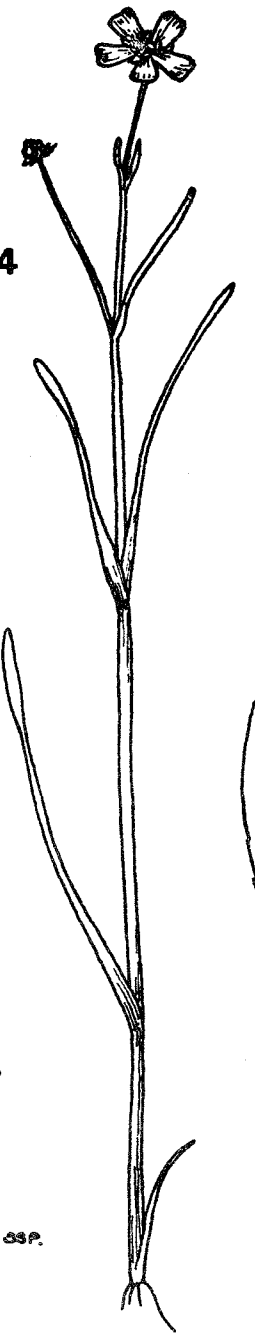
B.S.B.I.

SCOTTISH NEWSLETTER

No 6 Spring 1984

R. FLAMMULA SSP MINIMUS



R FLAMMULA SSP.
SCOTICUS

OMG

RANUNCULUS FLAMMULA
SSP FLAMMULA

BSBI SCOTTISH NEWS LETTER

Number 6 Spring 1984

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Cover Illustration - Ranunculus flammula
by Olga M. Stewart

EDITORIAL

The size of the current number of the News Letter is an indication of the gratifying volume of contributions received by the editors. There has been a steady growth from a mere 13 pages in the first number to 20 in No 5 and 21 in the present issue. We are very pleased that this growth in size has been matched by a similar increase in popularity. In recent months a further thirteen members from south of the border have opened an account in order to receive future issues. Some of these enquiries have included requests for back numbers, and we have supplied these where possible from stock held by one of us (PM) for this purpose.

The News Letter is now an accepted medium for the publication of short articles and for acquainting Scottish members with Scottish administrative matters. Its present standing is a tribute to the quality of material received. Future issues will be reviewed in the BSBI News.

We wish to take this opportunity of expressing our gratitude to Brian Brookes and the staff at Kindrogan Field Centre for the considerable work involved in the production of the copies and the despatching of these to the Scottish members.

Material for News Letter No. 7 should be sent to one of us before the end of December 1984.

A.McG. STIRLING P. MACPHERSON

FROM THE CHAIRMAN

The editors inform me that it is customary for the Chairman to make some sort of personal contribution. As I sit contemplating botany with yet another blizzard blowing snow horizontally outside, with still 3 feet of standing snow and a total of 5½ feet recorded by a neighbouring meteorologist as having fallen over the past month, only one thought occurs - why does anything except an arctic-alpine inhabit this part of the world?

The Scottish Committee asked me to take over the Chairmanship in November 1983 from Allan Stirling who retires from this office and from the Committee under the constitution. It is my pleasure to express our thanks to Allan for all his hard work. Allan combines a first-class knowledge of Scottish field botany with a light, kind yet efficient administrative touch and will be keenly missed by his committee colleagues. I am glad that Allan has agreed to continue as joint editor of the Scottish News Letter, a publication which is further evidence of the thriving state of Scottish botany under his guidance.

The post of Field Meetings Secretary, vacated by myself, has now been filled by Nick Stewart who, I am sure, will prove an able successor in this office.

Now for my sleigh to catch the elusive rural post-bus. By the time this message is read the snow will surely be a faded memory.

RICHARD THOMAS

BSBI COMMITTEE FOR SCOTLAND

The following is the composition of the Committee from November 1983 to November 1984:-

Chairman - Dr R.E. Thomas; Secretary/Treasurer - Dr P. Macpherson; Field Meetings Secretary - N. Stewart; Meetings Secretary - Miss E.R.T. Conacher; Members of Committee - G.H. Ballantyne, M.E. Braithwaite, Dr J.H. Dickson, Mrs C.W. Murray, S. Payne, Dr A.J. Silverside, A.A.P. Slack and Mrs O.M. Stewart.

Representing the Nature Conservancy Council - Dr R.A.H. Smith; representing the Botanical Society of Edinburgh - D.R. McKean.

