Field Nats News No.219

Newsletter of the Field Naturalists Club of Victoria Inc.
1 Gardenia Street, Blackburn Vic 3130
Telephone/Fax 9877 9860
www.fncv.org.au
email: fnnews@fncv.org.au

Reg. No. A0033611X

Editors: Joan Broadberry 9846 1218
Dr Noel Schleiger 9435 8408

Understanding Our Natural World
Est. 1880

Patron: Governor of Victoria

Office Hours: Monday and Tuesday 9 am-4 pm.

May 2012

From the President

Hi members, Easter is now over and I hope that the Easter Bilby paid you a visit rather than its European counterpart, the Rabbit. Well, April shaped up to be everything they say about the weather in Melbourne, '.. if you don't like it, wait 5 minutes', with days in the high 20's and others in the low teens. Surely it is a sign of things to come with winter on the way. The Fungi Group forays are kicking off again and may it be a great season for all you mycophiles (not sure if that is the term, but if it makes it into the Oxford Dictionary, just remember where you first read it. **:)**

FNCV Environment Fund
This year's grants from the FNCV Environment Fund have been finalised and will be announced at the Annual General Meeting. The money has been distributed to a number of groups and individuals to promote research, community education and the wellbeing of our biodiversity. If you would like to donate to the Environment Fund, please contact Hali.

FNCV Annual General Meeting
Invitation **see p6**
Just a reminder that our next Annual General Meeting is on Sunday 6th May at 2 pm. Some of the agenda items are: the announcement of 2012 recipients from the Environment Fund, short presentations from last year's recipients, the FNCV Future Directions plan and the election of the new Council. The highlight of the afternoon will be an illustrated presentation by the self-appointed FNCV historian, Dr. Gary Presland. His topic, **"Aspects of the History of the FNCV".**

This newsletter is printed on recycled paper.

A reminder: all nominations for Council need to be received by 2 pm on Friday 4th May, in accordance with our Constitution. Nomination form p14.

Finally, can someone shed some light on what these caterpillars are? They have been denuding the Callistemon in my garden for the past two years but I have not been able to identify them.

John Harris
President

Many thanks to those who helped collate and label FNN 218

Bob Rowlands
Bill Fenner
Cecily Falkingham
Margaret Corrick
Pieter Boschma
Hazel & Edward Brentnall
Andy Brentnall
Keith Marshall
Ray Power
Margaret Brewster
Mary Symons

Deadline for the June issue of FNN, 220, will be ***Tuesday 1st May at 10 am.*** *FNN will go to the printers on 8th May and Collation will be on 15th starting 10—10.30 am.*

The capture and handling of all animals on FNCV field trips is done strictly in accordance with the club's research permits.

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CALENDAR OF EVENTS

All meetings are held at the FNCV Hall, 1 Gardenia St. Blackburn at 8 pm., unless otherwise indicated. On days of extreme weather conditions, excursions may be cancelled. Please check with leader.

May 2012

Tuesday 1st - Fauna Survey Group. Meeting - ***'Predicting the responses of arboreal folivores to a changing climate'.*** Speaker: Natalie Briscoe. Contact: Sally Bewsher 9752 1418 AH

Wednesday 2nd – Bat Group. ***Grey-headed Flying Fox count.*** Meet at Yarra Bend Golf Course carpark Mel 2D G7 at 5.30 pm. RSVP as a courtesy by email or phone Megan Davidson 9380 5062; m.davidson@latrobe.edu.au

Sunday 6th – Fungi Group. ***Fungi foray*** **–** 10.30 am Upper Yarra Reservoir, Reefton (MEL X912 U2, VIC ROADS 80 G4). Contact: Ed Grey 94359019.

Sunday 6th - FNCV AGM. 2 pm ***Speaker: Dr. Gary Presland, 'Aspects of the History of the FNCV'.*** *See* p6 for invitation. All welcome. If you can bring a plate of afternoon tea and/or help with setting up, please contact Hali 9877 9860 or admin@fncv.org.au

Monday 7th – Fungi Group. Meeting - ***Members' night***. Bring photographs to share. Contact: Ed Grey 9435 9019.

Saturday 12th – Sunday 13th - Fauna Survey Group. Excursion - ***Rushworth camp.*** Help check nestboxes for Phascogales, Sugar Gliders & other surprises. Contact: Ray Gibson 0417 861 65. *Prior Registration of at Least One week Essential.*

Saturday 12th - Botany Group Excursion. (NOT IN COE.) ***Algae (seaweeds) of the intertidal zone).*** Meet at Mushroom Reef Marine Sanctuary, Flinders 10 am. (MEL 261 K10). Carpark off Golf links Rd. (which is one-way). Come and join Mary Gibson and the Botany Group and experience a whole new world of plants. Contact : Sue Bendel 0427 055 071

Sunday 13th – Fungi & Junior Groups. ***Fungi Foray*** - 10.30am Bunyip State Park (Gembrook), Mortimer Reserve Picnic Ground, off the Gembrook-Tonimbuk Road (MEL key map 14 R12).The Juniors' Group will join us – Contact: Claire Ferguson or Ed Grey 9435 9019

Monday 14th – Marine Research Group. Meeting – ***Field Trip Round-up.*** Contact: Leon Altoff 9530 4180: 0428 669 773

