Botanical Society of Otago Newsletter

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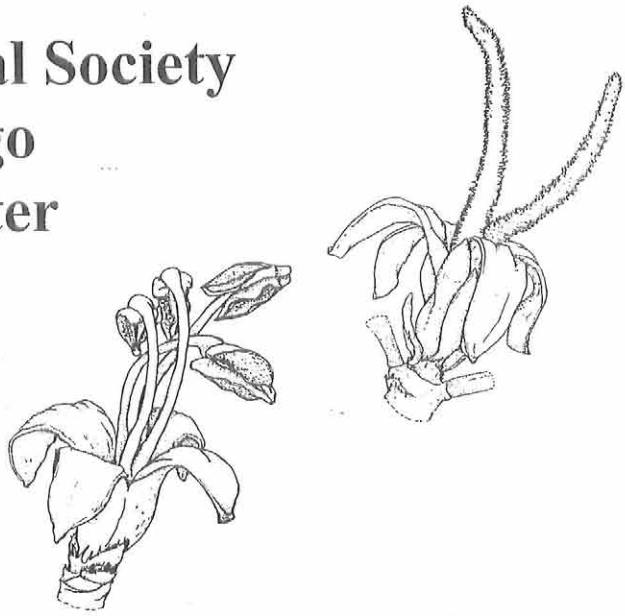

BSO AGM

12 March 2003, Wed. 5.30 pm. **BSO Annual General Meeting.** Drinks, nibbles and chat followed by a short meeting to elect a chairman and committee for 2003. Enthusiastic new members are always welcome and a new treasurer would be especially welcome. Nominations will be taken on the night. Then, guest speaker **Kelvin Lloyd** will give one of his fabulous slide shows on ***The Botanical Tramper.*** **Bring** a gold coin donation to help cover costs. **Meet** in the **Zoology Annexe Seminar Room**, Great King St, back behind the car park between Dental School and Zoology Dept

Cover pictures

Front cover. Details of female (above) and male *Coprosma* flowers, drawn by Adrienne Markey. The male anthers have opened ready to release pollen for wind to blow on to the female stigma. These flowers are from separate male and female (dioecious) *Coprosma* sp 'f' specimens, as described by Audrey Eagle in *Eagl'es Trees and Shrubs of New Zealand*; second series, 1982.

Back cover. Pollen get up your nose? Here's a vicious-looking *Nothofagus* sp (native beech) pollen grain collected by Mary Anne Miller for the Botany 326 Plant Diversity and Evolution paper. It was air dried and scanned by Liz Girvan, Scanning Electron Microscope Unit, University of Otago. Note the two 'fanged' orifices, correctly called apertures, where the pollen tube emerges, and the spiked ornamentation on the exine, or outer coat.

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President's notes

As the year draws to a close, I've been thinking about our past year's achievements and plans for next year. The highlight of 2002 for me was the Inaugural Geoff Baylis Lecture, a great evening and something I was proud to be associated with. Allison Knight deserves hearty congratulations for being the brains and most of the braun behind that memorable event. It will be a focal point for the society each year. Also, we welcomed Professor Peter Bannister as the Patron of the BSO. Peter's support for the society has allowed it to grow to the strong position we are currently in, and we look forward to Peter's continued involvement and guidance. Since the Geoff Baylis Lecture, we've had a steady increase in the BSO membership, in particular from new student members. Welcome to the society - you are the future of the BSO! Most people know we hold talks, field trips and workshops, but we need your ideas about what new activities you would like to see the society do. It has occurred to me that there are literally hundreds of students taking some form of Botany at the University of Otago every year, and many of them don't even know of the existence of the BSO!

In 2003, I'm hoping we can organise several social gatherings (like sausage sizzles!) to welcome new students to the Society. This would be a way of recruiting new members, possibly raising some funds and provide for more opportunities for ideas to flow about new activities and opportunities for the BSO. This year we changed the time of the Wednesday talks to 5:30 PM, and this has certainly resulted in better attendance. Robyn Bridges' unfailing coordination, the 'gold coin donation' nibbles and drinks, and excellent talks made for most enjoyable evenings. I wish everyone a happy, botanical Christmas and New Year, and thank you all for making my first year as president thoroughly rewarding. I look forward to seeing you all at the AGM in March next year.

David Orlovich

Treasurer's Notes

Over the last few months, I've been integrating the mailing and membership list for the Botanical Society of Otago. The result of this is a new mailing label, which states the year you were last paid up, and what category of member you are. If your mailing label says 2003, then you don't owe us anything, since you're paid up until the END of 2003. If on the other hand your label has an earlier year, or "unpaid", then now is a great time to renew your subscription for 2003 using the form on the back of this newsletter. The membership categories are "Waged" for people earning wages (currently $10), "Concessional" for students, unemployed or retired people (currently $5), and "Family" for two adults and children (currently $15). It has been proposed that we raise the costs of the Waged and Family categories next year, something we will discuss and vote on at the AGM, so if you want to beat the possible price rise, subscribe now!

You may be interested to know that the Department of Botany helps us send complimentary copies of the newsletter to secondary schools in Otago, other Botanical societies in NZ, libraries, tramping clubs and other organisations. If you are the

recipient of a complimentary copy and your organisation would like to become a full member, don't hesitate to send us a cheque!

Whilst I have tried to be as careful as possible with integrating the mailing and subscription lists, it is possible that errors may have crept in. If your address or subscription details are incorrect, email me (david.orlovich@botany.otago.ac.nz), telephone (03) 479 9060 or send me a note c/- the Department of Botany, University of Otago, P O Box 56, Dunedin, and I'll make whatever corrections are necessary. Also, don't forget to inform me if you change address!

David Orlovich, Treasurer.

Drafting an Editorial Policy

Recently the committee have been debating the most appropriate editorial policy for our newsletter. We'd love to get feedback from you, the reader, about topics you'd like to see, or not see covered, and how broad, how deep and how controversially they should reach into the botanical arena. Next year we plan to draft an editorial policy for your consideration at the 2004 AGM.

A big thank you to all of you, from near and far, who have contributed so many interesting letters, articles, illustrations and anecdotes over the past 2 years. I have enjoyed publishing them and I hope you have enjoyed reading them and even found some of them helpful. So please keep those keyboards chattering, pens, pencils and paint brushes flowing so that we can have an even more informative, well illustrated and stimulating newsletter next year!

Allison Knight, editor

Articles

New Ways of Keeping up with plant names

Recently I have been working with numerous plant species lists from a range of sources and I have been quite surprised at the range of names used for some species. The most puzzling instances are where a species occurs twice in a list because of name changes. How can this happen? - some of you will say 'very easily'. Others of you will say 'how **do** you keep up?' and others again '**do you have to?**' or even 'do you **have** to?!' Perhaps I should deal with these problems and questions in turn.

The first problem, of a name occurring two or more times in a list, arises from two similar causes. The most common is adding to an existing list and the person doing so not being aware of the name change or not making the check. The second cause is using an older list as a base for a new one (ie copying it from a spreadsheet or word processing file) and not making the check for recent name changes.

That leads to the first question - how do you keep up with the name changes? This may seem a trivial problem but certainly it is not. Volume one of the Flora (Allan 1961) is now over 40 years old and perhaps a third of the species in it have had a name change - some several times. Many of the species affected are the common ones. More recent publications, such as the Wetland plant book (Johnstone and Brooke 1989) or Hugh Wilson's Mt Cook field guide (latest edition 1996), may contain some of the updates but in recent years there has been a flood of name changes, many published in the New Zealand Journal of Botany.

So how do you find out about the changes? Landcare has database of plant names and although it does not include the ferns it can be used as an authoritative source. It has one drawback - if the name is an old one you won't find it. That is, you then have to find the new name somehow. Landcare also produced a list of current names for wild plants in New Zealand in 1995 which can provide the old name and lead you to the current name. It forms the base for the Landcare database (currently updated to 2000). Another useful source for updates is the New Zealand Botanical Society Newsletter. Ewen Cameron has produced a list of updates about every 1-2 years since 1994. But surely the easiest source is your tame expert. They are likely to appear on field trips and may have provided a species list using current names.