At the AGM on November 3rd 1984, four members will be elected to the committee. The retiring members will be Mrs Murray, Dr Silverside, Mr Slack and Mrs Stewart. Only Mr Slack will be eligible for re-election. Nominations signed by two members of the Society normally resident in Scotland or who are recorders for a vice-county in Scotland though not resident, and with the written consent of the candidate who must also qualify as above, should reach the undersigned at 15 Lubnaig Road, Glasgow G43 2RY by October 6th 1984.

Peter Macpherson, Hon. Secretary, Committee for Scotland.

THE SUBSPECIES OF RANUNCULUS FLAMMULA

ALAN J SILVERSIDE

Ranunculus flammula (Lesser Spearwort) is an extremely variable plant. Since it occurs in a range of wet habitats including rich fens, Sphagnum-filled moorland ditches, exposed stony loch-shores and cliff-top turf, its variability is scarcely surprising. Much of this variation is known to be phenotypic (i.e. a direct response of the individual plant to its habitat) but other variants are genetically based, retaining their features in cultivation.

Ranunculus reptans could be regarded as an extreme genetic variant in this group, but hybrids with R. flammula are partially sterile and it is rightly considered a distinct species. It was presumably widespread in Late-Glacial northern Britain but was subsequently overwhelmed by R. flammula. A few scattered, partially sterile, populations survive, but so far as is known, no pure R. reptans remains in Britain. Nevertheless, it may still be present on an exposed loch-shore somewhere in north Scotland. Usually in this habitat one finds R. flammula forma pseudo-reptans which, though rooting at the nodes and sometimes resembling true reptans closely, loses these characters in cultivation. Populations investigated by P.A. Padmore were fully fertile, though the possibility remains that some populations have a trace of R. reptans in their ancestry.

Within R. flammula there are a number of distinctive variants, named and unnamed, deserving further study. These include the robust, upright plants of fens, var. major, and similar plants with very broad, sometimes heart-shaped stem leaves, var. ovatus, or strongly toothed leaves, var. serratus. All three occur in Scotland. Two British variants were recognised at the higher rank of subspecies in CTW Ed. 2 and are retained in Flora Europaea. These are subsp. minimus and subsp. scoticus.

The classic account of these two taxa is that of P.A. Padmore in Watsonia 4: 19-27 (1957) and it is not my intention to add significantly to her account. However, it is apparent that the names are still being applied to plants which have little in common with the type

specimens or original descriptions. Regrettably, a dwarfed plant on a sea-cliff is not necessarily subsp. minimus and the great majority of upright plants emerging from the waters of Scottish lochs are not subsp. scoticus.

Subsp. scoticus was first described by E.S. Marshall as R. flammula var. petiolaris, this being an existing but unpublished name for a Scandinavian plant that Marshall then believed to be the same as his Scottish specimens from Argyllshire and others collected by E.F. and W.R. Linton from Skye. He subsequently re-described his plant as a species, firstly as R. petiolaris and then, discovering that this name was already in use in Mexico, renamed it as R. scoticus. The current view is to downgrade it again to a subspecies of R. flammula.

The key feature of subsp. scoticus is the form of the basal leaves, which Marshall likened to those of Littorella. They consist of rigid, curved, unexpanded petioles and very readily break away, usually vanishing before flowering time. Later leaves are also very narrow, with only the tip slightly expanded, and are also readily detached. Very noticeable in the field are the petals, which are cuneate at the base and broaden upwards to a truncate top, so giving the impression that they are distant from one another. These features are well shown in Olga Stewart's excellent cover illustration of a specimen from the original Argyll locality. Unfortunately the specimen does not show the typically zig-zag growth of the stem, though the stiffly upright habit is clear.

My own interest in the plant arose when I saw it at an old Marshall locality near Tongue, W. Sutherland. The water level was very low, so most plants were exposed on the stony shore, but still stiffly upright. The petal character, which I had not known about, clearly demarked these plants from the abundant subsp. flammula further up the shore. However, in what would normally be the shallow water zone between the two subspp. there were numerous intermediate plants. I intend to investigate the nature of these intermediates further, but one must assume that they represent hybrids between the subspecies. This is significant when one turns to herbarium material.

