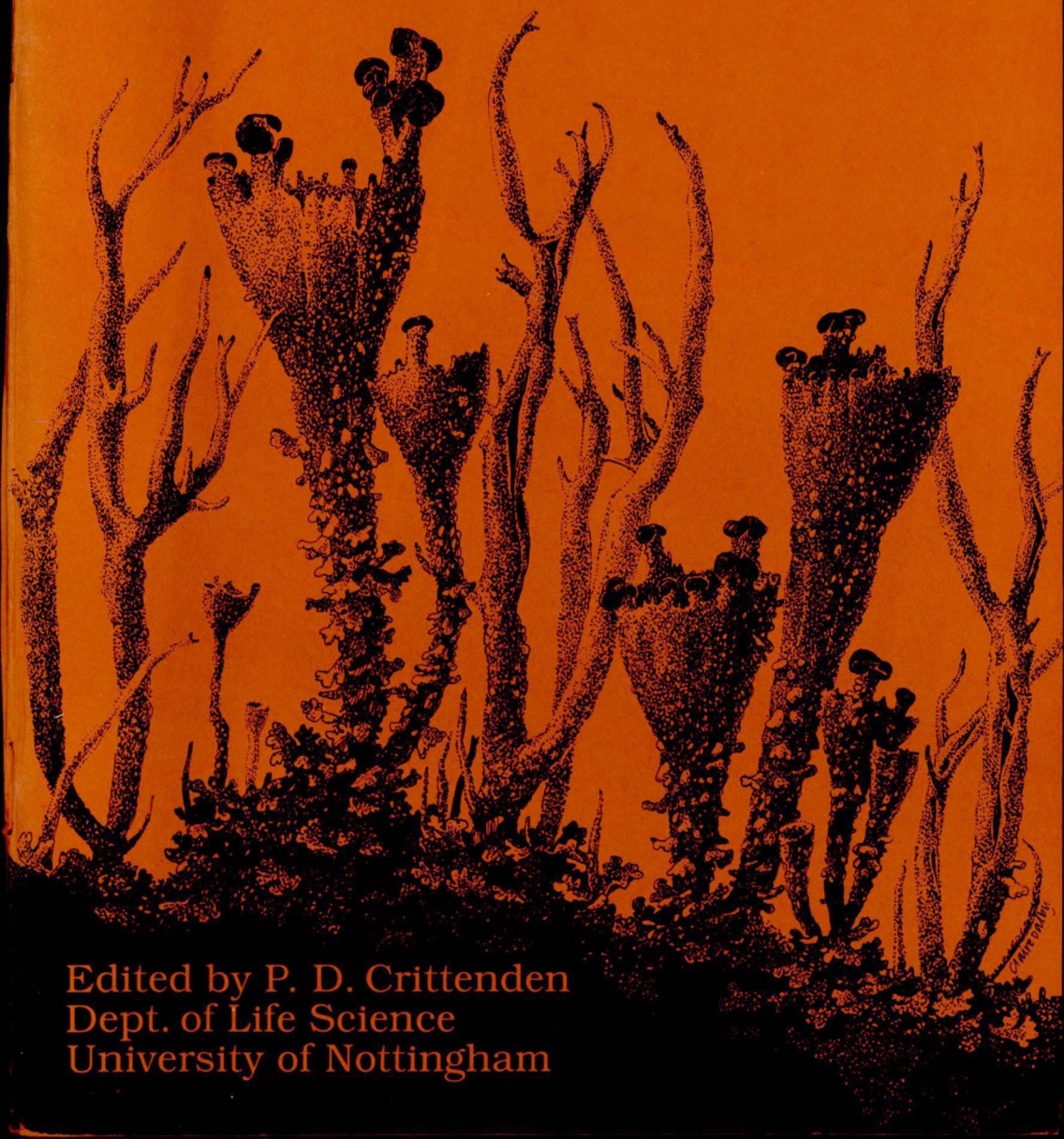


BRITISH LICHEN SOCIETY BULLETIN

No. 78 Summer 1996

+ key to non-yellow species of *Rhizocarpon*



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LICHEN RECORDS FOR ORKNEY

When I first set up my Shetland lichen databases, I did the same for Orkney using the full BLS data set available at that time - kindly supplied by Mark Seaward. The only changes needed were to add fields to the Paradox database to take account of the square and tetrad data used by the Orkney Field Club/Biological Records Centre (OFC/BRC). The dearth of fully localised records prevented me doing much more in the short term. I have now however been able to extract data from the national herbaria in Edinburgh and London - these include the much-quoted collections from Sanday and Eday made by William Jackson Hooker and his good friend William Borrer in 1808, and records made by Ursula Duncan, Pauline Topham and Mrs Neville Smith, and currently Brian Coppins sends me further records culled from mycological accessions at Edinburgh. All in all it has now become more realistic to proceed with Orkney recording. So at this stage I ask for anyone with Orkney material, or Orkney records, to let me know so that I can add them to my databases.

