



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 79, JUNE 2010

Deadline for next issue: Thursday 15 July 2010

Message from the President

Two new initiatives have been added to the NZPCN website; they are detailed later in the newsletter. The National Phenology Recording System has been developed by NZPCN members and is now live on the website—well done to those involved. Please use this system to record your observations of flowering and fruiting of native and exotic plants. We would also be interested in receiving information about New Zealand plants growing overseas from NZPCN members residing in other countries. Plant identification is the other new website feature. All members now have the chance to help others identify species, since photos can be uploaded to the Network's website forum.

Registration is now open for the NZPCN conference in October. There are some excellent speakers with some thought-provoking topics, so make sure you book this into your calendar.

We are in the middle of the planting season. If you are like me, you will have a number of worthy planting projects to attend. Often these are great fun, as you interact with people who are keen to help restore a wetland or a forest remnant, but restoration projects are a lot of work. Millions of native plants are being planted annually around New Zealand, but the risks that these plantings could undermine the integrity of our more threatened lowland ecosystems, are high. The importance of using eco-sourced plants and issues associated with eco-sourcing for such projects were raised recently in a Wellington forum run by Robyn Smith (NZPCN member and Greater Wellington Community Project Leader). Guest speaker, Wayne Bennett of Eco-source Waikato, imparted knowledge gained from many years of work in this area, while Philip Smith from Taupo Native Plant Nursery provided a nurseryman's perspective on eco-sourcing. Some of concerns about eco-sourcing raised were:

- Seed collection: knowledge is required to ensure that seed is collected from natural areas (not naturalised) and from representative populations.
- Nursery recording: costs are higher to nurseries, but good tracking systems need to be in place and instances of nurseries "fudging" eco-sourced stock need to be addressed.
- Project management: planting organisers require knowledge of what to plant where and need to plan well ahead.

Though the Wellington forum was attempting to gain regional agreement about the approach to eco-sourcing, it was raised that there is a national role for NZPCN. A national goal in the NZPCN Strategy 2010–2015 is: to provide best-practice for restoring plant communities and threatened plants and one of the actions listed is: to develop guidelines/protocols and an accreditation system for eco-sourcing. The website does have a page on eco-sourcing, but it would be great if more progress could be made. Wayne Bennett is keen to be involved in a group focusing on providing eco-sourcing information and establishing a framework to assure quality eco-sourcing. Let us know if you would like to be involved.

PLANT ID NOW POSSIBLE VIA THE WEBSITE

The Network has added an image upload facility to its forum so that you can now ask members to help with identification of species you have found.

- [Go to the forum page](#)

PLANT OF THE MONTH – *Coprosma obconica*



Coprosma obconica growth habit . Inset: underside of leaves. Photos: Mike Thorsen.

Plant of the month for June is *Coprosma obconica*. This is an upright divaricating shrub growing up to 3.5 m tall, with small light grey-green leaves. The fruits appear January to September and are green-white or translucent white, with purple blotches when ripe. *Coprosma obconica* is endemic, growing on D'Urville Island and, in the South Island, in North West Nelson to Southland and Otago with scattered populations in the south of the North Island. It is apparently absent from Westland and Stewart Island.

It is found in a variety of habitats, including estuarine and riparian areas, lowland forest and montane areas, sometimes on base-rich substrates (such as limestone) and typically in areas prone to physiological or climatic stress.

Coprosma obconica is declining with weed

competition and loss of habitat the main active threats. Dolomite mining at Mt Burnett also seriously threatens one of the largest known populations. It makes an excellent garden plant, growing well from semi-hard wood cuttings taken in late summer or early autumn.

The Network fact sheet may be found at: www.nzpcn.org.nz/flora_details.asp?ID=157

New Zealand native plants around the world

Continuing a feature started some issues ago, here are two more examples of New Zealand native plants growing in places overseas.



Left: *Phormium tenax* growing in gardens in the town of San Juan Bautista, Robinson Crusoe Island (Chile)—but will it become a weed?. Right: *Cordyline australis* outside the police station on San Juan Bautista, Robinson Crusoe Island (Chile). Photos: John Sawyer.

