

AUSTRALASIAN BRYOLOGICAL NEWSLETTER

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EDITORIAL

At the time I took over the role of editor for this newsletter a revised mailing list for its circulation was undertaken. The result of this was a distribution to some 66 bryologists and institutions. As I now prepare my eighth issue of the newsletter that number has now grown to beyond a hundred recipients, of which approximately 60% are further afield than Australia and New Zealand.

This growth and support for the newsletter is very encouraging. However, during a time in which economic rationalization prevails such support for the newsletter has now met with some financial difficulty. The cost of producing each copy (printing, envelope and postage) is A\$2.50 (average) and with a biannual distribution to over 100 recipients, it can be appreciated that the newsletter is reasonably expensive to produce. The newsletter has been sent free of charge, and this has been maintained during the past four years with surplus funds from the First Australasian Bryophyte Workshop, but those funds are now well and truly exhausted. To maintain the newsletter under the present arrangements will require funding from somewhere. I am exploring some options and proposals which may help to reduce costs in the future, but in the short term I now seek your support and if you are able to contribute a donation towards the costs of the newsletter production then this would be gratefully received. All monies will be duly acknowledged.

I regret the circumstances that we now face, but I trust you can understand the situation and look forward to support in whatever capacity you can offer. As always please continue to support the newsletter with written input on news and research information.....Paddy Dalton.

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The 10th John Child Bryophyte Workshop 24-29 November 1994

The 10th John Child Bryophyte Workshop was held at Waipoua Forest, Northland, New Zealand, from 24th to 29th November 1994. The meeting was well attended, with 27 participants, including two from Australia. Waipoua forest is home to New Zealand's largest tree the kauri, *Agathis australis*, and on the first day we visited several of the larger kauris which are popular tourist attractions. We were all greatly impressed by these trees which are exceeded in girth only by the giant Californian redwoods. The kauri forest and its associated forest types provided a variety of interesting collection sites ranging from sealevel to about 500m altitude. Relief from the closed forest was provided by open 'gumland' scrub (open areas with young kauri saplings or 'rickers') and a visit to coastal habitat at Kawerua Beach.

Bryological highlights, particularly for those of us from the deep south, included a variety of mosses and liverworts either confined to or more common in northern New Zealand. *Pyrrhobryum paramattense*, epiphyllous *Distichophyllum adnatum* and *Adelanthus bisetulus* were found in the lower elevation kauri forest, and *Tayloria callophylla* in open gumland scrub on the first day, and *Plagiochila obscura* in higher elevation Towai (*Weinmannia silvilcola*) - Makamaka (*Ackama rosaefolia*) forest on the second day. A forest stop at Ohae Stream returning from the bryophyte depauperate, but nevertheless very pleasant, Kawerua Beach provided several interesting *Fissidens*, *F. strictus* and *F. integerrimus* in a waterfall and *F. oblongifolium* v. *capitatus* on a roadside bank, as well as *Dawsonia superba* and masses of *Mittenia plumula* on a shaded clay bank. The last day of the workshop saw us back in the kauri forest which yielded a notable four species of *Zoopsis*.

As was the case last year, the evenings provided a range of presentations. The two Australian participants, Pina Milne and Emma Pharo, spoke about their PhD research. Pina has been working on the reproduction and population dynamics of *Dicranoloma billardierei*, *D. dicarpum* and *D. platycaulon* in the Melbourne area and Emma spoke about her work comparing bryophyte and lichen richness in logged and unlogged forests in eastern Australia. Allan Fife reviewed the recently published generic monograph of the Pottiaceae by Richard Zander and Jessica Beever gave us more details of the nomenclatural changes in *Fissidens* resulting from her work in that difficult genus. Bastow Wilson outlined some work on dominance-diversity relations in bryophyte communities and Ray Tangney showed slides of his trip to subantarctic Campbell and Auckland Islands collecting bryophytes and lichens for bioactive natural products research. Lisa Forester gave us insight into management of the kauri forest, detailing her vegetation monitoring programme and the impact of poison bait drops in reducing possum numbers.

