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Edited by

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BY THE WAY

DR. K. B. BLACKBURN

It was with great regret that, at the Annual Meeting of the Northern Naturalists' Union, its members learnt of the resignation of the Secretary, Dr. K. B. Blackburn.

Dr. Blackburn's connection with the Union dates from its very beginning in 1922 for, as representing the Wallis Club, she was one of the original delegates who met in King's College (then Armstrong College) to consider the advisability of establishing such a Union.

After it had been launched successfully, she proved her value, not only as an officer, but also in working for the success of its meetings. In particular, she was a regular attender at its field excursions where her field knowledge proved very helpful to our members.

In 1937, to demonstrate our appreciation of her work on behalf of the Union, she was elected President. Her year of office was a very successful one. Soon after this, Mr. Drury became our Secretary. He, however, did not retain the position long as he resigned in 1939. At the subsequent Annual Meeting in 1940, Dr. Blackburn became Secretary, and this post she has retained until this session when ill-health has compelled her to restrict her activities as much as possible.

Throughout the critical war and post-war years, she has done great work for the Union—work that has materially aided us in our recovery from the war's effects. During that period, too, she has organised, and been personally responsible for, the development of regular field meetings for our junior members. These have met with real success, and have been appreciated by all. In spite of our losing her as Secretary, we shall not be without her help in furthering the aims of the Union—and we all hope that she will long continue to give us these services.

CAMBERWELL BEAUTIES

In the February number of the *Entomologist* appears an article from the pen of Mr. L. H. Newman, abbreviated from one in *The Times*, which attempts to prove that this well-known butterfly, far from being an immigrant, as most entomologists believe, reaches this country as a stowaway. In this article, Newman makes two references to these counties. In the first place, he states that the greatest concentration of these butterflies in the 1872 irruption, as far as we were concerned, occurred around Tynemouth. Actually, Robson in his *Catalogue*, deals with that influx, but does not list a single specimen as taken at Tynemouth either before, during, or after 1872!

Again, he gives a fantastic explanation of the report that, in 1820, a number of Camberwell Beauties were washed up on the beach at Seaton Carew. He paints a marvellous, but imaginary, picture of a ship, bringing pit-props, unloading its cargo by flinging the logs overboard, and floating them ashore. Alternatively, he suggests that it might even have been a case of a ship, aground on a mudbank, being refloated by dumping the cargo overboard. He asserts that butterflies clinging to timber in the holds would, obviously, suffer casualties, and that many of these would be found afterwards on the beach!

Our readers will remember that there was no Middlesbrough in 1820, that Seaton Carew was not a port and that no coal pits have ever existed in the area. Besides, who would be so foolish as to put timbers ashore promiscuously in view of the problems of haulage that would at once arise ?

Obviously, when one examines critically the records for the Camberwell Beauty in Northumberland and Durham, they show an irregular distributional pattern, depending upon casual immigration in all probability from Scandinavia.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

By the kind invitation of the Natural History Society of Northumberland and Durham, the Thirty-second Annual Meeting of the Union was held in the Hancock Museum on Saturday, March 3rd, 1956. The President, Mr. J. A. Richardson, M.Sc., was in the Chair, and there was an exceptionally large attendance.

The Treasurer's report was read by Mr. T. C. Dunn, who was able to inform us that, financially, the Union was in a remarkably prosperous condition. The Secretary, Dr. Blackburn, gave us an equally favourable account of a strengthening of the Union's position generally, and of the great success of its meetings—field and otherwise.

In the election of officers. Dr. Todd was chosen as President, whilst Dr. K. B. Blackburn, Mr. J. E. Ruxton and Mr. J. A. Richardson were elected Vice-Presidents. One very important feature of the elections was the choice of Mrs. A. N. Gibby as Secretary in place of Dr. K. B. Blackburn who had been compelled to resign for health reasons. Professor J. W. Heslop Harrison paid a well deserved tribute to Dr. Blackburn for the work she had done over a long period for the Union.

When the business was over, Mr. J. A. Richardson gave as the Presidential address a talk on " Plant-hunting in Mid-Durham ". This was illustrated by a magnificent series of lantern slides in colour.

Mr. Richardson began by giving us a general description of the Magnesian Limestone and its topographical features, emphasizing as he did so the structure of its soils and their possible origin. From this, he proceeded to deal with the more beautiful and important plants that had been encountered during a long-continued exploration of the area. Amongst the special plants discussed, either for their beauty or rarity, were the Woolly Thistle (*Cirsium eriophorum*), the Carline Thistle, the Bird's Eye Primrose, the Small Valerian, the Globe Flower, the Grass of Parnassus, the Mountain Everlasting, the Rockrose, the Small Scabious and various orchids. Of the latter, the Pyramidal Orchid (*Anacamptis pyramidalis*) received special mention. Other plants described for their biogeographical importance were the Blue Moor Grass (*Sesleria caerulea*), the rarer Brome Grass (*Brachypodium pinnatum*) and the Sea Plantain. Incidentally, Mr. Richardson, in dealing with these plants, stressed the link between them and certain elements of the Upper Teesdale flora. In doing so, he gave a sketch of the possible influence of the Ice Age and its passing on the anomalies of distribution considered.

Our lecturer closed by giving a picture of all that remains of a once-strong marsh flora in the area. In particular, he told us there was now left only one known station for the Water Violet in Durham.

After the lecture, Professor Heslop Harrison expressed the great appreciation of the Union for a very interesting and lucid talk of such local importance.

After this, we adjourned for tea, and to meet old friends whom we had not met since the last field meeting in September.

As a fitting close, we examined the exhibits. Pride of place was once more secured by Mr. R. B. Cooke's wonderful set of plants now in flower in his garden. This included Rhododendrons, Daphnes, Witch Hazel, Barberries, Heath's, Crocuses, Snowdrops, Iris, Winter Aconites, Anemones and many other beautiful species. Amongst the other exhibits, Mr. Denys Morgan had on view a set of local flowering plants and mosses whilst Mrs. Gibby had a long

series of plants collected by her last year in Corsica. Dr. K.B. Blackburn and Miss D. B. Blackburn brought a fine lot of Devon plants. Professor Heslop Harrison had on display long series of specimens of the Brown Argus Butterfly (*Aricia agestis*) from the Durham coast. These demonstrated the wonderful range of variation in the underside pattern ; with them were shown melanic and other forms of the Early Thorn Moth. Completing his exhibits were Hebridean specimens illustrating vivipary in *Festuca*, and various rose hybrids. Miss Thomas brought the newest of the new illustrated floras, and had it arranged against one of the favourites of seventy years ago. Once more Mr. Hird produced for our inspection interesting ferns.

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB

On December 7th, 1955, our Annual Dinner and Conversazione were held in Hanson's Cafe, Middle Street, Consett, when once again Professor J. W. Heslop Harrison was our special guest.

The President, Mr. G. Evans, was in the Chair, and after we had partaken of an excellent meal, he proposed the toast of the Queen, which was followed by that of our guests, for which Mr. H. Lynn was responsible. In his speech, Mr. Lynn detailed the long connection of our guest had had with the Club and drew attention to many landmarks in its history. Prof. Heslop Harrison, in his reply, expressed his regrets for the absence of Mr. W. Ellerington and the causes thereof. Continuing he described how the Northern Naturalists' Union had been founded, and the part the officers of the Consett Club had played in that event. In addition, he supplied some facts concerning the earlier Durham County Naturalists' Union, and referred to its general activities and links with the Vale of Derwent Club. The toast of the "Club" was proposed by Mr. Surtees Armstrong; to this several members replied. Next, Mr. Arthur Reay spoke of the gratitude of the Club to Mrs. Dixon for what she had done in organizing the dinner, and for her other work on behalf of the club ; to this she made a suitable reply.

After dinner, we proceeded to the Hall, where we enjoyed a series of slides prepared by the President, Mr. G. Evans, as well as a beautiful lot selected by Mr. Ashworth from those depicting his holiday on the Continent. Mr. J. J. Robson, on this occasion, instead of showing us a number of films, had for our benefit, gramophone records of bird song. As usual, Mr. Horn manipulated the lantern, and also showed slides recalling various field meetings the Club had held in past years.

BIRTLEY NATURAL HISTORY SOCIETY

On December 6th, 1955, Mr. C. J. Gent gave us a very interesting lecture on Bird Migration. This was illustrated by a number of

lantern slides and diagrams, all of which gave us an instructive picture of bird migrations locally, and provoked many questions.

Our 1956 programme was ushered in on January 10th, by Dr. G. H. Christie who spoke upon the topic of " Mediaeval Castles ". He produced a beautiful set of slides portraying characteristic castles in all parts of the country, and showed us clearly how the idea of building castles evolved. On January 24th. Professor J. W. Heslop Harrison gave a talk on " Old Birtley—Customs, Superstitions and Games ". He detailed all the pertinent reminiscences of his earlier life in the village and, as was intended, provoked a long and very interesting discussion. Next followed, on February 7th, Mr. Bert Soulsby who discoursed on the " Conquest of Disease ". Commencing with medical practice as known to the ancients, he traced advances right up to the use of modern antibiotics. As he did so, he answered numerous questions. On February 21st, we were delighted to welcome Mr. W. Toyn, who talked on " Nooks and Crannies of Old Newcastle ". This lecture proved exceptionally interesting for, with the aid of a fine lot of slides, Mr. Toyn gave the results of his own investigations into the history of the old town wall, and the various structures connected with it.

NOTES AND RECORDS

NOTES

Insects at the Hairy Violet (*Viola hirta*)—I have already reported the existence of enormous colonies of *Viola hirta* near Elemore Hall (66). There was not, however, a corresponding number of insect visitors. My son observed a single Small Tortoiseshell Butterfly probing the violet flowers whilst I noticed a few hive bees at work on them alongside odd queens of the Carder Bee, *Bombus agrorum*.—R. Harris.

Waxwings in Sunderland.—Three or four waxwings spent the best part of the week beginning November 23rd, 1955, in the grounds surrounding the drive of Havelock School in the west part of Sunderland. Their chief interests were in the berries of Cotoneaster and Berberis. Boys and girls of the school were afforded excellent opportunities of watching them as they fed. This is a favourite gathering ground for these migrants as one or two are seen here each year. A small flock of seven or eight provided a great thrill three years ago.—T. W. Jefferson.