Padmore rightly rejected most identifications of this subspecies and it is clear that even Marshall's determinations were not uniformly reliable. She cautiously accepted records from v.cs 98 (Argyll) and 104 (N. Ebudes) (presumably the Lintons' site at Sligachan, Skye) and with more doubt v.c. H27 (W. Mayo). The folders at the British Museum and Edinburgh have continued to accumulate wrongly named material but also contain further specimens of true scoticus. I have not yet looked through all R. flammula material at BM but there are good specimens at one or other herbarium for v.cs 98 (Argyll), 104 (N. Ebudes), 108 (W. Sutherland) and 110 (Outer Hebrides), and perhaps also v.c. 97 (Westerness). Loch Alvie, v.c. 96 (Easterness) became a well known site for collectors but Padmore redetermined most such BM material as R. flammula (i.e. subsp. flammula) and I take the same view of material at Edinburgh. However, I have seen a single Loch Alvie collection by C.E. Salmon that does approach subsp. scoticus. The overall picture seems to be that, in most of its sites, subsp. scoticus is accompanied by crosses with subsp. flammula and collectors frequently have selected the wrong plants. Subspecies scoticus, like R. reptans, now has a disjunct distribution and may again have been ousted from former sites by hybridisation. It was, perhaps, a potential species which never became sufficiently isolated. It is certainly present in the west of Ireland; I have seen good material from v.cs H17 (N.E. Galway), H26 (E. Mayo) and H27 (W. Mayo).

In its extreme state, subsp. minimus is a distinctive plant with very fleshy, short, blunt, more or less oblong leaves, short internodes and disproportionately large flowers arising from as low as the second node. The first basal leaves are orbicular or even broader than long and may have cordate bases. Olga Stewart illustrates a very typical specimen from North Uist which lacks basal leaves but shows the cauline leaf-shape well. Padmore found a statistical difference in achene shape in Shetland subsp. minimus compared with subsp. flammula, but I find too much variation on individual plants for this to be of value in identification, even if generally applicable. Subsp. minimus occurs in turf on headlands and exposed

ground in N. Uist and Lewis (v.c. 110, Outer Hebrides) and Padmore also cites localities from v.cs 109 (Caithness), 111 (Orkney), 112 (Shetland) and H9 (Clare). Plants from the north coast of the Scottish mainland are usually dwarf states of subsp. flammula. There is a good specimen from Cape Wrath (v.c. 108, W. Sutherland) at Edinburgh, collected by J. Anthony, but plants I have seen there myself are less distinct. Similarly, Marshall's 1897 specimen (BM) from Holborn Head, Caithness, is clearly subsp. minimus but susequent specimens from there are much nearer subsp. flammula. Rather fleshy forms of subsp. flammula are more widespread, not only along the north coast but extending south to Lancashire and Anglesey.

BORDER PINEWOODS

MICHAEL BRAITHWAITE

Very little interest has been taken in the history of Pinewoods in the Borders as it has been generally assumed that they had been rather small and long been extinct. However, recent work suggests that some of them have been resurrected and are worthy of study.

There is historical evidence, mainly from the pollen record preserved in the peat of the Border mosses, that there were native pinewoods in the area up to the Middle Ages. Partly because of the centuries of Border warfare the old woodlands were felled more completely than anywhere else in Britain and it appears that by 1700 there were no substantial pinewoods left in the Borders.

It is quite possible however that scattered pines persisted in a few places, especially on the edges of the drier mosses and on some sandy moors. There the birch would certainly have kept re-colonising and if any mature pines were in the vicinity their seedlings could have become established among the birches. A small group of plants typically associated with Highland pinewoods are, we find, still represented in a choice handful of pine plantations in the Borders; almost all of these sites may be remnants of ancient pinewoods. The three key species are Twinflower (Linnaea borealis), Creeping Ladies' Tresses Orchid (Goodyera reptans) and a beautiful moss Ptilium crista-castrensis. One site in Peeblesshire has

all three, while several sites in Roxburghshire have the orchid and some of these also have the moss. Old records of Twinflower exist for some of the Roxburghshire sites. Berwickshire also has Twinflower and had the orchid until recently, but the latter has not been seen on visits to a selection of suitable sites in the last few years. All three species do best in fairly open pinewoods amongst young trees, or better still amongst old trees after thinning. It seems that extinction can occur during the intermediate thicket stage if an entire wood is felled and replanted.

It is interesting to speculate on the status of these species. Where all three are, or have been, present it is most tempting to postulate that they cannot be introductions and must be relict populations. Nevertheless it would be wrong to jump to the conclusion that all or most of the present populations are relict ones. Johnston's Flora of Berwick-on-Tweed was firmly of the opinion, after discussion, that the appearance of Linnaea in particular was due to introduction with young pines when a number of new discoveries of this species were made in Berwickshire pine plantations. One is inclined to agree, knowing that no seedling of Linnaea has ever been detected in the Borders.