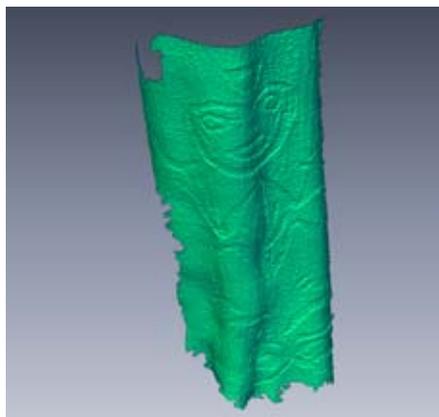
3D Laser Scanning of the Chatham Island Dendroglyphs

Richard Nester, Department of Conservation, Wellington Hawke's Bay Conservancy (rnester@doc.govt.nz)

In January 2010, a team of University of Otago staff and students from the School of Surveying and Department of Anthropology took part in a ground breaking project. This project was led by the Department of Conservation and had close support and assistance from the Hokotehi Moriori Trust.



Above: Richard Nester scans a dendroglyph with a 3D laser scanner on Chatham Island. Below: A completed scan of a dendroglyph.



The department initiated the survey as part of its role in managing the archaeological and historic heritage in Chatham Island historic reserves. The aim of the project was to record the Chatham Island Moriori tree carvings known as Rakau Momori, or dendroglyphs, in as much detail as possible using a non invasive technique. The dendroglyphs are found exclusively on the surface of the kopi tree, known more commonly on the mainland as karaka (*Corynocarpus laevigatus*).

Traditional motifs carved on living trees are globally very rare. Other examples exist in Australia, United States of America and Sweden. The style and number of the dendroglyphs on the Chatham Islands are unique and are regarded as being internationally significant. Typically, most Moriori dendroglyphs depict a human form but there are also other patterns depicting fish and birds. The exact meaning of the carvings remains unknown, but they are still very much regarded as a sacred treasure by Moriori.

The dendroglyphs are in the unique position of being on a living entity; from the perspective of historic heritage management, this is problematic. The carvings face degradation through a number of natural processes including the natural growth of the tree, resulting in the loss of carving definition, and total loss of the carving once the tree is moribund. The population of trees with dendroglyphs has been on a continual

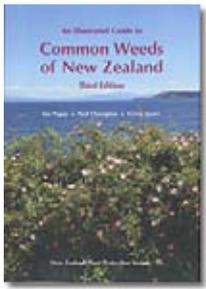
decline; over 1000 trees recorded in the 1950s to only 140 being recorded in 2005. Age, wind damage and insect attack have all contributed to the generally poor health of the trees.

A number of previous methods have been used to record the detail of the dendroglyphs on the Chatham Islands. This has included tree rubbings, drawings, photography, photogrammetric imagery and even the complete removal of the carved section of the tree.

For this project, the Department of Conservation chose to use a three dimensional laser scanner to scan the carved surfaces of the kopi tree. The laser scanner was designed for reverse engineering use in laboratories and is capable of producing a scanned resolution of 0.05 mm. This is the first time this type of technology has been used in such a challenging environment and for the recording of heritage features in New Zealand. The scanner, one of only three in the country, and operating software were leased from the Hamilton-based company ScaNZ 3D. The benefits of this technology allowed the group to see the image in real time while ensuring that the entire carving was being captured. This resulted in a very high level of resolution being obtained.

In total, 98 carvings were recorded from 93 trees. The results of the 3D scans allow the viewer to see features of the carvings that can no longer be seen unaided. It has created, for the first time, an accurate three dimensional record allowing precise measurements to be made. Detailed analysis of carving styles can be made and compared. With these digital files, it is now possible to reproduce the detail of the carvings on any medium using 3D routing technology. Most importantly, the digital files will be archived to allow future researchers the best possible method of studying the carvings as they appear today.