Melanism in the Moths, *Chimabacche fagella* Fab. and *Cheimophila salicella* Hb.—As is well-known, for many years I have been studying the problem of so-called industrial melanism in Lepidoptera, more especially in Northumberland, Durham and North Yorks. Amongst the species in which the phenomenon occurs is the Oecophorid, *Chimabacche fagella*. Curiously enough, in attacking the melanism puzzle, most workers have been afraid of dealing with the condition in this species which abounds in most oakwoods in the Tyne and Wear Valleys. It, however, is not restricted to oak as its foodplant, for I have beaten the larvae from birch, hawthorn and many other trees. In practically all its stations in our localities, the colonies occur in the smoke zone where its larvae are compelled to feed on foliage of trees contaminated by the deposits left by industrial smoke. Further, as I have pointed out many times previously, in nearly all of our woods it is subjected to more intense contamination brought about by the fact that the leaves, more especially those situated at the apex of a twig, carry huge amounts of " honeydew " resulting from the presence of Aphidids. To this honeydew increased quantities of the impurities deposited

from industrial smoke adhere. In spite of this, the larvae of *C. fagella*, which feed by night, spin the affected leaves together, and feed upon them. They have no difficulty in doing so ; nor do they seem to be affected adversely as a result. Their numbers appear to be as great as ever, and, although the incidence of melanism in the species has greatly increased since I commenced to work with it in 1899, the proportion of black forms has remained comparatively stable since 1918 ; nor are there any differences manifested in the times of feeding up and of emergence of the black and the type forms.

Notwithstanding the small size of the insect, and the presence of subapterous females, both melanica and typical insects are readily detected as they sit on the oak boles. Moreover, close observation has shown that the insect is quite free from the attacks of birds. I do not deny that the selection may play a small part in this case of progressive melanism. Nevertheless, I have not seen, in this or any other case of melanism, the slightest amount of evidence causing me to revise my opinion that progressive melanism depends upon a series of recurring mutations. At present, the degree of melanism exhibited in many colonies studied by me, seems to me to be stationary ; this, I think arises from the fact that the various agencies affecting the incidence of melanism are more or less in a state of equilibrium.

In the Birtley area, not far away from the Long Acre Dene colony of *C. fagella*, the allied species *Cheimophila salicella*, swarms. As imagines, the two species differ inasmuch as *salicella* has a totally apterous female ; both sexes rest on grass culms. Further, unlike the males of *fagella*, those of *salicella* fly readily by day. Its larval habits are similar to those of *fagella* except that brambles and other rosaceous plants growing in hedges are preferred ; honeydew, as affecting this species, may be disregarded. When its Birtley stations were discovered in 1909, huge numbers of *salicella* were bred by the late Charles Robson and myself; not a single insect displaying melanism was reared. However, when I began work, with the moth in 1919 small number of melanic forms appeared in my cultures. Although the percentage of melanic forms has increased year by year, at present not 20 per cent. are affected.

Again, as in *C. fagella*, despite the fact that male *salicella* fly freely in April sunshine, I have never seen a single specimen captured by a bird.—J.W.H.H.

The Scarcity of Certain Orchids in 1955.—Last season, the number of Dactylorhichs noted in Co. Durham was exceedingly small in the case of certain species. In particular, the Common Spotted Orchid, *Dactylorhich Fuchsii*, and the Marsh Orchid, *D. purpurella*, with their hybrids, made a very poor show. Moreover, in the west of the county, where these two species meet the Heath Orchid, *D. ericetorum*, it likewise was of sparse occurrence. Of the other Marsh Orchid, *D. incarnata* only two specimens were detected. Much the same picture can be drawn of the Broad-leaved Helleborine, *Epipactis latifolia*, which failed in many of its stations. As if to compensate for these deficiencies, the Frog Orchid, *Coeloglossum viride*, appeared, as at Hawthorn, in extraordinary numbers whilst the Green-winged Meadow Orchid, *Orchis morio*, made a complete recovery from last year's catastrophe. The Pyramidal Orchid, *Anacamptis pyramidalis*, although not so plentiful as usual, managed to hold its own in most of its habitats. However, the colony at the mouth of Crirndon Dene, has been "bull-dozed" out of existence. As for the Twayblade, *Listera ovata*, its numbers showed no diminution anywhere.—J. A. Richardson.

A New Station for the Ivy-leaved Bellflower, *Wahlenbergia hederacea* Reichb. in Durham (66).—On the fifth of August, 1953, I collected a specimen, which I identified as *Wahlenbergia hederacea*, on the east side of Stanhope Burn at about two miles north of Stanhope. I believe that this provides a new station for this very rare plant in Durham although others may yet remain for discovery. I think that this fact is worthy of publication. I may say that Dr. K. B. Blackburn has confirmed my identification.—J. T. B. Bowman.

More about the Wolsingham Gravel Beds (66).—I should like to point out that there are pools along the north bank of the Wear alongside the gravel beds ;

these extend for about a quarter of a mile. They support good colonies of stone wort (*Chara sp.*) which will be dealt with in a later communication. In these pools there are several species of snails, *Hydrobia jenkinsii*, *Limnea peregra* and *L. truncatula*. On the gravel beds and growing amongst the pebbles, there was, in late summer, a goodly number of tomato plants. It may be well to make it clear that there is certainly much more yellow balsam (*Impatiens parviflora*) than Dr. J. K. Morton reported. Other colonists on these beds, but not included in previous lists, are silverweed and common ragwort. D. Morgan.

(To previous lists may also be added the Greater Celandine (*Chelidonium majus*) the Dame's Violet (*Hesperis matronalis*) and the Bitter Cress (*Cardamine amara*); these beds are worthy of intensive examination.—J.W.H.H.)

RECORDS

FLOWERING PLANTS

- R. dumalis** Bechs. Northern Dogrose. 67
This rose to which the name *R. glauca* is usually applied, and for which Clapham, Tutin and Warburg use the impossible name *R. corifolia*, occurs abundantly along the valleys of the Devil's Water, South Tyne and Alien. Practically the whole of the named varieties may be encountered in the area mentioned. The rarest forms, however, are those with glands on the undersides of the leaves; these are var. *oenensis* Keller and var. *stephanocarpa* Deseigl. and Rip. Another unusual variety, of sparse occurrence, is var. *myriodonta* Chr. It was collected just south of Linnold's Bridge.
- R. villosa** L. 67
With us the usual low-growing tufted form var. *mollis* Sm. is usually encountered. However, along a burn near Nine banks bushes almost fifteen feet high have been studied.
- Galium pumilum** Murr. Slender Bedstraw. 66
On banks along the Kilhope Burn near Heathery Cleugh, Upper Weardale.
- Saxifraga umbrosa** L. 66
Fully naturalised, and seemingly extending its range along a burn near Cowgill in Upper Weardale.
- Doronicum plantagineum** L. Leopard's-bane. 66
Naturalised and competing with other plants quite successfully on a bankside below Heathery Cleugh. *Mimulus guttatus* DC. Monkey-flower In some quantity high up Kilhope Burn at the head of Weardale.
- Cirsium heterophyllum** L. Melancholy Thistle 66
Also high in Weardale on the Kilhope Burn.
- Polygonum viviparum** L. 66
Quite common in Heathery Cleugh, Upper Weardale.
- Ribes alnum** L. Mountain Currant 66
This plant is quite common in the woods around Elemore Hall and also in Lanbton Woods. Its status in both of these stations is difficult to determine, although it looks thoroughly naturalized if of alien origin.
- Epilobium adnatum** Gris. Willow-herb 66
With the commoner willow-herbs in the Elemore Woods.
- Lilium Martagon** L. Martagon Lily 66
Naturalized, but obviously a garden escape, in Elemore Woods.—J.W.H.H.

BIRDS

- Anser arvensis** Brehm. Bean Goose 67
A single bird on the pool at Killingworth on October 25th.
- Ardea cinerea** L. Heron 67
One present at Gosforth Park Lake on September 8th and subsequent dates.

Anas acuta L. Pintail	67
A female on Gosforth Park Lake on October 16th.	
Corvus corone L. Carrion Crow	67
A flock of 120 flew into Gosforth Park to roost at dusk on December 17th.	
Mergus merganser L. Goosander	67
A female on Gosforth Park Lake on September 18th and again on December 11th.	
Tadoma tadoma L. Sheld Duck	67
A single bird at Gosforth Park Lake on September 18th, and several times later.	
Cygnus cygnus L. Whooper Swan	67
Five were observed resting with their heads under their wings on Gosforth Park Lake on October 30th, and also a party of fourteen at the same place on December 11th. On November 11th, five were seen flying low over West Gosforth shortly before dusk on November 11th. They were proceeding S.S.E.	
Saxicola torquata L. Stonechat	68
A cock on the coast near Howick on July 10th.	
Locustella naevia Boh. Grasshopper Warbler	67
One singing in Plessey Dene on April 10th.	
Motacilla flava L. Yellow Wagtail	67
Several at Holy well Ponds on August 3rd.	
Carduelis carduelis L. Goldfinch	65
A party of twenty was noted on the coast near the mouth of the Howick Burn on September 25th. Mr. R. Clementson also reported a small group at Morpeth the same day.—C. J. Gent.	

LEPIDOPTERA—BUTTERFLIES AND MOTHS

Lycophotia varia Vill. Truelover's Knot	66
Captured in the grounds of the Chester-le-Street Isolation Hospital, a curious locality in which to find a moorland species.—R. Harris.	
Diarsia rubi View. Small Square Spot	66
Also found in the same locality on July 7th.—R. Harris.	
Apamea unanimitis Hb. Small Clouded Brindle	66, 68
After a period of comparative scarcity, larvae of this species were of common occurrence in cylindrical tubes made by the folding of the leaves of the ribbon grass, <i>Phalaris arundinacea</i> , at Bewick Main. The insect was also discovered near Seahouses in v.-c. 68 for which but few records exist.	
Antitype chi L. Grey Chi	66
Not found commonly in 1955 when, curiously enough, the numbers of typical insects noted in the Team Valley was greater than usual.	
Itama vaularia L. The V-moth	66
Another species which has rarely been seen in recent years, but taken in my greenhouse at Birtley on July 20th. The larvae feed on currant and gooseberry so plenty of food-plants are available.	
Depressaria nervosa Hw.	66, 68
This species feeds on the leaves of <i>Oenanthe crocata</i> and pupates inside the hollow stems of the food plant. The pupae may be obtained readily in August although it is best, to secure the best rearing conditions, to cut off lengths of stem containing them. Found on Walldridge Fell, Urpeth Bottoms and near Seahouses,	

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BY THE WAY

Secretaries of our Societies are reminded that if they desire reports of their summer activities to appear in our October number, material should be in the Editor's hands not later than September 20th, 1956. Notes and records of general interest may be sent by contributors at any time.

