

THE VASCULUM

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UNIVERSITY OF NEWCASTLE UPON TYNE
and
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THE POPLARS, CHESTER-LE-STREET

BY THE WAY

Secretaries of Societies and other contributors to "The Vasculum" should send their notes to the Editors before 20th June, 1966.

UPPER TEESDALE.

All who have sent donations to the Teesdale Defence Fund received, in January, a letter telling them that the reservoir threat in Upper Teesdale had become the subject of a Parliamentary Bill. The Defence Committee is undaunted. A Petition in opposition to the Bill was lodged in Parliament before the end of January, the signatories being the three County Trusts most concerned (Northumberland and Durham, Yorkshire and Lake District), the Botanical Society of the British Isles, the British Ecological Society, the Council for Nature, the Linnaean Society and the Society for the Promotion of Nature Reserves.

The Bill had reached the Second Reading stage and was expected to come before a Select Committee of the House of Commons during the last two weeks of March, when Parliament was dissolved. The Bill is now held over until Parliament reopens, and it is expected that the new Select Committee will commence its sittings on 3rd May.

Meanwhile the Defence Committee is actively engaged on the opposition case and the extra time afforded by the delay is being put to good use.

The response to the Appeal for funds has been most gratifying -over £9,000 having so far been raised. The need to oppose a Parliamentary Bill, and the delays arising from the election, however, involve still more expense, so that further donations will be gratefully received by The Treasurer, Botanical Society of the British Isles, Upper Teesdale Defence Fund, c/o British Museum (Natural History), Cromwell Road, London, S.W.7.

DURHAM COUNTY COASTAL SURVEY

It is some time now since all Local Authorities with responsibility for part of our coastline, were asked, by the Government to look at their portion critically and make plans for its future use. We have just had a brief glimpse at a report on the Durham County part of the coast, produced for the County Planning Officer.

In the main, the report consists of a statement of the present position, with many illustrative maps. The county coastline divided into sections. These sections are then described with respect to present usage, geology and natural history. All the facts are taken into account at the end of the report, where suggestions are put forward for future developments. This chapter is extremely important to all naturalists and users of the coast. We intend to study it very carefully and at much greater length than has been possible at present. A more detailed report will appear in a future edition of this journal.

THE SOCIETIES.

NORTHERN NATURALISTS' UNION.

The 42nd Annual General Meeting was held in the Hancock Museum, on March 19th, at 2-30 p.m. The attendance was rather smaller than usual, without any apparent reason. Thanks are again due to the Natural History Society of Northumberland, Durham and Newcastle upon Tyne for their continued hospitality.

A short business meeting preceded the main purpose of the meeting, which is always the Presidential Lecture. The reports from the Secretary and Treasurer were quite short, the important point being the financial loss during the year, owing to a sharp rise in printing costs. The Treasurer warned members that would have to be offset by an increase in subscription next year. Mr. Fred Bell, Secretary of the Consett Club, was elected President for 1966-67 and Mr. Wilkinson the new auditor. Mr. Cooke had expressed his wish to resign from the office of auditor after many years of faithful work. Members of the Union will wish to thank him for all he has done in the past.

Mr. Thompson then spoke on "Odd Habits and Habitats". The odd habits turned out to be those of naturalists, pursuing their studies in the field with such zeal as not to be fully understood by other members of the public. The habitats were mostly beautiful places, and these were described with the help of excellent slides. In each case one or more of the special natural history features of the area were also shown.

Thus, from the Island of Coll we saw the Irish Ladies Tresses, Royal Fern and Water Lobelia; the island of South Rona provided pictures of special scenic beauty. At Brasside, fungi such as two species of Bird's Nest and Puff Balls were shown, whilst Fulwell Quarry was mentioned for its Bee Orchids. Waldrige Fell was

illustrated by photographs of different species of **Salix**, Marsh Violet and Bogbean; Winch Bridge in Upper Teesdale by the Viviparous Bistort, Mountain Everlasting, **Selaginella** and several orchids; Bamburgh by **Sedum anglicum** and **Sedum acre**; Budle Bay by its many kinds of Ergot, a very poisonous fungus when grown on grain; and, lastly, Newham Bog by Grass of Parnassus, Round-leaved Wintergreen and Marsh Heleborine.

After a Vote of Thanks, ably moved by Mr. Wade, tea was taken in the nearby laboratory, where Mrs. Gibby, Miss Vincent and the girls of Chester-le-Street Grammar School kindly attended to the serving.

Exhibits were also on display in this room. Mr. Cooke's spring flowers were again on show as usual. Mr. Burns exhibited a wormery, with the animals already displaying full activity. He explained how such a piece of simple apparatus could be used for studying such things as feeding habits, methods of burrowing and cast formation. Mr. Temperley produced a very fine collection of wings, tails, feet etc., of birds, arranged in such a way as to show the differences between pairs of species that are difficult to separate in the field. Lastly, Mrs. Gibby showed postage stamps from many different parts of the world, all with wild flowers peculiar to the country concerned.

ANNFIELD PLAIN AND STANLEY NATURALISTS' FIELD CLUB.

The annual meeting and social evening were held in the Civic Hall, Stanley, on February 5th. Four members had died during the year, so a silent tribute to their memory was observed at the outset.

The retiring President, Mr. H. Carr, was in the chair. He first commented on his experiences during his term of office. This was followed by reports from the Secretary, Mr. Fred Wade and the Treasurer, Mr. J. Atkinson. Mr. Wade reported on the success of a wide variety of outings, ranging from Staithes on the Yorkshire coast to the Cheviot Hills, and also on the thirteen lectures given during the winter season. A new venture was the establishment of a Botany class with Mr. Riley as tutor. This had been well attended. Both Mr. Atkinson and Mr. Reay (excursion secretary), reported small credit balances on the year's working. The membership had risen to the record number of 210.

At this point, Mr. Carr vacated the Chair for the new President, Mr. E. Wardle. During the election of officers, Miss D. Robinson was elected Vice-President. The only other change, apart from members of the committee, was due to the resignation of Mr. Dodds as Auditor. Mr. Phillipson was appointed in his place. During the discussion about next summer's outings, a wide range of places was chosen. It was also decided to make donations from the Club funds, to the British Association for the Advancement of Science, and to the Teesdale Defence Fund.

The gathering then adjourned to the dining hall where 120 members and friends partook of an excellent dinner. Afterwards the annual slide competition took place. Prizes were won by Mr. Wade, Mr. Quigley, Mr. Armstrong and Mr. Wardle.

Finally Mr. Wardle thanked everyone for the part they had played in making the meeting such a success.

BIRTLEY NATURAL HISTORY SOCIETY.

The Autumn lecture programme continued, on November 30th, with a lecture on the Geology of the Canary Islands by Mr A. Dunn, and then Mr. Percy talked about a Land Reclamation project at Houghall School of Agriculture, on December 14th. After the Christmas recess, Dr. B. P. Jackson showed pictures and talked about the poisonous plants of the North East. "Caddis Flies" was the subject of Dr. G. Phillipson's lecture on February 1st, when he told us of some of his discoveries concerning the silk spinning activities of the larvae. On February 15th, Mr. Tynan told us about the history of the foundation and development of the Hancock Museum. On March 1st, Mr. G. A. Cowen talked about the Roe Deer, and then the season's lectures closed with Mr. J. J. Robson talking about creating imbalance in Nature. On March 29th, we held our Annual General Meeting. After a short business session, during which all officers were re-elected for a further year, Mr. E. Hall showed two films. One of these was of past summer outings of the Society, and the other took us on a naturalist's holiday in Switzerland, during June. The views, the plants and the animals were all photographed so beautifully that we all went away feeling very pleased with the night's entertainment.

Meanwhile, the field outings on the first Sunday of the month have continued. Visits have been made to Salter's Gate, Witton-le-Wear and Brasside, in each case with a particular end in view. At Salter's Gate, we walked to Tunstall Reservoir, keeping a sharp look out for birds and mammals on the way. At Witton-le-Wear we dug holes for trees, to help in the tree-planting programme planned by the Naturalists' Trust for Northumberland and Durham. At Brasside, we went specially to look at the birds. We were not disappointed and in two hours we saw about 30 species in and around the pond.

NOTES AND RECORDS

NOTES.

Coltsfoot Records. I have recorded the dates of the first flowers of the Coltsfoot, *Tussilago farfara* L. for the past fourteen years. These dates vary from year to year, according to the state of the weather. The extremes are January 7th in 1954 and March 21st in 1963. February is the most frequent month for it to be first seen in flower. These observations all took place in the Whickham and Swalwell area:- 1953-February 16th; 1954- January 7th; 1955-March 13th; 1956-March 5th; 1957-January 26th; 1958-February 22nd; 1959-February 28th; 1960-March 5th; 1961- February 15th; 1962-February 1st; 1963-March 21st; 1964-February 28th; 1965-March 12th; 1966-February 28th. **L. P. Hird**

Bird Notes from Stanley. The following observations may be of interest to ornithologists:-
Green Sandpiper:-Autumn passage. Late date. On October 24th, a single bird was at the Tanfield Ponds, Stanley,
Common Scoter:-On September 18th, at least 20 birds were on the sea Hartlepool.
Kestrel:-During September, three different birds were frequently seen the Tanfield Valley. On October 29th, a
single Kestrel flew over the University in the built up area of Newcastle.
Great Spotted Woodpecker:-On September 24th, a single bird flew over Newcastle University and disappeared
into the Leazes Park.
Swallow:-Autumn passage. Late date. October 3rd, a single bird flew south over Stanley.
Snow Bunting:-Early date. On October 4th, a single bird was noted near Longhirst, near Morpeth.
This winter there appears to have been a large invasion of Waxwings to this country, so readers should keep a
look out for this species.

R. Marston Palmer.

An Early Butterfly. I think it may be of interest to report the fact that a Small Tortoiseshell Butterfly visited the
garden here this morning, when, although sunny, the temperature was only between 39° and 40°F. I do not
remember ever having seen one out of doors in February before.

W. S. Craster, 23rd February 1966.

An unusual Accident. A dog fox was killed on the dual carriageway near Harlow Green, on Saturday morning,
26th March 1966. It measured 39 inches from the tip of its nose to the end of its tail. The coat was in good
condition and the animal appeared to be well fed. R. Johnson.

Thorow-wax, *Bupleurum rotundifolium* L. A single plant appeared in my garden, having germinated from a
packet of "Swoop" bird seed. This plant is an umbellifer with its "branches passe or goe thorow the leaves." The
Bowers are tiny and straw-yellow in colour, cupped in conspicuous petal-like upper bracts. It is a weed in
cornfields in the south of England, now becoming rare. Mrs. M. Tyson.

