

plants which could become threatened, a view endorsed by others e.g. (N.Z. Orchid Group Newsl. 24, 1987). At Opuatia 7 plants were found in November 1987, but a further 20 specimens have since been found in widely scattered sites. The other Pterostylis mentioned in the same article, was determined as a fine form of P. graminea by Bruce Irwin.

#### Myriophyllum robustum

A number of new sites for this species have been discovered in the last year. These localities are:

- A) Near Cirrus Minor Cave, Taumatotara State Forest. In regenerating Quintinia serrata/Melicytus lanceolatus swamp forest.
- B) Opuatia Wetlands "The Causeway", Huntly Area. In c. 10 cm deep pools under willows mixed with M. aquaticum.
- C) Island Road Ponds, Whangamarino Wetlands. Uncommon, scattered plants in a small pond near road.
- D) Causeway, Pole 48, Whangamarino Wetlands. Uncommon, under Salix atrocinerea.

At Site A, the species was not abundant, growing in leaf filled pools in areas where the sun penetrated the canopy. Material from this locality is in cultivation and was also transplanted to nearby Lake Koraha. At Opuatia the plant was common enough but because of its associated partner Myriophyllum aquaticum, quite difficult to see at first. Plants here were confined to deeper pools in more open areas, especially near the Causeway Rd. The last two sites were located by Robyn Irving, who noted the species growing with Utricularia australis and Eleocharis sphacelata in Site C. At Site D plants were found in shallow pools under Salix atrocinerea in what was described as a relict indigenous wetland.

#### Planchonella costata

On the west coast this species is reported as far south as the Manukau Harbour (Allan, 1961, Flora of N.Z. Vol.1). In 1987 I found one small tree growing amongst pohutukawa (Metrosideros excelsa) on a cliff above Te Wharu Bay, Kawhia Harbour. The immediate area had been cleared of the original coastal forest and is now in secondary regrowth and is part of the Kawhia Harbour Scenic Reserves Network. It seems likely that Planchonella was once more widespread in the western North Island and it should be looked for in coastal sites throughout the western Waikato. A specimen of the Kawhia plant is lodged in CHR. The discovery of Planchonella is similar to that of Dracophyllum sinclairii, D. lessonianum, Beilschmiedia tarairi, Hebe obtusata, Pomaderris rugosa, Asplenium obtusatum ssp. northlandicum and Cyclosorus interruptus in the western Waikato. This suggests that all these northern species once had a wider distribution than is now known.

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## Field Work

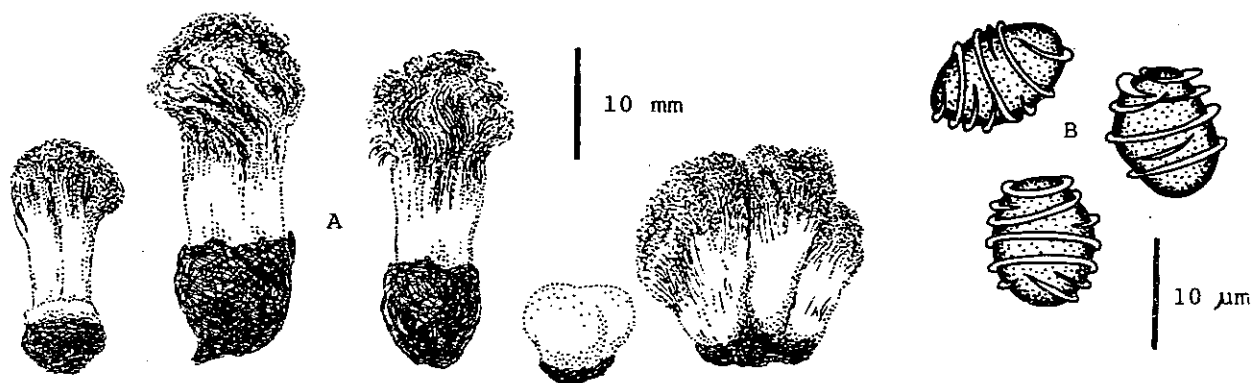
### ■ Mycological Foray, Te Kauri Lodge, 19-22 May 1988

The 20 participants in the third New Zealand fungal foray, held at Te Kauri Lodge near Kawhia, arrived in pouring rain with the clouds low down on the hills. Cloudy weather continued throughout the weekend, but the lodge was warm and comfortable and there was good food and plenty of space for microscope facilities. Conditions outside did not interfere with any of the mycological activities.

