BBS Summer Field Meeting on Shetland 12–21 July 2008

Papa Stour, Unst, Fetlar and Bressay may sound like remote lands to be found only in the pages of an ancient saga, rather than the real destination of a BBS meeting, but it was to these and other islands of the Shetland archipelago that 16 members journeyed for the summer meeting in 2008. **Mark Hill** reports on just what was found in this most northern extremity of the British Isles.

Shetland has been visited by several BBS members individually, but until summer 2008 had never been the location for a Society meeting. So when Paul Harvey offered his services as Local Secretary, the offer was accepted with alacrity. The logistics of the meeting were quite complicated. Paul wanted to cover the archipelago as widely as possible, concentrating on localities that had not been previously explored. The planned itinerary took in the islands of Yell, Unst, Fetlar, Whalsay, Bressay, Papa Stour and Out Skerries, as well as the Shetland Mainland. In order to achieve this, we needed to stay in Lerwick and on Unst, and to catch numerous ferries. Furthermore, to make the best use of BBS expertise, Paul recommended that we should work in small groups, typically 3–4, each with its own itinerary.

Our main transport was a minibus, usually driven by Paul, together with a hired car which went to Unst. The presence of the car was fortunate because 16

▷ Saxa Vord at the northern end of Unst. *Sam Bosanquet*

of us could fit in the bus but not comfortably with our luggage. Paul Harvey was from Shetland. Niklas Lönnell came from Sweden. Miquel Jover came from Catalonia. The rest of us – Sam Bosanquet, Maren Flagmeier, Lorna Fraser, Claire Geddes, Dave Genney, Mary Ghullam, Mark Hill, Nick Hodgetts, Mark Lawley, Brendan O'Hanrahan, Sean O'Leary, Sandy Payne and Chris Preston – were from mainland Britain.

In the account that follows, species with an asterisk (*) are those that have been confirmed new for Shetland by the BBS Recorders.

SATURDAY 12 JULY

Having spent the night in Lerwick, we set off for Yell. One party visited the Loch of Lumbister and Dale of Colvister, and found *Odontoschisma elongatum*, *Scorpidium cossonii**, *Philonotis caespitosa*, *Racomitrium sudeticum** and *Sphagnum austinii*. Another group visited a site with the evocative name Freedom, where they saw *Nardia geoscyphus*. A third party went to the east coast, finding *Solenostoma sphaerocarpum* (=*Jungermannia sphaerocarpa*), *S. subellipticum* (=*J. subelliptica*) and *Nardia compressa* at Skurdie Geo, and *Tortula viridifolia* near Gossabrough. The fourth group explored an area of relatively undisturbed blanket bog at Black Park, where they saw *Sphagnum austinii*, *S. magellanicum* and *Tetraplodon mnioides**. A short examination of the Loch of Garth produced *Orthotrichum rupestre*. Then, at the end of the afternoon, we gained time as a ferry to Unst departed 15 minutes earlier than that on which we were booked.

SUNDAY 13 JULY

Paul Harvey and Mark Lawley led a group to the southwest of the island, recording *Philonotis caespitosa* near Belmont. Another party visited the serpentine hills of Muckle Heog and Nikka Vord, where they saw *Frullania dilatata* (only seen twice on the meeting), *Herbertus stramineus*, *Antitrichia curtipendula*, *Bryum pallescens** and *Hymenostylium recurvirostrum*. In thyme-rich heath, Chris Preston observed large quantities of a puzzling golden-leaved *Dicranum*, which could be interpreted as non-flagelliferous *D. leioneuron* (suggestion rejected by Recorder of Mosses), or as non-undulate *D. bonjeanii* or as *D. scoparium* with a non-toothed back of nerve. Also on serpentine, they found *Racomitrium canescens** at the Keen of Hamar. A third group visited Hermaness, marvelling at its magnificent bird cliffs and lunching to the chatter of innumerable gannets. They did not find anything new for Shetland except for *Campylium protensum** by the Loch of Cliff on the outward journey. A small party, comprising Niklas, Sam and Sandy, went to Saxa Vord, where in 1907 David Lillie had found *Sphagnum lindbergii* at its only low-altitude site in the British Isles. Here, the *Sphagnum* was duly refound. In block scree, *Glyphomitrium daviesii** (lurking deep in a scree hole), *Kiaeria blyttii** and *Schistostega pennata** (locally frequent) were new for Shetland. *Cephalozia leucantha*, *Lepidozia pearsonii*, *Dicranodontium denudatum* and *Diphyscium foliosum* were seen at Saxa Vord, but nowhere else on the meeting. The *Schistostega* was totally unexpected; it is very rare in Scotland and had not previously been recorded north of Glen Nevis.

