



TRILEPIDEA

NEWSLETTER OF THE NEW ZEALAND PLANT CONSERVATION NETWORK

Please send news items or events to events@nzpcn.org.nz

Postal address: P.O. Box 16-102, Wellington, New Zealand

E-NEWSLETTER: No 41. APRIL 2007

Deadline for next issue: Monday 14 May 2007

Plant of the Month

Plant of the month for April is *Cenchrus caliculatus* (large burr grass or devil grass, also known as owee grass). This plant was listed as Range Restricted in the most recent threat classification in 2004. In New Zealand, it is known only from Raoul Island (Kermadec Islands group) but was



Cenchrus caliculatus inflorescence at female stage of flowering, Raoul Island, 2004. Photo: Bec Stanley.

formerly widespread across the Pacific. This somewhat lax, spreading, clump-forming grass is strictly coastal and in New Zealand is known only from rocky bluffs, associated talus and from beach sands in one small part of Raoul Island. This species has declined markedly over the last 40 years but it is unclear why. It is now extinct or scarce over large parts of its former range. This grass came 6th in the Network's Vote for your favourite plant competition in 2006. The Network fact sheet for this species may be found at:

www.nzpcn.org.nz/nz_threatenedplants/detail.asp?PlantID=442

All orchids now illustrated

Thanks to Network members and photographers nationwide we now have images for all 106 NZ orchid taxa on the Network website. Photographers we would like to thank are Eric Scanlen, John Smith-Dodsworth, Jeremy Rolfe, Peter de Lange, Ian St George, John Braggins, Andrew Townsend, David Norton, Alastair Jamieson, Nic Singers, Bec Stanley and Gillian Crowcroft

Extension to deadline for submissions

The Network, in conjunction with the Department of Conservation, has extended the deadline to mid-May 2007 for submissions on the new NZ Threatened vascular plant list. This extension is to allow members to make final submissions on the status of NZ's indigenous vascular plants. For more information see the links on the home page of the Network website. We encourage you to make your final recommendations to the national expert panel that will prepare the new list later in 2007.

Web visitation hits record monthly high

The Network website was visited over 46,000 times in March. The total number of visitors that have used the site since it was established in August 2003 has now reached over 600,000, making it the most visited plant information system in NZ.

Two new species of *Dianella* recognised

In the March 2007 issue of the New Zealand Journal of Botany 45, New Zealand botanists Peter Heenan and Peter de Lange describe two new species of *Dianella*, *D. haematica* Heenan et de Lange and *D. latissima* Heenan et de Lange. *Dianella haematica* is endemic to the northern North Island where it inhabits mainly acidic peat bogs. The new species can be recognised by its very short, ascending rhizomes, dense tussock habit, blood-red leaf sheaths, and upright, stout, olive or dark green leaves up to 2 m long by 25 mm wide. The perianth of the flowers is patent to only slightly recurved and struma and style are shorter. *Dianella latissima* may be more widespread, but it is currently known with certainty only from the northern half of the North Island. It is recognised



Dianella haematica (top) and *D. latissima*.
Photos: Peter Heenan.

by its very robust, larger tussock forming growth habit, horizontal, shortly creeping rhizomes, and harshly scabrid, usually uniformly green leaves, pale green to light yellow-green leaf sheaths and oblong struma. The authors stress that species recognition is best made from fresh material, and for this reason they illustrate their paper in colour. Both *D. haematica* (as *D. aff. nigra* (b) (AK 252911; Kopouatai) and *D. latissima* (as *D. aff. nigra* (a) (AK 256873; Hauturu) were previously listed by the New Zealand Threatened Plant Panel under Appendix Two as Taxonomically Indeterminate, “At Risk/Sparse” and “At Risk/Range Restricted” respectively (see de Lange et al. 2004). The authors have recommended that *Dianella haematica* be regarded as “Chronically Threatened/Serious Decline” and *D. latissima* as “Data Deficient”. Fact sheets for these two species and *Dianella nigra* Colenso have now been prepared.

References

- de Lange, P.J., Norton, D.A., Heenan, P.B., Courtney, S.P., Molloy, B.P.J., Ogle, C.C., Rance, B.D., Johnson, P.N., and Hitchmough, R. 2004: Threatened and uncommon plants of New Zealand. *New Zealand Journal of Botany* 42: 45–76.
- Heenan, P.B., and de Lange, P.J. 2007: Two new species of *Dianella* (Hemerocallidaceae) from New Zealand. *New Zealand Journal of Botany* 45: 269–285.