The "Twelve Score Fields." The "Twelve Score Fields" were situated in the triangle between Dunston,
Derwenthaugh and Swalwell. The whole area consisted of large stretches of fresh water ponds and marshes. Only
four remain now, the other eight having been slowly swallowed up by ever-expanding industrial buildings, and the
waste tips that usually go with them. Five have been taken by the Electricity Board to tip ash from the furnaces
which drive the generators. This has ruined a habitat which used to provide nesting sites for Mallard, Teal, Yellow
Wagtail, Pied Wagtail and Grey Wagtail. Golden-eye usually came here during the winter. In another two fields,
the National Coal Board has erected a washing plant for open cast coal. This has taken away the homes of
numerous Moorhen and Reed-bunting, although a number remain in the fields not yet affected. In a few years,
nesting sites of the snipe will have disappeared from the field nearest Dunston.

On the credit side the remaining fields are still comparatively rich in birds and water plants. Snipe, Redshank,
Sedge-warbler, Reed-bunting, Moorhen, Mallard, Teal and at least one pair of Mute Swans are to be seen there
during the spring and summer. Sand-martins, Swallows and Swifts hawk for flies over the water. Occasionally a
Ringed Plover pays a brief visit. Scavenging gulls such as Lesser Black-backs, Black-headed and Herring Gulls
search the tips for tit-bits. During the winter Snow-buntings, Waxwings and Bramblings can be seen on occasion,
whilst various winter visitors of the duck family are always present.

The plants are, of course, mainly those which prefer damp places and about the standing water are found Reedmace, Spearwort, Northern Fen Orchid (*Orchis purpurella* Venn.), Broad-leaved Pondweed, Rushes (*Juncus* spp.), Water Mint, Water Plantain, Water Pepper, Water Crowfoot, and Ivy-leaved Crowfoot. On the edges of the fields grow plants as Skullcap, various Hawkweeds, Cuckoo Flower, numerous Ranunculaceae associated with wet meadows and a rather interesting Labiate, Gipsywort or Water Horehound.

At the present time this is still an interesting place but, as I see it, it will not remain so for much longer. L. P. Hird.

An abnormal Magpie Moth. On July 4th, there emerged within-doors from a pupa of *Abraxas grossulariata* L., an imago with both of its wings on the right side imperfectly expanded though of normal size. This was, without doubt, due to a crushing in of the thoracic region of that side when the pupa was quite soft and yet yellow, the larva having spun up over the hinge of the box in which it was placed. This defective moth is of the normal coloration, though evolved from a wholly black-coloured larva. C.R.

RECORDS.
INSECTS.

LEPIDOPTERA-BUTTERFLIES AND MOTHS

Perizoma bifaciata Haw. The Barred Rivulet. Only occasional at Riding Mill.	67
Hydriomena ruberata Freyer. The Ruddy Highflyer. Taken in the north of Northumberland only.	68
Earophila badiata Schiff. The Shoulder Stripe. Quite common round Riding Mill.	67
Coenotephria derivata Schiff. The Streamer. Occurs only sparingly at light at Riding Mill.	67
Nycterosia obstipata Fab. The Gem. A female at light in 1947 and a worn male in 1958 in my garden at Riding Mill.	67
Eupithecia centaureata Schiff. The Lime-speck Pug. Occasional at light at Riding Mill.	67
Eupithecia pulchellata Steph. The Foxglove Pug. Quite common at light.	67
Eupithecia tantillaria Boisd. The Dwarf Pug. Common in Spruce plantations round Riding Mill.	67
Eupithecia indigata Hubn. The Ochreous Pug. Common in pinewoods near Riding Mill.	
Eupithecia venosata F. The Netted Pug. Well distributed in the vice-county but never common.	67
Eupithecia assimilata Doubl. The Currant Pug. Fairly common at light.	67
Eupithecia absinthiata Clerck. The Wormwood Pug. Infrequent at light.	67
Eupithecia goosensiata Mab. The Ling Pug. Usually common on heather in the neighbourhood.	67
Eupithecia tripunctaria H-S. ab. <i>angelicata</i> Barrett. The White-Spotted Pug. Fairly common at light.	67
Eupithecia vulgata Haw. Common Pug. Common at light.	67
Eupithecia lariciata Freyer. The Larch Pug. Common locally amongst larch near Riding Mill.	67

Eupithecia castigata Hubn. The Grey Pug. Common at light.	67
Eupithecia satyrata Hubn. The Satyr Pug. Distributed on moors in South Northumberland.	67
Eupithecia succenturiata L. The Bordered Pug. Occasional at light.	67
Eupithecia icterata Vill. The Tawny Speckled Pug. Common all over the area.	67, 68
Eupithecia tenuita Hubn. The Slender Pug. Larvae sometimes plentiful in sallow catkins.	67
Eupithecia fraxinata Crewe. The Ash Pug. Occasional at light.	67
Eupithecia nanata Hubn. The Narrow-winged Pug. Quite common everywhere.	67
Eupithecia abbreviata Steph. The Brindled Pug. Also common everywhere.	67
Eupithecia exigua Hubn. The Mottled Pug. Fairly common in the district.	67
Eupithecia sobrinata Hubn. The Juniper Pug. Larvae usually found where wild juniper grows. Moths seem to turn up fairly regularly where that is not the case. Possibly they feed on cultivated juniper in gardens.	67
Chloroclystis rectangulata L. The Green Pug. Common everywhere. F. W. Gardner.	67

FLOWERING PLANTS AND FERNS.

Minuartia verna (L.) Hiern. Vernal Sandwort. Old mine on the Honeycrook Burn, N. of Haydon Bridge.	67
Genista anglica L. Needle Furze, Petty Whin. Near the Holystone Burn (67). Crag-side grounds (68).	67, 68
Genista tinctoria L. Dyer's Greenweed. By a roadside on Acomb Fell.	67
Orchis mascula L. Early Purple Orchid, Blue Butcher. In Allendale near Plankey, near Whitfield and near Old Town (67). On the S. bank of the Tyne, near Tarset (67). On the coast near Budle (68).	67, 68
Arabis hirsuta (L.) Scop. Hairy Rock-cress. By the Coquet opposite Sharpeton (67) and near Barrowburn (68).	67, 68
Petroselinum crispum (Mill.) Airy-Shaw. Parsley. Naturalised on the N. bank of the Tweed opposite Wark Castle.	81
Rorippa islandica (Oeder) Borbas. Marsh Yellow-cress. Colt Crag and Catcleugh reservoirs (67). Sir Edward's Lake, Capheaton (67). On the railway near Plashetts (67). By the Till in the vicinity of Etal (68).	67, 68
Rorippa sylvestris (L.) Besser. Creeping Yellow-cress. By the Tyne at Prudhoe.	67
Myrica gale L. Bog Myrtle, Sweet Gale. On the S. side of the Coquet near Bickerton (67). By the lower parts of the Holystone and Keenshaw Burns (67). By Kimmer Lough (68). On the moor near Roughtinglinn and on Bar Moor (68).	67, 68
Rumex hydrolapathum Huds. Great Water-dock. Bolam lake (67). Pond near Wallington (67). By the Aln near Abberwick Mill (68). By the Till near Milfield (68).	67, 68
Hippophae rhamnoides L. Sea Buckthorn. On the coast S. of Howick and between Budle and Warren Mill. By the Swinhoe Burn, S. of Seahouses.	68

Parietaria diffusa Mert. & Koch. Pellitory-of-the-Wall. At Alnmouth Station. Dunstanburgh Castle. Humbleton.	68
Halimione portulacoides (L.) Aell. Sea Purslane. Alnmouth Bay.	68
Scabiosa columbaria L. Small Scabious. Coast, S. of Howick.	68
Lysimachia vulgaris L. Yellow Loosestrife. On the S. bank of the Tyne at Broomhaugh and at Prudhoe (67). By the Tyne opposite Tarsset and near Wall. Station (67). Coquet near Guyance (68). By the Eglingham Burn, near Kirmmer Lough (68). By the Till at Ford Forge (68).	67,68
Polygala vulgaris L. Common Milkwort. The Snook, S. of Seahouses.	68
Cerastium arvense L. Field Mouse-ear Chickweed. On the banks of the Till near Milfield. On the coast near Monk's House. Links at Goswick.	68
Typha latifolia L. Great Reedmace. By the N. Tyne, as high as Plashetts.	67
Filago germanica (L.) Cudweed. On the basalt near Budle. Quarry near Ratcleugh. Ross Links.	68
Filago minima (Srn.) Pers. Slender Cudweed. Ross Links.	68
Plantago media L. Hoary Plantain. By the Pont near Dalton and by a tributary, S.E. of Kyloe House (67). On the coast, S. of Howick (68), and also at Craster (68).	67, 68
Equisetum telmateia Ehrh. Great Horsetail. By the Derwent, between Rowlands Gill and Winlaton Mill (66). By the Allen at Staward and Plan key and on the N. bank of the S. Tyne near its junction with the Allen (67). By the Warks Burn at Stonehaugh (67). By a tributary of the Cawledge Burn, near Greenrigg Kennels (S.E. of Alnwick) (68).	66, 67,68
Scutellaria galericulata L. Skull-cap. Near Halleypike Loughs (67). Near the junction of the Whickhope Burn with the N. Tyne (67). By the Eglingham Burn, near Kimmer Lough (68).	67, 68
Sedum villosum L. Hairy Stonecrop. On the basalt near Budle (68). In Coquetdale near Carshope and by the Barrow Burn (68). Upper part of the Cheviot Burn (80).	68, 80
Saxifraga stellaris L. Starry saxifrage. By the Breanish, descending nearly to the road bridge between Ingram and Greensidehill (68). Upper part of the Cheviot Burn (80).	68, 80
Epilobium alsinifolium Vill. Chickweed Willow-herb. Upper part of Cheviot Burn.	80
Centaurium littorale (Turner) Gilmour. On the coast S. of Howick, Bamburgh and Ross Links.	68
Centaurium minus Moench. Common Centaury. Near Elm Bush, S. of Amble (67). On the coast near Foxton Hall, N. of Alnmouth (68). Links at Bamburgh (68). Near Riding Mill, 1/2 mile S. of Riding Hills (67).	67, 68
Scirpus maritimus L. Sea Club-rush. Near Elm Bush, S. of Amble (67). Mouth of the Long Nanny (68). Near the mouth of the Swinhoe Burn, S. of Seahouses (68). Waren Mill (68). Mouth of the Black Low, near Fenham (68). Mouth of the North Low, near Goswick (68).	67, 68
Berula erecta (Huds.) Coville. Narrow-leaved Water-parsnip. In a ditch near Howick and in a stream S. of Longhoughton. Stream near Monk's House. G. A. & M. Swan.	68

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OLD BOOKS.

