

THE VASCULUM (SUBSTITUTE)

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Edited by

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BY THE WAY

Once again we urge the Societies to supply us with news of their doings as regularly and as punctually as possible. This invitation is not only extended to Secretaries, but also to members and associates, for we feel sure that they have material of interest to all to communicate. Such contributions should be sent directly to Professor Heslop Harrison at the above address.

We should like to point out that subscriptions for 1944 are now due.

REV. DR. J. E. HULL

We are very sorry to have to record that the Rev. Dr. J. E. Hull, Editor of the *Vasculum* and one of its founders, has been in poor health for some time, and has, in consequence, been obliged to resign his living at Belford. He is going south to live with his son, and we trust that he will speedily feel the benefit of the change.

Dr. Hull will be greatly missed in Natural History circles in the North, where his wide and accurate knowledge of almost every aspect of field biology has been freely placed at the disposal of all. In addition, the same may be said of his connections with local history and geography. We shall indeed be the poorer when he departs from our midst.

The good wishes and gratitude of everyone go with him in his retirement, and we sincerely hope that he will live long to enjoy the countryside there as has been his fortune in the North.

MEDICINAL HERBS

In our last issue we reviewed briefly a guide, issued by the Brooklyn Botanic Garden, which dealt in a most charming manner with old-world herbs and their uses. Recently, we received a further copy (Vol. XXXII, No. 3, July, 1943) supplementary to the first inasmuch as it concerns itself with their Medicinal Plant Garden.

It begins by supplying an interesting historical survey of the use of plants in medicine, commencing with the important Ebers papyrus (c1550 B.C.) and carrying the account down to the present day. In it we are shown how the gropings of primitive

man in search of food led to the discovery of the medicinal properties of plants and, finally, to the isolation of the vast numbers of drugs of vegetable origin now utilised in the modern practice of medicine. In a second section, we have an authoritative account of the various medicinal plants now in cultivation in the garden, with the uses of each carefully set out.

The whole guide is freely illustrated by reprints of quaint mediaeval woodcuts depicting early herbalists and druggists at work and, incidentally, throwing light on such superstitions as those associated with the mandrake. Like its predecessor, it cost 25 cents and is a marvel of cheapness.

We are extremely glad to be able to report the continued success attending the efforts of collectors of rose hips locally. In the four northern counties, Northumberland, Durham, Cumberland and Westmorland, no fewer than 110 tons of hips were assembled, a total representing nearly 25% of that obtained in England and Wales. This represents a local increase of 100% on 1942 results, compared with a 30% increase for the rest of the country. Further, it should be remembered that our rose species yield hips giving a much higher percentage of vitamin C than those growing in more southern areas.

We should like to congratulate our old friend, Mr. T. Hutton, and his able team on their noteworthy contribution to the grand total.

THE SOCIETIES

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

The Autumn Session was opened on October 5th by the President (Miss E. M. Clegg) with an address entitled "From Fins to Fingers," in which she traced the evolution of the Hand.

The Annual Fungus Foray was held on October 9th in Dalton Wood, on the Yorkshire bank of the Tees. Returning to the Club Room for tea, a talk was then given by the Secretary on the specimens collected. 67 species were identified. On the Tuesday following, the Secretary spoke on "Fungi as Food," drawing attention to some of the most useful of our less-known edible species.

The meetings on October 19th and 26th were devoted to reviews of the plant, insect and bird life of the district during 1943, prepared respectively by Messrs. J. B. Nicholson, J. E. Nowers and A. Stainthorpe. The year had been a "record" early one for plant flowering, which continued to be far in advance of normal, even after midsummer. For butterflies, the unsettled weather had not been favourable. Bird life had been favoured by the mild winter, and nesting, too, was generally successful, apart from losses sustained by ground-nesting birds as a result of the freak snowstorm on May 10th.

On November 2nd. Miss C. M. Robb gave an interesting address on Poisonous Plants. She dealt in particular with the Monkshood, Hellebores, Deadly Nightshade, Henbane, Thorn Apple, Hemlock, Foxglove, Yew and Wild Arum.

The following week, Mrs. E. Morgans showed us numerous beautiful lantern slides of the Pacific Coast and National Parks of America. On November 30th, Mr. C. Walker gave an introductory talk on "Rocks" describing the chief types, their origin and composition.

Mr. S. Cardwell spoke, on December 7th, on "Preserving the Right of Way", a subject in which we are particularly interested, following the formation of a local federation of the Ramblers' Association with the specific object of safeguarding local footpaths.

Two meetings were devoted to consideration of the recommendations we should make to the Nature Reserves Investigation Committee regarding our area. Our proposals have since been submitted to Mr. G. W. Temperley, honorary secretary of the Northumberland and Durham sub-committee.

CLEVELAND NATURALISTS' FIELD CLUB

Our Programme this season is progressing satisfactorily in spite of the numerous War difficulties. We are meeting in day light, having fixed the second Saturday afternoon of each month as the Club's meeting day. New members continue to join, and subscriptions are coming in well. However, attendances are only small, and we have not yet started any piece of Natural History work as a Club. The Secretary still has hopes that a Local Survey may be begun.

Our first lecture on October 9th was "Links with the Past in the Plant World" by R. Forty, of Norton. The speaker has made a special study of peat and, by means of some new lantern slides, he dealt with several interesting aspects of Palaeo-Botany.

On 13th November, Miss R. E. Dowling, M.Sc., of Darlington Training College, lectured on "Wood-Boring Insects" and illustrated her remarks with very helpful large drawings.

We are greatly privileged in having stationed in our district Mr. R. D. Sintern, of Norwich, who has bird-watched with Miss J. E. Turner, Mr. Jim Vincent, and other well-known bird-watchers at the Orkneys, Ailsa Craig, the Farnes and Holland. An extra meeting was specially arranged for him on 27th November to give us "Some Notes of a Bird-Watcher". He supplied a most interesting talk, illustrated by excellent photographs of his own taking, and also incorporated notes on Teesmouth Birds, made since he came here. The latter included his observations of the Red-necked Phalarope and the Short-eared Owl as special features.

Our most recent meeting was on December 11th, when Mr. Bowes, B.Sc., of Saltburn, dealt with an interesting archaeological topic. His title was "Cleveland in Norman Times" and the talk

was profusely illustrated with photographs, maps and helpful diagrams. His remarks will be useful to us on our future excursions in the district.

Other lectures have been arranged for each of the months January to March inclusive. Any of our Naturalist friends who may be near Middlesbrough are invited to join us at the Dorman Museum at 2.30 p.m. on the Saturdays indicated above.

NOTES AND RECORDS

NOTES.

A Robin Feeding on the Jumping Plant Louse of the Rowan.—At Gibside, in May, I observed a robin singing on a branch of the rowan just a few feet away from where I was sitting. Between its bursts of song it made little hopping pecks at the leaves. When, after keeping this up for some considerable time, it finally flew away, curiosity made me look to see what food it had been taking. The branch examined showed every sign of having carried a heavy population of Psyllid larvae, for residues of wax and cast skins abounded. Of living larvae, however, only two were found, these belonged to the Mountain Ash Psyllid, *Psylla sorbi*. It was clear, therefore, that the robin had been eating the Psyllid and was responsible for their wholesale destruction. *Psylla sorbi* was plentiful in the wood and also at other stations in the Derwent Valley where the rowan was established.—G. H. H.

Water Bloom on Talkin Tarn.—Minute floating algae sometimes multiply so extensively in a lake as to produce a turbidity or, on still days, they may float up as a scum. This phenomenon has been observed from earliest times. The late Dr. B. M. Griffiths, who collected early references to it (Proc. Linn. Soc. Feb. 1939), mentions that Pliny (A.D. 77) recorded such occurrences in Babylon and in the River Dnieper. The colours of these were respectively red and blue, and would depend on the nature of the organisms producing them: members of the group called "Blue-green Algae" are responsible for a variety of tints.

Sometimes the Water Bloom is produced chiefly by a single organism. This was the case in the one found at Raby Castle, on the N.N.U. excursion in June, 1936, which was produced by the Blue-Green Alga *Microcystis aeruginosa* Ktz. The Bloom which was observed last month on Talkin Tarn, on the other hand, consisted of three major constituents. The surface layer was bright green, due to the raspberry-shaped colonies of *Botryococcus brauni* Ktz. in a state of very active growth. With this, but of a comparatively pale blue-green tint, were the little balls of *Coelosphaerium naegelianum* Unger, many of which carried the bright green top-shaped cells of an epiphyte *Stylosphaeridium stipitatum* (Back) Gekler and Gimesi, looking like cloves stuck into an orange. The third constituent, the filamentous Blue-Green Alga *Anabaena flos-aquae* (Lyngb.) Bret., floated lower in the water and, under the microscope, looked like tangled masses of strings of green beads. This plant appeared to be at the end of its phase of maximum growth for, whereas a few still consisted of tight balls and had all the cells filled with gas vacuoles, many of the threads had loosened out and had apparently lost their gas vacuoles and were being attacked by numerous bacteria. It would appear that the Water Bloom on Talkin Tarn was in process of changing from a stage when it was chiefly *Anabaena* to one in which *Botryococcus* was dominant.

A New British Pondweed.—When the Northern Naturalists' Union held its meeting at Durham, a series of pondweeds from the Scottish Western Isles was exhibited amongst which was a variable lot of *Potamogeton rutilus* Wolfg. from North Uist and Baleshare. Whilst there can be no doubt about the correctness of this identification generally,

certain examples from the Isle of Baleshare have proved to belong to an American species. Full details concerning this will be given later.—J.W.H.H., W.A.C.

Notes on the Occurrence of the Hedgehog in our Counties.—With regard to the references to the Hedgehog which appeared in the last number of the "Vasculum", I believe that this animal has increased considerably from the standpoint of numbers within the last few years in Northumberland. In fact, within the last year or two, they have been noted at Gosforth, Kenton, Rothbury, Blagdon, Cramlington, and many other localities. Lately, they appear to have been particularly numerous between Bamburgh and Embleton, especially amongst the sand dunes. These animals destroy numbers of nests of birds, especially the ground nesting species, some even swimming over water to get at nests.

In a small marshy area near Beadnell in 1942, over 90% of the nests were destroyed. Although crows and young rooks were responsible in some cases, hedgehogs were to blame for the majority. On several occasions they have been taken in traps baited with eggs, and many times they have been caught in the act of consuming the eggs.—J. S. Ash.

The Hedgehog is common in the Wolsingham area, where dead ones may be frequently picked up in the fields.—D.B.B.

