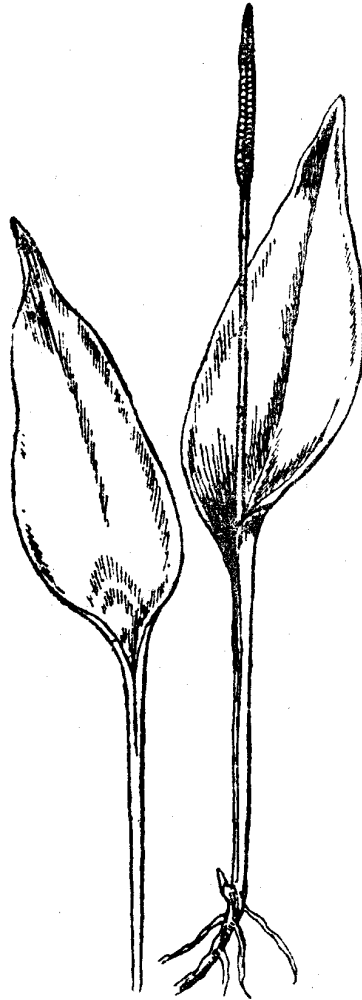


Parnassia

The Newsletter of the Liverpool Botanical Society



Adder's-tongue Fern, *Ophioglossum vulgatum*, Stanley Bank Meadow Field Meeting, 21st June 1998

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January 1998

Editorial

***Parnassia* No. 8**

Welcome to another belated issue of the newsletter. Having come over all Dick Whittington recently this shall also be my last issue before heading south to *London Town* and pastures new.

As you are already probably highly aware, the problems of newsletter punctuality persist and, under the current *time-table*, are likely to continue with my departure only serving to exasperate the situation. Consequently, I proposed, at the last Council Meeting (March) that *Parnassia* be reduced to a twice-yearly publication. This would not mean that members get less (strange but true), as all the information currently spread across three issues would be packed into two. It will, however, increase members chances of getting the newsletter in the same year in which it was written. Furthermore, it will allow for a more logical publication of information with all the evening meetings going into one issue and a round-up of field meetings going into another. Additional articles, notes and news items will continue to be published as and when they are sent in from members. One final benefit of this proposal is that it will untie the Meetings Programme/Membership leaflet from newsletter circulation and thus allow for a far earlier mail-out. These proposals were duly accepted by council members present - I hope that the wider membership will be equally agreeable. Donna has bravely agreed to continue the newsletter (it's more work than you think). I hope you will support her in anyway you can.

Finally, I would like to take this opportunity to thank all those members I have met out on field meetings (especially those who told me which plant was which) and have made my association with the Society so pleasurable. It is with genuine sadness that I typed up this years programme and thought of all the places I won't be going to. Anyway, enough of this guff - I shall continue to be a member and will be ready to rattle my cage when my newsletter is late.

Over to you Donna

Mike Palmer

Vice-County News

RECORDER centre 366, South Lancashire, is about to be roused from its summer slumber as record cards for the 1997 season begin to arrive from all around the vice-county. The season of numb finger-ends and square eyes is almost upon us again! Field recording this season seems to have gone quite well, from all accounts, though the final picture will only be clear once all records are entered. Coverage is increasing, both in numbers of tetrads visited and depth of survey in each tetrad, year by year and things already seem to be on target to meet the commitments for Atlas 2000 hectad data. The BSBI Atlas organiser, Trevor Dines made contact on 21st October and requested data for at least one hectad as soon as possible, to check that information from the vice-county 59 RECORDER system will be fully compatible with the format used by BRC (Biological Records Centre).

Altogether the target for vice-county 59 is submission of data for 20 hectads by the end of the year. With a combination of data from RECORDER centre 366 and other electronic databases held within South Lancashire we should be able to achieve that target. Initially all disks containing vice-county 59 records will go to Dr Dines who will then pass them on to BRC, once there they will be compared with the existing database held in Monks Wood and a "discrepancy list" will be forwarded. This list will show taxa that have been recorded from each hectad but which do not appear on the disks, or are recorded in a more recent date class. This will be most helpful in targeting subsequent fieldwork, allowing checking of records and confirmation in the field as necessary.

Building up tetrad coverage, both in extent and depth, is invaluable for the new vice-county flora project as well as providing a firm base for the Atlas 2000 hectad records. All records are most welcome, especially for the hybrids and sub-species which are required for the Atlas. In order to better prepare ourselves for the last two seasons of the Atlas fieldwork a list of taxa for which more distribution information is required will be collated for publication in *Parnassia* in 1998.