Recently, our attention was drawn to a most interesting and, we think, important book of botanical notes on parts of our counties. This consists of a series of press cuttings, dating from the 1870's, bound together in book form. The style of the articles is rather flowery for present day standards, and the text is adorned with scraps of poetry, but the writers appear to have been competent botanists. The comprehensive plant lists, which occur at intervals, make the book particularly valuable from our standpoint. Many of the articles deal with places which we still visit regularly, and it is interesting to check one of their lists against a recent one, for example, of Penschaw Hill or one of the coastal denes. It is then possible to speculate on the ability of some rare species to survive for at least a hundred years, and yet to remain within a very limited area without spreading. Good examples of this are Solomon's Seal, **Polygonatum mutilorum** (L.) All., and Perennial Flax, **Linum anglicam** Mill. These are still rare plants, but were then on record for the places where we find them today. On the other hand, our interest is tempered with some melancholy, when we note the number of plants which seem to have vanished, or whose range has become very restricted in the interval.

We wonder how many of these plants have really gone, and how many would still be found by intensive searching. Some of them have really vanished, of course. Juniper, **Juniperus communis** L., for example, is recorded for practically all the coastal denes and for many other places besides. It is highly unlikely that a plant as large and as characteristic as this would be overlooked.

We know that it has died out on Waldrige Fell within living memory. Others, however, may still be present without anyone having recorded them recently. If a plant is small and not very spectacular or has a very short flowering period, it can easily be missed.

One important use of such a book is to suggest organised campaigns to check these places in detail, and to search for unrecorded survivors. If the experience of others, working with similar material, is any guide, we could expect to have some success.

A book like this is fascinating to read in its own right. Its descriptions of old houses and beauty spots as they once were are part of our local history. The evidence they contain of the fauna and flora of the past is too important to be neglected.

THE CHANGING FACE OF DURHAM.

A new motorway is being driven through Durham County to take some of the traffic off the A1. The A19 is to be modernised and, in parts resited. On a lesser scale, existing roads are being widened and straightened out. Roadside verges are being tidied up everywhere, and whole new towns are being planned. The next few years will see tremendous changes and inevitably we shall lose many of our valuable habitats. The chief casualties are likely to be roadside verges, hedgerows and ponds. Durham is, in fact, the worst county we know for freshwater habitats, and even the few that remain are vanishing rapidly.

We have no desire to oppose or stand in the way of necessary changes. Very often, a small change of detail in the initial planning would leave an important habitat intact without making any real difference to the project. This can only occur if the planners know in time, but all too often, by the time the information is collected, it is too late. Much has already been done. Thus, large stretches of roadside verges are the subject of agreements between the Trust and the County authorities. More information should be collected, however, so that it is readily available when any emergency arises. The point is admirably put by Garth Christian in the April issue of 'Wild Life news':—

"Invariably this work is handicapped by the lack of information about the plant and animal life of key habitats. The need for new knowledge of the insect life of most areas is particularly acute. The local natural history society can do no better service to the community and to science than to patiently record the facts about the commons and canals, village ponds and railway cuttings of their district."

We were overjoyed the other day, therefore, to receive an inquiry from an official body about the natural history of the county on each side of the proposed new Durham motorway. This is wonderful. For once naturalists are being consulted before it is

too late. We sincerely hope that this is the beginning of a practice, which will, eventually, become a routine procedure.

SOCIETYS' ANNUAL REPORTS.

Two reports, in the form of booklets, have been received by the Editors, and parts of them are quoted under the section for the societies. These are from Sunderland and Darlington.

Last year we criticised the first Sunderland Annual Report (Vasculum Vol. L. No. 2.) for the lack of uniformity in presenting lists of different groups of organisms. We are very pleased to see that this has been remedied, resulting in the production of a first class set of lists for 1965.

The Annual Report of the Darlington and Teesdale Naturalists' Field Club is a somewhat different kind of booklet. It is altogether more ambitious and gives full account of the year's activities. These have ranged over a very wide field and indicate an extremely virile and active society.

The various sections have given detailed reports of their particular activities. In these reports, names of plants and animals appear. Can we once more appeal for greater attention to scientific detail? The standard method of recording living organisms is as we have always tried to produce at the end of this journal, and member societies would do well to follow this pattern, always bearing in mind that these records, once in print, will be handed down from one generation to the next.

THE SOCIETIES.

NORTHERN NATURALISTS' UNION.

About 50 members and friends met at Dene Howl Gate on 21st May, 1966, to investigate, once again, those beautiful woodlands at Castleside beginning at Combe Bridges. Mr. J. J. Robson of the Consett Club led the party, first of all into the woodlands alongside the road down to Combe Bridges, and then along the road towards Muggleswick. From this road we made two detours, one towards the River Derwent and the other to the opposite side of the road through conifer plantations.

The woodland flowers were at their best and, in this part of the county, in magnificent profusion. In a short time we recorded Woodruff, **Galium odoratum** (L.) Scop., Wood Sanicle, **Sanicula europaea** L., Greater Stitchwort, **Stellaria holostea** L., Ramsons or Wild Garlic, **Allium ursinum** L., Common Violet, **Viola riviniana** Rchb., Bitter Vetch or Tuberous Pea, **Lathyrus montanus** Bernh., Wood Sorrel, **Oxalis acetosella** L., Dog's Mercury, **Mercurialis perennis** L., Barren Strawberry, **Potentilla sterilis** (L.) Garcke, Bugle, **Ajuga reptans** L., Moschafel, **Adoxa moschatellina** L., Wood Melick Grass, **Melica uniflora** Retz., Water Avens, **Geum rivale** L., Wood Avens, **Geum urbanum** L., Greater Woodrush, **Luzula campestris** (L.) DC., Early Purple Orchid, **Orchis mascula**

(L.) L. and others. The Oak Fern, **Thylopteris dryopteris** (L.) Slosson, Adder's Tongue, **Ophioglossum vulgatum** L. and Maidenhair Spleenwort, **Asplenium trichomanes** L. were very welcome records of our ferns, all being found within a very short distance of each other.

Meanwhile the ornithologists were very busy listening to the profusion of bird songs, and then spotting the species concerned. The Pied Flycatcher was one notable example. On the way back to our starting point, we were able to watch a hare for some considerable time before it disappeared rapidly into the next field. Another interesting animal was an adder on the grassy bank at the side of the road. It almost let itself be photographed before slithering away into the undergrowth.

All this was in brilliant sunshine after a most unpromising morning. One thing, however, marred the afternoon. This was the discovery of about 50 dead trout in the Hisehope Burn near the bridges. Was this due to a careless farmer turning sheep dip into the stream or to some more sinister catastrophe?

The two junior outings have been held as usual this year. That to St. Mary's Island, which usually brings out our young people in large numbers, was poorly attended this year, whilst the Waldridge Fell outing, on the other hand, was a much greater success than usual. The St. Mary's Island excursion produced the usual mass of interesting plant and animal species of rock pools and rocky coasts. Practically everything expected put in an appearance together with several somewhat unexpected species.

On Waldridge Fell, the willows were in beautiful condition, and many insects were on the wing. Again the bird watchers had a good time. One young man, out with us for the first time, seemed quite overwhelmed by the vast numbers of different species to be seen in such a short space of time.

BIRTLEY NATURAL HISTORY SOCIETY.

The first long distance outing of the society took place on June 5th, when we went to Cow Green, Cauldron Snout and Langdon Beck in Upper Teesdale. We were taken to Cow Green by coach, and then we walked alongside the River Tees for most of the way back to Langdon Beck. On Widdybank Fell the Mountain Pansy, **Viola lutea** Hurs., Spring Gentian, **Gentiana verna** L. and Vernal Sandwort, **Minuartia verna** (L.) Hiern were seen in full bloom, together with patches of Bird's-eye Primrose, **Primula farinosa** L. here and there. Under Falcon Clints the ferns and mosses were of special interest at first but were completely overshadowed, at one point, by the magnificent display of Bird's-eye Primrose flowers and plants of Yellow Mountain Saxifrage, **Saxifraga aizoides** L.

The bird watchers counted themselves lucky. Dippers, **Cinclus cinclus**, were plentiful in the river and on the slopes of Widdybank

Fell just above it we were very excited to see a pair of Ring Ouzels, **Turdus torquatus**, and their nest of 5 eggs. The Golden Plover, **Charadrius apricarius**, too, was plentiful. Their plaintive cry followed us all the way along the Tees from Cauldron Snout to Widdybank Farm, and in one place a pair was most anxious to see us off their territory. Most obviously they had a nest in the vicinity, so we acceded to their wishes and cleared off quickly. The way was heavy and rough, especially for the older members of the party. In spite of all this everyone arrived safely at Langdon Beck before the coach!

DARLINGTON AND TEESDALE NATURALISTS' FIELD CLUB

This year, there has been a steady influx of new members, but with several deaths and lapsed members, total membership remains fairly static.

An unusually full programme of field outings was arranged for the summer, most being fairly well attended. Members who went to Coldstream and district are still amazed at their safe return, considering that part of the outing was on a floating bog—only six feet depth of peat separating them from 40 feet of water.

The lecture season provided much of interest and value, and of the many lectures, we remember with pleasure Mr. Allen's talk entitled "The Seashore", and the fascinating exhibits he brought along, and Mr. Leslie's illustrated account of "Wild Life in our Forests", when he told of the Forestry Commission's attitude to conservation. One lecture was held at Durham University, when Mr. Bellamy talked about "Old Herbals". Various valuable old books from the Science Library were on display. For the first time we had a show of 3D slides, given by Mr. H. Burnip at our first meeting in January. This proved an ideal medium for bringing to life the various subjects depicted.

Since the purpose of the Nicholson Memorial Fund is to provide for a series of lectures to interest the public in Natural History, Council decided to obtain a well-known Naturalist who might appeal to both young and old. Although attendance to hear Mr. Maxwell Knight was 282—70 of which were member's free tickets—the Fund had to contribute about £25 towards expenses.

It was unfortunate that Mr. Raymond was unable at the last moment to give his geology lecture on 18th January, especially as people had come from as far afield as Newcastle, Middlesbrough, and Barnard Castle to hear him. We are, however, expecting to hear Mr. Phillips talk on the "Foundation Stones of Tees-side" on 29th March.

At the 75th *Conversazione* on 12th February, when about 80 people attended. Dr. K. Ashby talked of the study he is making in Houghall Woods, showing the effect wood mice have on trees.

The President thanked all who had helped with the tea and other arrangements.

SUNDERLAND NATURAL HISTORY SOCIETY

The Annual Report (the second) for 1965, again consists almost entirely of Botanical and Zoological records.

We are pleased to report a substantial increase in the number of records sent in by members.