FIRES ON MOORS AND ELSEWHERE

During the Whitsuntide holidays firing of moorlands and the like has been more widespread than ever in Co. Durham. Perhaps the dry weather has been responsible for this increase to some extent. Nevertheless, carelessness forms one of the main causes, with deliberate firing as a good second.

One of the areas which has been " devastated " is Waldrige Fell, the sole representative left of the large number of lowland moors which formerly existed in Mid-Durham. During Whitweek, this beautiful area, so important and interesting from the natural history standpoint, was destroyed almost completely. The local press, very charitably, assigned this happening to the carelessness of picnickers. Actually, fires, much less destructive than this have been of seasonable occurrence on the Fell, but almost all have been the results of wilful vandalism. We ourselves have seen youths starting the blaze, and have heard the language used when visitors enjoying the beauties of the moorland have put the fires out. Waldrige Fell is worth preserving ; cannot some organised method of protecting it during Easter and Whitsuntide weeks be devised? Instruction in civic duties in the schools on a large scale seems to form a suitable line to take.

Other areas fired on Whit-Monday this year were the seabanks above the Blackhall Rocks. What used to be the richest dene there for rare wild flowers, and also a refuge for a strong and representative colony of the Brown Argus butterfly, was destroyed almost completely, fifteen or more years ago. Recently, it has shown

welcome signs of recovery, for the Dark Green Fritillary butterfly and the brown Argus, with other interesting insects, have once more taken up their abodes there. Moreover, many of the rarer plants have regained a foothold. Now, once more, the slopes have been scorched bare as the result of wanton firing. Here again, something should be done to secure the preservation of a unique area. Certain powers already exist for protecting the coastal dunes and hollows ; what body is responsible for using them?

MELANISM IN MOTHS

In our counties, as well as elsewhere in the country, many local moths have " gone melanic ", *i.e.*, have developed black forms. This is, undoubtedly, a case of evolution in action, and worthy, therefore, of a careful study of its rise and spread. Amongst the first of our moths to be affected was the Peppered Moth, *Biston betularia*. It had long been considered that the white form had been entirely displaced by the black one in many Durham and Northumberland habitats. Recently, Mr. T. C. Dunn discovered that the type still existed at Chester-le-Street. He would like to know how far this is the case in other areas, and whether there are any localities in the two counties in which only types occur. Further, he would like to have records of black forms of any other species of moth. His address is : The Poplars, Chester-le-Street.

Closely connected with the development of melanism in moths, and possibly linked with its spread in areas polluted by industrial smoke, is the disappearance of lichens in the affected areas. Help is needed to determine at what points, as one leaves our smoke begrimed areas, the growth of lichens on trees and walls ceases. Quite a reasonable number of observations have been assembled about the position in certain river valleys, but these are not enough. Here a warning is necessary ; in deciding about the presence of lichens on tree trunks, and of the colour of the trunks, care must be taken not to confuse lichens with the green Protococci found on the bark of trees, or to regard that greenness as being the true colour of the bark.

This brings us to another point about which information is needed ; what colours are the barks of trees in the smoke zones? In particular, are birches just as silvery in the west? They are so in the Team Valley. And what about the colour of the barks of sycamore, beech, oak, ash, elm etc.? In many stations as, for instance, the area between the Tyne and Low Fell many of these trees are distinctly pale, just as they are within the town of Birtlev.

PROPOSED RESERVOIRS IN UPPER TEESDALE

As in all probability most of our readers know, investigations are now in progress to determine what areas exist in Upper Teesdale suitable for establishing the new water reservoirs needed in order

to secure continued water supplies to Teeside industries. Two areas are to be considered. One, the so-called Cow Green site, having its limits between the 1575 and 1100 feet contours, lies above Cauldron Snout. The second, the Holm Wath project, is below the waterfall, and is limited by the 1500 contour on both sides of the River Tees.

Clearly, many of the most interesting of the rare plants for which Upper Teesdale is justly famous are threatened, not only by the reservoirs themselves, but also by the heavy lorry traffic necessitated by their construction. Besides, in the case of the Holm Wath scheme, in addition to the loss of the rarities, Falcon Clints would be submerged. However, as far as the Cow Green plan is concerned, the destruction of rare plants would be comparatively small, although quite recently we discovered *Viola rupestris* and other interesting flowers within its bounds.

It should be pointed out that the Cow Green site will be investigated first, and only if it proves unsuitable will the second possibility be taken up.

Taking due cognizance of all the facts, it seems that scientific interests demand that the Cow Green plan should be supported by all naturalists, zoologists as well as botanists, for quite a number of rare insects occur on ground which would be under water if the Holm Wath project is developed.

However, if any of our readers have any comments or suggestions to make about the drastic changes envisaged, we shall be glad if they will communicate with us at once. Whatever they say will be brought to the notice of the authorities concerned so that it may be taken into consideration when final decisions are made.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

On May 26th, by kind permission of Major Gray, the eighty third field meeting of the Northern Naturalists' Union was held in Lambton Woods.

The party, a record in point of size, met at North Lodge on the main road between Chester-le-Street and Gateshead. As the day was warm and sunny, we had a very successful outing. Taking the carriage drive leading to Lambton Castle, we proceeded through the old woods, now forming part of a building estate, and crossed the byepass, to enter the Castle grounds by what is now the main entrance to the Park. On our way, we saw most of the usual forest trees. Many, such as the oak, ash, beech, birch, elm, wych elm, sycamore and lime were at their best, some being in full flower and others, like the two elms, having fruits welldeveloped. Near the old entrance, we examined the alpine currants which abound there, and carry a colony of the currant moth.

Throughout, the wood, although doomed, showed signs of fairly recent planting. Nevertheless, the usual carpet of bluebells, characteristic of Durham oakwoods, was present. One interloper in the form of the leopard's bane had occupied a big stretch of the wood near the gate ; there, also, dog's mercury, sweet woodruff and red campions were plentiful. As we approached Picktree, oaks and limes became more abundant, and many of the latter were very well-grown trees. Here the copper beeches made a very fine sight, with their coppery green leaves contrasting greatly with the soft green of the typical tree. In some cases, the beeches were disfigured by colonies of the felted beech coccid whilst the oaks bore masses of galls, chiefly the oak apple and the berry gall, the works of gall-wasp larvae.

Beyond Picktree, our path became more beautiful, with newcomers amongst the trees like mountain ash, white beam, hazel, yew, larch, spruce and Scots pine. In spite of the fine day, insects were very scarce, only the two common whites and small copper amongst the butterflies being seen, and the garden carpet amongst the moths. From the trees we procured larvae of the common winter moth, the northern winter moth, the mottled umber and the green oak tortrix. However, bumble bee queens were far from rare as we observed many *Bombus pratorum*, *B. lucorum*, *B. terrestris* and *B. agrorum*. To the left of our path grew masses of yellow azaleas which scented the wood quite a long distance away with their sweet fragrance.

Proceeding, we found the usual ground vegetation changing, for the wood forget-me-not, of three colours, blue, pink and white, abounded. Common, too, were three species of speedwell, the mountain, germander and thyme-leaved. Accompanying them, grew wild strawberry, barren strawberry, wood and water avens, cowslips, bugle, ground ivy, three-nerved sandwort, stitchwort, violet, earthnut and bird's foot trefoil.

Leaving this section of the wood, we entered the new plantations of conifers which had replaced the deciduous trees cut down some years ago. It was interesting to observe that masses of self-sown birches were competing, quite successfully at this stage, with the larch, spruce and pine. On the right, we passed Virginia Water, quite a large expanse, now greatly silted up, but still carrying some interesting water-plants like the crisped pondweed. Around it grows a tangle of sallows, wild roses and brambles ; of these plants the sweet briar is the most noteworthy as it is usually very rare in Durham. At this point, the wood contains numerous fine hollies. Less satisfactory there was the usual keeper's menageries of alleged vermin.

As we neared the Castle, we had grassland on each side of us ; upon this mixed herds of Friesians and Herefords were grazing. Entering the Castle area, we divided into two parties. One entered the Castle itself to examine the interior, the Warden having kindly invited them to do so. The Durham County Education Committee now hold the Castle for adult educational purposes. Those who made this inspection were delighted with what they saw.

The remainder, who preferred to work in the wood, were well repaid for here grows the rare rush, *Luzula luzuloides*, the only station for it in the north. Many photographs, coloured and otherwise, were taken of it. The population of primroses in the wood in this area is enormous, and attracted great attention because of the variation the plants displayed. Amongst the yellow-flowered forms many were almost white, whilst there were present examples of the rare pink form. The blossoms varied likewise in shape, for forms with broad petals, and others with star-shaped corollas were quite common. Not far away the common field woodrush was plentiful on the lawn. There a magnificent specimen of the copper beech attracted admiration because of its setting and its natural beauty.

Leaving the Castle after a fairly-prolonged stay, we went down to the Lamb Bridge, passing as we did so a strong colony of periwinkles on our right. Near the bridge, we observed another fine lot of hollies, interesting as supporting the holly blue butterfly. Just south of this we sat, down by the riverside to take our meal. Surrounding us were great stretches of garlic, bluebells and red champions, with a sprinkling of giant bellflowers and foxgloves. This colony of champions shows every grade of flower colour from white to a very deep rose. The few brooms seen were very striking, so dense were their inflorescences. Along the stream side grew the usual woodland plants joined at some place by the wood stitchwort and the field mouse-eared stitchwort. Here, Professor Heslop Harrison, who led the party, pointed out three species of witch hazel growing in clumps on the south side of the river. He also told members that the lowlying meadow land hereabouts, when ploughed out during the war, was shown to have been the site of numerous flint-chipping places frequented by men of the New Stone Age. The most productive sites were indicated, but the long grass forbade any search for specimens.

Our walk was very unproductive, as far as birds were concerned. However, we did see pheasants, partridges, rooks, crows, skylarks, willow warblers, white throats, blackbirds, thrushes, and the like.

We ended our journey by crossing a field to the point from which we had looked at Virginia Water, and took the same road homeward as we had followed on our entry.

All agreed that we had had one of the most successful and enjoyable of our outings ; representatives of nearly all the Societies were present.

BIRTLEY NATURAL HISTORY SOCIETY

On March 6th, 1956, we had a very illuminating and unusual address from Dr. J. E. Ennis (Regional Pathologist) on " Medical Science and the Law ". This talk was illustrated by a series of unique slides, and was greatly appreciated. Our Annual Meeting took place on March 20th. After the election of officers, we partook of a meal provided by our lady members. This was followed by two lectureries. One, by Prof. J. W. Heslop Harrison, dealt with various aspects of life in Old Birtley. To illustrate his points he showed lantern slides depicting the " gin " of an old pit, the coal of which was drawn up the shaft by a horse, an advertisement of a hundred years ago of William Almond's school, carriages on the drive of Birtley House in the " sixties ~ of last century and a notice from the Durham County Education Committee advising a candidate in 1893 about the date and place of the Scholarship Examination of that year.