MONDAY 14 JULY

We took the ferry to Fetlar and explored the island. While Paul went to pick up the rather scattered

△ *Schistostega pennata* (left) and *Campylopus schimperi* (right) growing on Unst. *Sam Bosanquet*

party on Unst, Chris examined some concrete at Baltasound, finding more *Bryum pallescens* and some *Didymodon sinuosus*. The party that went to the peninsula of Lamb Hoga met with very acid ground and recorded little of note except for *Lophozia sudetica* and, on a stone by Papil Water, *Schistidium apocarpum**. Another group went further east to Funzie, where there was basic ground with *Homalothecium lutescens* and *Trichostomum crispulum*, and a coastal flush with *Haplomitrium hookeri*. Their best find was *Barbilophozia lycopodioides**, in species-rich, spongy, flushed turf on a small, level, cliff-top area on the coast. A third group examined Mires of Gravins and the serpentine hills that drain into them. The mires were partly base-rich, with *Calliergon giganteum* and *Philonotis calcarea*. On acid ground nearby was *Sphagnum compactum*, not seen elsewhere on the meeting. Niklas found a large colony of *Pterogonium gracile** on the south-facing cliffs of Stackavord, near to where Mary saw a big tuft of *Campylopus schimperi*. The group was interested to see *Schistidium frigidum*, which had earlier been demonstrated to the party by Sam. Mark Hill found *Grimmia dissimulata** on serpentine rock on Vord Hill. The fourth group went to the Mires of Oddsetter, also partly basic, where they saw *Calypogeia sphagnicola*, *Cephalozia loitlesbergeri*, *Cladopodiella fluitans*, *Rhizomnium pseudopunctatum* and *Sphagnum contortum*. *Haplomitrium hookeri* was found on a roadside, but the most astonishing discovery was *Grimmia tergestina**, in a 4 2 cm patch on vertical concrete by the cattle grid over Green Burn.

On our return to Unst, Mark Lawley found *Zygodon rupestris** on serpentine rock at the Keen of Hamar. Sam's car stopped to examine serpentine ground at Sobul, where there were *Scapania scandica*, *Racomitrium canescens* and a remarkable form of *Campylopus schimperi*, producing slender innovations reminiscent of those seen in *C. flexuosus*.

TUESDAY 15 JULY

Most of the party went to Whalsay, notable for its large fishing fleet and prosperous community. The group that recorded the golf course at Skaw Taing had the satisfaction of visiting a hectad that had only one previous record, *Schistidium maritimum*, found in 1898. We raised the total to 31. The group that visited the Loch of Huxter found much better ground, with calcareous flushes in which grew *Leiocolea collaris* (=*alpestris*), *Harpanthus scutatus**, *Plagiomnium elatum* and *Tortella densa**. Sean found *Porella cordaeana* near the loch. The coast near Huxter produced *Oxyrrhynchium hians* and *Ulota hutchinsiae*, together with more of the

leioneuron-like *Dicranum* that had been found on Unst. Another group went to the centre of the island, and made the only record of *Riccardia palmata* on the meeting, but did not find good ground. The fourth group went to Ronas Hill, but as most of the rest of the party also went there 2 days later, on 17 July, the report of this excursion is combined with that of the later one.