Peter Gateley

1998 Programme

Evening Meetings

10th Feb. *Wild Plants of Sherkin and*

*adjacent islands off Cape
Clear, Southwest Ireland.*

Leander Wolstenholme.

10th Mar. *Rev. Henry Higgins, a local
Victorian Naturalist.*

Wendy Simkiss

13th Oct. *Fungi Video Evening*

10th Nov. *Holiday Exhibits.*

All members are urged to
bring along slides and
specimens. Botanical accounts
from near and far welcome.

8th Dec. *Recording in South
Lancashire for Atlas 2000.*

Peter Gateley.

12th Jan. *Annual General Meeting*

1999

Followed by a resume of the
1998 field meetings. Members
are encouraged to contribute
slides and specimens.

*All indoor meetings are held at the Liverpool Museum at 7.30pm. Please use the lower basement
entrance on William Brown Street.*

Field Meetings

18th April. Caergwrle

Leader - Vera Gordon

9.12 West Kirby train from Liverpool Central to Bidston for the 9.32 Wrexham train, alight at
Caergwrle at 10.15am. Return trains hourly.

23rd May. Hapton (for Recording)

Leader - Peter Gateley

9.37 Blackpool train from Liverpool Lime Street to Preston for 10.46 train to Hapton arriving
11.30am.

13th June. Ainsdale.

Leader - Duncan Rothwell.

9.52 Southport train from Liverpool Central to Ainsdale arriving 10.25am.

11th July. Orrell & Billinge

Leader - Peter Gateley.

9.20 train from Liverpool Central to Kirkby for 9.44 Wigan train to Orrell arriving 9.58.

25th July. West Kirby & Dee Shore.

Leader - Joan Duerden.

9.42 train from Liverpool Central to West Kirby.

8th August. Everton.

Leader - Vera Gordon.

9.52 N^o 90 bus to Waterloo, alight at Great Homer Street at the nearest stop to the library (i.e. near the Sports Centre after the end of the dual carriageway).

29th August. Along the River Alt from Huyton.

Leader - Vera Gordon.

9.42 St Helens train from Lime Street to Huyton arriving 9.56am

19th September. Chester Canal.

Leader - Dr Keith Watson.

9.37 train from Liverpool Central to Chester arriving 10.15am. Return trains every half-hour.

17th October. Rainford.

Leader — Peter Gateley

9.20 train from Liverpool Central to Kirkby for 9.44 Wigan train to Orrell alighting at Rainford.

Members are advised to check current time-tables as only winter times were available at the time of publishing.

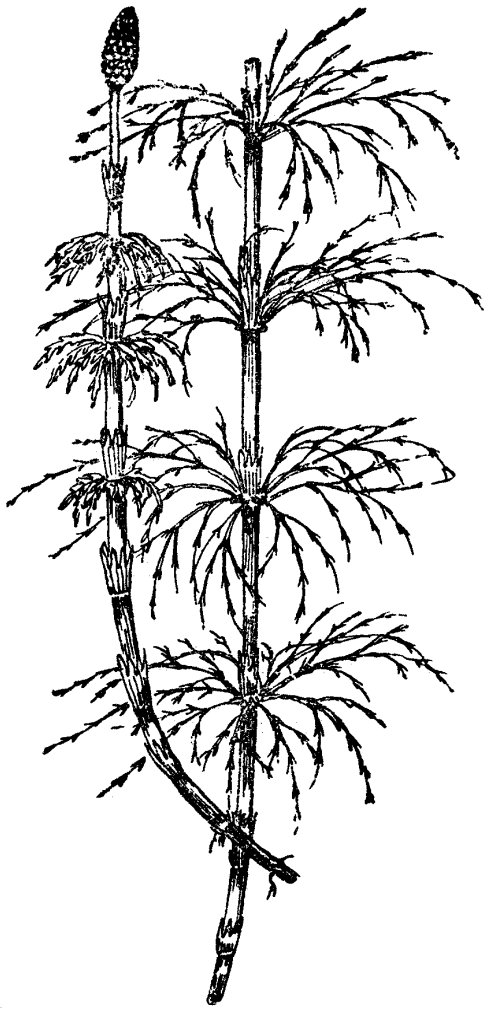
(Mersey Travel Line: 0151 236 7676)

1997 Field Meeting Reports

Lomax 17th May

(Leader - Edna Stephenson)

A party of 14 met at Atherton railway station and set off by field paths, not touching a road again until returning to the station. This district has been threatened by open cast mining for many years so we recorded plants seen in two tetrads. A plant more common in the northwest of Britain, Common Bistort, *Persicaria bistorta*, was in flower in many places. Another species more common in the north, Wood Horsetail, *Equisetum sylvaticum*, attracted admiration. Grovelling beneath a field hedge some distance from any house was an alien, Pink Purslane, *Claytonia sibirica*, with many deep pink flowers making a good show even from a distance.