That still leaves the debate about what is the right name. A good discussion of this issue can be found in what is loosely referred to as Nomina Nova 4 (Connor and Edgar 1987). Some names even come into fashion and go again. I first learnt the common hound's tongue fern as *Microsorium diversifolium* it then became *Phymatodes* then *Phymatosorus*, changed its specific epithet and is now *Mircosorum pustulatus*. What next? *Coprosma grandiflora* became *C. australis* for a few years before reverting. The reasons for these changes can be quite obscure. Perhaps if we wait long enough any name will come back into fashion?

Sometimes there is good reason for disagreeing with a name change - many of the recent changes in the filmy ferns are not accepted because the basis on which the changes are made are not believed to be robust. The lumping of *Nertera* into *Copromsa* is not generally accepted because others believe the genera should be spit further. In *Hebe, Parahebe* and *Chionohebe* there is currently deep debate about generic bounds. Don't begin on the genus *Helichrysum* and related genera - that seems a real boar's nest. And the new orchid names? That's a battle of international proportions.
You can always quote a name and its full authority but most people want to know what is the generally accepted name. For that the Landcare database can provide an authoritative source. But what of the undescribed species given tag names? Many are contained in a list prepared by Tony Druce and recently updated by DOC, but some are only of local use and perhaps should not be used, merely referred to the most similar species.

All of these solutions can mean a lot of work to find out if a name is still current or even more difficult, to find a current name for an old name, used perhaps 40 or 50 years ago. Similarly the problem remains of updating existing lists, even those only 5 or 10 years old, as species are added etc. One solution to this is to set up an electronic database for

species lists plus a master list for species names which, when changed, changes all the existing lists automatically. If it is done well it should be an easy task to find a correct current name from an old one and to produce a list with up-to-date names at any time.

An electronic version for the flora would be a much larger task but would provide a better solution to the problem of tracing name changes. It would need to be well structured to allow older names to be found. Such a database would also enable one to find a Latin name from a common name, especially for introduced species where common names are widely used. A trial electronic system like this is available for use in the Herbarium at the Department of Botany, University of Otago.

Graeme Jane, Tauranga

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Landcare Database of Current names for Wild Plants in New Zealand: http://nzflora.landcareresearch.co.nz

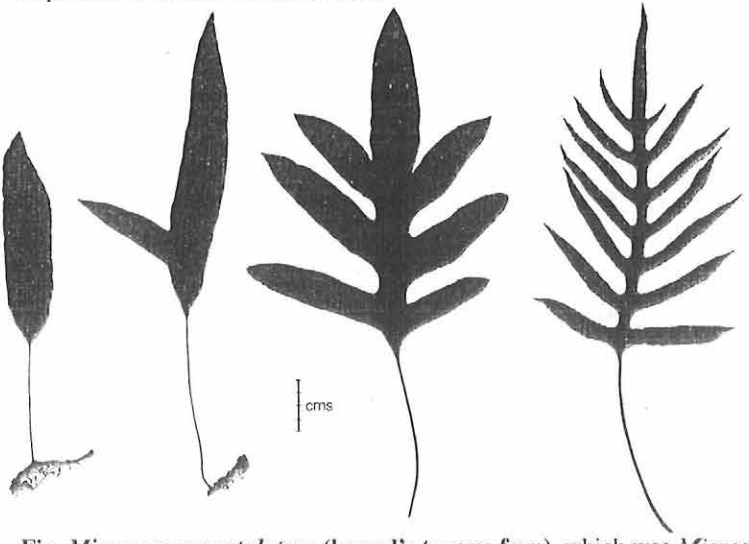


Fig. *Microsorum pustulatum* (hound's tongue fern), which was *Microsorium diversifolium* it then became *Phymatodes diversifolium* then *Phymatosorus diversifolium.* Range of juvenile and mature fronds from: PJ Brownsey & J Smith-Dodsworth, *New Zealand Ferns and Allied Plants.*2000.

Chasing crayfish and bothering kelp in Otago Harbour.

Chris Hepburn, winner of the BSO prize for best student talk, Botany Sympsium 2002.

This talk was based on a section of my PhD research that was carried out in a kelp bed at the narrow entrance to Otago Harbour at Harington Point. The original aim of this work was to investigate the influence of suspension-feeding animals on the seaweed they live on, and to enjoy the occasional crayfish meal. Unfortunately not one crayfish was found at the study site throughout the study period (despite exhaustive investigations), instead we had to entertain ourselves tagging and collecting seaweed

The giant kelp *Macrocystis pyrifera* was chosen as the subject of this study primarily because of its abundant and diverse epifaunal community. *Macrocystis* is the dominant kelp found at Harington Point and is probably the most ecologically important seaweed in southern New Zealand. It is found in both southern and northern hemispheres and is probably the most widely studied of all seaweed species. *Macrocystis*, perhaps best known for forming the offshore kelp forests of California, is the largest (greater than 30 metres long), and one of the fastest growing of all seaweeds. Large brown seaweeds (kelp) like *Macrocystis* are the most important primary producers of temperate inshore areas. Through detrital pathways (kelp are rarely eaten directly) they provide the base to many inshore ecosystems. The presence of *Macrocystis* on a solid substratum in shallow water results in the formation of a unique and highly productive ecosystem, the kelp forest. This ecosystem provides both food and shelter to juvenile fish and provides a habitat for economically important species like crayfish and paua.

Analogous to the large numbers of animals found on trees in a tropical rainforest, *Macrocystis pyrifera* forms an extensive canopy that is colonised by a wide range of sessile and mobile epifauna. Animals such as copepods, hydroids, bryozoans, clingfish, anemones, pipefish etc. all gain advantages from their association with seaweed. These animals spend the majority of their life either attached to or closely associated with a seaweed substratum. Probably the dominant group found on the surface of *Macrocystis* in Otago Harbour are sessile suspension feeders, the most common being the bryozoans and the hydroids. These animals gain many benefits from their close association with the giant kelp including kelp-derived, dissolved organic matter as a supplement to their diet, a more favourable feeding environment (higher flow rates than on substrate) and a refuge from the high sedimentation rates and competition of the benthos.

Many authors have commented on the effect of epifauna on seaweeds, most assuming that high numbers of sessile animals living on the surface of seaweeds have a negative effect on their substratum. Costs to algae as a result of colonisation by encrusting epifauna can include shading, providing a barrier to nutrient uptake, damage and weakening of tissue, and damage as a result of the feeding activity of carnivorous fishes (eating attached epifauna). There is, however, some compelling evidence to suggest that epifauna can have a positive influence on their substratum in some environments. One important fact about epifauna is that they excrete ammonium. Ammonium is an important, easily assimilated source of nitrogen and during certain times of year growth of kelp like *Macrocystis pyrifera* is often nitrogen limited. It has

been suggested that ammonium from epifauna may help reduce the effects of nitrogen limitation by providing a back up source of nitrogen when ambient levels decline.