WEDNESDAY 16 JULY

Having returned to our lodgings in Lerwick, we again took a ferry, this time to Bressay. The party that went to Noss enjoyed the spectacular bird cliffs. They met a man who, in spite of having climbed all the Munroes and now tackling the Marilyns (cliffs with a drop of 500 ft), still thought there was something extraordinarily strange about bryology. They found *Plagiomnium cuspidatum* in coastal turf in both the northern and southern parts of the island, as well as *Campyliadelphus elodes* in short maritime turf affected by sea spray. Dave Genney, who was in possession of an excellent GPS, told us that we ought all to be making automatic route maps.

On Bressay, the party that visited the Lochs of Grimsetter and Seligeo found *Calypogeia neesiana*, *Scapania subalpina*, *Campyliadelphus chrysophyllus* and *Physcomitrium pyriforme*. A surprising sight was a small group of black cattle, one of whom had a bright blue nose. Another party went along the coast near Aith. Here, Sandy Payne demonstrated how to find *Radula aquilegia* and *Sanionia orthothecioides*, and in the process discovered a second colony of *Barbilophozia lycopodioides*. Of course, he already knew well enough how to find the *Sanionia*, but had only recently learnt the trick of looking for *R. aquilegia* in very short coastal turf. Walking rapidly back to catch the bus, he found *Calypogeia azurea* in a rabbit hole and *Harpanthus flotovianus* in an *Aulacomnium palustre* tuft. Chris Preston, in another party, found *Weissia perssonii*. We could have been overlooking it elsewhere, recording it mistakenly as *W. controversa* – to which it is indeed very close. This party, which was in Sam's hired car and not dependent on the bus, then went to a field with limestone outcrops on Mainland southwest of Loch of Asta, recording

◁ *Sanionia orthothecioides* on Whalsay. *David Genney*

▽ *Pterogonium gracile*, new to Shetland, on Fetlar. *Niklas Lönnell*

Porella platyphylla, *Reboulia hemisphaerica**, *Cinclidotus fontinaloides*, *Climacium dendroides*, *Cirriphyllum* (=*Eurhynchium*) *crassinervium*, *Mnium marginatum**, *Neckera complanata* and *Syntrichia montana* (=*intermedia*), all of which are very rare on Shetland. Chris took home *Weissia controversa*, a form disconcertingly intermediate with *W. perssonii*, lacking quadrate cells over the nerve on some leaves but having these in small patches on others. Back in Lerwick, Sam bryologized in the town, recording *Barbula convoluta* var. *sardoa**, *Lunularia cruciata* and *Marchantia polymorpha* subsp. *ruderalis*. He did not realize that subsp. *ruderalis* was a v.-c. record, and departed next day without a specimen.

THURSDAY 17 JULY

The group split into two, one party going north to Ronas Hill and the other south to South Mainland in a different hired car, which was driven by Dave Genney. At Quendale we met up with Jill Blackadder, a local naturalist who writes for the *Shetland Times*, and explored the links. Most of the ground was very dry, but Niklas found *Preissia quadrata* in the one wet area that was visited. Next stop was the Burn of Geosetter, where Niklas found *Heterocladium heteropterum* and *Thamnobryum alopecurum*. After a scenic lunch overlooking St Ninian's Isle the party went to a limestone ravine on the east coast at Ocraquoy. With the shelter and limestone came a flora that would be unremarkable in southern Britain but was quite exceptional in Shetland, including *Conocephalum conicum**, *C. salebrosum**, *Leiocolea turbinata**, *Cinclidotus fontinaloides*, *Eucladium verticillatum* c.fr., *Oxyrrhynchium hians*, *Eurhynchium striatum*, *Hygrohypnum luridum*, *Plagiomnium rostratum* and *Zygodon viridissimus* var. *stirtonii*. Another stream on limestone, at Fladdabister just to the north, added *Ditrichum gracile*, *Fissidens taxifolius* var. *pallidicaulis* and *Pogonatum nanum*, as well as *Pseudephemerum nitidum* and *Tortula truncata* on ruts.