Scarcity of November and Winter Moths in 1943.—As will be remembered, on May 10th, after an early spring, a sudden snowstorm struck this area, with the result that oaks and other trees were deprived of their leaves. In consequence, the usual swarms of Geometrid larvae, usually defoliating these leaves in late May and June, were seriously diminished in numbers, and the survivors limited in their food supplies. The effects of this were seen later in the year in the Team Valley when only one Mottled Umber and two November Moths were seen.—J.W.H.H.

The Elephant Hawkmoth at Wolsingham.—A caterpillar of this species was collected from the Rosebay Willow Herb (*Epilobium angustifolium*) in August. It was of the blackish grey form and bore the usual "eyes" laterally. When disturbed the "eyes" gave the larvae a very terrifying look, and a huge simulation of a head appeared endowed with a "snout", to which, no doubt, the insect owes its popular name. My specimen fed heartily for about a fortnight and then pupated in a cocoon composed of leaves.—D.B.B.

The Gadwall (*Anas strepera*) on Gosforth Park Lake.—As this bird is none too common in Northumberland, it may be of interest to record that an adult drake was observed in Gosforth Park on October 29th, 1943. On the 22nd and 23rd of the same month a duck was seen on the far side of the lake in poor light, which was likewise considered to be a Gadwall. The specimen noted on October 29th was watched for a considerable time at close quarters through powerful binoculars.—J. S. Ash.

The Waxwing in Durham and Northumberland.—On Friday last (December 17th) I observed about half a dozen Waxwings in a field near West Stanley Railway Station. They were feeding, in company with Fieldfares, on "haws" in a tall hedge. Unfortunately, the light was bad, and as I was in a hurry, close observation was impossible. However, the erectile crest, the conspicuous white bars across the wings and the low rippling note they emitted were proof of the identity of these winter migrants. I shall be interested to see whether they stay in this locality for any lengthy period.—David Davies.

Since making my earlier observations, I have seen four Waxwings on December 20th, again feeding on "haws", but, on this occasion, with Redwings. Again, very close observation was impossible, as they quickly flew off leaving me in the company of the Redwings.—David Davies.

A single Waxwing (*Bombycilla g. garrulus*) was watched for some time feeding on hawthorn berries in King George Street, South Shields, on November 25th, 1943.—J. S. Ash.

Birds and Moths.—Although most of us have observed birds catching moths, and even butterflies on the wing, and have taken such occurrences for granted, no one, except myself, seems to have recorded observations on the possible capture of moths as they rest on tree trunks, rocks, stone walls, and the like. Some years ago I made a series of counts on local colonies of the Grey Chi (*Antitype chi*) and the Marbled Beauty (*Cryphia perla*). I counted the individuals present early in the morning, and then late in the day. The results were quite negative; the moths seemed to be neglected by birds. Subsequently, I made observations on many species to determine once and for all whether moths were caught by birds as they rested on trees, etc. Never at any time have I seen a moth so taken! In view of the importance of such observations in connection with natural selection and its fixation of melanic and other races of lepidoptera, I shall be glad to learn of any well authenticated case of such captures by birds. —J.W.H.H.

Flower Colour in the Red Campion (*Lychnis dioica* Mill.).—In the Team Valley area of County Durham, flower colour in this species, despite its name, is quite variable. Naturally, the bulk of the population bears the usual "red" flowers, but in nearly every colony plants bearing pure white flowers exist. On the other hand, in some cases, flowers, barely flushed with pink, may be encountered, whilst very rarely flaked red and white flowers are to be seen. In the Isle of Rhum, on the cliffs on the seaward face of Bloodstone Hill where a colony is to be found, the plants have flowers of a very pleasing rich carmine hue. It should be emphasised that in none of these cases are hybrids between the red and the white Campion under consideration.—J.W.H.H.

RECORDS.

FLOWERING PLANTS.

Petasites albus L.	66
Well established on a bank on the roadside a mile or so east of Lanchester.	
Doronicum pardalianches L. Leopard's Bane.	66
In Lumley Woods on the New Bridge side.	
Potamogeton densus L.	80
In a mill race near Kelso.—J.W.H.H.	
Carum garvi L. Caraway.	104
Amongst grass in the Kinloch Woods, Isle of Rhum.—R.B.C.	
Salix myrsinites L.	104
A patch on the cliffs near the lochan not far from the summit of the Black Hill, Rhum.—W.A.C.	
Orchis majalis Reichb.	104
As a variety, very near the form of var. <i>occidentalis</i> Pugsf. found in the Outer Isles, in the Kilmory-Kinloch areas of Rhum; very sporadic in its appearance. —J. W. H. H.	
Leucorchis albida Mey.	104
Local near Kinloch, Rhum; associated with <i>Gymnadenia conopsea</i> Br.—R.B.C., J.W.H.H.	
Equisetum hyemale L.	104
A single clump in a sheltered situation, Allt Beinn nan Stac, Isle of Rhum.—R.B.C.	
Sonchus oleraceus L. x <i>S. asper</i> Hill.	104
What appeared to be this hybrid was encountered in a mixed colony of the two species in a derelict greenhouse on the Isle of Rhum.—J.W.H.H.	
Epilobium hirsutum L. Willow Herb.	110
A single plant in a marsh near the road leading out of Lochboisdale, Isle of South Uist.—R.B.C.	

BIRDS.

Certhia familiaris L. Treecreeper.	67
By the Derwent side on February 3rd, I watched three of these for quite a while on an alder. There were two marsh tits on the same tree.	

- Dendrocopus major** L. Great Spotted Woodpecker. 67
 Whilst watching one of these in the wood below Allansford, I saw one descend the tree for about two feet, jerking its tail in order to do so.—Edward Miller.
Anser anser L. Grey Lag Goose. 66
 At dusk on Saturday, January 29th, I saw 72 "Grey Geese" flying over West Boldon and Boldon Colliery in the direction of the coast.—Frank White.

LEPIDOPTERA.

- Nymphalis io** L. Peacock. 66
 On Dryderdale Farm, September 6th.
Argynnis aglaia L. Dark Green Fritillary. 66
 Fairly plentiful in Bedburn Valley.
Thanaos tagi L. Dinky Skipper. 66
 By the river side, Harperley.
Callophrys rubi L. Green Hair-streak. 66
 On Wiserley Bank.—C. Longstaffe.
Deilephila elpenor L. Elephant Hawk. 66
 From larvae near Hamsterley.
Cerura furcula L. Sallow Kitten. 66
 Caterpillar on a tree trunk near the Grove.
Thyatira batis L. Peach Blossom. 66
 On sugar at Hamsterley, June 19th.
Poecilocampa populi L. December Moth. 66
 Bred from larvae, Hamsterley.
Notodonta dromedarius L. Iron Prominent. 66
 Likewise bred from larvae taken at Low Redford.
Diacrisia sannio L. Clouded Buff. 66
 Near Hamsterley.
Cyncia mendica Cl. Muslin. 66
 Park House, near Hamsterley.
Brephos parthenias L. Orange Underwing 66
 Also near Hamsterley.—C. Longstaffe.

COLEOPTERA.

- Leptura quadrifasciata** L. 66
 Rare in May and June, 1942, near Greenside and Rowlands Gill.
Grammoptera holomelina Pool. 67
 Not previously recorded north of York, but now recorded from Healey.
Pachytodes cerambyciformis Schr. 66, 67
 Captured at Hookergate and Healey in June, 1942.
Leiopus nebulosus L. 66
 Taken at Hookergate in July, 1943.
Pogonochaerus hispidulus Pill. 67
 Local near Prudhoe, December, 1943.
Cantharis abdominalis var. *cyanipennis* Back. 67
 Rare; at Bywell.
Rhagonycha elongata Fall. 67
 Captured at Healey and only known previously from the North of Scotland.
Orchesia undulata Kraatz. 67
 Mickley and Prudhoe, January 5th, 1944.
Lagri hirta L. 68
 In August, 1943, at Embleton.
Orectochilus villosus Miill. 67
 June, 1943, at Bywell.—Frank O'Neill. (Mr. O'Neill is to be congratulated on these important captures; his namings have been checked by Mr. G. B. Walsh.)

DIPTERA-CECIDOMYIDAE.

- Contarinia cucubali** Kiefl. 66
 At Birtley common or *Lychnis dioica* and *L. alba*. Strangely enough, in the former case the capsules, for the most part, failed to develop, whilst in the latter viable seeds were often formed.

- Contarinia cucubali** Kieff. 66
Near the gasometer at Birtley, attacking the flowers of *Silene inflata* L. and its var. *pubescens*.
- Stictodiplosis jacobaeae** H. Loew. 66
On *Senecio erucifolius* and *S. aquatica* on Birtley Fell and on the Vigo Railway. Up to the present I have not recorded this from the marsh ragwort.
- Perrisia angelicae** Rubs. 66
Fluctuating in numbers wildly from year to year, but in good seasons abundant in railway cuttings near Birtley.—J.W.H.H.
- Rhopalomyia baccarum** Wachtl. 66
This midge gall, which has, up to the present, only been reported from Co. Durham, was once very plentiful on the slag heap at Birtley and on the pit heap on the Wrekenton road. After a period of rapid decadence, it has now disappeared, although its foodplant, the common mugwort, is as abundant as ever. The galls are round, green, and about the size of peas, and are to be found, either singly or in groups, just at or above ground level. Can any of our members re-discover it? It should be added that its ally, *Rhopalomyia tanaceticola* Karsh, galling tansy flowers, buds, etc., and once widespread in the country, has also disappeared from this area. A search should be made for it likewise.
- Clinodiplosis rosiperda** Rubs. 66
This gall gnat, which is generally rare, and was originally recorded from the garden rose, *Rosa centifolia*, is very local with us. It is to be found in closed flowers of *Rosa mollis* just north of Beamish, Co. Durham.
- Perrisia dioicae** Rubs. 66
Galls apparently referable to this species have been noted in the Team Valley area but rarely. Its congener *P. urticae*, remains abundant.

HYMENOPTERA.

- Pontania harrisoni** Benson. 66, 67
That this species was distinct from the allied form, *P. viminalis*, was first pointed out by me in the Vasculum (13: 158); it has recently been described under the above name by Benson. The gall may be differentiated from that of its ally by its greater variability in size and shape, for it may be pyriform, oval, bicuspid or tricuspid. I have collected it from *Salix purpurea* leaves in the Wear, Team and Tyne Valleys.
- P. bridgmanii** Cam. 66, 67, 68
Formerly confused with *P. proxima* Lep. which attacks Salices of the *alba-fragilis* group. The present species forms "bean" galls on leaves of *Salix caprea*, *S. aurita* and *S. atrocinerea*. It is widely, but thinly, scattered throughout the two counties
- P. triandrae** Benson. 66
Another new species described by Benson recently, galls collected on *Salix triandra* at Oxclose, near Washington.
- P. femoralis** Cam. 67
On *S. phlycticifolia*, *S. andersoniana* and their hybrids on the Tyne as far down as Wylam.
- Euura saliceti** Fallen. 66, 67
Well distributed on Salices of the Capreae group; galls the buds.
- E. venusta** Zad. 66, 67
Also far from rare in galls on the petioles of the leaves of the Capreae willows.
- E. amerinae** L. 66
On *Salix pentandra* on Waldridge Fell, forming large, more or less irregular stem galls.
- Andrena fulva** Schr. 66
Quite common on sandy ground near the Riding Farm, Urpeth, and on Sedge Hill.
- A. clarkella** Kirb. 66
In the same area as the preceding.
- Vespa sylvestris** L. Wasp. 66
Feeding on ripe hips of *Rosa mollis*, Birtley.—J.W.H.H.