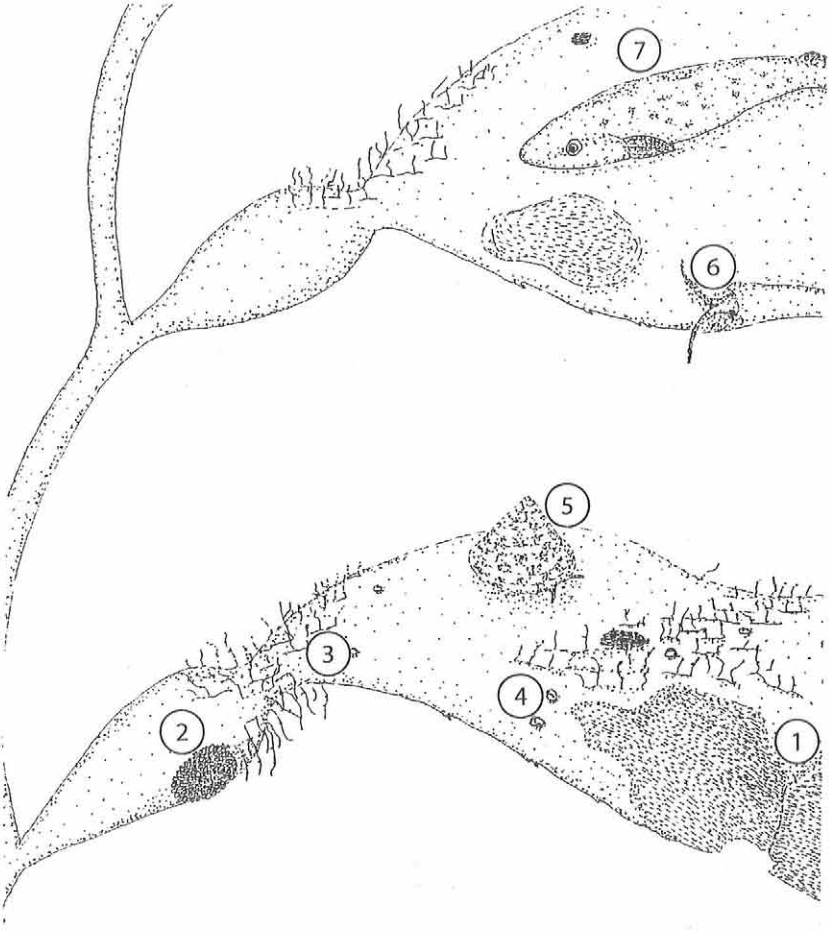


Fig. Common animals found on *Macrocystis pyrifera* at Harington Point.

1 *Membranipora membranacea* (Bryozoan). **2** *Celleporella bathamae* (Bryozoan). **3** *Obelia geniculata* (Hydroid). **4** Spirorbid polychaete. **5** Top Shell. **6** Isopod **7** Clingfish...

Drawn by *Chris Hepburn*

The main objective of this work was to weigh up the possible benefits, against the potential costs, of colonisation by the two dominant suspension feeders groups, bryozoans and hydroids, that live on *Macrocystis* in Otago Harbour.

In Otago Harbour *Macrocystis pyrifera*'s growth is nitrogen limited during the summer and light limited during winter as is typical for kelp at higher latitudes. During winter ambient nitrogen concentrations are high so ammonium provision by epifauna could be predicted to be unimportant, and negative effects of colonisation in particular shading could be more pronounced. From patterns of colonisation it became clear that hydroid colonies were much more likely to provide *Macrocystis* with benefits than bryozoans predominantly due to differing patterns of seasonal colonisation. Bryozoans just were not common during summer while hydroids, although numbers were highly variable, were sometimes found in very high numbers during summer. Low numbers of bryozoan colonies on *Macrocystis* during summer were attributed to low recruitment rates during periods of warmer water temperatures. This is suggested to be a result of avoidance of warm surface water by the larvae of the dominant bryozoan species (*Membranipora membranacea*) by maintaining themselves in cooler deep water beneath the seasonal thermocline. Bryozoans were also rarely found on apical sections of fronds where the most rapid uptake of nitrogen and the majority of growth occur while hydroid colonies were found all along the frond.

By determining natural abundances of the nitrogen isotopes ^{14}N and ^{15}N in algal tissue beneath bryozoan colonies, it became clear that bryozoan colonies present during summer did appear to be providing nitrogen to *Macrocystis*. The isotopic signature of nitrogen beneath bryozoan colonies was quite different to adjacent bryozoan-free kelp tissue, a clear indication of a different nitrogen source for colonised tissue. However, due to the low levels of bryozoan colonisation at this time it is unlikely that this nitrogen had any significant effect on *Macrocystis* growth at this site.

Despite evidence that bryozoans provide nitrogen to *Macrocystis pyrifera*, their seasonal distribution patterns at Harington Point over the study period makes it unlikely that they provide enough ammonium to have any effect on nitrogen limitation. During years when summer seawater surface temperatures are low or at sites where summer water temperatures are lower than Otago Harbour, bryozoans could still be an important nitrogen source. Hydroids are much more likely to be a nitrogen source to *Macrocystis* during nitrogen limitation in Otago Harbour. Evidence from seasonal growth patterns of *Macrocystis* at Harington Point supports this idea. During January 2000 a growth response was detected as a result of a large colonisation event when hydroid colonies covered on average 61% of *Macrocystis* blade tissue. It can be concluded that it is important to determine both seasonal and spatial patterns of colonisation, and when periods of nitrogen limitation occur, before making assumptions about what influence an epifaunal animal will have on its algal substratum.

Note –Abstracts of the other contributors to the Botany Student Symposium will be published in the Feb-March newsletter. – *ed.*

Survey - with prizes!

NEW ZEALAND'S TOP TEN MOST POPULAR PLANTS - WHAT ARE THEY?

What do you think are the most popular New Zealand native plants? Would your selection include Icon plants (such as flax and cabbage tree) or do you have a special favourite that deserves greater recognition? Lets hear your views.

The Isaac Centre for Nature Conservation (based at Lincoln University) invites everyone to contribute their suggestions as to what they feel are the most popular New Zealand native plants. This is the first of an annual countrywide survey to seek personal selections for the top ten favourite New Zealand native plants. These favourites could include a selection of trees, shrubs or wildflowers.

You are invited to select up to ten of your most favourite native plants and send your list to the address below. Please list your selection in order of preference and include either common names or scientific names. You may also like to comment on your personal selection and say why they are your favourites or why they should be in the top ten most popular native plants for New Zealand. There are some prizes to give away. After the closing date, the first three entries drawn from the nominations will be awarded prizes. Entries close on January 4th 2003.

The results and the winners of the prize draw will be made known in the March issue of the New Zealand Gardener. Please post or email your suggestions (with name and contact details) to:

'The top ten New Zealand Native plants', c/o The Isaac Centre for Nature Conservation, P.O. Box 84, Lincoln University, Canterbury.

Or email: Spelleri@lincoln.ac.nz

The prize draws are vouchers for New Zealand Native Plants:

1. $250 from Titoki Nursery, Palmers Rd., RD1, Brightwater, Nelson
2. $150 from the Isaac Centre for Nature Conservation
3. $100 from the Isaac Centre for Nature Conservation

Don't forget to include your name and contact details.

Contributed by John Sawyer, Biodiversity Conservation Officer , DoC, Box 5086, Wellington who is keen for as wide a representation as possible to enter. Any questions ask John , email jsawyer@doc.govt.nz, phone +64 4 470 8441

John's byline: "A thing is right when it tends to maintain the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise" (Leopold 1949).

How about putting your favourite seaweed, moss, lichen, fungus or coral on the list! - *Ed*

Reports and plant lists.

Vascular plant species from Graham's Bush - . . *Ralf Ohlemüller*

Total species from 3 quadrats off the track at 200, 250 and 300 m

Woody Species

Aristotelia serrata
Carpodetus serratus
Coprosma aerolata
Coprosma crassifolia
Coprosma foetidissima
Coprosma propinqua
Coprosma rhamnoides
Coprosma rotundifolia
Coprosma rubra
Coprosma taylorae
Dacrydium cupressinum
Elaeocarpus hookerianum
Fuchsia excorticata
Griselinia littoralis
Hebe salicifolia
Kunzea ericoides
Melicytus ramiflorus
Myrsine australis
Olearia arborescens
Pittosporum eugenioides
Pittosporum tenuifolium
Podocarpus hallii
Prumnopitys ferruginea
Prumnopitys taxifolia
Pseudopanax arboreus
Pseudopanax colensoi
Pseudopanax crassifolius
Pseudowintera colorata
Ribes grossularia (exotic)
Schefflera digitata
Weinmannia racemosa

Ferns

Asplenium bulbiferum
Asplenium flabellifolium
Asplenium flaccidum/terrestre
Asplenium hookerianum
Blechnum chambersii
Blechnum colensoi
Blechnum discolor

Non-woody Species

Astelia fragrans
Carex coriacea
Clematis forsterii
Clematis paniculata
Dactylus glomerata (exotic)
Earina mucronata
Hydrocotyle americana
Metrosideros diffusa
Neomyrtus pedunculata
Nertera dichondraefolia
Parsonsia heterophylla
Pennantia corymbosa
Pterostylis banksii
Ripogonum scandens
Rubus cissoides
Solanum laciniatum
Stellaria parviflora (exotic)
Uncinia clavata
Uncinia filiformis
Uncinia rupestris
Uncinia uncinata

Ferns ctd.