The party that went to Ronas Hill covered much the same ground as that which had been there on the Tuesday. Between them, the two parties found most of the Atlantic species that Derek Ratcliffe and Jean Paton had discovered there in 1968 and 1971, as well as a few new ones. Notable finds were *Anastrepta orcadensis*, *Barbilophozia atlantica*, *Bazzania pearsonii**, *B. tricrenata*, *Herbertus stramineus*, *Lepidozia cupressina*, *Marsupella emarginata* var. *pearsonii**, *Mastigophora woodsii*, *Plagiochila carringtonii*, *P. spinulosa*, *Scapania ornithopodioides*, *Andreaea alpina*, *A. rothii*, *A. rupestris*, *Campylopus atrovirens* var. *atrovirens*, *Grimmia donniana*, *Oligotrichum hercynicum*, *Racomitrium heterostichum s.s.** (previously found, but nobody had bothered to collect it) and *R. sudeticum*. The *Scapania* had eluded Jean Paton and was found only with intense searching. Mark Lawley spent a long time concentrating on a small patch of ground until eventually his persistence paid off. He found one shoot. Then Nick Hodgetts found a couple more in the same patch, Sean had a few more shoots nearby and Mark found another small colony about 20 m uphill. Maybe only 10 shoots were seen in all.

FRIDAY 18 JULY

We set off early to visit Papa Stour, an island with a glorious range of natural features, including caves, arches, a subterranean passage and (marked on the map) The Loch that Ebbs and Flows. The weather forecast was bad, but the sunshine and views were brilliant, with Ronas Hill standing out cloudless above the bluest of seas. A small group, consisting of Paul, Mark Lawley and Brendan, detached itself and visited sites on the mainland, making all the v.-c. records for the day, namely *Grimmia longirostris** at West Burrafirth and *Schistidium crassipilum** at Kergord Plantations in Weisdale. Other species seen by this group, but not or only once elsewhere on the meeting, included *Dicranella cerviculata* and *Didymodon luridus* at Snarra Ness, *Frullania dilatata*, *Metzgeria violacea* (=*fruticulosa*), *Porella platyphylla*, *Radula complanata* and *Zygodon rupestris* in Weisdale, and *Porella arboris-vitae*, *Dicranoweisia cirrata* and *Hedwigia stellata* at West Burrafirth.

The magical world of Papa Stour did not result in many new or rarely reported species, but delighted us with its natural features and wind-pruned turf. The group with Sandy Payne and Nick Hodgetts, now working together to search for *Radula aquilegia* and *Sanionia orthothecioides*, found *Radula* in all three of its monads (1-km squares) and *Sanionia* in one of them. Another group, to the east, noted *Weissia perssonii* and, by Gorda Water, tantalizingly unidentifiable *Fossombronia* sp. and *Ephemerum serratum* agg. The third group began by recording cliff tops, and made a special point of looking at the fragment of land in the monad at the north tip of Quida Ness. Only 10 species were in the monad, namely *Scapania gracilis*, *Archidium alternifolium*, *Campylopus brevipilus*, *Kindbergia praelonga*, *Hypnum jutlandicum*, *Isothecium myosuroides* var. *brachythecioides*, *Schistidium maritimum*, *Trichostomum brachydontium* and *Ulota phyllantha*. If every skerry were to be examined, these must surely prove to be some of the most frequent plants on Shetland coasts, together with *Amblystegium serpens*, which was found on many other cliff tops and indeed by the second group in another fragmentary monad at Lamba Ness. In the afternoon, the forecast rain descended, and when we got back to Mainland, we were surprisingly cold.

SATURDAY 19 JULY

This was the day planned for Out Skerries, but it was chilly, wet and windy. Paul Harvey asked whether we were really up for the visit. We said yes and went to the ferry, but the ferrymen told us that while they would take us to Out Skerries in the morning, they could not guarantee to bring us back in the afternoon. We therefore switched to more mundane recording on Mainland. Claire and Sandy visited a mire near Vidlin. Mark Lawley set off on his own and found *Lophozia excisa**, *Preissia quadrata*, *Anomobryum julaceum*, *Didymodon spadiceus*, *Schistidium strictum** and *Tortula truncata* in or near the ravine at Swining. Most of the party went to the Burn of Valayre, an attractive ravine with *Anthelia juratzkana*, *Anomobryum julaceum* and *Pogonatum nanum*. A small wood at Voxter produced *Ulota crispa* on planted elder. In the afternoon, two groups visited moorland and blanket bog near Sullom Voe, but the peat hags, though extensive, were dried-up and remarkably poor in hepatics. The third group went to Gunnister, where they saw *Hedwigia stellata* on dry granitic rocks and found *Cynodontium jenneri** on a stone wall and on a ledge on low perpendicular rocks nearby.