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BY THE WAY

In order to assist in securing regularity in publication, we shall be much obliged if the Secretaries of the various Societies will supply us with news of their activities by January 15th, April 15th, September 15th and November 15th for insertion in the appropriate quarterly issue. Notes and records of general interest may be sent by members, associates and others to Professor Heslop Harrison at any time.

WANTON DESTRUCTION AND CRUELTY

The correspondence and news columns of various newspapers have, for a considerable time, been full of complaints about vandalism in connection with public parks, air-raid shelters, static water tanks and the like. Recently, throughout this area, there have occurred outbreaks in other directions. Independently of the deliberate destruction of young trees planted by various authorities along new roads and on building estates, attacks are now being made by organised bands of young hooligans, chiefly of ages between 12 and 16, on woodlands, hedges and similar places to which the public have free access. We ourselves have seen young ash trees recklessly felled, wych elms planted to cover an unsightly pit heap barked, brambles, whins and wild roses fired, and so on. Further, we know that literally thousands of toads, frogs and newts have been killed in the cruellest of fashions. In many cases, remonstrance leads to impudence, in others to a temporary departure with a subsequent return to the work of destruction. Teachers in schools are trying to discourage these enormities, but we urge them to increase their efforts. In addition, we suggest that our Societies should take up the matter, and deal effectively with it.

RARE BRITISH PLANTS

The Director of the Royal Botanic Gardens, Kew, Surrey, wishes to have on display in the gardens, for the benefit of students and others, a living collection of as many of the rarer British plants as possible. Should any of our members be able to assist in the endeavour, they should send the plants, carefully packed, to Dr. E. J. Salisbury, F.R.S. It will be obvious that no plants, which

would in any way affect the well-being of the colonies to which they belong, should be dug up or sent; wild populations of such plants must be maintained. Fortunately, in most local cases, no harm will be done by sending a plant or two to the national collection.

The Department of Botany, King's College, as a result of its explorations in the Inner and Outer Hebrides, has already deposited in the Gardens living examples of such rarities and novelties as *Carex bicolor*, *C. pedata*, *C. alpina*, *Erigeron uniflorus* and *Lychnis alpina* from the Isle of Rhum, *Carex rariflora*, *C. capitata* and *Epilobium alpinum* from the Isle of South Uist and *Carex chordorrhiza* and *C. microglochin* from the Isle of Harris.

THE B.E.C. REPORT FOR 1941-1942

We have just received the Report of the Botanical Society and Exchange Club of the British Isles for 1941-1942. It contains as usual a series of articles indispensable to all serious students of the British Flora, and, on the whole, reaches its wonted high standard. Mr. A. J. Wilmott contributes an article on "Nomenclature and Corrections to British Plant List", in which he invites readers sending records for 1943 to "correct their copies of B.P.L. before doing so". We sincerely hope that they will not do so in the case of "*Rosa squarrosa* v. *rupicola* comb. nov.". In this we have embodied the astounding blunder of the transference of a variety to the wrong species! In the Plant List, Dr. Druce assigned the biserrate forms of *Rosa canina* (agg.) to *R. squarrosa* Ran (1816), but, unfortunately, in doing so, not appreciating the true status of *R. glaucophylla* Winch (1812), adds the phrase "including *glaucophylla* Winch". Now, as Winch's own specimens and descriptions prove, his species is equivalent to that formerly known as *R. glauca* Vill., and, more properly, now as, *R. dumalis* Bechs. (1810). When *Rosa glaucophylla* var. *rupicola* was described, owing to certain uncertainties, the replacing of the name *R. glauca* by *R. dumalis* was not accepted, although Druce recognised its necessity (Plant List, p. 39); hence Winch's name was introduced. Clearly, the correct name for the rose in question is *Rosa dumalis* var. *rupicola* (Heslop-Harrison) comb. nov. In dealing with this paper, it should be indicated that the combination *Polygonum viviparum* var. *roessleri* was used in the J.B., page 167, 1941 (Heslop-Harrison *et alia*).

Mr. J. E. Lousley continues his excellent and very helpful notes on the British Rumices, and also provides short papers on "A Botanical Hotel" and "The Pioneer Flora of a Bombed Area". From Mr. E. S. Edees' pen appears a useful list of Staffordshire Additions to the Comital Flora, whilst Miss M. S. Campbell gives a short list of the vascular plants of Scalpay, Harris; however, we do not think that the Ivy is so rare in the Outer Isles as she indicates!

In the "Plant Notes", in the case of that appearing with the title "Potamogeton" we fail to understand why x *P. billipsii* Freyer (*sic!*), *P. alpinus* Balb. and x *P. sparganifolius* Laest. should be described as "all new to South Uist, v.-c. 110". In the first place, no indication is given that these plants were collected, and the first records made, by Heslop Harrison and Clark; nor that they came from the Isle of Benbecula. Again, the detection of x *P. prussicus* in Colonsay is assigned to Prof. J. W. Heslop Harrison; it was discovered by Captain J. Heslop Harrison. Here, once more, the record of Dandy and Taylor is the only one supplied; no reference is made to the real first record and to the correct data supplied by Heslop Harrison and Clark. It seems impossible to understand why, in these cases, a third record of the same material is treated as new in preference to the genuine first records, more especially when references to the King's College work duly appear in "Abstracts from Literature", whilst none are given to the unnecessary duplications of Dandy and Taylor.

Further, in the "Plant Records", another vagary appears. Dr. W. A. Clark's record for *Salix arbuscula* from Rhum emerges in square brackets. It should be made clear that the claims implied in the transparent device of bracketing this record are emphatically not admissible; the Salicaceae are not private property! In these "Plant Records", too, our readers would look in vain for records of the important species described in the Vasculum as new to our counties, and exhibited at Northern Naturalists' Meetings in 1942.

THE SOCIETIES

NORTHERN NATURALISTS UNION

As usual, the Council of the Natural History Society were so good as to invite us to hold our annual meeting in the Hancock Museum. The President, Miss W. M. Lomas, was in the chair, and the attendance was once more, due to the zeal of all the younger societies, a record one.

As usual, the proceedings commenced with the reading of reports by the Treasurer, Mr. J. E. Ruxton, and the Secretary, Dr. K. B. Blackburn; both testified to the favourable condition of the Union and the value of its work. Attention, too, was drawn to the continued success of the Vasculum, and to the fact that it continued to be self-supporting. Hearty votes of thanks were accorded to the Treasurer, Secretary and Editor.

The election of officers followed, and Mr. D. R. Hughes became President in place of Miss Lomas.

On the completion of this preliminary business, Miss Lomas gave her presidential address in the form of a lecture entitled "How the Domestic Fowl has been used to unravel the Laws of Heredity". In this she broke new ground in showing us how poultry, used as experimental material, had contributed not a little to our understanding of the modern developments in heredity,

more especially in the matters of sex-linked inheritance and the interaction of factors. The lecture was a very important one, and worthy of the hearty vote of thanks awarded our late President.

After the lecture, we partook of an excellent tea which once more amazed those who had not helped to assemble it. Special thanks are due for their efforts to the ladies who have so often assisted on previous occasions, and to our friends of the Consett and District, and Annfield and Stanley Clubs, who once again rose to the necessities of the occasion.

The proceedings ended as usual in an informal conversazione and an inspection of exhibits. These were as varied as usual, and, despite the weather of the previous week, Mr. R. B. Cooke delighted us with his display of spring flowers, to which was added a series of twigs brought by Mr. S. C. Jackson. The latter gentleman had on view an exhibit showing snakes' skins and the leather they produced. On the insect side, Mr. Raine produced a black form of *Pieris brassicae* and Messrs. Dunn and Rogerson a magnificent series of Indian butterflies as well as of local Syrphids. Mr. Jacob brought and demonstrated with the aid of a microscope various biological facts concerning the Aphids (Green fly) attached to roses. In other groups Prof. Heslop Harrison showed collections of British Carabid and other beetles and of Heteroptera. He also displayed his hybrids between the Small White and the Green Veined White. In order to introduce certain surveys to be conducted in the counties, Dr. K. B. Blackburn had brought for inspection certain maps, specially prepared, of sections of our area; she also demonstrated her collection of Spanish plants. Derek Robertson's plants, collected and mounted by himself, received considerable praise; they demonstrated what a really keen young worker can do. .

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB

The Forty-seventh Annual Meeting of the Consett and District Naturalists' Field Club was held on 15th April, 1944. The Secretary, Mr. Wm. Ellerington, reported a very successful year, and was elected Secretary for the seventh consecutive time. Mr. David Scott, one of the oldest members of the Club, retired from the Presidency, and Mr. T. Hutton was chosen in his place for the ensuing year. All other officers were re-elected.

The Treasurer, Mr. J. J. Robson, also recorded an exceedingly satisfactory year's working, a credit balance of £32 19s. 3d. being available. In consequence, it was decided that the Society should produce Transactions annually at a cost of 1/- per copy. The Winter Lectures were well attended and greatly appreciated, especially the talk given by Mrs. Clark.

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

The President (Miss E. M. Clegg) opened the Spring Session on January 11th with an address entitled "A Sense of Proportion". The Annual Conversazione, on Jan. 29th, brought together an

audience of 63 to listen to Mr. R. D. Sintern's "Notes of a Bird Watcher" and to inspect a comprehensive series of fossil types, selected from the Club's collections and arranged by Mr. C. Walker. Another noteworthy talk was one by Mr. A. Stainthorpe entitled "Teesdale Diary". This was based on the day-to-day observations, mostly of birds, of a resident in a remote part of the upper dale.

Addresses have also been given by Miss M. G. Coles on "Making New Plants"; by Mr. W. W. Alien on "Biological Laws in the Post-War World"; by Miss R. E. Dowling on "The Nation's Larder"; by Mr. A. S. Umpleby on "Some Yorkshire Dialect Poets"; by Mr. R. D. Raisbeck on "Camouflage and Concealment"; by Mr. E. C. Powell on "Brock the Badger"; by Miss E. Watson on "Man at War with Nature"; by Mr. C. Walker on "Our Rocks and their Uses"; by Miss N. B. Glendinning on "Impressions of Norway"; and by Miss F. M. Spencer on "Three Italian Cities".