Blechnum fluviatile
Blechnum procerum
Cyathea dealbata
Cyathea smithii
Dicksonia squarrosa
Grammitis billardierei
Hymenophyllum demissum
Hymenophyllum dilatatum
Hypolepis ambigua
Lastreopsis glabella
Leptopteris hymenophylloides
Lycopodium varium
Phymatosorus diversifolius
Polystichum richardii
Polystichum silvaticum
Polystichum vestitum
Pyrrosia eleagnifolia

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 nigrocincta*, 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 chyrsophthalmos*, standing out under the hand lens like an elfen shrub in miniature.

Jennifer Bannister and *Allison Knight* OTA herbarium

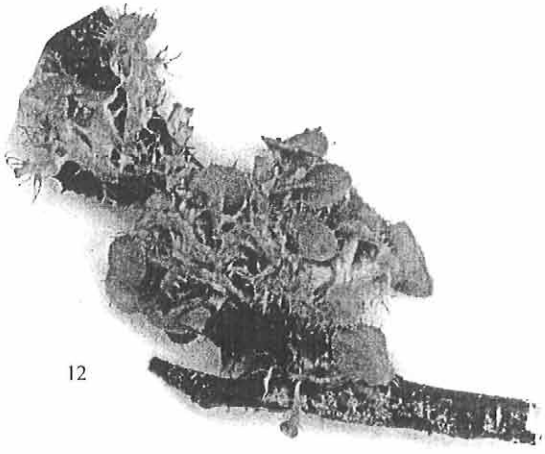


Fig. Magnified view of the fruticose (miniature shrub-like) orange coloured lichen *Teloschistes chrysophthalmos*, seen on the Graham's bush and Heyward Point trips and common on twigs of native and introduced shrubs and trees in high light situations around Dunedin. Try looking for it in your garden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

Photocopied by *Allison Knight*

Heyward Point Field Trip, October 19 — *Chuck Landis*

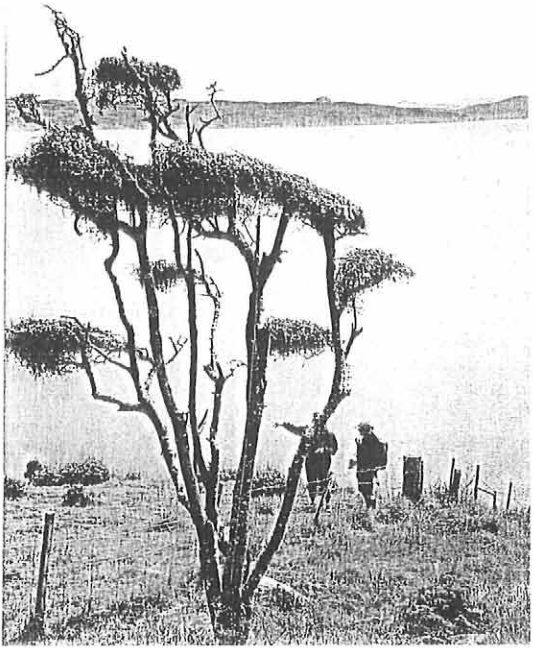
Heyward Point is the site of a beautiful and botanically interesting DoC Scenic Reserve. Spectacular coastal scenery, an enjoyable walking track, and a rare remnant of dry coastal podocarp/broadleaf forest make this a very special place. Eight Bot Soc members participated in the trip. Most, like me, had never visited the area previously.

The reserve sits atop 30 metre high basalt cliffs immediately northwest of the entrance to Otago Harbour. Solitary trees, survivors of the original bush, as well as shrubs and herbaceous plants clinging to the sea cliffs, and even the young regenerating bush all reflect the exposed windy nature of the location. Numerous plants were in flower— *Clematis paniculata, Helicrysum glomeratum, Sophora microphylla*, the pleasantly fragrant *Pittosporum tenuifolium* and *Clematis foetida*, and the deliciously fragrant *Olearia fragrantissima* were especially notable. 2002 has been a great spring for Clematis, and Heyward Point was no exception.

The most striking plants were the ancient forest giants, including various podocarps (especially huge old totara), lacebark, ribbonwood and broadleaf. These are surrounded by remnant scrub and some regenerating bush, complete with abundant and diverse small-leaved divaricating shrubs (Hugh Wilson's book was very helpful), climbers, ferns and lichens. We were fascinated by the variety of architecture and leaf form of *Coprosma crassifolia*, including some very photogenic standing-alone "Dr Suess trees". Some less common plants include good specimens of *Pseudopanax ferox, Olearia fragrantissima*, and the scrambling climber *Scandia geniculata.*

Natural regeneration is occurring, but very slowly, being inhibited by dense stands of grass. Also, boundary fences may be leaking at places. However, natural regeneration has been supplemented by plantings of 10-12 year age. Numerous healthy shrubs and small trees of *Pittosporum tenuifolium,* lacebark (*Hoheria angustifolia)* and ngaio (*Myoporum)* flank the original bush margin. Their nursery origin is easily recognized by identical close plantings in straight rows.

We decided that many of the planted *Myoporum* are not the local ngaio (*M. laetum*) but the Australian "coastal boobialla", *M. insulare*. Following the field trip, I discussed the ngaio problem with Dean Nelson of DoC. He suggests that these trees may reflect two mistakes in tandem: Nursery seedlings were raised in the old Lands and Survey nursery at Manapouri from seed collected from the handsome stand of "ngaio" along the seaward side of Highway 1 at the south end of Katiki Beach. These seedlings were intended for planting at the Moeraki Boulders Reserve, but during transit to Dunedin became mixed with plants intended for Heyward Point. Subsequently it was realized that the Katiki Beach seed plants themselves were introduced *M. insulare*, mistakenly thought to be the very similar native, *M. laetum*. Questions now arise as to whether the introduced "boobialla" should be removed from Heyward Point, whether *M. laetum* and *M. insulare* hybridise (they are very similar in appearance, are closely intergrown, and were both flowering), and whether the provenance of many other young plants in the reserve should also be questioned. The presence of *Olearia traversii* certainly suggests so.



The trip continued with a walk to the salt marsh, sea cliffs and fossil sea-caves of isolated Kai Kai Beach and up the ridge to an abandoned stone farmhouse with a million dollar view to the east and a delightful grove of specimen forest trees in a small clump of remnant bush to the west.

Many thanks to Robyn Bridges whose thoughtful organization made this a very enjoyable trip.

Fig.
Spectacular view frames wind sculptured shrub as Robyn points the way on the Heyward Point trip.

Photo by Gudrun Wells.

Inaugural Geoff Baylis Lecture, 30 October, 2002

The overwhelming success of BSO's Inaugural Geoff Baylis Lecture is a good indication of the widespread esteem and affection held for Geoff, the first New Zealand born Professor of Botany in this country, and head of the Department at Otago for 33 years. Members of the botanical community, colleagues, students past and present, friends and family, from Auckland to Invercargill streamed in to honour Geoff and take part in this special occasion. Even the weather smiled for the day. The three afternoon tours were popular, and Geoff took part in them all. Starting with the plants, Tom Myers, Alice Lloyd Flitt and Shirley Stuart enthusiastically showed off the special plants, some discovered by Geoff, in the native section of the Botanic Garden. They also put together a wonderful display of fresh specimens to decorate the atrium for the gathering at the Museum. Next Prof. Peter Bannister guided guests around his Botany Dept, past Mary Anne Miller's display of Geoff's past and recent (Bot. Soc.) publications, and finishing by the Otago Museum, where Brian Patrick unveiled the mysteries of the basement and showed what had become of the site of Geoff's Botany Dept. Upstairs in the atrium the Otago Museum put on a display which included two original paintings lent by Audrey Eagle and wonderful photos from the archives of the Botany Dept and private collections. David Holdsworth added another dimension with 3 posters detailing Geoff's distinguished naval career, including the ramming of a

German submarine! There wasn't time to take it all in over drinks and nibbles and in no time the Barclay theatre was full to capacity.