What is this fungus? – the Fungal Guide website

Peter Johnston, Landcare Research, Private Bag 92170, Auckland
(johnstonp@landcareresearch.co.nz)

The Fungal Guide website provides a new resource to assist with the identification of New Zealand’s macrofungi.

Fifty species of fungi were listed as Nationally Critical in the New Zealand Threat Classification System Lists published in 2002. In addition, there are another 1455 potentially rare fungal species listed as ‘Data Deficient’. One problem when attempting to allocate a rarity value to fungi is a lack of basic distribution data. As an illustration, of the 5140 species of New Zealand fungi with formal names represented in the NZ Fungal Herbarium, 1640 are known from just a single collection. We can say little about these fungi, beyond the fact that they occur in New Zealand. Even allowing for the fact that the 2002 lists were restricted to fungi with large, conspicuous fruiting bodies, the information on which they are based is often flimsy at best.

One approach to tackling this lack of data is to encourage more people to get out there looking. At present, this is hindered by the small number of published field guides for New Zealand fungi.



Field guides from other countries are of little use in New Zealand because many of our species are unique. A recent TFBIS-funded project has attempted to address this problem through the development of the Fungal Guide website (<http://fungalguide.landcareresearch.co.nz>). Access to the site is through simple, pictorial keys based on 19 informal, pragmatic groups that reflect how non-specialists may conveniently and visually group different kinds of fungi (e.g. large mushrooms on wood; leathery, soft bracket fungi; etc.).

For each of the 130 genera treated, a commentary is provided on major macroscopic diagnostic characteristics, diversity and distribution within New Zealand, ecology, and notes on other fungi with which they might be confused. For each genus, representative species are illustrated to represent the range of colours, sizes, and shapes within the genus. Each genus and species name links to the NZFungi website (<http://nzfungi.landcareresearch.co.nz>), so providing access to a full bibliography and synonymy, additional images, technical descriptions, distribution maps, etc. For those species on the Nationally Critical Lists, a link to the NZPCN website (www.nzpcn.org.nz) treatment of that species will be provided with the next update of the Fungal Guide pages.

A small number of books based on the website have been printed and distributed free of charge. If feedback suggests a wider demand, consideration will be given to producing an updated version of the book for commercial release.

Editor's note: Please also note that the Network website has factsheets for all New Zealand's threatened fungi. See: www.nzpcn.org.nz/fungi/advanced_search.asp

South Coast Track flora

Brian Rance, Southland Conservancy, Department of Conservation (brance@doc.govt.nz)

The South Coast Track is a four day, one-way walk in Western Southland. The walk starts from the road end at Blue Cliffs beach, Te Waewae Bay, and ends at Big River. There are three DOC tramping huts along the way; these are at the historic logging settlement of Port Craig, Wairaurahiri River and Waitutu River. Features of the track are the rich forests, diverse landscapes and the historic mining remains.



The name South Coast Track is a bit of a misnomer because the track is largely through forest though there are side trips that can be made out to the coast (including at the Wairaurahiri and Waitutu Rivers). The first two days walking are through old cut-over forest, however, from before the Wairaurahiri River to Big River the track goes through the magnificent unmilled podocarp and beech forests of the Waitutu area. The major dominant tree species are rimu (*Dacrydium cupressinum*), miro (*Prumnopitys ferruginea*), silver beech (*Nothofagus menziesii*), mountain

beech (*N. solandri* var. *cliffortioides*) and southern rata (*Metrosideros umbellata*). These podocarp, beech and beech-podocarp forests are nationally renowned as being some of the best remaining lowland forest stands in New Zealand. The name Waitutu Forest is known to most New Zealanders as a consequence of high profile campaigns to prevent logging there. Much of the area is now protected within Fiordland National Park (FNP). In addition, the Waitutu Incorporation Lands are to be managed as though they were part of the FNP as a result of the Incorporation's settlement with government.

The track traverses ancient marine terraces and alluvial valleys. The Waitutu marine terrace sequence consists of 13 terraces from c. 3 m up to 1040 m altitude extending 13 km inland. Ward (1988) considered this to be the best terrace sequence in New Zealand. The terrace sequence retains an intact vegetation sequence and patterning which adds to its significance. The alluvial valleys with their more fertile soils have greater plant species diversity.

