# BBS Algarve meeting 1989: a retrospective view

n March 1989, the BBS held a meeting in the Algarve region of southern Portugal. It was organized very efficiently by Roy Perry, was well attended and was a great success, but it was never reported in the Society's publications. Following recent visits to the Algarve (by DGL in 2007 and TLB in 2012), we feel that the 1989 meeting deserves proper recognition and should not lapse into obscurity. Of course, we cannot claim perfect recall after 23 years and realize that there are bound to be omissions in our account! We have traced only a few original photographs from the meeting, and have supplemented these with more recent images. All the bryophyte illustrations reproduced here are of Algarve origin.

The Algarve is the southernmost region of mainland Portugal and is well known as a holiday destination. The coast is blessed with a series of attractive bays and sandy beaches. Consequently, the coastal fringe is very heavily



To accompany the extracts of Eric Watson's diary on pp. 3–7,

# Tom Blockeel and David Long

look back on the 1989 BBS meeting in the Algarve, Portugal.

developed and natural habitats are fragmented. Inland, however, there are still good tracts of semi-natural vegetation. The highest ground in the Algarve is the Serra de Monchique, once covered by oak forest and supporting some rare and interesting plants. An endemic subspecies of *Rhododendron ponticum* (subsp. *baeticum*) is native and non-invasive, and the Macaronesian tree *Myrica faya* also occurs, a relative of our familiar sweet gale (*Myrica gale*). However, much of the natural forest of the Serra de Monchique has now been replaced by *Eucalyptus* plantation.

The geology of the Algarve is varied. North of the coastal strip, a band of limestone known





 $\triangle$  Top The meeting begins: examining village trees in Alte. Joyce Watson

△ Bottom Near Fonte Grande (on the left, Alan Crundwell in conversation with Eric Watson). *Joyce Watson* 

as the barrocal runs from Cape St Vincent in the west to Loulé in the east, extending some distance inland. To the north, acid schists and shales occupy most of the interior, where corkoak (*Quercus suber*) is common, while the Serra de Monchique is composed of granite.

In May 1911, H.N. Dixon and W.E. Nicholson visited the Algarve and discovered many of its bryological specialities, including *Isothecium algarvicum* and *Ulota calvescens* (Dixon, 1912; Nicholson, 1913). Dixon's account of a frustrating search for *Timmiella flexiseta* on Picota was obviously written with feeling: 'We spent many hot hours and lost our

tempers and our epidermis on the Cistus-covered slopes of Picota, under which shrubs, teste Solms-Laubach, Timmiella loves to congregate, and gained little for our trouble but gum ladanum on our garments.' (Dixon, 1912)

The meeting in 1989 was based in the town of Loulé to the north of Faro. Most participants stayed at the Residencial Ibérica. Transport was by private/hire cars. We were very pleased that the eminent Portuguese bryologists Cecilia Sérgio and Ana Senéca Cardoso were able to join us for part of the time. In all, there were over 20 bryological participants, including several distinguished BBS members since deceased: Alan Crundwell, Harold Whitehouse, Peter Wanstall and Eric Watson. Alan Crundwell had visited the Algarve in 1954 and published a short paper on his findings (Crundwell, 1956). Other participants included Tom Blockeel, Catherine La Farge-England, Barry Goater, Alison Hobbs, Maurice Jones, David Long, Siobhan McDermott, Roy and Hilary Perry, Peter Pitkin, Michael Proctor, Rod Stern, Herman Stieperaere, Cliff Townsend, Huub van Melick, Jane Wanstall and Joyce Watson.

# March 24: Alte

Alte is situated on the barrocal limestone. There are springs along the stream, the principal ones being Fonte Pequena and Fonte Grande. This was our first venue; the day must have been warm, as boys were swimming in the water. We worked areas close to the Fontes, mainly along the banks of the stream. *Fabronia pusilla* was on the village trees.