Next, Mr. J. A. Richardson, M.Sc., gave a very interesting discourse concerning his investigations on the vegetation of the Magnesian Limestone quarries of Mid-Durham. It was accompanied by a magnificent set of lantern slides in colour. The evening closed with thanks to the ladies and others who had made the session so successful.

NOTES AND RECORDS

NOTES

The Moonwort on Widdy Bank Fell.—On May 28th, in the course of an excursion planned to examine the specialities of the Upper Teesdale flora, I was fortunate in finding a colony of the moonwort (*Botrychium Lunaria*) growing amongst moss just below one of the bare patches on the Sugar Limestone. It contained over a dozen plants of which I took one. This had the tip of the " fertile " frond bifurcated. Not far away, the bird's eye primrose and the alpine rue were very plentiful.—A. Ferguson.

Butterflies at Heathery Cleugh, Upper Weardale.—Although my cottage is at a height of 1340 feet above sea level, the common tortoiseshell butterfly (*Aglais urticae*) was out in numbers on April 20th. Very often, three and four together could be seen flying over the garden and, often enough, probing the flowers of the butterbur along the burn side. A week later, in clearing rubbish from the garden, a female peacock butterfly (*Nymphalis io*) was disturbed from its hibernation station amongst dead leaves in the crevices of a stone wall. Its wings were fairly well worn, and the left hind wing split. This beautiful insect has rarely been reported from such an altitude in Co. Durham.—G.H.H.

Sallowing in Heathery Cleugh.—Owing to the altitude at which this house is situated, the prevalent willow here is the tea-leaved willow (*Salix phylicifolia*) which does not flower until the middle of May. However, a few *Salix aurita* and *S. caprea* bushes do exist. On April 20th, the evening was quite cold with frost in the air so that an examination of the *S. aurita* catkins was fruitless, except that one " Taeniocampid " was seen flying. Next night, it was warmer, and twigs of *S. caprea* collected lower down the dale, were stuck up around the

garden. Three species of Lepidoptera were attracted ; the Hebrew Character (*Orthosia gothica*), the Red Chestnut (*Cerastis rubricosa*) and the Early Toothstripe (*Nothopteryx carpinata*). The capture of the last-named species was remarkable, for its caterpillar usually feeds on birch. In Heathery Cleugh it must utilize *Salix phylicifolia*. Only the Hebrew Characters call for special comment. Some were more or less typical, one or two belonged to var. *pallida*. Most, however, had the "character" and adjacent black marking reduced to three black points.

Searching for larvae proved a waste of time so backward was the vegetation. One larvae of the Dusky Brocade (*Apamea obscura*) was, nevertheless, taken.— G.H.H.

The Hisehope Moors in May.—A visit paid to Juniper Valley on May 24th was very disappointing from the entomological standpoint as everything was very backward..

As a matter of fact, the total lepidopterous catch comprised two larvae of the Oak Eggar (*Lasiocampa quercus*) and one cocoon of the Ruby Tiger (*Phragmatobia fuliginosa*). Still, there were numbers of queen Bumble bees about, of which *Bombus hortorum* was the commonest. *B. lucorum*, *B. terrestris* and *B. pratorum* were also observed. Grouse were not unfrequent, and we twice saw broken eggs ; the same was true of the curlew. The only plants in flower were the common violet, the wood sorrel, the ivy-leaved crow foot, tormentil, cotton grass, birch, alder and the eared sallow. We were lucky enough to detect cranberry plants straggling across the sphagnum whilst, not far away, we noted the butterwort and sundew in good condition. However, we viewed with regret the state of the junipers ; very many seem to have died during recent years.— J.W.H.H.

Waldridge Fell on April 1st.—On April 1st, we went to Waldridge Fell expecting to find everything retarded by the lateness of the season. However, whilst this, in the main, proved to be the case, we saw much that was of interest. Our first intention had been to work the sallows. Of these only the goat willow (*Salix caprea*) was really in flower although the buds of *S. atrocinerea* and *S. aurita* were quite silvery. Those of *S. pentandra* and *S. nigricans* had barely moved. On one bush of *S. aurita*, the twigs of which were covered by scale insects (*Chionaspis salicis*), we saw a blue tit eating them systematically. On the same sallow many burrows of the pretty weevil, *Cryptorhynchus lapathi* were examined. On the remains of one of the oaks which once beautified Waldridge Fell, we saw the oak marble gall, *Adleria kollari*, in a very remarkable situation. Instead of being on twigs, they were arranged in rows along a crack in the bark. The whin was the only plant in flower, but one bush was discovered which had the spines fully twice as long as those usually seen, and proportionately thicker. The flowers seemed quite normal.—R. Harris.

Somatic Segregation in Primula Hybrids.—This season has proved extremely favourable to my *Primula* hybrids. On April 24th, a four-species hybrid, with lovely pink flowers of a very attractive form came into flower. Its parentage was (*Primula veris* x *elator*) male x (*P. amoena* x *vulgaris*) female. Although I pollinated it with pollen from other hybrids, no seeds seem to have been set. One of my F2 hybrids, between *P. elator* female and *P. amoena* male, displayed somatic segregation inasmuch as one flower spike bore pink flowers whilst those on the other spike were yellow. It should be noted that, almost uniformly, this cross produces plants, half of which are yellow-flowered and the rest pink. The action of the inhibitor carried by *P. elator* has precisely the same action as it has in crosses between *P. elator* and *P. juliae*. My *P. intricata*, originating in the Pyrenees at a place where I discovered the species thirty-one years ago, failed to flower. Thus, experiments, designed to bring that species into the polyhybrid chain amongst the Vernales, have failed once again.—J.W.H.H.

A Small Tortoiseshell Butterfly in the Open on February 18th, 1956.—This butterfly was first seen about 10-20 a.m. lying on some dead leaves in the middle

of an old Michaelmas daisy clump only a few feet away from where the insect had abounded last autumn. It seemed somewhat crumpled, and only the undersides of the wings were visible. It was hard to realise that it was a butterfly, and it appeared to be dead.

Two hours later, I returned, and found that it had flown a yard or more, and that its wings were fully expanded and perfect. It was then sunning itself on a patch of ivy. Taking it indoors, I placed it upon some flowers in a cool room. On Sunday, when removed to a warmer room, it became active, although I had never seen it feed. On Monday, I took it to College, but it became much feebler and died on Tuesday. Examination then revealed that it had only two legs on the left side of the body and that other damage existed.

Had it been hibernating when I first found it? And, if so, where? Little cover exists in the garden except in crannies in the brick wall or in the trellis. Although the weather was bitterly cold, the wall felt quite warm ; it faces south and receives regular sunshine.

I should add that the butterfly, although small, bore wings typically coloured. —M. E. Richardson.

Observations on the Small Tortoiseshell Butterfly.—In the *Vasculum* for October, 1955, I recorded the fact that I had been observing examples of this species hibernating in the stokehole of Chester-le-Street Isolation Hospital. When winter finally set in, the number so placed was four, but early in the New Year this number was reduced to three. It, however, varied occasionally, and on March 22nd, 1956, I saw the butterfly on the wing in the open. Since that date, although tortoiseshells have only been seen casually, they have not been uncommon. The number about fell off again after Easter. Now, May 22nd, they are still flying, but engaged in the important business of egg-laying on nettle clumps.—R. Harris.

An Early Tortoiseshell Butterfly.—On March 9th, 1956, I was very pleased to see a specimen of this pretty insect on the wing near Birtley. This is the earliest date upon which I have noticed any kind of butterfly, and it seems remarkable when one remembers the hard winter we have had.—W. Bell.

An Early Sandmartin near Chester-le-Street.—This year, I saw my first migrant in the form of a sandmartin at Chester-le-Street on Wednesday, April 11th. Migrants, generally, seem to have been quite late, and not at all plentiful. However, I observed a swift at Birtley on May 6th, the usual date for its first appearance. Two days later, it reached its usual number of three or four pairs. —R. Harris.

An Intersexual Sallow, *Salix caprea*, at Bishop Middleham.—This curious bush, which flourishes amongst a tangle of *Salix pentandra* and *S. phylicifolia*, has had a varied history. Fundamentally a male, it has borne intersexual catkins for several years. These catkins have displayed varying degrees of intersexuality over the period it has been kept under observation. This season, to my astonishment, I found that the whole of the catkins had assumed a pseudo-female guise, for every floret appeared to be female with its ovary placed at the end of a longish pedicel. As far as I could determine, none of them were likely to produce functional seeds. Moreover, all seemed to be falling. Nonetheless, -it should be borne in mind that I have reared progeny from intersexual catkins.—J.W.H.H.

RECORDS

BUTTERFLIES AND MOTHS

Aricia agestis Schf. Brown Argus

66

Although no special expeditions were organized to visit the various habitats of this butterfly, it was seen in several localities. North of the Blackhall Rocks, it was observed singly in the old Boat Dene, the first from which it disappeared thirty years ago. Inland, it was seen (and not taken !) at Sherburn Hill, Bishop Middleham and, very plentifully, near West Cornforth. It should be made clear that, in all probability, on the Durham Coast the populations originate from three distinct sources, and those found inland from two only. The coast and the inland insects can therefore be distinguished when critically examined.—J.W.H.H.

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BY THE WAY

RESERVOIR IN UPPER TEESDALE

As many of our readers are aware, work on the proposed reservoirs in Upper Teesdale has commenced. Although we have been informed that the choice of the Cow Green site may not be final, extensive boring operations are in progress there at several points. These are intended to determine the conditions of the strata at points marking the upper level of the sheet of water which will result if the project is carried out.

An examination of the area concerned confirmed our views that a minimum destruction of plant rarities will take place. Further, as we looked over the moorlands, it seemed that the reservoir, when completed, instead of destroying their beauty, might enhance it.

Incidentally, we had an opportunity of examining the cores brought up by the boring machines. These were extremely interesting from the geological standpoint, and one inspected by us showed that a band of lead ore had been penetrated.

THE ROSEBAY WILLOW-HERB

In our issues for December, 1953, and March, July and October, 1954, we supplied a considerable number of facts, old and new, about the position of the Rosebay Willow-herb, *Chamaenerion angustifolium*, in Northumberland and Durham. Recently, we have had a request from one of the Canadian Government Departments, dealing with noxious weeds, for information about the status of the plant here. They sought this information as they had discovered that the chromosome numbers of the American and European plants examined by them were different. They also asked for copies of the *Vasculum* notes, and these we have duly supplied.