Tuesday 15th - Collate FNN 220. Starting about 10.30 am. Some folk come a little earlier. Contact: Joan Broadberry 9846 1218

Wednesday 16th - Microscopy Group. Meeting – Please contact Phillipa Sterpin for details 9598 3231

Thursday 17th – Botany Group. Meeting—Speaker Bruce Fuhrer. ***Fabulous photos of flora.*** Learn from the best. Bruce is author/ photographer of many botany books and winner of the 2010 Andrew Gibson Medallion, Australian Photographic Society. Contact Sue Bendel 0427 055 071

Sunday 20th – Fungi Group. ***Fungi Foray*** – 10.30am Mt Worth State Park (MEL X912 U8, VIC ROADS 97 B6), meet at Moonlight Creek Picnic Area. Contact: Virgil Hubregtse 9560 7775

Tuesday 22nd – Day Group. Meeting – ***'Birdwatching and Nature on Christmas Island'.*** Speaker: Joan Broadberry 10.30 am for coffee and a chat. Speaker 11.00 am. Contact: Gary Presland 9890 9288

Wednesday 23rd – Geology Group. Meeting – ***'Groundwater-Surface Water Interactions'***. Speaker: Dr. Peter Dahlhaus, Senior Lecturer, Geology, University of Ballarat. Contact: Ruth Hoskin 9878 5911: rrajh@optusnet.com.au

Friday 25th – Juniors' Group. Meeting - 7.30 pm. ***'Fungi'.*** See Junior Nat for details. Contact: Claire Ferguson 8060 2474: toclairef@gmail.com

Sunday 27th – Fungi Group. ***Fungi Foray*** – 10.30am Cathedral Range State Park (MEL X910 T9). Meet at Ned's Gully car park. Contact: Virgil Hubregtse 9560 7775

Monday 28th- FNCV Council Meeting - 7.30 pm sharp. Agenda items and apologies to Hali, 9877 9860 or admin@fncv.org.au

The policy of the FNCV is that non-members pay $5 per excursion and $2 per meeting, to cover insurance costs. Junior non-member families, $2 per excursion only.

Members' news, photos & observations

We always have space for member photos and natural history observations. Please share with us what you have noted in your daily life, travels or garden. Email: fnnews@fncv.org.au by the first Monday in the month.

Welcome

Warmest greetings to these new members who were welcomed into our club at the last Council meeting: **Alex Maisey, Sarah Caulton, Ian Schofield, Brian Taylor, Joy Hick, Lin Huang, Chong Ting Xu, Emma Birnbaum, Samantha Lucas, Noel Billing, Brenna Billing, Asha Billing, Lynne Billing, Jessica Frahn, Peter Alexander, Phoebe Lewis.**

Lizards In My Garden

Over a decade ago we had two Eastern Blue –tongue lizards (*Tiliqua scincoides)* living in the indigenous section of our garden. Unfortunately they ventured into next door and were both killed by the dogs that lived there at that time.

To our joy we now have another fully grown Blue-tongue lizard living in the rockery in the back garden. Where it came from and when it arrived we do not know, as we live in a very urban setting.

Two other lizard species also share our garden, the Common Garden Skink (*Lampropholis delicata)* and the Weasel Skink *(Saproscincus mustelinus).* The Weasel Skink has a tiny pale mark behind its eye and is more brown in colour, with a copper-coloured tail. It is harder to observe, but I suspect almost as common as the Garden Skink in our Melbourne gardens.

As the Blue-tongue Lizard's rockery home is beside a large vegetable garden, I think I know why snails are not eating my lettuces.

Cecily Falkingham

VALE GREG BINNS, OAM

The FNCV notes with regret the death of Greg Binns on 13th March 2012. Greg was a member of the General Committee of the Australian Natural History Medallion from 1988 until his death. In that capacity he represented the Ballarat Field Naturalists Club.

A beautiful Tawny Frogmouth perched on a clothes line in a Nunawading backyard. It stayed for three days.

Photo: P. McGoldrick

LEGLESS LIZARD RECORD

In 1971, I carried out a 12 month unpaid biological survey of the PENOLA 1:250000 sheet, looking at the occurrence and distribution of snails, frogs and lizards. This survey area covers the Lower South East of S.A. and eastwards to 141º East, some 2.5km into Victoria.

At that time the legless lizard *Aprasia striolata* had not been recorded in literature as occurring in Victoria. I note in Field Nats News 217, p9 that this specie was recorded in the Dergholm State Park survey

My 1971 work found *Aprasia striolata* widespread, but sparse across the PENOLA sheet – but not in the Victorian portion. Subsequently it has been recorded in Victoria in several places in the general Nelson area and as far east as 16 miles southeast of Nelson on the road to Portland.

Fred W. Aslin, Mt Gambier

Thanks to the editorial and layout team who put together FNN 219

Joan Broadberry
Noel Schleiger
Platon Vafiadis
Hali Ferguson
Sally Bewsher

Fauna Survey Group

Field Trip to Mt Samaria – March 9 - 12.

Mount Samaria State Park is situated in north-eastern Victoria, approximately 200 km northeast of Melbourne. It lies half-way between Mansfield and Benalla between the Strathbogie Ranges and the Toombullups.

