



## Newsletter Number 53 February 2008

### **BSO Meetings and Field Trips**

- 29 February**, Friday 12-2 pm. **Free BSO BBQ!** A BBQ to welcome new botany/ecology students and new BSO members. At the front lawn, Botany House Annex, Great King Street (across the road from the main Botany building). Sausage sandwiches and drinks provided free by the Botanical Society of Otago. All current and prospective BSO members welcome!
- 19 March**, Wednesday 5.20 pm. **Chatham Island Places & Plants.** A talk by Dr Peter Johnson. Peter has been on the Chatham Islands Conservation Board since 1999. He's made numerous trips to the island group, each time seeking out a new corner to explore. Wetlands are a particular focus and Peter is busy preparing a handbook on those. He's also led two botanical tours there with strong support from Botsoc members. This talk may be the inspiration for your own visit! See Meeting Details, p. 3 for venue.
- 29 March**, Saturday 8.30 am. **Field trip to Mt Watkin.** Mt Watkin is well known for its volcanic summit and associated rock glaciers but it is less well appreciated that the recently created Mt Watkin Scenic Reserve contains some of the best stands of dry matai-totara/ribbonwood forest in coastal Otago. This BSO trip will concentrate on some of the forest areas, and will include a visit to a magnificent cliff overlooking the Waikouaiti River. Participants should be reasonably fit as a degree of walking will be required to visit the most interesting sites. Alternative date in case of rain, Sunday 30. Leader **Kelvin Lloyd** ph 473 9566 (h) or 477 2096 (w).
- 16 April**, Wednesday 5.20 pm. **An evening of Botanical Photography and AGM.** Following on from last years successful formula we have again lured renowned photographers Rod Morris, Peter Johnson and Kelvin Lloyd back to judge our second BSO photographic competition following a brief AGM. Entries will be on display, photographic tips given and prizes presented. It's not too late to

enter. Entries close 31 March, 5 p.m. See BSO website or notice board for entry forms. See Meeting details, p. 3 for venue.

**19 April**, Saturday 8.30 am. **Field trip to Kurinui**, North Otago. Kurinui is a 750 ha privately-owned property between Hampden and Dunback. It includes a variety of habitats including forest, shrubland, scrub, and grassland, and several small streams and wetlands. The land is very dissected and is notable for the presence of large rock outcrops. All stock were removed from the property in 2003 to allow recovery and regeneration of native vegetation. Over time it is expected that most of the land will become covered in forest, as it would have been in pre-human times. We will spend the day exploring the property with the guidance of the owners, Scott and Dinah Dunavan. Leader **Scott Dunavan** ph. 027 290 3643.

**7 May**, Wednesday 5.20 pm. **Botanical “Show and tell” evening**. Members are invited to bring along botanical items (for example, photographs and slides, plants, books, seeds – anything botanical that you’d like to show others!) for a show and tell evening. See Meeting Details, p3 for venue.

**11 May**, Sunday 9 am. **Field trip to Tavora Reserve**, North Otago. Tavora is a coastal reserve near Palmerston managed by the Yellow-eyed Penguin Trust. The Trust has done extensive riparian planting and has also transformed the previously marram covered dunes into a showcase of pingao with many associated threatened species including shore spurge, Cooks scurvy grass and sand tussock. The reserve also has natural populations of the uncommon *Aciphylla subflabellata*, *Lepidium tenuicaule*, and *Tupeia antarctica* mistletoe hemi-parasitic on ribbonwood trees. We’ll do an easy walking circuit of the reserve that takes in all the highlights. Leader **John Barkla** ph. (03) 476 3686.

**11 June**, Wednesday 5.20 pm. **The expanding range of *Undaria* in Southern New Zealand**. A talk by Dr Lisa Russell. Very few studies have addressed how the invasive kelp *Undaria pinnatifida* spreads beyond initial founding populations in harbours. Our surveys of the southern coastline of the South Island demonstrate that contrary to common belief, *Undaria* is capable of invading native kelp communities on wave exposed coastlines. Results from these surveys and potential impacts will be discussed. See Meeting Details, p3 for venue.

**22 June**, Sunday 9 am. **Field trip to Varleys Hill**. The QEII covenant at Varleys Hill on the Otago Peninsula includes a small salt meadow, lowland broadleaf forest, large areas of kanuka, and a hill top shrubland. Since farm stock were excluded 15 years ago, the broadleaf understory has recovered rapidly and a variety of ferns are present under the kanuka canopy. Moira Parker will show us around the covenant and we may also visit a second nearby covenant. Leader **Moira Parker** ph. (03) 478 0214

**Meeting details:** Talks are usually on Wednesday evening, starting at 5.20 pm with drinks and nibbles (gold coin donation), unless otherwise advertised. Venue is the Zoology Benham Building, 346 Great King Street, behind the Zoology car park by the Captain Cook Hotel. Use the main entrance of the Benham Building to get in and go to the Benham Seminar Room, Room 215, 2<sup>nd</sup> floor. Please be prompt, as we have to hold the door open. Items of botanical interest for our buy, sell and share table are always appreciated. When enough people are feeling sociable we go out to dinner afterwards - everyone is welcome to join in. Talks usually finish around 6.30 pm, keen discussion might continue till 7 pm.

**Field trip details:** Field trips leave from Botany car park 464 Great King Street, unless otherwise advertised. Meet there to car pool (10c/km/passenger, to be paid to the driver, please). 50% student discount now available on all trips! **Please contact the trip leader before Friday for trips with special transport, and by Wednesday for full weekend trips.** A hand lens and field guides always add to the interest. It is the responsibility of each person to stay in contact with the group and to bring sufficient food, drink and outdoor gear to cope with changeable weather conditions. Bring appropriate personal medication, including anti-histamine for allergies. Note trip guidelines on the BSO web site: <http://www.botany.otago.ac.nz/bso/>



**Above:** Fungus season is approaching! *Weraroa erythrocephala* from Knight's Bush (19 May 2007). Photo: David Orlovich.

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## Chairman's Notes

*John Barkla*

Welcome to our first newsletter of the year with its news, reports, and trip and talk programme for the next four months. The year's botanising got off to an early start for some members who, at short notice, surveyed the Akapatiki block on the Otago Peninsula and wrote a report to Council on the special values of the block (see brief summary in this newsletter). We were pleased with the Council's decision later that month to purchase the block and protect its biodiversity.

Three of the trips planned for the next few months have a distinctly North Otago focus – Mt Watkins, Kurinui

and Tavora – mountains to the sea – while the fourth is to a members covenant on the Peninsula. They all celebrate the wonderful efforts of individuals and organisations that are restoring and managing their lands for biodiversity.

The AGM is coming up in April, in conjunction with our second photographic competition. Several of last years entries graced our successful inaugural calendar so that's an added incentive to get your entries in. We'll be looking for one or two new faces to join the committee too – let me know if you're interested.

## Editor's Notes

*David Orlovich*

Welcome to the next *BSO Newsletter*! I hope you enjoy it! **Please submit copy for next newsletter by 15 June 2008.**

**Editor's guidelines:** Contributions are always welcome. Try to aim for a 0.5 – 1 page of 14 pt Times for news, trip/meeting reports and book reviews, and 1 – 5 pages, including illustrations, for other articles.

**Disclaimer:** The views published in this newsletter reflect the views of the individual authors, and are not necessarily the views of the Botanical Society of Otago, nor do they necessarily reflect the views of the Department of Botany, University of Otago, which is supportive of, but separate from, our society. Publishing of advertisements does not necessarily imply endorsement by this Society.

## Correspondence and News

### **Botsoc members survey Harbour Cone, Otago Peninsula**

*John Barkla*

During December and January several Botsoc members rallied at short notice to carry out a botanical inventory of a 328 ha block of land centred on the iconic Harbour Cone on Otago Peninsula (Akapatiki Block). The

Dunedin City Council was considering whether to purchase the block and the Society was keen to ensure that the Council had the most up-to-date information to support its decision-making process. Subsequently the

Council unanimously agreed to the buy the block on 24 January 2008.