At the Annual Meeting on April 25th, Mr. Charles Walker was elected our new President. It was reported that 23 rambles and 47 indoor meetings had been held during the year; the average attendance at the former being 15 and at the latter 27. 22 lectures had been given during the winter, 14 of these by our own members.

Following the formal business at this meeting, we enjoyed an inspiring address by Mr. James Fisher on the Rook Census, of which he is the national organiser, and on the work of the British Trust for Ornithology. He warmly thanked us for having repeated our 1931 census this year, the secretary being able to report that the counting had almost been completed, though final figures were not yet available.

N.N.U. NOTES FOR WORKERS

One of the functions of the Union is to record the local distributions of plants and animals. In connexion with this, a new list of people responsible for card-indexing our records, and willing to help in naming specimens will be issued at an early date. Meanwhile, if members are doubtful about the proper person to consult, the Secretary will be glad to send specimens, directed to her at King's College, to the right quarter.

The Ecological Society is publishing a "Biological Flora of the British Isles", which is appearing species by species in the Journal of Ecology; it supplies an account of all known biological details of the plants in question. Several Newcastle botanists have undertaken to write up a number of species and Members of the Union are invited to assist the project in every possible way. A request for information about our Oaks has already appeared in these columns, and the local clubs have undertaken to map the distribution of certain easily identified species; now it is suggested that members can help by sending specimens of critical species to be identified by the botanists listed below. They will identify all

species in the families named, but the plants in brackets are specially desired for the purposes of the Flora.

- (a) Rosaceae, Salicaceae (*Salix andersoniana* and *S. phyllicifolia*) and Orchidaceae to Professor Heslop Harrison, King's College.
- (b) Violaceae, Caryophyllaceae, and Compositae (Leontodon) to Dr. Blackburn.
- (c) Cyperaceae, Hypericaceae and (jointly with Prof. Heslop Harrison) the Potamogetons to Dr. W. A. Clark.
- (d) Gramineae to Mrs. Clark. Miss M. A. Wood, B.Sc., who has just come to King's College, would be glad to have living specimens of Harvestmen; they should be sent in a small tin with moss or leaves to keep them moist.

BOOK REVIEW

A new addition has been made to the "Wayside and Wood land" series (published by Warne and Co.) in the form of a volume entitled "The Caterpillars of the British Butterflies". This has been compiled by W. J. Stokoe, and is edited and provided with special articles by G. H. T. Stovin; M.R.C.S., L.R.C.P.; it forms a companion volume to the "Butterflies of the British Isles by Richard South, F.R.E.S.

This volume deals with the whole of the British species of which there are 348 illustrations, including 68 in colours. A special feature is a fully illustrated list of food-plants on which the eggs are laid and the caterpillars feed. Careful notes are supplied, with helpful diagrams, on the rearing of butterflies.

It should enable naturalists not only to identify the various species, but should encourage others to study the interesting and fascinating changes that take place during the life-cycle of these creatures.—E.L.D.

NOTES AND RECORDS

NOTES.

A Black Specimen of the Dotted Border Moth at Darlington.—On March 16th I found an example on the melanic form of the Dotted Border (*Hybernia marginaria*) var. *fuscata* Harrison. It was only slightly damaged, and had probably been struck by a motor during the previous night.—John E. Nowers.

A Worked Flint on Urpeth Bottoms.—A week ago, whilst I was with Professor Heslop Harrison, he began to work a small bed of peat he had discovered on the banks of the River Team, not far from Birtley. I searched the broken banks just above the peat and discovered a worked flint two or three feet below the surface and a few feet above the level of the bed.—George Pallister.

A Little Auk near Houghton.—Mr. Eric Hunter found a dead specimen of the Little Auk not far from Houghton-le-Spring; it had evidently been killed by striking the nearby telegraph wires.

Our Humble Bees at Sallows.—This year sallows were early in flower and, as usual, they were freely patronised by queen humble bees. Of these, the first noticed were *Bombus pratorum* on April 4th, *B. hortorum* on April 5th, and *B. lucorum*, *B. terrestris*, *B. agrorum* and *B. muscorum* var *pallidus* on April 13th. They showed great disparity in point of

numbers, *B. lucorum* being an easy first and *B. terrestris*, its ally, second. Curiously enough, the female catkins on the various bushes proved much less attractive than the males. In one case, a well grown male *Salix atrocinerea*, growing on the Vigo railway, revealed between thirty and forty queen *B. lucorum* and a dozen queen *B. terrestris*; a sprinkling of the other species was present. These arose in a regular buzzing cloud when disturbed, and, most unusually, seemed inclined to be vicious.—J.W.H.H.

The Germination of Wild Rose Seeds.—Normally, wild rose seeds, if planted in September and October of one year, germinate in the second April following. In October last autumn, seeds of the Sweet Briar, taken at Lambton, Co. Durham, broke the general rule by coming up on April 3rd of the present year. Much more surprising, however, was the fact that a few seeds of the Common Dog Rose, usually so regular, gave rise to seedlings on April 8th, after having been in the ground a little over six months. More extraordinarily still, seeds of the Burnet Rose taken from green hips on August 15th, 1943, and planted on August 29th, germinated on April 8th. Of other local seeds only one of *Rosa sherardii* produced a seedling after a period of seven months in the soil; the rest are lying over for the normal time.—J.W.H.H.

A Very Strange Example of the Common Sallow.—In early April, I was attracted by a sallow of a very curious green appearance; this, when examined closely, proved to be a female plant in full fruit. The fruits, however, instead of being normal, were all more or less aborted, and appeared as irregular protuberances on the ends of longish pedicels. They resembled in every respect intersexual florets of very pronounced female tendencies.—J.W.H.H.

RECORDS.

FLOWERING PLANTS.

- Salix atrocinerea** Brot. var. nov. **ebudium**. 110
Rami ramulique decumbentes, implexi; folia angustissima, 2-5 cm. longa et .3-9 lata. A very curious, low, sprawling shrub found along the Alt Tomnaval and elsewhere, N. Harris; type in Heslop Harrison collection.—J. W. Heslop Harrison.
- Salix atrocinerea** Brot. x **S. purpurea** L. 66
With the parents in Lambton Park.—J.W.H.H.
- S. phylcifolia** L. x **S. purpurea** L. 67
As is well-known, *S. phylcifolia* descends in some plenty to Wylam, where it grows in company with *S. andersoniana*, *S. purpurea*, *S. viminalis*, *S. caprea*, etc. Almost at every point the hybrid, *S. phylcifolia* x *S. andersoniana*, represented by many forms, can be found. Recently, in studying these, the very rare hybrid between *S. phylcifolia* and *S. purpurea* was detected not far from a similar bush discovered years ago.—J.W.H.H.
- Saxifraga decipiens** Ehrh. Mossy Saxifrage. 110
I have come to the conclusion, after considerable study of growing plants that the plants recorded as *S. hirta*, *S. drucei*, *S. sternbergii*, etc., are, for the most part, growth forms of the same species. Pending further work, I record the Beinn Mhor, South Uist plant under the above name, well knowing that *S. hirta* Sm. would temporarily serve the same purpose.—J.W.H.H.
- Carex magellanica** Lam. Green and Gold Sedge. 110
Rare near the South Lee, North Uist, determined by J.W.H.H., confirmed by E. Nelmcs.
- Carex glacialis** Mackenzie (=C. **pedata** Wahl.). 104
Apparently very rare in the mountains of central Rhum; living plant and dried specimens deposited as vouchers at Kew. Determined as *C. glacialis* by J.W.H.H. and confirmed by E. Nelmcs.
- Carex acutiformis** Ehrh. 110, 111
On the Isle of Baleshare, Outer Hebrides; also on S. Ronaldsay, Orkneys; E. Nelmcs det. Apparently a new country record in each case.

Carex atrata f. gelida Sch.	104
Specimens agreeing with a description of this variety, found in the mountains of Rhum; E. Nelmes det.	
Carex paniculata L.	110
On the Isle of Baleshare; an obvious extension of range in the Outer Isles.—J.W.H.H. det.	
Cardamine amara L. Bitter Cress.	66
A large colony along the Team near Birtley.	
Doronicum pardalianches L. Leopard's Bane	66
On a wood edge near Urpeth.	
Lamium purpureum L. Dead Nettle.	66
A series of plants with beautiful white flowers, growing in a mass segregated from others bearing normal flowers; also near Urpeth.	

LEPIDOPTERA,

Picris rapae L., P. napi L., P. brassicae L.	66
The white butterflies put in an appearance this season at very early dates. Earliest to appear was the Small White, which was observed on the second week in February. No further specimens were noted until April 14th when the Large White, Green-veined White, and Small White were flying in small numbers near Urpeth. On the same day the Small Tortoiseshell was taken at Sallow.—J.W.H.H.	
Vanessa cardui L. Painted Lady.	70
A single very precocious specimen was watched flying near Keswick during Easter Week.—J.H.H.	
Semioscopis avellanella Hubn.	66
Never very common in our counties; found on birch on the Vigo railway.	
Abraxas grossulariata . Currant Moth.	66
Although such is not generally the case elsewhere, in North Durham, and in other stations locally, this moth produces black larvae. In one Birtley locality, where, just a few years ago, the ordinary form abounded, the whole population is black. This is amazing when one realises that these caterpillars are not attacked by birds, and there fore Natural Selection cannot be invoked as the explanation—at least with birds as its agent!	
Dasystoma salicella Hubn.	66
Larvae between spun leaves of bramble, its preferred food, near Portobello, Birtley; these occasionally produce melanochoic moths.	
Chimabacche fagella Fabr.	66
Common in Long Acre Dene Wood, feeding on oak; moths showing about equal quantities of black and gray forms.	
Eupithecia linariata F. Toadflax Pug.	66
In great plenty, both in the perfect condition and as larva, at Birtley; not recorded yet from Northumberland or from Durham generally. However, it must occur elsewhere with us.	
Ochsenheimeria birdella Curt.	66
Somewhat rare on grassy bank sides near Birtley.	
O. bisontella Zeil.	66
A little more plentiful than the preceding between Birtley and Lamesley.	
Platyptilia bertrami Rossi.	66
Much rarer than its tansy-feeding relative, <i>P. ochrodactyla</i> ; on yarrow near Birtley.	
Depressaria nervosa Hw.	66
Larvae plentiful on water dropwort in Urpeth Bottoms and near Ravensworth.	

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BY THE WAY

May we remind Secretaries once again of the necessity for sending material dealing with their Societies' activities as regularly as possible? In order that such matter should appear in the appropriate issue, the dates fixed are January 15th, April 15th, September 15th and November 15th. Notes and records may be sent to Professor Heslop Harrison at the above address at any time.