Wood Horsetail, *Equisetum sylvaticum*

A fine oak growing by a brook was an example of *Quercus* x *rosacea*, the hybrid between the Pedunculate Oak, *Q. robur* and the Sessile Oak, *Q. petraea*, having both stalked leaves and acorns. Our native Bluebell, *Hyacinthoides non-scripta*, was in flower in many places while, not too far from some houses, a fine plant with broad leaves and flowers all round the main stem was identified as the Spanish Bluebell, *H. hispanica*. The tepals were straight, not recurved at the tip as with the former species or in the hybrids of the two species which is more common and was seen in a few places.

A long coal bing had to be crossed and despite much laughter some of us were glad of a helping hand. Safely on flat ground we found quite a different habitat. Tufts of Purple Moor-grass, *Molinia* sp., growing on peat and on drier banks, rowan trees in flower. In a damp meadow a marsh orchid was coming into flower and there were also spotted leaves of the Common Spotted-orchid, *Dactylorhiza fuchsii*. Part of the brick work of a footbridge over the railway was festooned with ferns, mainly Male, *Dryopteris filix-mas*, and Broad Bucklers, *D. dilatata*, but also two fine tufts of Black Spleenwort, *Asplenium adiantum-nigrum*.

Vera Gordon

Stanley Bank Meadow — 21st June

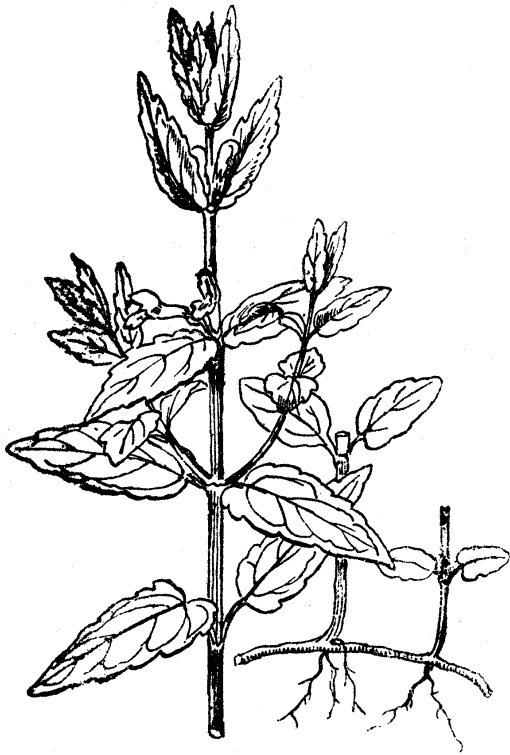
(Leader — Dr Angus Gunn)

Days of rain before the meeting, including a fine drizzle just before the start of the meeting brought muddy paths and very, very wet vegetation to greet the party of nine members who ventured into deepest St. Helens. Using some of the recently laid footpaths we managed to avoid the worst of the muddy track but we could not avoid the vegetation.

Many of the wildflowers had also decided to shut up shop for the day because of the weather but many of the grasses, sedges and rushes were at their best. The Reed Canary-grass, *Phalaris arundinacea*, was in full flower, flushed in shades of red and pink, and the tussocks of tufted hair-grass, *Deschampsia cespitosa*, brought to mind Hugh McAllister's talk on the subject a few years ago. The first rushes to attract our attention were Hard Rush, *Juncus inflexus*, Soft-rush, *J. effusus*, and what looked like their hybrid, *J. x diffusus*, along with abundant Compact Rush, *J. conglomeratus*. Later, we added Toad Rush, *J. bufonius*, and Jointed Rush, *J. articulatus*, as well as both subspecies of Heath wood-rush, *Luzula multiflora* ssp. *multiflora* & *L. m.* ssp. *congesta*, to our list of Juncaceae for the meadow.

Perhaps the most striking feature of the meadow at this time of year are the hundreds of spikes of marsh orchids. As is often the case, it was hard to name many of the plants with absolute certainty, although most of the plants were forms of Common Spotted-orchid, *Dactylorhiza fuchsii*, while some others had the look of Southern Marsh-orchid, *D. praetermissa*, and several more were probably of mixed parentage. For me, a more exciting find was Skullcap, *Scutellaria galericulata*, which I believe is a probably new record for the site.