The most comprehensive previous assessment of the vegetation of the entire Otago Peninsula was that carried out by Peter Johnson, commencing in 1976 and reported in Johnson (1982). Johnson assessed all forest and scrub patches 0.5 ha or larger and produced an inventory of 180 sites. These were then rated on a 0-5 scale for botanical, wildlife, scenic, soil conservation and recreational values. Of these 180 sites, 77 key sites (those having a total rating of 12 or more out of a possible 25) were described in detail. Conservation of the key sites was recommended and he noted that only 5.25 % of the Otago Peninsula retains any native forest or scrub.

Of Johnson's 180 sites, six sites occur in their entirety (sites 78, 79, 80, 125, 126, 142) and one site in part (site 74) in the Akapatiki Block. All but one of these (site 80) were recognised as key sites in Johnson (1982).

More recently Peter Johnson has compiled an annotated list of the vascular or 'higher' plants growing wild on the Otago Peninsula (Johnson 2004). This important resource helped put the recent surveys in context.

BSO members Moira Parker, David Lyttle, Alf Webb and Mike Thorsen surveyed the seven sites of Johnson (1982) that occur wholly or in part on the Akapatiki Block. They compared their findings with the descriptions of sites in Johnson (1982) and made observations on the condition and

sustainability of all sites visited. Some of their key findings were:

- Species composition has little changed since 1982
- Approximately 113 indigenous vascular plant species were observed representing 30 % of the total recorded for the Otago Peninsula. This indicates high species richness given that the Akapatiki block constitutes just 3.4 % of the land area of the Otago Peninsula.
- Considerable diversity remains in the small forest and scrub remnants with each remnant having a different character in terms of species composition.
- There is also considerable diversity within some plant groups (e.g. fern diversity is especially high in Stewarts Creek with 24 species representing 43 % of native fern species recorded for the Peninsula).
- Two of the plants found are regarded as nationally threatened in the most recent threat classification list for New Zealand (de Lange et al 2004). These are the small tree *Raukaua edgerleyi* and wetland herb *Epilobium chionanthum*, both with the threat status of 'Gradual Decline'.
- Several other species are significant in a local sense, occurring elsewhere on the Peninsula in only one or two sites (e.g. *Blechnum colensoi*, *Olearia bullata*, *Raoulia subsericea*, *Neomyrtus pedunculata*,

*Muehlenbeckia complexa* and *Australina pusilla*) and sometimes as only one or two individuals (e.g. miro).

#### References cited

de Lange, P.J.; Norton, D.A.; Heenan, P.B.; Courtney, S.P.; Molloy, B.P.J.; Ogle, C.C.; Rance, B.D.; Johnson, P.N.; Hitchmough, R. 2004: Threatened and uncommon plants of New Zealand. *New Zealand Journal of Botany* 42: 45-76.

Johnson, P. N. 1982: Forest and scrub vegetation on Otago Peninsula: botanical report. DSIR Botany Division, unpublished report. 50 p

Johnson, P. N. 2004: Otago Peninsula Plants. An annotated list of vascular plants growing in wild places. Save The Otago Peninsula (STOP) Inc. 94 p

### 24th. John Child Bryophyte Workshop, 12 -17 December, 2008

There is already considerable national and international interest in this workshop on mosses and liverworts. It will be held from the 12th to 17th December, 2008, in the Catlins area of southeast New Zealand based at the Tautuku Outdoor Education Centre.

This is a fascinating area providing a great opportunity to explore a broad range of indigenous vegetation. Microscopes will be available and a number of field trips are planned to encompass a variety of vegetation

types. The Catlins are about 100 km south of Dunedin and about 80 km west of Invercargill, and some transport will be available from Dunedin: an excellent starting/finishing point for a holiday.

To lodge expressions of interest or for any information contact John Steel, Department of Botany, University of Otago, P.O. Box 56, Dunedin, New Zealand, or email [john.steel@botany.otago.ac.nz](mailto:john.steel@botany.otago.ac.nz)

### Tom Moss Student Award In Bryology

Tom Moss was an active member of the Wellington Botanical Society for many years, and was a participant in the very first John Child Bryophyte Workshop in 1983. He helped to organise the second Workshop at Akatarawa in 1984 and attended every year after that until the Kaikoura Workshop of 1993.

To commemorate his name, his contribution to New Zealand botany,

and his particular interest in bryology, a Trust Fund was established following discussion at the 2006 John Child Bryophyte Workshop. It is administered by the Wellington Botanical Society. The Tom Moss Student Award in Bryology provides a small annual prize for the best student contribution to New Zealand bryology.

The first Award will be made at the John Child Bryophyte Workshop that



will be held in December 2008 in the Catlins Region of SE Otago. Contributions that would qualify for the Award include:-

- A student presentation at the Workshop relating to New Zealand bryology.
- A paper relating to New Zealand bryology. Only one application per student will be accepted (i.e. either a presentation or a publication).

This can be published, or accepted for publication, or a significant unpublished report. This should be published or written in the twelve months immediately prior to the Workshop and submitted for judging by 1 Nov 2008 (see below). It is not necessary to attend the workshop where a paper is submitted for consideration.

Contributions are invited and will be considered from any student enrolled for a B.Sc., M.Sc., Ph.D., or equivalent degree in the twelve months immediately prior to the Workshop.

### **22nd New Zealand Fungal Foray**

The 22nd New Zealand Fungal Foray, 11th to 17th May 2008, will be held at the Waiora Scout Camp near Dunedin. Details of the foray and registration form are now available here. For enquiries please contact David Orlovich (david.orlovich@botany.otago.ac.nz) or Paula Wilkie (wilkiep@landcareresearch.co.nz).

Dunedin is New Zealand's wildlife capital". Collecting sites for fungi will

Students may be enrolled in a New Zealand or overseas university, and may include work on overseas bryophytes as long as the work relates in some significant way to New Zealand bryology.

An Award of \$150 will be made by a panel of three judges attending the Workshop and appointed by the Wellington Botanical Society. The panel may reserve the right to make no award if there are no suitable contributions.

Publications for consideration should be submitted with a covering letter to Tom Moss Student Award, Wellington Botanical Society, PO Box 10 412, Wellington 6143 by 1 November 2008. Students intending to make a qualifying presentation at the Workshop should indicate this when they enrol for the Workshop. .

Further information about the Award may be obtained from Dr Patrick Brownsey, Te Papa, P.O. Box 467, Wellington (04 381 7135; email patb@tepapa.govt.nz).

include beech forest, mixed broadleaf/podocarp forest, tea-tree stands and montane grassland, all within easy vehicle access of the camp. The Otago Peninsula's yellow-eyed penguins, albatross colony, fur seals and sea lions are among additional points of interest. The programme will involve daily collecting, identification, and provision of display tables of the day's finds, followed in the evening by informal talks.



Wednesday 14th May will be set aside for a Mycology Colloquium where participants can present talks or posters on any aspect of mycology. The Colloquium will be held at the University of Otago, with details to be advised closer to the date, and lunch will be provided at this venue. Interested participants are invited to submit a title with their registration form or email it to David Orlovich by 18th April 2008.

#### *Accommodation*

Accommodation is at the Waiora Scout Camp on Silverstream Valley Road, 14 km (about 15 – 20 minutes drive) from Dunedin. Accommodation is in cabins or bunkrooms holding 4 or 6 people each. The cabins and bunkrooms at Waiora contain beds, mattresses and pillows only – towels and linen (sheets, blankets, and pillow cases), are not supplied, so you will need to bring your own. Participants should also bring a knife, fork, spoon, plate, breakfast/desert bowl and mug, as there is only a limited supply of these at the scout camp. Camp sites are available for those who wish to bring a tent.