Briefing notes provided to attendees before the camp, written by your correspondent, suggested two routes to the Park. The first was Williams Road from Lima East and the second Swanpool Road from Swanpool. Taking my own advice with trailer in tow, I took the Lima East exit. It soon became clear that during my one previous visit as a passenger, I paid far too little attention to the intricacies of the Williams Road route. Nevertheless a couple of U turns later I made it to the Samaria Well camp site, a pretty spot on the banks of a creek. A route-march to the toilets notwithstanding, it provided an excellent base camp.

One of the exciting things about the Park is the reported presence of the Spot-tailed Quoll (*Dasyurus maculates*). We had hopes, and still do, of seeing this animal.

From the base camp it is a steep and bumpy ride to the plateau. On arriving, however, one is rewarded with a diversity of vegetation types, including "Narrow-leaf Peppermint and Blue Gum forests (which occur over most of the plateau), drier low open forests with a grassy understorey, closed heath and mossland-herbfield" (Mt Samaria Management Plan)

Cage and Elliott traps were set at four sites, spotlight surveys were carried out at three sites and 13 infrared cameras were set up at six sites. The cameras are to be retrieved after three weeks. General observations were made at all sites.

The cage and Elliott traps yielded the usual suspects, the Bush Rat (*Rattus fuscipes*) and Agile Antechinus (*Antechinus agilis*).

General observations and spotlighting found two species of amphibian, six reptiles, 12 mammals and 38 species of bird.

Even though the Park had been selectively logged during its history, old growth trees were prevalent and so were the hollows they contain. Twenty-two Greater Gliders were seen in relatively short periods of spotlighting, including one looking down at our campfire.

The catch of the weekend goes to Ray White, who hand-caught an Agile Antechinus. It escaped before most of us saw it and if the catch had not been witnessed by Carl Hansen, Ray would not have been believed.

Our hopes of seeing a quoll or other less abundant species lie with our remote cameras and more specifically our ability to use a GPS to locate them.

Watch this space!

Mt Samaria is a place we will visit again.

Robin Drury

Photos (from top): Mountain Grasshopper, *Acripeza reticulata (J. Broadberry);* Mt Samaria crew *(S. Bewsher):* Sorting Elliot traps *(J. Broadberry)*

KING ISLAND FIELD NATURALISTS INC.

would like to invite members of the FNCV to join them in celebrating the 50th birthday of their fabulous Club.

They offer a weekend of field trips, dinner, history, photos. Participants will be responsible for their own travel and accommodation arrangements. Please visit www.kingisland.org.au or ph 1800 645014 Toll Free. Early bookings recommended to ensure flights.

RSVP October 1st to Carmen Holloway, ph 6461 1248
carmen_james@bigpond.com or
Graeme & Margaret Batey, ph 6462 1698
margiebatey@gmail.com

Geology Group

"An Insight into How Minerals Form"

Talk by Dr. Stuart Mills, Museum Victoria
22 February, 2012

Dr. Stuart Mills gained his PhD at the University of Melbourne after researching the uranium geochemistry of the Lake Boga granite in Victoria, then the secondary mineralogy at Broken Hill, NSW. He then travelled to Canada where he lectured in Geology at the University of British Columbia for five years. Dr. Mills is now Senior Curator of Geosciences at Museum Victoria.

Dr. Mills commenced his talk with the statement: "How, when and why do crystals form?" describing that this is a very active area of study and of uncertainty. He proceeded to elaborate on these points.

The formation of any crystal is controlled by two factors: nucleation and growth. Nucleation is the formation of a 'seed crystal' and growth is the addition of new atoms onto the seed. Nucleation can be the most difficult step. It requires the right conditions, consisting of the right elements, in the right proportions and the right conditions of temperature and pressure to form a tiny 'baby' or seed crystal of maybe 500-1000 atoms (nanoparticle size). Generally, the higher the temperature, the greater the amount of dissolution occurs and this allows for a concentration of elements to develop in the fluid. As the solution then cools, crystallisation occurs.

There is also a situation in crystal formation called 'undercooling' whereby nucleation and crystallisation are not initiated until the actual temperature has dropped below the theoretical or 'normal' crystallisation temperature. Pegmatites are igneous rocks found in nature that contain well-formed, often perfect or gemmy crystals which have possibly developed following a high degree of undercooling.

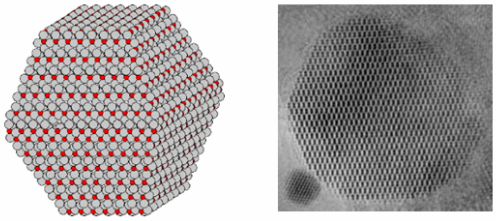
Formation of crystals in nature can follow a different course to that in the laboratory – hence a degree of uncertainty in understanding the processes. From nature, Dr. Mills cited the rapid cooling, nucleation and crystallisation associated with black smokers, which occur on the sea floor near spreading or subducting zones. In black smokers, hydrothermal solutions rising through the inner core at a temperature of 350ºC suddenly come into contact with the cold sea water at 2ºC. In an illustrative photograph, a man-sized black smoker held in the Museum's collection contained crystalline copper sulphide. Some of the world's ore deposits derive from the crystallisation processes associated with black smokers and ocean floors around spreading or subduction zones are active sites for a great deal of mineral exploration – an example being Papua New Guinea.