But there is more. The OFC/BRC has recently taken a significant step forwards by setting up house for its computer and other materials and data, close to the Scottish Natural Heritage office in Junction Road, Kirkwall. Consequently this seems to be the time for me (as OFC Recorder for lichens) to link my own databases with those of the OFC, and make a positive step forward in collecting Orkney lichen records in the interests of both conservation and biogeography.

Orkney is at present credited with 258 'species' (that is, taxa recognised in the BLS mapping scheme) in contrast to a total of 436 for Shetland (this figure takes in 74 for Foula and 109 for Fair Isle). I am at present examining the lists from Orkney and Shetland to see if any clues emerge for this inequality in the lichen lists. Habitat diversity must be significant - possibly low for Orkney in comparison with Shetland as its land area is only about two thirds that of the latter and its bedrock geology is so much less varied (being mostly Old Red Sandstone). However the scattered basic outcrops and extensive calcareous sandy grounds (especially on Sanday) must go a long way to balance the very hard metamorphic limestones of Shetland. It is true that the major serpentines of Unst are not matched in Orkney, but then I think that there are not so many species wholly restricted to these rocks in Shetland. The range of vascular plant communities is probably not significantly different because although, as Elaine Bullard writes (*Wildflowers in Orkney*, 1995) "the only marked British vegetation types missing from Orkney are conifer and broadleaf forests,

and rivers", the same is equally true for Shetland. Hoy has relict scrub woodland communities on birches and rowans especially - which Shetland lacks. Yet both island groups are intersected by lines of softwood fence posts (the older the better for lichens), and sycamores are frequently encountered near habitations. It is on these substrata that we find the corticolous and lignicolous lichens in both archipelagos - as well as on stranded sea timbers around high water mark.

I suspect that however important the solid geology and fences and trees may prove to be as substrata for lichens, the real difference in recorded species richness may prove to be due to the history and intensity of lichenological field work. As far as I can determine, Orkney has had little by way of 'high-powered' systematic studies comparable to those carried out in Shetland in the years after Ursula Duncan's visit in 1959. Very many new 10 km square records remain to be made in both groups of islands as difficulties of access to the more remote islands and coastlines remain serious constraints to fieldwork. Even as we approach the Millennium armed with notebook computers and satellite positioning systems, these aids assist but little in crossing slippery *Porphyra*-draped rocky shores or traversing turbulent tide races. It is not so very difficult to come upon lichen species new to Orkney. My wife and I were able to find *Thelotrema lepadinum* on Hoy during a very brief visit in rather repellent weather, and Barbara Benfield picked up a piece of cliff-top stone at Yesnaby on Mainland which proved to have *Lecidella meiococca* on it (another new record for Orkney). I think it unlikely that almost-by-chance observations in Shetland would reveal such distinctive species new to those islands. More on this subject anon.

Further records could help to narrow the gap between Orkney and Shetland, lichenologically speaking at least. The essential minimum data needed are species name and 6-figure grid reference, but if at all possible we would also like to have locality (including island name), habitat details, date of collection and "whodunnit". The OFC/BRC records are based on a combination of islands and tetrads, so any new records for Orkney that are accompanied by 6-figure references can speedily be converted to the appropriate BRC format using a BASIC program which I have written for this purpose. In the absence of grid references, though, the island name alone is very welcome.

If you have any crusts, powders or spots from Orkney whose identity is uncertain, remember that Trevor Duke is BLS referee for Orkney, and he will verify them before I send the confirmed record on to Kirkwall. If the

record is new to Orkney, then I will first let Mark Seaward know, and in any event I will see that the data is incorporated into all the relevant databases. The OFC/BRC ask for all records to be sent in through their recorders, and to have been properly verified (admirable quality control) - as unconfirmed records will not be 'recognised' in Orkney.

So here we see the start perhaps of an *Annotated List of Orkney Lichens* to balance the equivalent Shetland enterprise (now well under way) - part perhaps of a 20th Century postscript to the 13th century "Orkneyinga Saga"?

Kery Dalby

PARMELIA CAPERATA REACHES CENTRAL LONDON

The expansion of *Parmelia caperata* into the Greater London area has been dramatic, but the nearest site from which it was reported by Hawksworth & McManus (*Bot. J. Linn. Soc.* **100**: 99-109, 1989) was on *Salix* in Gunnersbury Park (TQ(51)/187785), 11 km west of Charing Cross. On 6 December 1995 I was privileged to be able to examine lichens within Buckingham Palace Gardens (TQ(51)/288796) in the City of Westminster and just 1.7 km south-west of Charing Cross, through the courtesy of Mark Lane (Head Gardener). I discovered a single 0.6 cm thallus of this sulphur dioxide sensitive species on an inclined *Salix* trunk (tree no. 1818) by the Lake. The ability of this species to withstand the current ambient sulphur dioxide levels in Central London would have been predicted from its known tolerance levels, and its colonization here may be a prelude to its establishment in other Central London gardens and parks. Fifteen lichenized species were found on this preliminary visit, and details of these and future discoveries will be published in the report of a fuller survey of the natural history of the Gardens currently being undertaken by the London Natural History Society.

David L Hawksworth