



# BBS survey of RHS Wisley Garden



As part of the International Year of Biodiversity, the BBS was invited by the Royal Horticultural Society (RHS) to survey its garden at Wisley in Surrey. The survey revealed a few surprising finds as well as some remarkable absentees, as **Mark Hill** reports.

Wisley Garden is known in bryological circles as the only English locality of the introduced antipodal liverwort *Telaranea tetradactyla*, discovered by Monica Milnes-Smith in 1970. At the time it was thought to be a form of *T. murphyae*, also presumably antipodal, though of unknown origin. Then in 1987 David Long found a *Telaranea* in the Younger Botanic Garden in Argyll and suggested that it might be *T. tetradactyla*. This was the same as the Wisley plant and also female. It was described as a new species, *Telaranea longii*, but in a recent monograph of the genus it is synonymized with *T. tetradactyla*.

As a contribution to the International Year of Biodiversity, the RHS has been making a biodiversity survey of Wisley Garden. On 3 October, the British Lichen Society made a survey, and found 60 different lichen species, of which 37 were corticolous. Then on 7 November, it was the turn of the BBS to survey the garden. The advertisement for the meeting elicited the fact that Fred Rumsey has been keeping an eye on the *Telaranea*. He could not be present for the BBS survey, but wrote that he had known it from several sites under large

old rhododendrons in the Wild Garden adjacent to the small stream near the Rock Garden. It has decreased in recent years.

The party of 12 bryophyte surveyors consisted mainly of BBS members, together with Benrong Zuo visiting from China. Kathryn Hart of the RHS acted as our guide. We met at the main entrance having surveyed the car park, which produced *Bryum ruderale* and *Phascum cuspidatum*, not seen within the garden.

The first main stop was the Walled Garden, which has paved paths and an urn. We found several calcicoles that we did not see elsewhere, including *Bryum radiculosum*, *Didymodon fallax*, *D. sinuosus*, *Orthotrichum anomalum*, *Pseudocrossidium hornsuschianum* and *Syntrichia montana*. Passing by way of a mulberry with *Orthotrichum lyellii*, we were guided by Kathryn straight to a patch of *Telaranea* by a path in the Wild Garden, which is not very wild, but is a small wet woodland with many ferns. It was the bryologically richest site we visited. We found 47 species of which 19 were not seen elsewhere, most of them characteristic of acid woodland. There was another good patch of *Telaranea* by the small stream, and there may well have been more, but we did not survey the area in detail.





Just by the Wild Garden is the Rock Garden, built with sandstone rocks, through which runs a cascade with *Eucladium verticillatum* and *Platyhypnidium riparioides*. Fred had told us to look out for *Phaeoceros laevis*, which was duly found by Jeff Duckett, along with *Anthoceros agrestis*. Also on the sandstone rocks were *Gyroweisia tenuis*, *Didymodon umbrosus* and *Tortula marginata*. Moving on, we found picnic tables near the Fruit Mount and paused for lunch.

Next stop was the orchard, where we examined the bark of numerous different apple varieties, whose fruit had mostly not been picked. There was a pervasive smell of rotting fruit. The epiphytes were moderately rich, with *Orthotrichum lyellii*, *O. pulchellum*, *Syntrichia laevipila*, *S. papillosa*, *Ulota crispa*, *U. bruchii*, *U. phyllantha* and *Zygodon conoideus* c.fr.

From the orchard we went to the Trials Field, where Fred told us we should find *Sphaerocarpos michelii*. It was present in some quantity, though the site was the most species-poor that we visited, with sheets of *Bryum dichotomum* and *Marchantia polymorpha*, but only seven species in total.

Battleston Hill produced *Aulacomnium androgynum* and a fine crop of *Ephemerum minutissimum* on shaded, disturbed ground.

On our return to the entrance, we searched for *Schistidium crassipilum* on a tiled roof. Charlie Campbell reached up and astonished us by



producing a tuft of *Leucodon sciurooides* instead. A few of the party departed, and the rest marched north to the heathy lawns and arboreta of Howard's Field which is by the River Wey. *Fontinalis antipyretica* and *Scleropodium cespitans* were on concrete in the river, and we saw several mosses of permanent acid grassland such as *Brachythecium albicans*, *Dicranum scoparium*, *Pseudoscleropodium purum* and *Thuidium tamariscinum*.

In total we found 106 species. Many were in very small quantity. The most surprising omission was *Schistidium crassipilum*, which was in 70% of 93 domestic gardens in a recent survey (Callaghan, 2009). We also failed to find *Brachytheciastrum velutinum*, *Dicranella schreberiana*, *Hypnum andoi*, *Isothecium myosuroides*, *Racomitrium aciculare*, *Rhynchostegiella tenella* and *Sciuro-hypnum populeum*, which were in 10–15% of Callaghan's sample. In the other direction, *Anthoceros agrestis*, *Sphaerocarpos michelii*, *Aulacomnium androgynum*, *Eucladium verticillatum*, *Leucodon sciurooides*, *Plagiothecium succulentum* and *Tetraphis pellucida* were not in any of Callaghan's gardens.

What then is the bryological character of Wisley? For the most part it is an acidic site, characterized by species of acidic ground. Limestone and concrete ornaments are remarkably few. Temples, grottoes and nymphs are absent. The urn in the Walled Garden had a single tuft of *Syntrichia montana* on its south side and one of *S. ruralis* var. *ruralis* on its north side. These were the only tufts of these very common species. We saw no other urn. Bryologically, the most interesting features were the Wild Garden, whose woodland is exceptionally moist for a garden in south-east England, and the Rock Garden, whose imported sandstone provided a habitat for several unusual species, some of which may have been imported with the substrate.

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## REFERENCE

Callaghan, D. (2009). Bryophytes of domestic gardens. *Field Bryology* 98, 23–27.



**Top left.** The BBS party in the orchard. *I. Atherton*

**Top centre.** *Syntrichia papillosa* and *Orthotrichum lyellii* on the trunk of an apple tree. *I. Atherton*

**Top right.** A few strands of *Telaranea tetradactyla* hiding in the shade in the wild garden. *I. Atherton*

**Left.** A carpet of male plants of *Lunularia cruciata* in the rock garden. *I. Atherton*