RARE MOTHS

Of recent years, owing to the prevalence of Nature Study and Biology teaching in the schools, practically everyone is acquainted with the migrations of birds, but it is surprising how few are familiar with the occurrence of similar movements in insects. As a result, we have periodic outbreaks in the newspapers of notes and letters recording the capture of so-called "rare" moths. Recently, there has been a somewhat strong immigratory movement of several species of hawkmoths into our area, involving the Convolvulus Hawk, the Death's Head Hawk and the Bedstraw Hawk. Naturally the sight of such striking insects produces the urge to place them on record. However, it should be emphasised that, in almost every case, their correct description is not that of a "rare moth" but of a "not uncommon" immigrant. Most of the insects concerned originated in North Africa or South Europe and have flown here. The Red Admirals now so gaily patronising Michaelmas Daisies in our gardens are the progeny of similar immigrants which arrived here in June and July.

VITAMINS AND ROSE HIPS

We are reminded of the fact that the season for collecting rose hips is now in full swing by the arrival of the Annual Report of the Ovaltine Research Laboratories. These laboratories, as our readers already know, have been engaged in important researches into the vitamin content of rose hips and various fruits. Further we have supplied details of their work with vitamins A and C. Now the

1943 Report discusses the value of rose hips in connexion with vitamin P. This vitamin is of enormous importance as it assists in maintaining the resistance of the capillaries against blood pressure. When this resistance becomes dangerously low, it may be brought back to normal by the administration of vitamin P, which seems to have unique powers in this respect. Oranges and blackcurrants are also good sources of vitamin P, but rose hips are superior because they provide a range of vitamins.

Further work done in the same laboratories suggests that serious losses of vitamin C occur in rose hip syrup when it is kept for over a year; these may be avoided by the use of dried rose hip extracts, and more especially by making such extracts into tablets when the stability of the vitamin is greatly increased.

It is to be hoped that a recognition of this additional importance of rose hips will lead to an increase in the numbers collected in Durham and Northumberland.

VICE-COUNTIES AND THEIR SUBDIVISIONS

In reviewing the B.E.C. Report for 1941-1942 in our last issue, we intentionally reserved Mr. A. J. Wilmott's paper entitled "Vice-Counties" for subsequent discussion because we considered some of its implications positively dangerous and unwarranted. As every local naturalist knows, the Northern Naturalists' Union, realising the necessity for subdividing vice-counties 66, 67 and 68 for record purposes, appointed a committee to give the matter its careful consideration. As a result of the subsequent deliberations, certain recommendations were put forward. These were accepted by the Union and published with the addition of an explanatory map.

Now we are informed that a committee, to all intents and purposes self-appointed, without representatives from, or consultation with, interested organisations in the great majority of the counties involved, has been dealing with such matters, and that our actions cannot be recognized. This seems an astounding result when one considers that no committee so constituted can be acquainted with all the necessary local circumstances. We write this with the more feeling because we have been informed that one of the individuals concerned claimed to know more about the Flora of certain special areas than any other living person because he had been there nearly seven weeks! If such is to be regarded as a satisfactory qualification for fitting one to make pronouncements on such areas then the work of the committee is vitiated from the beginning.

We submit that, before any action is taken, this committee should be replaced by a fully representative body drawn from all organisations capable of supplying first hand reliable information. Only by such procedure can arrangements be made likely to be permanent and acceptable to all.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

The first outing was held on May 20th at Wylam, where the north bank of the Tyne was investigated. Owing to the previous heavy rains, the attendance was not great, and, although the weather was fairly good, the wetness of the dense vegetation along the river side rendered work difficult. However, we had considerable success amongst the plants, more especially with the willows, of which the Dusky Sallow (*Salix andersoniana*) and its various hybrids with the Tea-leaved Willow (*S. phylicifolia*) and other species attracted special attention. One of these hybrids, *S. andersoniana* x *S. viminalis*, appears to be a novelty. Other interesting forms collected included the Alpine Penny Cress, Scurvy Grass, the Vernal Starwort, the Wood Stitchwort, Hoary Bladder Campion, the Northern Bedstraw (*Galium boreale*), the Hedge Bedstraw (*G. mollugo*), Wood Forget-me-not, Columbine, Thrift, Monkey Flower, Rock-rose, Salad Burnet, Lady's Mantles (*Alchemilla alpestris* and *A. pratensis*), Pansies (*Viola lutea* and *V. tricolor*), Butterbur (female plants), etc., etc.

We did little amongst the insects, but we managed to obtain larvae of the Ruby Clearwing (*Sesia formicaeformis*), Red-line Quaker (*Agrochola lota*) and Winter Moth from the various sallows examined. Hibernated queen bumblebees, as well as White Butterflies and Tortoiseshells, occurred at belated willow catkins and other flowers.

On June 17th, we assembled at Sunderland Bridge to examine the Butterby Marshes, when both a brilliant day and a large attendance favoured us. On this occasion, once more we devoted our main efforts to the plants, although the entomologists encountered the Green-veined White, Tortoiseshell, Small Heath and Small Copper butterflies, as well as countless dragonflies, chiefly *Pyrhosoma nymphula*, *Enallagma cyathigerum*, with a sprinkling of *Coenagrion puella*.

In the recently felled woods, only small trees and shrubs were left, although these included Hornbeams, Bird-cherries, and an unusual number of seedling White Beams. The ordinary dog roses were not yet in flower, but magnificent forms of *Rosa sherardi*, *R. glauca*, *R. coriifolia*, often with deep-red flowers, abounded. We were interested, too, in the colonies of Melancholy Thistles, Foxgloves and hybrid Wood-Water Avens. At intervals, the tall spikes of the Helleborine raised their heads. In the river, pollution was drastic, and only *Potamogeton crispus* and *P. natans* were seen, whilst the bank sides provided Enchanter's Nightshade, Wood Stitchwort, Field Mouse-ear Stitchwort, the Common Mouse-ear Stitchwort and what appeared to be a hybrid between the last pair. In the marshes themselves, the Sweet Flag (*Acorus calamus*), the White and the Yellow Waterlilies, the Ivy-leaved Duckweed, the Great Water-dock, Common Reed, Bur-reed,

Oenanthe Phellandrium, and *Oe. crocata* abounded, whilst dense thickets of various willow species, none rare, covering the fringes, proved almost impassable. In the adjoining damp pastures such plants as Gipsywort, *Orchis purpurella* and Marsh Ragwort, were quite common.

Saturday, July 22nd, saw us working the banks of the Derwent near Allansford, where a huge crowd, with our Consett, Annfield Plain and Stanley friends in force, had assembled. Again, the day was fine, and much good work resulted. The Marsh Orchids proved especially attractive, for *Orchis ericetorum*, *O. fuchsii* and *O. purpurella* were found growing together, and, naturally, hybrids of varying degrees of complexity existed. In addition, the Butterfly Orchid grew not far away. Other plants gathered by various members of the party included, as usual, interesting series of willows, with *Salix phylicifolia* and *S. andersoniana* predominating at points, Figwort, Foxglove, Yellow Loosestrife, Pellitory on the Wall, Kidney Vetch, Broad-leaved Bellflower, Betony, Greater Skullcap, Golden Rod, several species of Bedstraw, Mountain Pansy, Bird Cherry, Guelder Rose, Birch, Alder, *Rosa sherardi*, Wood Horsetail, etc., etc.

Insects were much more plentiful than on previous occasions, as the foxgloves provided larvae of *Eupithecia pulchellata*, the figworts larvae of the figwort weevil, the bird cherries webs of larvae of *Yponomeuta evonymella*, and the Salices larvae of *Trochilium bembeciforme*, *Sesia formicaeformis*, *Notodonta ziczac* and the beetle *Cryptorrhynchus lapathi*. On the wing were taken Meadow Browns, Coppers, Small Heaths and several species of wasps and bees. Of the wasps, *Vespa rufa*, *V. vulgaris*, *V. sylvestris* and *V. germanica* were netted; additional Hymenoptera taken included galls of *Pontania pedunculi*, *P. viminalis* and *P. phylicifoliae* — all on various willows. Other galls were *Rhabdophaga salicis*, *Perrisia rosaria*, *P. similis*, *Oligotrophus minor* and *Stictodiplosis jacobaeae*. The capture of a slow-worm on a grassy slope is worthy of special emphasis.

The proceedings closed with a very acceptable and bounteous supply of tea so kindly prepared, as is so often the case, by our Consett friends and their nearest neighbours. For this everyone was more than grateful.

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

Several junior members rendered valuable assistance in a census of Rooks' nests which was carried out during April. This revealed a total of 2560 nests in an area of 60 square miles, as compared with 2376 in the same area in 1931, an increase of 7.7%. The Sycamore proved to be the tree most favoured for nest building, though in the town rookeries Beech and Elm were more popular.

On May 9th a small party, led by Miss Dowling, re-visited the

island in the Tees below Gainford. Diligent search added 18 further species to the 127 previously listed from this interesting locality.

The All-Night Ramble was held in Swaledale on June 3rd/4th in almost continuous rain, but the party of 19 quite enjoyed the experience, so much so that Mr. Stainthorpe was persuaded to arranged a second similar walk in the Bamingham district a fortnight later.

For the first time since 1940, we visited the Teesmouth district. Much of Greenabella is now under the plough, but most of the characteristic maritime plants of the Greatham Creek district were observed. The usual birds, too, were there, though the Common Tern was in smaller numbers than a few years ago.

Two excursions have been mainly devoted to geological work under the direction of the President (Mr. C. Walker), one to Duckett Hill and Barton Quarries to examine the Underset Limestone, and the other to the riverside at Winston, where the Fell Top and Crow Limestones were seen and some fine *Productus* fossils obtained from the "Cockleshell" beds.

Other visits of outstanding interest have been those paid to Bishop Auckland, under the guidance of Miss E. M. Coulthard; to Egglestone Hall, under Mrs. A. M. Robertson; to Newbiggin, Redworth Hall and Heighington Church, under Mr. G. H. Burdon, and to Mortham Tower, Rokeby, under Rev. W. Oliver.

The Club has recently suffered several losses in personnel. The sudden death of Mr. C. P. Nicholson has deprived us of an inspiring leader and a devoted worker. Another who has passed on is Mr. H. A. Inness, who filled a unique place in our counsels. Miss E. M. Clegg, who has left us to take a post at Keswick, will also be greatly missed.

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB

The first outdoor meeting was held on June 3rd at the Moorcock, Waskerley, with Mr. J. J. Robson as leader. As we passed down the Hisehope Burn, many birds were seen, in particular, the curlew, cuckoo, blackcock, grouse, heron. In addition we were interested in the cranberry creeping over sphagnum. In the Juniper Valley, junipers of good growth were examined bearing both first year and second year berries. On the bogland toward Birkhot Farm, we collected some rather rare plants, the sundew, butterwort, globe-flower and yellow pimpernel.