In our December, 1953, note we indicated: (1) that, in our belief, the stable plant of a century ago, was different from the ubiquitous plant we have now; and (2) that the present-day weed

was of American origin. A combination of the information supplied by our Canadian correspondent with our own opinions suggested that the old cliff plant known to our early botanists might differ in chromosome number from the common weed of today. This, in turn, entailed visits to stations reported a hundred years ago as supporting colonies of the Rosebay Willow-herb. We, ourselves, have examined the Falcon Clints and Kilhope Burn localities, and have found that the plant survives in both. Can anyone give us similar information about the Cheviot, Roman Wall and other habitats? Twenty years ago, it still flourished on rocks near the Roman Wall and Crag Lough.

With the material obtained as a result of these activities, it is proposed to carry out a cytological examination, alongside similar investigations on the common plant.

A SUGGESTION

In the preceding note, we have demonstrated the necessity for the investigation of old records of the Rosebay Willow-herb. This species is not the only one which demands such treatment. A glance at the records in Baker and Tate's *Flora* (1868) will convince local botanists that many of the species those writers list have not been seen for a very long time. To check such records, we, ourselves, have explored the area along the Wellhope Burn in Upper Weardale. We were astounded at the number of plants reported from that district which we failed to find. Grazing by sheep, no doubt, is the main cause of such destruction. On the other hand, several plants were detected along the burn at much greater altitudes than those given by Baker and Tate. A similar examination along the Kilhope and Heathery Cleugh Burns proved much more productive since, not only were the old occurrences verified, but in addition, new stations for certain alpine plants were discovered.

We hope that local workers will concentrate more definitely on such neglected areas, and spend considerably less time in helping to deprive more accessible areas of their unique treasures. In the organizing of such explorations our Societies could play a very useful part.

BOOK REVIEW

"DRAWINGS OF BRITISH PLANTS " by Stella Ross-Craig, published by G. Bell & Sons, Ltd., 8/6 net.

In the ninth part of this important work Miss Ross-Craig continues her treatment of the Rosaceae by figuring 39 species, included in which are three critical genera, *Alchemilla*, *Rosa* and *Sorbus*. Naturally, the whole of the segregates in these difficult groups cannot be portrayed, but enough are dealt with to give the ordinary worker an understanding of the more outstanding forms. Amongst the roses, several are of special interest to northern botanists inasmuch as the material they depict was obtained in our area

The drawings, taken as a whole, maintain the same standards of beauty and accuracy as has marked those preceding them. However, whilst the rose drawings are by far the best supplied to British workers in recent years, we think that, in certain details, such as serration of leaves, and structure of prickles, complete accuracy has not been gained. In particular, the figures illustrative of *Rosa mollis* are defective in these respects. Moreover, in the same species, the drawings of the hips do not recall typical hips as one sees them in life.

For a work of this type the price (8/6 for the part) seems very reasonable indeed, and we can heartily recommend it to our readers.

The publication of Part IX completes volume three of the work, a fact that demonstrates the very considerable progress made towards the completion of a very arduous undertaking.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

The eighty-fourth field meeting of the Union had been fixed for Saturday, July 21st, 1956. Unfortunately, this happened to be the occasion of the miners' meeting at Durham. To avoid adding to the traffic congestion, the date of our outing was altered to July 14th. As many of our Societies had already fixtures for that Saturday, the attendance at Cassop was smaller than usual. However, one thing was speedily apparent; if the party lacked in numbers, it made up in enthusiasm.

We assembled at Cassop Colliery, and proceeded down the slopes into the Vale. Those who had never seen the Flora of the Magnesian Limestone at its best were astonished at the wealth of flowers. On the grassy banks to the east, dominated in places by *Sesleria caerulea*, orchids were at their best, and many species were observed. These included the Marsh Orchid, the Spotted Orchid, the Fragrant Orchid, the Frog Orchid and Tway Blade. Other very interesting plants, growing with them in great abundance, were the Greater Knapweed, the Salad Burnet, the Burnet Saxifrage, the Musk Thistle, Agrimony, Rest Harrow, Thyme, the Hoary Plantain, the Sea Plantain, Strawberry, Betony, Bush Vetch, Rock Rose, Hairy Violet and, most interesting of all to many, the Globe Flower. Forming a scrub everywhere were crowds of wild roses, amongst which were represented *Rosa mollis*, *R. glauca*, *R. corifolia*, *R. dumetorum*, *R. canine*, *R. obtusifolia*, *R. spinosissima* and the new form *R. dolomitica*, described from this area only two years ago. In addition, hawthorns, brambles and willows were not uncommon; the last-named, growing chiefly in damper spots, included the Goat Willow, the Gray Sallow, the Eared Sallow and curiously enough, the Creeping Willow.

Swinging to the right, we passed the old quarry, chiefly attractive for the number of wild strawberries it produced, and entered the

wood. Here oak and ash were dominant, although there were present also wych elm, birch and numerous shrubs like blackthorn, elder, hawthorn, guelder rose, crab-apple, and hazel. Climbing up these were the Black Bryony and Honeysuckle, whilst the carpet in the wood included Goldilocks, Woodruff, Wood Samcie, Herb Robert, Bluebells, Hemp Agrimony and the like. Leaving the wood, we struck a small stream and marsh in which we found many moisture-loving plants like the Hairy Willow-herb, Lesser Spearwort, Water Mint, Brooklime, Marsh Bedstraw, Forget-me-not, the Ivy-leaved Crowfoot and the grass, *Glycena declinata*.

Soon conditions became drier, and this was marked by the appearance of the Small Scabious, Purging Flax, Milkwort, Calamint, Carlina Thistle, Kidney Vetch, Bird's-foot Trefoil, Hairy Violet, the Tuberous-rooted Bitter Vetch, the Pepper Saxifrage and the Hoary Ragwort.

During the whole of this part of our walk, the entomologists had been busy with their nets capturing unusual forms of the Meadow Brown, the Small Heath, the Common Blue, the Green-veined White and Large Skipper with many moths, the Chalk Carpet, the Silver-ground Carpet, the Five-spot Burnet and various species of plume moths. The only immigrant species observed was the Silver Y which occurred in small numbers.

Other insects which attracted our attention included various bumble-bees, of which *Bombus ruderanus* was the most prevalent. A very important species also noted was *B. syvarum* which had not been seen in our two counties for many years.

We halted for our meal on the steep slopes near Cassop Colliery, where the scrub supported the whole of the calcicole plants encountered previously in addition to the usual tangle of brambles, roses and hawthorns.

Resuming our walk, and passing on our way the single Dusky Sallow (*Salix nigricans*) known to grow in Cassop Vale, we came to the spoil heaps of Old Cassop pit. These were smothered with masses of Hawkweeds, Rosebay Willow-herb, Tansy, Greater Knapweed, Thistles and similar plants, and various shrubs.

We then retraced our steps to examine the large pond where the vegetation proved to be poor in quantity and quality. We saw only the Upright Bur-reed, the Floating Pondweed, the Water Plantain, the Common Spike Rush, the Mare's-tail, the Water Cinque-foil and the Water Horse-tail.

Close by, however, on an old heap, we made a very interesting discovery in the form of a meadow pipit's nest, containing four of its own eggs and one greenish cuckoo's egg. Strangely enough, on this heap grew heather, tormentil, the creeping willow and the grass, *Nardus stricta*—all indicative of former heath conditions.

As our time was now limited, we climbed the slopes out of the Vale to the bus stop, noting on our way the rayed form of the Common Groundsel, Mugwort, the Musk Thistle and many common ruderal plants.

NOTES AND RECORDS

NOTES

A Curious Resting Place for the Large Skipper Butterfly.—On July 14th whilst I was taking part in the N.N.U. meeting in Cassop Vale, during one of the cloudy intervals with which our walk was interspersed, I observed a specimen of the Large Skipper Butterfly (*Ochlodes venata*) at rest amongst the stamens in a flower of the downy rose (*Rosa mollis*), I believe that this is the first time this insect has been reported from this locality.—J. Eggleston.

Courtship Feeding in the Jay (*Garrulus glandarius*).—As the *Handbook of British Birds* does not make mention of courtship feeding in connection with the Jay, the following incident observed by me in High Gosforth Park, Northumberland, shortly before mid-day on 8th April, 1956, may be worthy of being placed on record.

About half-a-dozen jays were heard squabbling noisily in some woodland, and eventually four of them flew from the trees to the disused tram-track. One of them, presumably a female, alighted on the ground and uttered a pleasant "towheet" call, contrasting markedly with the "skaak skaaak" calls of the other birds, one of which appeared to pass something into its bill; the presumed female was thereupon flown at by one of the other birds and forced back. All four then flew away, and two were subsequently observed to fly into a small group of trees, whence quiet "tip-tip" notes were heard.—C. J. Gent.

The Abundance of Wave Moths this Season.—As soon as July was well advanced, astonishing numbers of moths put in an appearance around Chester-le-Street Isolation Hospital, attracted, no doubt, by the lights and the suitable resting sites there. Many of the species present were very interesting, but none were more noteworthy than the Riband Wave (*Sterrha aversata*) and the Small Fanfooted, Wave (*S. bisetatus*), for I had never seen them in this vicinity previously. In the case of the Riband Wave, the typical insect with the and occurred only once, whilst the form *spoliata* was very common indeed.—R. Harris.

[The same abundance of these two insects was observed at Birtley, where they were joined by the Single-dotted Wave, *S. dimidiata*.—J.W.H.H.]

A Cat amongst the Ghost Moths.—In early July I spent a considerable amount of time in studying the degree of visibility of pale and black specimens of the Clouded-Bordered Brindle Moth (*Apamea crenata*) as twilight began and finally passed into darkness. One evening, just before my observations commenced, I was struck by the sudden appearance of quantities of male Ghost Moths (*Hepialus humuli*) swinging to and fro over a huge bed of docks. Almost immediately I discovered that another moth-hunter was also busy. A big, ginger tom-cat was systematically catching the moths as they gyrated. Some of his leaps were quite low, but, in many instances, his springs were high and accompanied by fantastic twistings. In every case he succeeded in bringing down his prey, which he devoured voraciously. Although I kept these moths under observation that night and for several successive evenings, I never saw a single female example. According to general belief the male Ghost Moth attracts the females. As far as I could determine that did not hold true in the case of these moths. I felt the females were lying concealed amongst the dock leaves.—J.W.H.H.