David Orlovich, BSO chairman, was pleased to announce our new Patron, Prof Peter Bannister, before introducing the speakers. Geoff Baylis spoke first, reliving the heady days of discovery on the Three Kings Islands. Ann Wylie followed, painting a vivid word picture of life in the Botany Department in the Hollaway days, and the impact of the arrival of the dashing young naval officer. Alan Mark made up for lost time with a colourful and rapid display of slides and lively commentary illustrating life in the field with Geoff, his staff and students. My favourites were the classic shots of the elegantly dressed founder of the Hellaby trust being shown the tussock grasslands. Ian Hall, Invermay, took us on a pictorial tour of the Botany Department and university of the past. Some of his shots were so far in the past that they prompted a lively interjection from Geoff!

On another tack, Jim Crush, Ruakura, transported us to the Waikato for a glimpse of the fascinating work they are doing there using using plants to recycle the water and nutrients from human waste. Peter Johnson, Landcare, firmly implanted Baylis into Botany with his mimicry and botanical props to appeal to all our senses, including a fragrant *Olearia fragrantissima* to touch and smell, and a *Griselinia littoralis* upside down in a pot, to illustrate the root structure and mycorrhizal connection. Melanie Stephen, a current Botany honours student, raced us back up to the present, with her explanation of the DNA sampling, sequencing and phylogenetic techniques she has been using to study the mycorrhizal associations in *Nothofagus* forest.

Then Geoff had the last word with a description of his ground-breaking mycorrhizal discoveries.

Fig. Geoff Baylis and Ann Wylie lead the way at the Inaugural Geoff Baylis lecture. *Photo by Adrienne Markey.*

A good crowd of 55 went on to the convivial dinner at the University Union, where the wine flowed, thanks to Geoff. After dinner, two more of Geoff's ex-doctoral students

spoke. Conway Powell recalled the filthy business of breaking up rocks to create soil for his research. Karen Cooper proposed a toast to Geoff and Peter Bannister had a succinct last word.

For those who missed the museum display Mignon Pickwell redisplayed much of the material in the Science Library, and added a collect of theses with a mycorrhizal theme. David Holdsworth has donated his posters to the Department of Botany archives.

Such a grand occasion doesn't happen without the support of many people. BSO is particularly grateful to generous support from the Department of Botany, the Otago Museum and the University Union. Also to the enthusiastic tour and display organisers, the speakers, and the student helpers, many of whom are or were recipients of Hellaby Trust help with their botanical research. Most of all we are grateful to Geoff, for inspiring such a wonderful response, and for letting us use his name in perpetuity.

The lecture was videotaped by Graeme Parmenter, Invermay, and by Zhanlin Li for Alan Mark. David Holdsworth is now in the process of writing a biography of Geoff, and if anyone has any material to add he'd love to hear from them at: dholdsworth@business.otago.ac.nz. David is also processing Geoff's extensive slide collection to donate to the Hocken Library.

Trip to Donaldsons' Garden, 24 Nov. *-ed*

The first fine Sunday in a long time must have drawn all the keen gardeners out to tend their own vigorously growing gardens and lawns. Without any Robyn's splendid gentle botanical reminders (she was away overseas) to entice us away no-one turned up to see the treats that Cliff and Linda had in store. Luckily they are forgiving people and will give us another chance to see their garden at its spring peak next October.

Bryophyte Workshop, Albert Town, Nov 28 – Dec 3 – *David Orlovich*

The Otago Lakes district turned on the most beautiful weather for the 18th John Child Bryophyte Workshop 2002. The workshop attracted 35 people to Albert Town, on the outskirts of Wanaka, for four days of hunting for mosses, liverworts and hornworts. On the first day, we explored Haast Pass, with most people walking the track back to Davis' Flat. On the way back to Wanaka, we visited a number of the tracks along the Makarora Valley, as well as Kidd's Bush, at the head of Lake Hawea. A planned trip to Treble Cone Ski Field the next day was aborted when we couldn't get past the locked gate. Instead we explored some beech forest in the upper Matukituki Valley and some of us went a short way along the Rob Roy Track, where the snow-capped peaks were a stark contrast to the warm weather we had at ground level! The third day we started at the Snow Farm, collecting in and around Sphagnum bogs, and spent the afternoon at Cardrona Ski Field, where I collected some slime moulds growing around the edge of a melting snowbank. The fourth day we climbed Mt Iron, and most people spent the afternoon walking from the Clutha outlet back to Albert Town, but I spent the afternoon cooling off in the Clutha River! The Bryophyte Workshop was attended by local and

overseas enthusiasts ranging from professional bryologists to interested amateurs. Evening slide shows by Jessica Beever, Bill Malcolm, Kelvin Lloyd and John Braggins made for entertaining evenings. Those with the skills to identify bryophytes were so generous in their help that it was impossible to not catch the "bug" and get hooked on mosses! The intricate, miniature beauty of mosses was revealed under the microscopes set up to aid identification, and the organisers David Glenny and Geoff Spearpoint made sure this was an excellent and memorable workshop. I haven't been able to stop myself peering at neighbour's front fences and staring into cracks in footpaths searching for new species to identify ever since! The John Child Bryophyte Workshop opened up a new and beautiful world to me, and anyone with an interest in discovering the extraordinary in the ordinary should not miss this annual event. Next year's workshop is planned for the Hunua Ranges Regional Parkland, near Auckland.

Botanical and other delights of China, 4 Dec – *Allison Knight*
Our last meeting of the year was a mushroom gourmet's delight. David Orlovich tantalised a good crowd with 2 carousels of slides from his 2 week mycological tour of China, where there are over 150 different kinds of edible fungi available from the markets and probably hundreds of non-edible fungi yet to be fully described. Dr Wang Yun, Crop & Food, Invermay, added his local and mycological knowledge from the audience. We were all ready to sample a Chinese banquet by the last mouth-watering slide and afterwards a dozen of us enjoyed sampling a dozen tasty courses at the Asian Restaurant, washed down by local and Asian beers. A tasty end to the year's activities.

Reviews

Books

New Zealand's Leaf-dwelling Lichens
Bill and Nancy Malcolm, Micro-Optics Press. 73pp, A5, Spiral bound.

This is another of the Malcolms' informative, entertainingly explained and beautifully illustrated books that will help make the fascinating world of lichens accessible to anyone who is keen to explore it.

The first 33 pages set the scene, with a chatty, broad-ranging discussion covering everything from the best (mycorrhizas and brewers yeast) to the worst (moulds and athletes foot) of fungi; from the fungi that associate with algae or bacteria to form lichens to the very specialized lichenicolous fungi that only infect lichens. Any technical terms are clearly explained and can also be looked up in the well-illustrated glossary. A wealth of interesting detail on the leaf-dwelling (foliicolous) lichens includes such gems as: their chemical defenses against invertebrate grazing and plant defenses against them; the effect of their place in the canopy on the form of their thallus and spores; and exquisite explanations of the mechanism and evolution of asexual, sexual and vegetative reproduction in the canopy.

This is followed by a dichotomous key to the 33 genera of foliicolous lichens known in New Zealand, well illustrated with coloured micrographs and well supported by the glossary and the index of species illustrated. Full descriptions of each of the genera follow, often with little notes giving further background detail.

For those who would rather let the computer turn the pages, the key, descriptions and glossary are also provided on a CD that comes with the book. The PDF format can easily be read on a Mac or PC, providing one remembers to open the CD from INSIDE Acrobat reader. The key then becomes alive. A click on any technical term takes you straight to the explanation in the glossary, while a click on any genus that has been keyed out takes you straight to the description of that genus.