On the first morning the party set off on the nearest track into the reserve to check out the fungi of the mixed broadleaved forest. A dead standing tawa trunk was found covered from the base upwards by tiers of yellow and white capped Armillaria limonea fruiting bodies all in top condition. This was the find of the day for the photographers. On closer inspection it appeared that the A. limonea mycelium was occupying a vertical sector of about a quarter of the trunk, while the other three sides of the tawa were infected with A. novae-zelandiae, the fruiting bodies of which were already collapsed and dying off, having matured much earlier. All our subsequent sightings of Armillaria were of A. novae-zelandiae, so that both at Te Kauri and on Mt Pirongia A. novae-zelandiae appeared to be the more abundant species.

By lunchtime forayers were back at the lodge, laying out finds on the display tables and beginning to tackle microscopy and identification. The lodge caretaker meanwhile produced his contribution, a log from his woodpile bearing Pholiota adiposa. In the afternoon some people explored new directions including manuka/kanuka areas, further mixed forest or farmland, while others stayed at work at the microscopes. The ascomycete hunters sampled the coprophilous possibilities and brought back trophies wrapped in paper towelling to be scanned with the stereomicroscopes.

The most baffling fungus of the day was a collection of small powdery yellow cushions from the side of a (possibly rimu) log. These had a hard brown base fixed very firmly to the wood, and as the yellow central axis grew taller it frayed into a stranded mop-like head with pinkish brown spore-powder leaking out of it. The whole looked like a miniature old-fashioned shaving brush. The mystery was finally resolved by Barbara Segedin when she found asci at the base of the brush. This species was Trichocoma paradoxa, related to Penicillium moulds, believe-it-or-not.



Trichocoma paradoxa - shaving brush fungus

A: fruiting bodies; B: ascospores

On Saturday, one group went to Mt Pirongia where they saw the gelatinous yellow spoon-shaped fruitbodies of Dacryopinax spathularia on the picnic table at the start of the Hihikiwi track. These tended to appear out of the grooves between the planks and were associated with a brown cubical rot. This is a situation similar to where we last met with it on the planks of a sundeck in Birkenhead. Can Dacryopinax survive on tanalised or creosoted wood? The other interesting find was a white, multi-lobed polypore, Grifola sp., with its cheesy texture and a strong sweet smell. The smell was likened to marzipan, or even to the aroma from a hot bread shop.

In the evenings people browsed among the books brought by participants and looked at the day's gatherings. The photographers had brought a selection

of mounted prints and put on slide shows which provoked lively discussion about the identity of some of the subjects. We were treated to an excellent illustrated account of a botanical expedition to Mt Hikurangi, an eye-opening sound-slide programme on roadside weeds, and another on wild flowers of Alaska, and we admired a tapestry with a mycological theme which had been designed by one of the party and beautifully executed by his wife. For dinner on the Friday evening a keen person made a sauce with *Armillaria novae-zelandiae*, and ate it as a side dish with tacos and chili beef. Some of the others were persuaded to sample it cautiously, and agreed that tasting the "edibles" is an integral part of the total fungal experience. The following day, a number of forayers brought *A. novae-zelandiae* back to the kitchen and by popular request the cook prepared a huge dish of lightly braised caps. This was unanimously voted to be delicious.

The next foray is planned for 18-21 May 1989 at the Orongorongo Field Station near Wellington. Anyone interested should contact Dr Ann Bell, School of Biological Sciences, Victoria University of Wellington, PO Box 600, Wellington.

The following is a list of species of fungi collected during the foray. Collections of less frequently encountered species were dried and deposited in the DSIR Plant Diseases Division herbarium, a national resource for systematics of the New Zealand fungal flora.