After tea, Mr. W. R. Dixon and Mr. J. J. Robson gave brief accounts respectively of the plant and bird life observed, whilst Mr. D. Hudspith dealt with the geology and former mining enterprises.

We left Coombe Bridge for Castleside, and on the road we were interested in the milkwort with its varied colours and in the Male, Lady, and Hard ferns. A vote of thanks to the leader concluded the meeting.

On the 11th June, we turned out for our Dawn Song outing. This, by the kindness of Mrs. Crump, was held in the grounds of Shotley Hall. Twenty-five species of birds were seen or heard after we left the Bridge at 3 a.m. for the point at which the burn crosses the road.

On July 8th, we held a joint meeting with the Annfield Plain and District Club in the form of a ramble through Dipton Woods to Hamsterley Woods, over the Forty Fathom "dyke". Mr. J. J. McKinney was leader, and as we passed along he supplied historical notes on coal mining and other matters of local interest. As usual, after tea, Mr. W. R. Dixon discussed our plant finds.

For our fourth meeting we assembled at the Church, Lanchester, where the Rev. Lewis Hetherington traced the history of the church from Norman times. He pointed out the fine Norman arch between the chancel and the nave, and the monoliths which tradition asserts to have formed part of the Forum of the Roman camp.

From the church, the party proceeded to Greenwell Ford where Colonel Greenwell met us to conduct us through the garden, grounds and woods, and to supply historical details about his family and estates. The fine trees, the bird and plant life in general were also discussed as we rambled through this delightful sylvan retreat.

On behalf of the Club, Mr. T. Hutton terminated the outing by expressing our thanks to Colonel Greenwell for his hospitality.

The visit to Tunstall and Waskerley, with Mr. R. Fairlie as leader, proved enjoyable, but very strenuous. Proceeding from Drover House, we trekked over the Fell to Park Head Plantation, and through the woods to Reservoir House where tea was served by Mr. and Mrs. Hunt. From Tunstall House we followed the valley upstream. This proved a rough and thrilling experience, for to get over the Beck we had to build a crossing of stones and logs. After a rest, the party crossed the moor through bracken and heather to Waskerley and on to Castleside.

Of the plants observed, Hemp Agrimony, Gentian, Twayblade, and the usual moorland specialities, were perhaps the most interesting.

NOTES AND RECORDS

NOTES

New Minerals from the Whin Sill.—Three minerals, Prehnite, Analcite and Heulandite were recently detected in the Whin Stone quarry half a mile up the road from High Force Hotel in Upper Teesdale. These have not previously been recorded from the Whin Sill, and occurred sparingly along certain joints in the Whin. Further details will be supplied later.—L. R. Wager and F. H. Stewart.

Kingfishers on the Wear.—On March 24th, I saw a pair of kingfishers alongside a branch channel in the Wear, near Durham. The same birds were observed more than a month later on April 29th.—C. D. Crosson.

Late Larvae in the Long Acre Dene Wood.—On Saturday, October 7th, I visited this wood to beat for larvae. At this late date the oaks were far

past their best, but we managed to secure six different kinds, the Green Sliver Lines (*Bena pmsinana*), the Coxcomb Prominent (*Lophopteryx capucina*), the Gray Dagger (*Acronycta psi*), the Scalloped Hazel (*Gonodontis bidentata*), the Peppered Moth (*Biston betularia*) and *Chimabacche jagella*. The caterpillars of the Scalloped Hazel were of a jet-black, whilst those of the Peppered Moth were of a uniform brown black. The larvae of the Green Silver Lines produced a beautiful boat-like cocoon of glistening fine silk almost at once. The only moths seen were males of the November Moth.—George Pallister.

Spotted Redshanks in Gosforth Park.—Two Spotted Redshanks (*Tringa erythropus*) were observed in Gosforth Park on August 31st, one being in juvenile plumage, and the other in a transition stage to winter plumage. They spent most of their time feeding close to the mud at the north-east corner of the lake, often swimming well out of their depth in search of food. On several occasions they were watched through 8x binoculars when only 12-15 yards distant. Three Green Sandpipers and five Common Sandpipers were present at the same time. Their identity was confirmed by my father on the following day. They were last seen on September 3rd.—J. S. Ash.

The Honey Buzzard (*Pernis apivorus apivorus*) in Newcastle.—On September 19th, an emaciated specimen of this migrant was noted in the garden belonging to the Department of Botany, King's College. It was busily engaged in feeding in a ravenous fashion on the contents of a wasp's nest, its usual food. After capture, it was handed to the Hancock Museum. This seems to provide the first example ever taken within the city boundaries.—J.W.H.H.

Further Notes on Local Pondweeds.—In September, 1942, as a result of a visit to Crag Lough, we were able to add tentatively the hybrid *Potamogeton cognatus* (*P. praelongus* x *P. perfoliatus*) to the British list, the word "tentatively" being inserted because we had hoped to visit Crag Lough for additional material for further study. The desired opportunity did not present itself until September 28th this year. Greatly to my surprise, the rejectamenta on the shores consisted on this occasion in the main of *P. pectinatus* L. with *P. obtusifolius* M. & K. forming a good second. The quantities of *P. praelongus* Wulf, *P. alpinus* Balb, and *P. crispus* L. showed distinct reduction, whilst *P. lucens* L., *P. pusillus* L. and *P. gramineus* L. were completely absent. On the other hand *P. perfoliatus* L. was obviously more abundant, and *P. millardii* Heslop Harrison formed an addition to the Crag Lough list. Similarly, a small gathering of x *P. cognatus* was made which matches exactly Dr. W. A. Sledge's examples of the same hybrid; thus our word "tentatively" may now be discarded in this connexion. The chance of examining the neighbouring Greenlee Lough was not neglected, but the only Potamogetons discovered in that large sheet of water were *P. gramineus*, x *P. nitens* Weber and two small fragments of *P. pectinatus*. However, in a small runnel flowing into it on its southern shore, was a good colony of *P. alpinus* mixed with an odd plant or two of *P. polygonifolius* Pour. It will be observed that, despite the occurrence of the hybrid *P. nitens*, no *P. perfoliatus* was encountered in Greenlee Lough.—J.W.H.H.

Immigrant Moths in the North.—Two interesting moths have been brought alive to the Dorman Museum. The first, taken on September 19th, at Thornaby, was a *Convolvulus* Hawk, whilst the second, captured in Comondale on September 23rd, was a Death's Head Hawk. The latter, when teased, squeaked several times.—O. C. Hill.

On September 17th, Mr. N. Anthony took a *Convolvulus* Hawk at Lambert Hill, Harelaw, near Stanton.—Wm. Carter.

Several records of these species have appeared in the local newspapers, whilst Mr. J. B. Nicholson, in sending me cuttings from the "Northern Echo" dealing with some of them, adds two additional Darlington records of the *Convolvulus* Hawk.—J.W.H.H.

Equisetum hyemale L. (the Rough Horse-tail) in Weardale.—A very luxuriant growth of this plant occurs on a wet bank by the road side near Wearhead. It forms an almost solid hedge of harsh, dark green stems crowned somewhat abruptly with fruiting heads. On these stalks, emerging from the last sheaths, new strong shoots are now pushing their way up, although the older stems seem indestructible. Thus a thick mass of shoots exists which renders it almost impossible to secure a single example. —D.B.B.

RECORDS.

FLOWERING PLANTS.

Potamogeton praelongus Wulf; P. natans L.	104
In the Long Loch, Isle of Rhum, the former species being new to Rhum and the latter in its third known station on the island.—W.A.C. and J.W.H.H.	
P. friesii Rupr.	66
In an old clay pit just west of the railway near Birtley.	
x P. cognatus Asch. & Graeb.	67
A hybrid between <i>P. praelongus</i> and <i>P. perfoliatus</i> ; taken sparingly in Crag Lough.	
P. gramineus L.	67
This species is sufficiently rare in our counties to warrant a record from Greenlee Lough where it exists in the company of its hybrid with <i>P. perfoliatus</i> i.e. <i>x P. nitens</i> Weber.—J.W.H.H.	
P. perfoliatus L.	66
Not often found in ponds in Durham but collected in Kepier Pond.	
Illecebrum verticillatum L.	67
This rare British plant was discovered in the form of its var. <i>densum</i> Martr.-Donos., growing profusely on a patch of sandy ground, situated at a very remote spot near the confluence of the Akenshaw and Lewis Burns. This is in the Kielder area, a mile or two from the Scottish Border. Its associates were just what one would expect. <i>Scleranthus annuus</i> , <i>Sagina procumbens</i> , <i>S. ciliata</i> , <i>Spergularia rubra</i> , <i>Gnaphalium uliginosum</i> , <i>Prunella vulgaris</i> and <i>Poa annua</i> . Its discovery took place on September 14th.	
It should be emphasised that the plants were very unlike our Barra specimens, for they bore roundish leaves, whereas the latter carried somewhat elongated narrower ones.—J.W.H.H.	
Dianthus deltoides L. Maiden Pink.	66
Well established, and showing an abundance of seedlings on the old slag heap at Birtley.	
Iberis amara L. Candytuft.	66
This cornfield weed is not on record in Durham; nevertheless, it occurred on an oat field near Vigo, not far from Birtley.	
Campanula glomerata L. Clustered Bellflower.	66
On a disused waggonway, dating from the eighteenth century, near Birtley; there are no recent Durham records for this plant.—J.W.H.H.	
Goodyera repens Br. Creeping Goodyera.	70
In Stoncraie Wood, near Carlisle.—B. Lawson.	
Potentilla argentea L. Hoary Cinquefoil.	66
In the Bark Wood, Derwent Valley.	
Convallaria majalis L. Lily of the Valley.	66
Growing in the same wood.—J. D. Gray.	
Dipsacus pilosus L. Small Teasel.	66
This plant, although recorded from Yorkshire, has not previously been reported from Durham; now listed from Woodland, Co. Durham.—J. Rand.	
Ranunculus lenormandi . F. Schultz.	67
Found on a pond near Newbiggin.	
Cochlearia danica L.	66
On the earth-wall at Greatham Creek.	

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BY THE WAY

In previous numbers we have asked Secretaries to help us by sending material dealing with the doings of their Societies before January 15th, April 15th, September 15th and November 15th, for insertion in the appropriate issue. May we now emphasise the necessity for our being supplied regularly with such matter? Failure in this respect interferes greatly with publication and often leads to the exclusion of interesting notes. Notes and records may be sent to Professor Heslop Harrison at the above address at any time.