Altogether a very handy, readable and user-friendly production, which unravels the mysteries of a complex, tiny, but important, part of our biodiversity and evolutionary history.

Well worth looking for – both the lichens and the book!

Copies can be obtained from Micro-Optics Press, Box 320, Nelson. Fax (03) 545 1660 Cost: $50 within New Zealand and $60 overseas, which includes the CD, GST, post (air-mail overseas) and Bill's immaculate packaging. Sorry, no credit cards.

Allison Knight & Jennifer Bannister

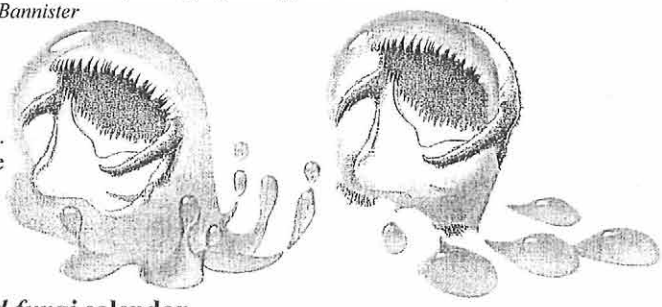


Fig.from above. Campylidium (asexual spore-bearing structure) of the leaf-dwelling lichen Badimiella pteridophylla. The side arms trap an air bubble and shield the spores when flooded by a canopy drip.

Mackay, A. (2002). *Wild fungi* calendar

Andrew MacKay of Dunedin has produced a calendar for 2003 featuring thirteen different New Zealand fungi. Each photograph fills an A4 side with the calendar below. Andrew has been photographing natural history subjects for many years and these fungal portraits are up to his usual, excellent standard. Each is accompanied with its common and scientific names and where it was found. My favourite would have to be that of a large group of the ink cap fungus, *Coprinus disseminatus*. Photographed *in situ*, the background detail provides plenty of added interest as well as scale, as in the beautiful, little *Mycena uru* which is almost dwarfed by the moss, *Ptychomnion aciculare*. At $25, it is a little on the expensive side for a calendar, but the quality of the photographs and rarity of the opportunity to obtain good examples of our native fungi, might make this a welcome gift for someone this Christmas. It can be obtained direct from Andrew by telephoning him at 03-476-7411, or through his web site www.keaphotos.co.nz (where you can find other examples of his work), or by e-mail at kea@keaphotos.co.nz - *John Steel*

Streimann, H. (2001) ***The mosses of Norfolk Island.***
178 pp. Softcover. Australian Biological Resources Study, Canberra. $A48.

Another in the Flora of Australia series, this volume is confined to Norfolk, Philip and Nepean Islands and is of interest to us in New Zealand because of Norfolk Island's position, approximately equidistant from Australia, New Caledonia and New Zealand. The moss flora comprises 69 species, only two of which are endemic, and all but seven are shared with Australia. This compares with 46 and 20 shared with New Zealand and New Caledonia, respectively.

There is a brief description of the history of the mosses of Norfolk Island and their distribution, before a key to species. Each one is comprehensively described with notes on its local and worldwide distribution and accompanied by fine line drawings and a local distribution map. I found this easy to use and up to the high standard to be expected from this series and will be useful to use with our shared species. Comparison of our native flora with that of Australia has long been a source of discussion and this volume will provide additional fuel for the dispersal debate.

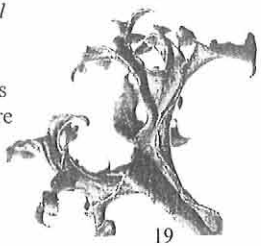
John Steel

Kantvilas, G.; Elix, J.A.; Jarman, S.J. (2002) ***Tasmanian lichens: identification, distribution and conservation status I. Parmeliaceae***
274 pp. Softcover. Australian Biological Resources Study, Canberra.

And another! This time an item indispensible for those interested in New Zealand lichens. The Parmeliaceae is a large and complex family represented in Tasmania by 148 species in 21 genera. Of these, only seven are endemic. It is also well-represented here in New Zealand, where much work needs to be done, and with which many species are shared. This volume has already brought great sighs of relief from Jennifer and Allison in our herbarium as it has enabled them to put names to unidentified specimens awaiting a home. The format is the same as others in the series. A brief introduction is followed by a key to genera. Then comprehensive descriptions of the genera with keys to the species include distribution maps and details of their ecology, chemical composition and authorship.

Many of the descriptions are accompanied by black and white photographs and the book could have been improved by the use of colour photographs which may have made it more accessible for those less knowledgeable in the field. This is really a reference for those pursuing an interest in lichens rather than the beginner who could struggle until they have a better feel for this, often difficult, group.

John Steel



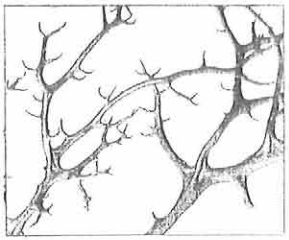


Fig. from above. *Cetraria islandica* ssp *antarctica* and *Cetraria aculeata*, two lichens in the Parmeliaceae. Both were seen on the Bryophyte Workshop in alpine cushion fields on the Pisa Range.

Special Book deals for BSO members!

The Conservation Requirements of New Zealand's Nationally Threatened Vascular Plants

Dobson SR, de Lange PJ, Ogle CC, Rance BD, Courtney SP and Molloy J. Threatened species Occasional Publication No. 13. Department of Conservation 1999. 198 A4 pages. Soft cover, spiral bound.

An essential reference for the serious conservationist. Clear layout with black and white line drawings and index of common and scientific names. Fittingly dedicated to Tony and Helen Druce, whose unstinting commitment to the New Zealand flora contributed so much to our understanding and knowledge of threatened taxa.

Free copies available! John Barkla, DoC, has generously made several copies of this book available to keen members who have paid their BSO subscription for 2003. The first 7 members who call in to the Department of Botany Office, 464 Great King St, can claim a copy from Trish, the department secretary, before 23 Dec or after 10 Jan.

Botany of Rotorua, 140 pages, 130 colour plates, $20 a copy + $5 postage. 10 or more copies $10 ea. + postage This book, written by members of the Rotorua Botanical Society, tells the story of the plant life in and around Rotorua. The 17 chapters include: Physical factors, History of the vegetation, Native forest, Exotic forest, Pasture, Naturalised vegetation, Lakeshore vegetation, Aquatic vegetation, Mires, Vegetation of thermal areas, Fungi, Micro-algae, Threatened and local plants, Mt Tarawera, Coastal plants inland, Mosses and liverworts, Traditional uses of wild plants.

BSO has ordered 10 copies of this book, which will be available to members at the bargain price of $10! Pick up a copy from Trish, Department of Botany Office, 464 Great King St, after Jan 16, or view in the Department of Botany Library.

The Story of the Dunedin Botanic Garden, New Zealand's First

Eric Dunlop. Friends of the Dunedin Botanic Garden. Nov 2002. 288pp, with plant index. 74 b/w photos, 64 colour.

2003 marks the 140th anniversary of the Dunedin Botanic Garden and the 100th anniversary of the arrival of David Tannock, the first Superintendent of Parks and Reserves, who was a major figure in the development of the Garden. Eric Dunlop and the Friends of the Botanic Garden have compiled this extensively illustrated history which should be of interest to all who live in Dunedin and appreciate its rich botanical heritage. RRP $59.95 plus $5 P&P within NZ. On sale at UBS. and the Botanic Garden Information Centre. or order through Friends of the Dunedin Botanic Garden, PO Box 124, Dunedin, NZ. Fax 03 471 9928, Phone 03 471 9275.

The Friends of the Botanic Garden are generously offering a **special price of $39.95 to members of BSO** if we order in bulk. Send your money and contact details to the BSO treasurer. We will process orders before each BSO meeting.

More books to ask for at Christmas! *As advertised*

Wildflower City – Wellington, New Zealand

Photos by Alan Knowles, text by Colin Webb.