Crystal growth takes place once nucleation has occurred and consists of the addition of new material, again in the right conditions of fluid composition and temperature. As a generalisation, the slower a crystal grows, the more perfect in form and more transparent; faster growth yields more opaque and imperfect crystals. In the laboratory, synthetic crystals can be produced in large autoclaves by subjecting raw ingredients to hydrothermal conditions of high temperature (500-600ºC) and pressure (500-1000 atms). Synthetic crystals are grown on seed plates composed of thin slices of single crystals and eliminate the nucleation step seen in nature.

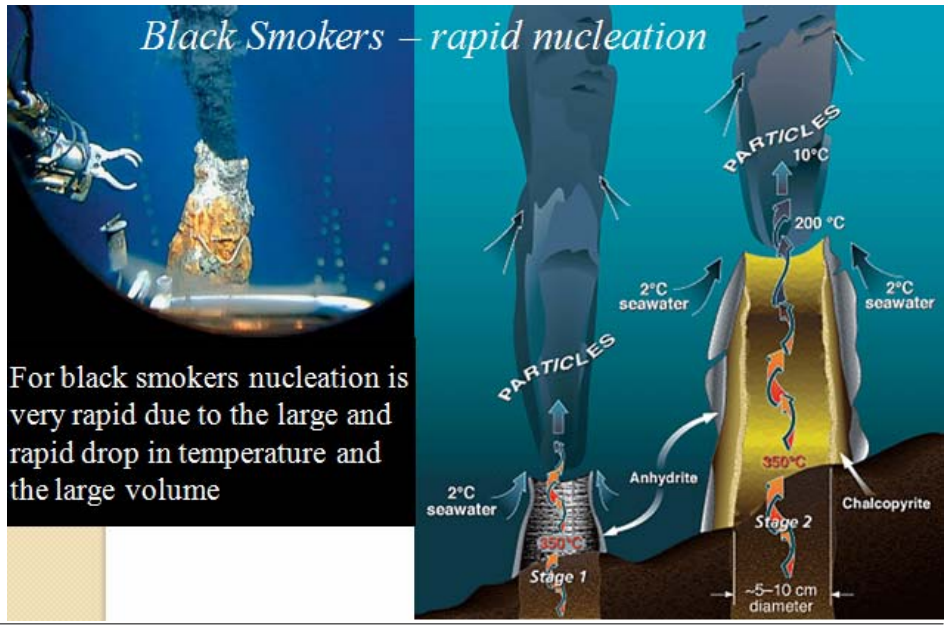
Dr. Mills talked in more detail about pegmatites and the gem tourmaline and beryl pegmatites from San Diego County, California, particularly the famous watermelon 'candelabra' pegmatite held in the Smithsonian Institution in Washington D.C. This large crystal came from the Tourmaline Queen Mine and measures over 30cm in height. As expected from its name, it is pink coloured and has a blue capping; its composition is tourmaline, feldspar and mica. The Melbourne Museum also has a nice, although smaller, sample of a watermelon tourmaline crystal with pink and green colourings.

(Continued on page 6)

A nanoparticle – a 'baby crystal'



The famous candelabra



(Continued from page 5)
Taking the Californian pegmatites as an example, Dr. Mills then talked about 'when' crystals form in rock and their time frames. Pegmatites are emplaced along fracture sets in spaces called miarolitic cavities (gas pockets) in host rock (hornblende norite). The chronology of the emplacement has been determined using various geochronological methods and shows:

- Host rock at 650ºC 120 Ma
- Cooling to 300ºC 107 Ma
- Cooling to 150ºC 104 Ma
- Pegmatite emplacement
- & crystallisation 100 Ma

Rate of cooling, however, can be rapid. Modelling of the cooling rate for the Himalaya Mine dyke shows the 0.5-1m thick dyke cooled rapidly – from 650ºC to 550ºC in only five days!

Dr. Mills then moved on in his presentation to talk about uranium and other crystals in Australia, particularly those at Lake Boga in Victoria, which he researched during his Honours.

Uranium mineralogy in Australia is better known for its association with commercial mining – at Jabiluka and Ranger in the Northern Territory and Olympic Dam in South Australia. Radioactive uraninite (UO_2) is the main mineral of interest in these mines. However, Dr. Mills and colleagues have a greater interest in the secondary uranium minerals. These are often brightly coloured – orange, yellow, green and fluoresce – as shown in a number of accompanying photos. Formation of most secondary uranium minerals is governed by ground water chemistry, the relative solubilities of minerals and the stabilities of the solution complexes. Lake Boga, a small granite quarry near Swan Hill, provided a productive collecting and research area. The Lake Boga granite is Late Devonian (365±3 Ma). Quarrying has taken place since the 1940s for crushed aggregate for road building; however, the uranium mineralisation was only discovered in 1958.