Skullcap, *Scutellaria galericulata*



The weather meant that it was definitely not a day for a hands-and-knees search for the smaller herbs amongst so I was particularly grateful that one of our party, Colin, knew exactly where the small plants of Adder's-tongue Fern, *Ophioglossum vulgatum*, grew. Hairy Sedge, *Carex hirta*, was also common on this part of the meadow while the massed heads of the Zig-zag Clover, *Trifolium medium*, were as attractive as any orchid. Greater Bird's-foot-trefoil, *Lotus pedunculatus*, was also abundant and the distinctive way that water sits on the leaves and flower buds of these plants was easily observed on this damp morning. Some of the taller, perennial herbs emerging above the grasses were Purple Loosestrife, *Lythrum salicaria*, - sadly not in flower, Marsh Thistle, *Cirsium palustre*, and, on the woodland fringes, Common Figwort, *Scrophularia nodosa*.

As we were leaving the meadow the attention of some of the party was diverted by an attractive moth, the Clouded Border but we were soon the attention of some less appealing insects - biting mosquitoes - I got several lumps

on the backs of my hands to prove it.

The party returned to our start point via Glasshouse Close Wood which occupies the small valley cut by the Black Brook. Half way down the valley slope there is a channel dug in the 18th century to supply water to a foundry (now long gone). In this channel, now no more than a broad, shallow ditch shaded by Alder, *Alnus glutinosa*, and other trees, grow many wet-loving plants including Water Mint, *Mentha aquatica*, Hemlock Water-dropwort, *Oenanthe crocata*, and Yellow Flag, *Iris pseudacorus*. Gypsy-wort, *Lycopus europaeus*, Larger Bitter-cress, *Cardamine amara*, and Marsh Marigold, *Caltha palustris*, were also present but unfortunately not in flower. Perhaps most abundant and beautiful of all were the tussocks of Remote Sedge, *Carex remota*, running like the beads of a great necklace along the length of the ditch.

After lunch, the party decided to walk along the Sankey Valley Park running alongside the historic canal. Along the water's edge were Reedmace, *Typha latifolia*, and Sweet flag, *Acorus calamus*. This latter plant is a long established alien from Asia and is a member of the Arum Lily family. One plant was seen in flower but apparently this species never sets fruit in England.

Extensive planting has been carried out by the paths along the valley the most interesting of which was an unusual willow. Other finds near the canal were Bee Orchid, *Ophrys apifera*, the two species of Melilot, *Melilotus alba* and *M. officinalis*, growing together. We finally called it a day when we reached the Havannah Flashes. As we turned for home we added False Fox-sedge, *Carex otrubae*, to our list of finds.

Finally, while writing this, I have realised that we did not search for what is perhaps Stanley Banks' greatest treasure - Spiked Sedge, *Carex spicata* - oh well, I suppose there's always next time.

PS. The mystery willow

To some of us, including me, most willows are a bit of a mystery but the plant found on our excursion along the Sankey Valley has proved more intractable than most. It should be reasonably easy to identify as it is most distinctive. It is a large shrub, over 3m high, the bark on the twigs is a handsome olive-green, the stipules are very large and persistent and the leaves obovate, bright glossy green above and almost white below. Vera, who first spotted this plant a few years back and who pointed it out to us has stumped quite a few experts with it but has finally had it named as *Salix bicolor*. This would seem fine but textbooks now treat this name as a synonym of *S. schraderiana*, a European species very like *S. phyllicifolia*. Which is quite different from our species.

Running it through the key in *The European Garden Flora* suggested *S. discolor*, a species from eastern North America but this is difficult to confirm. Any other opinions?

Rainford (tetrad recording) 12th July

(Leaders- Vera Gordon and Pat Lockwood)