Limestone banks had some characteristic Mediterranean species, including Cephaloziella baumgartneri, Fossombronia caespitiformis, Southbya nigrella, Bryum donianum, Cheilothela chloropus, Dialytrichia mucronata, Eurhynchium meridionale, Pleurochaete squarrosa, Scleropodium

tourettii, Timmiella barbuloides, Tortella nitida and a distinctive Riccia, R. atromarginata, which has papillose projections on the thallus surface. On somewhat sandy soil near the stream were Riccia bicarinata, R. michelii and Petalophyllum ralfsii. The Petalophyllum was new to Portugal at the time but was not published until 11 years later (Sim-Sim et al., 2000a, b). Riparian species by the stream included Bryum gemmiparum, Fissidens crassipes and Scorpiurium deflexifolium. We then moved to the west side of town to examine an area further downstream near the cemetery, with some trepidation as Roy had warned us that it might be the town

sewer! In fact it produced two further species new to Portugal: Tortula freibergii (Blockeel & Rumsey, 1990) and Bryum valparaisense (B. pyriferum), the latter being new to mainland Europe (Townsend, 1994). Cliff Townsend, who found the Bryum, examined various lumps of soil and also found Bryum klinggraeffii and tuber-bearing material of Didymodon cf. fallax and D. insulanus. Near the stream, which had a waterfall, we found the distinctive thallose liverwort Plagiochasma rupestre along with Entosthodon fascicularis, Leptobarbula berica, Tortula cuneifolia, Rhynchostegiella curviseta and Scorpiurium circinatum.



- Pleurochaete squarrosa (Caldas de Monchique, March 2007). David Long
- ▼ Lunch at Lagoa da

  Nave. From left to right:

  Herman Stieperaere,

  Huub van Melick,

  Harold Whitehouse, –,

  –, Alan Crundwell, Tom

  Blockeel, Rod Stern,

  –, –, Cliff Townsend,

  Alison Hobbs, Michael

  Proctor, Maurice

  Jones). Joyce Watson





△ The cliffs at Cape St Vincent, to the north of the lighthouse, January 2012. *Tom Blockeel* 

The final venues of the day were near Benafim to the east of Alte, first at Quinta do Freixo, where Roy had found *Riella notarisii* in March 1988 (it was still present at this site when visited by DGL in March 2007), then by Ribeira Algibre where it is crossed by the road running south from Benafim. The banks of the Ribeira Algibre had many of the species seen at Alte, along with *Leptodon smithii*, *Scorpiurium sendtneri*, *Pterogonium gracile* and some very fine *Funariella curviseta*.

# March 25: Lagoa da Nave; Fonte Filipe; Porto Nobre

Lagoa da Nave, situated to the north of Loulé, is a flat lake bed which floods in winter. Much of it is cultivated, especially with vines. The moist sandy soil has a rich ephemeral flora. We recorded *Phymatoceros bulbiculosus*, *Riccia* 

crozalsii, R. crystallina, R. michelii, Archidium alternifolium, Bryum subapiculatum, B. ruderale (found by Cliff), Ephemerum sessile and Weissia longifolia.

Most participants then moved on to Fonte Filipe and the Ribeira das Mercês, in the hills near Amendoeira (north-west of São Bras de Alportel). The stream runs through a narrow wooded valley with springs, and at first a distinctive yellow Anemone (A. palmata) provided a distraction from the bryophytes. Fontinalis hypnoides was submerged in the water and Scorpiurium deflexifolium was present by the stream. Tortula solmsii was found on rocks. Records from drier ground included Fossombronia caespitiformis, Ditrichum subulatum, Eurhynchium meridionale, Leptobarbula berica, Tortella inflexa and Weissia condensa. A particularly nice find was David Long's discovery of Clevea (Athalamia) spathysii, another Mediterranean thallose liverwort, under a rock overhang by the stream. A further streamside stop, Ribeira de Algibre near Porto Nobre, produced a further good crop of species: Cephaloziella calyculata, Corsinia coriandrina, Gongylanthus ericetorum, Phymatoceros bulbiculosus, Bartramia stricta, Bryum ruderale (again found by Cliff), Ditrichum subulatum, Entosthodon attenuatus, Epipterygium tozeri and Fissidens crispus.