If you wish to book alternative accommodation such as motels or bed and breakfast instead of the regular accommodation, please arrange this privately. The scout camp is about 10 minutes drive from Mosgiel, 15-20 minutes drive from Dunedin, and about 20 minutes drive from Dunedin airport. Self-serve breakfasts will be arranged at the Camp. Packed lunches will be made available to all participants at the Camp Kitchen in the morning. The

evening meals will be provided at the Camp.

Please indicate if you have any special dietary needs (vegetarian, lactose-free, gluten-free etc). Our caterer will endeavour to fulfil special meal requirements but these should be advised in advance.

The cost is NZ\$60 per person per day for those staying in the regular accommodation, as a share of actual costs, which include food and accommodation. This price does not include the cost of getting to the venue, or privately organised accommodation upgrades.

#### *Colloquium day*

For fungal foray participants, the cost of the Colloquium day is covered in the fees. If attending the Colloquium day only, a charge of \$35 will be levied to cover costs.

We are happy to subsidise students wishing to attend the foray. The subsidy will be for the accommodation cost. It does not include transportation or meals. Please apply early.

#### *Registration*

Please register for the foray by completing the registration form available from <http://www.funnz.org.nz/forays/22/dunedin.htm> and return it by 31 March 2008.

All participants, please send the registration form to: Paula Wilkie, Landcare Research, Private Bag 92170, Auckland, New Zealand.

New Zealand participants should also include a deposit of NZ\$60 (cheques payable to 'Fungal Network of New Zealand'). To avoid currency conversion difficulties, international participants (incl. Australian) need not

send a deposit with the registration form. Although receipts will be written out, they will not be posted to you unless you specifically request it. You will receive a receipt when you pay at the foray.

## Books

*Allison Knight*

International prize to NZ Bryophyte Book. (Excerpts from Jessica Beever's article in NZ Bot Soc Newsletter 90, Dec 2007)

At the recent 'World Conference in Bryology' in Kuala Lumpur, the 2007 recipients of the prestigious Hattori Prize were announced. Bill and Nancy Malcolm, of Micro-Optics Press in Nelson, received the award for their very fine book, 'Mosses and Other Bryophytes – an Illustrated Glossary (Second Edition)'. The prize is given biennially by the International Association of Bryologists for the best bryological publication in the preceding 2 years.

New Zealand botanists will already be aware of the significant contributions Bill and Nancy are making by

disseminating botanical knowledge. Their superb photographic skills are evident in all their earlier books. Like the first edition of the Glossary, this greatly enlarged 2<sup>nd</sup> edition is a very useful reference work, not only for bryologists, but for botanists of any ilk. Copies are available within New Zealand from Manaaki Whenua Press for \$110.25 plus \$5 delivery. The usual 10% discount for Botanical Society members applies.

There is also a copy in the Herbarium in the Botany Department at Otago University

Flora of New Zealand Lichens, revised second edition. DJ Galloway, 2007. Manaaki Whenua Press.

This epic, much expanded two-volume revision of the 1985 Flora of New Zealand Lichens was launched in December 2007 to much acclaim. An impressive amount of scholarship has gone into compiling this flora. Lichenology in New Zealand continues to evolve, and there have been many changes and advances since 1985. David has carefully documented the history of the many name changes of species, genera and even families that

have occurred in the last 22 years. He has also tracked the widely increased distributions, many of which arose from the increased interest generated by his first Lichen Flora. The 1985 flora contained descriptions of 966 taxa in 210 genera. In a massive leap forward the 2007 revision contains details of 1706 taxa, with keys to 354 genera! The illustrations, 16 colour photographs, are good, but few.

A word of caution to budding lichenologists about the keys. Many lichens occur predominantly on a particular substrate, bark perhaps (corticolous), or rock (saxicolous). This feature is often used in the keys. These divisions are not always absolute and some lichens occasionally stray from the main substrate to another. So, if you come to a dead end when keying out using one substrate, it pays to try others. For instance, if you find growing on bark one or more species of crustose lichens, with anything from 3 – 18 septate spores, you'll never get to the genus *Bacidia* in the introductory Key to Genera unless you key out the relevant features under 'saxicolous'. Once you nail down that genus you will find that 10 of the 16 species of NZ *Bacidia* are actually corticolous and some are quite common. Conversely, within the genus *Pertusaria*, the species *P. velata*, which is characterized by its corticolous/saxicolous habit, only keys out as occurring on bark, yet it grows quite commonly on coastal rock. Luckily, any confusions of this kind can be tidied up in the web version.

Apart from this caveat, and occasional disjuncts in the numbering of the couplets, the Key to Genera and all the keys to the individual species are exceedingly useful. They are the culmination of many years of dedicated research and interpretation.

Unfortunately, with so much detail to attend to there just wasn't room in the two massive new volumes to include full descriptions of taxa that were already published. This means that,

having successfully keyed out a lichen, particularly a common one, you must further seek out the full description in the 1985 Flora.

Errors and omissions are inevitable in such a huge and complex work. Fortunately a web version is already online (see separate review), enabling a more seamless version to be created, more illustrations added and more fixes to be made as users identify the need for them.

Some teething problems are excusable in such a monumental contribution of great scholarship and worth, both nationally and internationally. As Prof Pier Luigi Nimis so aptly sums it up in his introduction 'interest of the present book goes far beyond the geographical limits of New Zealand. It is not only a gigantic milestone in the history of Southern Hemisphere lichenology, but also an indispensable tool for "antipodal lichenologists", and hence for lichenologists worldwide.' A true magnum opus.

Manaaki Whenua Press are generously providing a copy of the 1985 Flora with the two newly revised volumes, as well as giving a 10% discount to Bot Soc members. Thus the complete three-volume package comes to members at the amazingly reasonable \$71.99, plus \$15 postage (see ad). This very affordable price is subsidised in part by funding from TFBIS (The Terrestrial and Freshwater Biodiversity Information System) and from the Wellington Botanical Society, among others.

## Websites

Allison Knight

### New Zealand Vascular Floras online

<http://floraseries.landcareresearch.co.nz/pages/index.aspx>

As many of you already know, (and it's well worth remembering!), the full text of all 5 Flora of the New Zealand vascular plants is available online at the above URL. This is extremely

handy, as they can be searched electronically by taxonomic name, and there are many useful links within and between keys and descriptions.

### The NZ Plant Database

<http://nzflora.landcareresearch.co.nz/>

The 'search' menu also supports a taxon search for all the vascular plants as well as the lichens in the 1985 Flora. Useful for anyone who would like to check that they have the current name

as used in Landcare's HH Allan Herbarium, find synonyms or common names or look at distributions. Highly recommended as a check-point for all contributors to this newsletter!

### New Zealand Lichen Floras online

<http://floraseries.landcareresearch.co.nz/pages/index.aspx>

On 14 December 2007, at the same time as David Galloway launched the two-volume revised *Flora of New Zealand Lichens*, Aaron Wilton launched an online version to join the 1985 Lichen Flora at the above site. This could be a world first, and has already received favourable mention internationally.

The online keys are a dream to use, as each line of each couplet is linked directly to either the follow-on couplet or to the keyed-out species. This hugely increases accuracy and speed, and sure beats trawling through pages and pages of hundreds of *Xanthoparmelia* species. It's also wonderfully easy to toggle from key to species description, back to genus description or key and forward or back to the next most likely description.

It will be even more wonderful when the 3 Lichen Flora volumes are seamlessly linked online, which is Aaron's long-term aim. At the moment they're not, which means that the taxon search is rather clunky, coming up with the old names in the old volume first, and only revealing the current names if you scroll way across. It's much quicker just to scroll down the list of taxa in the appropriate volume, if you can figure out which volume that is. Insertion of a simple 'A-Pac' after Vol 1, and 'Pan-Z' would make that much easier. So would a note explaining that if you are using the Key to Genera in Vol 1, for instance, and key out a genus such as *Psuedocyphellaria*, or indeed anything after *Pannaria* in the alphabet, then the link just keeps taking you back to the beginning of the key, and you need to switch manually to

Vol 2. As with the hard copy, for taxa already described in the 1985 Flora, you sometimes still need to switch manually to that volume to get the full description. Occasionally, especially if there has been a name change, there is a link back to the old lichen name in the New Zealand Plant Database. With a few more clicks you can then get to the description that way.