From Rainford Junction Station about a dozen of us set out to record plants over two tetrads, SD40R and SD40Q. From the station we were led northwards through typical suburban streets to the edge of the drained mossland, now intensively farmed. Quite a wide range of ruderal and agricultural weed species were noted in the early stages with the vegetation becoming denser and more permanent along a lovely stretch of disused railway line. This line had interesting acidic grass/herb swards and developing Silver Birch canopy, reflecting the nature of unfarmed fragments of the adjacent drained mossland. Leaving the former railway we headed west to Holly Lane with a short diversion to the north to look at a stand of mixed plantation, where a small population of Narrow Buckler-fern, *Dryopteris carthusiana*, was found on the banks of a peaty ditch. We lunched in a field corner long used by a farmer for dumping rubbish, so had an extra rich diet of ruderals and exotics to add to our list. From here our route passed through farmland and hedgerows, eventually reaching the Rainford By-pass. The grassy edges of this large road held some pleasant surprises; there was a fine stand of hybrid Woundwort, *Stachys x ambigua*, well established at one point, some Ragweed, *Ambrosia artemisiifolia*, in a disturbed section of verge and scattered Silver Hair-grass, *Aira caryophyllea*, in the central reservation. Crossing, at some risk, this fast road we entered the pleasant wooded country park area of Sidings Lane, taking in some richly vegetated abandoned industrial land on its fringes. This area of woodland is established on a former colliery, which straddles the boundary between squares 40R and 40Q. North of the map gridline a total of 240 plant taxa was noted from the mixed range of habitats in tetrad 40R.

Passing southwards into square 40Q we first encountered the old colliery pond, formerly providing water supply for the steam-driven winding engines, now supporting a rich aquatic and marginal flora including introductions such as Greater Spearwort, *Ranunculus lingua*. South of the railway we were back into intensively farmed drained mossland. As with the similar area at the start of the walk almost nothing is left of the former peat bog vegetation. However some species did seem to typify the peaty banks of drainage ditches and track edges, notably Bifid Hemp-nettle, *Galeopsis bifida*, and Heath Groundsel, *Senecio sylvatica*. Field Pansy, *Viola arvensis*, was also abundant in field edges. Heading in a southeasterly direction we inevitably reached the Rainford By-pass again, though with nothing of great interest visible in the densely vegetated mesotrophic grassy verges here. Continuing through farmland for a short while the suburban housing estates were soon reached, we passed through these and rejoined a section of the disused railway line and headed back north. This section of the former line, opened for public use, has been much planted and is managed by the local authority so is very different in character to the, private, northern section. Leaving the houses of Rainford the path is on a high embankment with good views over the surrounding flat landscape, crossing back into tetrad 40R at this high level the route bifurcates creating a triangle of unfarmed land with diverse vegetation, proceeding back to the station a flowering spike of Bee Orchid, *Ophrys apifera*, was noted. A total of 153 taxa of vascular plants was noted in the less diverse southern tetrad of SD40Q.

Altogether the day's work made a valuable contribution to tetrad recording, adding to data useful for both Atlas 2000 and the proposed new VC flora. Furthermore, it only rained on us at lunchtime!

Peter Gateley

Neston 2nd August

(Leader - Joan S. Duerden)

From Neston station ten members walked via the Wirral Way and paths towards Parkgate with a brief diversion to the shore. Common Fleabane, *Pulicaria dysenterica*, was just coming into flower. We continued to Parkgate to walk along the parade, some members exploring the shore where there is a thick growth of marsh plants including Grass-leaved Orache, *Atriplex littoralis*, Annual Sea-blite, *Suaeda maritima*, and a species of Galingale, possibly a garden escape.

Lunch was enjoyed at the RSPB picnic area. Nearby was a solitary plant of Spiny Restharrow, *Ononis spinosa*. Continuing by the shore we found Scarlet Pimpernel, *Anagallis arvensis*, among thick vegetation. Crossing the golf course a brief stop was made by a pond to admire White Water-lilies, *Nymphaea alba*, before rejoining the Wirral Way. A bush with blackberry-like leaves and large pink flowers was growing here and later identified as *Rubus odoratus*. Pepper-saxifrage, *Silaum silaus*, and Rough Hawk's-beard, *Crepis biennis*, were among the heavy growth

of plants by the footpath. Hart's-tongue fern, *Phyllitis scolopendrium*, was growing among the brickwork of a bridge.

Hart's-tongue Fern, *Phyllitis scolopendrium*

The return to Neston was made along the Wirral Way after a fine, warm day with sunny periods.

Vera Gordon

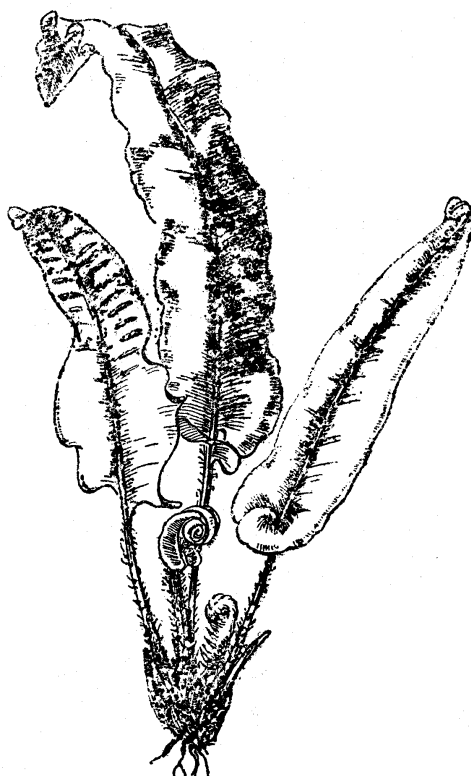
Dibbinsdale & Bromborough 23rd August

(Leader - Dr K. Watson)