# March 26: Cabo de São Vicente, Vale de Rosa, Ribeira do Vascão; Ribeira de Odeleite

On this day, Easter Sunday, the party split into different groups. Some members wanted to visit Cape St Vincent (Cabo de São Vicente), the south-westernmost point of mainland Europe. The cape is a limestone tableland flanked by vertical sea cliffs and has an interesting vascular flora, but with rather few bryophytes. *Aloina rigida*, *Tortella flavovirens* and *Weissia longifolia* var. *angustifolia* were among the few species seen.



△ Riccia gougetiana (Cerca dos Pomares, January 2008). Ron Porley

Cape St Vincent was a long drive from Loulé and other members preferred to venture into the hills north of Loulé. Tom and others called in at Vale de Rosa off the N2 road north of Barranco do Velho, and then drove on to the Ameixial region in the north of the Algarve, before returning south to Montes Novos. These areas were on acidic shale substrates and proved to be very interesting. Ditrichum subulatum, Entosthodon obtusus, Epipterygium tozeri and Racomitrium heterostichum s.s. were recorded under Erica at Vale de Rosa. A road cutting at Ameixial produced Corsinia coriandrina, Gongylanthus ericetorum, Bartramia stricta and Tortula cuneifolia. The next stop on the banks of the Ribeira do Vascão, between Ameixial and Dogueno, proved to be a fascinating site. Moist sandy soil by the river was a Riccia paradise, with R. bicarinata, R. gougetiana, R. macrocarpa, R. nigrella, R. perennis and R. subbifurca, among others. Some of these Riccias are very distinctive: R. gougetiana is a big species, with a sharp deep central groove and wing-like lobe margins. R. macrocarpa is not unlike R. sorocarpa, but



△ Riccia macrocarpa (Ribeira de Odelouca, January 2012). Tom Blockeel

the margins of the thallus are tinged orangebrown. The Riccias were accompanied by Sphaerocarpos texanus, Archidium alternifolium, Bryum gemmilucens and Entosthodon obtusus. Bryum donianum and Drepanocladus aduncus were also recorded. The final stop was on the upper reaches of the Ribeira de Odeleite near Montes Novos, also a superb site. The Cryphaea growing on oleander by the stream proved to be Dendrocryphaea lamyana, in spite of Tom's initial scepticism. Also new to most of us was Claopodium whippleanum, a Thuidium relative which has a disjunct distribution in North America and south-west Europe. Other records at this lovely spot were Frullania tamarisci, Gongylanthus ericetorum, Marsupella emarginata, Scapania compacta, Radula lindenbergiana, pomiformis, Campylopus pilifer, Bartramia Hedwigia ciliata s.l. (later identified as H. stellata) and Oreoweisia bruntonii.

# March 27: Caldas de Monchique

Caldas is a spa village on the lower slopes of the Serra de Monchique and we anticipated an interesting day as it was known to be bryologically rich. It was Alan Crundwell's base on his earlier trip in 1954. We parked by the village square (which constituted most of the village!) and worked the immediately adjacent areas. *Ptychomitrium nigrescens* was already known from here in one of its few localities in

- ▼ Top The village square at Caldas de Monchique in 1989. Joyce Watson
- ▼ Bottom Mannia androgyna (Cerca dos Pomares, January 2010). Ron Porley

mainland Europe, and we re-located it on granite boulders. It is primarily a Macaronesian species, and resembles a small version of *P. polyphyllum*. Bare soil on open banks and among rocks had a number of southern species, including *Corsinia coriandrina*, *Campylopus pilifer*, *Epipterygium tozeri*, *Fissidens curvatus*, *Tortula cuneifolia* and

- ▼ Top Ptychomitrium nigrescens (Caldas de Monchique, March 2012). Ron Porley
- ▼ Bottom Exormotheca pustulosa (Cerca dos Pomares, January 2010). Ron Porley









T. canescens, while epiphytes included Habrodon perpusillus and Fabronia pusilla. Tom collected Tortula guepinii on bare soil. This little known species was not identified until some years later and at the time was unknown in Portugal. A shower of rain worked wonders on several liverworts that had previously been almost invisible – Mannia androgyna, Riccia macrocarpa, R. papillosa and Oxymitra incrassata, the latter with its sessile sporophytes which Peter Pitkin likened to Bessemer converters. The curious bulbous flowering plant Dipcadi serotinum, with its sombre brown bells, was an added bonus.