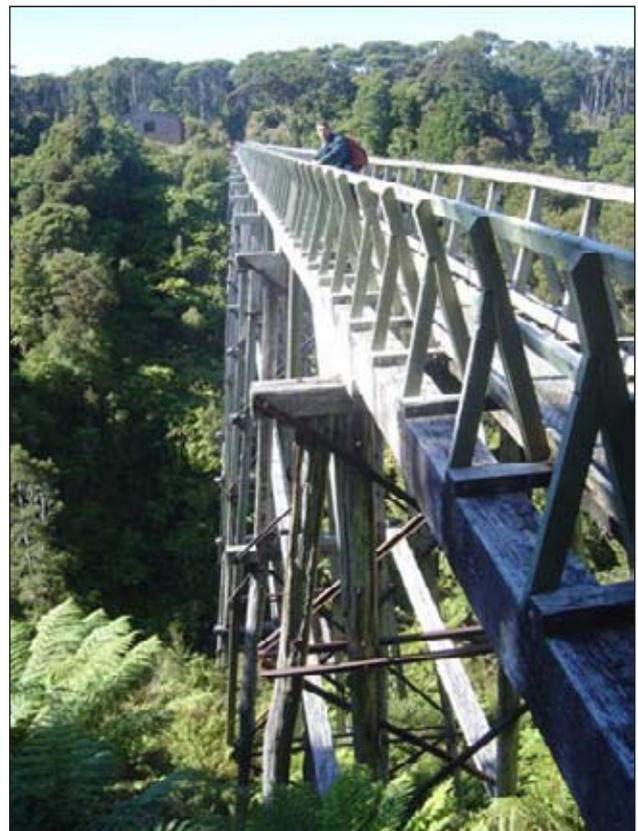
Port Craig was the site of the Marlborough Timber Company sawmill that ran from 1921 to 1932. When opened, it was the largest and most modern sawmill in New Zealand. In its heyday, it employed over 50 people and produced 1800 cubic metres of timber per month. When the mill closed, 1400 ha had been logged. Logs were brought to the mill along a tramway that extended almost to the Wairaurahiri River. The tramway included wooden viaducts across the Percy Burn, Edwin Burn and Francis Burn. The Percy Burn viaduct is the largest wooden viaduct in the Southern Hemisphere being 125 m long and 36 m above the stream bed. The walking track follows the tramway from Port Craig to near the Wairaurahiri River and crosses these refurbished viaducts. The track beyond the Wairaurahiri River largely follows the 1908 telegraph line that linked the Puysegur Point lighthouse with Orepuki.

The track is largely within FNP through to Port Craig, the second section through to the Wairaurahiri River is largely across the West

Rowallen Maori Lands and the next section, to the Waitutu River, is largely across Waitutu Maori Lands. The last section, from the Waitutu River to Big River, is again within FNP.

Over a few trips into various parts of the track, I have compiled an extensive flora for the area. A checklist for the area is available on the Network website (www.nzpcn.org.nz). The flora encountered along the track and on adjacent side trips is very rich, totalling 388 taxa, including 230 native species (see Table 1). Many of the exotic plants are associated with human disturbance, notably hut sites, though some are naturalised along the coast.

Although the track spends a limited time on the coast, the coastal habitats are well worth exploring. A total of 140 taxa are considered to be largely or totally confined to the coast. Sixty two of the 87 indigenous herbaceous taxa, 18 of the 20 indigenous grass taxa and 19 of the 34 indigenous sedge taxa are considered coastal species.



Percy Burn viaduct. Photo: Brian Rance.

Table 1: The flora of the South Coast Track by life form

Life form	Native Taxa	Exotic taxa	Total taxa
Ferns and fern allies	64		64
Podocarps	7		7
Dicot trees & shrubs	65	5	70
Dicot climbers & vines	11	1	12
Mistletoes	4		4
Herbaceous plants	87	32	119
Grasses	20	15	35
Sedges	34		34
Rushes	10	5	15
Orchids	17		17
Other monocot plants	11		11
Total	230	58	388

Twenty-two nationally threatened and uncommon species (de Lange et al., 2004) have been recorded from the area. Sixteen of these nationally threatened and uncommon species were found in coastal habitats. The nationally threatened and uncommon species are:

Nationally vulnerable (1 taxon): buttercup, *Ranunculus ternatifolius*

Serious decline (3 taxa): sedge, *Carex litorosa*; sand spurge, *Euphorbia glauca*; and the forget-me-not, *Myosotis pygmaea* var. *pygmaea*

