amarella*, Purging Flax, Carnation Grass, Thyme, Carline Thistle, Milkwort, Betony and *Selaginella*. In a thicket nearby, one of most striking plants was the Black Bryony which twined around birch and hawthorn, with blackish green leaves glistening in sun.

On the roadside adjoining this, we found a strange association, the Mountain Everlasting growing alongside the Rock Rose, Sea Plantain, the Hoary Plantain, the Blue Grass *Sesleria caerulea*, the Quaking Grass, the Greater Knapweed and the Cuckoo-pint. Of the shrubs Birch, the Goat Willow and Hazel predominated with a carpet composed of Woodruff, Wood Sanicle, Wood Sorrel, Selfheal and the Wood Sedge.

Dewberry fruits, found here in some abundance, found a welcome addition to the brambles *Rubus dumetorum* which we gathered as we made our way to Shincliffe, following a short cut, which, as very often happens, belied its name.

Ethel Bolton

More Notes on Local Pondweeds.—In late September, opportunity presented itself of visiting Crag Lough (v.-c. 67) and of working the Potamogetons there. We found the lough difficult to work, but nevertheless, by examining the rejectamenta on shore beneath the crags, and by using the dredge, a goodly number of interesting species was assembled. Of these, by far the most plentiful were *Potamogeton praelongus* Wulf., *P. alpinus* Balb., *P. crispus* L., and *P. obtusifolius* M.&K., of which, strangely enough, *P. praelongus* was not recorded by local workers in days that are gone; on the other hand, as if .to balance this *P. lucens* L., which they do record, occurred to us as mere fragments, whilst *P. perfoliatus* L. was in a position very Iittle better. *P. gramineus* L., *P. pusillus* L., and *P. pectinatus* L., here reaching their furthest inland, and most elevated habitats in the county, were probably much more plentiful than our collections would seem to indicate.

Of the hybrids collected x *P. zizii* has been recorded already in the October Vasculum, but the other x *P. cognatus* Aschrs. & Gr. *(= P,-praelongus* x *P. perfoliatus*), which seems to be new to Britain, is reserved for further and more detailed study.

J.W.Heslop Harrison and W.A. Clark

Bird Notes from South Northumberland.—I was interested in Miss D. B. Blackburn's record of the white blackbird as, in the first week in October, I saw a white-headed blackbird in the R.V.I. grounds; moreover, during the past years I have, on several occasions, seen a piebald blackbird in the neighbourhood; probably all are related. In addition, I should like to record the detection of the Water-rail near the Font at Eachwick on October 17th, of a Redstart at Netherwitton in the spring of 1940 and a pied flycatcher in the same area in 1938.

E. W. Miller

Plant Flowering in 1940, 1941 and 1942—A remarkable feature of the last three years has been the great similarity of the weather sequence each winter and spring. Each year, after a mild back-end, January and February have brought us winter weather of unusual severity, whilst the spring that followed has been dominated by cool, dry winds. Similarly, in consequence, plant flowering has been backward from the start, and has become increasingly late until towards the end of March. From this stage, the course of events in 1941 was in strong contrast with that in the other two years. In 1940 and 1942, April records of first flowering evidenced a marked tendency to return to more normal dates; this tendency received a definite check during May, so that it was not until early June that the season became normal. In 1941, on the other hand, when North-East winds prevailed for so long, the April recovery of the other two years did not take place and flowering continued to be exceptionally backward throughout the whole of May and June.

J.B.Nicholson'

A Puzzle Solved.—For a long period we have been puzzled by the fact that a beautiful hybrid rose with the parentage *Rosa mollis x P. spinosissima* grew just west of Birtley Fell. The *R. mollis* parent presented no difficulty, for that species grew in a nearby hedge. To our knowledge no Burnet Roses grew nearer than Penshaw Hill. This year a solution was obtained when a colony of *Rosa spinosissima* was observed in a hedge west of the Fell, between it and the village.

J.W.H.H.

Immigrant Lepidoptera in 1942.—On the whole, our usual immigrants have been present in very small numbers, although the Silver Y *Plusia gamma* and the Red Admiral *Vanessa atalanta* made a better show. The former was first noted in June at Cornsay and continued at Birtley, Stocksfield, etc., until early October. On the other hand, the Red Admiral first put in an appearance at Corbridge in May and at Birtley in July, the second brood emerging over wide areas in September and October. Its congener, the Painted Lady, was rare in South Northumberland in September as were larvae of the Death's Head Hawkmoth in October. Of the Clouded Yellow *Colias croceus*, I have only a single record and that from Barnard Castle, Co. Durham.

J. W. H.H.

Vegetative Reproduction in Equisetum hyemale.—This evergreen species of Horsetail is not common in the district, but has recently been found at Whittle Dene and on the Excursion to Winlaton Mill. In the latter place, it was growing in quantity on the railway embankment, and stems collected were kept in a jar of water. In about a week's time, it was noted that from just beneath the surface of the water, on each stem, one or two buds were being produced below a node and not above as in most plants. There buds grew out from a vertical slit and produced a new stem and new roots so that, given suitable conditions, any broken stem will produce a new plant. It was also noted that later on, although branching in general is not normal to this species, new stems without roots were being produced, in addition, below some of the upper nodes which were above the water.

K.B.B.

Reproduction in Moschatel (Adoxa moschatellina).—It has been noted that in this district Moschatel often produces no seed and during attempts to trace differences between plants from the very active purely vegetative colonies and those from the less luxuriant fruiting patches, seeds of the latter were sown among the plants bearing them. This year, in the second spring, they have germinated and have produced, besides the two cotyledons, one small simple ivy-like leaf and a white thread like stem which turned straight down into the ground and produced, at .once, a pair of the thick white scales characteristic of the underground parts of this plant. At first glance this resembles the behaviour of a potato seedling but there it is buds in the axils of the two cotyledons which grow out and bear the small potatoes, whereas in this case the main shoot itself is used up.