Considering the magnitude of the task of putting in links to and from over 1700 species it is not surprising that there are a few small glitches: The *Dirinaria* link in the Key to Genera takes you instead to *Dirina*, while the genus *Megalospora* link to the species *Argopsis megalospora*. No worries, though - the beauty of an online flora is that any small wrinkles can be smoothed out, and it can even be

updated as new information comes to hand. What a tremendous advance that will be - keeping this valuable biodiversity information up to date and available to everyone.

Congratulations on a great job, Aaron, and well done to make this monumental work so rapidly available worldwide.

PS: Aaron would appreciate feedback on any links that do not work or go to the wrong place etc so he can keep the improvements going. Email: [WiltonA@landcareresearch.co.nz](mailto:WiltonA@landcareresearch.co.nz)

PPS: Wow –fantastic response! Aaron has already acted on some of the above suggestions before this had time to be printed!

### **2008 Botanical Society of Otago Photography Competition.**

There isn't much time to get in your entry for the BSO Photography Competition for 2008. Entries close on March 31, 2008. Entry forms are available on the web (<http://www.botany.otago.ac.nz/bso/>). Here are the terms and conditions:

To be an eligible entrant, you must be a current financial member of the Botanical Society of Otago. There are five categories: Landscape, Plant Portrait, Ecological Processes, Human Interaction and Plant Community.

Each entrant may submit 3 prints total. They may be in different categories or the same category. Only images captured in the previous year may be entered. Each image may be entered

only once. All images must have been taken by the entrant submitting them. Images must be submitted as 6 x 8 inch prints, with the name and address of the photographer on the back, attached to a properly completed official entry form. Please also include a brief description of the photo and if captured electronically, save a copy of the file for later use (see below). The copyright of all entries resides with the entrant. The Society reserves the right to reproduce, without payment, any entry for inclusion in the Society Calendar or for publicity purposes, including our website (<http://www.botany.otago.ac.nz/bso/>).



Submitted prints become the property of the Botanical Society of Otago and will not be returned. The organisers accept no responsibility for breach of copyright by any entrant. The selectors decisions are final. Submission of an entry implies acceptance of the above rules. Entries must be received by 5 p.m. on March 31, 2008. Entries may be submitted in person to the Receptionist at the Department of Botany, University of Otago, or may be submitted by post to: Botanical Society of Otago, Attn: Photo Competition, PO Box 6214, Dunedin North 9059, New Zealand The top entry from each category (as selected by an awards

panel designated by the Botanical Society committee) receives an award of \$50. Out of the category winners, an overall best image for 2008 will be selected and will receive a supplementary award of an additional \$50.

The winners will be announced at the Botanical Society Annual General Meeting on April 16, 2008 and notified on the website (<http://www.botany.otago.ac.nz/bs/>). Winners not present at the Society's Annual General Meeting will be notified by phone or mail.



**Above:** Southern rata (*Metrosideros umbellata*) flowering at Papatowai, Catlins, January 2008. Photo by John Barkla.

## Botanical Society of Otago announces the 2008 4th Audrey Eagle Botanical Drawing Competition

Sharpen your pencils and prime your paintbrushes – BSO's Audrey Eagle Botanical Drawing competition will be held again this year, and every second year from now on. Apologies for the unheralded gap last year - we hope those keen artists will re-submit.

Botanical artistry is not a widespread skill, so there's a good chance of winning the first prize of \$100, second prize of \$50 or third prize of \$25!

### *Judging criteria*

1. Botanical accuracy
2. Detail, especially of important identification features
3. Clarity of lines
4. Proportional representation and scale
5. Layout
6. Suitability for reproduction in newsletter (grey scale) or website (colour)
7. Accurate caption, e.g., name(s) of plant, where it came from, date drawn.
8. Botanical notes or comments of interest eg key to botanical details, history, distribution, uses, variations etc.
9. Preference will be given to plants that have been rarely illustrated e.g., an uncommon wetland plant would be more valuable scientifically than a kauri.
10. Above all, artistic merit carries the highest rating.

### *Conditions of entry*

1. Entries must be submitted with an entry form, by **Friday 12 September 2008** to the Botanical Society of Otago, PO Box 6214, Dunedin North 9059.
2. The drawing must be your original work. There is a limit of 3 entries, with a minimum size A4, maximum A3.
3. You should include a title and notes of botanical interest
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**D. J. Galloway**

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## Articles

### Lichen List, Sutton Salt Lake – additions 2 February 2008

On a recent field trip organised by the Dunedin Naturalists' Field Club (Saturday 2 February 2008), a number of lichens were seen that are additional to those recorded in the Botanical Society of Otago Newsletter No. 49 (Galloway & Knight 2006: 21). They are listed below. It underlines just what a rewarding area for lichens the Sutton Salt Lake Reserve is (see Knight 2006) and as the lichen mycobiota of the Reserve is still far from completely known, additional observations are urged. Several lichen genera, mainly *Cladonia* and members of the *Parmeliaceae* are common in the Reserve, but at present they are still very poorly collected and warrant much closer study in this area. A future list should recruit strongly from these genera. Interestingly, species of *Placopsis* appear to be absent, and genera such as *Peltigera* and *Stereocaulon* are only sparsely represented.

At the southern end of the lake a well-developed biotic soil crust association actively stabilises sloping arid soils that would otherwise be strongly eroded by wind and water. The crust forms a compacted layer c. 1 mm thick with fungal hyphae (from the lichens) and cyanobacteria interwoven amongst the soil particles below this compact layer and penetrating up to 5 mm or more into the soil below. This association is dominated by species of *Buellia*, *Caloplaca*, *Collema*, *Endocarpon* and *Xanthoparmelia*

*David Galloway and Janet Ledingham*

together with cyanobacteria and bryophytes and is a classic example of a desert biotic soil crust (Eldridge & Tozer 1997; Belnap 2003; McCune & Rosentreter 2007). The occurrence there of the vagrant soil lichen, *Aspicilia fruticulosa* (see below), adds to its "special" nature. A more detailed account of the lichens of the biotic salt crust at the Sutton Salt Lake is in preparation. Further additions to the lichen list for the Reserve will be recorded as taxa are positively identified. Members of the DNFC on the Sutton Salt Lake trip included: Alun Baines, Cliff Donaldson, David Galloway, Janet Ledingham and Brendan Orr.

*Arthonia radiata* (on matagouri)

*Aspicilia fruticulosa* (on damp soil, detritus and moss at edge of sloping schist slabs, 2 m above the lake; associating with *Collema coccophorum*). This is a very characteristic, subfruticose species of *Aspicilia* (a member of the "manna" group of vagrant desert lichens) with prominent white spots of exposed medulla (pseudocyphellae). It is known from arid, steppe-like, calcareous or basic soils in various Mediterranean areas (Spain, Algeria, Morocco, Turkey), Asia and North America. This is the first record of the species from the Southern Hemisphere! It is illustrated in the recently published book "Biotic Soil Crust Lichens of the Columbia Basin" (McCune & Rosentreter 2007) a copy

of which was sent to DJG a few days ago, and which we took with us on the Sutton Salt Lake trip as an identification aid. It is likely that *A. fruticulosa* is more widely distributed in our inland, dryland areas where lichen-dominated, biotic soil crusts are developed to some extent (Central Otago, Mackenzie Basin, North Canterbury), so it is well worth looking for.

*Buellia maculata* (sunny tops of smooth schist slabs)

*B. subcoronata* (biotic soil crust at lake). A characteristic whitish, squamulose-peltate species with black fruits that erupt through the upper surface of the thallus. A first record for New Zealand. Widely distributed on arid soils in Australia (Rogers & Lange 1972; Rogers 1972a 1972b; Eldridge 1996, 1999).