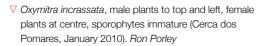
The valley below the spa has areas of woodland with some open banks. Many of us were delighted to see *Exormotheca pustulosa*, a remarkable thallose liverwort with inflated

air chambers projecting like crystal flasks from the surface of the thallus. Other additions were Cephaloziella turneri, Fossombronia angulosa, Gongylanthus ericetorum, Marsupella emarginata, Scapania compacta, Anomobryum julaceum (the southern European form sometimes known as A. juliforme), Cheilothela chloropus, Ditrichum subulatum, Philonotis rigida and Tortula atrovirens.

# March 28: Porto Nobre; Rocha da Pena; Serra de Monte Figo

This was another day when groups went in different directions. Many of us began the day at Ribeira de Algibre near Porto Nobre north of Loulé. This site was on shales, and again we found *Exormotheca pustulosa*, with *Oxymitra incrassata*,

▼ Barrocal limestone at Rocha de Pena, January 2012. Tom Blockeel







Riccia gougetiana, Fissidens curvatus, Fontinalis hypnoides, Tortula atrovirens, T. canescens and Homalothecium aureum. Some of those who had visited Cape St Vincent on Easter Sunday took the opportunity to visit the site at Ribeira de Odeleite, near Montes Novos, that others had found so attractive on the earlier day, adding Cephaloziella calyculata, C. turneri, Riccardia multifida, Ditrichum subulatum, Entosthodon attenuatus and Orthotrichum tenellum to the list.

David Long's car then moved on to Rocha da Pena, an attractive craggy limestone hill near Salir, north of Loulé, recording *Mannia androgyna*, *Reboulia hemisphaerica*, *Riccia lamellosa* (a distinctive species like *R. sorocarpa* but with large white scales projecting along the thallus margin), *Leptobarbula berica* and *Timmiella barbuloides*. Cliff Townsend also visited this area and found *Bryum gemmilucens*, *Entosthodon fascicularis* and *Pleuridium acuminatum* in a fallow field at Penina.

Meanwhile, Tom's car visited the Serra de Monte Figo north of Olhão, another limestone hill. This had some nice Riccias, including *R. trabutiana* and *R. lamellosa*, and among the mosses *Leptobarbula berica* and *Tortella inflexa*. An attempt to explore further along the serra in the direction of Azinheiro was abandoned because of the dreadful condition of the dirt road.

# March 29: Serra de Monchique

Some participants began the day with a visit to a small pond between Santa Catarina de Fonte do Bispo and Pereiro, where Peter Pitkin had found another site for *Riella notarisii*. Others visited it at different times. They paid their respects to the *Riella*, recording also *Riccia bicarinata*, *Bryum ruderale*, *Entosthodon convexus* and *Rhynchostegium megapolitanum*. *Riella* is a





△ Top The *Riella* pond at Santa Catarina, photographed during the meeting. *Michael Proctor* 

△ Bottom Riella notarisii with sporophytes (ovoid structures, some turning black as the spores ripen) (Quinta do Freixa, March 2007). David Long

genus of aquatic and semi-aquatic liverworts related to *Sphaerocarpus*, with scattered and fragmented occurrences around the Mediterranean region. It is a flaccid plant that collapses out of water and does not make good herbarium specimens!

The main venue for the day and the final one of the meeting was the high ground on the Serra de Monchique. We had only been able to work the lower slopes when we visited Caldas. The village of Monchique is situated on a saddle between the two peaks of Picota and Foia, the latter being the highest point of the Algarve at just over 900 m altitude. Most of us walked up Picota from the west, initially through chestnut (Castanea) woodland with an interesting ground flora. Claopodium whippleanum and Cephaloziella turneri were here, but in other respects the flora had a fairly familiar feel, with Cephalozia bicuspidata, Lejeunea cavifolia, Lophocolea heterophylla, Reboulia hemisphaerica, Oreoweisia bruntonii, tauricum, Epipterygium Dicranum Isothecium myosuroides and Pohlia annotina. Higher up, the granite slopes have areas of Erica heath (E. arborea and E. australis) and Cistus ladanifer, interspersed with some Arbutus and Rhododendron thickets and planted Eucalyptus. We recorded Cololejeunea minutissima, Frullania tamarisci, Riccia gougetiana, Campylopus pilifer, Grimmia laevigata, and in the summit area Campylopus brevipilus, Racomitrium heterostichum and Pogonatum nanum.