#### BASIDIOMYCETES

##### AGARICALES:

*Armillaria limonea* - honey mushroom  
*Armillaria novae-zelandiae* - honey mushroom  
*Clitocybe* sp.  
*Coprinus disseminatus* - ink cap  
*Cortinarius rotundisporus*  
*Crepidotus ?variabilis* - laterally attached  
*Crepidotus* spp.  
*Crinipellis procera* - horsehair stem, small cap  
*Entoloma niveum* - white  
*Entoloma* sp. - grey patterned top, steely blue stem  
*Entoloma* spp.  
*Favolaschia calocera* - orange jelly pore mushroom  
*Galactopus morris-jonesii*  
*Galactopus parsonsii*  
*Galactopus* sp.  
*Galerina patagonica*  
*Galerina* sp.  
*Gliophorus pallidus* - pale, shiny, waxy gills  
*Hygrocybe lilaceo-lamellata*  
*Hygrocybe procera*  
*Hypholoma brunneum* - dark brown cap with ochre flecks  
*Hypholoma sulphureum* - sulphur tuft  
*Inocybe* sp. - under pine  
*Insticia roseo-flava* - small, pale pink, *Mycena*-like  
*Laccaria ?procera* - hoax fungus  
*Macrolepiota ?gracilis* - parasol mushroom  
*Marasmiellus* spp. - white and brown spp.  
*Marasmiellus tristis* - parachute mushroom  
*Mycena austrororida* - jelly stem *Mycena*  
*Mycena cystidiosa*  
*Mycena interrupta/veneta*  
*Mycena subviscosa*  
*Mycena* sp. - dark grey  
*Mycena* sp. - on pine cone  
*Pholiota adiposa* - on poplar wood; yellow, shiny cap with black flecks  
*Pholiota* sp.  
*Pholiota* sp. - sticky veil and stem  
*Pholiota* sp. - with pink foot  
*Pluteus* spp.  
*Russula albolutescens*  
*Stropharia aurantiaca*

##### APHYLLOPHORALES:

*Coltricia oblectans*  
*Clavicornia colensoi* - delicate  
*Clavicornia piperata* - robust  
*Fomitopsis hemitephra*  
*Ganoderma applanatum* - artist's conk

*Grifola* sp. - almond smell  
*Hericium clathroides* - fungus icicles  
*Inonotus tabacinus* - thin shelf with dark brown pores  
*Irpex brevis* - toothed polypore  
*Merulius* sp. nov.  
*Phellinus* spp.  
*Podoscypha petalodes* - ruffled wine glass-shaped fungus  
*Ramaria perfluo-punicea* - coral fungus  
*Rigidoporus vinctus*  
*Stereum fasciatum* - thin bracket with colourful, banded upper surface  
*Tyromyces catervatus*

##### HETEROBASIDIOMYCETES:

*Auricularia polytricha* - wood ear  
*Exidia* sp.  
*Dacrymyces* sp.  
*Dacryopinax spathularia* - yellow, gelatinous, spatula-shaped fungus  
*Pseudohydnum gelatinosum* - jelly hedgehog fungus

##### GASTEROMYCETES:

*Crucibulum laeve* - birdsnest fungus  
*Ileodictyon cibarius* - basket fungus  
*Nidula candida* - woolly birdsnest  
*Rhizopogon roseolus* - false truffle  
*Scleroderma* sp. - earth ball  
*Weraroa virescens* - pale blue tobacco-pouch fungus

##### UREDINALES:

*Puccinia uncinarum* - on *Uncinia uncinata*

##### ASCOMYCETES

##### COPROPHILOUS ASCOMYCETES:

*Arnium arizonense* - on ?sheep/goat dung  
*Ascobolus crenulatus* - on ?sheep/goat and on opossum dung  
*Ascobolus furfuraceus*  
*Ascobolus immersus* - on sheep and on opossum dung  
*Cercophora sylvatica*  
*Chaetomium* sp. - on ?sheep/goat and on opossum dung  
*Cheilymenia pallida* - on opossum dung  
*Cheilymenia raripila* - on sheep dung  
*Lasiobolus* sp. - on ?sheep/goat and on opossum dung  
*Melanospora brevirostris* - on opossum dung  
*Podospora curvula* (in culture) - on ?sheep/goat dung  
*Podospora curvicolla* (in culture) - on ?sheep/goat dung  
*Podospora dakotensis* (in culture) - on ?sheep/goat dung  
*Podospora decipiens* - on ?sheep/goat dung  
*Podospora myriasporea* (in culture) - on ?sheep/goat dung  
*Podospora setosa* (in culture) - on ?sheep/goat dung  
*Saccobolus citrinus* - on ?sheep/goat dung  
*Sordaria* sp. 'heterothallic' - on opossum dung