Gradual decline (9 taxa): yellow-flowered beech mistletoe; *Alepis flavida*; sand tussock, *Austrofestuca littoralis*; pingao, *Desmoschoenus spiralis*; willow herb, *Epilobium chionanthum*; creeping iris, *Libertia peregrinans*; sand daphne, *Pimelea lyallii*; scarlet beech mistletoe, *Peraxilla colensoi*; red beech mistletoe, *P. tetrapetala*; and the tree, *Raukaua edgerleyi*

Sparse (2 taxa): herb, *Crassula ruamahanga*; fern, *Grammitis rigida*

Range restricted (4 taxa): bidibidi, *Acaena microphylla* var. *pauciglochidiata*; the coastal carrot, *Anisotome lyallii*; the grass, *Lachnagrostis amoebia*; and coastal dock, *Rumex neglectus*

Data deficient (3 taxa): cudweed, *Euchiton polylepis*; the grass, *Stenostachys laevis*; and the coastal harebell, *Wahlenbergia congesta*

The diversity of the flora, including threatened and uncommon species, combined with the diversity and quality of habitat could qualify this area as an “Important Plant Area” (IPA). This is a special place and well worth visiting if you get the opportunity.

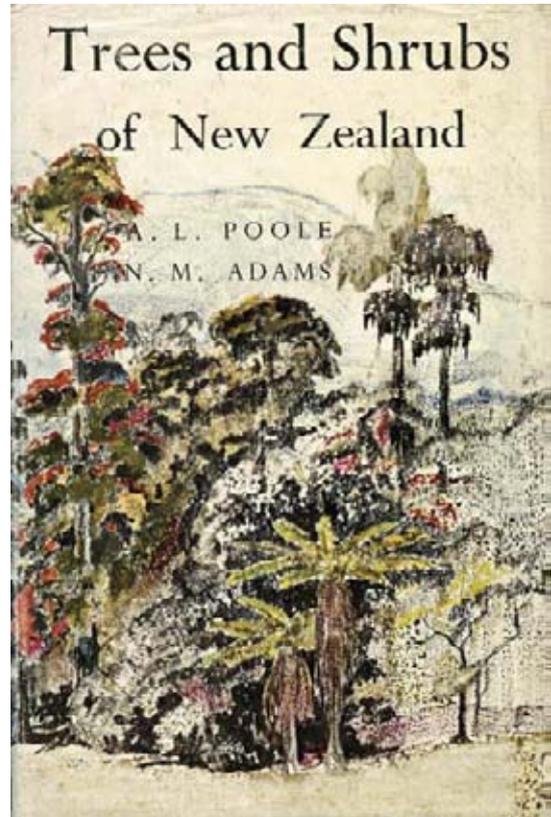
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- de Lange P.J., Norton D.A., Heenan P.B., Courtney S.P., Molloy B.P.J., Ogle C.C., Rance B.D., Johnson, P.N. and Hitchmough R. (2004) Threatened and uncommon plants of New Zealand. *New Zealand Journal of Botany* 42: 45–76.
- Ward, C.M. (1988) Marine terraces of the Waitutu district and their relation to the late Cenozoic tectonics of the southern Fiordland region, New Zealand. *Journal of the Royal Society of New Zealand* 18: 1–28.

Obituary: Nancy Adams, phycologist, botanical artist and historian (1926–2007)