There was time at the end of the afternoon to visit a few spots on Foia, which has a road to the summit and is cluttered with radio masts. Antitrichia curtipendula, Archidium alternifolium, Grimmia decipiens and Racomitrium lanuginosum were found near the summit, and Frullania tamarisci, Lejeunea cavifolia, Fissidens serrulatus and Neckera pumila in a gully on the south side.





- △ The upper slopes of Picota with Erica australis and yellow-flowered Halimium commutatum, photographed during the meeting. Michael Proctor
- △ Fertile *Epipterygium tozeri* (Picota, photographed during the meeting). *Michael Proctor*

# Postscript

In the two decades since the 1989 meeting, development has proceeded relentlessly on the coast of the Algarve, with large apartment and golfing complexes. Even in the interior natural habitats are damaged by mechanized clearance of land and planting of Eucalyptus. The infrastructure at Caldas de Monchique has been renovated and some good ground that we worked in 1989 may have been lost, but there is still much productive terrain in the vicinity. Fonte Grande at Alte has also been renovated. Rocha de Pena is a conservation area and remains a rich botanical site. The recent discovery of Rhamphidium purpuratum (thought to be extinct in Portugal) in the Serra de Monchique (Sérgio et al., 2011) suggests that other exciting bryophytes may yet await discovery.

# Tom L. Blockeel & David G. Long

e tblockeel@aol.com; d.long@rbge.ac.uk

# Acknowledgements

Roy Perry instigated the meeting and it would not have happened without his enthusiasm and efficient organization. We were also much indebted to the car drivers who transported participants to and from the various venues. We are very grateful to Roy for his help with this report, to Alison Bacon for making Joyce Watson's photographs available to us, and to Michael Proctor and Ron Porley for providing copies of their own photographs for use in this report. Tom Blockeel would like to thank María Cano (Universidad de Murcia) for confirming the identity of *Tortula guepinii*.

### References

Blockeel, T.L & Rumsey, F.J. (1990). A new locality for *Tortula freibergii* Dix. & Loeske and notes on its taxonomy and cytology. *Journal of Bryology* 16, 179–185.

Crundwell, A.C. (1956). Some bryophytes from Algarve. Brotéria, Sér. Ciencias Naturais 25, 36–42.



△ Cladopodium whippleanum (Foz do Sopro, March 2012). Ron Porley

Dixon, H.N. (1912). Results of a bryological visit to Portugal. *Revue Bryologique* **39**, 33–50.

Nicholson, W.E. (1913). Hepatics in Portugal. Revue Bryologique 40, 1–6.

Sérgio, C., Rodríguez-González, P.M., Albuquerque, A. & Garcia, C. (2011). Rediscovery of *Rhamphidium purpuratum* Mitt. (Bryophyta, Ditrichaceae) in Portugal after more than 60 years. *Field Bryology* 105, 38–41.

Sim-Sim, M., Jones, M.P. & Sérgio, C. (2000a). Duas hepáticas ameaçadas presentes no Algarve: Riella notarisii (Mont.) Mont. e Petalophyllum ralfiii (Wils.) Nees & Gott. Revista de Biologia 17, 129–136.

Sim-Sim, M., Jones, M.P. & Sérgio, C. (2000b). Petalophyllum ralfsii (Wils.) Nees & Gott., a threatened liverwort present in Portugal. Morphological and ecological data, directions for future conservation. Lindbergia 25, 101–105.

Townsend, C.C. (1994). Bryum pyriferum Crundw. & Whitehouse, new to continental Europe. Journal of Bryology 18, 369.