*Sordaria fimicola* - on opossum dung  
*Sordaria humaria* (in culture) - on opossum dung  
*Sporormiella minima* - on ?sheep/goat dung  
*Sporormiella* sp. - on opossum dung  
*Trichobolus sphaerosporus* - on ?sheep/goat dung

NON-COPROPHILOUS ASCOMYCETES:

*Daldinia concentrica* - charcoal fungus  
*Geoglossum* sp. - earth tongue  
*Trichocoma paradoxa* - miniature shaving-brush fungus

FUNGI IMPERFECTI

*Brachydesmiella biseptata* - on *Ripogonum scandens*  
*Calcarisporium* sp. - on basidiomata of *Armillaria novae-zelandiae*  
*Camposporium cambrense* - on *Freycinetia baueriana* ssp. *banksii*  
*Chalara* sp. nov. - on *Freycinetia baueriana* ssp. *banksii*  
*Colletotrichum graminicola* - on *Microlaena avenacea*  
*Cordana* sp. - on *Ripogonum scandens*  
*Dactylaria* sp. - on *Carex geminata*  
*Dactylella* sp. - on *Carex geminata*  
*Dicyna pulvinata* - on *Carex geminata*  
*Dischloridium* sp. - on *Freycinetia baueriana* ssp. *banksii*  
*Gliomastix luzulae* - on *Freycinetia baueriana* ssp. *banksii*  
*Helminthosporium palmigenum* - on *Ripogonum scandens*  
*Paecilomyces* sp. - on fly pupa  
*Pendulispora venezuelanica* - on *Ripogonum scandens*  
*Penicillium claviforme* - on opossum dung  
*Pseudospiropes nodosus* - on *Ripogonum scandens*

*Pseudospiropes simplex* - on *Ripogonum scandens*  
*Pseudospiropes* sp. - on *Ripogonum scandens*  
*Ramularia aequivoca* - on *Ranunculus repens*  
*Rhinochlaeniella* sp. - on *Freycinetia baueriana* ssp. *banksii*  
*Septonema* sp. - on *Ripogonum scandens*  
*Sporidesmium* sp. - on *Ripogonum scandens*  
*Stachybotrys* sp. - on *Freycinetia baueriana* ssp. *banksii*  
*Stachylidium bicolor* - on *Freycinetia baueriana* ssp. *banksii*  
*Torula* sp. - on *Freycinetia baueriana* ssp. *banksii*  
*Verticillium* sp. - on *Freycinetia baueriana* ssp. *banksii*

MYXOMYCETES

*Arcyria* sp.  
*Ceratiomyxa* sp.

PHYCOMYCETES

*Phycomyces* sp. - on dung

ZYGOMYCETES

*Chaetocladium brefeldii* - on opossum dung  
*Phycomyces* sp. - on opossum dung  
*Pilobolus* sp. - on ?sheep/goat dung  
*Piptocephalis* sp. - on opossum dung

No reports from the last fungal foray, held in the Kauaeranga Valley, Coromandel Peninsula, May 1986, and from the second foray, held at Bushy Park near Wanganui, May 1987, were published. However, a list of species collected on the 1987 foray was kept and will be published in the next issue of this Newsletter.

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## PUBLICATIONS

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■ Geological Society of New Zealand Guidebooks

We have pleasure in offering members of the New Zealand Botanical Society special reduced rates for Geological Society of New Zealand Guidebooks:

Guidebook 3: ANCIENT UNDERSEA VOLCANOES: A guide to geological formations at Muriwai, West Auckland. by Bruce W. Hayward. 32p. Usual price: \$4.95, Special rate: \$3.00.

Guidebook 4: GEYSERLAND: A guide to the volcanoes and geothermal areas of Rotorua. by Bruce F. Houghton. 48p. English version. Usual price: \$5.95, Special rate: \$4.00.

Guidebook 4A: GEYSERLAND (as above). Japanese translation by Y. Kawachi. Usual price: \$6.95, Special rate: \$4.00.

Guidebook 5: WALKS THROUGH AUCKLAND'S GEOLOGICAL PAST: A guide to the geological formations of Rangitoto, Motutapu and Motuihe Islands. by Peter F. Ballance and Ian E.M. Smith. 24p. Usual price: \$4.95, Special rate: \$3.00.

Guidebook 6: THE COBB VALLEY: A geological guide. by Roger A Cooper. 48p. Usual price: \$6.95, Special rate: \$4.00.