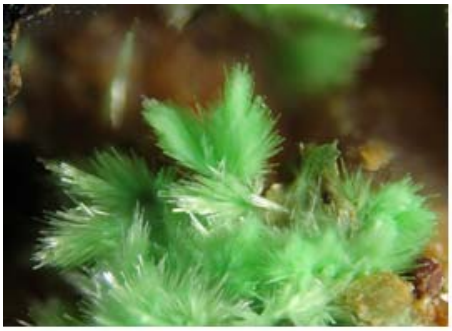
The Lake Boga secondary minerals were formed 125,000 to ~500,000 years ago during weathering of the granite. They are noteworthy because they comprise a natural system for storing uranium for hundreds of thousands of years. Research is continuing into when the U-bearing minerals formed and the potential for them to be used as environment/climatic change time markers.

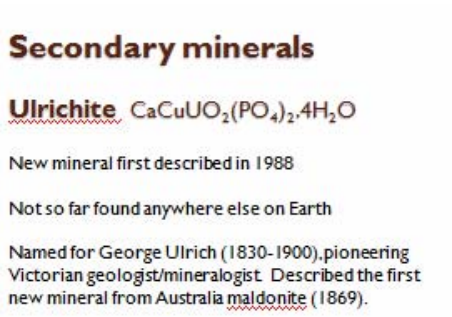
Many uranyl minerals and other minerals of note were discovered by Dr. Mills and his colleagues and include: ulrichite (type locality), kunatite (type locality), torbernite, saléeite, metanatroautunite, bleasdaleite (type locality), lakebogite (type locality) and the attractive fluroapatite.

As Dr. Mills rightly concluded about Lake Boga's minerals: "We have a really cool thing in our backyard".

We thank Dr. Mills very much for his most informative and interesting presentation, which was very well-received by the many present.

Kaye Oddie





If you can bring a plate of afternoon tea and/or arrive a little early and help with the setting up, please let Hali know.

FNCV AGM Sunday 6th May, 2 pm

F.N.C.V.

You are invited to attend the FNCV AGM, FNCV Hall, 1 Gardenia St. Blackburn.

Agenda: Annual Report, Election of Council*, Honorary & Long Term memberships,, Environment Fund, Future Directions of the FNCV etc.

Guest speaker: **Dr. Gary Presland.** ***'Aspects of the History of the FNCV'***

Afternoon tea served. A great speaker and the future of your club, ***also we must have a quorum***. All welcome.

*Nominations for the committee due in the office 48 hours before the meeting. **See p14** for Council nomination form.

Day Group

Silviculture in Victoria's State Forests: A brief overview- 27/3/12

Speaker: *Peter Fagg*

Silviculture is the science and practice of managing forest harvesting and regeneration (from Latin *silv*(*a*) - forest). FNCV member, Peter Fagg, recently retired, has spent his life in forestry, most recently with DSE as Senior Project Officer specialising in Native Forests. He has authored or co-authored over 50 scientific publications. Each section of his presentation was illustrated with photos and charts.

Peter began his talk with an overview of 6 broad forest types (of forestry importance) found in Victoria.

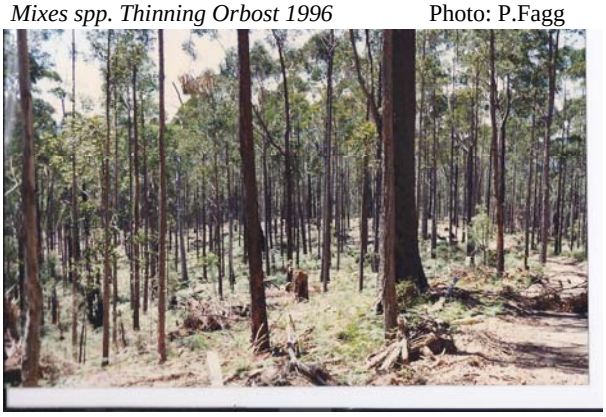
Mixed species forest found at low elevations—less than 700 metres: the main eucalypt species include White Stringybark, Messmate, Yellow Stringybark, Brown Stringybark, Silvertop, Yertchuk, Manna Gum, Blue Gum and Peppermint, with approximately 1,730,000 ha in State forests.

Mixed species forest found at high elevations—more than 700 metres: includes Messmate, Cut-tail, Shining Gum, Mountain Grey Gum and Manna Gum, with approximately 383,000 ha in State forests.

Alpine Ash forest with approximately 190,000 ha in State forests.

Mountain Ash forest (the tallest hardwood species in the world), with approximately 137,000 ha in State forests.

Mixes spp. Thinning Orbost 1996 Photo: P.Fagg



Box-Ironbark forest: includes Red Ironbark, Yellow Gum (White Ironbark), Grey Box and Red Box, with approximately 80,000 ha in State forests.

River Red Gum Forest: includes River Red Gum and Black Box, with approximately 15,000 ha in State forests. Most of this forest type along the Murray River has recently been made into national parks.

FOREST TYPE	SILVICULTURAL SYSTEM	MAIN REGENERATION METHOD AFTER HARVESTING.
Mixed species - low	Seed Tree	Burn + Induced Seedfall
Mixed species - high	Seed Tree	Burn + Induced Seedfall
Alpine Ash	Clear-felling	Burn + Aerial Sowing
Mountain Ash	Clear-felling	Burn + Aerial Sowing
Box-Ironbark	Selection - single tree	Natural Seedfall +/-Burn
River Red Gum	Selection - group	Natural Seedfall (+ Flood)
ALL TYPES	Thinning	Regeneration not required

Peter then went on to detail the various **silvicultural systems** by which coupes are regenerated. A coupe is an area of forest designated for harvesting and/or regeneration activities, usually 15-20 ha. In Victoria the maximum size for a coupe destined for clear felling is 40 ha. See summary table above

Seed Tree System
Trees with seed capsules are marked before the area is harvested. Seed trees must represent the species mix present. Usually about 10 trees per ha are retained for seed. Additional trees may be kept for habitat. The logging slash is burnt in autumn to create a seedbed. The seedfall is monitored by traps. If insufficient seed is present then the area is sown or planted.