Goodyera could well be an introduction for the opposite reason as it seems to spread rapidly when conditions are right. It is now found in almost all the pinewoods in the Jedburgh area, growing sometimes in great abundance in restricted areas of suitable habitat. It is also found in some improbable sites in small quantity as outliers. It is quite possible that the species could have been extinct in the Borders but have spread after reintroduction. However, it is equally possible that a small relict population could have expanded.

The Goodyera sites make an interesting study. Their habitat is most characteristic, with the ground flora usually dominated by Vaccinium myrtillus together with Deschampsia flexuosa and Calluna. There is a good range of herbs, shrubs and saplings. Pyrola minor is frequent, Birch plentiful, and Rowan, Holly and Oak are well

represented. Corallorhiza trifida grows under Birch in several mosses adjacent to pinewoods. Trientalis occurs in the area in isolated relict populations but is only weakly correlated with the other species, which however have some correlation with Corydalis. The evidence points strongly towards old pinewood vegetation modified by the loss of native pines but now recreating a woodland of some diversity. No meaningful work has been done on other wildlife of these woods, but grasshoppers and butterflies do seem to be plentiful.

It is suggested that the Border pine plantations of today have become rare examples of the re-creation of lost habitats where foresters have chosen sites where native pines once flourished. It is also suggested that Goodyera is a particularly good indicator of this occurrence and should be further investigated as a pointer to suitable management so that conservation can become a realistic objective. Meanwhile the one such site notified as an SSSI in the Borders was denotified in 1983 on the grounds that the community protected represented mere secondary introduction!

THE ROBERT MACKECHNIE HERBARIUM

D.R. McKEAN

The approximately 3,500 specimens are now being mounted at Edinburgh and the Scottish sheets will be stored separately in v.c. order to allow v.c. recorders to look through this excellent collection. There are many new or interesting plant records among them, some of which have escaped publication. The specimens will be kept separate for about a year, after which they will have to be incorporated into the general herbarium collection. Recorders wishing to see the specimens should contact me prior to their visit. I would also be glad to deal with postal enquiries.

BATOLOGY CAN BE FUN!

G.H. BALLANTYNE

"What on earth is batology?", I can hear most readers mutter to themselves, continuing "I thought this was a botanical magazine, not one about small furry night-flying creatures that have earned themselves an unfavourable reputation" ..... "Or perhaps it's something to do

with that favourite Sassenach pastime, cricket, in which case are we getting a discourse on willows?"

Scholars of Greek of course will by now have realised that what you are about to read is concerned with neither bats nor Salix, but with another critical plant group - the brambles. I hasten to add I'm not a classicist, and it was not until three or four years ago that I learned the Greek word for bramble is 'batos' and that those who profess to study the genus Rubus may call themselves batologists.

More seriously, of all the critical groups, that which has caused most confusion in the past has been the brambles. One has only to look at any local Flora published in Scotland before the last war to realise that either they tended to be ignored more or less entirely or they were multiplied excessively. This is not surprising considering the differences in opinion over what constituted a species, and over the lack of realisation of how distributional and environmental factors had to be taken into account when making determinations.

In this short article it is unnecessary to go into biological and historical detail. Suffice to say that in recent years considerable advance in Rubus studies has been made through the work of Eric Edees and Alan Newton, both of whom have visited Scotland several times and have studied many herbarium specimens. Their researches are heartening for any aspiring Scottish batologist. They have concluded that there are not many more than 50 taxa found north of the Border, and while it is true some are still unnamed it is doubtful if these will amount to very many.

"50 to 60", you exclaim - "that's an awful lot!". But pity the average English recorder who has that number alone to contend with (and some very many more) on his own patch. Then take into account the fact that you are unlikely to have to deal with more than a couple of dozen, of which about half will be local or rare, and encountered infrequently. This leaves you with, on average, 12-15 species to get to know well; in some districts it will be a few more, in others it will be less. From

TABLE II. Accepted Records for Vice Counties, December 1983 (except rare species)