From the time we were welcomed to Waipoua by Lisa Forester and the local Department of Conservation Field Centre Manager Glenys Molloy, the workshop was enjoyed by all. The customary good-natured humour of previous forays was also present at this the 10th John Child Bryophyte Workshop, an occasion celebrated by the cutting of a cake. Previous workshops were recalled over an album of photographs compiled by Jean Espie. For the success of this workshop, our thanks are due to Lisa Forester of the Department of Conservation, Whangarei, for organising the workshop and to Jessica Beever and John Braggins for their knowledge of the local bryophyte flora.

Ray Tangney, Dunedin, New Zealand

News from The Centre of Plant Biodiversity Research Cryptogamic Herbarium (CANB)

The amalgamation of the Australian National Botanic Gardens and CSIRO herbaria has taken place and we have now The Centre of Plant Biodiversity Research (CANB). CBG no longer exists.

Last year proved to be very busy and frustrating for me with the result that the 'News' suffered. Apparently there were sufficient articles and Paddy did not harass me hard enough for contributions. He did request this time, and I also heard that readers were interested in what has been happening in Canberra. Routine curation takes up considerable time so it leaves very little time for interesting pursuits.

Herbarium:

All the CANB collections are now at the Gardens site. Incorporation is slow, but several families have been databased and put away. The rate increases as requests for loans arrive. Repackaging has been handled by a small group of enthusiastic volunteers. Within a month all bryophyte collections hopefully will be upstairs in

'spacious' surroundings after years of being tucked away and moved between spare corners. The flowering plant collection was moved late last year to the CSIRO site and the cryptogam collections will fill part of the void left.

Field Work:

Field work has been quite varied since the last report and commenced with a short visit to the Bogong High Plains. This yielded interesting results with several collections still being a mystery to me. The variety of bryophytes was fascinating and I feel that the area may be richer than Mt. Kosciusko which is possibly drier during the summer. I managed to fit in a week on Norfolk Island between various commitments including my daughter's graduation from ANU. On Norfolk Island I found further large colonies for mosses which I suspected were rare and one moss new to the island - *Distichophyllum*. The purpose of the trip was to obtain moss photographs for the publication of the island's mosses and was funded by the Australian Nature Conservation Authority. Again Nepean Island was not visited. So it still remains a bryological blank.

During August-September field work was undertaken in Western Australia. Judith Curnow travelled to Perth with visiting German lichenologists, collecting along the way. I joined the trip with Prof. Jack Elix for the return journey while Judith flew back to Canberra. Being a tropical person I found the continuous repetition of the same dozen species initially boring, but the habitats proved to be interesting. My eyes are not attuned to the tiny half buried things on the ground. However, I am sure Flip Sollman will find the Pottiaceae interesting. One interesting find was *Andreaea* from Toolbrunup Peak in the Stirling Ranges. Hepatics were not often encountered. The Eyre Peninsula, Kangaroo Island, the Grampians and the Mts Buangor-Ben Nevis area of the Great Dividing Range were also sampled. I found the last locality particularly interesting, both for bryophytes and lichens. The Pyrene range was drier and did not yield interesting results, but time did not allow us to investigate the area sufficiently.

Earlier this year a week of collecting of the higher peaks on Lord Howe Island may possibly result in some interesting collections as it did for the lichens. On this trip I was accompanied by lichenologists Jack Elix and Dr. Patrick McCarthy.

Meetings:

The Bryophyte Workshop at Kuranda proved to be interesting both in the number of people present, the talks presented and the general enthusiasm shown. It was a pleasure to meet so many bryologists, discuss topics of mutual interest and be able to assist others. To be able to refresh one's mind with the diversity of the tropical forest was stimulating.

I was fortunate enough to attend the 'Second Symposium on Endangered Bryophytes' at the University of Zurich during September 1994. The talks were stimulating and showed just how far behind the northern hemisphere we are in understanding our bryophyte flora. It is hard to formulate conservation plans for Australia if one is not certain what we have. I also attended several committee meetings as a member for Australasia. Plans were made for a paper 'Towards a Global Action Plan for Bryophytes' which will be presented in Mexico City during August at the International Association of Bryology meeting entitled 'Tropical Bryophytes'. I have just completed the sections for Australia and New Caledonia, while Allan Fife (CHR) unselfishly supplied information for the New Zealand section.

Heinar Streimann, Curator of Cryptogams, Canberra.