In preparing the report we have had more time to arrange the records in a standard form. A great deal of time would be saved however, if members were able to include the up-to-date scientific name according to the recent check-lists. The same applies to grid references, and we would ask that in future these be included where appropriate. Notable omissions in the records are:— insects other than Lepidoptera, Arachnids, Annelids and Myriapods. There are virtually no marine records for 1965.

For National Nature Week, we decided to organise a number of activities, mostly on a fairly modest scale in order to gain experience for future occasions.

First, we arranged a Natural History painting competition for school children, and although we were assured that we would get no response, we actually received about 800 entries. These were divided into three age groups and were judged by Mrs. N. Waterhouse, Mr. J. T. Shaw and Mr. J. Alder. The Sunderland Rotary gave a donation towards the prizes.

During National Nature Week itself, we obtained the co-operation of the Sunderland Parks Department, and laid out a Nature Trail in Barnes Park for the first four days. Saturday and Sunday were for the general public and although the mornings were quiet the trail was very well patronised during the afternoons. Perhaps the most popular feature was contributed by three of our junior members who brought along a number of vivarium tanks containing a wide range of our native amphibia and several lizards. They were rarely without an audience of fascinated and delighted children, and equally fascinated but, apparently, horrified parents.

Monday and Tuesday were for organised school parties with teachers. Here again, the response was surprising and something of an embarrassment. About 1,500 children were taken round and about the same number had to be turned down because of lack of guides.

The Museum had a series of stands illustrating the Natural History of local places of interest, such as Fulwell Quarry, Tunstall Hill, Castle Eden Dene etc., by means of photographs, fossils, mounted specimens and maps. The Central Library arranged a stand of books on Natural History.

The local press (Sunderland Echo) was very co-operative. Two issues carried full page articles contributed by local naturalists on the natural history of the district.

As a climax to the week the Sunderland Library arranged a public lecture by Mr. James Alder which, despite the competing attractions of a football match, was very well attended. Before giving his lecture Mr. Alder distributed the prizes to the winners of the painting competition.

NOTES AND RECORDS

NOTES.

Black-headed Gull, *Larus ridibundus* L. In the Newcastle 'Evening Chronicle' for 31st January, 1966, there appeared a report of a seagull having been found by a member of the Redheugh Iron and Steel Company's staff, carrying a ring marked "Stavanger Museum 615847". Advice was subsequently received from the Stavanger Museum that the bird was a Black-headed Gull which had been banded as a chick at Hognestad (58° 43' N, 4° 53' E) some 20 miles south of Stavanger, Norway, on 10th June, 1955. C. J. Gent.

Hedgehog, *Erinaceus eiiropaens*. Judging from the number of corpses to be found on the roads in Northumberland, the hedgehog is evidently still quite plentiful.

It was with interest, however, that I observed one walking across a lawn in the Exhibition Park, Newcastle upon Tyne on the morning of 16th May this year. C. J. Gent.

Bird Notes from Stanley. The following notes which I recently recorded may be of interest to ornithologists.

Rook: During April the rookery in the Haymarket, in the built up area of the centre of Newcastle, consisted of 23 occupied nests. This colony was first established in 1961 with only two nests.

Waxwing: Following the large winter invasion, a single bird was still present in the precincts of Newcastle University on April 6th; a late date.

Grasshopper Warbler: Spring passage. Two birds were heard "reeling" by Mr. L. P. Hird and myself at Budle Bay on April 30th. R. Marston Palmer.

Migrant Lepidoptera 1966. This year, migrants have arrived in our counties in larger numbers and much earlier than usual. The first Silver Y Moth, ***Plusia gamma* L.**, was seen on Cronkley Fell on May 31st, 1966. This was followed by a flood of the same species to my light trap from 3rd June up to the present time (24th June). It is everywhere, in the fields, on the fells and on the moors. On 12th June, the Diamond Backed Moth, ***Plutella maculipennis* Curt.**, suddenly appeared in numbers in the trap and in the garden. Several more have been seen on most days since then. Mr. R. H. Lowe reported a Red Admiral Butterfly, ***Vanessa atalanta* L.**, at Sunderland on June 14th, and a Painted Lady Butterfly, ***Vanessa cardui* L.**, was present at Salter's Gate, near Lancheater on June 19th. If the migrants continue to arrive at this rate and in these numbers then we are indeed about to witness a phenomenal year for migrant Lepidoptera. T.C.D.

Scurvy Grass, *Cochlearia officinalis* L. Clapham, Tutin and Warburg, in the Flora of the British Isles, divide this species into two subspecies, viz. ***officinalis* L.** which grows by the sea, and ***alpinum* (Bab.) Hook.**, which is assigned to the inland mountain form. The distinction is largely based on the shape of the fruits. Fleshiness or otherwise of the leaves is also mentioned, but I am of the opinion that this is not a reliable character. It is most likely due to environmental influences.

Has anyone in our counties looked into the status of these two . subspecies'. We are very well placed for a little experimental botany here, for the plant is quite common in both types of habitat. We would be pleased to hear of anyone willing to undertake a few transplantation experiments to try to determine something about the two forms. This may have been done before, of course, but we are not aware of any literature on the subject. T.C.D.

RECORDS.

INSECTS.

LEPIDOPTERA—BUTTERFLIES AND MOTHS

Dyscia fagaria Thunb. The Grey Scalloped Bar. Widely distributed on the moors, but not seen frequently.	67
Gnophos obscurata Schiff. The Annulet. Common at Riding Mill.	67
Ellopia fasciaria L. The Barred Red. Fairly common at light at Riding Mill.	67
Campaea margaritata L. The Light Emerald. Common at Riding Mill.	67
Semiothisa liturata Clerck. The Tawny-barred Angle. Common at Riding Mill. Var. nigrofolvata occurs.	67
Itame wauaria L. The V Moth. Not common at Riding Mill.	67
Chiasmia clathrata L. The Latticed Heath. Fairly common at Riding Mill.	67
Theria rupicaparia Schiff. The Early Moth. Common at Riding Mill.	67
Erannis aurantiaria Hubn. The Scarce Umber. Common at Riding Mill.	67
Erannis marginaria F. The Dotted Border. Also common.	67
Erannis lencophaeraria Schiff. The Spring Usher. Common at Riding Mill.	67
Erannis defoliaria Clerck. The Mottled Umber. Common everywhere. F. W. Gardner.	67

FLOWERING PLANTS AND FERNS.

Reseda Intea L. Wild Mignonette. Near Middleburn, S. of Warks Burn (67). Amble (67). In the North Tyne near Chariton, and at Falstone Station (67). Quarry W. of Kylene (68).	67, 68
Malva moschata L. Musk Mallow. By the Military Road near Carrowbrough (67), Railway embankment at Stocksfield (67). By the Breamish near its junction with the Reaveley Burn (68). On the banks of the Till near Milfield (68). Near Bradley Hall (67).	67, 68
Diplotaxis muralis (L.) DC. Wall Rocket. Seahouses Station.	68
Mimulus moschatii Lindl. Musk. In the ditch near Stannersburn, in the Tyne area (67). By the Breamish near Beanley and near Brandon (68).	67, 68
Sambucus nigra L. var. laciniata L. Cut-leaved Elder. Wood at the foot of Yeavinger Bell.	68
Sambucus racemosa L. Coste. . Naturalised in woods, N. of Ingram.	68
Atriplex littoralis L. Shore Orache. S. bank of the Blyth near Cowpen. Saltmarsh near Warkworth Harbour.	67
Myriophyllum spicatum L. Spiked Water-Milfoil. Greenlee Lough (67). Most northerly reservoir at Whittledean (67). Little Swinburn reservoir (67). In the lake near Angertonmoor (67). Pond at Howick (68). Quarry pond at the Snook, S. of Seahouses (68). Pond near Goldenhill (Lucker) (68). Till near Milfield (68). G. A. & M. Swan.	67, 68

THE VASCULUM

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BY THE WAY

Secretaries of Societies and other contributors to "The Vasculum" should send their notes to the Editors before 20th November. 1966.

UPPER TEESDALE RESERVOIR.

In our last report about Upper Teesdale (**Vasculum Vol. LI., No. 1**) , a hearing by a Select Committee of the House of Commons, of objections to the Upper Teesdale Reservoir Bill, had been postponed because of the General Election. The hearing began on May 4th and lasted for four weeks. This four-man Select Committee decided in favour of the Bill. The decision, however, was not unanimous.

During the discussions, the Chairman indicated that clauses could be added to restrict the extent of grouting, which is the injection of cement into the ground to seal off leaky rock fissures and mineworkings. This would minimise the damage to the scientifically interesting areas. When the Committee met again on June 21st, however, the Bill was allowed to proceed without adding any restrictive clauses with reference to grouting. The Water Board spokesmen maintained firmly that no grouting would be necessary, but they agreed to put down a further six trial bores to be sure of this.

In the meantime efforts to block the Bill in the House of Commons, which were led by Mr. Marcus Kimball and Mr. Paul Hawkins, were unsuccessful. When the results of the trial bores are available the Bill will go to the House of Lords, where the final battle will be fought. In the meantime a mass meeting has been organised by the Teesdale Defence Committee, to be held in Caxton Hall, S.W.1., on October 20th at 7-30 p.m.

As a direct result of all these manoeuvres, much more money is required. Please, therefore, do your very best to send another donation to the Hon. Treasurer, Upper Teesdale Defence Fund, c/o British Museum (Nat. Hist.), Cromwell Road, London, S.W.7.

MIGRANT LEPIDOPTERA.

The prophesy in our last issue (Vol. LI., No. 2), with reference to migrant Lepidoptera, proved to be true. It is many years since the Red Admiral Butterfly, **Vanessa atalanta** L., Painted Lady Butterfly, **Vanessa cardui** L., and Silver Y Moth, **Plusia gamma** L., have been as common as during the last few weeks. The two butterflies have swarmed on the Autumn garden flowers as well as at Ivy blossom., We have seen as many as 50 Silver Y Moths, in one afternoon, sipping nectar from flowers in Chester-le-Street Riverside Park. At night they have been almost queuing up to sample the garden flowers.

During August, Painted Ladies were seen as far north as Harris and Lewis in the Outer Hebrides.

Other migratory species, although not in such huge numbers, have also arrived. A report of Humming Bird Hawk Moths appears in the "Notes and Records", whilst we have heard of several more.

We are sure that all our members will have derived great satisfaction from the abundance of these beautiful insects.

THE SOCIETIES.

NORTHERN NATURALISTS' UNION.

Somewhere in the region of 80 members and associate members met in the disused quarry west of High Force Hotel in Upper Teesdale, on July 16th, 1966.

Mr. John Peters, the Naturalist Warden of the Teesdale Nature Reserve, took charge of the party and conducted us through the fields to the bridge across the Tees at Cronkley Farm. On the way we noted the beautiful growth of the Monkey Flower, **Mimulus gattatas** DC in the tributary by Wat Garth.