	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
CONJUNGENS																	X	X	X
DASYPHYLLUS	X	X	X	X	X	X			X	X	X	X		X	X				X
DREJERI				X		X								X		X		X	
DUMNONIENSIS			X	X													X		
EBORACENSIS					X	X			X			X		X					
ECHINTAOIDES	X	X				X			X	X		X		X	X	X			X
ELEGANTISPINOSUS												X	X	X	X	X		X	
ERRABUNDUS	X	X	X	X	X	X	X		X	X			X	X	X	X	X	X	X
FURVICOLOR														X	X	X	X		
HEBRIDENSIS				X	X														
INFESTUS	X	X	X	X	X	X	X	X	X	X				X	X	X	X	X	
LACINIATUS		X							X			X		X			X		X
LATIFOLIUS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LEPTOTHYRSOS	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X
LINDEBERGII	X	X		X					X	X	X			X	X	X	X	X	
LINDLEIANUS		X	X	X	X	X								X	X	X	X		
MUCRONULATUS	X	X							X		X			X	X	X	X	X	X
NEMORALIS	X	X	X	X	X	X	X		X			X		X	X	X	X	X	X
PICTORUM					X									X	X	X	X	X	
POLYANTHEMUS	X	X	X	X	X				X	X		X		X	X	X	X	X	X
PROCERUS				X	X						X		X	X	X				
PYRAMIDALIS		X							X										
RADULA		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
RADULOIDES		X	X	X	X	X			X							X			
SCOTICUS		X		X	X								X	X	X	X			
SEPTENTRIONALIS				X	X							X		X	X	X	X	X	X
SPRENGELII		X	X	X															
TUBERCULATUS	X								X			X	X	X					X
ULMIFOLIUS		X	X	X										X	X				
VESTITUS	X		X	X										X		X			
WIRRALENSIS		X		X										X		X			
Fissus		X			X					X		X		X	X	X	X	X	X
Nessensis									X			X		X	X	X	X	X	X
Plicatus		X												X		X	X	X	X
Scissus	X	X							X					X	X	X	X	X	X

	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
CONJUNGENS						X							X									
DASYPHYLLUS						X		X	X	X				X						X		
DREJERI																				X		
DUMNONIENSIS							X	X	X	X	X	X	X	X						X		
EBORACENSIS																				X		
ECHINTAOIDES	X							X	X													
ELEGANTISPINOSUS																						
ERRABUNDUS									X											X		
FURVICOLOR				X	X	X		X	X								X					
HEBRIDENSIS											X			X						X		
INFESTUS							X	X	X		X	X										
LACINIATUS					X	X			X				X	X		X						
LATIFOLIUS	X	X	X		X	X		X	X	X	X				X	X	X		X			
LEPTOTHYRSOS				X	X	X			X		X					X		X		X		
LINDEBERGII									X				X			X						
LINDLEIANUS							X	X	X		X	X	X	X	X							
MUCRONULATUS	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X			X	X	
NEMORALIS					X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		
PICTORUM								X	X	X												
POLYANTHEMUS							X	X	X	X	X	X	X	X						X		
PROCERUS									X						X							
PYRAMIDALIS								X	X		X				X							
RADULA					X	X	X		X				X	X	X	X	X		X	X		
RADULOIDES								X	X		X											
SCOTICUS								X	X	X	X	X			X							
SEPTENTRIONALIS					X	X	X	X	X				X	X		X	X	X	X	X		
SPRENGELII														X								
TUBERCULATUS							X		X										X			
ULMIFOLIUS	X									X	X									X		
VESTITUS									X													
WIRRALENSIS								X	X													
Fissus		X			X			X	X		X					X	X			X		
Nessensis						X	X	X	X	X	X					X						
Plicatus					X	X	X	X	X		X		X			X	X		X			
Scissus		X			X	X		X					X			X	X				X	

what we know of present day distribution - and I would stress this is still pretty imperfectly worked out - I have drawn up Table I which shows the likely number of species occurring in any given vice-county. As you can see, there are some areas where you scarcely have to worry about brambles at all!

TABLE I

Conjectural Number of Rubus species occurring in vice-counties

Medium to High (20+)	Fair (10-19)	Low (5-9)	Very Low (below 5)
73	72 97	78	79
75	74 100	82	109
80	76 101	91	111
83	77 102	92	112
85	81 103	93	
86	84 104	94	
87	89 106	105	
88	90 110	107	
98	95	108	
99	96		

Table II (between pp 10 and 11) lists the 30 or so species most likely to be found in Scotland and attempts to indicate their distribution as known at the end of 1983. This should give you some idea of what brambles to expect in your area.