New release: *An Illustrated Guide to Common Weeds of New Zealand* (Third Edition) by Ian Popay, Paul Champion and Trevor James



This popular and indispensable guide to the identification of weeds in New Zealand is now in its third edition. The 2010 edition is still written for a wide audience, with simple text and a user-friendly approach but, at 448 pages, it is bigger and better than ever. Covering just over 600 species, and with more than 1500 stunning new photographs, this guide is an excellent aid to identification. This book is published by the New Zealand Plant Protection Society and may be purchased from Manaaki Whenua Press (www.mwpress.co.nz). It is currently the featured publication on that website. It costs \$55 plus postage and packaging.

Wellington Botanical Society Jubilee Award 2010 applications sought

Wellington Botanical Society invites applications for an award of up to \$2500 to encourage and assist applicants to increase knowledge of New Zealand's indigenous flora and commemorate the Society's 50th Anniversary in 1989. Applications should be made in typescript to: Secretary, Wellington Botanical Society, PO Box 10 412, Wellington 6143 by 15 November 2010. For more information, see either *Trilepidea* No. 78 or the Wellington Botanical Society website: www.wellingtonbotsoc.wellington.net.nz/awards/jubilee.html

National phenology recording system – launched this week on Network website

This week the Network has launched a national phenology recording system on its website (www.nzpcn.org.nz—see under Flora of the main website navigation). Phenology is the study of periodic plant and animal life cycle events and how these are influenced by seasonal and inter-annual variations in climate. This new system allows recorders (Network members are automatically registered) to document observations of flowering, fruiting or dieback events for any vascular plant.

Former President Ian Spellerberg suggested a volunteer botanical phenology network in the July 2007 edition of *Trilepidea* (No. 44). Rewi Elliot (Curator at Otari Native Botanic Garden and Wilton's Bush Reserve) picked up on this idea in the November 2007 issue of *Trilepidea* (No. 48) and suggested that volunteer recorders could make regular observations of phenological events especially at botanic gardens and that these might have many applications such as in documenting climate changes. Since then, the Network has been working with members who are specialists in phenological studies (such as Dr Astrid van Meeuwen of Wildland Consultants) to build a phenology recording system.

This system is now live (see under Flora of the main website navigation). Please start loading your observations of phenological events at sites throughout New Zealand. Please encourage other citizens and scientists to register and start logging their observations (recorders do not have to be members). Campaigns will be organized throughout the coming years to target certain species and events. Watch this space (or see the website) for more news about recording campaigns.

For more information about phenology recording systems worldwide see:

Natures Calendar (UK)—www.naturescalendar.org.uk/

Project Budburst (USA)—www.budburst.ucar.edu/



Some species that may be flowering during winter. From left: *Coprosma grandifolia*, *Dipogon lignosus*, *Rabdothamnus solandri*, *Diplodium alobulum*. Photos: Jeremy Rolfe.

Plants in a human landscape – conservation outside nature reserves

REGISTER NOW

Registration is now open for this year's conference (7–10 Oct 2010) via the Network website (credit card payment required). Network members should log on as a member to receive discounted prices. This is shaping up to be an extremely important event for plant conservation practitioners, landowners and scientists. Follow the website navigation NZPCN > Events > Conference 2010 for more details about speakers and symposia, social events and field trips (also see below). A couple of speaking slots remain available if you would like to present a paper. Confirmed conference speakers are:

CONFERENCE SPEAKERS AND SYMPOSIA INCLUDE

KEYNOTE SPEAKERS

Alan Mark (Tane Ngahere Lecture): Rangeland conservation: The catch-up challenge

Steve Wratten (Lincoln University): Biodiversity on farmland: it IS worth the bother

Nicola Holmes (Department of Conservation):
Where to from here for conservation outside nature reserves?

CONFERENCE SYMPOSIA

Ecosystems

Susan Wiser (Landcare Research): A new classification of New Zealand woody vegetation based on permanent plot data

Nick Singers (Department of Conservation): An ecosystem classification system as a conservation planning tool

Bev Clarkson (Landcare Research): Successes and challenges in mapping wetlands

Rob Allen (Landcare Research): Biodiversity indicators and their applications

Derek Brown (Department of Conservation): Mapping naturally rare ecosystems

Biodiversity is farmers business

Gerry McSweeney: Restoring a Canterbury braided riverbed in the Arthur's Pass High Country on a pastoral lease through ecotourism

Nick Head (Department of Conservation): The Mackenzie Basin—A case for protection

Pam Richardson (Federated Farmers): Nurturing the farmer to value and encourage fencing and management of special places

Philip Simpson: Heartwood: the contribution of totara to New Zealand's natural and cultural history

Alan White (Department of Conservation): Biofunds—where to next for private land conservation?