The party paused for a while to look at the plants in the Juniper thicket, to allow the late-comers to catch up. At the peat hag on the way to Cronkley Fell, Mr. Peters talked about the past history of the region as shown by the different layers in the peat section. It was near this point that we saw **Tofieldia pusilla** (Michx.) Pers., and other unusual marsh plants. The climb to the top of Cronkley Fell then began, many of the older members finding it very heavy going. Once on the top, however, a picnic tea soon revived them. It was here, on Thistle Green, that we saw plants of the Spring Gentian, **Gentiana verna** L., the Hoary Rockrose, **Helianthemum canum** (L.) Baumg., Mountain Avens, **Dryas octopetala** L. etc. Mr. Peters showed where erosion of the soil on Thistle Green had been

aggravated by sheep. In order to lessen, this, certain areas have now been fenced off to prevent their access. It is hoped that some stabilising of the loose sugar limestone soil will now take place by recolonisation. ; After searching the area to see the other rarities, the party returned more or less the same way.

A few members made a slight detour to visit Tarn Dub. Here they saw the trapping apparatus used by Mr. Peters to investigate the insect fauna of the Tarn, and the two species of birds which are characteristic of the place, namely Teal and the Black-headed Gull.

During the course of the afternoon, Mr. Gent had kept a look out for other birds. He recorded Kestrel, Red Grouse, Lapwing, Golden Plover, Common Sandpiper, Wood Pigeon, Skylark, Sand Martin, Jackdaw, Wren, Ring Ouzel, Blackbird, Wheatear, Dunnock, Meadow Pipit, Pied Wagtail, Sterling, Linnet and Redpoll.

The September outing took place at Piercebridge on 10th September, 1966, when Mr. V. Brown of the Darlington and Teesdale Naturalists' Field Club, was in charge. He led us from the village green to a path along the river bank, almost as far as Gainford. Some of the party went on to the village and returned to Piercebridge by bus, whilst the rest retraced their steps.

Most of the plants were in seed but there was still much of interest. The Himalayan Balsam, **Impatiens glandulifera** Royle, was widespread, covering almost every inch of the river bank sides. Alongside the path, however, were many waste patches, which carried a number of interesting 'weeds'. It was here that we found the Common Fumitory, **Fumaria officinalis** L., Field Pansy, **Viola arvensis** Murr., Common St. John's Wort, **Hypericum perforatum** L., Corn Spurrey, **Spergula arvensis** L., White Goosefoot, **Chenopodium album** L., Black Medick, **Medicago lupulina** L., Silverweed, **Potentilla anserina** L., both in its typical form and some plants silvery on both sides of the leaves. Black Bindweed, **Polygonum convolvulus** L., Knotgrass, **Polygonum aviculare** agg., Persicaria, **Polygonum persicaria** L., Scarlet Pimpernel, **Anagalis arvensis** L., Scentless Mayweed, **Tripleurospermum maritimum** (L.) Koch Ssp. **inodorum** (L.) Hyl. ex Vaarama., and Rayless Mayweed, **Matricaria matricarioides** (Less.) Porter.

Mr. Gent kept a watch for birds and listed Black-headed Gull, Wood Pigeon, Swallow, Rook, Blue Tit, Long-tailed Tit, Wren, Spotted Flycatcher, Grey Wagtail and Starling.

At one place, the river bank was extensively disturbed by a row of badger sets, and several of the animals' regular paths could be traced in the vegetation nearby. During the course of the afternoon, a fox and a Long-tailed Fieldmouse were also seen.

The weather had been good during the whole of the afternoon, and decidedly warm for the time of the year. Many were therefore happy to patronise a mobile ice-cream van on our return to Piercebridge.

BIRTLEY NATURAL HISTORY SOCIETY.

The outing to Holy Island was held on July 10th. The weather was doubtful when leaving Birtley, and by the time we reached our destination it was raining steadily. In spite of this, a small party set off for the sand dunes on the Snook. The snails were out in great force enjoying the weather, so that we had great difficulty in walking in the vegetation without crushing one to death. There were three species. **Helix aspersa**, **Cepaea nemoralis**, and **Arianta arbustorum**. The usual sand dune flowers were encountered, notable amongst these being a plant of **Lotus corniculatus** L., with unusually large, bright orange flowers, a most striking and beautiful specimen. At one period, when the rain was heavier than usual, we walked along the foreshore in order to avoid the wet vegetation. In so doing we stumbled upon a Tern's nest, the owner of which we could not spot anywhere, although the eggs were quite warm. Eventually we had to return through the vegetation, arriving back at the coach wet to the skin and covered with the fruits of the New Zealand Burweed, **Acaena anserinifolia** (J. R. & G. Forst.) Druce.

ANNFIELD PLAIN NATURALISTS' FIELD CLUB.

The outing from Dufton to High Cup Nick will be remembered by most of the Annfield Plain adventurers for its torrential rain. The walk began in perfectly dry conditions. Alongside the path through the lower pastures, the white form of the Marsh Thisfle, **Cirsium palustre** (L.) Scop. formed about 60% of the total population of thisfles. Shortly after passing through the last gate on to the open moorland, it began to rain, and presently developed into a downpour, so that shelter was sought in a disused lime kiln. Never have so many human bodies wedged themselves into such a small space. Eventually, the rain eased somewhat so that the party was able to proceed. The Alpine Willow Herb, **Epilobium anagallidifolium** Lam. was quite common in the springs along the North side of the valley. At the top of the valley, a stray dog looking much bedraggled from the rain, attached itself to the party. It looked so miserable that it was carried practically all the way back to Dufton. On the return journey, the rain stopped, so that by the time the village was sighted, most people had dried off again. On the village green there was a fine show of flowers on the lime trees. Some of these were collected to flavour a deadly brew!

SUNDERLAND NATURAL HISTORY SOCIETY

In the Annual Report and Balance Sheet recently received, the most notable piece of news is that of the resignation of Mr. G. Stansfield, Hon. Secretary-Treasurer of the Society since its resurrection three years ago. He leaves to take up his appointment as Senior Lecturer to the new Department of Museum Studies at Leicester University. The Society expresses its appreciation of Mr. Stansfield's work over the last three years and wishes him success in his new sphere. It also expresses appreciation of the fact that

during the interim period Mr. C. P. Holwell has kindly undertaken to act as Hon. Secretary. We, the Editors, feel that the officers and committee of the N.N.U. would also like to add their best wishes for Mr. Stansfield's future success. He reformed the Sunderland Society after a lapse of many years and must have put in a tremendous amount of work in the process. In the years that he has worked for the Society, there has been little doubt that his enthusiasm and devotion to its interests have put it on a firm footing. He will be missed, but the Society will continue, and that should give him some quiet satisfaction.

NOTES AND RECORDS

NOTES.

An Interesting Alien Plant. In the summer of 1960, I came across an interesting plant in North Marine Park, South Shields. At first I thought it was meant to be there, or that a gardener had dropped a packet of seeds as the flower beds were covered with flowering and fruiting umbels. Further examination showed that the plant had spread into the hedges and on the cliffs, so I sampled it. As it obviously belonged to the **Umbelliferae** and had perfoliate leaves, I tried the genus **Bupleurum**. But nothing in the books at my disposal at that time really described the flower.

A few years later, I was in the Herbarium of the British Museum with some specimens for identification and came across Dr. Dony who kindly named my plant immediately as **Smyrnum perfoliatum**. He showed me the folders with other specimens, collected mainly in the Thames valley. I left my best material to take its place in the first folder for Durham, but have been in the South Shields area only once since that time to try to find the alien plant. This year, I was informed by Mr. M. Mullion, of South Shields, that a strange plant was rampant in both of the town's parks. From his description I think it is my alien of 1960, a biennial and now described in "The Flora of the British Isles" by Clapham, Tutin and Warburg (2nd edition). G. G. Graham.

Bird Notes from Stanley. The following ornithological notes which I recently recorded may be of some interest.

Ruff: Autumn passage. Tanfield ponds, Stanley. A single bird occurred on August 6th and was the only bird seen. Also two on the Durham side of Teesmouth, August 28th.

Green Sandpiper: Tanfield Ponds. Two birds on August 11th were the only birds noted.

Common Sandpiper: Tanfield Ponds. July 6th, one; July 21st, one; August 8th and August 11th, two. Twelve Score Fields, near Dunston. From August 6th to August 10th, two occurred. On August 29th, I observed another bird flying round some houses in the built up area in the centre of Middlesbrough. On one occasion it alighted on a major road carrying much traffic before flying away to the south.

Spotted Redshank: Tanfield Ponds. September 6th, a single bird. Greenshank: Tanfield Ponds. Up to two birds occurred between September 6th and September 24th. Durham side of Teesmouth— one on August 28th, behind the sea wall.

Dunlin: Inland on Tanfield Ponds; July 5th and 6th, one; July 9th, one;

July 23rd, one. Twelve Score Fields, near Dunston; August 6th, six; August 10th, eight.

Common Snipe: Tanfield Ponds; August 10th, three increasing to nine by August 24th, and 26 birds by September 10th.

Mute Swan: Tanfield Ponds; this year a pair was successful in rearing seven cygnets.
Fieldfare: Early date. On September 11th, two birds flew along the Tanfield valley from east to west.

Yellow Wagtail: Autumn Passage. Tanfield Ponds; August 24th, a party of about 24 birds.

Grasshopper Warbler: Tanfield Ponds; during June and July a single bird was seen and heard 'reeling'.

Bullfinch: Beamish Burn; July 8th, one. On the same day two were seen near Maiden Law.

Tree Sparrow: During June, a family party of three birds was often seen in the Causey Wood.

Pied Flycatcher: High Force Wood; one on May 30th.

. R. Marston Palmer.

Migrant Lepidoptera. An early date for the Red Admiral Butterfly, *Vanessa atalanta* L., was June 18th, when a single specimen was sighted in the Tanfield Ponds area. Later a specimen was seen in Newcastle University grounds on August 24th, and another at Cockle Park on August 25th. R. Marston Palmer.

A Humming Bird Hawk Moth, *Macroglossum stellatarum* L., was seen in my garden at Brunton Park, Newcastle upon Tyne, on June 21st and 22nd. The moth was hovering over and extracting nectar from flowers of Catmint. H. E. D. Beavis.

The Northern Fen Orchid, *Dactylorehis purpurella* (T. & T. A. Steph.) Venneni. This plant flowered in great abundance at Tanfield Ponds this summer. The colony has either spread or plants, which usually show leaves only, have borne flowers. R. Marston Palmer.