*Caloplaca biatorina* (vertical sides of cave/overhang at lake)

*C. cf circumlutosa* (common on sloping schist slabs at S end of lake - ? an inland population of this predominantly coastal lichen)

*C. murrayi* (biotic soil crust at lake margin)

*C. subpyracea* (on matagouri)

*Cladonia bimberiensis* (on soil)

*C. neozelandica* (on soil forming prominent clumps of squamules)

*Collema coccophorum* (on damp soil/detritus near lake, and in biotic crust)

*Dibaeis arcuata* (sunny, exposed clay soil)

*Diploschistes muscorum* ssp. *muscorum* (on *Cladonia squamules* on soil)

*Endocarpon pusillum* (biotic soil crust at lake margin)

*E. simplicatum* (biotic soil crust at lake margin)

*Flavoparmelia haysomii* (on sunny schist rocks)

?*Fuscidea* sp. (sunny tops of schist slabs at lake edge W and S sides)

*Hyperphyscia adglutinata* (on shaded roof of overhang on schist outcrop close to lake)

*Lecanora carpinea* (on matagouri)

*L. flavopallida* (on matagouri)

*Lecidea atromorio* (tops of schist slabs in grassland)

*L. lapicida* (schist pebbles)

*L. ochroleuca* (clay soil)

*Lecidella wulfenii* (soil and detritus)

*Lepraria incana* (soil)

*L. neglecta* (soil)

*Pannaria ligulata* (on soil on schist rocks/pavement)

*Parmelina labrosa* (on matagouri)

*Parmotrema perlatum* (damp S-facings sides of schist tors)

*Placynthiella uliginosa* (damp soil and detritus)

*Placynthium rosulans* (sunny tops of schist slabs at lake edge W and S sides)

*Pseudocyphellaria pickeringii* (on damp, S facing ledges on soil and amongst mosses/grass)

*Punctelia subflava* (on S-facing sloping schist faces)

*P. subrudecta* (on matagouri, and also on vertical to steeply sloping sides of schist outcrops and tors)

*Rimularia psephota* (schist pebbles)

*Rinodina boleana* (on matagouri)

*R. olivaceobrunnea* (on detritus)

*Siphula dedumbens* (soil in damp, dried-out shallow hollows)

*Stereocaulon cf colensoi* (damp S-facing ledges of schist tor by small stream)

- Sticta martinii* (on damp soil at bases of schist outcrops)  
*Teloschistes chrysophthalmus* (dead matagouri)  
 ? *Tetramelas confusus* (on detritus)  
*Thrombium epigaeum* (compacted soil of track)  
*Umbilicaria polyphylla* (S facing slopes of schist outcrops and tors)  
*U. subglabra* (S facing slopes of schist outcrops and tors)  
*Xanthoparmelia amplexula* (sunny tops of schist outcrops)  
*X. cheelii* (biotic soil crust at lake margin)  
*X. epeboides* (tops and sides of schist tors)  
*X. imitatrix* (biotic soil crust at lake margin)  
*X. semiviridis* (occasional on depleted soil)  
*X. taractica* (sunny tops of schist outcrops, on bare soil and on biotic soil crust at lake margin)  
*X. tasmanica* (sunny tops of schist outcrops)  
*Xanthoria polycarpa* (on matagouri)

### References

- Belnap, J. 2003. The world at your feet: desert biological soil crusts. *Frontiers in Ecology and the Environment* **1**: 181-189.
- Eldridge, D.J. 1996. Distribution and floristics of terricolous lichens in soil crusts in arid and semi-arid New South Wales, Australia. *Australian Journal of Botany* **44**: 581-599.
- Eldridge, D.J. 1999. Distribution and floristics of moss- and lichen-dominated soil crusts in a patterned *Callitris glaucophylla* woodland in eastern Australia. *Acta Oecologica* **20**: 159-170.
- Eldridge, D.J.; Tozer, M.E. 1997. *A practical guide to soil lichens and bryophytes of Australia's dry country*. Sydney, New South Wales Department of Land and Water Conservation.
- Galloway, D.J.; Knight A. 2006. Lichen List, Sutton Salt Lake, 5 August 2006. *Botanical Society of Otago Newsletter* **49**: 21.
- Knight, A. 2006. Lichen trip to Sutton Salt Lake, 5 August. *Botanical Society of Otago Newsletter* **49**: 19-20.
- McCune, B.; Rosentreter, R. 2007. Biotic Soil Crust Lichens of the Columbia Basin. *Monographs in North American Lichenology* **1**: 1-105. Northwest Lichenologists, Corvallis.
- Rogers, R.W. 1972a. Soil surface lichens in arid and subarid- south-eastern Australia. II. Phytosociology and geographical zonation. *Australian Journal of Botany* **20**: 215-227.
- Rogers, R.W. 1972b. Soil surface lichens in arid and subarid- south-eastern Australia. III. The relationship between distribution and environment. *Australian Journal of Botany* **20**: 301-316.
- Rogers, R.W.; Lange, R.T. 1972. Soil surface lichens in arid and subarid-south-eastern Australia. I. Introduction and floristics. *Australian Journal of Botany* **20**: 197-213.

## Lichens in the Silver Peaks area, Otago, New Zealand

*David Galloway and Janet Ledingham*

20 kilometres north and west of Dunedin are the Silver Peaks, a tussock-capped, rocky range of hills comprising a network of ridges radiating out from a central spine, with grassy slopes and farmland to the west and the densely wooded catchments of the Silver Stream to the south, and the Waikouaiti River to the north and east. The region is well-known for the tremendous variety of tramping experiences to be had there (see Mason 1989; Bishop & Hamel 1993; Wilson 2004). Because of the great diversity of habitats available in a comparatively small area, it has, not unexpectedly, an extremely rich and varied lichen mycobiota, which has only occasionally been the object of closer lichenological attention. Undoubtedly, much remains to be discovered before the lichen mycobiota of this often-visited area can be considered to be at all adequately known. Hence the present, admittedly incomplete lichen list, as a basis for further work.

The earliest lichen collections from Silver Peaks were made on 19 October 1933 by Jack Scott Thomson, a Dunedin businessman and botanist (Godley 1996). Thomson was encouraged to take up the collection of Otago (and also further afield in New Zealand) lichens by the Swedish lichenologists G. Einar and Greta Du Rietz, who visited Dunedin in 1927, as part of an extensive collecting tour through New Zealand, and spent several days with Thomson in the field (Simpson & Thomson 1928; Galloway

1985, 2004; Bannister 2000). Du Rietz visited the stand of silver beech in Bethune's Gully with Scott Thomson and George Simpson and identified for them a number of lichen epiphytes on the trunks (Simpson & Thomson 1928: 333). Simpson and Thomson also commented on lichens from the stand of silver beech at the head of the south branch of Christmas Creek (the so-called "Painted Forest") stating "...Lichens make an almost complete covering of trunks and branches, a species of *Usnea* being the most noticeable; indeed the general appearance of the forest could best be compared with that of *Nothofagus* growing on shaded hill-slopes in the Fiord Botanical District. Amongst other lichens present are species of *Parmelia*, *Pseudocyphellaria billardierei*, *Sphaerophorus melanocarpus*, and *S. tener...*", again the lichen identifications being supplied by Einar Du Rietz (Simpson & Thomson 1928: 335-336). A later paper (Simpson & Thomson 1938) records environmental features and plant formations of the Dunedin area (including Silver Peaks) and lists additional forest lichens, some of which may well have been from the Silver Peaks silver beech forest.