Katie Whyte (Oashore Reserve): Oashore private conservation programme

Peter Ramsden (Ngai Tahu): Koukourarata/Port Levy—Nga Whenua Rahui project

Fred Allen (Kiwiplants): Perspective on conservation outcomes of native plant remedies: Bioprospecting, access and benefit sharing

Loralee Hyde (Environmental writer): Conserving plants in the farming landscape

Research outside nature reserves

Steve Pawson (SCION): Threatened plants and plantation forests in New Zealand

Susan Walker (Landcare Research): The CPLA, the RMA, and the loss of residual indigenous species habitat in the eastern South Island

Trevor Partridge (Christchurch City Council): Rarity in an urban landscape

Sarah Jane O'Connor (Canterbury University): Seed dispersal of matai in fragmented forests

Rob Smissen (Landcare Research): Title to be announced, David Given Award report

Colin Meurk (Landcare Research): To be announced

John Sawyer (Department of Conservation): Threatened vascular plant hotspots in NZ.

Paul Blaschke and Frances Forsyth (Blaschke & Rutherford): Urban stream restoration in Wellington

Roy Montgomery (Lincoln University) and **Helen Greenep** (Environment Canterbury): Greening grey space: getting native plants into discarded or neglected urban settings

Plants and the gardener

John Clemens (Christchurch Botanic Gardens): A botanic garden's role in plant conservation

Clayson Howell (Department of Conservation): Lessons learned from mapping weed range: importance of built-up areas, the role of gardeners and examples from overseas

Rhys Taylor (Sustainable Living Education Trust): Sustainable gardens as biodiversity hotspots

Ryan Young: Revegetation, pest control and native plants

Philip Smith (O2 Landscapes): To be announced

SOCIAL EVENTS

Thursday 7 October: Welcome drinks and nibbles (free event at Christchurch Botanic Garden)

Friday 8 October 2010: Conference dinner and Network awards ceremony

FIELD TRIPS

Banks Peninsula

This field trip highlights the conference's theme of "Conservation Outside Nature Reserves" with four different conservation models on private land on the Banks Peninsula as examples:

- Runanga land—forests at Taukahara
- Banks Peninsula Conservation Trust covenant—coastal shrubland at Hauroko

- QEII covenants—regenerating forest/rock outcrops at Zephyr Valley and Ohinetahi and primary podocarp/hardwood forest in Prices Valley
- Private gardens—ferns and shrubs

Join this trip to see some classic examples of Banks Peninsula vegetation and meet some of the players involved in its conservation.

The 'Greening Waipara' project – biodiversity conservation in North Canterbury vineyards

Waipara Valley, North Canterbury, is New Zealand's fastest-growing wine region, with around 80 vineyards covering 1500 hectares. Greening Waipara is a world-leading, research-driven project that aims to restore functional biodiversity to agricultural ecosystems by way of "ecological engineering"—making them more sustainable, profitable and marketable. The project is based at the Bio-Protection Research Centre, Lincoln University, and since it began in September 2005, 52 Waipara Valley

properties have joined the project and over 25,000 native trees, shrubs and groundcovers have been planted. Vineyard biodiversity trails have been established at four Waipara vineyards and wineries. The trails offer visitors a chance to see Greening Waipara in action, exposing visitors to a range of plant and animal species that were once common in the Waipara Valley landscape. This field trip will also visit another site to still to be confirmed.

Quail Island

For 12 years, the Otamahua/Quail Island Trust has been planting eco-sourced indigenous trees on 31 ha of Quail Island (81 ha) in Lyttelton Harbour. About 70,000 trees have now been planted. The Trust has managed an animal pest control programme that has rid the island of rabbits, hedgehogs, rats, mustelids and mice. Bellbirds and native pigeons are now increasing

in numbers. The lizard population is flourishing and there is a very successful white-flipped penguin colony. Leaf vein slugs, beetles and the Banks Peninsula tree weta have been successfully introduced. Visitors will be escorted around the island and shown the progress of this restoration project and will have the opportunity to plant a tree or shrub.