Clear-felling System
Seed capsules (mature gumnuts) are collected from felled trees, or standing trees are climbed to collect the capsules. The seed is extracted by heating in kilns, then tested for viability and stored, prior to aerial sowing. Depending on climatic conditions, mainly rainfall, the amount of seed produced in a forest varies greatly, with Mountain Ash having about one really good seed year in four. Different eucalypt species have different cycles of flowering and seed production.

Selection System
Single trees or small groups of trees are marked for felling. For some species, like Red Ironbark, the stump re-sprouts (coppices). Regeneration of other species, such as Red Gum, rely more on natural seed fall. A seedbed is created through disturbance by machinery or patch burning. The forest remains, or becomes, uneven-aged.

Thinning Systems (*commercial)*
Thinning is used in dense regrowth to allow the better trees to grow larger. The small timber is usually used for paper manufacture or firewood. Approximately 50% of the basal area of a stand is harvested .

Climbing to collect seed Photo: P.Fagg

Thinning Systems (*pre-commercial)*
Dense young regrowth may be manually thinned to encourage the growth of the retained trees. Tools used include axes, brush-cutters or herbicide injection. The treated trees are not harvested. As this system is labour-intensive system, it is not widely used but pays dividends in terms of future tree growth.

Some Problems Foresters Encounter
a. Browsing Animals

(Continued on page 8)

(Continued from page 7)

Browsing animals, mainly the Black or Swamp Wallaby eat very young tree seedlings. Fencing is sometimes needed to exclude them. Rabbits, kangaroos, deer, cattle and wombats cause localised damage.

b. Fungi and Insect Damage

Examples include the Honey Fungus, *Armillaria luteobubalina* or the Gumleaf Skeletoniser Caterpillar, *Uraba lugens.* Eucalypts have an amazing ability to recover from most attacks by insects and fungi.

c. Bushfires

This is THE major problem.

Regeneration after Bushfires

Stands of timber often self regenerate via fire-induced seedfall IF the seed crops are sufficient and viable. A million seedlings per ha may emerge, but competition will reduce these to 1000-2000 after about 25 years. It takes 15-20 years for a seed crop to be produced, therefore when forests are burnt twice, as in the bushfires of 2003 and 2006, there is no seed source to regenerate the forest naturally. This is a big issue and DSE has projects in place to build up a large seed stock for future rehabilitation after extensive forest fires.

To measure seedfall after a fire, seed traps or soil sampling are used. Time is critical if seedfall is not adequate, as sowing in the forests should be by winter to allow for spring germination. Helicopters are a versatile and effective means for sowing eucalypt seed, usually at about 150,000 seeds per hectare.

Sustainable Forest Management

For environmental sustainability, native forestry in Victoria must conform to, among others, the following Act, codes, guidelines and standards:

- Sustainable Forests (Timber) Act 2004
- Code of Practice for Timber Production
- Code of Practice for Fire Management
- Flora & Fauna Guarantee Action Statements
- Management Procedures for timber harvesting, roading and regeneration
- Forest Management Plans for each of the 14 FM Areas
- Silvicultural Guidelines for forestry operations
- Silviculture Reference Manuals
- Australian Forestry Standard (2007)

Peter concluded with the words: *"From little seedlings, easily crushed underfoot, forest giants grow, dwarfing people within a lifetime. Let us value and look after our forests for everything they provide."*

This was a very interesting talk, taking most of us into an area we had previously not had the opportunity to explore in depth. Having spent his career in forestry, Peter has a wonderful knowledge of his subject and answered many questions from the audience. He also brought along some eucalypt seedlings which he had raised from local seed – to give away. Once again I would like to thank him for a great presentation.

NB. *Personally I would like to thank Peter for offering me a copy of his overheads. This made the write-up of the March Day Group meeting very easy.*

Joan Broadberry

Library News

Recently catalogued additions to the Library include the following:
The state of Australian birds 2010, by Julie Kirkwood and James O'Connor;
Going bush with Chinchilla Nats;
Burke & Wills: the scientific legacy of the Victoria Exploring Expedition.
This last volume, edited by EB Joyce and DA McCann, includes a collection of very interesting chapters detailing the natural history of the areas traversed by the 1860 expedition.

Recent periodicals:

Wildlife Research 39(1) investigates the implications for native wildlife of the suggested reintroduction of the dingo in western NSW.

Muelleria 30(1) has articles about new species of sun-orchid (*Thelymitra*); also about *Callistemon*, *Spyridium* and *Lachnagrostis*.

An article in the *Australian Journal of Botany* 60(1) reports studies of population structure in *Melaleuca ericifolia.*

The latest periodicals are displayed in a rack in the library. You can borrow periodicals in the rack, as well as previous issues. Don't forget to fill in the 'Periodicals' borrowing book.