REARING HIBERNATING CATERPILLARS

Beginners invariably shrink from attempting to rear over wintering larvae. However, as we ourselves have learnt in carrying out innumerable experiments, much of this fear of failure is quite unnecessary. In this connexion we should like to draw attention to a series of three interesting papers which have just appeared in the *Entomologist* (Aug. pp. 125-6 Oct. 155-6, Nov. 161-2). These are from the pen of Mr. P. B. M. Allan, M.A., and bear the title "Some Notes on Hibernating Larvae".

The author analyses the environmental conditions of over wintering caterpillars, and points out that, apart from food and biotic controls, temperature and humidity are the two most important factors in the life of a lepidopterous larva. After demonstrating how subject to fluctuations these are during the winter months, he reaches the conclusion that the object of the would-be rearer of winter larvae should not be to keep them under conditions as close to those in nature as possible, but to supply them with certain optimum requirements which he sets out. The articles conclude with an examination of moulds and their influence on lepidopterous larvae, and to this are appended suggestions for preventing their appearance and development.

IMMIGRATING INSECTS

In our last issue we discussed the position of the so-called "rare moths" concerning which so many letters had been written to local newspapers, and pointed out that these insects, instead of forming a permanent element of our insect fauna, were actually far-travelled immigrants. For some years prior to the war, and even during its continuance, much work has been done by the Insect Immigration Committee under the direction of its energetic Secretary, Captain T. Dannreuther, not only in recording such immigrations, but also in plotting their routes, and in determining the origin and the causes of the movements. In these counties, the number of workers taking part in the investigations has been very small, with the result, not that local immigrations have escaped notice, but that we have very little evidence concerning the dates and points of entry into our counties and their local extent. The remedy for this is obvious; our individual societies, at least in Durham, are sufficiently scattered to supply an adequate picture, with satisfactory details, of insect movements. May we suggest that, as part of the work planned for next season's campaign, the compilation of notes on insect wanderers should be undertaken? A full list of the insects likely to be concerned, illustrated by beautiful coloured plates, appears in a handbook procurable from the British Museum (Natural History), London, for a few coppers. This is undoubtedly excellent value for the money expended, and is absolutely satisfactory for identification purposes.

xPOTAMOGETON COGNATUS ASCH. AND GRAEB. IN BRITAIN

In the last number of the *Vasculum* (p. 23), whilst referring to the occurrence of this rare hybrid between *P. perfoliatus* and *P. praelongus* with other pondweeds in Crag Lough, S. Northumberland, we mentioned its detection by Dr. J. M. Taylor and Dr. W. A. Sledge in a second British station situated in North Lincolnshire. Now these workers have published an excellent account of their find in our contemporary, the *Naturalist* (No 811, pp. 121-123). A very fine plate, accompanying the article, adds greatly to its value. Fortunately, the drains in which the Lincolnshire plant grows are much more easily worked for Potamogetons than Crag Lough. In consequence, much more material has become available for study, some of which bears the hitherto unobserved inflorescence. Thus Dr. Taylor and Dr. Sledge were enabled to supply figures of the flowers for the first time. We should like to congratulate the authors on a thoroughly satisfactory and informative paper which should serve as a model for all such publications.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

The Autumn Meeting of the Union, by the kind invitation of the Cleveland Naturalists' Field Club, was held on Saturday, October 14th, at the Dorman Museum, Middlesbrough. Once more the enthusiasm displayed was great, and we had a correspondingly good attendance.

The President, Mr. D. R. Hughes, B.Sc. took the chair, and the usual lecture was delivered on this occasion by Miss R. E. Dowling, M.Sc. Its title was "Pond Life", a subject in which the lecturer is keenly interested and specially qualified.

Ignoring the customary introduction of the subject by describing inhabitants and the methods of catching them Miss Dowling first showed how the study of pond life had developed in recent years, and how the unexpected, which so often happened, added to its interest. Then she took up the physiological difficulties dwellers in ponds have to face in order to succeed in their specialised environment. In particular, she dealt with the various ways in which they secured their oxygen. She closed by insisting on the solid training in the fundamentals of Natural History the study gave.

The lecture was illustrated, not only by a series of excellent lantern slides, but also by cells specially arranged by Mr. O. C. Hill to throw images of living Cypris, Daphnia, Cyclops, etc., on the screen.

After well-merited votes of thanks, we partook of a very satisfactory tea, for which we have to express our gratitude to the ladies of the Cleveland Naturalists' Field Club.

As usual, a splendid series of exhibits was on view. Amongst these Miss Bowling's specimens, brought to illustrate her lecture, deserve special mention, and so do the well-mounted collections of local flowering plants which Miss Ethel Watson had on view. Mr. Odling exhibited a remarkable series of caddis cases made when the usual grains of sand, pieces of vegetation, etc., had been removed, and their places taken by coloured glass beads, etc. He also displayed a number of sections of minerals and drawings of fungi. Professor Heslop-Harrison had on view two plants new to South Northumberland, *x Potamogeton cognatus*, and *Illecebrum verticillatum* as well as one newly recorded for Durham, *P. friesii*, with *P. gramineus*. and *x P. nitens* from Greenlee Lough. In addition, he brought a nut of *Trapa natans*, recently collected amongst debris in a loch on South Uist, but clearly derived from some nearby peat bed. Dr. K. B. Blackburn had prepared interesting distributional maps of some of our rarer plant species; these she discussed with a view to securing further facts from our members. Mr. G. N. Robinson had set out before us the results of his colchicine work on *Trifolium repens*, and his

tetraploids provoked special comment. Mr. E. L. Davison showed illustrations of the Bayeux tapestry, as well as noteworthy books on Cleveland, whilst Miss E. M. Hall brought a collection of sea weeds and *Datura* seeds for inspection. Mr. K. W. Brown exhibited mineral specimens, and coins, Mr. S. Bootland some fine bird drawings, and Mr. P. Vickers geological specimens.

On this occasion, the plan was tried of getting each exhibitor to give a "lecturette" on his or her exhibits, and the plan proved to be a great success.

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

A joint excursion with the Cleveland Naturalists' Field Club was held on September 9th, when Miss D. M. Clough conducted the party from Dinsdale Station by way of Spa Wood (now mostly felled) and St. John's Church to Fishlocks Cottage, with its sulphur spring, and Pountey's Mill. Prominent in the riverside vegetation were Indian Balsam and Giant Hogweed; Yellow Loosestrife, Hop and Knotted Figwort (much visited by wasps) also occurred.

The Annual Fungus Foray was held at Cliffe on September 30th, when 53 species were recorded, including 14 not noted on previous visits to this estate.

The Autumn Session opened on October 10th with a very fine lecture on "St. Kilda — its Birds and its People" by Mr. Bentley Beetham, whose vivid account was illustrated by many beautiful lantern slides. He described in detail the Fulmar, Puffin, Guillemot, Gannet and other birds, explaining particularly how the St. Kildans used to apply their intimate knowledge of the habits of each species to catch them for food, sea-birds being a staple article of the islanders' diet.

Two evenings have been devoted to annual reviews of the plant, bird and insect life of the district, contributed respectively by J. B. Nicholson, A. Stainthorpe and J. E. Nowers; and two further evenings to the study of pond-life, the second being for microscopical work, under the guidance of Miss R. E. Dowling.

A series of lantern slides of British Birds has been presented to the Club by Miss E. M. Clegg, and it is hoped that these will form a nucleus around which we can build a really representative collection.

CLEVELAND NATURALISTS' FIELD CLUB

Our winter session began on Saturday, October 14th, when we were visited by the N.N.U. On this occasion we had a splendid gathering and an attractive lecture on "Pond Life" by Miss R. E. Dowling.

On Saturday, November 11th, we walked over the moors from Eston to Guisborough. Although arranged as a winter walk, our excursion turned out to be far from that, for the weather was fine and mild, and we observed a great variety in bird and insect life.

Members have assisted in the collection of rose hips, and in doing so have formed one of the main factors which has caused the North Riding to be the only Northern county area to raise its total above that secured last year. That is a noteworthy fact when one considers the phenomenally wet autumn which has delayed ripening and handicapped collecting.

We regret to announce that the Club has lost recently two of its former stalwarts, Mr. F. Elgee, Ph.D., F.G.S., who passed away in August last at Alton, Hants., and Mr. T. A. Lofthouse, who died at his home. The Croft, Linthorpe, Middlesbrough, in September last.

NOTES AND RECORDS

NOTES.

Live Moth with Mites on the Wing.—On July 15th, I captured an example of the Mottled Rustic Moth (*Caradrina morpheus*). On examination, it was found that each of its wings bore several orange coloured mites; these have since been identified at the British Museum (N.H.) as *Cheyletomorpha venustissima* Koch of the Cheyletidae. In the letter giving this identification, it is stated that these mites are predacious and feed on tiny insects and other mites. There are records of these mites on other moths.—John E. Nowers.

I have often noticed the same species of mite on the allied moth *Caradrina clavipalpis*.—J.W.H.H.

The Buzzard (*Buteo buteo* L.) in Durham.—The very unusual but brief stay of a buzzard has been a fine accompaniment to the wild rocky landscape lying around the High Reservoir which is situated between Waskerley and Stanhope. This hawk, although once common, is a vanishing species, and it is impossible for anyone who loves wild life to mention the buzzard without feeling profound melancholy. This bird, usually to be sought for in the wildest districts of Scotland, Wales or Lakeland, has frequented the district for about two weeks, and with its conspicuous breadth of wing, and its slow majestic flight, has been an outstanding sight in a district frequented by the smaller hawks.—J. J. Robson.

Another Unusual Migrant, the Great Grey Shrike (*Lanius excubitor*) near Birtley.—on November 4th, I had occasion, whilst in search of oak twigs, to visit the Folly Plantation near Birtley. As I was cutting the desired twigs, I heard a harsh call, resembling that of a jay. Naturally, in view of the fact that the jay has not been noted in woods to the east of Birtley for many years, I looked up, and was surprised to see perched on a pear tree, not a jay, but two Great Grey Shrikes. As I was anxious to learn whether the birds stayed there, I returned to the wood on November 8th. On this occasion, however, only one was noted. Subsequent visits at intervals of three or four days proved fruitless.—J.W.H.H.

The Rhagg Collection of Lepidoptera.—In case it should become necessary to refer to this collection, so often mentioned in Robson's list, I should like to state that it is now in my possession.—George Pallister.

The Red Squirrel.—In your issue of October last, you mention the red squirrel. On Sunday, the 26th March last, a bright Spring morning, at 9.15 a.m., I watched a red squirrel exercising and amusing itself in a bare oak tree, on the left hand side of the main road, in Shotley Bridge, opposite Shotley Hall.—E. Caswell.