UPCOMING EVENTS

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

Auckland Botanical Society

Meeting: Wednesday 7 July at 7.30 p.m. a talk by Mark Bellingham titled 'Restoring the sand dunes at Te Henga'. **Venue:** Unitec School of Health Sciences, Gate 4, Building 115. Room 2005.

Contact: Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Field trip: Saturday 17 July to Lake Kawaupaku and Lake Wainamu, Te Henga.

Contact: Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Meeting: Wednesday 4 August at 7.30 p.m. the Lucy Cranwell Lecture by Art Whistler titled 'Ethnobotany of the Pacific'. **Venue:** Unitec School of Health Sciences, Gate 4, Building 115. Room 2005.

Contact: Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Field trip: Saturday 21 to Kauri Glen Park, North Shore.

Contact: Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Waikato Botanical Society

Field trip: Saturday 28 August is a Threatened Plant Collection Working Bee. Please bring gloves, old clothes and boots for weeding, planting and propagating activities. **Meet:** 11.00 a.m. at Waikato University Gate 9, Hillcrest Rd, or down the hill at the glasshouses compound.

Contact: Liz Overdyck,
ph: 07 846 0965,
e-mail: eg3@waikato.ac.nz.

Rotorua Botanical Society

Meeting: Monday 21 June at 7.30 p.m., Annual General Meeting. Following the AGM, members will show images of recent expeditions so bring photos of recent expeditions on memory stick or CD; 10 images or 10 minutes please.

Venue: DOC BOP Conservancy Office, 99 Sala St, Rotorua, go in Scion (Forest Research) north entrance and turn left before the locked gates.

Field trip: Sunday 11 July to Mangapouri Scenic Reserve, Tauranga Direct Rd, Kaharoa. **Meet:** The car park by the Police Station at 8.30 a.m. or at the vacant area 300 m on the Rotorua side of Roy Road on the Tauranga Direct Road at 9.00 a.m. **Grade:** Medium.

Leader: John Hobbs,
ph: 07 348 6620,
e-mail: jffhobbs@paradise.net.nz.

Wanganui Museum Botanical Group

Field trip: Sunday 4 July to St Johns Hill School & Bens Place.
Meet: at St Johns Hill School, 9.00 a.m.

Leader: Graeme La Cock,
ph: 345 3630,
e-mail: glacock@doc.govt.nz.

Meeting: Tuesday 6 July at 7.30 p.m. a talk by Tom Welch, arborist, titled 'Travels in Sikkim (India), Gallipoli and Europe.'

Venue: Alexander Library in Queens Park.

Field trip: Sunday 1 August to see Castlecliff revegetation. **Meet:** at Duncan Pavilion, Castlecliff Beach, 9.15 a.m.

Leaders: Graham Pearson, Lyn Douglas and Esther.

Meeting: Tuesday 3 August at 7.30 p.m., the AGM followed by members' show and tell.

Venue: Alexander Library in Queens Park.

Wellington Botanical Society

Meeting: Monday 21 June at 7.30 p.m. a talk by Dr Mark Jones, Wellington School of Medicine, titled 'Fungi from the forests infecting birds and man'.

Venue: Victoria University, Wellington, Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade. Enter building off Kelburn Parade about 20 m below pedestrian overbridge.

Field trip: Saturday 3 July on mid winter bryophytes at Otari-Wilton's Bush. Bring a pen, x10 lens and a torch or head lamp.
Meet: 9.00 a.m. at the Information Centre, Otari-Wilton's Bush, 160 Wilton Rd.

Co-leaders: Rodney Lewington, ph: 04 970 3142; Peter Beveridge ph: 04 237 8777.

Meeting: Monday 19 July at 7.30 p.m. a talk by Professor Dave Kelly, Canterbury University, titled 'Mechanisms of mast seeding'.

Venue: Victoria University, Wellington, Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade. Enter building off Kelburn Parade about 20 m below pedestrian overbridge.

