

a part of that! Toni Atkinson made good collections of wood-decaying ascomycetes in the family Lasiosphaeraceae for her PhD and Chad Tustin made collections of an unidentified *Cortinarius* (subgen. *Myxacium*) species for his thesis on population genetics and DNA fingerprinting. Most of the remaining collections went to the New Zealand Fungal Herbarium (PDD, Landcare Research), with a smaller number going to the herbarium at Forest Research in Rotorua and the University of Otago Herbarium (OTA).

On Wednesday 8th May, we were treated to a wide range of talks as part of the "Mycology Colloquium". Talks included the development of "mycoherbicides" for biological control (by Jane Frohlich from Landcare Research), through to fire ecology of Western Australian fungi (by Richard Robinson from CALM, WA), coprophilous fungi by Ann Bell and Dan Mahoney, the NZ fungi database/website by Jerry Cooper (Landcare Research, Lincoln) and "Car cooking" (!) by Geoff Ridley from Forest Research (actually it was serious - about the best way to destroy unwanted organisms arriving in/on imported cars into New Zealand including an experiment where a car was cooked in a big oven!). I thoroughly enjoyed the Mycology Colloquium and from the comments of others, so did everyone else.

Stewart Bell from the University of Otago brought all the food, microscopes, BBQ, dehydrator and heaps of other things for the foray from Dunedin in a big truck. We were lucky to have Lee Houppapa cooking for the foray, with the bonus of cooked breakfasts every morning! Fans of Lee's cooking can catch her at Dunedin's Tangenté Café on Monday's and Wednesday's. Peter Buchanan from Landcare Auckland ferried others from Queenstown in a bus, which unfortunately missed one English passenger, Mary Hunt. Mary "accidentally" flew to Christchurch instead of Queenstown and boldly convinced a taxi driver to drive her from Christchurch airport to Haast! Apparently the taxi driver had never been over Arthur's Pass before. They got as far as Fox Glacier by nightfall and Mary caught a bus to Haast the following morning.

The largest foray so far, in the most remote place yet, couldn't have taken place without the help of many people, especially Mary Anne Miller, Vickey Clarke and Stewart Bell from the Botany Department, University of Otago, Paula Wilkie and Peter Buchanan from Landcare Research Mt Albert, and Kingsley Timpson and Paula Penno from the Department of Conservation at Fox Glacier. Brian and Phillipa from the Haast Beach Holiday Park made sure we all had somewhere cosy to sleep and work. Thanks very much to those people and to everyone else who attended for making the foray the great success that it was.

*David Orlovich, Botany Department, University of Otago*

Fig. *Cladia sullivani*

## Lichen Workshop, Dunedin, 18 May 2002

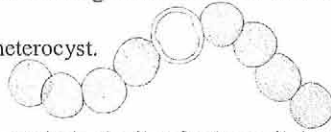
There's something catching about enthusiasm which is why on a cool Saturday morning, in howling mists on Mt Cargill, there were nine people peering intently groundwards! These hardy souls were taking part in the recent Lichen Workshop. Superbly organised by Jennifer Bannister and Alli Knight, with 'in workshop' expert advice from David Galloway, the author of the New Zealand Lichen Flora, the workshop was a great success.



It was a treat to have guidance, both in the field and later in the laboratory, where with help we delved deeper into the detail of the specimens we had collected. Books, microscopes, advice and laboratory equipment were freely available and I for one came away from the workshop satisfied with my first effort in keying out a lichen.

Lichens are curious 'creatures'. Made up of a fungus and an alga they are brilliantly adapted to occupy and live in places where little else can. Securing nitrogen is essential to all plants, and some lichens, through a complex but brilliant relationship with cyanobacteria (blue green algae), are able to fix their own. Without needing the complex structures of vascular plants, lichens are superbly adapted as colonisers, playing a key role in the establishment of new vegetative cover. A principal player in fixing nitrogen in lichens is the cyanobacterium, *Nostoc* and so it was particularly interesting when David Galloway pointed out some 'free living' *Nostoc* in the field. In the laboratory we could clearly see its bead like structure and the large nitrogen fixing cells, heterocysts, where inert atmospheric nitrogen is converted into soluble ammonium.

Fig. Cyanobacterium *Nostoc* with heterocyst.



For convenience, lichens are grouped morphologically: fruticose lichens are branch-like e.g. *Usnea*, *Thamnolia*, *Cladonia* and the ubiquitous *Cladia aggregata*; crustose lichens include rock and bark-hugging varieties e.g. *Placopsis* and *Lecanora*, while foliose lichens are the leafy lichens e.g. *Pseudocyphellaria crocata*, *Umbilicaria* and *Sticta*.

Excellent reference books on Lichens are available (at 20% discount to Botanical Society members), from Manaaki Whenua Press, (contact details p 16 this issue)

Thanks to Jennifer, Alli and David for an excellent workshop, and to the Botany Department for the use of their facilities. - *Robyn Bridges*

Fig. *Cladia aggregata*, a common fruticose lichen



## REVIEWS

### Books

**Botanica's Trees & Shrubs: Illustrated A - Z of over 8500 plants.**

Valda Paddison and Geoff Bryant, Chief consultants.

Random House, Auckland. 2001. 928 pp plus 515 MB CD Rom.

Advised of this book by a local fellow botanist, I was told it was not to be missed, on special at The Warehouse and substantially reduced, to a mere \$35 (from \$99.95). I immediately 'phoned to be told it was sold out but, days later, another fellow local botanist told me her husband's persistence had won through and she had bought four copies at this price. I managed to talk her out of one, at the going rate and with an undertaking to review it for the Bot. Soc's newsletter. So: