



# BOTANICAL SOCIETY

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## OF OTAGO

### Newsletter Number 69 June 2013

#### **BSO Meetings and Field Trips**

**Thursday 20<sup>th</sup> June 5.20 pm Botany in the Deep South** (Note Thursday date)

Brian Rance, a botanist and ecologist in the Science and Technical section of Department of Conservation based in Invercargill, will provide a shorter version of the Druce Memorial talk that he gave to the Wellington Botanical Society AGM last year. Tony Druce botanised extensively in Inland Otago and Northern Southland. This botanically rich and geographically diverse area covers the drylands and block mountains of Central Otago to the mountains, wetlands and forests of northern Southland. The talk will discuss Tony's work and will revisit some of the places and plants that Tony studied. It will also visit other places through Fiordland and Stewart Island including some alpine, wetland and dune areas.

**Saturday 6<sup>th</sup> July 9.00 am Field trip to Evansdale Glen**

Evansdale Glen is a sheltered reserve north of Dunedin beyond Waitati. Vegetation is mixed kanuka broadleaf shrubland which has been extensively modified through human activity. We will follow the track up Careys Creek and continue up a leading spur to the Mountain Track Road; an easy, sheltered location for a mid-winter excursion. Foul weather back up date Sunday 7th July. Meet 9.00 am at Botany Department car park, 464 Great King Street. Contact: David Lyttle, phone: (03) 454 5470, email: [djlyttle@ihug.co.nz](mailto:djlyttle@ihug.co.nz)

**Wednesday 10<sup>th</sup> July 5.20 pm Plants and vegetation of Dunedin 150 years ago**

How did Dunedin look when Dunedin Botanic Garden was a seedling? We can't know for sure, but botanist Dr Peter Johnson can give us a really good glimpse into the past.

**Saturday 3<sup>rd</sup> August 8.30 am Field trip to Mount Watkin/Hikaroroa**

Mount Watkin/Hikaroroa is a 616 metre peak located north-west of Waikouaiti. It is a volcanic peak surrounded by a schist landscape with fine views of Karitane and Waikouaiti estuaries. The DCC's 650-hectare Mt Watkin / Hikaroroa Reserve is regarded one of the best remaining examples of dry coastal forest in Otago. This trip will also look at the magnificent basalt rock glaciers and the higher slopes of the peak. Finding *Gingidia grisea* was a highlight of a previous trip (reported as *Gingidia montana* in Newsletter # 37). This is the southernmost distributional limit for this north Otago endemic plant. Foul weather back up date Sunday 4th August. Meet at Botany Department car park 8.30am. Return 5pm. Contact Robyn Bridges, phone: (03) 472 7330, email: [robyn.bridges@otago.ac.nz](mailto:robyn.bridges@otago.ac.nz)

**Wednesday 7<sup>th</sup> August 5.20 pm A walk in the English countryside with Bradley Curnow**

A walk in the English countryside is a presentation on the wild flowers encountered on a section of the Coast to Coast Walk through the English Lake District. I purchased a wildflower detective handbook at Ness botanic gardens near Liverpool and had a great time photographing the flowers mentioned in the book. I have also taken other flower/plant photos from that walk and from around the Gulf of Finland. I would also like to give a brief positive report on progress made to protect the Aramoana salt marsh.

**Wednesday 4<sup>th</sup> September 6.00 pm Castle 1, University of Otago (drinks and nibbles starting from 5.15 pm in the concourse) Baylis Lecture, Speaker Peter Heenan, Landcare Research, Lincoln. Plant systematics research and its relevance to understanding the origins and evolution of the New Zealand flora.**

*The Baylis Lecture is held annually by the Botanical Society of Otago, in conjunction with the Botany Department. It is named in honour of Dr Geoff Baylis, the first Professor of Botany at the University of Otago.*

Plant systematics aim to produce stable and reliable classifications and to provide knowledge of species' relationships. This talk will have two main themes that reflect these aims and I will also show how systematics knowledge is contributing to improving knowledge of the origins the New Zealand flora. Firstly, I will describe research undertaken over the last 8 years on the Chatham Islands endemic flora, including newly recognised species, the age of the flora, and relationships of the flora to New Zealand species. Secondly, I will describe systematics research undertaken on *Pachycladon* since 1995 and the relevance of this to the evolution of the indigenous flora. The scope of the research on *Pachycladon* spans alpha taxonomy, phylogeny, biogeography, hybridisation, allopolyploidy and gene expression.

**Saturday 7<sup>th</sup> September 8.30 am Field trip to Trotters Gorge, Palmerston**

This is part of a large conservation area accessed from Palmerston about 80 kilometres north of Dunedin off Horse Range Road. This is a beautiful spot with impressive rock formations carved out of sandstone and conglomerate by several small streams which merge with Trotters Creek. The car park has yielded an interesting mix of exotics and is in turn surrounded by regenerating native bush and at its westerly end two tracks lead off into quite different vegetation types. The right leads across a shallow ford and follows a vehicle track (not for public use) up the valley of Trotters Creek. The vegetation begins with regenerating bush before opening out into a mix of open native and exotic areas and cliffs. The track is easy with a few shallow fords. The other track follows a tributary of Trotters Creek through a narrow gorge before climbing steadily to the top of the hills to give a good view of the surrounding areas. The descent begins with a brief, steep section leading more gently down to the first track whence you can continue up the track or just return to the cars. The vegetation is largely native. Interesting plants to be found are *Teucrium parviflorum*, *Pimelea pseudolyallii*, the locally endemic *Celmisia hookeri*, *Notogrammitis ciliata* and an unnamed *Corybas* orchid. Come suitably attired for walking and, if it's been raining, the uphill track may be slippery in places and the creek may be running high in the fords. Expect to return to Dunedin about 3.00 p.m. or whenever suits you. Bring a lunch. Foul weather back up date Sunday 8<sup>th</sup>. Contact John Steel on 021 2133 170.

**Saturday 5<sup>th</sup> October 10 am Visit to the Johnson's Garden and Styles Creek Bush, Broad Bay**

A visit to the garden of Peter and Pru Johnson. Peter says, "This will be springtime, or at least one of its interesting months. My 2005 record of flowering times, done fortnightly, indicates that in early October we have had 180 different things in flower. Don't expect them all to be natives!" Bring cameras (of course). The second part of the trip is to Styles Creek Bush, which is 5 minutes walk up the hill. This is a QE II National Trust covenant on the property of Frank and Annie Pepers, 2.4 ha, fenced in 1987 and demonstrating what can be done with planting enrichment and

weed control. The bush has a network of tracks, some a tad muddy underfoot, so wear your boots. Helen Clarke and I will be happy to explain what has been learned over the years. We may even offer prizes for anyone who spots a still-mature *Bomarea*, old man's beard, or passionfruit! The address is 5 Matariki Street, Broad Bay. Start time is 10am (at Peter's place), or meet at 9.30am at the Botany Department. Contact Robyn Bridges, phone: (03) 472 7330, email: [robyn.bridges@otago.ac.nz](mailto:robyn.bridges@otago.ac.nz)

**Wednesday 16<sup>th</sup> October 5.20 pm Talks by Botany Department Colloquium speakers**

Talks from Botany Department Colloquium winners showcasing some of the latest research by our most capable young botanists. A stimulating and varied evening is in store so please come and support the speakers.

**2/3<sup>rd</sup> November 9 am Weekend trip to Long Point**

A weekend trip to this stunning Coastal peninsula in southern Catlins managed by the Yellow-eyed Penguin Trust who have great plans to restore seabird communities there. As well as the stunning coastal scenery, penguins, seals and sealions, there are interesting plant communities including coastal turfs with rare plants, coastal shrublands and forest remnants. For more information visit the website: <http://yellow-eyedpenguin.org.nz/our-work/habitats/long-point/> Please note it's quite exposed so come prepared for cold and windy conditions, but hope for better. Details on where we will be staying on the Saturday evening to be posted. We will leave Dunedin 9am Saturday 2<sup>nd</sup> November and return by 4-5pm Sunday 3<sup>rd</sup>. If you would like to come, please contact Robyn Bridges, phone: (03) 472 7330, email: [robyn.bridges@otago.ac.nz](mailto:robyn.bridges@otago.ac.nz)

**Wednesday 20<sup>th</sup> November 5.20 pm Variation in pollinators' view of flowers and plants, a talk by Dr John Conran, Associate Head, School of Earth and Environmental Sciences, Adelaide.**

Humans often assume that what we see is seen by others. This is not true and needs to be taken into account when thinking about plant pollination by insects and birds. Because of the variation of perceived light waves and ultra violet light, different species have different views of the world. For example a bee's view of green foliage would be a 'real bad acid trip' for humans. Dr Conran will discuss the implications of this variation in relation to pollination in the NZ flora.

**Wednesday 4<sup>th</sup> December 6.30 pm End of year dinner**

At Harvest Court Cafe, details to be confirmed at a later stage.

**Saturday 7<sup>th</sup> December Field trip to Kakanui Peak**

Kakanui Peak at 1528 m is one of the highest points in the Kakanui Range which runs in a north-westerly direction inland from Palmerston. We will travel to the top of the Pigroot and climb up to the summit of the peak (approximately an 800m climb). Vegetation is mainly snow tussock grassland but there will possibly be a few surprises as the area has not been extensively botanised in recent years. For an overview of this area, including the geology and wildlife please see: [http://www.recreationaccess.org.nz/files/rec\\_plan1\\_03\\_kakanui.pdf](http://www.recreationaccess.org.nz/files/rec_plan1_03_kakanui.pdf)

Foul weather back up date Sunday 8<sup>th</sup> December. Meet 8.30am Botany Department car park, Great King Street. Contact: David Lyttle, phone: (03) 454 5470, email: [djlyttle@ihug.co.nz](mailto:djlyttle@ihug.co.nz)

**Meeting details:** Talks are usually on Wednesday evening, starting at 5:20 pm with drinks and nibbles (gold coin donation), unless otherwise advertised. Venue is 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, Room 215, 2nd floor. Please be prompt as we have to hold the door open. Items of botanical interest for our buy, sell and share table are always appreciated. When enough people are feeling sociable we go out to dinner afterwards – everyone is welcome to join in. Talks usually finish around 6:30 pm, keen discussion might continue till 7 pm.

**Field trip details:** Field trips leave from Botany car park 464 Great King Street, unless otherwise advertised. Meet there to car pool (10 c/km/passenger, to be paid to the driver, please). 50% student discount now available on all trips! **Please contact the trip leader before Friday for trips with special transport and by Wednesday for full weekend trips.** A hand lens and field guides always add to the interest. It is the responsibility of each person to stay in contact with the group and to bring sufficient food, drink and outdoor gear to cope with changeable weather conditions. Bring appropriate personal medication, including anti-histamine for allergies. Note trip guidelines on the BSO web site: <http://www.botany.otago.ac.nz/bso/>.



*Ngaio flowers at Tunnel Beach (Photo: John Barkla)*

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## Chairman's Notes

*David Lyttle*

I am sitting at my computer trying to keep warm as it is snowing outside. After a warm dry summer it is a reminder that winter has now set in with its shorter days and more circumscribed opportunities for outdoor activities such as photography and botanizing. Neither of these pursuits is much fun in bad weather. I have ruined more photographic shots through having water droplets on the camera lens than I care to count and you only realize this when you download the image. At times the whole business becomes immensely frustrating for one or other weather determined reason. It is all the more gratifying when you come home with a decent image or get to go somewhere interesting or find a plant that you have never seen before. We are fortunate that the BSO has a number of enterprising and energetic members who are prepared to walk further, climb higher and stay in the field longer in order to document the botanical diversity in this part of the country. By doing so they have gained an unprecedented amount of knowledge about the diversity of the local flora and vegetation. This knowledge is shared with the rest of the BSO often informally and disseminated to the public through the newsletter and monthly meetings.

At the 4<sup>th</sup> May graduation this year our patron, Audrey Eagle, was awarded an Honorary Doctor of Science by the University of Otago. This award is a tribute to her patience, tenacity and skill as a botanical artist that resulted in the production of *Eagle's Complete Trees and Shrubs of New Zealand*. In this respect she serves as an inspiration to us all.

## Secretary's Notes

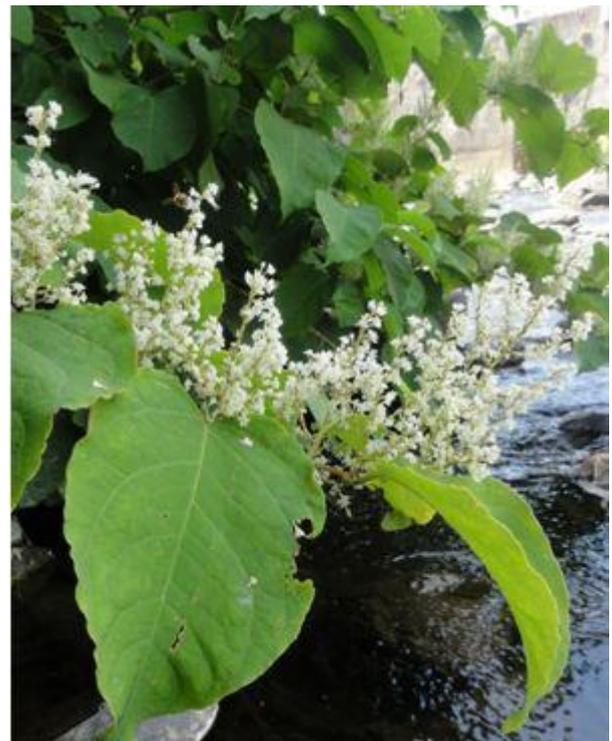
*Allison Knight*

Positive and useful feedback from February has encouraged me to write more notes about what comes in the mail to BSO.

**Japanese Knotweed** drew several comments. Mick Parsons, from the Wellington Botanical Society, wrote back to Robyn immediately.

*".....I was just skirting through your wonderful newsletter and noticed the contribution from Alison re the above. When we were on Stewart Island some years ago, I noticed a large patch on the edge of a playing field behind the township. So it has certainly been taken further south. I eradicated a small patch within Otari some years ago. Anyway, this may not be news but mentioned anyway...."*

Robyn reported that she had seen another patch further down the Leith and I heard that the Otago Regional Council were aware of its presence in Otago. So keep an eye out to check for it spreading.



*Japanese Knotweed flowering beside Leith Stream, 3 Feb. 2013 (Photo: Allison Knight)*

Some of the Botanical and other Newsletters we've received recently include:

**NZ Plant Conservation Network newsletter**, *Trilepidea*, is always worth reading. See the article in our newsletter for

their 10 worst weeds and 10 favourite plants of 2012, and visit their website <http://www.nzpcn.org.nz/> for back copies.

#### **Landcare Research's Plant Press**

([plantinfo@landcareresearch.co.nz](mailto:plantinfo@landcareresearch.co.nz)) provides information on the latest botanical research from the HH Allan Herbarium at Lincoln.

#### **NZ Notable Trees Trust**

([notabletrees@rnzih.org.nz](mailto:notabletrees@rnzih.org.nz)) maintains a register of notable trees, publishes the latest additions and encourages the registration of more, while the Trees for Survival programme ([admin@tfsnz.org.nz](mailto:admin@tfsnz.org.nz)) provides funding to encourage schoolchildren to revegetate local areas in native trees.

**Botanical Societies** from around New Zealand and as far away as Tasmania send in their newsletters and bulletins. Hard copies are put on display on the bookshelves in the Botany Department tea room. Hugh Wilson's incomparable *Pipipi*, about revegetating Hinewai Reserve on Banks Peninsula in native forest, and the NZ Botanical Society Newsletter are particularly worth reading. Electronic versions of botanical society newsletters are available on the NZPCN website.

Long lists of **Chinese Botanical Books**, mostly written in Chinese, come in regularly, as do lengthy newsletters from the Charities Commission. There's an extraordinary amount of paperwork to wade through to maintain our status as a non-profit organisation and the rules keep changing! Luckily our treasurer is keeping up with the play. There are also seemingly endless newsletters and questionnaires from peripheral groups, some of which seem to be making a business out of offering to help charities operate more efficiently.

#### **Editor's Notes**

**Please submit copy for next newsletter by 31<sup>st</sup> October 2013.**

**Editor's guidelines:** Try to aim for a 0.5–1 page of 14 pt Times for news, trip/meeting reports and book reviews and 1–5 pages, including illustrations, for other articles. Electronic submission (by email to the editor: [imaginarycrayfish@gmail.com](mailto:imaginarycrayfish@gmail.com)) is preferred. Send photos as separate files and remember to include photo captions and credits.

**Disclaimer:** The views published in this newsletter reflect the views of the individual authors, and are not necessarily the views of the Botanical Society of Otago.

#### **Message from the Treasurer**

##### **ELECTRONIC PAYMENTS**

You may prefer to pay your membership by Direct Bank Transfer to the Botanical Society of Otago's bank account rather than pay by cash or cheque. We realise these days that direct debit transfer payments seem to be the 'norm' for most people.

If you choose to pay by direct debit/Paypal please ensure you include:

**Your Name** in particulars/ reference **and** what you are paying for, e.g. **Membership** or **Calendar**.

That way we can keep our database up to date.

Our Bank is Westpac Moray Place, Dunedin

Account No. 030905 0029158 00

Botanical Society of Otago

Many thanks

*Mary Anne Miller*, Treasurer

#### **New Members**

A warm welcome is extended to the following new members:

Martha Apple; David Cook; Richard and Linda Pickering; Ian Reid; Chelsea Robertson; Cecilia Wang; Kate Wendelgelst and Lana Young.

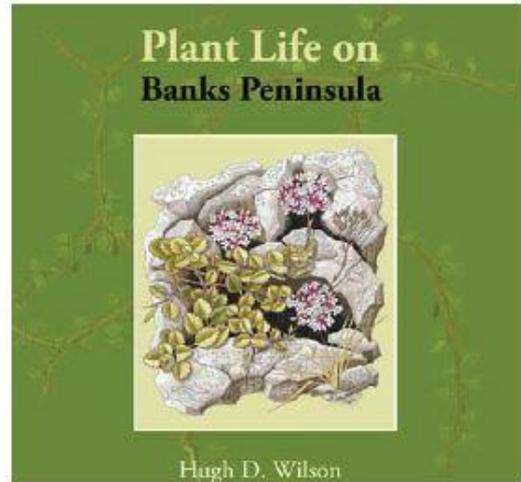
## Correspondence and News

### Plant Life on Banks Peninsula by Hugh D. Wilson – Pre-Publication Offer

Here at last is a crystallisation of what eminent botanist Hugh Wilson has found out about Banks Peninsula, after nearly a lifetime of living and working there. This is a substantial book, beautifully illustrated with hundreds of Hugh's drawings, photographs from several photographers, clear maps, and entertaining text. This book is the culmination of 30 years work, a labour of love designed to inform and delight a wider public about the richly diverse plants of Banks Peninsula. The book will be enjoyed by both interested lay people and professional botanists alike. More than an identification manual, this is an extraordinary account of the natural history of an extraordinary place.

The book is due for release in Spring 2013.

It is 420 pages in hard cover landscape format (260 mm by 240 mm); there are over 500 detailed drawings with over 160 in full colour; and over 60 colour photographs. RRP is \$90.00.



Manuka Press is offering this book to interested people at a special pre-publication price. All orders received and paid for by 1st of September 2013 will be supplied at only \$75 per copy (including GST and postage and packaging to NZ addresses).

To order your copy(s) either:

- Fill in and send the form below with your cheque (made out to Manuka Press) at the special price of \$75 / copy.
- Go to the Manuka Press web site and fill in the online order form at: <http://www.manukapress.co.nz/>. You will be sent an invoice for payment by Direct Credit.
- Overseas orders please contact Richard below for postage and payment options.

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### Plant Life on Banks Peninsula – Pre-Publication Order Form

Name:

Address:

Contact Number:

eMail:

No. of Copies Ordered:  Total payment enclosed:

Comments/Special Instructions:

**Send to:**  
Manuka Press  
PO Box 245  
Cromwell 9342  
Central Otago, NZ

**\$75 / copy**  
(Including GST and  
P&P within NZ)

Sorry – but we are  
unable to accept credit  
cards.

## Norfolk Island botanical book for sale

Norfolk Island's Fascinating Flora by Peter Coyne is available from Shirley Webb, phone (03) 478 0459. Price \$20

## Forest and Bird trip to St Marys Range

The Waitaki branch of Forest and Bird have booked the weekend of January 10<sup>th</sup> and 11<sup>th</sup> Friday and Saturday night at the Awakino Ski Hut for a botanical field trip on the St Marys Range to view the unique alpine plants. You are all welcome as members of Forest and Bird or Botanical Societies. Last year the snow was still low in December and many plants were not yet flowering, so this year we hope for better weather.

The hut sleeps 35 and costs \$25pp/night. For more info on the hut go to <http://www.skiawakino.com/> Ordinary cars can get as far as the foot of the mountain, but we have two 4WD vehicles to ferry people up the mountain if needed. Directions from Kurow are on the website. If requested we can also fill in a Monday exploring the limestone ecosystems at Gards Rd and Earthquakes near Duntroon. It is possible to stay at Kurow campground on the Sunday night or there are B&Bs in both Kurow and Duntroon and camping in the domain in Duntroon if you have a tent. <http://www.kurowholidaypark.co.nz> <http://www.westernhouse.co.nz> <http://www.duntroon.co.nz/stay.php> As it is the holiday season, we recommend that you book accommodation early. Contact Zuni Steer, Email: [zuni20@actrix.co.nz](mailto:zuni20@actrix.co.nz)

## DOC Otago conservation volunteering events and opportunities

### Yellow-eyed Penguin Trust Okia Reserve Arbor Day planting.

Wednesday 5 June, Okia Reserve – Victory Beach, Otago Peninsula

Meeting point: Dick Road car park at 9.30am  
What to bring: Work clothes, parka, boots, work gloves plus lunch/thermos/water. Some planting spades will be available but bring your own if you have one.

Contact Dave McFarlane (03) 479 0011  
[yeptrust@gmail.com](mailto:yeptrust@gmail.com)

### Yellow-eyed Penguin Trust Emerging Leaders

The Yellow-eyed Penguin Trust is seeking two promising young adults, ages 18-25, to serve as Emerging Leaders in special one year positions on the Board of Trustees for the Yellow-eyed Penguin Trust.

Deadline to apply is June 12<sup>th</sup>.

Contact the Yellow-eyed Penguin Trust ([yeptrust@gmail.com](mailto:yeptrust@gmail.com)) or (03) 479 0011 for more information.

### Conservation Volunteers Coastal Otago Catlins trip

Join the Department of Conservation for a Conservation Volunteers Coastal Otago trip to the Catlins, Sat 13<sup>th</sup> July – Sun 14<sup>th</sup> July. This is a great chance to visit some special reserves.

Saturday afternoon, we head to the Otanomomo Scientific Reserve to help Forest and Bird with weed control. The 37 hectare reserve, 10 km south of Balclutha on the road to Owaka, is an important remnant of coastal podocarp forest and home to a small population of the endangered tree daisy *Olearia hectorii*.

Sunday we plant yellow-eyed penguin habitat at the Forest and Bird Te Rere Reserve. There is no public access to this special reserve, and the planting weekend is one of the few opportunities you may get to visit Te Rere.

Leave Dunedin Sat 13<sup>th</sup> at 9am, returning Sun 14<sup>th</sup> late. Staying at the Forest and Bird Lodge at Tautuku on Saturday night.

Cost \$30 (covers food, accommodation and transport). This weekend has always been popular. To reserve your place, contact: Lucy on 03 474 7094 [lharty@doc.govt.nz](mailto:lharty@doc.govt.nz) by Wed July 10<sup>th</sup>.

## 150<sup>th</sup> Birthday of the Botanic Garden

When Dunedin Botanic Garden opened on 30<sup>th</sup> June 1863 it became the country's first botanic garden. This year's 150<sup>th</sup> anniversary will be celebrated through exhibitions, talks, displays and other events. Most of these will be free, making it easier for you to be part of these celebrations. The following are selected botanical highlights from the Botanic Garden's birthday calendar.

### JUNE

#### 150<sup>th</sup> Birthday Anniversary

Join the Friends of the Botanic Garden to celebrate the 150<sup>th</sup> anniversary of the Dunedin Botanic Garden at the unveiling of a commemorative sculpture.

Sunday 30<sup>th</sup> June - 11.00am Tea kiosk lawn, lower botanic garden

#### Exhibition: Botanical Artists acclaimed in New Zealand & Abroad

All month - Daily 10.00am - 4.00pm  
Information Centre, lower botanic garden

### JULY

#### Hort Talk: Making History

Looking back and looking to the future. Join Alan Matchett, Team Leader/Curator of Dunedin Botanic Garden.

Friday 5<sup>th</sup> July 12.00 noon Botanic Garden Centre, upper Lovelock Ave

### AUGUST

#### Hort Talk: Tapping In To Soil Nutrient Reserves

How compost tea can help. Join Ray Annan, master compost tea brewer.

Friday 2<sup>nd</sup> August 12.00 noon Botanic Garden Centre, upper Lovelock Ave

#### Exhibition: 150 Years At Dunedin Botanic Garden

Friday 16<sup>th</sup> August – Sunday 17<sup>th</sup> November  
Weekdays: 9.30am – 8.00pm Weekends:  
11.00am – 4.00pm Reed Gallery, third floor,  
Dunedin City Library

### SEPTEMBER

#### Hort Talk: Biodomes Amidst The Oasis Project

An initiative promoting edible gardens at schools and beyond. Join Graham Copson, Technical Manager University of Otago and Director at BioDomeNZ Ltd.

Friday 6<sup>th</sup> September 12.00 noon Botanic Garden Centre, upper Lovelock Ave

### OCTOBER

#### Exhibition: Past Photos Of Dunedin Botanic Garden

Snippets from the Reed Gallery.

All month Daily 10.00am – 4.00pm

Information Centre, lower botanic garden

#### Hort Talk: The Magic Of Mushrooms

Cool new developments in the world of fungi.

Join Bart Acres from Otago's Local Food Network and Otepoti Urban Organics.

Friday 4<sup>th</sup> October 12.00 noon Botanic Garden Centre, upper Lovelock Ave

#### Workshop: Making Watercolour & Oil Paint From Rocks & Plants

Learn some of the secrets from artist Celia Wilson.

Saturday 12<sup>th</sup> October 2.00pm – 4.00pm

Information Centre, lower botanic garden

ENTRY: \$10. Bookings essential\*

#### 5<sup>th</sup> Global Botanic Gardens Congress

Watch out for opportunities to get involved.

Sunday 20<sup>th</sup> – Friday 25<sup>th</sup> October

### NOVEMBER

#### Workshop: Cultivation of Rock Garden & Alpine Plants

Join Robyn Abernethy, Collection Curator of rock garden and alpine house.

Saturday 30<sup>th</sup> November 10.00am – 12.00 noon

Meet at Information Centre, lower botanic garden ENTRY: \$10. Bookings essential\*

## Articles

### Award of Honorary Doctor of Science to Audrey Eagle

*David Lyttle*

Our patron and long standing BSO member Audrey Eagle, was awarded an Honorary Doctor of Science by the University of Otago at the graduation ceremony conducted on Saturday 4th May. Audrey has made a truly outstanding contribution to botany in New Zealand. For over fifty years she has unstintingly devoted her time to painting in meticulous detail, life-size where possible, the leaves, flowers and fruit of every native tree, shrub and climber known in New Zealand. In her eight publications which span thirty-one years, Audrey's superb illustrations have increased the understanding of New Zealand's botany and made it more accessible to all New Zealanders. The pinnacle of Audrey's work is her compilation of the magnificent Eagle's Complete Trees and Shrubs of New Zealand published in 2006. As a work of botanical illustration it is comprehensive in its scope, accurate and beautiful in its execution. It is a unique work and is unlikely to be surpassed in the foreseeable future.

Audrey has been awarded numerous honours including the Loder Cup in 1985, the

Companion of the New Zealand Order of Merit in 2001 and the Allan Mere Award in 2009. In 2007 Audrey won New Zealand's premier book award the Montana Medal for Non-Fiction for *Eagle's Complete Trees and Shrubs of New Zealand*.

During her painting career Audrey has not been supported by any institutional funding relying on her own resources. It is fitting that the University of Otago has recognized Audrey's achievements in this way as her personal standards are more exacting than anything an examination committee would impose on a doctoral candidate.

Audrey is a long-standing and popular member of the Botanical Society of Otago. She attended meetings and participated in field trips until very recently and still remains engaged with the society as Patron and judge of the Audrey Eagle Botanical Drawing Competition. To mark the occasion of her award, the Botanical Society presented Audrey with a matai grown from a seedling collected from Colinswood Bush at Macandrew Bay near her former home on the Otago Peninsula. She plans to plant this at her new home on her daughter's property on Chain Hill Road where she now lives. On behalf of the BSO I would like to offer our congratulations to Audrey for her award of Honorary Doctor of Science and wish her all the best for the future.



*Audrey Eagle at graduation ceremony, Saturday 4th May (Photo: David Lyttle)*



*David Lyttle, Alan Mark, Audrey Eagle, Katharine Dickinson (Photo: Paul Guy)*



*Audrey Eagle Chatham Islands, October 2007 (Photo: David Lyttle)*

## *Uncinia perplexa* on the Surville Cliffs

Luke Easton

Hanging onto the edge of existence, the critically endangered *Uncinia perplexa* survives only in one 0.1 hectare site: under a single pohutukawa tree on the Surville Cliffs. The Surville Cliffs is New Zealand's northernmost point, 30 km east of Cape Reinga, where many now threatened and endangered plants grow. The geology of this area is unique: the bedrock is ultramafic, meaning that the rocks (which are volcanic) are rich in iron and magnesium. Thus, certain plants capable of exploiting this niche, expanded in this pocket of active volcanic history. This barbed sedge grows in a remnant of what was once an extensive pohutukawa forest. Forest fires during the late 1800s and browsing of introduced ungulates, however, have destroyed this natural coastal habitat. *U. perplexa* belongs to the Cyperaceae family and is known only from 124 plants that grow under a sole surviving pohutukawa tree of pre-fire/invasion times. Considering *U. perplexa* is not sun-tolerant, this single pohutukawa tree is the last natural refuge for the species on the planet. Direct threats are further fires, browsing

by possums and competition with weeds such as pampas grass (*Cortaderia selloana*) should they become better established at North Cape. Our knowledge of this species is fairly recent as it was identified as a new species only in 2001 by Heenan and de Lange. Several *U. perplexa* plants were collected in October 1996, April 1998 and January 2000 from the Surville Cliffs. These plants were then cultivated at the Landcare Research experimental garden, Lincoln. Seedlings were grown from seeds of the plant collected in 1996 and genetic analyses, along with consistency of growth morphology of the plants themselves, confirmed that a new species had been found. Although present status of this species looks grim, the future of *U. perplexa* may not be as bleak if current management of the area is maintained. Heenan and de Lange (2001) observed equal seedling to fruiting plant ratios which suggests that establishment of seedlings and fruiting of plants are not con-strained. Furthermore, they are easily cultivated although the morphology differs to that of wild plants due to their unique preference for ultramafic soils. Whilst *Uncinia perplexa* is classified as nationally critical, it is clear that this species will continue to have a stronghold when it has the chance to do so.



*Uncinia perplexa* (Photo: Luke Easton)



Surville Cliffs (Photo: Luke Easton)

## ***NZ Plant Conservation Network 10 worst weeds and 10 favourite plants***

*Allison Knight*

There wasn't room in the last newsletter, or the editor's busy life (congratulations on the new baby, Marcia!) to put in the results of the voting for last year's NZPCN 10 worst weeds and 10 favourite plants, so for those who don't read the NZPCN newsletter here they are, reprinted from *Trilepidea* 110.

The list of people's top 10 worst weeds for 2012 is:

1. *Tradescantia fluminensis* (wandering Jew or wandering willie)
2. *Ehrharta erecta* (veldt grass)
3. *Convolvulus arvensis* (convolvulus)
4. *Araujia sericifera* (moth plant)
5. *Asparagus scandens* (climbing asparagus)
6. *Pinus contorta* (lodgepole pine)
7. *Ligustrum lucidum* (tree privet)
8. *Ulex europaeus* (gorse)
9. *Agapanthus praecox* subsp. *orientalis* (agapanthus)
10. *Arundo donax* (giant reed)

The range of worst weeds nominated indicated the many ways in which unwanted plants affect our indigenous plant communities such as displacing our native plants or modifying their habitat. Most voters had a personal story behind the plant that vexed them the most.

To read the full results and comments go to: [www.nzpcn.org.nz/flora\\_vote\\_results.aspx](http://www.nzpcn.org.nz/flora_vote_results.aspx)

The 10 Favourite Plants for 2012 are:

1. *Agathis australis* (kauri)
2. *Metrosideros excelsa* (pohutukawa)
3. *Vitex lucens* (puriri)
4. *Colensoa physaloides* (koru)
5. *Pseudopanax ferox* (fierce lancewood)
6. *Metrosideros umbellata* (southern rata)
7. *Urtica ferox* (ongaonga, tree nettle)
8. *Cordyline indivisa* (broad-leaved cabbage tree, toi)
9. *Metrosideros robusta* (northern rata)
10. *Ixerba brexioides* (tawari)

Now is the time to start thinking about which plants you will vote for this year. Japanese knotweed, perhaps?



*Tradescantia fluminensis* (Photo: Marcia Dale)

## Meeting and trip reports

### Marine macro algae field trip, Brighton Beach, 18th August 2012

Wendy Nelson

A hardy band of botanists gathered on the cliff top at Brighton early on Saturday morning – then descended onto the beach to explore the macroalgae on the coast. The Otago coast is home to about 275 species of macroalgae and the Brighton shore has many habitats, ranging from the wave exposed outer reefs through to more sheltered pools and channels as well as upper intertidal rocky outcrops.

On the highest rocks, amongst seabird guano and lichens, we found patches of the dark green alga *Prasiola* – small blades about 2-4 mm in height. These are only found in places where there are very high levels of nutrients.

In the upper intertidal we saw several species of the red algal genus *Pyropia* (– species previously placed in the genus *Porphyra*). Just a single cell layer thick and with thick cell walls, these blades are very well adapted to upper intertidal life as they can dry out during low tide and be re-hydrated when the tide returns.

The other extreme of the shore we were amongst the bull kelp – *Durvillaea antarctica* - with its very robust holdfasts attached firmly to the rocks and inflated leathery thalli. Under the bull kelp were dark green patches of prostrate *Codium dimorphum* and nearby the strap-like thongs of the brown alga *Xiphophora gladiata*. Leathery blades of the red alga *Sarcothalia lanceata* were in the low intertidal along with the fine divided and densely branched *Streblocladia glomerulata*, a species very characteristic of southern shores, and at least two species of the red genus *Plocamium*. The characteristic pink of the calcified crusts of non-geniculate coralline algae could be seen on many rock surfaces,

under the curtains of the larger seaweeds and lining the channels and pools.

An interesting find in the tidal pools was the red alga *Thamnophyllis lacerata*, including fertile blades. We also saw young pink blades of very delicate species of *Schizoseris* and *Hymenena*.



Brighton at low water - *Durvillaea antarctica* growing along a channel (Photo: Wendy Nelson)



*Prasiola* forming green patches on upper intertidal rocks (Photo: Wendy Nelson)



*Thamnophyllis lacerata* in a tide pool (Photo: Wendy Nelson)

## **John Child Bryophyte and Lichen Workshop, November 2012.**

*John Steel*

This annual workshop for moss and lichen lovers alternates between North and South Islands and the latest one went even further for its first visit to Stewart Island attracting 32 participants from Australia, the U.S. as well from throughout New Zealand. Most of the sites visited were close to Oban with the most adventurous being a boat trip across Paterson Inlet to Pryzes Peak track with a short stop at Ulva Island. The former does not have a landing site so proved a bit nerve-racking for some of those who prefer their feet to be on the ground to being a little too close to the water for their liking. For some, bryology was then added to their list of adventure tourism activities! At the summit

Lars Ludwig found specimens of the lichen, *Siphula decumbens*, fruiting, something never seen before. Lars went on to receive the Tom Moss Award for student research in bryology and lichenology for his PhD work on *Icmadophila* while studying at the Botany Department.

During the course of the workshop several new distributions were added to the list including the cosmopolitan liverwort, *Lunularia cruciata*. This has an unusual distribution having spread throughout the world yet is seldom found with spores and spreads primarily vegetatively. No one is yet to suggest it be eradicated: unlike Japanese

knotweed, I guess it pays to be small! The evenings were spent sorting through the days' collections and the presentation of a variety of topics.

A local, Margaret Hopkins, gave a fascinating talk on the history of Stewart Island botanists from earliest times through to the present day. Much of their work is represented in the local museum and well worth a visit if you are down that way. Alison Downing from Australia discussed the importance of canopy bryophytes being important in helping to main moisture levels in beech forest, something which is being jeopardised by logging. Susan Tremblay from the United States presented her work on the use of oil bodies in liverworts in assessing their evolutionary lineages.

Bryology and lichenology still tend to be the poor cousins of Botany, but New Zealand is extremely rich in these important plants and maybe this can entice a few more of you to this year's workshop at **Ohakune 22-27 November 2013.**



*Two of our BotSoc committee, Aimee and Kelly, made sure everyone was well fed (though lettuce for dessert on the final day was a bit too novel a way to use up the last of our provisions!) (Photo: Allison Downing)*



*Boat trip across Paterson Inlet (Photo: Allison Downing)*

## **Tales from the Southern Ocean. Talk by John Barkla, 27th February 2013**

*David Lyttle*

At our February meeting John Barkla gave a talk in his visit to the New Zealand Subantarctic Islands, Auckland Island and Campbell Islands and Australian Macquarie Island during an ocean voyage to and from the Antarctic Continent. The first landfall was on Auckland Island followed by a second landfall on Campbell Island. John is a professional botanist and accomplished photographer. He presented some stunning photos of the megaherbs found growing on these islands, especially of the three species of *Pleurophyllum* daisy, *Pleurophyllum criniferum*, *Pleurophyllum hookeri* and the spectacular *Pleurophyllum speciosum*, the latter featuring as the June picture in the 2013 Botanical Society calendar. After leaving Campbell Island a somewhat tedious ocean voyage to the Antarctic continent followed where the planned objective was the Australian Mawson Base at Cape Denison on Commonwealth Bay (Douglas Mawson 'Home of the Blizzard'). Due to ice conditions it was not possible to reach Mawson Base itself, but the tourist party had several opportunities to land on the Antarctic continent, the surrounding sea ice and to visit a French scientific base. I did not realise it was possible to get close to emperor penguins without undertaking a journey through blizzards in midwinter darkness (Apsley Cherry-Garrard 'The Worst Journey in the World'). Penguins are reluctant to jump off the ice into the ocean as large hungry animals with sharp teeth cruise around waiting for lunch to be served. However, this did not deter our intrepid botanist from taking a polar plunge! Further ocean voyaging to Macquarie Island followed where a different cast of characters was encountered; this time king, gentoo and royal penguins. By this time the effects of sea voyaging were beginning to manifest themselves; how else would you account for the montage of sea elephant faces we were shown in one memorable slide! An excellent talk with excellent slides of the

plants, scenery and wildlife that gave the audience a real flavour of life on the Subantarctic islands and Antarctic continent.

## **A morning 'Photo Walk' at the Dunedin Botanic Garden, 10th March 2013.**

*Nicola Baines*

This was a joint outing with the Dunedin Camera Club that took place on Sunday 10th April. The outing turned out to be quite popular with the camera club members numbering about ten and the Botanical Society members numbering about four. The main purpose of this outing was to encourage members to get out and about with their cameras with a view to participate in up and coming competitions that were being held by the Botanical Society, Otago Museum and the Dunedin Botanic Garden. I started the morning off by herding the participants up the hill to explore the upper garden via the Mediterranean garden as many had admitted they had never visited the area above the rock garden. Enthusiasm took over and the group splintered off on their own photographic adventures eventually to meet up for coffee and cake at the Croc at about 11:30. I hope that the outing was mutually beneficial for the photographers and the botanisers alike.

## **High Arctic Hijinks; Flora, Fauna and Darkness. Talk by Lorna Little, 27th March 2013**

*Bill Wilson*

About 20 members heard a very entertaining talk by Lorna on her stay in Svalbard, where she worked on her doctoral thesis about the influence of colour on energy absorption by arctic flowers. Svalbard is a group of islands in Norwegian territory, about halfway between Norway and the North Pole and at 60,000 sq. kms is about twice the size of Otago.

As Svalbard was in winter darkness and covered in snow at the time, we didn't see many flowers apart from some saxifrages photographed on an earlier trip. However, Lorna was able to tell us a lot about the fauna and the lives of the research students at the University Centre in Svalbard in the town of Longyearbyen. Longyearbyen in winter seems to be a fairly quiet place as most of the polar bears are off hunting seals on the ice and the visiting research students dedicate themselves to working, sleeping and trying out each other's exotic food cultures. The peace of the winter nights on Longyearbyen's main street was occasionally broken by Lorna whizzing past on a spark, a sort of zimmer frame on skis which the locals use to get about.

The biggest animals were the polar bears, of which Svalbard has about 3,000, and whose speed and strength makes them potentially very dangerous, (a British schoolboy on a trip was killed in 2011). We saw a short clip where a visiting journalist, attempting to get dramatic footage of a bear, took shelter in a cage which the bear enthusiastically attempted to open. The bear got bored eventually and moved off so we were denied the happy ending of the bear eating the journalist which was just as well as someone would have had to shoot the bear.

Another winter stayer in Svalbard is the eider duck. We saw a short movie of an indigenous family from the Belchier Islands in Canada earning cash by taking the down the ducks line their nests with and which makes an expensive and very effective filling for sleeping bags.

The presentation ended with some spectacular shots of the return of the sun and the beginning of spring.

## Botanical Society of Otago AGM, 17<sup>th</sup> April 2013

*Allison Knight*

**Apology.** Lala Frazer

The minutes of last year's AGM, the Chairman's report and the Treasurers report were presented and accepted. There was some discussion about the drop in income. Some contributing factors are that many members have not yet paid their annual subscription; the 5-year subs. are a confounding factor and the government is no longer helping fund the annual Baylis Public Lecture. Members were encouraged to pay their subscriptions, to opt for receiving an electronic copy of the newsletter and to buy the next calendar.

The following were elected unopposed (proposer Diana Wilson, Seconder Jean Bretherton):

**Chairman** David Lyttle

**Secretary** Allison Knight

**Treasurer** Mary Anne Miller

**Committee:**

|                         |  |
|-------------------------|--|
| <i>Robyn Bridges</i>    | (Programme manager; communications officer), |
| <i>Bill Wilson</i>      | (Social organizer)                           |
| <i>David Orlovich</i>   | (Web manager)                                |
| <i>John Barkla</i>      | (Calendar)                                   |
| <i>Marcia Dale</i>      | (Newsletter editor)                          |
| <i>Tina Summerfield</i> |  |
| <i>Bastow Wilson</i>    |  |
| <i>Nicola Baines</i>    |  |
| <i>Kelly Frogley</i>    | (Student rep.)                               |
| <i>Amiee Pritchard</i>  | (Student rep.)                               |
| <i>John Steel</i>       | (Newsletter co-editor)                       |

The Chairman thanked the committee, especially newsletter editors, Lorna Little and Marcia Dale, and the retiring treasurer, Jean Bretherton. He welcomed Mary Anne Miller, the new treasurer, and thanked all those who had helped make the past year a success.

Janet Ledingham requested that the Botanical Society endeavour to avoid clashes with the local Forest and Bird group and the Dunedin Field Naturalist Club.

The meeting finished in 11 minutes.

**“We all sit and look at wallpaper”  
A review of the 2013 BSO  
Photographic Competition**

*J. Bastow Wilson*

The Botanical Society is very grateful to the judges, Peter Johnson, Kelvin Lloyd and Rod Morris, for helping us, as they have every year since the Competition started. Peter, presenting for them, started by saying it was fun. Of course, criticising other people is always fun, but it's even better for me 'cos I get to criticise both the photos *and* the judges.

The Plant Portrait section was won by David Lyttle's picture of *Hebejeebie trifida* (a species name published in the BSO Newsletter, which has brought the BSO international recognition). Peter said they'd thought the foliage too dark on the print, but thought it OK on the electronic version. I didn't. He didn't seem to worry about the composition, with the flower to one side and leading the eye towards the edge, but the judges said last year they didn't bother too much about composition and it seems they didn't this year either. Anyway, David's the BSO Chair. There have to be some side benefits.



Plants in the Landscape winner, and the overall winner, was John Barkla's Snow Marguerites: *Dolichoglottis lyallii* (yellow), *D. scorzoneroides* (white) and their hybrid (cream). The rules say John has to win one prize each year, but no one begrudges him because he takes excellent photos. Plus, he's a

nice bloke, though I mentioned this in the meeting, not realising he was present. The shame of being nice to someone to their face! Never mind, the pond sets it off nicely.



Plant Interactions was another David Lyttle win, but a good one. There's a lot going on, with mixed cushion turf, minding its own business, being invaded, trifid-like, by *Dracophyllum prostratum*.



The photomicrography category, notable last year, had only one entry this time, which was good because Peter wasn't sure how to pronounce 'photomicrography'. Lars Ludwig won, deservedly, for a picture of a fungus parasitic on *Campylopus* moss. I didn't know mosses were pestered thus. Some questioned whether it was 'macro' rather than 'photomicrograph' (the definition is 'taken through a microscope').



Your reporter's favourite was Layers – a closeup of bracken frond (*Pteridium esculentum*) – also by Lana Young. As the judges said, it had amazing contrasting colours, with excellent composition done by the fern itself: the red rachis patterns drawing the eye towards the centre. Like three other plant portraits, it was bizarrely in the 'Plants in the Landscape' section, when the only landscape was some unidentifiable brown litter in one corner.

Almost all the members present voted for different photos (as usual), but the Members' Choice was Cushla MacMillan's Out of the Cushion. This Member liked it too: good composition (probably why the judges didn't like it), good range of texture, subtle range of colours.



Almost as notable as the photos submitted was those not submitted: there was no barrage of lichen photos from Allison Knight. The judges did comment on the lichen photo on her T-shirt, but criticised it for insufficient contrast: a yellow lichen on a yellow T-shirt. Unfortunately I can't comment, because I'm married, and it was on the part of Allison's T-shirt where other people's husbands can't look.

The Best Student Photo category was won by Lana Young for her *Blechnum* photo 'Growing Fire'. Well, we thought she must be a student, 'cos no one present knew who she was\*. (Next year I'll enter as Mr Bumpthorne Gravyboat. Then people will assume I'm a student, and I'll win the student prize.)

Peter praised a picture of *Plantago triandra* for having good texture, "like wallpaper". "We all sit and look at wallpaper, don't we?" he said. What a sad life he must lead!



Can't he watch TV like the rest of us, wander round his exquisite garden, read a book, talk to his housemates or talk to the cat? No, he sits there, perhaps for hours, staring at the wallpaper. I feel for him. (It was a good photo, though, by John Barkla of course.)

Congratulations to the winners. Thanks again to all the entrants and to the judges (and best wishes to Peter for a happier life). There were fewer entries this year, so have a go in 2014!

\* It later turned out that she is indeed a student

## Wallpaper: a botanical rejoinder

Peter Johnson

Whereas Bastow Wilson suggests that staring at wallpaper is sad, it can nevertheless be both stimulating and informative, especially for a botanist.

Many wallpapers portray flowers, foliage, and twining stems, the images often being botanically incorrect, with wrong numbers of flower parts, or with the petioles, bracts, and axils relatively misplaced. Perhaps a certain sadness in this, yet it allows the critical eye to assign the wallpaper plants into either plausible or imaginary families. You might further discover that some floral wallpapers (and likewise curtains) have been hung upside-down. The likely place to meet this is in a motel or hotel, and if you know to expect this phenomenon then you won't be shocked into thinking that you've had too many drinks.

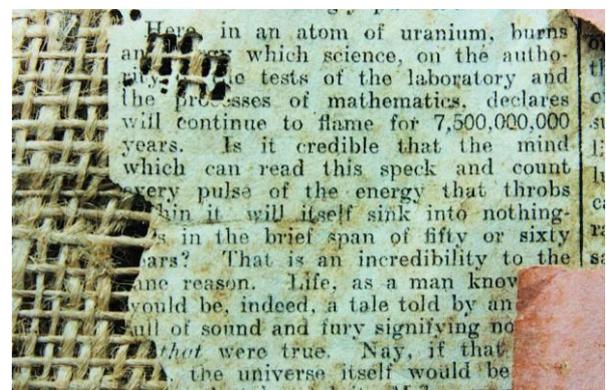
Wallpaper has its ecological aspects too. Should you be renovating an old house, you might discover a great deal of biology just behind the wallpaper. For 100 years or more the standard lining of a New Zealand house started with sarking boards, rough-sawn, 8-10 mm thick, nailed horizontally against the inside face of the studs. The timber was rimu (*Dacrydium cupressinum*, no less). Overlying sheets of scrim were also of plant origin: hessian or hemp in a loose weave of pale brown fibre, held taut by tacked-on, diagonal

ribbons of cotton (*Gossypium* spp). Using a pail of thick paste (starch-based; plant-derived) a first layer of paper was applied, this often being sheets of newspaper, before the rolls of final wallpaper were hung, ever-so-carefully so as to match patterns down the long join, then smoothed out with a wide dry brush having stiffish bristles (maybe sisal - from *Agave sisalana*).

As you strip off layers of wallpaper you might discover signs of those organisms a little way up the food-chain: mildew fungi, borer beetles, cloth moths, or silverfish, variously getting sustenance from the starch, cellulose, and lignin. Furthermore, you might also reveal in the underlying newspaper, unexpected glimpses into the history of science.

A few years ago, on an Ecological Society field trip to Waituna Lagoon, Southland, Geoff Rogers and I wandered off to explore the nearby surrounds, including an abandoned, decaying farmhouse. On one wall, stripped-off wallpaper exposed a 1909 newspaper interview with Leonard Cockayne, who had just returned from botanising the subantarctic islands.

Our house at Broad Bay dates from about 1910, and beneath our kitchen wallpaper I found this newspaper snippet of scientific discovery:



*"Here, in an atom of uranium, burns an energy which science, on the authority of the tests of the laboratory and the processes of mathematics, declares will continue to flame for 7,500,000,000 years."*

Once I had unplanned help for removing the wallpaper in my bedroom at "The Red House", Rangiora, while working for the Forest and Range Experiment Station. (Known in brief as F&RES, it was otherwise titled 'FaiRiES' on mail sent to me by Peter Smith, a comparable humour to Bastow's habit of addressing mail to 'Lawncare', or 'Lambcare' Research.). Anyway, research was being done on possums, and I kept, for a short time, a young possum as a sort-of pet. One night it got out of its box, and evaded me by getting up inside a loose lower layer of wallpaper. As the possum tunnelled up to the ceiling, and down again, progressively more wallpaper came adrift, hanging out as a giant angle from adjoining walls. This was 'fixed' later by shoving a wardrobe into that corner. The possum escaped through a broken window pane. It was a pretty old house!

Wallpaper can also provide optical training relevant to botanists who want to keep their eyesight sharp for work ranging from landscape to microscope scale. The following exercise might seem strange, involving going cross-eyed, yet for a good purpose. You may have discovered, while glancing at wallpaper, a phenomenon whereby your two eyes are not focused onto the same wallpaper flower, but have been fooled into looking, individually, at identical flower images that are repeated to left and right. Your eyes may nevertheless focus on the combined image, which is taken back to the brain with a hint of 3-D shimmer.

What use is this optical exercise? Firstly, it enables you to rapidly solve those paired images on a magazine "children's page" asking, "Spot the Differences". More usefully, this technique can be used to interpret changes between a pair of before-and-after photos taken for comparing vegetation, over time. And thirdly, most valuable, is the ability to view stereo pairs of air photos, in the field, without using a stereoscope.

Nowadays, colour images from plane or satellite purport to show all, yet for the field ecologist, wishing to understand the relationship of landforms, vegetation types, and patterns of disturbance, it is actually the 'old' black-and-white, stereo-paired photos that allow for the most detailed interpretation. 3D is great. Seeing is believing. Staring has its rewards.

I shall not digress far into discussion of the "moving wallpaper" of TV, other than this health warning: quite apart from the mental effects of the TV spin and subliminals, the eye muscles miss out on their normal exercise, by being focused for hours onto the one plane. Likewise with computer screens, hence:

Nomads travel,  
Yesmads sit  
in front of computers.

Back to wallpaper photography. I don't use the term in any derogatory way. After all, some wallpapers are extremely classy, and expensive. You might note the wallpaper photos we used in Webb et al., *Flowering Plants in New Zealand*, in the end papers: peppertree foliage inside the front cover, and *Lemna* at the back. They are photos having texture and pattern, rather than composition, planned as 'fillers', intended to be soothing to the eye. Sad if you wish.





These “wallpaper” images are stereo photos: a challenge to viewers who may wish to see them in 3D. Two options for this: (a) use the ‘parallel eyes’ method with the left and centre images; (b) the ‘cross-eyed’ method for the centre and right images. Good luck!

### The Tenacious Turf at Tunnel Beach, 20<sup>th</sup> April 2013.

*Kelly Frogley*

During the past four years I’ve been lucky enough to visit Tunnel Beach on about five occasions, and each time I have wondered about the little plants that grow and survive there. So, when I heard that the Otago Botanical Society was taking a trip out there, I jumped at the chance to come along. Tunnel Beach is just seven kilometres from central Dunedin, just over the hill behind St Clair. It gets its name from a handmade tunnel, carved in the 1870’s, which runs from the top of a cliff down through sandstone to a secluded beach at the cliff’s base.

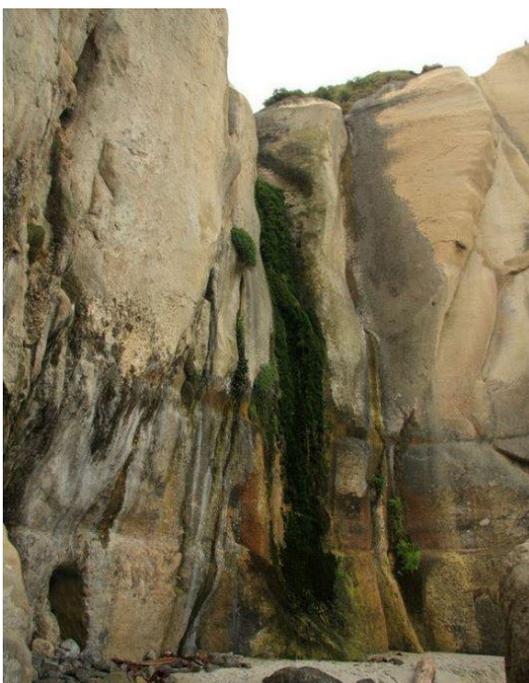
It had rained heavily all through the night before, but thankfully the weather held for us



*Sarcocornia quinqueflora* (glasswort) (Photo: Nicola Baines)

in the morning. We were a small group, yet a great mix of ages and experience. We were even joined by an exchange student from France who was studying landscape architecture at the Dunedin Botanic Garden. John Barkla had prepared a beautiful A4 page guide to the characteristic plants found at Tunnel Beach with photos and names to help us hunt them out. I think everyone managed to find everything on the list, except for starweed (*Plantago triandra*), which was nowhere to be found. We even found a few that weren't on the list and, to my great surprise, many that were edible! With all the native celery (*Apium prostratum*), glasswort (*Sarcocornia quinqueflora*), and puha (*Sonchus oleraceum*) around we could have made a salad for lunch, albeit a very salty one...

After close examination of the small peninsula that juts out towards the ocean, we walked down through the infamous tunnel to the beach below. We were greeted by rather sickly looking NZ fur seal lying on one of the boulders. A second surprise for me occurred when we all set about scouring the cliff faces and rocks for plant life. There was one particularly luscious section of cliff face that was covered in algae and bryophytes, including a very healthy abundance of



Tunnel Beach (Photo: Nicola Baines)

*Achrophyllum quadrifarium*, thanks to a cascade of water falling over the cliff edge. During all the trips I have made to Tunnel Beach I have never noticed this wall before. It just goes to show how taking trips with the Otago Botanical Society can mean that you see familiar places with new eyes and from a new perspective.

### **Above the Treeline and Beyond – Journey through the Landscape and Flora of Southern New Zealand. A talk by David Lyttle 15th May 2013**

*John Barkla*

David began by explaining how, as a photographic contributor to Sir Alan Mark's recent book 'Above the Treeline', he had been reminded of the plants he had yet to photograph. This had obviously become a motivating factor on some recent trips which formed the basis of his presentation. David took us on a journey through southern NZ, visiting places where the occurrence of particular species could, at least in part, be explained by unravelling the landscape history.

But first he discussed the division of alpine plant communities, using the terminology of Alan's book. Examples of the various vegetation types were brought to life with stunning imagery and a few moody cloudscapes. Then we started going places. A beautiful shot of bright red flowering *Peraxilla tetrapetala* from the Lake Ohau area reminded us of just what amazing floral displays our native plants are capable of. A close-up of a tiny *Leptinella* revealed the intricate detail of the divided lamina. Then it was on to the Mount Cook region and a quick lesson in glacial geomorphology. We saw the beautiful moss gardens of recently colonized moraines and later the intriguing red leaves of *Dracophyllum* in an older succession. Matagouri here reach the proportions of small trees and adopt an attractive silvery sheen.

The Castle Hill basin was a complete contrast with its curious limestone formations set in a dryland landscape. The Lance McCaskill Nature Reserve was discussed and we saw magnificent images of some of the characteristic plants – *Ranunculus paucifolius*, *Myosotis colensoi*, *Lepidium solandri*, *Gingidia enysii* var. *enysii*, *Senecio glaucophyllus* and *Plantago spathulata* to name a few. Then on to Gerry McSweeney's property, with its dead-looking but very much alive *Helichrysum depressum*.

Around the Broken River – Torlesse Range area we were introduced to the plants of rocky landscapes. First up were the fellfield plants and the particularly striking vegetable sheep *Raoulia mammilaris* along with *Leonohebe ciliata* and *Hebe macrocalyx*. True scree plants were next and included stunning images of *Stellaria roughii*, *Lignocarpa carnosula*, *Leptinella atrata*, *Myosotis traversii*, *Ranunculus haastii*, penwiper (*Notothlaspi rosulatum*), *Haastia sinclairii* and the tiny *Parahebe cheesemanii* subsp. *flabellata*.

In the wetter environment of Temple Basin David showed a number of *Celmisia* species, a yellow flowering *Euphrasia cockayneana* and the handsome *Anisotome pilifera*. On through the Otira Valley we saw dense subalpine scrub dominated by *Dracophyllum traversii* and mountain ribbonwood before dropping back to sea level at Bruce Bay on the West Coast. Here we were treated to dramatic scenes of tall kahikatea forest being eroded by the sea and later more tranquil scenes of kahikatea swamp forest.

Down the coast at Jackson Bay were abundant tree ferns, mosses and lichens and tall flowering northern rata and the dainty white-flowering *Metrosideros diffusa* rata vine. We saw a distant Okarito Lagoon and plenty of pakihi. At Lake Matheson David told us of his surprise at finding *Meliccytus flexuosus*, a rare leafless relative of mahoe. And finally the Cascade River – the end of the road and the end of the story.

Thank you David for a stimulating and thoughtful narrative illustrated with exceptional images.

## New Zealand Fungal Foray – Matawai 12th-18th May.

John Steel

Four hardy souls from Dunedin made the long trip to Matawai (midway between Opotoki and Gisborne) for the 27<sup>th</sup> annual fungal foray to join another 30+ participants attending from the rest of New Zealand and from Japan, Switzerland, Australia and the U.S. These forays alternate between the North and South Islands. Next year's foray will probably be held on Stewart Island, for the first time, in May so keep your eyes open for any upcoming notice. Roughly 30,000 species are known and it is estimated that there are probably twice as many waiting to be discovered and named – and that's just for New Zealand.

Within an hour on the first day in the field I was introduced to a bewildering array of specimens of *Cortinarius*, the genus which David Orlovich specialises in, including *Cortinarius porphyroideus* in all its purple glory, and lunch was barely finished when everyone was back at the hall identifying and cataloguing their finds. Once identified (or not) the specimens were placed on a table to be catalogued, a great way to allow beginners like me to appreciate the differences close up – from the huge puffball, *Calvatia gigantea*, the bolete, *Austroboletus lacunosa*, to minute dots on leaves; several new species are now waiting to be named.

Wednesday was taken up with a colloquium and the variety of talks gave a great insight into the many branches of fungal ecology and identification currently being explored. First up to the set the pace, for me at least, Sapphire McMullan-Fisher from Australia discussed the effects of fire on fungi and the potential repercussions of current and future human activity if it continues. Similar



*Austroboletus lacunosa* (Photo: David Orlovich)

concerns for New Zealand bear thinking about. Vincent Hustad from the United States apprised me of the varieties of earth tongues currently known from New Zealand and the possible new species he may have found here.

The only earth tongue I thought I knew, a species of *Xylaria*, it turns out is not an earth tongue at all, but at least I now know how to tell the difference! Naturewatch New Zealand

has been about for some time now and I confess to not following it up. Jerry Cooper explained how it works and it certainly sounds exciting. Anyone can join (no charge) and log the sighting of any species found so contributing to a nationwide database of species distribution. Check it out.

The foray members paid a trip to the arboretum at Eastwoodhill and my first opportunity to visit this wonderful national treasure at the end of Autumn was spectacular. One ominous portent was the discovery of the introduced mushroom, *Amanita phalloides*, deadly poisonous with no known antidote and previously found only in Hamilton and Auckland. Bevan Weir explained the progress being made on kauri dieback disease threatening the northern kauri forests and they have now at least identified the culprit. However, what to do about it still has to be solved.

Children from the two local schools were allowed to visit and David led them through the intricacies of what was happening. Their enthusiasm was palpable so much so that one class was brought back for a second visit and one young lad even returned on his own after dinner! I might even have to come back myself – next year.



*Cortinarius porphyroideus* (Photo: David Orlovich)

## Species List, Tunnel Beach, 20<sup>th</sup> April 2013

John Steel

### CYANOBACTERIA

*Nostoc commune*

*Tortula atrovirens*  
*Triquetrella papillata*

*Weissia controversa*

### ALGAE

*Vaucheria* sp.

### FERNS

*Asplenium obtusatum*  
*Azolla rubra*

*Blechnum minus*

*Hypolepis ambigua*

*Polystichum vestitum*

### FUNGI

*Bovista* sp.

*Coprinus* sp.

### LICHENS

*Buellia* sp. (Doesn't key out nor  
match anything in  
OTA)

### ANGIOSPERMS

#### DICOTYLEDONS

*Achillea millefolium*\*  
*Apium prostratum*  
*Atriplex buchananii*

*Bellis perennis*\*  
*Brassica rapa*\*

*Callitriche stagnalis*\*  
*Capsella bursa-pastoris*\*  
*Centaureum erythraea*\*  
*Cerastium fontanum*\*  
*Cirsium arvensis*\*  
*Cirsium vulgare*\*  
*Coprosma repens*  
*Crassula moschata*

*Disphyma australe*

*Epilobium komarovianum*

*Hydrocotyle heteromeria*  
*Hypochaeris radicata*\*

*Jacobaea vulgaris*\*

*Lepidium didymum*\*

*Caloplaca vitellinula*  
*Cladonia* sp. squamules

*Flavoparmelia haysomii*

*Lecanora semipallida*

*Parmotrema* sp. immature  
*Pertusaria graphica*

*Xanthoparmelia scabrosa*  
*Xanthoria ligulata*

### LIVERWORTS

*Chiloscyphus lentus*

*Riccardia* sp.

### MOSSES

*Achrophyllum quadrifarium*

*Didymodon australasiae*

*Fissidens rigidulus*

*Leptinella dioica*  
*Linum catharticum*\*  
*Lupinus arboreus*\*

*Myoporum laetum*

*Plantago lanceolatum*\*  
*Polygonum aviculare*\*

*Ranunculus repens*\*  
*Rumex obtusifolius*\*

*Samolus repens*  
*Sarcocornia quinqueflora*  
*Selliera radicans*  
*Senecio carnosulus*  
*Senecio minimus*  
*Senecio vulgaris*\*  
*Solanum dulcamara*\*  
*Sonchus asper*\*  
*Sonchus oleraceus*\*  
*Spergularia marina*\*  
*Stellaria media*\*  
*Suaeda novae-zelandiae*

*Taraxacum officinale*\*  
*Trifolium pratense*\*  
*Trifolium repens*\*

*Ulex europaeus*\*

*Veronica elliptica*  
*Viola tricolor*\*

### MONOCOTYLEDONS

*Agrostis capillaris*\*  
*Aira caryophyllea*\*  
*Anthoxanthum odoratum*\*

*Carex appressa*  
*Critesion murinum*\*

*Dactylis glomerata*\*

*Glyceria* sp.

*Holcus lanatus*\*

*Juncus articulatus*\*  
*Juncus tenuis*\*

*Isolepis cernua*

*Lolium perenne*\*

*Phormium tenax*

*Poa astonii*

*Poa cita*

*Poa pratensis*\*

*Puccinellia walkeri*

\* denotes introduced species

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