Field trip: Saturday 7 August to the coastal cliffs, Breaker Bay to Tarakena Bay. **Meet:** 9.00 a.m. at Breaker Bay car park. Bus no 11 to Seatoun Park.

Leader: Frances Forsyth, ph: 04 384 8891.

Meeting: Monday 16 August at 7.30 p.m. the AGM followed by the AP Druce Memorial Lecture given by Lisa Forrester, Biodiversity Officer, Northland Regional Council, titled 'Northland-special plants, special places'.

Venue: Victoria University, Wellington, Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade. Enter building off Kelburn Parade about 20 m below pedestrian overbridge.

Nelson Botanical Society

Field trip: Sunday 18 July to two local native plant nurseries; Titoki Nursery and Martin Conway's QE II covenant followed by Mainly Native Nursery. **Meet:** at 9.00 a.m. at Selwyn Street, Nelson, between the church steps and the large gum tree (time to be confirmed).

Leader: Pamela Sirett, ph: 03 542 3414.

Meeting: Monday 19 July at 7.30 p.m. for talk by Shannel Courtney titled 'Field season update'. **Venue:** Jaycees Room, Founders Park, Nelson.

Contact: Shannel Courtney, ph: 03 546 9922.

Canterbury Botanical Society

Meeting: Friday 2 July at 7.30 p.m. a talk by Jo Ogier, a natural history artist. **Venue:** Room A5, University of Canterbury.

Contact: Gillian Giller, ph: 03 313 5315.

Field trip: Saturday 10 July at 9.00 a.m. at Spencer Park, 'A Meurky walk' combined with Forest & Bird at Spencer Park.

Contact: Gillian Giller, ph: 03 313 5315.

Meeting: Friday 6 August at 7.30 p.m. a talk by Pieter Pelsler, School of Biological Sciences Canterbury University. **Venue:** Room A5, University of Canterbury.

Contact: Gillian Giller, ph: 03 313 5315.

Workshop: Saturday 14 August at the School of Biological Sciences with Paul Broady.

Contact: Gillian Giller, ph: 03 313 5315.

Botanical Society of Otago

Meeting: Wednesday 30 June at 5.30 p.m. a talk by Mike Thorsen titled 'The romance of botany'. Venue: 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 as we have to hold the door open.

Contact: [Mike Thorsen](#),
ph: 03 453 6800.

Field trip: Saturday 10 July to Watsons Beach. **Meet:** Botany Department car park at 10.00 a.m.

Contact: [John Barkla](#),
ph: 03 476 3686.

Fabulous Ferns: Orokonui Ecosanctuary Fundraiser

Illustrated talk and field excursion: Sunday 11 July, from 10.00 a.m. to 3.00 p.m. A look at fabulous ferns with John Steel from the University of Otago Botany Department. Cost: \$39; all proceeds to biodiversity protection in the Ecosanctuary.

Contact: [Orokonui Ecosanctuary](#),
or ph: 03 482 1755.

ECO Annual Conference 2010

Venue: Living Springs Conference Centre, Christchurch from Friday 2 July to Sunday 4 July. The theme is Environment, Conservation and Economy.

Programme and a registration form: www.eco.org.nz.

Environment Institute of Australia and New Zealand

Annual Conference: Tuesday 26 October to Friday 29 October at Te Papa, Wellington. The title of the conference is "From Discovery to Delivery: Science, Policy, Leadership and Action". These are the four elements that, together, are essential for sound environmental management.

Information:
www.confer.co.nz/eianz2010.
e-mail: cwiapo@ihug.co.nz,
mob: 0211494586.

2010 Australian Systematic Botany Society Conference

Theme: "Systematic botany across the ditch: links between Australia and New Zealand". Monday November 29 to Friday December 3 at Lincoln University. Subject areas include palaeobotany, biogeography, phylogeny, algae, hybridisation, and biosecurity/weeds.

Information:
www.landcareresearch.co.nz/news/conferences/asbs2010/index.asp (registration form, speakers abstracts form, accommodation, field trip details etc) or e-mail: ASBS2010@landcareresearch.co.nz.