Gary Presland
Honorary Librarian

FNCV 2011 BIODIVERSITY SYMPOSIUM 'FORESTS'

Excursion to Wirrawilla Rainforest Walk, with Pomaderris hunting diversions on the way

20 November 2011

We first travelled on the Melba Highway, where, just into the Kinglake National Park, the slope rises fairly quickly onto the ridge where Peppermint is the dominant eucalypt and then onto the saddle where Mountain Ash dominates. On the way varying densities of juvenile regrowth could be seen after the burning in 2009. *Goodenia ovata* (Hop Goodenia) is one of the early pioneering plants after disturbance and here it was growing profusely and flowering in many of the gaps where the light was good.

The first stop was at the junction of the Healesville-Kinglake Road and the Melba Highway near Mt Slide. This is on the lower part of the Great Dividing Range at an altitude of 370 m. Here, in the wet areas, David Cameron was hoping to find a small population of the Flora and Fauna Guaranteed listed rare and threatened *Pomaderris vacciniifolia* (Round-leaf Pomaderris). This was the site at which the oldest known individual of the species had been recorded. In his presentation on Saturday, he showed an image of himself measuring the long trunk of a dead, recently fallen mature specimen. It was the largest seen in recent times, but now the area was so grown over and changed after the 2009 fires that it was not possible to relocate this plant.

We walked some way up a horse trail to the drier *Eucalyptus obliqua* and *Eucalyptus radiata* dominated area. Both species were of a fairly uniform size (indicating an earlier mass disturbance). They were the only eucalypts and their fire-blackened trunks stood out. The vegetation at this site represents the Ecological Vegetation Class, (EVC) Shrubby Foothill Forest. Steve Mueck commented that in his studies on Tree Ferns, it was possible to find out the growth rate after fires by measuring the length of the brown area on the stems above the black part. Measuring Tree Ferns from different areas, from 2009-2011 he found that they had grown 10 cm (5 cm per year). This rate probably only occurred at this stage because of the more open but still wet area, and the growth rate will vary in future years. Throughout the walk *Viola hederacea* (Ivy-leaf Violet) were in flower, the dense purple in the white flowers was very bright, and stood out.

Still no sign of *Pomaderris vacciniifolia* but, walking back down the track to the lower, wetter section nearer the road, David's imminent depression was lifted by seeing a large flush of *P. vacciniifolia* foliage. That very large old dead specimen (since consumed by fire) had obviously cast its seed wide. Some were over 2 m tall. In this area, before the fire, the wet track had been covered with sphagnum moss of which there was no longer any trace. *Pomaderris vacciniifolia* has small leaves 12-15 mm long x 8 -10 mm wide. After *Pomaderris elachophylla* which, confusingly, also occurs at the site, this species has the smallest leaves of any Pomaderris. The leaves are thin, smooth and dark green above and, on the underside, distinguished by a dense mass of minute stellate (star-shaped) hairs. This looked somewhat similar to a non-flowering *Spyridium parvifolium* (Dusty Miller), but that species has leaves with strongly impressed veining above. The hand lens revealed the close hairs on the underside and bract-like stipules at the base of the leaves. *Pomaderris aspera* (Hazel Pomaderris) was also in evidence. It has larger, dull green and wrinkled leaves and short rusty-coloured hairs on the underside. *Pomaderris vacciniifolia* was found in the gully on a drainage line, near a stand of *Acacia dealbata* (Silver Wattle) and, growing at ground level, *Adiantum aethiopicum* (Common Maidenhair), a delicate lacy fern with distinctive fan-shaped pinnules. The change in structure of the forest after the 2009 fire was noted.

Interestingly, David mentioned that one of his keys to identifying the Damp Forest EVC was the presence of *Calochlaena dubia* (Common Ground-fern or False Bracken) (or, as David and Willis call it, Rainbow Fern, in recognition of the variegated green and reddish-brown colouring). This fern is closely related to *Dicksonia antarctica* (Soft Tree-fern) because both have hairs on the base of the fronds, instead of scales (a later development in ferns). *Calochlaena dubia* is much softer-textured than the nearby *Pteridium esculentum* (Austral Bracken).

On the roadside, the continual disturbance by slashing had produced a Herb-rich Foothill Forest environment where we saw: *Olearia erubesecens* (Moth Daisy-bush) – a small spindly shrub, with distinctive dark green and toothed leaves and small loose panicles of white flowerheads which have yellow centres; *Thelymitra media* (Tall Sun-orchid) – a tall robust stem with a large thick lanceolate leaf at the base, the sun was not hot enough to open the blue flowers, but blowing on one opened it to reveal a creamish column; *Pomaderris elachophylla* (Lacy or Small-leaf Pomaderris) – a large shrub which also has small leaves (to 6 mm), like *P. vacciniifolia* but with scattered brown non-stellate hairs; numerous *Stylidium graminifolium* (Grass Trigger-plant) were in flower with spikes of numerous pink flowers; *Poa morrisii* (Soft Tussock-grass) – soft greyish green tussocks; and *Pimelea linifolia* (Slender Rice-flower) with dark green leaves, but whose flowering had finished.