A pictorial celebration of the glorious and chaotic displays of wildflowers that bloom on the hillsides and roadsides around Wellington. An entertaining and authoritative text aids identification and explains where the plants came from and how they came to be thriving in the Wellington region.
RRP $39. P&P included within NZ, extra for overseas.
Order through: Manuka Press, Box 12179, Christchurch, NZ.
Email: sales@manukapress.co.nz, Web: www.manuka press.co.nz
Ph: +63 3 351 2152, Fax: +64 3 351 2158

Threatened Plants of South Marlborough - A Field Guide

This book, written by Cathy Jones and Ingrid Hutzler, contains short descriptions and coloured photos of more than 80 plants with their habitats. Great value for money. It is an A5 spiral bound volume of 180 pages, a double page for each taxon.
Cost: $20.00 (plus $5 postage) Cheques payable to Department of Conservation.
No credit cards.

Botanical papers available from the Rotorua Botanical Society

The publications listed below are available for a donation to the Rotorua Botanical Society + post & handling cost.BSO has ordered 3 copies of each paper, which should be available in the Department of Botany Library late January.

Publications on Pureora:

1. Leathwick, John R., 1990. Vegetation map of the Pureora Mountain Ecological Area. North Island, New Zealand. FRI BULLETIN No. 157

2. Leathwick, John R., 1990. Vegetation map of the Waipapa ecological area, North Island, New Zealand FRI BULLETIN No. 158.

3. Leathwick, John R., 1954. Waipapa Ecological Area : - a study of vegetation pattern in a scientific reserve. FRI BULLETIN No. 30. Ministry of Forestry, Forest Research Institute, Rotorua, N.Z.

4. McKelvey, P.J. 1963. The synecology of the West Taupo Indigenous Forest. Government Printer, Wellington. 1963. 126 pp. + maps.

5. Veale, Brenda-Jane and John Innes (compilers). 1986. Ecological research in the central North Island Volcanic Plateau region : - proceedings of a workshop held at Pureora, November 20 to 23, 1985. Forest Research Institute, Rotorua, New Zealand. 70 p. : ill. (some col.), maps (some col.) ; 30 cm. Has a range of brief papers and abstracts including the following: A descriptive overview of the central North Island

volcanic upland; The climate of Pureora Forest; Botany of the central North Island; Insects of the central North Island; Vegetation history of some West Taupo mires.

Other Publications:
6. Burns, B.R. & J.R. Leathwick. 1992. Vegetation map of the Waipoua Forest Sanctuary and environs. FRI BULLETIN No. 143. New Zealand Ministry of Forestry, Rotorua, N.Z. : 40 pp. : ill., map ; 24 x 18 cm.

7. Benecke, U. and Davis, M.R. (editors) 1980. Mountain environments and subalpine tree growth. Proceedings of the IUFRO Workshop Nov. 1979. Christchurch N.Z. 288 pp.

8. Knowles, F. B. and Ecroyd, C.E. 1985. Species of *Cortaderia* (pampas grasses and toetoe) in New Zealand. FRI BULLETIN No. 105. Forest Research Institute, New Zealand Forest Service, Rotorua, N.Z. 24 pp. : ill. (some col.), col. map ; 30 cm. There are also quantities of a one page identification guide of differences between the introduced pampas species and the native species (toetoe). (Table 1 in this bulletin.)

9. Warburton, Bruce, 1986. Wallabies in New Zealand : -history, current status, research and management needs. FRI bulletin, no. 114. Protection Forestry Division, Forest Research Institute, Christchurch, N.Z. 29 pp. maps ; 30 cm.

Postage + handling costs:
1 - 2 items: $5
3 - 10 items: $10
larger quantities: postage costs + $5 handling

Items will be posted when payment has been received. Please make cheques out to "Rotorua Botanical Society". Profits go to the Rotorua Botanical Society Student Research Grant (to encourage botanical or plant ecology research in the Bay of Plenty and Central North Island).

Orders to:
Chris Ecroyd
Forest Research
Private Bag 30 20, Rotorua
phone 07 3479067 (evenings), email
chris.ecroyd@forestresearch.co.nz

BSO Members Discount: Many botanical books, including those published by CSIRO, Australia, are available from Manaaki Whenua Press, at 20% off, to BSO Members. This includes post and packing. If you are a member of BSO, say so when you order.

Email: MWPress@landcareresearch.co.nz (NOTE CHANGE of email address!!)
Online ordering website: http://www.mwpress.co.nz
Post: Manaaki Whenua Press, PO Box 40, Lincoln 8152, NZ.
Telephone: +64 3 325 6700, Fax +64 3 325 2127

Web Sites

Exploring the Kaimai Bush: www.kaimaibush.co.nz Shirley Kerr, a biology teacher from Katikati College, shares her love of the intricate detail of small things living on the forest floor in the Kaimai – Mamaku Forest Park, particularly the area near Katikati known as the Kaimais. Images and text cover a selection of photogenic fungi, ferns, lichens, mosses, liverworts and orchids. Well worth a look, especially if you'd like a preview of some of the local flora that the Wellington Botanical Society might encounter on their summer trip to the Bay of Plenty, or that you are contemplating going on the 17th New Zealand fungal Foray based at Katikati next May.

Botanical Society of Otago: http://www.botany.otago.ac.nz/bso
Our web site has had the basics reinstated but David is still working on improving it. Good things take time!

Festive Recipe

The elders are flowering profusely this year and there's still time to make some refreshing, bubbly, elderflower 'champagne'. This recipe uses all natural ingredients and relies on fermentation by the wild yeast present on the elderflowers to produce a refreshingly bubbly, carbonated drink with delicate floral overtones, as low in alcohol as ginger beer. An inexpensive, home-made, festive drink that is popular with children.

Elderflower 'Champagne'

4.5 litres cold water (warm water makes the flowers go brown)
670 g sugar
4 – 6 heads of dry, unwashed elderflowers (enough to cover to surface of the pot).
2 lemons, sliced
2 tablespoons wine vinegar or cider vinegar (to optimise the pH for yeast growth)

Pick freshly opened flowers on a dry day, to minimise insects and mould. Leave unwashed to retain the natural wild yeast. A sharp tap should remove most insects, the straining will deal with the rest.
Stir everything together in a large, clean, lidded, food-grade plastic bucket or stainless steel pan.
Leave overnight, (with flower stalks upwards to avoid stalky flavour).
Strain into clean, well rinsed fizzy (not still) drink bottles with gas-proof lids. (check that the lid inserts are present and gas-proof).
Leave some head space in bottles.
Screw caps on tightly
Store in a warmish, shady place till bottles become taut with gas (usually 4-6 weeks, depending on temperature and yeast strain)
Serve chilled, on ice. Open with caution.

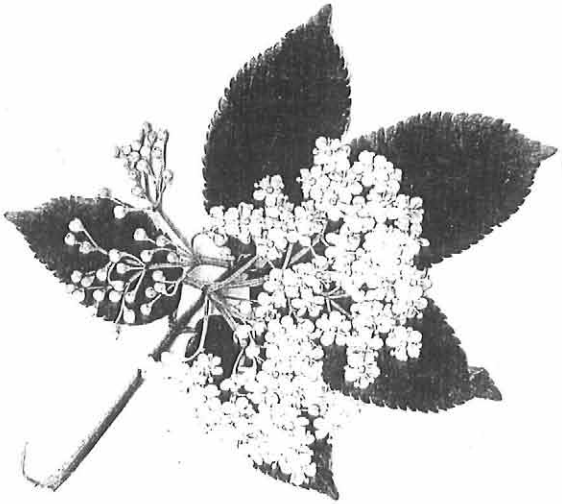


Fig.
Flowers and leaf of the elder, *Sambucus nigra*, a useful weed which grows wild around Dunedin and most of Otago. The berries provide the red colour in many of the herbal teas

Photocopy by *Allison Knight*

News

Congratulations to Associate Prof. Kath Dickinson

BSO congratulates long-standing member Kath Dickinson, who well deserves her recent promotion to Associate Professor in the Department of Botany at Otago University. The University citation follows:

Dr Katharine Dickinson has longstanding research interests and involvement in terrestrial ecology, and has worked in temperate to tropical environments in ecosystems ranging from high alpine habitats to tropical and temperate rainforests. She is in her seventh year as the Royal Society of New Zealand's science nominee on the New Zealand Conservation Authority. She is also Director of the Ecology Degree programme at Otago University, and Research Advisor to the Hellaby Indigenous Grasslands Research Trust.