CONCLUSIONS

The meeting had a prequel (Sam on 11 July) and a sequel (Claire, Paul, Nick and Sandy on 20 July).

◁ Far left top. *Schistidium maritimum* on coastal rocks. *David Genney*

◁ Far left bottom. Mark Hill at the end of the world! *David Genney*

◁ Centre. *Schistidium frigidum* was the commonest member of the *apocarpum* group in Shetland (Saxa Vord, Unst). *Sam Bosanquet*

◁ Right. Sandy Payne searching for *Radula aquilegia* on Papa Stour. *Nick Hodgetts*

The prequel had alerted Sam to the fact that the most frequent *Schistidium* in the *apocarpum* group was *S. frigidum** (with eventually 14 records, followed by *S. apocarpum* and *S. crassipilum*, each with 6, and *S. strictum* with 2). He also found *Dicranella crispa** on a clayey shale stream bank at Catpund and (with Chris Preston) *Sphagnum capillifolium* subsp. *capillifolium** at Troswick. The sequel showed that the Quendale group had been lamentably inept in finding the good ground and had missed *Leiocolea gillmanii*, *Moerckia hibernica s.l.*, *Marchantia polymorpha* subsp. *montivagans*, *Amblyodon dealbatus*, *Catoscopium nigritum* and *Distichium inclinatum*, which were thriving 1.2 km to the north-east at North Green of Huesbreck. Finally, the sequel group crossed the tombolo to St Ninian's Isle, refinding the huge colony of *Eucladium verticillatum* where it had been discovered, new to Shetland, by a non-bryologist in 1974.

By the end of the meeting we had data from 120 monads, averaging 38 records in each. We made 34 v.-c. records. We all saw species new to us. Many delighted in the otters, porpoises, seals and gannets. It was a most enjoyable and memorable excursion. Surprisingly, Shetland does not have any bryophytes that are absent from mainland Britain. To most southerners, it seems almost like another world, treeless and with everywhere in proximity of the sea. *Brachythecium rutabulum* and *Pleurozium schreberi* are quite uncommon. *Campylopus brevipilus* is the most abundant member of its genus. *Hypnum resupinatum* is commoner than (and quite distinct from) *H. cupressiforme*. However, the 'top 20' most frequent species are mostly not remarkable: *Aneura pinguis*, *Diplophyllum albicans*, *Frullania tamarisci*, *Lophozia ventricosa*, *Nardia scalaris*, *Scapania gracilis*, *Calliergonella cuspidata*, *Dicranum scoparium*, *Kindbergia praelonga*, *Hylocomium splendens*, *Hypnum jutlandicum*, *Isothecium myosuroides* var. *brachythecioides*, *Mnium hornum*, *Philonotis fontana*, *Polytrichum juniperinum*, *Racomitrium lanuginosum*, *Rhytidiadelphus squarrosus*, *Sphagnum denticulatum*, *S. subnitens* and *Ulota phyllantha*. The exception is *I. myosuroides* var. *brachythecioides*, which is almost ubiquitous and undoubtedly a great speciality.

Finally, the rest of us would like to thank Paul Harvey for his splendid organization and for driving us all over the islands. He made possible, with generous financial support for transport from the Shetland Amenity Trust and Scottish Natural Heritage, what the BBS had not previously attempted, a full-scale and wide-ranging field meeting on the archipelago.

Mark Hill
CEH Wallingford, Crowmarsh Gifford, Wallingford, Oxfordshire OX10 8BB (e moh@ceh.ac.uk)