

Key to 15 genera of common foliose lichens in the Dunedin urban area

Jennifer Bannister and Allison Knight, OTA

1. More or less regular pale pits (**cyphellae** or **pseudocyphellae**) on lower surface.....2
 No pits on lower surface (exclude rips, tears, insect and other damage).....3
2. Pits on lower surface indented, smoothly lined with raised margins (cyphellae).....*Sticta*
 Pits roughly lined, less indented, less regular (pseudocyphellae).....*Pseudocyphellaria*
3. Spots or lines (pseudocyphellae) breaking the upper surface or margins (look carefully at the ends of young lobes).....4
 No spots or lines breaking upper or lower surface or on lobe margins.....5
4. Pseudocyphellae on upper surface small, round (punctiform), **medulla** C+ pink...*Punctelia*
 Pseudocyphellae breaking upper surface in irregular lines or network. There may also be pale unbroken patches or blotches (**maculae**).....*Parmelia*
5. Lower surface a felted mat of **hyphae**, with darker veins and thick **rhizines**, usually growing on soil (terricolous) or moss (muscidolous) in damp places.....*Peltigera*
 Lower surface not felted or veined.....6
6. Lobes of the **thallus** (the main body of the lichen) hollow.....7
 Thallus lobes solid (slice open near the tips and examine with lens or microscope).....8
7. Hollow lobes perforated by holes on upper surface, usually numerous.....*Menegazzia*
 Hollow lobes with no perforations*Hypogymnia*
8. Thallus and fruiting bodies (**apothecia**) orange or tinged with orange.....*Xanthoria*
 Thallus green-yellow, green, grey, brown.....9
9. Thallus yellow-green or yellow brown, especially at tip of lobes.....10
 Thallus green, grey-green, grey, brown-green or brown.....11
10. Thallus yellow-green, sorediate, tips of lobes rounded, growing on bark (corticolous) or rock, (saxicolous).*Flavoparmelia soredians*
 Thallus yellow-green, lobe tips irregularly incised, growing on rock, road, footpath, tile or other hard surface.....*Xanthoparmelia*
11. Thallus entirely brown, or greenish brown if damp, growing closely on rock, road or other hard surface.....*Neofuscelia*
 Thallus green or grey, growing on a variety of substrates (bark, rocks etc).....12

12. Thallus largely white or whiteish grey, even when damp (soredia may be greenish)...*Physcia*
Thallus grey-green or green when damp.....13
13. Lobes broad (4-20 mm), rounded, with long, conspicuous cilia.....*Parmotrema*
Lobes narrower, green or grey-green, cilia short, if present.....14
14. Lobes narrow, mainly < 4 mm wide, short cilia may be present, medulla C+ red...*Parmelina*
Thallus very small and closely attached to bark (corticolous). Lobes thin, green flat, with
paler, round soralia. No cilia present.....*Hyperphyscia adglutinata*.

Trip and Meeting Reports

Solander meeting

Allison Knight

Dr Ted Nye spoke to a full house of 30-odd people in the new Benham seminar room on July 23. He began his talk with an upright cardboard file box, with an open front and sloping sides, correctly called a Solander box, after the Swedish botanist who invented it while he was working at the British Museum over 200 years ago. Then he regaled us with all manner of interesting details of Solander's life, going right back to his great-great grandfather who lived at a time before surnames were common and took a local feature, Solberg (sun mountain), as the family name. Great-grandfather, who was a Lutheran priest, latinised the name to Solimontanus, and grandfather contracted it to Solander. Father was a priest and a schoolteacher, so young Solander would have grown up with a good background in Latin, which he put to good use as a pupil of Linnaeus at Uppsala University. Coincidentally, there is a town called Nye not far from Linnaeus' birthplace. Linnaeus' house, glasshouses and garden, arranged according to Linnaean systematics, are all still there in Uppsala.

From Uppsala Ted led us to Britain, where Solander spread Linnaeus' hierarchical system of binomial classification, possibly indulged in a little industrial espionage for Sweden, and was in demand for classifying private collections, such as that of Hans Sloane, whose collection formed the basis of the British Museum. He soon came to the notice of Joseph Banks, who encouraged Solander to come as naturalist on Captain Cook's expedition in the Endeavour to observe the transit of Venus and explore the southern continents. On the voyage Banks and Solander collected hundreds of plant specimens, described them in Latin, and had many adventures along the way. Their specimens were drawn on board by Parkinson, the artist, who unfortunately died of malaria. His botanical paintings were not published until 1980, over 200 years later! There is a copy of the Florilegium containing them in the Hocken Library. Green, the astronomer, also died of malaria in Batavia, along with a quarter of the crew.

Despite this, Banks was so keen to come on Cook's second voyage that he had a third deck built on the Resolution for his retinue. Unfortunately this made the ship so unstable that the royal Navy insisted it be dismantled. So Banks and Solander mounted

an expedition to Iceland instead, which was not nearly so botanically interesting. On their return to London Solander lived with Banks in Soho and become Keeper of Natural History at the British Museum. He was reluctant to let Linnaeus see any of his specimens, and died of a cerebral haemorrhage at the age of 49.

Since Solander brought Linnaeus' binomial system to the English speaking world, and was the first professional botanist to visit New Zealand, Ted suggested setting up a Solander Garden in Dunedin in 2007, to honour Solander and to mark the 300th anniversary of the birth of Linnaeus. The other significance of the 2007 anniversary, and an appropriate time to set up the Solander Garden, is that the IK Foundation in Britain plans the publication that year of the works of the pupils, "apostles" if you like, of Linnaeus, who travelled the world in search of natural history specimens. The Otago Scandinavian Club supports this idea of a Solander Garden, as does the Botanical Society. If you would like to be involved in this historic botanical project, see page 22 for details of the meeting at Ted's place on 21 September.

Lichens on twigs workshop

Robyn Bridges

Tony Druce is reputed to have said that once you have been introduced to a plant, then 'shaking hands' with it each time you come across it is a really good way to familiarise yourself with the species. I am pleased to say, having spent several happy hours at the recent Lichens on Twigs Workshop, that I have been introduced to several cosmopolitan lichens in my garden. These unassuming members of my garden's habitat give an extra dimension to the garden. Of course being introduced is only the first step, but thanks to the workshop, I am well on my way to getting to know them better!

Like last year's lichen workshop, Lichens on Twigs, was a great success. Under the able guidance of Jennifer Bannister and Allison Knight I was taken through the many steps involved with lichen identification. Lichen keys are not for the uninitiated and I appreciated not only the facilitators' expertise, but also having on hand glossaries, websites, keys and reference books. And thanks to the Department of Botany for letting us use their excellent laboratory facilities.

BSO foray to Orokonui Reserve

Norman Mason

Dunedin really outdid itself weatherwise for the Bot. Soc. Trip to Orokonui reserve on August 9th. The group of 20 or so phytophiles could not have wished for a better day. The trip was led by local botanist Dr. Ralph Allen, who, as a member of the Dunedin Natural History Trust, is currently working to establish a mainland island reserve at Orokonui. The term mainland island derives from the habit that New Zealand's conservationists have of evacuating endangered fauna to predator-free, offshore islands. The point of mainland islands being the establishment of predator-free areas on the mainland to accommodate endangered and threatened species. The plan for Orokonui