Bryophyte Records for Australasia.

Seppeltia succuba Grolle found in New Zealand.

When this rather handsome, albeit primitive, member of the Metzgeriales (Pallaviciniaceae) was first described (Grolle & Seppelt 1986; J. Hattori Bot. Lab. 60; 275-282) it was known only from the subantarctic Macquarie Island. However, it was predicted that it may be discovered on the cold temperate shelf islands of New Zealand (Auckland and Campbell Islands) and even in New Zealand.

Recently, the plant was discovered in the Eyre Mountains by David Glenny, on the drier eastern side of the South Island of New Zealand (Glenny, D. 1995. N.Z. J. Bot. 33: 141-142). The annual rainfall of the region is between 800 and 1200mm. As with the original Macquarie island material, there are some plants with gynoecea, but no sporophytes.

The species is a good example of an apparently dioicous species which may have been formerly widespread but now exists as isolated unisexual colonies with no obvious means of vegetative reproduction, being able to survive but unable to extend its range.

Rod Seppelt, Antarctic Division, Tasmania.

Orthotrichum calvum NOT in Australia

This moss is generally considered to be a New Zealand endemic. But Watts and Whitelegge report, as very doubtful, a collection in MEL from "Mt. Elliott", Vic., syn. *O. waltheri* (Census Muscorum Australiensium, Proc. Linn. Soc. NSW 30, Suppl., 1906). In her 1984 revision of the genus in Australasia (J. Hattori Bot. Lab. 56, p.376), J. Lewinski mentions it, however she could not find it. It has now turned up stored as *Ulotia calva*. It is a very small quantity of *O. tasmanicum* (identification confirmed by Dr. G.A.M. Scott). Hampe wrote on the inner paper bag "*O. waltheri*", and on the outer, that it is near (my emphasis) *O. calvum*, but differs in the more acute leaves and the sparsely hairy calyptra. He added (in German) that there was too little material for a fuller examination. Dr. J.H. Willis, who kindly confirmed Hampe's handwriting, also states that "Mt. Ellery" (in eastern Victoria) on the inner bag is by C. Walter "apparently scribbled in 1869 during participation in the geodetic survey of the easternmost border with NSW."

A.W. Thies, Melbourne.

Bryophytes new for Western Australia

Metzgeria decipiens (Mass.) Schiffner & Gottsche is a new hepatic record for Western Australia. It was discovered in a gathering of *Zygodon minutus* in the herbarium collection. Details of the *Zygodon* package are as follows: On bark of *Trimalium*. Beedelup Falls National Park, about 15km west of Pemberton, Western Australia. Collected by R. Wyatt and A. Stoneburner, 4239, 15.8.1984.

Brian Best, West Australian Herbarium

Campylopus incrassatus C. Muell., a new moss for Tasmania.

This moss was collected on 2 May 1983, Central Highlands, Alum Cliffs State Reserve, Gog Range. It was growing at an altitude 680m on conglomerate rocky ridge outcrop, as small pads with *Parmelia signifera*, *Xanthoparmelia? conspersa*.

The identification was determined by Dr. Jan-Peter Frahm, who states; "the specimen sent for study looks really quite different in appearance. However, under the microscope it shows hyaline hairpoints, hyaline basal laminal cells and subquadrate upper laminal cells, a combination of characters which is typical for *C. incrassatus*. Also the transverse section of the costa fits this species. So I believe it is a strange form of the latter. Although inexperienced with the habitat of *C. incrassatus*, which should be similar to *C. introflexus* (although there should be a difference since both species are sympatric), but it should usually grow on soil.

If it was collected on a cliff, this could explain the difference in habit."

This species is predominantly in Eucalypt forest, especially in disturbed or burnt places, on logs and soil in NSW, WA, Qld and Vic. (J-P Frahm 1987. *J. Bryol.* 14, p 715.)

A.M. Moscal, Tasmania.

News and Notes

Jessica Beever (Auckland) has received a three year grant from the New Zealand Foundation for Research Science and Technology to complete her study of *Fissidens* in New Zealand and begin studies of the Pottiaceae.

Pat Selkirk (Macquarie University) is at present on study leave. She is working at the Waikato University, Hamilton, New Zealand. Early next year Pat heads further south to spend sometime in Antarctica.