A Note from Chopwell.—Vegetation here, on the whole, has been behind time. For instance, today, 27th July, the Broad-leaved Helleborine (*Epipactis latifolia*) is not yet in flower, although the developing inflorescences can be seen, and there were no signs of roses until the middle of

July. I was afraid that: my one patch of the Bloody Cranesbill (*Geranium sanguineum*) had been blotted out by recent developments. Fortunately it grows practically within the legs of a pylon and has escaped with some reduction in extent. Butterflies have been remarkably scarce. However, Meadow Browns came in with July and made quite a show. Amongst them I saw at least three Ringlets (*Aphantopus hyperantus*). Moths are nearly impossible for me, but I chanced to drop across a Five-spot Burnet as I was picking myself a nose-gay on the steep banks of the railway cutting. I suppose this will be *Zygaina lonicerae*, although I should have called it *Z. trifolii* had not South stated that these species stop short in Yorkshire.—J. E. Hull.

RECORDS

HYMENOPTERA—BEES, ETC.

- Bombus lapidarius** L. Bumble Bee 68
 On June 3rd, whilst I was working on the Inner Fame, I observed a queen of this species probing various flowers.—T. C. Dunn.
- B. lucorum** L. Bumble Bee 66
 This season the first queen bee was noticed at Bewicke Main at the catkins of the Gray Sallow (*Salix atrocinerea*) on April 2nd. R. Harris. On April 20th, 15 queens of *B. lucorum* and *B. hortorum* L. were seen at catkins of *Salix phylicifolia* at Bishop Middleham.—J.W.H.H.
- B. ruderarius** Mull 66
 This species formerly known to British workers as *B. derhamellus*, has been unusually plentiful this season and seems to have regained its old numbers after a period of great scarcity.
- Pontania phylicifoliae** Fors. 66
 Galls of this species were extremely abundant on *Salix phylicifolia* up the Wellhope and Kelhope Burns in Upper Weardale. They ascended high up both streams. In the case of two bushes, we calculated that each bore at least 15,000 galls!—J.W.H.H.

LEPIDOPTERA—BUTTERFLIES AND MOTHS

- Vanessa cardui** L. Painted Lady 66, 68
 Migrants have been very scarce this season, but one example of this species was seen on Waldrige Fell on June 1st, and a second at Bamburgh on June 3rd.—T. C. Dunn
- Mompha conturbatella** Hubn. 66
 From spun shoots of *Epilobium angustifolium* collected in the Hermitage Woods, Chester-le-Street. on May 22nd, 1956, I reared three specimens of this species. This appears to be a new record for Co. Durham. Meyrick gives as its range: Kent and Wilts, to Hereford and Oxford, York and Lancashire, local. Wakely in *Trans. South Lond. Ent. and Nat. Hist. Soc.*, 1944-45 says: "not all spun shoots contain larvae, of this species for *Argyroploce lacunana* and other common species often emerge. Boxhill and Mickleham have furnished all my specimens, and it appears to be very local." I may mention that I, too, obtained two specimens of *A. lacunana* and one *T. paleana* from the same material.—T. C. Dunn.
- Gnophos obscure** Schf. Annulet 66
 I took a very pale example of this Geometrid at Cornforth, on July 17th —J.W.H.H.
- Philudoria potatoria** L. Drinker 66
 This fine moth which, a few years ago, had practically vanished from much of Durham, seems now to be spreading. Taken as larva at Fishburn, May 17th.

Parasemia plantaginis L. Wood Tiger	66
Another species apparently recolonizing the area ; larva found in the Highland Quarry.	
Phigalia pendaria Fab. Pale Brindled Beauty	66
In spite of the very rough weather then prevalent, a very pale male was captured at Birtley, on February 2nd.	
Erannis marginaria Fab. Dotted Border	66
A single male, rather curiously marked with the base of the wing black; found at Chester-le-Street on March 20th.—R. Harris.	
Pyrausta cespitalis Schiff	66
Very plentiful flying over heather on Widdy Bank Fell on May 25th.— J.W.H.H.	
Plusia gamma L. Silver Y	66
This immigrant moth was seen at Heathery Cleugh on May 26th ; this is the first Durham record for it in 1956.— G.H.H.	
Stenoptilia bipunctidactyla Scop.	66
On devil's-bit scabious at High Sharperley and on field scabious at Whitburn.	
Platytilia gonodactyla Schiff.	66
Taken on Waldrige Fell on August 20th, 1955.	
Hemimene flavidorsana Knaggs	66
Plentiful around tansy beds on Waldrige Fell.	
H. plumbagana Tr.	66
Also on Waldrige Fell.	
Peronea variegana Schiff.	66
On Waldrige Fell and near Sunderland.	
Depressaria alstroemeriana Gl.	66
Also on Waldrige Fell.	
Argyresthia nitidella Fab.	66, 68
Worn specimens of this species were obtained from hawthorns near the causeway facing Holy Island ; also taken at High Sharperley.	
Eucosma cruciana L.	68
In this case worn examples occurred amongst <i>Salix repens</i> on Ross Links on August 18th, 1955.	
Caloptilia betulicola Hering	66
Captured at Egglestone, August 26th.	
Bactra lanceolana Hb.	66
On Ross links, August 18th, and very variable.	
Peronea hastiana L.	68
A few larvae were collected from spun shoots of <i>Salix repens</i> on Ross Links. Up to Oct. 10th, four moths have emerged.	
P. aspersana Hb.	66
On Ireshope Fell near Stanhope, Aug. 20th	
P. caledoniana Steph.	66
In the same area as the preceding, and on the same date.	
Acroclita naevana Hb.	66
On Waldrige Fell on August 20th, 1955.	

FLOWERING PLANTS, ETC.

Arabis hirsuta L. Hairy Rock-cress	66
Common on rocks on the north side of Highland Quarry.	
Arabidopsis thaliana L. Thale-cress	66
Plentiful on a wall at Langdon Beck, and Newbiggin in Teesdale and at Heathery Cleugh, Cowsgill and Eastgate, Upper Weardale.	

- Allium vineale** L. Crow Garlic 66
In a field just north of Durham City.
- Equisetum hyemale** L. 66
Very abundant, and obviously spreading in a wood on the north side of the road near Cowsgill, Upper Weardale.—J.W.H.H.
- Epipactis atrorubens** (Hoffm.) Schultes. Red Helleborine 66
We have discovered this species, hitherto not on record for Co. Durham, in two localities, Cornforth and Shadforth. In both areas, the var. *lutescens* Camus occurs, and in the case of the Shadforth station predominates. The specimens, in general, were much less in stature than those we have examined from the Isle of Raasay. Many of them, especially those from the Shadforth colony, are remarkable for the number of flowering spikes they send up. One plant possessed no. fewer than eleven. In the same habitat the plant is quite common, but the Cornforth population does not exceed two dozen. Both lots grow on calcareous slopes; in the Cornforth station these are more grassy than in the other. We understand that a sheet of Durham specimens, collected over 50 years ago, is in existence, but these were never recorded.—J.W.H.H. and J.A.R.
- Blackstonia perfoliata** (L.) Huds. Yellow Wort 66
This plant was discovered growing in plenty on a bank along a saltwater pool south of the sand dunes at Seaton Carew. Baker and Tate in their *Flora* report this species as " Incognit," but give a Northumberland station mentioned by Wallis two hundred years ago. This is on Honeycleugh Crag, South Tynedale. Druce, in his *Cornital Flora*, marks it as occurring in v.-c. 66, but no authentic record exists for Co. Durham as far as is known. This, therefore, would seem to be the first real record. It is possible that Druce has introduced it in his census because the name appears, without definite authority, in Baker and Tale's *Flora*, Clapham, Tutin and Warburg, as in many cases, are simply following Druce.
- Ulex minor** Roth. Dwarf Whin 66
Another plant new to Durham; discovered in Cassop Vale, on August 7th, when it was in full flower.
- Inula conyza** DO. Ploughman's Spikenard 66
On fixed dunes north of Hartlepool. Although Druce gives this as occurring in Northumberland and Durham, and Clapham, Tutin and Warburg, as usual, follow him, I have not been able to trace any previous record for either county. Moreover, no botanist in the two counties with whom I have consulted knows anything about the plant.
- Festuca vivipara** (L.) Sm. Viviparous Fescue 66
Clapham, Tutin and Warburg give the range of this grass as : " Lake District N. Wales, Scotland." Thus it would appear that it has not been reported previously from Co. Durham. Personally, I had not met with it there until I discovered it on August 22nd growing on rock ledges on Falcon Clints; this seems to supply the first record for v.-c. 66.—J.W.H.H.
- Thiaspi arvense** L. Penny Cress 66
According to Baker and Tate (1868), this is a " rare weed of cultivated ground" Until this year, when I found it on August 26th, on Heathery Cleugh, Upper Weardale, I had never seen it in our district.
- T. alpestre** L. Alpine Penny Cress 66
Last year, I recorded this plant from the point at which Kilhope Burn is joined by the Heathery Cleugh Burn. On August, 25th, 1956, I found it much more plentifully higher up the Kilhope Burn.—J.W.H.H.

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BY THE WAY

THE ROSEBAY WILLOW-HERB

In the last number of the *Vasculum* we appealed for help in determining the present range of the genuine native form of the Rosebay Willow-herb (*Chamaenerion angustifolium*) in our counties. In reply, we have received a very helpful note from Dr. G. A. Swan who writes: " With regard to your query about *Chamaenerion angustifolium* in the Cheviots, I can inform you that I have been visiting the Henhole during the past eighteen years. The Rosebay is still flourishing on rocks just above the stream below the point where the ravine proper begins. In the autumn, it is very showy, the foliage then being a really bright red colour. I have always regarded this as probably being a native habitat. I have also seen the plant at other places in the Cheviots, but felt that in the case of some, at any rate, it was probably of recent origin."

In addition, Mr. G. W. Temperley informs us that he had a reliable report from a friend in 1939 that the plant was still growing in the Henhole, Cheviot. He adds that he has had no records since from that area. In all probability, Dr. Swan and Mr. Temperley are referring to the same station.

A further interesting point concerning the native plant is that it is exceedingly difficult to transplant. We have tried to do so on several occasions with both Durham and Hebridean examples, but without the slightest success.

My recollections of the old garden plant of sixty years ago, before the present hordes overwhelmed us, was that it was quite easy to transplant. Can anyone supply information about this point?

IMMIGRANT LEPIDOPTERA IN 1956

The present season has proved the worst, as far as our counties are concerned, for immigrant Lepidoptera for many years. In fact, the only records for immigrant butterflies we have received were those for the Painted Lady appearing in our last issue. Then Mr. T. C. Dunn was able to record one specimen from each county.