Announcement of a Patron for the Botanical Society of Otago.

BSO chairman David Orlovich was very pleased to be able to announce at the Geoff Baylis Lecture that Prof Peter Bannister has agreed to be the first patron of our botanical society. It is a very fitting role, because Peter has always been very encouraging and supportive of the society.

News from other Botanical Societies

Current newsletters from botanical societies in Auckland, Waikato, Rotorua, Manawatu, Wellington, Christchurch, Wakatipu and Berlin! are now displayed on the display shelf, donated by BSO, in the Department of Botany tea room. Back copies of newsletters, including the Botanical Society of New Zealand and BSO, are stored in the Department of Botany computer room. Also Carol West has kindly donated a

1999 – 2002 set of the quarterly *Otatara Pigeon Post*, which is full of southern interest. Jim Crush has donated to the Department of Botany a copy of the book *Botany of the Waikato*, impressively compiled by the Waikato Botanical Society.

An Opportunity to create a Fiordland Marine Park

The land-based plants and animals are protected in Fiordland National Park but this protection does not extend to the sea creatures. Some of the underwater forests of seaweeds, the special black corals and other unique assemblages of marine organisms are found nowhere else in the world. At our last meeting Audrey Eagle brought to our attention the Forest and Bird call for submissions commenting on the Guardians of Fiordland's Fisheries and Marine Environment Inc (GOFF) draft management strategy for Fiordland's fisheries and marine environment. **Submissions are due on 20 Dec** and will be processed by Southland Regional Council. Details on BSO noticeboard and on display shelves in Department of Botany tea room.

Botanical Diary

Pakistan/China

Wild Flowers Tour, June 2003. 15 day visit to the spectacular mountains of Hunza Pamir, led by Nelson botanist Cathy Jones. Brochures on BSO noticeboard and Department of Botany display shelves. More information from Silk Road Adventures NZ Ltd, Ph 0800 349 739, email Rubicon.Travel@xtra.co.nz

Australasia

Wellington Botanical Society summer trip, 2-12 Jan, 2003
Based on two camp sites near Katikati and Matata in the **Bay of Plenty**
Details are on our BSO noticeboard, Botany Dept.

Melbourne, 29 Sept - 3 October 2003. A joint conference of the **Australian Systematic Botany Society** and the **Australasian Mycological Society** with the **7th Australasian Bryophyte Workshop** and the **Orchid Conservation Forum II**. Email: bhewitt@unimelb.edu.au. Register online at: www.conferences.unimelb.edu.au/150years. Flyer on BSO noticeboard.

17th NZ Fungal Foray, 5-10 May, 2003 Katikati, Bay of Plenty.
This will follow the format of three days of collecting and a one day "Mycological Colloquium".

19th John Child Bryophyte Workshop, late 2003. Hunua Ranges, Auckland
More details next year.

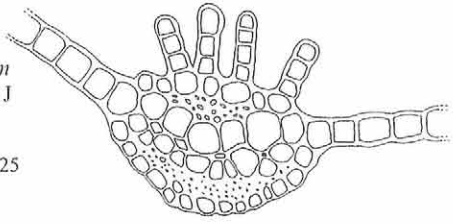


Fig. Section through leaf of the moss *Atrichium androgynum*. From J Beever, KW Allison and J Child, *The Mosses of New Zealand*, 1992

Departing and Visiting botanists; lichenologist and mycologist

18 Jan 2003. **Dr Tom Myers**, our friendly and helpful face at the Botanic Garden, is off to Oregon for a year on leave. We wish him well and look forward to hearing all about his trip when he returns.

Mid Jan. **Dr Dan Blanchon**, School of Landscape and Plant Sciences, Unitec, Auckland, will be visiting Jennifer Bannister and looking with for elusive *Ramalina* sp. lichens in the Trotters Gorge area.

31 Jan, 2003. **Prof Paul Bridge**, Kew Professor of Mycology, will be visiting David Orlovich in the Department of Botany and giving a talk at a time and place to be arranged.

Local contacts and meeting places of groups with overlapping interests.

University of Otago Botany Dept Seminars are on Wednesdays during teaching semesters at 12 noon, upstairs in the Union St Lecture Theatre (formerly Botany School Annexe), in the red-brown bldg, Cnr Union St West & Great King St. **Contact: Trish Fleming, Secretary, phone 479 7577, email:** trish@planta.otago.ac.nz

Dunedin Naturalists' Field Club (DNFC) Meetings are at 7.30 pm, first Monday of the month, in the Zoology Dept Seminar Room, (NOTE CHANGED VENUE) Great King St. Their field trips leave from the Citibus Depot, Princes St. Visitors are welcome. **Contact: Beth Bain, President, 455 0189, email: bethbain@ihug.co.nz**

Dunedin Forest and Bird (F&B) meetings are on Tuesday, at 7.45 pm in the Hutton Theatre, Otago Museum. Field trips leave from Otago Museum Gt King St entrance, 9am, Saturday. **Secretary: Paul Star 478 0315**

Friends of the Botanic Garden meet on the third Wednesday of the month at 7.30 pm in the Education Centre, Lovelock Ave. **Secretary: Mrs Betty Wolf, 488 1550**

DOC Conservation Volunteers: ongoing opportunities for hands on conservation work in coastal Otago. Learn new skills in some neat places, help conservation efforts and have fun all the while! To sign up, and receive newsletters and event programmes, **contact Caren Shrubshall, DOC: Ph 474 6932, or Steve Broni, email: sbroni@doc.govt.nz**

Otago Institute (OI) contact: Michelle McConnell, secretary, phone 479 5729, email: michelle.mcconnell@stonelaw.otago.ac.nz . Web site: http://otagoinstitute.otago.ac.nz/

Southland Natural History Field Club. Meetings 7.30pm on the second Thursday of the month, currently at the Otatara Hall,just out of Invercargill. Field trips the following Saturday or Sunday to places of botanical, ornithological, ecologcial or geological interest. **Contact Lloyd Esler 032130404, email esler@southnet.co.nz**

Times and other details may change. Check with the group involved first.

Botanical Society of Otago: whom to contact

Our mailing address is:
Botanical Society of Otago, c/o Botany Department,
University of Otago, P.O. Box 56, Dunedin, New Zealand

For membership enquiries, email the **chairman, David Orlovich**, *david.orlovich@botany.otago.ac.nz*, ph 479 9060, or **secretary**, as below:
(We are looking for a new treasurer. Can you help?)

For media, publicity or event enquiries, email the **secretary**:
Robyn Bridges, *robyn.bridges@stonebow.otago.ac.nz*, ph 479 8244

To suggest or send newsletter items, email the newsletter editor:
Allison Knight, *bso@botany.otago.ac.nz* (note new email address!)

To suggest or offer trip ideas or speakers for our monthly activities, email any of the above, or one of the other **committee members:**
Kelvin Lloyd, *lloydk@landcareResearch.co.nz*;
John Barkla, *barklaj@doc.govt.nz* or **Bastow Wilson,** *bastow@otago.ac.nz*

For information on activities contact the trip leader or see our notice board.

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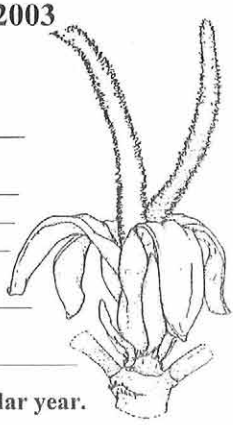
Please submit copy for next newsletter by end of January 2003

Membership form: Botanical Society of Otago, 2003

(Join now – the fee might go up at the AGM!)



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