The following points must be taken into consideration when dealing with the distribution of brambles:-

1) Some species, although distributed very widely, are absent from some areas.
2) Others have a much more restricted range and are common only in a few districts; however, disjunct populations occur here and there, often quite far from the next nearest colony, so the species has to be categorised as widespread.
3) The further north one goes, the fewer brambles there are; also, it has recently been established that in the

Buchan district and the eastern seaboard of the country, there is a distinct paucity of species.
4) Brambles will generally only flourish below about 750 feet, thus areas with much high ground will be lacking in them.
5) There is a marked difference between east and west, especially the south-west. Species which occur very commonly on one side of Scotland may scarcely appear on the other.

A big step forward which is making the task of identification much easier nowadays is the existence of a key to the Scottish brambles. This was produced by Richard Pankhurst of the British Museum (Nat. Hist.) some three years ago and, although in need of some refinement, works reasonably well for most species. But one must remember that keys are man-made arbitrary things that cannot cater for the vagaries of nature. Because of the manner by which Rubus fruticosus s.l. reproduces - known as apomixis - progeny will always be like parent. But that progeny may choose to grow in a habitat quite different from that of its parent, and unfortunately this can alter the characteristics of a species drastically. The worst factor is shade, followed by lopping or spraying. It is amazing how different two bushes of the same species can be, even in the same vicinity, if one is affected. Another point which must be recognised is that from time to time one will find a clump or bush which defies identification. Accept this as a batological fact of life and forget about it! (Having said that, always press a specimen, for in time it may transpire that your taxon proves to occur elsewhere and be worthy of description.)

Do not attempt too much at once. Try to get to know those species which are your district's most representative and concentrate on them. Once you have achieved that move on to the others. Remember too that it is only by building up a good herbarium (with confirmations by a specialist) that you will be able to ensure your identifications. This is essential.

In this brief outline I have tried to emphasise that it is now possible to cope with the brambles (or blackberries if you prefer). I have simplified things of

course and I would like to stress that they are difficult; my own experience is still very limited and at times I despair of making headway. However, I believe they no longer present the problem they used to, and in common with the hawkweeds and dandelions, most ordinary amateur botanists can now expect to have some success.

The best way to learn is to go out into the field with an expert. This is worth far, far more than any amount of poring over descriptions or pressed specimens. Your opportunity occurs this summer - Alan Newton is conducting a 'bramble workshop' at Kindrogan from August 15-20. Why not book now?

(P.S. Go to the bottom of the class if you said after the first paragraph that the writer must be batty!)

SCOTTISH MISTLETOE

J.H. DICKSON

In collaboration with Mr R.C. Mackenzie, honours student, I am conducting an autoecological study of Mistletoe (Viscum album) in Scotland. We have some useful data from the Biological Records Centre but we feel sure there must be many more occurrences, all of which derive from deliberately set seeds mostly in gardens and parks. We would be most grateful for any information, which should be sent to:- Mr R.C. Mackenzie, 183 Maxwell Avenue, Bearsden, GLASGOW. Telephone 041-942-9144.

CROCOSMIA POTTSII IN KIRKCUDBRIGHTSHIRE

OLGA M. STEWART

Crocosmia pottsii is one of the parents of Crocosmia x crocosmiflora, the other being C. aurea; both parents are natives of South Africa. C. pottsii was first introduced to the British Isles - to Scotland - by Mr Potts of Lasswade, near Edinburgh, in 1877. George Honnington Potts (1830-1907) was a painter and decorator by trade, but also a well known gardener with a particular interest in saxifrages, sedums and sempervivums.

As it was introduced to Scotland, I wondered in how many places C. pottsii had become naturalised. So far I have found three sites in v.c. 73; by the River Cree; a roadside bank near the Bridge of Dee; and a stand

extending to 100 yards by the River Dee, on a bank between the river and an 8 ft. ditch.

The "Montbretia" that is commonly grown in gardens and from which a wide variety of cultivars have been produced, is the hybrid Crocosmia x crocosmiflora. It was first hybridised by Mr Lemoine of Nancy in 1880. It is well naturalised in the British Isles, particularly in the west. In Kirkcudbrightshire we have it on the cliffs at Sandyhills, also by the River Cree and in several other places.

In trying to find out more about C. pottsii I have been in correspondence with Mr Hean of Threave Gardens, Kirkcudbrightshire. He himself had never seen it, nor did they have it growing in the gardens there. The herbarium in Edinburgh had no material but I finally saw two plants growing in the experimental garden of the Edinburgh Botanic Garden, and they were the same as those found in v.c. 73. C. pottsii may be distinguished from the hybrid as follows:-

C. x crocosmiflora	C. pottsii
About 45 cm tall. Flowers orange. Perianth segments spreading, 1.5-2 cms. Longer than or equalling the tube.	50-70 cmms tall. Flowers brick-red. Perianth segments 0.5-0.75 cms, much shorter than the tube, 1.5-2 cms.