On a dull and cloudy day, with occasional light rain, a party of 13 met at Spital Station. Unusual plants, arising from a wild flower seed mixture, including Weasel's-snout, *Misopates orontium*, Rough Poppy, *Papaver hybridum*, and a chamomile, *Anthemis austriaca*, were found at the station car park.

We followed the path to Spital Field where interesting finds included Foxtail Barley, *Hordeum jubatum*, and Red Bartsia, *Odontites vernus*, on the path to Boder's Hey Meadow. Common Comfrey, *Symphytum officinale*, was found near Dibbin's Brook and Hard Fern, *Blechnum spicant*, Hybrid Woundwort, *Stachys x ambigua*, and the grasses, False Brome, *Brachypodium sylvaticum*, Hairy-brome, *Bromopsis ramosa*, and Pedulous Sedge, *Carex pendula*, were found on the path through the woods to the tunnel.

A damp lunch was taken at Babb's Meadow where, nearby, Devil's-bit Scabious, *Succisa pratensis*, and Betony, *Stachys officinalis*, were growing. Lunch was followed by a visit to Woodslee Pond where Water Soldier, *Stratiotes aloides*, was abundant with Rigid Hornwort, *Ceratophyllum demersum*, and Greater Duckweed, *Spirodela polyrhiza*. Hairy Wood-rush, *Luzula pilosa*, and Great Wood-rush, *L. sylvatica*, were seen on the paths to St Patrick's Well.



Wormwood, *Artemisia absinthium*



The party then walked along Spital Road, past Wall Lettuce, *Mycelis muralis*, on a wall at Spital Dam, to the path along the old railway between the Port Sunlight works and Bromborough Pool. Royal Fern, *Osmunda regalis*, and other ferns were very fine on the damp sandstone cliff-like faces of the cutting. Other notable plants included Marsh-mallow, *Malva moschata*, Pale Toadflax, *Linaria*

repens, Fennel, *Foeniculum vulgare*, and Wormwood, *Artemisia absinthium*. Finally, the party explored the industrial waste-ground around Stadium Road where Canadian Fleabane, *Conyza canadensis*, Lupin, *Lupinus x regalis*, and Red-osier Dogwood, *Cornus suecica* were found before returning to Spital Station.

Keith Watson

Bold Moss 13th September

(Leader-Peter Gateley)

It was a beautiful Autumn day with magnificent skies when 13 members (plus one dog!) set off from St Helens Junction towards Bold Moss. Firstly we paid respects to an old friend, a stand of California Brome, *Ceratochloa carinata*, which looked to be flourishing in its patch by the railway bridge. Heading eastward, parallel to the railway, we noted that this species was also frequent in the footpath edges and was established in several gardens, it will be interesting to monitor its spread from here. We approached Bold Moss through a series of scrap yards and small businesses established on a former Pilkington's tip which once stretched from the road eastwards into the mossland, when tipping was completed this area developed Heather, *Calluna vulgaris*, dominated vegetation which survived right up to the 1940s (can be seen on earliest aerial photographs), searching on site revealed a few surviving clumps of this species in this now very disturbed area. From this older tip we reached a large mound of colliery waste tipped during the 1960s and 70s onto the former mossland of Bold Moss. Much of this surface is still pale grey bare shale but sparse acidic swards have developed in some places with populations of Eyebright, *Euphrasia* sp. and Common Centaury, *Centaureum erythraea*. The southern face of the tip was "restored" in the late 70s, fertiliser was incorporated, a grass mix sown and a range of tree species with nitrogen-fixing properties planted. Comparisons between the three most commonly encountered species of Alder were made, Common Alder, *Alnus glutinosa*, Grey Alder, *A. incana*, and Italian Alder, *A. cordata*, were all inspected. Freely suckering specimens of False-acacia, *Robinia pseudacacia*, were also noted.