The Common Pheasant, *Phasianus colchicus*. On March 10th, 1966, a cock pheasant was seen in our back garden, in Durham City. It walked about, in leisurely fashion, for about 15 minutes, during which time I was able to photograph it from an upstairs window. A. N. Gibby.

Magpie, *Pica pica*. Magpies were very frequent visitors this year in our garden, during the raspberry season, helping themselves greedily to the fruit. In previous years they had been seen only occasionally. A. N. Gibby.

The Peacock Butterfly at Sunderland. It was interesting to see a Peacock Butterfly, *Vanessa io* L., on a late flower of Buddleia, in my garden at Sunderland. It was present on several days during the week ending September 17th, 1966. R. H. Lowe.

Little Bittern, *Ixobrychus minutus*. This very rare species as far as Durham is concerned, is seldom seen even in its more regular haunts. It is therefore worth recording a dead specimen on the side of a road near Ludworth. It had broken both a leg and a wing, presumably by flying into the telegraph wires below which it was lying when found. R. H. Lofthouse.

RECORDS.

INSECTS.

LEPIDOPTERA—BUTTERFLIES AND MOTHS

Notodonta dromedaris L., Iron Prominent.	66
Caterpillars were not uncommon on birch, Betula pubescens Ehrh. at Dryderdale near Bedburn, on September 17 th , 1966. T.C.D.	
Deuteronomos alniaria L., The Canary-shouldered Thorn.	67
Common at light at Riding Mill.	
Selenia bilunaria Esp. The Early Thorn.	67
Also common at light.	
Selenia lunaria Schiff. The Lunar Thorn.	67
Also common at light.	
Apeira syringaria L. The Lilac Beauty.	67
Fairly common at light. Larvae beaten from honeysuckle in the Riding Mill district.	

Coltois pennaria L. The Feathered Thorn. Common at light at Riding Mill.	67
Epione repandaria Hufn., The Bordered Beauty. Occasional only at Riding Mill. Last seen in 1950. •	67
Lithina chlorosata Scop., The Brown Silver-line. Common wherever bracken abounds.	67
Ourapteryx sambucaria L., The Swallow-tailed Moth. Fairly common at light at Riding Mill F. W. Gardner.	67

FLOWERING PLANTS AND FERNS.

Erophila verna (L.) Chevall. Whitlow Grass On walls at the Roman Station, Lanchester.	66
Chelidonium majus L., Greater Celadine. . In the Churchyard, Staindrop, all plants seen being double-flowered	66
Cheiranthus cheiri L., Wallflower. On the untreated Castle walls at Barnard Castle, which had, so far, escaped scraping and re-pointing. A. N. Gibby.	66
Dryopteris carthusiana (Villar.) H. P. Fuchs, Narrow Buckler Fern. Shincliffe Woods, confirmed C. A. Jermy.	66
Dryopteris abbreviata (DC.) Newm. Amongst dolerite rocks, Cronkley Fell (65). Above Falcon Clints (66). Confirmed C. A. Jermy.	65, 66
Ranunculus omiophyllus Ten. N. shore of Crag Lough. Confirmed F. H. Perring.	67
Ranunculus baudotii Godr. North Gare sands and near Seaton Carew in brackish pools.	66
Ranunculus aquatilis L. s.s. Small pond near High Croft House, Shadforth (66). Ditch near Castle, Holy Island (68).	66, 68
Ranunculus peltatus Schrank ssp. peltatus . Gore burn, Wheatley Hill. Cassop pond margin.	66
Ranunculus ficaria L. ssp. bulbifer (Marsden-Jones) Lawalree. Shincliffe Hall gate, large patches spreading vegetatively. Entrance to Castle Eden Dene in shade. Ssdy bank near Akeld (68). All confirmed F. H. Perring.	66, 68
Fumaria officinalis L. s. s. Common Fumitory Waste ground near Ludworth. Hedgerow and garden weed. Running Waters' petrol station, Durham-Hartlepool road. Waste ground, Wheatley Hill. Hart Warren.	66
Fumaria muralis Sond ex Koch, spp. bOraei (Jord.) Pugsl. Domestic walls in village. Holy Island.	68
Rorippa microphylla (Boenn.) Hyland. Cassop Pond.	66
Diplotaxis muralis (L.) DC. Waste ground under Tyne Bridge, Newcastle.	67
Cardaria draba (L.) Desv. Hoary Pepperwort. A flourishing colony persists at the roadside where the bye-pass to West Auckland rejoins the main road west of Bishop Auckland.	66
Arenaria leptoclados (Reichb.) Guss. Old Railway Station, Glanton.	68
Scleranthus annuus L. Annual Knawel. Junction of Hetha and Debdon Burns. G. G. & P. S. Graham.	68
Myriophyllum alterniflorum DC Alternat-flowered Water-Milfoil. Stream running out of Crag Lough, near Hotbank (67). Halleypike Loughs (67). Shield on the Wall reservoir (Brown Moor) (67). Blacka Burn, near Kate's House (67). Bolam Lake (67). Larger Sweethope Lough (67). In the N. Tyne around Tarsset and Falstone (67). Small pond, S. of Linnheads (near Ray) (67). Stream running into N. end of Little Swinburn reservoir (67). In the Breamish, near to junction with Revealey Bum (68). Swinhoe lakes (68). Chirdon Burn, just above Bower (67). Crook Burn above Tacket (67).	67, 68

Equisetum telmateia Ehrh. Great Horsetail.	67, 68
Near rifle range on coast, N. of Berwick (68). N. bank of Ain near Pasture House (68). Chirdon Burn, just above Bower (67).	
Selaginella selaginoides (L.) Link. Lesser Clubmoss.	67, 68
Hepburn Moor, near Botany (68). Chirdon Burn, above Bower and also near Cat Linns (67). Akenshaw Burn, 4m. above the Forks (67). Crook Burn above Tacket (67).	
Hyoscyamus niger L. Henbane.	68
The Heugh, Holy Island.	
Arenaria balearica L. Balearic Pearlwort.	68
The Heugh, Holy Island.	
Littorella uniflora (L.) Aschers. Shore-weed.	68
In a small pond at the old lime quarries on the N.side of Holy Island.	
Potamogeton graminens L. Various-leaved Pondweed.	68, 70
S. side of Tindale Tarn (70). In a small pond at the old lime quarries on the N. side of Holy Island, with Myriophyllum spicatum (68).	
Catapodium rigidum (L.) C. E. Hubbard.	68
On an old lime kiln near the point 62 ft. on Holy Island links. Also on the Links, SW. of Emanuel Head, not far from Carex maritima .	
Blysmus compressiis (L.) Panz. ex Link. Broad Blysmus.	67
Crook Burn above Tacket.	
The following species of Ranunculus were determined by Dr. R. W. Butcher.	
R. aquatilis ssp. heterophyllus (Weber) Syme emend., var. submersus .	68
Quarry pond near Fleetham (Chathill) and small pond near Rayheugh.	
R. Aquatilis ssp. peltatus (Schränk) Syme emend.	67
In a small pond on Plenneller Common, near Bridle Green, S. of Haltwhistle. In a small reservoir, near Hinds Shields, N. of Haydon Bridge.the leaf form truncata in a small stream at the w. end of Greenlee Lough.	
R. calcareus Butch.	67, 68
In the Rede, near its junction with theCottonshope Burn and also near Otterburn Mill (67). In the Ain near Unthank and also near its junction with the Coe Burn (68). In the Reeveley Burn, just above its junction with the Breamish (68). In the Coquet near Carshope (68).	
R. trichophullus Chaix.	68
Small stream on the Bamburg Links.	
R. baudotii Godr.	68
Pond at Howick. Quarry pond at the Snook, S. of Seahouses.	
R. fluitans Lam.	68
In the Ain, S. of Denwick, near Abberwick Mill and near Bolton. In the Tweed below Horncliffe.	
Coeloglossum viride (L.) Hartm. Frog Orchid.	70
Gowk Banks, by the Irthing.	
Dactylorhiza incarnata (L.) Vermeui, ssp. incarnata .	67,
	68, 70
Gowk Banks, by the Irthing (70). Links at Holy Island (68). Sand dunes, N. of Seaton Sluice (67).	
Gymnadenia conopsea (L.) R.Br. Fragrant Orchid.	67,
	70, 80
Bells Burn, just above Bells Linn (80). Gowk Banks, by the Irthing (70). Akenshaw Burn between the Forks and Akenshaw (67).	
Sedum villosam L. Hairy Stonecrop.	68
Usway Burn. Between Mounthooly and the mouth of Hen Hole.	
Juniperus communis L. Juniper.	66,
	67, 68
Hepburn Moor (68). By the stream near Hepple Whitefield (67). Whapweasel Burn (Hexhamshire) (67). Lower part of Feldon Burn and Bumhope Burn near Pedam's Oak (66).	
Myrica gale L. Bog Myrtle, Sweet Gale.	67, 68
Sandyford Burn. near Twizell (68). Darden Burn and by the stream near Hepple Whitefield (67).	
Ranunculus hederaceus L. Ivy-leaved Water Crowfoot.	68
Near the head of Wholehope Burn at about 1400 ft., and near the head of Caricroft Burn at about 1,650 ft. G. A. and M. Swan.	

THE VASCULUM

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THE POPLARS, CHESTER-LE-STREET

BY THE WAY

THE PAST SEASON.

The 1966 season has been a curious mixture in many ways. The weather had its ups and downs as usual, but records show quite high temperatures, and more than average sunshine, from Whitsuntide until the middle of August.

The plants did not appear to suffer. Indeed, the alternating periods of sunshine and showers seemed to please them very well. Thus **Dactylorhiza purpurella** (T. & T. A. Steph.) Vermeui. has been mentioned in these pages (**Vasculum** Vol. LI, No. 3, p. 22), as having flowered in larger numbers than usual. On the other hand, we have noted some reduction in the incidence of the Rosebay Willow-herb, **Chamaenerion angustifolium** (L.) Scop. after having reached a maximum a few years ago. Beautiful as it is, most naturalists will not be sorry about this trend, for it is a ruthless competitor for our countryside space. Since the 1939-45 War, it has taken over many of our waste places, to the detriment of many of our more pleasing "weeds". It is possible that the hormone spraying of roadside verges has had something to do with its recession. Has any member made critical observations on its occurrence along roadsides which have had regular treatment?

The migrant Lepidoptera have had a good year, of course, as already reported in our October issue. But what of our resident species and usually common insects in other groups? Seldom can we remember a season when the three common white butterflies have been so rare. The only Lepidopterous larvae making a nuisance

of themselves on the **Brassicæ** in our garden, have been those of the Cabbage Moth, **Mamestra brassicæ** L. Altogether, not more than a dozen Large Whites, **Pieris brassicæ** L. have been observed, not a single Small White, **P. rapæ** L., and only a few Green-veined Whites, **P. napi** L. That usually common butterfly, the Meadow Brown, **Maniola jurtina** L., has also been down in numbers, as has also been the case on the fells with the Small Heath Butterfly, **Coenonympha pamphilus** L.