For a long time the only wandering moth species reported was the Silver Y (*Plusia gamma*), noted first in Heathery Cleugh, Co. Durham, on May 26th and, subsequently, at intervals until November 20th when Mr. R. Harris observed it near Chester-le-Street. However, during late September, and until the middle of November, quite a number of specimens of the Death's Head Hawk (*Acherontia atropos*) and the Convolvulus Hawk (*Herse convolvuli*) were captured in Durham at many widely separated points. Of these hawks, the Death's Head was the commoner.

THE HOARY FORM OF THE COMMON HEATHER

In this number of the *Vasculum* Mrs. A. N. Gibby records that she has collected the hoary form of the common heather, *Calluna vulgaris* var. *hirsuta* S. F. Gray (= *pubescens* Hull), in Dipton Woods. In doing so, she mentions that, according to Clapham, Tutin and Warburg, this variety occurs abundantly near the sea in some areas, but is rare inland. This statement of these authors is of very doubtful validity. We have noted this variety recently in Upper Weardale, Teesdale and along the Upper Derwent. Moreover, when Bagnall and Heslop-Harrison were investigating "erinea," on various plants in connexion with their work on Eriophyid mites forty years ago, both workers encountered this form on practically every moor visited in the west of Northumberland and Durham. Perhaps some of our readers will report their experiences of the plant to which Mrs. Gibby has drawn attention.

AN EARLY BUTTERFLY LIST

Every lepidopterist of standing is acquainted with that fine, annotated list of the butterflies and moths of Northumberland and Durham from the pen of Mr. J. E. Robson published by the Natural History Society during the years 1902-1912. Very few, however, will be aware of the fact that Robson wrote an earlier account of the butterflies of the area ; this appeared in the *Newcastle Weekly Chronicle* for Saturday, March 12th, 1892.

As it stands in that issue, the list is incomplete, and Robson, no doubt, finished it in a number which we have not seen. Amongst the insects discussed in the part under consideration, there are instances in which the distributions cited are quite inaccurate, and must have been so in 1892. Thus, of the Large Heath, *Coenonympha davus (tullia)*, Robson alleges that it is plentiful on the moors and mosses of both counties. As a matter of fact, no certain records of its presence in Durham are known. Again, concerning the Ringlet (*Aphantopus hyperantus*), he states that he knows of no captures in the two counties since 1860. The exact facts are that it is still common enough in North Northumberland, and has been so ever since entomologists have worked the district. Further, in Durham, it has been taken in Chopwell Woods, whilst, in South Northumberland, it was still present in 1892 in Dipton Woods.

Should anyone be acquainted with the second part of Robson's paper, we should be very glad to have their comments on it for publication.

The list of microlepidoptera appearing in our October number was due to Mr. J. Newton, and we regret that his name was inadvertently omitted.

THE SOCIETIES

NORTHERN NATURALISTS' UNION

The eighty-fifth field meeting of the Union was held on Saturday, September 22nd, 1956, in Dipton Woods. Owing to the condition of the woodlands, and the difficulty of reaching the meeting place, the attendance was less than usual, but this was compensated for by the enthusiasm of the members present.

Under the leadership of Professor Heslop-Harrison, we entered the woods near the sawmill, and took the narrow path to the old road, now nearly overgrown, leading back to Corbridge. Driven down, no doubt, by previous rains, insects were very scarce although amongst the butterflies and moths, we did observe, the green-veined white butterfly, the vapourer moth, the garden carpet, the grey pine carpet, the pine carpet, the brick and the common swallow. Larvae were difficult to get although odd white waves were beaten. With them, from one birch, was obtained a single argent and sable, *Eulypia hastata*. In clearings where foxgloves grew, their flowers had clearly supported a heavy population of foxglove pugs.

Even at this early date, very few humble bees were seen, only the carder bee, *Bombus agrorum*, being at all common. Much the same held true of the ladybird beetles and weevils attached to pines, usually so abundant in the wood. The lady birds, *Mysia oblongoguttata*, *Anatis ocellata* and *Adalia oblitterata* alone were beaten out.

In the wood, amongst the plants, we noted pine, larch, spruce, birch, alder, oak, gean, alder, the two heaths, heather, bilberry, heath bedstraw, golden rod, wood groundsel, foxglove, devil's-bit scabious, perforated St. John's wort, with the grasses *Festuca ovina*, *F. rubra*, *F. gigantea*, *Deschampsia flexuosa*, *Nardus stricta*. A rather unexpected flower seen was the climbing fumitory.

As we knew that the well-known station for the creeping ladies tresses orchid had been badly damaged by " logging " operations' we kept a good look-out for the plant, and were delighted to discover a goodly number of new colonies in a flourishing condition.

When we left the wood, we returned by the road to our assembling place. On the road-side we saw an abundance of lady's bedstraw, great hedge bedstraw, various willows, sallows, guelder rose, blackthorn and the ordinary plants growing in such situations. Amongst these were crowds of wild roses, including various forms of *Rosa glauca*, *R. Sherardi*, *R. caesia*, *R. mollis* and *R. spinosissima*. One

additional plant astonishing us greatly was the club moss, *Selago selaginoides*, which seemed quite at home amongst various grasses, tormentil, etc. Both in the wood and in the lanes the prevailing sedges were *Carex ovalis*, *C. pallescens* and *C. binervis*.

After a very enjoyable outing we returned by various bus routes and car.

The Autumn Indoor Meeting of the Union was held on Saturday, October 13th, 1956, in the Science Building at Durham and attracted an excellent attendance.

The President, Dr. A. Todd, was in the Chair, and the lecture on this occasion was delivered by Dr. J. L. Crosby who took for his subject " The Strange Story of the Primrose ".

Dr. Crosby began his talk by describing the structural peculiarities of primrose flowers and their biological import. This led up to his account of the discovery of colonies of the plant in which the stigma and anthers stood at the same level. He dealt with the inheritance of style position in the ordinary types of flowers and passed from this to the behaviour in inheritance of the forms studied by him. In doing so, he discussed the value of his work in evolution.

The lecture was illustrated by a series of lantern slides, and gained for its author a well-merited vote of thanks.

After a short discussion, we adjourned to take tea, and to examine the exhibits. Amongst the latter was a series of plants collected by Mrs. Gibby in Corsica and Lapland. Of interest, too, was another set from Madeira for which Mr. D. M. Moore was responsible. Of value also were maps giving the distribution of British Alchemillas prepared by Miss M. E. Bradshaw. From Miss Chalkin we had photographs depicting fossil trees. Prof. D. H. Valentine had on view more unusual plants like *Arbutus*, *Drosera* and *Samolus* whilst Prof. J. W. Heslop-Harrison brought living specimens from Ireland of the maiden-hair fern, *Adiantum capillus-veneris* and *Rosa agrestis*, with Birtley examples of the latter for comparison. He also showed living specimens of *Sibthorpia europaea* from the Isle of Lewis, and local plants of the ivy broom-rape. A first-rate set of fungi, staged by Dr. P. Watson, broke new ground for us. On the zoological side, we had a stimulating group of exhibits and demonstrations. Mr. E. White and Mr. J. C. Coulson had one explanatory of comparative studies in kittiwake colonies, whilst, also linked up with sea birds, we were shown coloured photographs from the Fame Islands set up by Prof. Cragg and Mr. Coulson. On view, also, was a group concerned with population studies in annelids Amongst the lepidoptera shown were a series of butterflies from France captured by Mr. T. C. Dunn, and a Death's Head Hawk from Consett brought by Mr. W. Ellerington. Next, Mr. White's studies in beetles of the genus *Anobium* were emphasized by diagrams and otherwise whilst Mr. Vinsome's exhibit was concerned with

the responses to humidity of representatives of the genus *Simulium*. In a very different animal group, we were able to follow the development of the trout from the interesting exhibit of Mr. K. R. Ashley.

BIRTLEY NATURAL HISTORY SOCIETY

Our 1956-1957 Winter Session commenced on September 25th, 1956, when our President, Prof. J. W. Heslop-Harrison, gave a lecture entitled " Over the Sea to Skye ", in which various features of the islands around Skye were described. He followed on October 9th with a talk on " Blue Eyes and Flaxen Hair ". In this the lecturer dealt with the structure of human eyes and hair, and the inheritance of eye colour, hair colour and the like. Next followed, on October 23rd, another valuable account of " News and Views from Houghall j by Mr. C. W. Percy, B.Sc. This was illustrated by a film in colour depicting various aspects of life and work in the School, and demonstrated the value of the institute to the county. On November 6th, we once more welcomed Mrs. Grace Hickling, M.A., who carried out her last year's promise to continue her account of the Fame Islands, by dealing with the "Grey Seals ". This lecture was greatly appreciated by an attentive audience who saw the intimate life of these seals as revealed by a long and varied series of lantern slides prepared by the speaker. Lastly, on November 20th, we had a visit from our old friend Mr. J. W. Oxberry, who surpassed himself in a very humorous and instructive lecture on the " Lads and Lasses of Bonny Tyneside ". This lecture, in reality, dealt with various people on Tyneside who had made good in life and the projects which had made them famous.

CONSETT AND DISTRICT NATURALISTS' FIELD CLUB

Our Annual Dinner and Conversazione were held in the Carlton Cafe, Consett, on Wednesday, November 7th, 1956, when we had Prof. J. W. Heslop-Harrison as our guest.

The President was in the Chair and, after we had partaken of a very satisfactory meal, she made a few introductory remarks and proposed the toast of the Queen. Next, Mr. T.Hall asked us to drink to our guest and, in the course of his speech, he stressed the long-continued and friendly relations between the Club and Prof. Heslop-Harrison. In replying to the toast, Prof. Heslop-Harrison praised the Club for its work locally and for its constant support of the Northern Naturalists' Union and its aims. He drew attention to the fact that a record number (81) of members and friends was present at the dinner, and that many of these provided a pillar of strength for the Union. In particular, he emphasized the part played by Mr. Wm. Ellerington in its earlier days. Then succeeded the toast of " Our Club " proposed by Mr. R. Dixon, and to this our old and staunch member, Mr. Surtees Armstrong made a suitable reply.

As usual, the function ended with a display of lantern slides in colour. Those illustrating Mr. Ashworth's holiday in Spain and Majorca were greatly admired. These were followed by many beautiful slides, depicting former outings of the Club and local scenery, brought by Mr. Horn, Mr. Evans and Mrs. Jackson. The evening ended with the President thanking all who had contributed to the success of the display.

NOTES AND RECORDS

NOTES

Inula Conyza DC. in Durham.—In Baker and Tate's *Flora*, in the "List of Ballast Hill Plants", *Inula conyza* was recorded as growing on ballast at the mouth of the Tyne, in the neighbourhood of Hartlepool and the Teesmouth, but no definite stations are mentioned. Is there any possibility that the plants now growing "on fixed dunes north of Hartlepool" are a relic of the ballast hill days and have lurked there undetected ever since?