Thomson's lichens were sent to Zahlbruckner in Vienna for identification by Dr H.H. Allan (Galloway 1985), and in a posthumous account of New Zealand lichens, Zahlbruckner (1941) recorded many Thomson collections of which 15 were

from the Silver Peaks with most of these being from silver beech of the "Painted Forest". Seven of Thomson's Silver Peaks collections are types, with the following taxa recorded (current names are placed in parentheses):

*Cyphelium polycarpum* Zahlbr.[T] (A species of *Buellia*, requiring further investigation. There is an isotype in OTA collected by Thomson [T 1151, ZA 3880] on 19 October 1933)

*Sticta chloroleuca* (= *Pseudocyphellaria glabra*)

*Lecidea sterilis* Zahlbr. [T] (= *Lecidea sarcogynoides*)

*L. blastenoides* Zahlbr.[T] (= *Paraporpidia leptocarpa*)

*L. cinnabarina* (= *Trapeliopsis congregans*)

*Megalospora marginiflexa* (= *Megaloblastenia marginiflexa*)

*Bacidia cargillensis* (= *Sarrameana albidoplumbea*)

*Pertusaria simulans* Zahlbr.[T] (= *Pertusaria otagoana*)

*Pertusaria nothofagi* Zahlbr.[T] (= *Pertusaria truncata*)

*Lecanora blanda* f. *crustosa* Zahlbr.[T] (= *Lecanora farinacea*)

*Haematomma puniceum* (= *Haematomm alpinum*)

*Haematomma hilare* Zahlbr.[T]

*Parmelia saxatilis*

*Parmelia amabilis* (= *Menegazzia pertransita*)

*P. amabilis* var. *subsessilis* (= *Menegazzia pertransita*)

In a hand-written list of his collecting localities prepared by Thomson for Dr H.H. Allan of Botany Division, DSIR, he gives the following details of his Silver Peaks collection "... 19/10/33,

[Collecting numbers] 1157-1237, Silver Peaks, 1500-2000 ft, beech forest and tussock grassland...". Another hand-written list of Thomson's lichen collections, prepared by William Martin (as he checked through the cases of tobacco tins that Thomson kept his lichen specimens in) and currently in the archives of Landcare Research at Lincoln (with a copy at OTA), gives the following specimens "...T1157: *Cyphelium polycarpum* (rock); T 1159: *Lecanora blanda* f. *crustosa* (rock); T1164: *Lecidea blastenoides* (rock); T1166: *Pertusaria simulans* (rock); T1169: *Lecidea sterilis* (rock); T 1179: *Parmelia weindorferi* f. *endocitrina* (beech); T1181: *Sticta psilophylla* (beech); T1182: *Parmelia weindorferi* var. *endocitrina* (beech); T1187: *Megalospora marginiflexa* (beech); T1188: *Lecidea cinnabarina* (rotten log); T1194: *Usnea torulosa* (rock); T1195: *Usnea torquescens* (beech); T1199: *Megalospora marginiflexa* (beech); T 1215: *Pertusaria nothofagi* (beech); T1217: *Pertusaria nothofagi* (beech); T1219: *Haematomma puniceum* (beech); T1231: *Haematomma hilare* (beech); T1237: *Lecidea parasema* (beech)..."

James Murray (1923-1961) visited Silver Peaks in March 1959 when he collected from Hightop, Green Hill, the slopes between Green Hill and Pulpit Rock, Pulpit Rock and Silver Peak and his collections are preserved in OTA. From this collecting trip, he described a new species, *Pyrgillus crassus* Js. Murray (Murray 1960: 184), from a line of old fence posts to the west of the summit of Green Hill. This was



subsequently shown to be a synonym of the widespread lichen *Cyphelium inquinans* (Sm.) Trevis. (Tibell in Galloway 1985: 148; Tibell 1987: 167). Another notable “find” of Murray’s on the same trip was a specimen of *Icmadophila splachnirima* from Pulpit Rock, recorded in Galloway & Elix (1980: 485). Murray annotated his specimen “on track 2200 feet, seen once near Pulpit Rock, E side, 3/59, J. Murray 4236” (OTA 053083).

In the 1960s David Galloway made several trips to the Silver Peaks (between 1961 and 1968) and collected a number of lichens which are housed in CHR, but no detailed list was made from these collections. In William Martin’s catalogue of the lichen mycobiota of the Dunedin Botanical Subdistrict (Martin 1970), Silver Peaks lichens recorded therein are Thomsons’s records from Zahlbruckner (1941) with no further additions from later collections and Martin himself seems never to have visited the area. On looking through the holdings of Silver Peaks lichens in the OTA herbarium today, one is struck by the fact that there are really very few collections from the Silver Peaks area, with the Thomson and Murray collections (made 75, and 49 years ago respectively) accounting for the majority. In January 1985, Geoff Baylis took the visiting lichenologists Hannes Hertel (Munich) and Helmut Mayrhofer (Graz) on a collecting trip to Pulpit Rock. Within the last year or two, Allison Knight has made some collections from the ABC Cave near the Gap, and Jennifer Bannister has

collected from the Honeycomb Track (records in OTA). A Botanical Society of Otago trip was made to the Painted Forest on 17 November 2007 (BSO Bulletin 51:3), and lichens were collected, but have not yet been identified. The region is thus long overdue for an in-depth survey of its lichen mycobiota!

On a recent trip (9.i.2008 – David Galloway, Janet Ledingham and Francie Beggs) to Green Ridge and Pulpit Rock to search for *Icmadophila splachnirima* (two healthy colonies were found on the track between Green Hill and Pulpit Rock), a quick survey of several lichen-rich habitats was made, disclosing a “hotspot” of cyanobacterial taxa in the dense stands of manuka that occur in the headwaters of the south branch of the Waikouaiti River close to the track near the old Green Hut site. Here, was found the most southerly collection to date of *Pseudocyphellaria bartlettii* (Galloway 1988), together with other rarities such as *Fuscoderma limbatum*, *Pannaria crenulata*, *Parmeliella aggregate*, *P. subtilis* and *Pseudocyphellaria argyracea*. Subsequent trips (DJG and JL) to Mt Allan (16.i.2008), the Painted Forest and Silver Peak (24.i.2008), also yielded good hauls of lichens. Preliminary results from these collecting trips, together with a trawl through the recently published Lichen Flora (Galloway 2007) as well as herbarium searches in CHR and OTA for Silver Peaks lichen records, has enabled a more comprehensive lichen list to be presented here. We recognize however, that the list is still incomplete and tentative, but we hope that it will

stimulate further lichenological interest and collecting in the wider Silver Peaks area, so that at a later date a fully

annotated list of lichen taxa and habitats from the Silver Peaks area can be published.

### *Lichen List, Silver Peaks*

For author citations and further information on individual taxa see

Galloway (2007). Names with an asterisk(\*) refer to lichenicolous fungi.