Along the base of the tip is a narrow strip of untipped land, below overhead electricity lines, because of the wires this area escaped being buried under colliery shale and forms a band of relict mossland vegetation (Bold Moss). Though dominated by Purple Moor-grass, *Molinia caerulea*, there is much Common Cotton-grass, *Eriophorum angustifolium*, and cushions of a variety of *Sphagnum* moss species as well as scattered Heather. Bits of old mossland survive intermittently around the edges of the huge colliery waste tip, in various stages of colonisation by dense willow scrub, invaded by tall swamp species or in an advanced state of dryness. The largest tract of relict mossland (Burtonwood Moss) in the south-eastern corner of the site was visited. This has similar relict vegetation to Bold Moss but by dint of its larger extent has much more of a mossland atmosphere and some extra species such as Heath Rush, *Juncus squarrosus*, and Marsh Pennywort, *Hydrocotyle vulgaris*. Right on the opposite side of the tip from here the remaining fragments of Sutton Moss have been greatly affected by run-off from the waste tip. Parts have survived as relict acidic peat-based vegetation, with the only known local specimens of Cross-leaved Heath, *Erica tetralix*, and Hare's-tail Cotton-grass, *Eriophorum vaginatum*. However where run-off has covered the peat with a mix of fine colliery shale and PFA (pulverised fuel ash) the soil conditions have changed markedly and this area supports an increasing colony of Marsh Helleborine, *Epipactis palustris*, amongst a rich almost dune slack-like species mix. The former peat diggings have flooded with nutrient-rich water and form an extensive mosaic of tall swamp communities on this western part of the site.

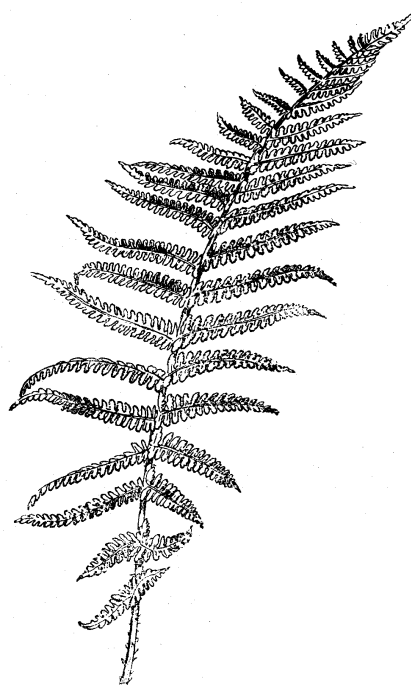
Various plant communities were observed on the tip itself, notably some fine Silver Birch, *Betula pendula*, dominated woodland and young natural heathland regeneration with a carpet of the exotic moss species *Campylopus introflexus*. However it was agreed that the tantalising remains of the once much more extensive lowland raised bog habitat were the day's most interesting feature.

Peter Gateley

Wepre Woods 4th October (Leader - Vera Gordon)

A party of 14 met at Shotton railway station and proceeded on a footpath to the narrow salt marsh of the River Dee. The plant we had come to see was the tiny umbel, Slender Hare's-ear, *Bupleurum tenuissimum*, found there in 1992 by one of our members where it had not been recorded for 80 years. This is as far north on the west coast where the species has been found. It did not take long to find some though, like the other salt marsh plants there, such as Sea Thrift and Scurvygrass, it was almost disguised by a thin film of grey mud due to the recent high tide. Along the crest of the flood bank there was a dense colony of small shrub Spiny Restharrow, *Ononis spinosa*, but the flowers were over.

We then turned inland following the Wepre Brook to Wepre Woods where we had lunch in a green clearing among the trees. Walking alongside the brook on a boardwalk over soggy ground we admired huge clumps of Pendulous Sedge, *Carex pendula*, and found Water Chickweed, *Myosoton aquaticum*, still in flower.



Lady Fern, *Athyrium filix-femina*

In the woods the commonest fern was the Soft Shield-fern, *Poystichum setiferum*, although Male Fern, *Dryopteris filix-mas*, Broad Buckler, *D. dilatata*, and Lady Fern, *Athyrium filix-femina*, were also present.

In most places in the wood the ground was hard and dry but among fungi seen were Stinkhorns, *Phallus impudicus*, Honey Fungus, *Armillaria mellea*, Sulphur Tuft, *Hypholoma faciculare*, *Coprinus plicatilis*, Glistening Ink Cap, *C. micaceus*, Shaggy Ink Cap, *C. comatus*, the colourful Plums and Custard, *Tricholomopsis rutilans*. On old tree stumps the puffball, *Lycoperdon pyriforme*, was found in large swarms while the Candle-snuff Fungus, *Xylaria hypoxylon*, was common on others.