K.B.B.

FLOWERING PLANTS.

Calamagrostis epigeios Roth. 67

To round off Dr. Blackburn's record of this grass in v.-c 67 it can be recorded as growing in great abundance on banks of the Tyne between Corbridge and Riding Mill —J.W..H.H.

Potamogeton millardii Heslop Harrison. 67

This species, for which the name *P. berchtoldii* has been recently, grows in Bolam Lake and at Great Swinburn. K.B.B.

P. pusillus L. 68, 67

At Cornhill (K.B.B.) and in Crag Lough.—J.W.H.H.

P. alpinus Balb. 66, 67

In the fish pond Gibside (J.W.H.H.), Crag Lough (J.W.H.H. and W.A.C.), in theTyne near Wylam (W.A.C.), and at Great Swinburn (K.B.B.).

P. obtusifolius M. & K. 67

In Bolam Lake (K.B.B.); in Crag Lough (J.W.H.H. and W.A.C.).

P. gramineus L. 67

In the Delf Burn in a deep place in an otherwise fast stream—K.B.B.

P. praelongus Wulf. 67

Plentiful in Crag Lough, but not recorded Baker and Tate. It is, however, recorded in the "Supplement to Topographical Botany," Edition 2, by Arthur Bennett, and the Comital Flora by Druce on the basis of specimens in the Winchester Herbarium. Can anyone elucidate what is meant by this, tell us by whom and where the specimens were collected (J.W.H.H. and W.A.C.)

P.crispus L. 67

Great Swinburn and in a pond near Hartley (K.B.B.); mill dam near Swinburn Castle.—J.W.H.H.

X P. nitens Weber 67

Attention was drawn in our July number by Mr. Temperley to the occurrence of this plant in the Tyne at Riding Mill. It should be noted that there is a splendid bed of pondweeds there including this hybrid and the parents as well *P. natans.* —K.B.B. and J.W.H.H.

x P. sparganifolius Laest.

In the same station as the preceding; but very rare. J.W.H.H.

P. perfoliatus L.

In the Tyne at Wylam.—W.A.C.

Euphrasia curta Fr. ex Wetts.

This species, new to v-c, 66, occurred at Brown's Buildings and on Birtley Fell as the var. *glabrescens* Wetts.—J.W.H.H.

E. curta var. **glabrescens x E. confusa f. albida**

This hybrid, easily recognised as such, grew on Birtley between colonies of the parents.—J.W.H.H.

E. confusa f. albida Pugsl.

Birtlev Fell and the Vigo Railway.

E. nemorosa Pers. (Lohr) 66

Quarrington Hill, Shincliffe, Cassop as var. *collina* and at Vigo as type.—J.W.H.H. (All named by Mr. Pugsley).

Callitriche autumnalis L. 67

Common in Crag Lough.—J.W.H.H. and W.A.C.

Hippuris vulgaris L. 67

Now recorded for the first time from Crag Lough. J.W.H.H. and W.A.C.

Rosa dumetorum Thuill. 66

As I was collecting rose hips in the Brooms, Birtley, I took a biserrate *dumetorum* form with long hispid peduncles. It answers to nothing in British textbooks and comes nearest to var.*subaudica* R.Keller.—J.W.H.H.

Cornus suecica L. 68

This plant was noted in fruit this year on August 27th in its Rimside Moor station.—G. A. Swan

Geranium endressi Gay 66

An escape naturalized in a hedge near Wolviston. —J.D.C.Miller.

MOSSES.

Fissidens viridulus Wahl. 67

Mr. Duncan, who kindly verified this moss, says that it is not rare, although it has not previously been detected in v.-c. 67. It occurred in abundance on the south shore of Bolam Lake.—K.K.B.

Thuidium philiberti Limpr., 67

A rare moss, recently discovered at Allenheads by Miss Lobley, has now been found again at Capheaton and named by Mr. Duncan.—D.B.B.

LEPIDOPTERA.

Argynnis aglaia L. Dark Green Fritillary. 67

A female on a knapweed flower at Prestwick (13/8/42). \

J. A. Dunn and J. C. Rogerson.

Nymphalis io L.The Peacock. 66, 67, 68

This fine butterfly seems to have been common this season; Brink Burn Priory, Cockle Park, Harelaw, Newcastle (J. A. Dunn and J. P. Rogerson), Crag Lough (W.A.C.), Stocksfield (Mrs. T. E. Hodgkin and J. F. Wood), Newcastle (E. Shirley), Birtley (J.W.H.H.), Ingram (Mr. Bryant).

Polygonia c-album L. 67

A male on Devil's Bit Scabious at Cockle Park (22/9/42) —J. A. Dunn and J. P. Rogerson. (These two workers are to be congratulated on their success as this insect, although a casual capture was made at Rothbury in 1904, vanished from our area 80 years ago).

Euchloe cardamines L. The Orange Tip. 67

Two seen at Stocksfield.—Mrs. T. E. Hodgkin.

Polyommatus icarus L. Common Blue. 66

The second brood occurred at Birtley and Quarrington in September. —_J.W.H.H.

Saturnia pavonia L.The Emperor Moth. 67

Larvae in extraordinary numbers on bilberry in a lane south east of Deneraw Wood, Langley.—W. Carter.

Eumorpha elpenor L. Elephant Hawk. 67

A single larva at Stocksfield, pupated September 4th.

Mrs. T.E.Hodgkin.