* <i>Abrothallus</i>	<i>C. pleurota</i>	<i>H. turgidula</i>
<i>parmeliarum</i>	<i>C. pyxidata</i>	<i>Hypotrachyna laevigata</i>
<i>Alectoria nigricans</i>	<i>C. scabriuscula</i>	<i>H. sinuosa</i>
<i>Arthrorhaphis citrinella</i>	<i>C. tenerrima</i>	<i>Icmadophila</i>
<i>Bacidia leucothalamia</i>	<i>Cliostomum griffithii</i>	<i>splachnirima</i>
<i>Baeomyces</i>	* <i>Clypeococcum</i>	* <i>Illosporium carneum</i>
<i>heteromorphus</i>	<i>grossum</i>	<i>Immersaria</i>
<i>Bartlettiella fragilis</i>	<i>Coccocarpia</i>	<i>athroocarpa</i>
<i>Brigantiaea</i>	<i>erythroxyli</i>	<i>Lecanora caesiorubella</i>
<i>chrysosticta</i>	<i>C. palmicola</i>	<i>L. demersa</i>
<i>Buellia griseovirens</i>	<i>Coccotrema cucurbitula</i>	<i>L. epibryon</i> ssp.
<i>B. maculata</i>	<i>Collema durietzii</i>	<i>broccha</i>
<i>B. otagoana</i>	<i>C. leucocarpum</i>	<i>L. expallens</i>
<i>Bunodophoron</i>	<i>C. subflaccidum</i>	<i>L. farinacea</i>
<i>ramuliferum</i>	<i>Cyphelium inquinans</i>	<i>L. flavopallida</i>
<i>Caloplaca lutea</i>	“ <i>Dendriscoaulon</i>	<i>L. lugubris</i>
<i>C. saxicola</i>	<i>dendriothamnoides</i> ”	<i>L. polytropa</i>
<i>C. subpyracea</i>	<i>Dibaeis arcuata</i>	<i>L. rupicola</i>
<i>Catillochroma</i>	<i>Diploschistes</i>	<i>L. symmicta</i>
<i>melanotropa</i>	<i>muscorum</i> ssp.	<i>Lecidea atromorio</i>
<i>C. pulverea</i>	<i>bartlettii</i>	<i>L. diducens</i>
<i>Chrysothrix candelaris</i>	<i>D. scruposus</i>	<i>L. fuscoatrula</i>
<i>Cladia aggregata</i>	<i>Flavoparmelia</i>	<i>L. lapicida</i>
<i>C. retipora</i>	<i>haysomii</i>	<i>L. lygomma</i>
<i>C. schizopora</i>	<i>Fuscoderma limbatum</i>	<i>L. sarcogynoides</i>
<i>C. sullivanii</i>	<i>Haematomma alpinum</i>	<i>Lecidella wulfenii</i>
<i>Cladonia aueri</i>	<i>H. babingtonii</i>	<i>Leifidium tenerum</i>
<i>C. bimberiensis</i>	<i>H. hilare</i>	<i>Lepraria neglecta</i>
<i>C. capitellata</i>	<i>Hypogymnia</i>	<i>Leptogium denticulatum</i>
<i>C. cervicornis</i>	<i>billardierei</i>	<i>L. laceroides</i>
<i>C. chlorophaea</i>	<i>H. lugubris</i>	<i>Lichenomphalia alpina</i>
<i>C. confusa</i>	<i>H. lugubris</i> var.	<i>L. umbellifera</i>
<i>C. corniculata</i>	<i>compactior</i>	<i>Lobarina scrobiculata</i>
<i>C. darwinii</i>	<i>H. mundata</i>	<i>Loxospora cyamidia</i>
<i>C. mitis</i>	<i>H. subphysodes</i>	

<i>Macentina</i>	<i>P. subtilis</i>	<i>P. maculata</i>
<i>stigonemoides</i>	<i>Parmelina labrosa</i>	<i>P. multifida</i>
<i>Maronea constans</i>	<i>Parmotrema perlatum</i>	<i>P. pickeringii</i>
<i>Megalaria grossa</i>	<i>P. reticulatum</i>	<i>P. rubella</i>
<i>Megaloblastenia</i>	<i>Peltigera didactyla</i>	<i>P. rufovirescens</i>
<i>marginiflexa</i>	<i>P. dilacerata</i>	<i>P. wilkinsii</i>
<i>Megalospora</i>	<i>P. dolichorhiza</i>	<i>Psoroma fruticulosum</i>
<i>gompholoma</i>	<i>P. nana</i>	<i>P. hypnorum</i>
<i>Melanelia subglabra</i>	<i>P. praetextata</i>	<i>P. implexum</i>
<i>Menegazzia aeneofusca</i>	<i>Pertusaria ?</i>	<i>P. paleaceum</i>
<i>M. castanea</i>	<i>gymnospora</i>	<i>Punctelia borreri</i>
<i>M. globulifera</i>	<i>P. lophocarpa</i>	<i>P. subflava</i>
<i>M. ? inflata</i>	<i>P. knightiana</i>	<i>P. subrudecta</i>
<i>M. neozelandica</i>	<i>P. otagoana</i>	<i>Ramalina fimbriata</i>
<i>M. pertransita</i>	<i>P. novaezealandiae</i>	<i>R. glaucescens</i>
<i>M. subpertusa</i>	<i>P. psoromica</i>	<i>Ramboldia laeta</i> (Kalb
<i>M. testacea</i>	<i>P. subverrucosa</i>	<i>et al. 2008)</i>
<i>Micarea spp.</i>	<i>P. truncata</i>	<i>R. petraeoides</i>
<i>Miltidea ceroplasta</i>	<i>Physcia caesia</i>	<i>Rhizocarpon</i>
<i>Mycobilimbia australis</i>	<i>Placopsis brevilobata</i>	<i>eupetraeum</i>
<i>Neophyllis melacarpa</i>	<i>P. clavifera</i>	<i>R. geographicum</i>
<i>Nephroma australe</i>	<i>P. cribellans</i>	<i>R. grande</i>
<i>N. cellulosum</i> var.	<i>P. fusciculoides</i>	<i>R. reductum</i>
<i>isidioferum</i>	<i>P. gelida</i>	* <i>R. viridiatrum</i>
<i>Normandina pulchella</i>	<i>P. microphylla</i>	<i>Rimularia insularis</i>
<i>Ochrolechia frigida</i>	<i>P. perrugosa</i>	<i>R. psephota</i>
<i>O. pallescens</i>	<i>P. rhodocarpa</i>	<i>Rinodina murrayi</i>
<i>O. xanthostoma</i>	<i>P. rhodophthalma</i>	<i>R. oleae</i>
<i>Pannaria athroophylla</i>	<i>Placynthiella uliginosa</i>	<i>R. olivaceobrunnea</i>
<i>P. crenulata</i>	* <i>Plectocarpon</i> sp.	<i>R. thiomela</i>
<i>P. immixta</i>	<i>Porpidia macrocarpa</i>	<i>Sagenidium molle</i>
<i>P. leproloma</i>	<i>Pseudocyphellaria</i>	<i>Sarrameana</i>
<i>P. microphyllizans</i>	<i>argyracea</i>	<i>albidoplumbea</i>
<i>P. sphinctrina</i>	<i>P. bartlettii</i>	<i>Siphula decumbens</i>
<i>Paraporpidia</i>	<i>P. colensoi</i>	<i>S. dissoluta</i>
<i>leptocarpa</i>	<i>P. coronata</i>	<i>Siphulastrum</i>
<i>Parmelia cunninghamii</i>	<i>P. crocata</i>	<i>mammilatum</i>
<i>P. signifera</i>	<i>P. degelii</i>	<i>S. triste</i>
<i>P. sulcata</i>	<i>P. dissimilis</i>	<i>Stereocaulon</i>
<i>P. testacea</i>	<i>P. episticta</i>	<i>caespitosum</i>
<i>Parmeliella aggregata</i>	<i>P. glabra</i>	<i>S. colensoi</i>
<i>P. ligulata</i>	<i>P. granulata</i>	<i>S. corticatulum</i>
<i>P. nigrocincta</i>	<i>P. intricata</i>	<i>S. ramulosum</i>
<i>P. subgranulata</i>	<i>P. lividofusca</i>	<i>Sticta cinereoglauca</i>

<i>S. limbata</i>	<i>U. hyperborea</i>	<i>U. molliuscula</i>
<i>S. martinii</i>	<i>U. nylanderiana</i>	? <i>U. pusilla</i>
<i>S. subcaperata</i>	<i>U. polyphylla</i>	<i>U. torulosa</i>
<i>Teloschistes velifer</i>	<i>U. subglabra</i>	<i>Xanthomendoza</i>
<i>Tephromela atra</i>	<i>U. umbilicarioides</i>	<i>novozelandica</i>
<i>Thamnolia vermicularis</i>	<i>U. vellea</i>	<i>Xanthoparmelia</i>
<i>Thelotrema lepadinum</i>	<i>Usnea acromelana</i>	<i>amplexula</i>
<i>Toninia bullata</i>	<i>U. articulata</i>	<i>X. epheboides</i>
<i>Trapelia coarctata</i>	<i>U. ciliata</i>	<i>X. mougeotina</i>
<i>Trapeliopsis colensoi</i>	<i>U. ciliifera</i>	<i>X. petriseda</i>
<i>T. congregans</i>	<i>U. contexta</i>	<i>X. pulla</i>
<i>T. pseudogranulosa</i>	<i>U. cornuta</i>	<i>X. tasmanica</i>
<i>Umbilicaria cylindrica</i>	<i>U. inermis</i>	

