

Some more lichens from Graham's Bush trip

Lichens are curious creatures, made up as they are of a fungus and an algal and/or a cyanobacterial photobiont living together for mutual exploitation. Identification is often complex, especially for the tiny crustose species inextricably attached to bark or rock. In the herbarium we have been taking a closer look at some of the lichens collected at Graham's Bush in September. We used microscopic examination of thallus to start with, looking for distinctive morphological features, followed by chemical spot tests to detect specific lichen chemicals. If needed, high power examination and measurement of spores and thin sections of fruiting bodies is the next step, followed by iodine or other staining for further definition.

A pale green crust on a shady rock by the track keyed out as a fertile specimen of *Trapelia coarctata*, while a dark grey crust of tiny squamules and brown apothecia answered best to *Parmeliella nigrocineta*, which has recently been moved from the genus *Pannaria*.

The twigs and bark of the old hawthorn, *Crataegus monogyna*, were rich in interesting crusts. There we found *Porina decrescens*, which has a closed perithecium for a fruiting body. Then there were three 'graphids', *Opegrapha intertexta*, *Opegrapha agelaeoides* and *Enterographa gelatinosa*, which all have linear apothecia (lirellae), sometimes resembling miniature hieroglyphics, rather than the usual round fruiting bodies.

On the fine twigs of a dead divaricating shrub we identified several *Lecanora* spp, including *Lecanora dispersa* and *Lecanora carpinea*. The apothecia of *L. carpinea* are covered in tiny crystals, which are C+ yellow, that is, they turn bright yellow when dabbed with hypochlorite (common bleach).

Some grey-green foliose lichens, on the same bark and twigs, needed a closer investigation to be sure of identification and turned out to be *Parmelina labrosa*, *Parmotrema chinense* and a sorediate *Physcia* sp. Also, more grey-green than its normal bright orange, was the shade form of the fascinating little fruticose *Teloschistes chrysophthalmos*, standing out under the hand lens like an elfen shrub in miniature.

Jennifer Bannister and Allison Knight OTA herbarium

Fig. Magnified view of the fruticose (miniature shrub-like) orange coloured lichen *Teloschistes chrysophthalmos*, seen on the Graham's bush and Heyward Point trips and common on twigs of native and introduced shrubs and trees in high light situations around Dunedin. Try looking for it in your garden with a hand lens.

Photocopied by Allison Knight