Migrant insects of groups other than Lepidoptera, have either been completely absent, or ignored by our local workers. Not a single record has come to the Editors. May we once again appeal for records of groups such as the Dragonflies, Hover-flies, Mayflies and others? The distribution both in the total number of species and in the number of individuals of a single species can change very quickly and therefore require continual recording. It is only through a journal such as this that we can note local changes, which could quite possibly be most important later, when fitted into the pattern of change seen in the country as a whole.

THE SOCIETIES.

NORTHERN NATURALISTS' UNION.

The Autumn Meeting was held on October 22nd, in the Public Library, Annfield Plain, with the President, Mr. Bell in the Chair. There was a very large attendance of members from the affiliated societies. A very interesting lecture was given by Mr. L. Hird on "Plants of the Fields, Woods and Waysides", illustrated by his own colour transparencies. Afterwards, members took tea in the adjacent Methodist schoolroom.

Among the exhibits shown was a collection of fossils from the local mines, together with wooden shovels and a selection of old miner's lamps. Dr. Todd showed a case of colour transparencies of the rarer plants to be found in our counties. There were also on show, cases of beetles and butterflies, some of which had been collected in tropical countries. There was an interesting collection of pressed flowers made by Mr. Middlemast over 60 years ago, with the extinct Dipton Naturalists' Club. These specimens were in a remarkable state of preservation. There was a good collection of old local photographs, old bills and posters advertising shows and concerts, and some old books all from the Annfield Plain and Stanley Naturalists' Club. Lastly Mr. Dunn exhibited a specimen of **Pteris cretica**, a rather beautiful fern which had appeared as a weed in the greenhouse at Chester-le-Street Grammar School.

After tea, Mr. Bell thanked the officials of the Annfield Plain Club for the splendid way in which they had entertained the members of the Northern Naturalists' Union. The meeting had been a great success in every way.

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB.

The Annual Dinner was held on November 16th, 1966, when over 100 members, guests and friends were present. After a most satisfying meal, the President, Mr. W. Fenwick reviewed the activities of the club during the past year, in his characteristic way. Then Mr. F. Bell toasted the guest of honour, Professor J. W. Heslop Harrison. To this the Professor replied in a most suitable manner. The toast "Our Club", was proposed by Miss D. Sanderson and this was seconded by Mr. J. Vincent, who proceeded to entertain everyone with his special brand of humour.

After the dinner and speeches, Mr. E. Wardle gave a lecture entitled "People, Places and Things", which was fully illustrated by his beautiful coloured photographs. The evening concluded with votes of thanks by Mr. Parry, to Mr. Wardle for his talk, and to Mrs. Lynn for all the time that she had given to the arrangements for the meal. Altogether, this was a varied and very satisfying evening for all club members.

BIRTLEY NATURAL HISTORY SOCIETY.

The winter lecture season got off to a good start on September 20th, with a talk from the Curator of the Information Centre and Museum near Linhope in the Northumberland National Park. His photographs of the Breamish Valley with comments on deer and wild goats proved of great interest. On October 4th, Dr. D. R. Thomas showed us some magnificent slides of parts of the National Nature Reserve on the Gower Peninsula in South Wales. As well as the botanical interest of the whole area, he told of the smuggling that had gone on along the coast until comparatively recent times. Mr. J. Thompson produced some intriguing colour transparencies on October 18th, in a lecture entitled "Some Problems of a Naturalist". Each slide, as well as being a superb photograph, emphasized the many problems that still have to be solved in natural history. On November 1st, Dr. LeDune took us, in imagination, on a trip to Ecuador in South America. Although his visit was connected with a missionary society, he took the opportunity to visit as much of the country as possible. His photographs, examples of Indian arts and crafts, and especially tape recordings of native music were really fascinating. Another journey, of a different type, was described by Mr. Gilbert on November 15th. This was of a scientific expedition to the mountainous north eastern part of Afghanistan, with members of Newcastle University. Their studies on glacier erosion were explained and illustrated by slides, which later showed views obtained during an abortive attempt to climb one of the high peaks in the vicinity of their base camp. This was followed by Dr. Burt on November 29th, talking about the changing life cycles of insects, with live specimens to thrill the juniors. The first part of the winter programme finished on December 13th with four very interesting films by Rentokil Laboratories.

The outdoor excursions on the first Sunday of the month have been somewhat marred by bad weather. Two were abandoned altogether, but the other two proved very interesting. These were to Witton-le-Wear Nature Reserve and to the National Trust woods at Leamside. In both cases bird-watching was the main activity, but the plants and insects were not ignored in either case.

NOTES AND RECORDS

NOTES.

Bird Migration 1966. Wheatears were present in the Wooler area on March 27th (I.C.G.). A cold period with snow and sleet followed.

A Willow Warbler was in song in Gosforth Park on April 20th. Single Swallows were seen on the 23rd at Capheaton, East Woodburn, Ulgham and Blagdon; a pair were present at their breeding site at Chevington. Wheatears were plentiful in Upper Coquetdale above Alwinton. Two Willow Warblers were heard near East Woodburn. On the 24th numbers of swallows and Sand Martins were flying over the North Tyne near Wark, and a Tree Pipit was in song at Lewisburn. Willow Warblers were well distributed in the Wansbeck Valley between Morpeth and Mitford on the 30th, a Whitethroat and a Garden Warbler being in song.

On May 1st, Cuckoos were calling at Ray and Bellingham (I.C.G.). Swifts arrived at their breeding site in Gosforth on May 3rd.

Swifts were last seen at their breeding site in Gosforth on August 17th. Six Ruffs were present at a small pool on some agricultural land near New Hartley on the 31st, several Greenshanks being observed nearby.

A Redwing was seen on Holy Island on October 8th, and parties were heard flying over Gosforth after dark on the following two evenings. Fieldfares passed over Gosforth on the afternoon of the 14th when Swallows were last observed.

Blackbirds were particularly numerous on November 5th when a Shorteared Owl was also seen at Low Gosforth. C. J. Gent.

Immigrant Lepidoptera 1966. Immigrant Lepidoptera appear to have been more numerous than for some years. I saw a Painted Lady butterfly, *Vanessa cardui* L., near New Hartley on August 31st, and a Red Admiral, *Vanessa atalanta* L., in Gosforth on September 10th, subsequently observing the latter species at Whitley Bay, Tynemouth, Haltwhistle and Gilsland. The Silver Y moth, *Plusia gamma* L., was particularly plentiful at Whitley Bay on September 18th when 50 were counted in one small area. C. J. Gent.

Bird Notes from Stanley. The following ornithological observations which I recently recorded, may be of interest to "Vasculum" readers.

Hawfinch: A single immature bird at Tritlington, South Northumberland, on November 2nd.

Brambling: A party of 14 birds near the Causey Wood, Stanley, on October 30th.

Fieldfare: Early date. On October 6th a party of 15 birds flew west over Newcastle. On October 30th a total of 123 birds in an area of about half a square mile near Stanley.

Great Spotted Woodpecker: A single bird in Leazes Park, Newcastle, on October 14th. R. Marston Palmer.

Late Butterflies. The Red Admiral flew until very late this year. Thus a single specimen was seen indoors at Lanchester on October 8th, and on October 21st a single specimen was present in Leazes Park, Newcastle. R. Marston Palmer.

Bramblings at Leamside. Whilst on an outing with the Birtley Natural History Society, in Leamside Woods on 4th December, at least one pair of Bramblings, *Fringilla montifringilla*, were positively identified. Several other birds were present at the same time in rather dense scrub, and it is quite possible that there may have been others in this flock. As winter visitors they are not common in our area, so this was a sighting of some importance. R. Harris.

A Green Cockroach. On December 6th, a green cockroach was brought to me in a jam jar, where it was happily feeding on a piece of banana. On consulting Vol. 1, Part 1 of the Handbooks for the Identification of British Insects, by W. D. Hinks, it was found to be the Cuban Cockroach, *Panchlora nivea* L.. Two species of *Panchlora* are mentioned in the key, the other, *P. viridis* Fab. being a much larger insect. Both arrive in this country on banana boats. T.C.D.

Waxwings. The waxwings have arrived a little early this year in my garden at Rowlands Gill. I first saw four in the garden on October 27th and thirteen more on November 9th. They then disappeared and have not been since. C. Hutchinson

Early on the morning of November 11th, 10 waxwings were present on *Cotoneaster* in my garden at Holmlands Park, Chester-le-Street. Further reports of them were received on several days during the week. These were probably from the same flock. E. M. Burns.

RECORDS.

INSECTS.

LEPIDOPTERA—BUTTERFLIES AND MOTHS

Deilephila elpenor L. Elephant Hawk-moth.	67
One found by a railway platelayer in the Haltwhistle area. C. J. Gent.	
Phigalia pedaria F. The Pale Brindled Beauty.	67
Common at light in my garden at Riding Mill.	
Apocheima hispidaria Schiff. The Small Brindled Beauty.	67
Occurs only sparingly.	
Biston strataria Hufn. The Oak Beauty.	67
First observed in 1948, but has steadily increased and is now well established.	
Biston betularia L. The Peppered Moth.	67
Both type and melanic forms common, the latter being the more frequent now.	
Cleora ribeata Clerck. The Satin Beauty.	67
A hopelessly worn <i>Cleora</i> taken in 1958 laid a few ova from which half a dozen moths were bred, all more or less melanic.	
Cleora rhomboidaria Schiff. The Willow Beauty.	67
Common every year.	
Cleora repandata L. The Mottled Beauty.	67
Common, displaying a wide range of colour with blackish forms predominating.	
Cleora jubata Thunb. The Dotted Carpet.	67
A dead larva found in Dipton Wood in 1950 appeared to belong to this species.	
Ectropis bistortata Goeze. The Engrailed.	67
Common. All round Riding Mill.	
Ectropis crepuscularia Schiff. The Small Engrailed.	67
Once only at Netherwitton. F. W. Gardner.	

FLOWERING PLANTS AND FERNS.

Montia fontana L. ssp. chondropenna (Fenzl) Walters.	68
Soil pockets, Budle Bay. Paths with a high water table. Ford Castle grounds. Edge of Barelees Pond. Crookham. All conf. F. H. Perrins.	