In a paper on "The Botany of the South Durham Ballast Hills in the year 1861" by the Rev. A. M. Norman (*Trans. Tyneside Naturalists' Field Club*, V., p. 136) he thus describes the Hartlepool Ballast Hills: "The Ballast unshipped in the harbour of the old town has been deposited amongst the sandhills to the north, and now forms a barrier, perhaps two miles long, which runs parallel with the sea margin". Although Norman did not include *Inula conyza* in his list, it is, as stated above, one of the plants in Baker and Tate's *Flora* that was found at Hartlepool.—G. W. Temperley.

[After my original note about *Inula conyza* was written, and before I had received Mr. Temperley's note, I had observed the inclusion of the plant in Baker and Tate's list. In my opinion, Mr. Temperley's suggestion about the origin of *Inula conyza* near Hartlepool is quite reasonable.—J.W.H.H.]

Hybrids amongst the Autumnal and November Moths of the Genus *Oporinia*.—In January, 1915 (*Entomologist*, 48, p. 1), I published an account of certain hybrids I had reared between the two commoner members of the genus *Oporinia* (*Oporabia*) then the only species known from Northumberland and Durham. These were x *O. robsoni* = *O. dilutata* male \times *O. autumnata* female and x *O. rungei* = *O. autumnata* male \times *O. dilutata* female. Subsequently, these hybrids were discovered in the wild in our two counties. Besides this, I have captured *O. christyi* locally as well as *O. filigrammaria*. As a result, these two species have been successfully introduced into the hybrid chain. Up to the present, inasmuch as the melanism experiments also involved had not been concluded, the new hybrids have neither been listed nor named. Unfortunately, this lack of publication has interfered with the researches of other workers. At the request of such investigators, the lacking data are supplied now:

Oporinia dilutata male \times *O. filigrammaria* female = *O. hybr. obscurata*; *O. filigrammaria* male \times *O. dilutata* female = *O. hybr. notata*; *O. christyi* male \times *O. dilutata* female = *O. hybr. lutosa*; *O. dilutata* male \times *O. christyi* female = *O. hybr. lucida*; *O. christyi* male \times *O. autumnata* female = *O. hybr. immorata*^a; *O. autumnata* male \times *O. christyi* female = *O. hybr. fuliginosa*^a; *O. filigrammaria* male \times *O. autumnata* female = *O. hybr. exoleta*; *O. autumnata* male \times *O. filigrammaria* female = *O. hybr. firmata*; *O. christyi* male \times *O. filigrammaria* female = *O. hybr. goodmii*; *O. filigrammaria* male \times *O. christyi* female = *O. hybr. satura*.

In addition to these primary hybrids, the secondary hybrid of parentage (*O. christyi* male \times *O. dilutata* female) male \times *O. autumnata* female has been reared and is now named *O. hybr. vedrae*.

Further, certain hybrids have been bred involving the British Columbian species *Oporinia omissa* and certain of our species. These are: *O. autumnata* male \times *O. omissa* female = *O. hybr. auei*; *O. omissa* male \times *O. autumnata*

female = 0. hybr. *nervosa* ; 0. *filigrammaria* male x 0. *omissa* female = 0. hybr. *derivata* ; 0. *omissa* male x 0. *filigrammaria* female = 0. hybr. *rivata*.

In all these groups back crosses have been bred, generally with great difficulty ; these will be dealt with later.—J.W. Heslop Harrison.

The Moonwort on Blanchland Moor.—My husband found a nice specimen of the moonwort, *Botrychium lunaria*, in the last week in June on Winnows Hill, the part of Blanchland Moor adjacent to Slaley Forest. No record seems to exist of the plant's being found in this part of Northumberland before. In all, there were eight plants in the little group of specimens encountered.—Emily Hardy.

A Curious Combination of Grasses.—Early in September I paid a visit to the Merry Knowle station for the heath false-brown grass, *Brachypodium pinnatum*. The plant was in a flourishing condition, and covered quite a large area of the habitat. Curiously enough, with it grew the other brome-grass, *B. sylvaticum*, as well as the upright-brome, *Zerna erecta* and the blue *Sesleria*, *Sesleria caerulea* spp. *calcareae* (Opiz) Hegi. All of these plants are, of course, calcicoles, but the noteworthy fact is that the *Sesleria* is northern in its distribution, *Brachypodium pinnatum* southern, *Zerna erecta* southern and *B. sylvaticum* more general. I doubt whether this combination is to be found elsewhere in Britain. If it is, I shall be glad to learn about it.—J.W.H.H.

More Notes from Chopwell.—In my last note I omitted to state that odd specimens of the Six-spot Bumet, *Zygaena filipendulae*, were flying with the Five-spots recorded, but the latter species was predominant. During the time I have lived in this area, I have kept my eyes open for the more interesting butterflies which used to occur in Chopwell Wood. As readers of the *Vasculum* will know, my captures there have included the Ringlet and the Green Hairstreak, the latter species never having been observed in the area previously. In addition to these, I have noted the Pearl Bordered Fritillary, *Brenthis ephrosyne*, in some numbers. This used to be taken by Mr. J. R. Johnson and Prof. Heslop Harrison in the area fifty years ago. On the other hand, the Dark Green Fritillary, *Argynnis aglaja*, not reported by those entomologists, has also occurred in numbers in the woodland glades, and along the railway banksides. The form present differs, especially amongst the females, from the usual English form prevalent in some parts of Co. Durham. They, in fact, show some resemblance to northern Scottish insects.—J. E. Hull.

A Note about the Tortrix Hemimene simpliciana Haw.—Dr. J. K. Morton and I had been collecting *H. tanaceti* and *H. flavidorsana* in Durham during midAugust, and shortly after I left the county. Dr. Morton sent me a specimen which he had taken over mugwort, *Artemisia vulgaris*, in the Team Valley on August 23rd. This I suspected to be *H. simpliciana*, and an examination of the genitalia proved it to be a female of that species.

Meyrick gives Lancashire and East Ireland as the northern limits of the species. It is not recorded in Robson's *Catalogue* nor is it in the Cumberland list by G. B. Routledge.—J. Newton.

The Orchid, Epipactis atrorubens in Co. Durham.—In the last issue of the *Vasculum*, Dr. J. A. Richardson and I recorded the Red Helleborine from two localities in Co. Durham, thereby supplying a new county record for the species. Subsequently, in *Watsonia* for October, 1956, Mr. D. P. Young also reported it from Durham, and his record is marked as new for the county although it will be clear that it is not so. However, the worst feature about it is quite misleading, for the locality from which the specimens concerned were derived is in Shadforth, and not Cassop, Parish. The Shadforth station to which the incorrect Cassop record really applies did not produce the plant this season. Our locality is clearly not the same as that given for the specimens with which Young dealt, as we detected the plant on a bankside laid bare during road alterations between the wars. It is only right to point out that Dr. A. Todd, President of the Northern Naturalists' Union, discovered the Red Helleborine quite independently a short distance from our Shadforth habitat.—J. W. H. H.

Notes from a Birtley Garden.—Not long ago, Mrs. Perry gave us an account of the occurrence of the hedgehog in her garden in Birtley. This summer, as I was clearing brushwood from a garden in the Avenue, I turned up a fine healthy specimen of the same animal. The hedgehog is, undoubtedly, becoming a very common animal in this area if one can judge from the numbers of dead examples, killed by motor cars, one sees on the roads.

In the same garden is a tiny artificial pond situated far from any other sheet of water. Nevertheless, the common smooth newt has been observed there, both in the pond and under stones. The same pond, too, has produced the common diving-beetle, *Dytiscus marginalis*, and the water-skater, *Velia currens*.—R. Harris.

RECORDS

FLOWERING PLANTS AND FERNS

- Petasites hybridus** (L.) Gaertn., Mey. And Scherb. 67
Butterbur
Large patches of the female plant were seen in fruit on a grassy bank at Cullercoats in mid-May.
- Calluna vulgaris** (L.) Hull. Heather. 67
The variety *hirsuta* S. F. Gray was seen, in small quantity, in Dipton Wood. According to Clapham, Tutin and Warburg this occurs abundantly near the sea in some areas, but is rare inland.—A. N. Gibby.
- Rosa dumalis** Bechst. Northern Dog-rose. 66
The form *transiens* was collected at Wearhead near the old lead mine.—J.W.H.H.
- x Rosa margerisoni** Wolley-Dod. Hybrid Rose 66
In Northumberland and Durham' hybrids between *Rosa dumetovum* and *R. spinosissima* are quite rare. In fact, only *x R. laevigata* has been reported from the area. However, on August 29th, I noticed a low-growing rose fruiting in a hedge near Bishop Middleham. This plant spread over several yards of the hedge-bank, and thus showed the usual heterosis of rose hybrids. On examination I determined it to be a hybrid between *R. dumetorium* and *R. spinosissima*. This was confirmed by the fact that, growing intermingled with it, were both of the putative parents. As its leaves were uniserrate it ran out to be *x R. margerisoni*.—J.W.H.H.
- Peucedanum ostruthium** (L.) Koch. Master-wort 66
Collected well up the Wellhope Burn in Upper Weardale, probably from the same station as that provided in Baker and Tate.
- Galium mollugo** L. Great Hedge Bedstraw 66
This plant, is generally western in its distribution with us, and the furthest east I have seen it is on the banks of the Wear at Chester-le-Street, where it has now been extirpated. On August 9th, I discovered it growing on the sandhills south of Crimdon Dene.—J.W.H.H.
- Asplenium trichomanes** L. Maidenhair Spleenwort 66
As local botanists know, this species, like most of the other spleenworts, has practically disappeared from lowland habitats in Durham. However, on August 7th, I was so fortunate as to find a colony growing on Magnesian Limestone rocks in Cassop Vale.—J.W.H.H.

LEPIDOPTERA—BUTTERFLIES AND MOTHS

- Eulype hastata** L. Argent and Sable. , 67
Of this species no local records, except one, are known, for over a hundred years ; the odd specimen was taken by Maling at Hexham sixty years ago. A larva was beaten from birch on Sept. 22nd, 1956, in Dipton Woods.—J.W.H.H.
- Anaitis plagiata** L. Treble Bar. 66
Taken at light, Chester-le-Street, 20th Sept. 20th.—R. Harris.
- Tinea corticella** Curt. 66
Three specimens at rest on oak in the Browney Valley, Aug. 10-12 ; only very old records exist for Durham.