M. J. Parsons & P. J. de Lange

The phycologist and wonderful botanical artist Nancy Adams died on March 2007. She was in Huntleigh, a rest home in Karori, Wellington. Nancy who had been ill for some time would have been 81 on 19 May 2007. Nancy Adams is probably best remembered for her distinctive illustrations and series of remarkable books. Her illustrations probably first appeared in print in The Flora of New Zealand series, in Volume 1 by Harry Allan – a man she deeply respected. However, she will be well known to several generations of botanists for her work on probably the most popular New Zealand native plant book ever produced for a general audience “Trees and Shrubs of New Zealand” (Poole & Adams 1963), which ran to six editions and is still available today. She also provided all the illustrations for “New Zealand Alpine Plants” (Mark & Adams 1973), which ran to four editions, and for what she undoubtedly considered her true masterpiece, the very singular and remarkable “Seaweeds of New Zealand – an illustrated guide” (Adams 1994). Nancy was an inspiration to a whole generation of botanists. Her real expertise was seaweeds but it is for her botanical illustrations and artwork that she is probably best known internationally. Nancy was the great granddaughter of James Adams who is commemorated by such plants as the extinct Adam’s mistletoe (*Trilepidea adamsii*) – the NZPCN logo – *Brachyglottis adamsii*, *Celmisia adamsii*, *Dracophyllum adamsii* and *Hebe adamsii*. On her maternal side, her great grandfather was Thomas Hall – commemorated by Hall’s totara (*Podocarpus hallii*). Over her career, and in her retirement, Nancy contributed a wide range of botanical papers and in her later professional career studied the life of New Zealand’s first Government Botanist, John Buchanan. She had a very dry sense of humour and did not suffer fools gladly. Often taking days to warm to anyone new, once you had her respect you had it for life. Of all the world’s flora, Nancy loved seaweeds the best, and it is fitting that the large Snares Island endemic *Lessonia adamsiae* was named in her honour by Dr Cameron Hay in 1987. We are sure that all who remember her will miss her deeply. Another mighty totara in the forest of Tane has fallen.



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- Adams, N.M. 1994: Seaweeds of New Zealand – an illustrated guide. University of Canterbury Press, Christchurch.
- Mark, A.F.; Adams, N.M. 1973: New Zealand Alpine Plants. Reed Ltd, Auckland.
- Poole, A.L.; Adams, N.M. 1963: Trees and Shrubs of New Zealand. Government Printer, Wellington.

Upcoming Events

If you have important events or news that you would like publicised via this newsletter please email the Network (events@nzpcn.org.nz):

Auckland Botanical Society

Meeting: Wednesday evening 2 May, Unitec School of Natural Sciences. Life membership presentation to Ross Beever followed by a talk entitled “Mosses of a Harsh Environment: the Pottiaceae in New Zealand” by Jessica Beever.

Field trip: Saturday 21 April to the Hunua Ranges led by Steve McCraith.

Field Trip: Saturday 19 May, Whakatiwai Regional Park. Leaders: Bec Stanley & Jonathan Boow. Contact Maureen (email: youngmaureen@xtra.co.nz) for more details.

Waikato Botanical Society

Meeting: Tuesday at 7 p.m. Venue: R2.06 Biology Department, University of Waikato. Parking at Gate 9 entrance, Hillcrest Rd, follow entrance over speed bumps around right-hand bend and down hill, R-block building entrance on right has sharp left-hand turn approach. Access at ground floor of stairwell, follow signs to 2nd floor to room, R2.06. The talk will be given by. Contact: Liz Grove, eg3@waikato.ac.nz, ph: 07 846 0965 (home).

Field visit and work: Sunday 29 April, Taitua Arboretum & Botanical Society Threatened Plant Collection Working Bee #5. The arboretum was gifted to Hamilton City Council by John and Bunny Mortimer who over several decades planted many rare and unusual trees. After our picnic lunch we will return to the University for a working bee in the threatened plant garden. Please bring gloves, old clothes and boots for weeding, planting and propagating activities. **Meet:** 9.45 am at Waikato University Gate 9, Hillcrest Rd to carpool to Taitua. The arboretum is on Taitua Rd, off Howden Rd, signposted off SH23 between Hamilton and Whatawhata. **Contact:** Liz Grove eg3@waikato.ac.nz ph: 07 846 0965 (home).

Field trip: Saturday 26 May, Kakepuku Mountain Reserve. Carpool from Landcare Research, Gate 10 Silverdale Rd, Hillcrest at 9.30 am or meet at 10.15am at the Kakepuku mountain carpark on Kakepuku Road (formerly Mountain Rd). Contact: Jan Hoverd, ph: 07 871 8071, email: jlhoverd@xtra.co.nz.

Rotorua Botanical Society

Field trip: Saturday 21 April, Okareka Mistletoe Restoration Project Weed Control Work Day. Leader: Paul Cashmore 07 348 4421 (home), 07 349 7432 (work). **Meet:** Ex-Okareka store 8:45 am. **Grade:** Medium-hard – activities suitable for all ages and abilities will be provided. This day may include releasing our September plantings and weed control elsewhere in the reserve.