EXCEPTIONAL FLOWERING OF FEMALE BUTTERBUR PLANTS IN STIRLINGSHIRE

JOHN MITCHELL

In a recent issue of The Glasgow Naturalist (20, 263) I reported on the finding in 1982 of about twenty-five female spikes of Butterbur (Petasites hybridus) growing on either side of the re-aligned section of the A811 Arnprior-Stirling road at NS 644954. The prolonged wet spring experienced in 1983 was evidently much better suited to the Butterbur, for in April-May several hundred female spikes appeared, the tallest of them at least three feet in height.

SAFETY ON MOUNTAINS

The following has been prepared by Dr R.A.H. Smith and is being submitted for approval to the BSBI and BSE Councils. Meanwhile, the BSBI Committee for Scotland has decided that it should be published here as a recommendation for this year:-

'Suggested wording for Field Meeting Programme - Mountain Excursions. It is essential that members attending these excursions protect their own safety and that of others. Every person must have adequate clothing and footwear and should carry a map and compass and know how to use them. The leader has a right to refuse participation to those who are not properly equipped. The party must stay with their leader and must not climb cliffs or screes to the danger of other members from falling stones. All members must sign the list provided to register their safe return.'

BOTANICAL SOCIETY OF EDINBURGH AND BSBI COMMITTEE FOR SCOTLAND EXHIBITION MEETING 1983

The 1983 Scottish Exhibition Meeting was held on Saturday 5th November 1983 at the Royal Botanic Garden, Edinburgh (by courtesy of the Regius Keeper).

Before the exhibition opened at 12 noon, 21 Scottish v.c. recorders joined Derek Wells (NCC) and Chris Preston (BRC Monks Wood) to discuss various topics relating to recording. These included progress with FOGBI, plans to update the 'Atlas', and the delayed appearance of the new Scottish field recording cards. It was stated that a handbook on Potamogeton is to be produced, and recorders will be asked to check records, past and present, made in their v.cs.

Twenty-nine exhibits were shown this year, mostly of Scottish interest, though some members had been as far afield as S.W. Ireland and Montenegro, Jugoslavia. For visitors from a distance, the opportunity of meeting and conversing with other botanists is just as important as looking at the exhibits.

A 'BSBI Scotland' meeting at 14.30 hrs, attended by

42 members and 3 visitors, elected 3 new members to the Scottish committee (M.E. Braithwaite, Dr J.H. Dickson and A. Payne), and at the short meeting of the new committee which followed, Dr R.E. Thomas succeeded the retiring Chairman, A.McG. Stirling.

Dr Chris Page of the RBG Edinburgh gave the afternoon talk on 'Scottish Ferns' to an audience of 80 who obviously enjoyed his enthusiasm for a more 'difficult' section of plant life.

After the buffet supper and more conversation in the RBG cafeteria, the following colour slides were shown, mostly illustrating field meetings held in Scotland in 1983. These were enjoyed by about 50 persons:-

BSBI Meeting, Ballinluig - M. Little, M. Scott and R.A.H. Smith

BSBI Meeting, Cam Chraig - H.A. Lang, M. Scott, R.A.H. Smith and A.A.P. Slack

BSBI Meeting, Berwickshire - M.E. Braithwaite

BSBI Meeting, Tomintoul - M.McC. Webster

BSBI Meeting, Golspie - J.K. Butler

Various BSBI Meetings - J. Muscott

W. Ross, in search of Artemisia norvegica - A.McG. Stirling

SCOTTISH RECORDERS' WEEKEND 1983

PETER MACPHERSON

The first ever Scottish Recorders' Weekend was held at Kindrogan Field Studies Centre, Perthshire, on 4-5th June 1983. There was an attendance of 20 recorders and 6 other members.

On the first morning, following a welcome and introduction from the Chairman, Mr A.McG. Stirling, the following talks were given:-

"The Wildlife Act" - Dr R.A.H. Smith; "A Thorny Problem - Brambles in Scotland" - G.H. Ballantyne; "Progress towards a modern Census Catalogue of the Scottish Flora" - Dr A.J. Silverside.