The ruins of Ewloe Castle, built in 1257, were reached after a short, sharp climb where we sat and enjoyed a tea-break before returning down hill across fields and down a tree banked lane to Shotton Station.

Vera Gordon

Articles

The Discovery of Early Sand-grass (*Mibora minima*) on the dunes of South Lancashire

The main distribution of Early Sand-grass, *Mibora minima* (L.) Desv., is that of northwest Africa, southern and southwestern Europe. In northwest Europe the species is usually rare, but where the species does occur the plants are often locally very abundant. However Fadon, A. & Mennema, J. (1987) indicate that there is evidence to suggest that new populations of *M. minima* are developing along the Atlantic coasts of Europe. In Britain *M. minima* is assumed to occur as a native plant in the Channel Isles and at Anglesey, and is probably native at the Gower peninsula localities in South Wales. *M. minima* does occur elsewhere in the British Isles but as an introduced species often as a nursery weed. This species has even been introduced to Australia and the USA.

M. minima is an ephemeral species which blooms during late winter and early spring on moist sandy places often close by to the sea, and no doubt many readers will have made the pilgrimage to the Aberfraw dunes locality to see this species. As the sand dune systems of South Lancashire are somewhat extensive it occurred to the authors that it was conceivable that *Mibora* could actually occur as a member of the dune flora but may have been overlooked due to the early flowering period. This was indeed the case for the early flowering bulbous plant Early Star-of-Bethlehem, *Gagea bohemica*, which was amazingly not discovered in Britain (at a very well visited botanically diverse locality) until as late as 1965.

The advantage (or disadvantage depending of the weather conditions) of being a dog owner is that you have no option but to walk every day regardless of the time of year. Whilst out on the dunes at the north-east end of the Marine Lake, Southport during the late April of 1996 we were absolutely delighted to find that Robbie the dog actually had his nose amongst plants of *M. minima*. At the time most of the plants observed were in seed, but there was fortunately a sufficient number of plants to justify the gathering of a specimen which was subsequently confirmed by Dr. T.A. Cope of Kew.

Readers of the Lancashire Wildlife Journal will no doubt be aware of the occurrence of *Coincya monensis* ssp. *monensis* - the Isle of Man Cabbage on the Marine Lake sand dunes following Smith & Hall's article in Volume 1. It was thought that both *Mibora* & *Coincya* could actually grow in association and so a series of return visits were made to the Marine Lake dune system from February to April of 1997. Plants of *Coincya* occur over a considerable area of the dunes at the Hesketh end of the lake, but *Mibora* is much more restricted although where it occurs it is locally very abundant. It was indeed the case that both plants grow together over a very limited area of the dunes. This is probably a unique association, for *Coincya* is regarded as a British endemic.

The news about *M. minima* was soon to spread through the botanical grapevine, and we were informed that Dr. Quentin Kay (of Swansea University) was particularly interested in *Mibora*. Quentin Kay is also the West Glamorgan vice-county recorder and it is known that both *Coincya* and *Mibora* actually grow on the Gower Peninsula, however Quentin has informed us that the two species are not known to grow in association on the Gower.

Thus it does appear that the Southport Marine Lake locality is unique (on a global scale) for the association of *Mibora* and *Coincya monensis* ssp. *monensis*. There is of course the possibility that other populations await discovery, and an obvious place to search would be the sand dunes over at Lytham St. Annes (famed in a series of papers by the Victorian Manchester Man, Charles Bailey). If it is indeed the case that this plant association is unknown anywhere else on earth (and at present there is no evidence to the contrary) then the Marine Lake dunes do not merely merit local nature conservation status, but are surely of international importance.

As to the question of the origin of plants of *Mibora* of the Southport dunes, plants have been sent to Q. Kay & Rosemary John at Swansea who may be able to correlate isozyme profiles with those of *Mibora minima* populations analysed from other localities. Could the spread of this thermophilous species along the Atlantic coasts and possibly along the coastland of the British Isles actually be an indication of global warming?

The Southport colonies of both *Mibora* and *Coincya* are at present thriving, but as Smith & Hall (1991) point out the location may be disturbed by the sea wall construction programme. At the present time this appears not be the case, but as a safeguard the conservation of seeds and plants at Ness Botanic Gardens where seeds of *Coincya* are also held (Smith 1994) would seem appropriate.

Finally are there any other examples of family pets being associated with natural history discoveries?

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*Dave Earl & Joyce Buckley-Earl,
4 Meadow Way, Brooklyn Park,
Gravel Lane, Banks, nr. Southport PR9 8BU.*

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