Elizabeth Brown (Royal Botanic Gardens, Sydney) will be spending several weeks from the end of July continuing field work in far north Queensland. Earlier this year Elizabeth, accompanied by Barbara Wiecek, spent time in Tasmania on field work where trying summer conditions prevailed!

The Tasmanian Conservation Trust has received a grant of \$38,000 for a study of Rare and Threatened Tasmanian Bryophytes. This was made available through the Australian Heritage Commission (previously the National Estate Grant) and the study will be undertaken by Tony Moscal under the supervision of Prof. Jamie Kirkpatrick (Department of Geography and Environmental Studies, University of Tasmania). This current grant is a continuation of two previous grants (\$40,000 and \$34,100) for a Survey of Hepaticae and Bryophytes in National Estate Areas in Tasmania.

Dana Bergstrom (The University of Queensland) reports that there has been an encouraging response, including several bryologists from overseas, for the next Australasian Workshop. The difficulty is deciding on the field trips as there are many opportunities including Lamington National Park, Fraser Is. and/or the Bunya Mts. In the meantime Dana is busy completing field work for the IAB Biennial Meeting on Tropical Bryophytes at Mexico City in early August.

Forthcoming Workshops

The Eleventh John Child Bryophyte Workshop, 23rd-28th November 1995

The next John Child Bryophyte Workshop will be held at Hokitika, west coast of South Island, New Zealand, 23-28 November, 1995. This will be organised by Ray Tangney and John Steel from Otago University. For further information and to have your name put on the mailing list, write to the following address: Department of Botany, PO Box 56, Dunedin, New Zealand.

The IVth Australasian Bryophyte Workshop July 1st-5th, 1996.

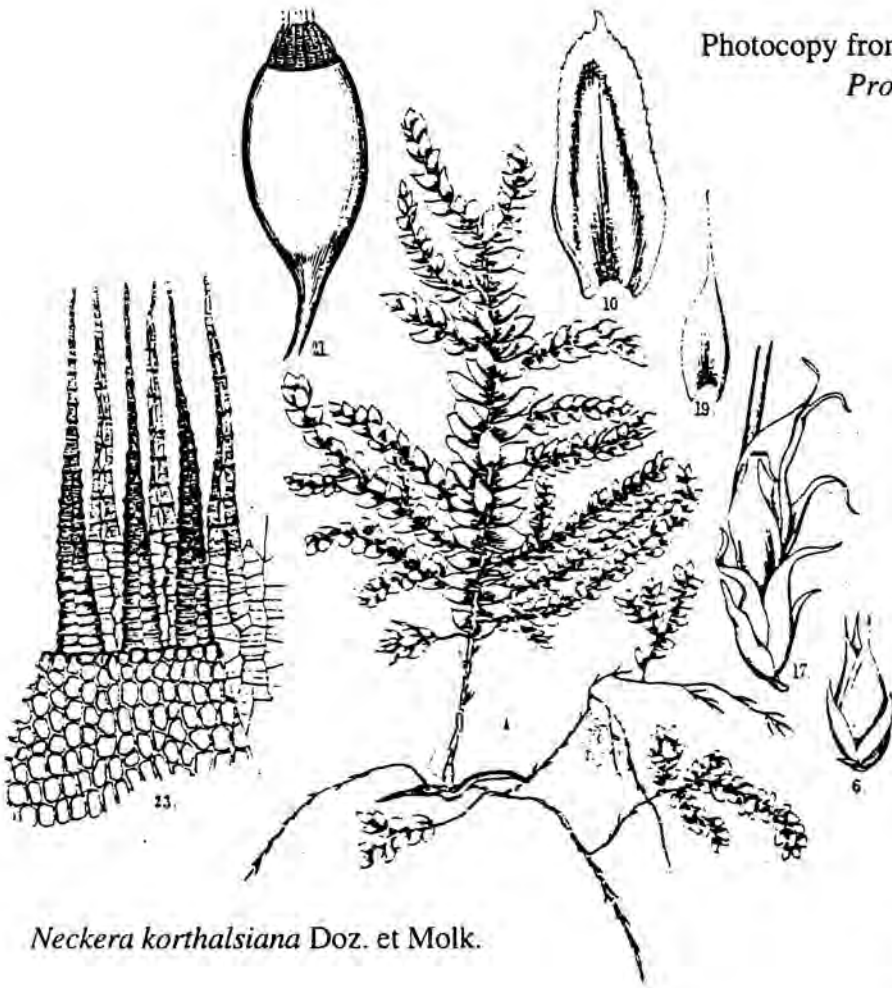
The Australian Bryological Group will conduct a Meeting and Workshop during the first week of July, 1996, at the Department of Botany, The University of Queensland. There will be a paper discussion session as well as several days field work with laboratory facilities provided. Field studies will allow an investigation of the Australian sub-tropical flora and the habitats of bryophytes occurring in this vegetation.

