Book Review: Oliver Gilbert, "Lichens"

[New Naturalist series], HarperCollins, London. 288 pp., b & w illn, 16 pp. colour.
Paperback ISBN 0 00 220082 1. NZ $ 66.00.

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Until now I have never given lichens the attention they deserve — they are too small, too numerous, too awkward to curate (I failed as a youngster to secure the necessary store of tobacco tins) and, as far as I remember, are only half plant anyway, well not even that if the photosymbiont is a "blue-green alga" (cyanobacterium). Nor do I have the energy to carry around all day a folding ladder, 2 kg hammer and any number of cold chisels. Like Oliver Gilbert in his early days as an all-purpose ecologist, I have added "*Cladonia* sp." at the end of my ecological lists and that has been that.

Enough of the reviewer for a moment; Gilbert at least has gone on to write a inspiring work in the New Naturalist tradition, that blend of taxonomy, landscape history and enjoyment of the eccentricities of humans, rocks and buildings, animals, trees and little plants. About halfway through my first reading, its affinity with my favorite and also very British "Archaeology in the Field" (Crawford 1953) dawned; and amusingly there is a parallel between their examination criteria: "Made a Lichen List in the New Forest" and "Passed Roman Britain". But I'd taken the bait much earlier. Firstly, on seeing that the obscure 19th century botanical visitor to New Zealand, W. Lauder Lindsay of Edinburgh, is not so obscure to those with broader horizons: his popular book on British lichens, says Gilbert, is still a good read. Secondly, and without wanting to encourage any aberrant form of patriotism, who amongst us could not botanize with brighter eye on learning that it was in New Zealand in the 1970s that perhaps the second most significant discovery about the basic nature of lichens was made, that there are things called composite thalli, where a single fungus has different photosymbiont partners in different parts of the thallus, so giving distinct zonal morphologies, chemical secretions and abilities to form fruiting bodies.

British lichenology in the broadest sense is covered, and book lovers, lichen amateurs and matured ecologists will all find here much to sustain them: the importance of substrate, pH and pollutants; the difference between lichen-dye names (crottle, cudbear) and lichen-perfume names (Chypre, Fougère); creatures that need lichens, including the Cairngorms reindeer; growth on churches, standing stones, mine tailings, railways, bridges, in farm ditch edges and on the junk of the "urban commons"; growth on all manner of trees, from pine stumps and pollards to ancient woodland hulks; fresh-water lichens (an embarrassingly new concept to me); colour belts of the lichens of the rocky seashore; the glory of the British mountains, where there are c. 400 spp.; the rigours of adventure-lichenology; the scandal of Reverend Crombie's rarities.

A second reading gathered up an impracticably large number of quotable quotes — how the grit-margined taxiways of disused airfields carry a lichen flora reminiscent of sand dunes, how there is at last a River Jelly Lichen Steering Committee, and how in the hollows of the "Slaughter Stone" at Stonehenge a small rare nitrophilous lichen bides its time. Better to end with a selection of the book's 126 b & w illustrations (Figure 1), which should also make clear how enjoyable and scientifically satisfying a work this is.

Reference

Crawford, O. G. S. 1953: Archaeology in the Field. Dent & Sons, London.

Figure 1 opposite: Selected illustrations from "Lichens" (original captions, some pictures cropped, reduced from originals).

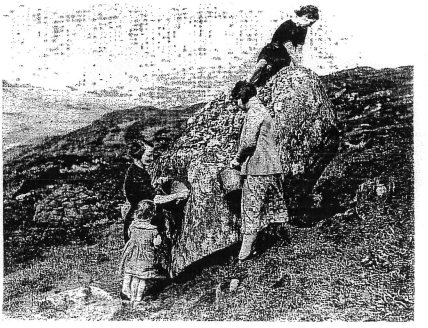

Fig. 1.3 Women gathering lichen using metal spoons at Roineval, Leverburgh, 1939 (A.M. MacDonald).

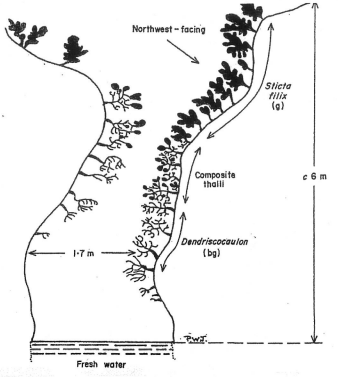

Fig. 2.2 The distribution of green and cyanobacterial phototypes of *Sticta filix* growing on the side of a humid gorge in New Zealand. Similar phenomena should be looked for in the west of Britain. From James & Henssen, 1976.

Fig. 5.2 Lichenologists examining an old tree in the Forest of Dean (J.R. Laundon).

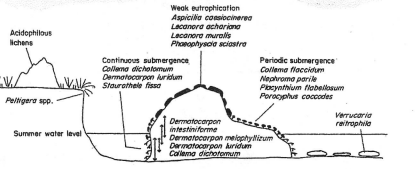

Fig. 12.7 A boulder at the margin of a Lake District tarn showing the distribution of the main lichen assemblages in relation to summer water level.

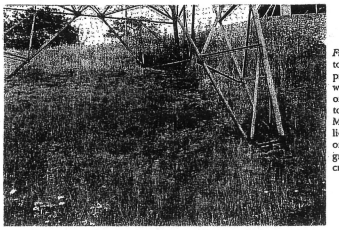

Fig. 10.5 The toxic shadow produced by water dripping off pylon towers. Metallophyte lichens thrive on the bare ground created.

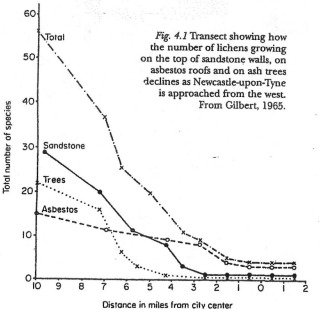

Fig. 4.1 Transect showing how the number of lichens growing on the top of sandstone walls, on asbestos roofs and on ash trees declines as Newcastle-upon-Tyne is approached from the west. From Gilbert, 1965.

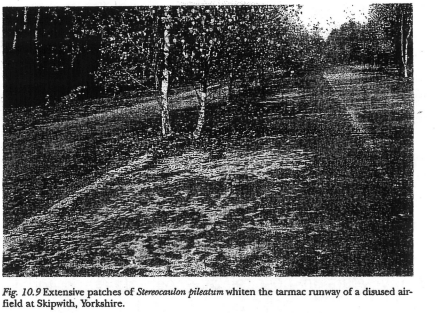

Fig. 10.9 Extensive patches of *Stereocaulon pileatum* whiten the tarmac runway of a disused airfield at Skipwith, Yorkshire.

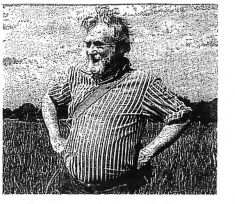

Fig. 5.1 Francis Rose (P. Loughran).

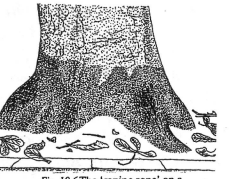

Fig. 10.6 The 'canine zone' on a street tree. The dark, strongly eutrophicated base supports a 'Xanthorion' community while higher up the trunk is clothed with *Lecanora conizaeoides* (M.J Lindley).