### References

- Bannister, J. 2000. Profile of a botanist. John Scott Thomson and Thomson's lichen collection in OTA. *Botanical Society of Otago Newsletter* **16**: 9-12.
- Bishop, G.; Hamel, A. 1993. *From Sea to Silver Peaks. A guide to the walking tracks, beaches, viewpoints and special attractions of Dunedin*. Dunedin, McIndoe Publishers.
- Galloway, D.J. 1985. *Flora of New Zealand Lichens*. Wellington, Government Printer.
- Galloway, D.J. 1988. Studies in *Pseudocyphellaria* (lichens) I. The New Zealand species. *Bulletin of the British Museum (Natural History), Botany* **17**: 1-267.
- Galloway, D.J. 2004. The Swedish connection in New Zealand lichenology, 1769-2004. *Symbolae Botanicae Upsalienses* **34** (1): 63-85.
- Galloway, D.J. 2007. *Flora of New Zealand Lichens, revised second edition including lichen-forming and lichenicolous fungi*, 2 vols. Lincoln, Manaaki Whenua Press.
- Galloway, D.J.; Elix, J.A. 1980. *Knightsiella* Müll.Arg., a monotypic lichen genus from Australasia. *New Zealand Journal of Botany* **18**: 481-486.
- Godley, E.J. 1996. Biographical notes (23): John Scott Thomson FLS, FCS, Hon. FRNZIH (1882-1943). *The New Zealand Botanical Society Newsletter* **45**: 11-14.
- Kalb, K.; Staiger, B.; Elix, J.A.; Lange, U.; Lumbsch, H.T. 2008. A new circumscription of the genus *Ramboldia* (Lecanoraceae, Ascomycota) based on morphological and molecular evidence. *Nova Hedwigia* **86** (1-2): 23-42.
- Martin, W. 1970. The Lichen Flora of the Dunedin Botanical Subdistrict. *Transactions of the Royal Society of New Zealand. Biological Sciences* **11** (19): 243-255.

- Mason, B. 1989. *Outdoor Recreation in Otago. A recreation Plan. Vol. 2: Silverpeaks and Otago's Alps.* Wellington, Federated Mountain Clubs of New Zealand (Inc.).
- Murray, J. 1960. Studies of New Zealand lichens. I – the Coniocarpineae. *Transactions of the Royal Society of New Zealand* **88** (2): 177-195.
- Simpson, G.; Scott-Thomson, J. 1928. On the occurrence of the Silver Southern-Beech (*Nothofagus Menziesii*) in the Neighbourhood of Dunedin. *Transactions of the New Zealand Institute* **59**: 326-342.
- Simpson, G.; Scott-Thomson, J. 1938. The Dunedin Sub-district of the South Otago Botanical District. *Transactions of the Royal Society of New Zealand* **67**: 430-442.
- Tibell, L. 1987. Australasian Caliciales. *Symbolae Botanicae Upsalienses* **27** (1): 1-279.
- Wilson, B. [W.] 2004. *Day walks of Dunedin and coastal Otago.* Auckland, Reed Publishing (NZ) Ltd.
- Zahlbruckner, A. 1941. Lichenes Novae Zealandiae a cl. H.H. Allan eiusque collaboratoribus lecti. *Denkschriften der Akademie der Wissenschaften in Wien Mathematisch-Naturwissenschaftliche Klasse* **104**: 249-380.

## Meeting and trip reports

### November Meeting and Allan Mere presentation report

*Allison Knight*

Our meeting on 14 Nov 2007 was a very special occasion. Anthony Wright, the president of the New Zealand Botanical Society, came down from Christchurch to symbolically present the splendid Allan Mere to Peter Johnson (for more details of the Allan Mere Award see report in Newsletter 52 announcing Peter as the 2007 recipient).

Peter's citation, written in handsome calligraphy in the bound Book of Awards, reads – “ Peter has had a distinguished career as a scientist, public lecturer, author and conservationist. Along with numerous

research publications on weeds, wetlands, and dune-lands, he has produced popular books on wetlands, wildflowers and flowering plants of New Zealand. He gives generously of his time, expertise and enthusiasm to the wider public. Peter is an exemplary botanist in the tradition of the world's best naturalists.”

But first Peter had to sing for his supper, and he gave one of his inimitable, entertaining and idiosyncratic talks, titled ‘A Very Merry Mere’. In it he shared snatches of his journey through life and botanical growth, revolving round his

own personal “mere”. This he has carved of diverse woods, including totara, sandalwood, matai and oak from an acorn he planted 27 years ago. It is beautifully decorated and contains ancient treasures in a secret compartment, among them a birth-date threepence with crossed carved Maori patu, gold from a tooth and tooth from a whale, blessed by a Chatham Is Moriori. Along the way he recorded the growth of some significant trees on his home ground of the Otago

Peninsula, such as a totara that has grown 7 m in 35 years, and a kauri that has grown 4.5 m over the same time. All of this, and much more, was poetically supported by quotes from Dennis Glover, including the classic Magpie Poem, quoted for botanist Peter Wardle. Peter’s talk was followed by a very merry dinner at Paasha.

A well-deserved award and a memorable evening. Congratulations, Peter!

**Photo:** Anthony Wright presenting Peter Johnson with the Allan Mere and his citation as the 2007 recipient. Photo by Allison Knight.





## Painted Forest – Silver Peaks Field Trip 17 November 2007

John Barkla

A fine day and the prospect of some “real” walking saw a large group amass at the Botany carpark for car pooling. A short drive up into the hills above Blueskin Bay soon had us all reunited at the preferred carpark on Mountain Road. Esteemed leader Robyn gave us an outline of the day before we drifted up through the manuka corridor with its resident fernbirds. Then on to the dividing ridge between Silver Stream and the Waikouaiti River, with travel through low scrub interspersed with moderate uphill sections and long easy sidles. Of note were numerous seedlings and saplings of pahautea

(*Libocedrus bidwillii*) and mountain three-finger (*Pseudopanax colensoi* var. *ternatus*).

We stopped for morning tea at the site of the old Green Hut, now just a sheltered grassy clearing. Various field guides emerged from the depths of packs as the morning’s botany findings were deciphered. Further uphill the vegetation soon reduced in stature as we entered a heathland dominated by dracophyllum and *Androstoma empetrifolia* until the rocky bulge of Pulpit Rock was reached.



**Above:** The Painted Forest. Photo by John Barkla.



This magnificent view point also turned out to harbour numerous herbs within its rock crevices – diminutive *Anisotome aromatica*, *Leucopogon fraseri*, *Celmisia gracilentia* and *Colobanthus* sp. to name a few.

With the Painted Forest in view it was a simple matter to wind along the ridge crest (taking in the highest point of the Silver Peaks Range) to a lunch site on its margins. Such was the heat of the day several participants had to be roused from their post-prandial slumber to begin botanising the Forest.

The party split into two groups – each taking a different route through the forest to the agreed rendezvous point. The interior of the silver beech forest provided welcome respite from the midday heat. An understorey of *Raukaua simplex* and weeping matipo

(*Myrsine divaricata*) sat above a carpet of ferns, including *Cyathea colensoi*, which hid a multitude of foot snares. We crossed the small creek at the bottom of the gully and hauled ourselves up and out of the forest on the other side. A proliferation of sapling silver beech marching out into the tussock suggests the forest is beginning to regain some its former extent.

The party reunited on the main ridge and, after retracing steps, arrived back at the vehicles about 5 pm. Thanks to Robyn Bridges (leader) from Hilda Firth, Barbara Buchanan, Bradley Curnow, Rebecca Johnston, Alf Webb, Kate Barnard, Corin Gardiner, Gabrielle Shaw, Wyn Jones, David Jones, Alli Knight, Bronwen Strang, Graeme Egan, Lisa Russell, David Lyttle, Marilyn Barkla & John Barkla.



**Above:** Robyn Bridges and David Lyttle near Silver Peak. Photo by John Barkla.

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