A Popular Nesting Site.—In an apple tree, a few yards from my home, there is a branch with a forked top caused by pruning. This site has been chosen for nesting purposes for four consecutive years, firstly, by a Garden Warbler, secondly, by a Song Thrush, thirdly, by a Redpoll, and this year by a Song Thrush, which hatched its brood on July 4th. —W. J. Dixon.

The Large Elephant Hawk near Middlesbrough.—On September 1st, a caterpillar of the Large Elephant Hawk Moth was collected from the Rose Bay Willow Herb and fed up until it pupated successfully. —E. L. Davison.

An Interesting Find.—In April, 1943, I found a Hedge Sparrow's nest in my garden. In due course the eggs were hatched, and the young fledged. In mid June, when cutting the hedge, I examined the nest, and found, to my surprise, that a second clutch of eggs had been laid. The eggs were hatched, but for some unknown reason the young birds did not survive. This is the first time I have known a bird of this type use the old nest for a second brood.

This year I kept several nests under observation to see if anything similar would occur, but there was no repetition of the second clutch.

On examining one of the nests, a few weeks after the young ones had left, I found that it was dome-shaped, and that a humble bee had taken possession, and had made six egg cells and one honey pot, which was almost full. Unfortunately heavy rain destroyed the young bees, when they were ready to leave the cells, and thus spoil an interesting find. I did not see the Queen Bee, and could not therefore determine the species —W. J. Dixon.

Notes on Certain Potamogetons.—For some time I have had the two species *Potamogeton pectinatus* and *P. filiformis* (and their hybrid x *P. suecicus*) under close observation, and have noted marked differences in their times of flowering and ripening of seeds. In the Hebrides: *P. filiformis* comes into flower on Coil and South Uist during the first week in June, the seeds ripening, but not leaving the plants, early in September. Even now (Nov. 27th) Benbecula examples of this species are still carrying their ripe, but green, fruits. On the other hand, both Durham and South Uist representatives of *P. pectinatus* begin to flower in late June and early July. The fruits, however, mature, very rapidly, and a few were observed floating free on the Benbecula and S. Uist Lochs in the last week of August, 1944, in ponds in Co. Durham, on September 12th, and in Crag Lough, Northumberland, on September 28th. In the cases of *P. pectinatus* and x *P. suecicus*, neither in my aquaria nor in the pond have the plants, which flourish well, produced flowers. It is perhaps worthy of note that both on Benbecula, South Uist and at Birtley, *P. pectinatus* produced a second crop of flowers this season.—J.W.H.H.

Notes on our Local Mammals.—On April 20th, I had the pleasure of seeing two red deer hinds on the West Dipton Burn, whilst a few months later, on the March Burn, near Riding Mill, a roe deer hind, with two fawns, came within 20 yards of me on September 9th. Towards the end of August, I picked up a dead badger between Slaley and Riding Mill, and noticed a red squirrel in the same area on October 15th. —Frank O'Neill.

Notes on our Woodpeckers.—A. Green Woodpecker was observed on the West Dipton Burn on April 20th. Later, in September, a female Great Spotted Woodpecker paid several visits to my neighbour's garden at Ryton, and actually picked up scraps from the lawn. I saw this bird personally.—Frank O'Neill.

RECORDS.

FUNGI.

Volvaria bombycina (Schaeff.) Fr. 66
Three fine sporophores springing from the trunk of an ash, Haughton-le-Skerne.—J. B. Nicholson
Puccinia bromina Eriksson 66
Observed on Comfrey at Durham.—B. Prescott.

FLOWERING PLANTS

Poa chaixii Vill.	104
Abundant in one of the woods in the Kinloch area. Isle of Rhum.—R.B.C. and H.H.C.	
Salix andersoniana Sm. x S. aurita L.	67
Several examples in the Kielder Woods.	
S. andersoniana Sm. x S. atrocinerea Brot.	66
A single plant in the alder carr on Waldridge Fell.	
S. atrocinerea Brot. x S. aurita L.	66
Also in the alder carr on Waldridge with the preceding but much more common.	
S. caprea L. x S. atrocinerea Brot	66
Rare on the Vigo Railway near Birtley,	
x Potamageton cooperi Fryer	66
In the Wear near Chester-le-Street.	
Equisetum variegatum Schleich.	67
A patch on the shores of Greenlee Lough.—J.W.H.H.	
Geum rivale L. x G. urbanum L.	66
Plentiful in the Wolsingham area where the parents are common.—D.B.B.	
Vinca minor L. var. alba . Small Periwinkle	66
(white).	
Found in Dinsdale Woods on March 25th—M. Gibby.	
Viola odorata L. Sweet Violet.	66
A very deep violet-coloured variety found in the same locality and on the same date as above.—A. N. Gibby.	
Helleborus viridis L. Green Hellebore.	66
Still to be found in its old station in Dinsdale Woods. Three flowering plants were found on March 25th.—A.N.G. and M.G.	
Galanthus nivalis L. Snowdrop.	66
A patch found near above plant in Dinsdale Woods on same date.—A.N.G. and M.G.	
Antennaria dioica Gaertn. Mountain Everlasting.	67
Found near Thirlwall on May 27th.—M.G.	
Myosotis versicolor Sm. Yellow and Blue Forget-me-not.	67
In same locality and on same date as above.—A.N.G. and M.G.	
Teesdalia nudicaulis Br. Teesdalia.	67
Found growing on crags near Thirlwall on same date as above.—A.N.G.	
Allium schoenoprasum L. Chives.	67
Still to be found in its old station near Walltown. A few plants were seen in bud on May 27th.—M.G.	
Arenaria peploides . Sea Purslane.	67
Found on sea-shore near Howick on May 30th.—A.N.G. and M.G.	
Plantago coronopus L. Buckshorn Plantain.	67
Several plants found on rocks near Cullernose Point had double inflorescences.—M.G.	
Scilla verna . Huds. Vernal Squill	67
Still fairly plentiful at Cullernose Point. In full bloom on May 30th.— M.G.	
Oxalis corniculata L. Yellow Oxalis.	67
Still to be found at Dunstanburgh Castle. In flower on May 30th.—A.N.G.	
Iris foetidissima L. Gladden.	66
Still to be found in its old station on roadside between Croft and the Great North Road. In flower on June 28th.	
Anchusa sempervirens L. Evergreen Alkanet.	67
A number of plants were found in flower on July 1st in the woods between Swinburn Castle and the stream.—A.N.G.	

- Geranium phaeum** L. Dusky Crane's-bill. 66
One clump, which has been there for years, is still flourishing on the banks of the Wear at Durham.—M.G.
- Lathyrus latifolius** L. Everlasting Pea 66
Found by roadside between Brasside and Finchale Abbey on August 15th.—A.N.G. and M.G.
- Hesperis matronalis** L. Dame's Violet. 66
Still plentiful, with white-flowered forms as well as types, in its old station at Chester-le-Street.—G.P.
- Carduus nutans** L. x **C. crispus** L. 66
The hybrid between the Musk and Welled Thistles, growing with both parents by the Skerne at Barmpton.
- Lysimachia nummularia** L. Moneywort. 66
On the Durham bank of the Tees at Winston, apparently native.—J. B. Nicholson.
- Geranium pratense** L. Meadow Cranesbill. 69
A single plant, bearing white flowers, found amongst the ordinary form in Dufton Churchyard, Westmorland.—F. Wade.
- G. pyrenaicum** Burm. f. 66
Occurring in two places on the roadside in Wolsingham.—D.B.B.
- Trollius europaeus** L. Globeflower. 66
Collected near Wolsingham by Miss Layton.
- Helleborus viridis** L. Bear's Foot. 66
Discovered at Harperly by Mr. Longstaffe.
- Callitriche intermedia**. G. F. Hoffman. 66
Although I recorded this species from the Tees Marshes in 1918, it does not appear in the Comital Flora; now reported from an old pond at Birtley.—J.W.H.H.

LEPIDOPTERA.

- Vanessa cardui** L. Painted Lady. 66
Seen at Sharpley Moss near Warden Law, Sunderland, on June 30th.
- Nymphalis antiopa** L. Camberwell Beauty. 66
Observed in my garden in Sunderland on June 24th. The insect did not alight but hovered long enough to be identified.—T. W. Jefferson.
- Deilephila elpenor** L. Elephant Hawk. 66, 67 & 68
In the kitchen garden Coupland Castle, Wooler, at rest on Groundsel on July 14th. The specimen was perfect.—W. de L. Aitchison.
A larvae in its last skin was taken on Fuchsia at Blagdon.—J. S. Ash.
Well established at Darlington.—J. B. Nicholson.
- Erynnis tages**. L. Dingy Skipper. 66
Common on the Vigo railway near Birtley, and in a field on the Riding Farm, Urpeth. These are my first Birtley records despite all my searches here.—J.W.H.H.
- Drepana falcataria** L. Pebbled Hooktip. 66
On Whit Monday this species was flying in considerable numbers in the birch woods lying along the Team near Urpeth.
- Perizoma flavofasciata** Thnibg. Sandy Carpet. 66
This species is one of those described as "widely distributed but very local" by Robson, and even now its distribution seems limited. It occurred very freely in Urpeth Woods in early June.
- Adaina microdactyla** Hb. Hemp Agrimony 66
Plume.
Not at all common amongst Hemp Agrimony on Waldrige Fell.
- Platytilia ochrodactyla** Hb. Tansy Plume. 66
Still plentiful along the Wear at Chester-le-Street, on slag tips at Birtley; much rarer on a disused railway near Washington.

Vacuum is space devoid of matter. The word stems from the Latin adjective *vacuus* for "vacant" or "void". An approximation to such vacuum is a region with a gaseous pressure much less than atmospheric pressure. Physicists often discuss ideal test results that would occur in a perfect vacuum, which they sometimes simply call "vacuum" or free space, and use the term partial vacuum to refer to an actual imperfect vacuum as one might have in a laboratory or in space. In engineering and applied physics on The Vacuum or the Machine exists in both universes, and has the ability to create or destroy worlds. It was designed by Walter Bishop in 2026 and sent back in time through a wormhole in the shattered universes' fabrics. Somehow, Walternate acquired the device with the intention of destroying the other universe in order to save his own. He used his son, Peter Bishop, in his insidious plot as nothing more than a pawn in his elaborate agenda. Vasculum " A vasculum is a container used by botanists to keep field samples viable by maintaining a cool , humid environment . Vascula are typically flattened tin cylinders carried horizontally on a strap (so the specimens lie flat) lined with moistened " " Wikipedia. vasculum " / vas kyeuh leuhm / , n . , pl . vascula / leuh / , vasculums . a kind of case or box used by botanists for carrying specimens as they are collected . [1825 35 ; < L vasculum little vessel . See VAS , CULE1] * * * " Universalium.