For more information and enquiries about attending this workshop please contact the Covenor: Dr. Dana Bergstrom, Dept. of Botany, The University of Queensland, Queensland, 4072. E-Mail D.Bergstrom@botany.uq.oz.au

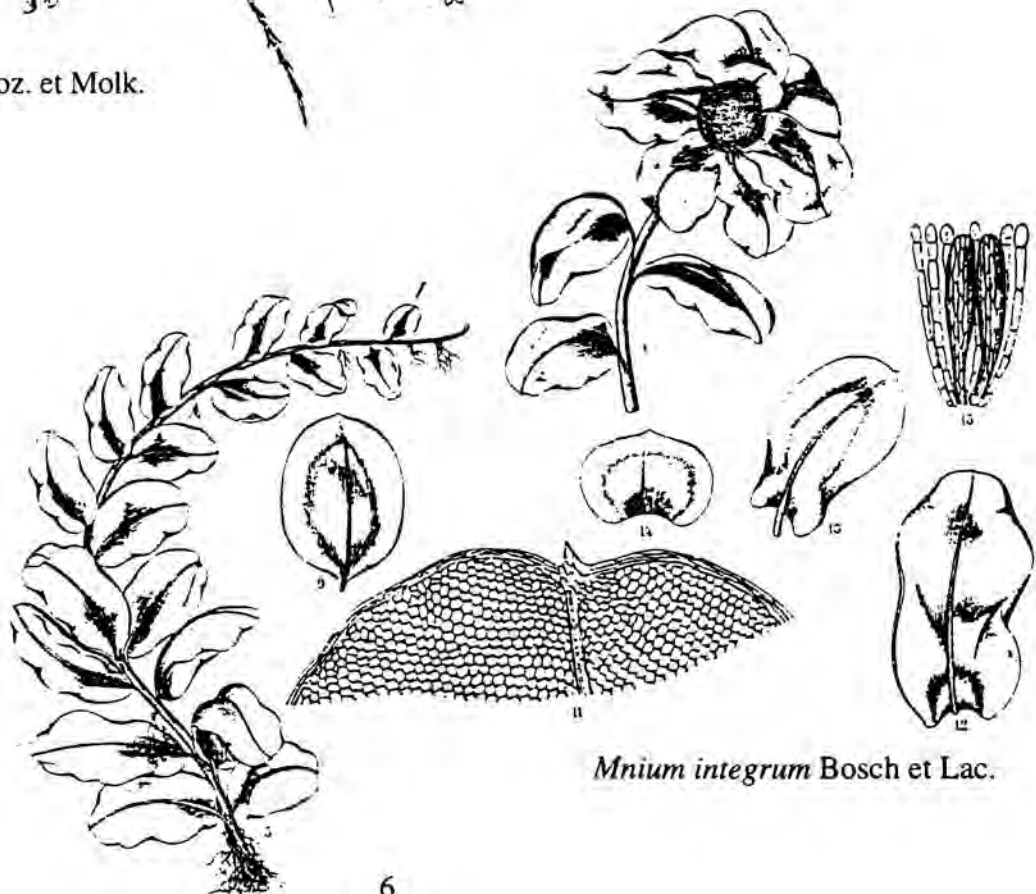
More Bryophyte Illustrations - 150 years on

Photocopy from Dozy, F. & Molkenboer, J.H.

*Prodomus Florae Bryologica Surinamensis
& Bryologia Javanica*



Neckera korthalsiana Doz. et Molk.



Mnium integrum Bosch et Lac.