Salicornia dolichostachya Moss. Glasswort.	66, 68
In mud of main channel, Greatham Creek (66). Conf. T. G. Tutin. Mud flats. Holy Island.	
Salicornia ramosissima Woods.	66
Salt marsh, Greatham Creek. Conf. T. G. Tutin.	
Lotus pedunculatus Cav. Large Birdsfoot-trefoil.	68
Dampish meadow, Ford Castle grounds.	
Spiraea salicifolia L. Willow Spiraea.	66
Among undergrowth in Castle Eden Dene.	
Aphanes arvensis L. Parsley Piert.	68
Old railway, Glanton.	
Aphanes microcarpa (Boiss & Rent.) Rothm.	65, 68
Holwick Scars, Teesdale (65) Sandy soil near Redscar Bridge, Milfield. Soil pockets in Whin-sill rocks, Budle Bay. Conf. F. H. Perring.	
Tellima grandiflora (Pursh) Dougl. ex Lindl.	66
A few plants on steepish banks, Castle Eden Dene.	
Callitriche stagnalis Scop. sensu stricto. Common Water Starwort.	65, 66, 68
The commonest member of the aggregate as far as we can determine. Holwick Bridge, Teesdale, in wet mud on the Yorks. (65) and Durham sides (66). Pond margin, Cassop Vale, (66). Ditch at Greatham (66). Small pond near High Croft House, Shadforth (66). Barelees pond and marshy area near Glanton (68).	
Callitriche intermedia Hoffm.	65, 68
Peaty pool on Cronkley Fell (65). Submersed in Barelees pond (68).	
Callitriche hermaphroditica L. Autumnal Water Starwort.	68
Barelees pond, Crookham.	
Scandix pecten-vencris L. Venus's Comb, Shepherd's Needle.	66
Found near heaps of chaff in a field belonging to Low Crows Farm, Wheatley Hill in 1961, but never seen since.	
Smyrniurn perfoliatum L.	66
Abundant weed in flower beds and hedges, N. Marine Park, South Shields.	
Oenanthe crocata L. Hemlock Water Dropwort.	68
Small flush running into Budle Bay	
Ligusticum scoticum L. Lovage.	68
Two plants seen on the N. shore of Holy Island near the drift line.	
Trientalis europaea L. Chickweed Wintergreen.	68
Under Pinus sylvestris L., Ford Moss.	
Omphalodes verna Moench. Blue-eyed Mary.	66
Pathside, Castle Eden Dene.	
Symphytum X uplandicum Nyman.	66
Waste places, Wheatley Hill and Thornley.	
Symphytum tuberosum L. Tuberous Comfrey.	66
Short turf by the road from Middleton-in-Teesdale up to Snaisgill.	
G. G. & P. S. Graham.	
Lycopodium clavatum L. Common Clubmoss.	66, 67, 68
Woolhope ravine of Cheviot (68). Between the head of Catcleugh Reservoir and Whitelee (67). Old quarry near Cattlehope Crag (67). By small stream to S. of Beldon Burn near Beldon Shields (66).	
Lycopodium selago L. Fir Clubmoss.	67, 68
Abundant from the head of Bizzle to the East Hill of Cheviot (68). Old quarry near Cattlehope Crag (67). Bells Burn, just above Bells Linn (Kielder) (67).	
Lycopodium alpinum L. Alpine Clubmoss.	67, 68
Hen Hole and above the Bizzle (68). Old quarry near Cattlehope Crag (67).	
Phyllitis scolopendrium (L.) Newm. Hart's-tongue Fern.	67
Old lime kiln near Sewing Shields. Simonburn.	
Asplenium adiantum-nigrum L. Black Spleenwort.	68
Trowup Burn near its junction with the College Burn. Small ravine between Fawcett Shank and Mounthooly. Barrow Burn. Basalt, S. of Craster-	

Epilobium nerteriodes Cunn.	68
Davidson's Linn on the Usway Burn.	
Vicia lathyroides L. Spring Vetch.	68
Near bridge, E. of Westnewton.	
Viola hirta L. Hairy Violet.	67,68
Ratcheugh Crag, near the Sesleria caerulea (68). Sand dunes, N. of Seaton Sluice (67).	
Schoenus nigricans L. Black Bog-rush.	68
On the coast between Cullernose and Craster.	
Diplotaxis tenuifolia (L.) DC. Perennial Wall Rocket.	68
Beadnell.	
Vicia sylvatica L. Wood Vetch.	67
Still persisting where the trees have been felled at Tecket Dene.	
Scabiosa columbaria L. Small Scabious	67
Crook Burn, near Simonburn, and also above Tecket.	
Silaum silaus (L.) Schinz. and Thell. Pepper Saxifrage.	67
Crook Burn above Tecket.	
Scutellaria galericulata L. Skull-cap.	67
Crook Burn above Tecket.	
Origanum vulgare L. Marjoram.	67,68
Boathouse Plantation, near Cornhill (68). Near Simonburn (67).	
Callitriche hermaphroditica L. Autumnal Starwort.	67
Park Dam, above Newbrough.	
Eupatorium cannabinum L. Hemp Agrimony.	68
Near Rifle Range on coast. N. of Berwick.	
Scrophularia umbrosa Dumort	68
N. bank of Tweed between Castle Hills and the mouth of the White-adder Water.	
Benula erecta (Huds.) Coville. Narrow-leaved Water-parsnip.	68
N. bank of the Tweed between Castle Hills and the mouth of the White-adder Water.	
Scirpus lacustris L. Bulrush.	68
Around the mouth of the Whiteadder Water.	
Allium scorodoprasum L. Sand Leek.	68
Around the mouth of the Whiteadder Water.	
Allium carinatum L.	68
Naturalised in Boathouse Plantation, near Cornhill.	
Mycelis muralis (L.) Dumort. Wall Lettuce.	68
Boathouse Plantation, near Cornhill.	
Parietaria diffusa Mert. and Koch. Pellitory-of-the-wall.	68
Boathouse Plantation, near Cornhill.	
Daphne laureola L. Spurge Laurel.	68
In the woods by the Willow Burn, near Cornhill.	
Saponaria officinalis L. Soapwort.	68
Still on the mound of Wark Castle.	
Carduus nutans L. Musk Thistle.	68
Roadside near Barelees (Cornhill).	
Hypericum humifusum L. Trailing St John's Wort.	68
Sandyford Burn near Twizell.	
Epipactis helliborine (L.) Crantz. Broad Helleborine.	68
Wood by Eglingham Burn, NW. of Eglingham.	
Genista anglica L. Petty Whin.	67
Near the Darden Burn.	
Erophila verna (L.) Chevall. Whitlow Grass.	67
Examples of colonies at sea-level are to be found at Cullernose, near Newton Links and at Bamburgh. Also occurs on the SE. slopes of Dunmoor Hill at 1,350 ft.	
Potamogeton obtusifolius Mert. and Koch. Grassy Pondweed.	67
Small pond near Queen's Letch, S. of Hexham.	
Filago minima (Sm) Pers. Slender Cudweed.	68
On the coast, N. of Goswick.	

Crepis mollis Aschers. Soft Hawk's-beard.	66, 67, 68
During July and August 1963 and again in 1965, we found this species in the following localities, additional to those we have recorded previously (Vasculum , 1962, 47,28). Meadow and roadsides in lower part of Rookhope (66). Hay meadow, near Whiteley Shield (W. Allendale) at 1,200 ft.; near Rye Close (E. Allendale); in the Bardon Mill area, we found the plant in a hay meadow 3/4 mile W. of Chesterhoime; in the Tarsset Burn area, we saw it by the roadside and in a hay meadow near Gatehouse and also near Comb; in the Elsdon area, by the roadside and in a hay meadow near Overacres, as well as by the side of a small stream near Whiskershiel (67). Hay meadow near Langleyford (68).	
Eleocharis austriaca Hayek.	67
In August 1963 we found Eleocharis austriaca in two localities by the North Tyne additional to those we have recorded previously (Vasculum , 1962, 47, 29). These were on the S. bank near Shilburnhaugh and on the N. bank near Charlton. The latter is at the lowest altitude (370 ft.) yet recorded for the species in Britain. Also in 1965, we found it on the NW. bank of the Kielder Burn, 1/2 ml. below Kielder Head; on the Akenshaw Burn; at Irthing, N. of Bell's Braes.	
Scrophularia umbrosa Dumort.	81
By the Tweed at Coldstream.	
Petasites hybridus (L.) Gaertn., May & Scherb. Butterbur (Female).	66, 67
By the Beldon Burn near Gibraltar (66). Roadside near Haydon Bridge. By the Hartley Burn, SW. of Featherstone Castle (67).	
Polygonum viviparum L.	67
W. bank of S. Tyne near Kirkhaugh.	
Selaginella selaginoides (L.) Link. Lesser Clubmoss.	67, 68, 80
W. bank of S. Tyne near Kirkhaugh; by the Gilderdale Burn; by the Knar Burn and the Gelt Burn; by the W. Alien near Wolfeleugh; by the Tarsset Burn, near Pit Houses; in the Eisdon area near Whiskershiel (67). On the links N. of Embleton (68) Carter Quarry (80).	
Robus saxatilis L. Stone Bramble.	67, 68
By the Gilderdale Burn; by the Black Burn, a tributary of the Tarsset Burn, at Gillichill Clints (67). Roddam Dene (68).	
Asplenium viride Huds. Green Spleenwort.	70
By the Woldgill Burn, a tributary of the Gilderdale Burn.	
Bupleurum rotundifolium L. Har's Ear, Thorn-Wax.	67
One plant appeared in a crack in the pavement in Kingsland, Jesmond, but disappeared as soon as it began to flower in June, 1963.	
Trollius europaeus L. Globe Flower.	67
Near Allenheads; old railway embankment S. of Kielder Station.	
Myrrhis odorata L. Scop. Sweet Cicely.	67
At Allenheads.	
Ophioglossum vulgatum L. Adder's Tongue.	67
E. bank of E. Alien near Dirt Pot; pastures near the Honeycrook Burn, N. of Chesterwood.	
Myriophyllum alterniflorum DC. Alternate-flowered Water-milfoil.	67
Pond near Coatenhill, in E. Allendale.	
Botrychium lunaria (L.) Sw. Moonwort.	66, 67, 68
Bolt's Burn near Ramshope (66). E. bank of E. Alien, near Dirt Pot; Knowesgate Quarry (67). Around old lime kilns near Botany on Quarryhouse Moor (68).	
Orchis mascula (L.) L. Early Purple Orchid.	67, 68
By the Hartley Burn SW. of Featherstone Castle (67). Fleetham; road-side near Berrington Burn; and cliffs N. of Scremerston (68).	
Allium paradoxum (Bieb.) G. Don.	68, 81
Naturalised in many places around the Tweed, as at Cornhill, Norham (68), and near Gainslaw (81).	
Saxifraga granulata L. Meadow Saxifrage.	67, 68
On the basalt at Colwell (67). Roddam Dene; and wood near Cornhill (68). G. A. & M. Swan.	