Field trip: Sunday 6 May – Ngongotaha Stream Headwaters. **Meet:** The carpark at 8:30 am or 8:45 am at intersection of Endean and Paradise Valley Roads. **Grade :** Medium to hard climb up the valley to the old Mokoroa Pa site on the ridge between the Ngongotaha and Otamaroa Streams. We'll be looking for hard beech and tawheowheo on the ridge and maybe some mistletoes. Stout footwear required and be prepared for wet feet. **Leader :** John Hobbs ph: 07 348 6620.

Meeting: Monday 21 May 7.30 pm, Rotorua Women's Club on Hinemaru St., near Princes Gate Hotel. Rotorua Botanical Society/Forest and Bird lecture by Greg Jenks entitled Dune Restoration in the Bay of Plenty. Greg Jenks from Environment Bay of Plenty's "Coast Care" programme will present to us the very interesting seminar he gave to the NZ Plant Conservation Network on the functional and aesthetic superiority of native NZ dune plants in stabilising, beautifying and caring for BOP's dunes.

Wellington Botanical Society

Field trip: Saturday 5 May Johnny's bush, Makara Farm, and Jack & Jill Fenaughty's bush, Makara Beach. Meet: 9 a.m. at low, white-sided bridge c. 2 km along Makara Rd from Makara village. Map R27 G.R. 536935. Limited parking, car-pooling desirable. Leader: Robyn Smith ph: 04 236 6086; deputy leader: Jack Fenaughty.

Meeting: Monday evening, May 21, Victoria University of Wellington. Lecture Theatre 101, Murphy Building, Kelburn Parade is a "members evening" with slides / short presentations from members on their botanical activities over the summer.

Canterbury Botanical Society

Meeting: Friday May 4 at 7:30 p.m., Room A5, University of Canterbury, Geoff Henderson giving a talk on "Exotic skills or native talent? Fleshy fruit dispersal in Canterbury."

Field trip: Over the weekend May 5 and 6 a field trip to Conway Flat.

Botanical Society of Otago

Meeting: Wednesday, 16 May, 2007, 5:20 p.m. to 7:00 p.m. At the Zoology Benham Building, 346 Great King Street, behind the Zoology car park by the Captain Cook Hotel. Use the main entrance of the Benham Building to get in and go to the Benham Seminar Room, Rm. 215, 2nd floor. Please be prompt because we have to hold the door open. The talk by John Barkla, DOC, is entitled Botany and Wildlife of Macauley Island, Southern Kermadecs. John will tell us about his recent trip to the seldom visited Macauley Island, 1000 km north-east of the Northland coast. Contact: [Kevin Gould](#), ph: 03 479 9061.

Field trip: Fungal Foray to Knights Bush, Tuapeka West, Saturday 19 May, 2007. Leader: David Orlovich, along with international mycologist and slime mould expert Prof. Steve Stephenson. Full day trip, (with opportunity to stay overnight in tent or smoky hut, contact Allison Knight, 03 487 8265 for this). Leave Botany Dept car park 8.30 a.m., return 6.30 p.m. (or after lunch the next day). If weather is unsuitable on Saturday, a day trip on Sunday may be possible. Contact: [David Orlovich](#), phone: 03 479 9060.

21st New Zealand Fungal Foray

Date: Sunday, 6 May 2007 – Saturday, 12 May 2007 based at Mawley Park Motor Camp, Masterton. The Fungal Foray is an annual event held each year at a different site in New Zealand. It is intended for both amateur and professional mycologists. The amateurs range from members of the public with a general interest in natural history, to photographers, to gastronomes, to those with an extensive knowledge on New Zealand's fungi.

The Foray has three main aims:

- to better understand the diversity and distribution of New Zealand's native fungi;
- to increase public understanding and appreciation of New Zealand's fungi; and
- to provide a forum for anyone in New Zealand interested in fungi to meet informally at least once a year.

Registrations were due by 28 March, but see: www.landcareresearch.co.nz/news/event_details.asp?Ev_ID=452 for details.

Short Course on the Morphology of Fruits and Seeds

Date: Monday 28 May 2007 – Wednesday 30 May at Lincoln University. The course will be led by Dr Wolfgang Stuppy, Millennium Seed Bank Project, Royal Botanic Gardens, Kew. For content information, contact Professor John Hampton (hamptonj@lincoln.ac.nz), for registration, contact Jan Latham (lathamj@lincoln.ac.nz). Registration cost is \$250 and accommodation is available at \$76 per person per night. Numbers are limited so register now. Dr Stuppy's visit is supported by the ISAT Linkages fund.