In the afternoon the party were divided into small groups and despatched by Rosalind Smith to specified locations to record in connection with the Flora of Perthshire. A vast number of records was added, some in previously unrecorded squares. Taking into account where some of us were sent, this turned out to be a very valuable exercise - in more ways than one!

On the second morning the papers presented were:-

"Experience in Recording the Flora of Peeblesshire" - D.J. McCosh; "Flora of the Outer Hebrides Project" - R.J. Pankhurst; "Flora of the Tay Shingles" - N. Stewart.

In the afternoon the party was joined by members of the Perthshire Society of Natural Science for an excursion to river shingle in the Tummel near Ballinluig. About 300 plants were recorded in an area which previously had about 100 records. Participants were impressed with the quantity of Primula veris, and several plants of P. vulgaris x veris were much admired and photographed. Exhibits during the meeting were:- "Scottish Brambles" - G.H. Ballantyne, and "Oxlips from Lanarkshire" - Dr P. Macpherson.

Dr Silverside's talk was an augmented version of the article published in Scottish Newsletter No. 5, and a paper based on Mr Ballantyne's talk appears in the present issue.

I am indebted to the other contributors for the following abstracts:-

"Flora of Peeblesshire" (D.J. McCosh). Mr McCosh had inherited no list from his predecessor and had found little sign of botanical activity, past or present, in the county. His proposed check-list was based on a 5x5km recording grid, and field work was largely done by Charles Morrison and himself. There was a 50 year old but rather uneven list in Buchan's History of Peeblesshire, but this and other records in literature were used only as a guide to field work and as an indicator of declining or extinct species. Because much of the field work had to be done during holidays complete coverage has not been possible, but publication now

seemed preferable to a delay of several years in seeking greater perfection. If he were starting again he would approach the enterprise more methodically, paying attention to the advice given in the Report of the BSBI Conference on Local Floras (No. 7, 1965) and particularly bearing in mind the economics of producing a flora for a small and underpopulated county.

"Wildlife and Countryside Act" (Rosalind A.H. Smith) The controversial Wildlife and Countryside Act (1981) which has updated British conservation legislation has two main sections - Part I (Species Protection) and Part II (Habitat Protection). Part I includes three main provisions of relevance to botanists, (a) It is an offence to uproot any wild plant without the landowner's permission, (b) It is an offence to pick, collect seed etc. from any protected plant (15 in Scotland) without a licence from NCC, or to offer such plants for sale, (c) It is an offence to introduce certain species into the wild including Heracleum mantegazzianum and Polygonum cuspidatum. Part II alters the legislation relating to Sites of Special Scientific Interest (SSSI). Such sites are notified to all owners and occupiers and consultation with NCC is required not only on planning applications but also on land uses. If the land use changes (e.g. felling, drainage) proposed are going to damage the scientific interest of the site then NCC are obliged to offer the owner or occupier financial compensation for not carrying out the damaging occupation.

"Flora of the Outer Hebrides" (R.J. Pankhurst). The British Museum (Nat. Hist.) has decided to produce a Flora of v.c. 110 since (a) it has over 10,000 specimens, mostly collected by A.J. Wilmott and his co-workers in the 1930's and '40's, and (b) there has never been a complete Flora, and (c) it has its own publication sources. The Flora will be a compilation of existing records from all sources for vascular plants only. Some additional field work is being carried out to explore under-recorded areas and to collect critical taxa such as Taraxacum and Rubus. The geography of the islands is such that grid squares are quite impractical as recording units, and a system of numbered zones will be used, as in the Flora of Mull. It is not planned to include distribution maps. Taxonomic notes will only be included if the information is not published elsewhere. There will be notes on the habitat for the species. A gazetteer is being compiled on file cards using the 1-inch O.S.maps. Records, whether old or new, will be welcomed either at the BM (NH) or by the new Recorder, Andrew Currie.

Some slides of interesting plants from the Outer Hebrides were shown in order to tempt potential botanical visitors to the islands, hopefully to assist in the collection of records for the project.

SCOTTISH RECORDERS' WEEKEND - 1984

A Recorders' Weekend, including field meetings, will be held at the Firbush Centre, Loch Tay, on 16th/17th June 1984. The cost will be approximately £12 per day per person, with a reduction for those arriving on Saturday morning. While preference will be given to Scottish recorders, some places may be available for other members. For further details and bookings apply with s.a.e. before 16th May to:- Dr Peter Macpherson, 15 Lubnaig Road, Newlands, Glasgow G43 2RY.