David Cameron pointing out the lumpy woody nodules on *Atherosperma moschatum* (Southern Sassafras) *Photo: P. Grey*

We next stopped at the Yea River crossing

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on the Melba Highway where, prior to the fire, there had been the largest known population of *P. vacciniifolia*. However, this area had also been massively disturbed during the installation of the North-South pipeline and David wanted to see if the Pomaderris had survived both impacts. At this site, as at the previous stop, *P. elachophylla* also occurs with *P. vacciniifolia* and further downstream toward Glenburn *Pomaderris racemosa* (Cluster or Slender Pomaderris) has been recorded. This species also has small leaves (15-20 mm x 8-12 mm) dark green above with sunken veins, but pale greenish underneath and stellate hairs which are not as dense as in *P. vacciniifolia* and a margin that turns down. Collections of Pomaderris in the MEL Herbarium from this downstream location had to be re-determined since they had earlier been misidentified as *P. vacciniifolia*. One of the main differences is in the flowers – *P. vacciniifolia* has spade-shaped petals whereas *P. elachophylla* and *P. racemosa* lack petals altogether. Unfortunately, all the disturbance caused by the works in this area and, subsequently, the 2009 fire, had decimated the *Pomaderris vacciniifolia* population. Walking down to the river, we were reassured to find a healthy population of young shrubs, all of which had germinated from soil-stored seed since the fire, one even had buds and, with a hand lens, it was possible to see the cover of stellate hairs.

After lunch we headed toward the Wirrawilla Rainforest Walk in the Toolangi State Forest. On the way Peter Fagg, who had worked with DSE on its silviculture program, pointed out two areas that had been clear-felled. One area had used a wood and matting base for machinery ten years ago and had re-grown as much as an adjacent area clear-felled at ground level but, although the eucalypts had regenerated successfully, the understorey suffered. Tree Ferns were only in evidence at the edge. *Olearia argophylla* (Musk Daisy-bush) was only very small in contrast to the area opposite which had been burnt but not logged. This unlogged area showed that the *O. argophylla* were much larger than the seedlings which established themselves in the logged areas, and had recovered quickly by resprouting from lignotubers over a pre-established root system. Tree Ferns had recovered quickly throughout the area and provided shade and blanketed the forest floor while the fallen logs remained as habitat and a nutrient source for numerous vital smaller organisms. The wind was filtered and thus prevented the trees from blowing over. Logging may be argued to be necessary, but the forest can never be the same again, especially in the short term, and no-one has yet lived long enough to verify the time required for a return to the original condition, even good early records are not old enough.

The Wirrawilla Rainforest Walk is near the headwaters of the Yea River, north of the Great Divide, which flows north to join the Goulburn River and then the Murray-Darling River system. David pointed out the plants that can be used to define the boundary between eucalypt forest and rainforest. Rainforests have a closed canopy which excludes plants characteristic of eucalypt forests that require light, so at the rainforest margins and where there are large gaps in the rainforest canopy, light-loving plants grow. At the margin we saw *Histiopteris incisa* (Bat's Wing Fern) with soft pale green pinnules, triangular in outline, and opposite and sessile. *Pteridium esculentum* is also a strongly light-demanding species of the eucalypt forest. Covering the ground in sunny gaps in shady wet forests is *Stellaria flaccida* (Forest Starwort). It has bright green ovate leaves and small star-like flowers with five deeply divided white petals on slender stalks. Mixed in with it is *Australina pusilla* subsp. *muelleri* (Shade Nettle), the upper surface of its leaf has hairs which, unlike those of its close relative the Stinging Nettles, has no sting. Intruding amongst the natives were several weeds, including Fox Gloves, which had spread to the edge of the rainforest and are in ever increasing numbers, and Blackberries including *Rubus laciniatus* (Cut-leaf Bramble) which has large deeply divided leaves and elegant pink flowers.

Dicksonia antarctica is considered a keystone species in temperate rainforest, as it provides a substrate for the establishment of almost every class of plants diagnostic of rainforest. All the following plants were growing on the stem of just one *Dicksonia: – Pittosporum bicolor* (Banyalla) had germinated on the stem which is typical for the species, *Senecio minimus* (Shrubby Fireweed) had leaves tasting like fruit salad, *Microsorum pustulatum* (Kangaroo Fern) had fronds shaped like the foot of a Kangaroo, and *Tetrarrhena juncea* (Forest Wire-grass) twined over all these plants.

Steve pointed out that Tree Ferns are 'walkers' albeit very, very slowly and we saw one that started on the right side of the track, crept under the walkway and emerged on the left to grow further onwards in the rainforest.

Dicksonia antarctica stems provide a substrate for innumerable epiphytic ferns, mosses, liverworts, lichens and other fungi including: *Grammitis billardieri* (Common Finger-fern) with small simple dark green fronds which have rounded tips; *Crepidomanes venosum* (Veined Bristle-fern) is light green with delicate pendulous fronds looking like Sea Lettuce and covering the trunk like a curtain; among the Filmy Ferns, *Hymenophyllum australe* (Austral Filmy-fern) with wings of green tissue extending along the stipe and rachis of the fronds and grows from a thin creeping rhizome with numerous rootlets; *Microsorum pustulatum* (Kangaroo Fern) often has fronds with a pair of lateral lobes resembling the foot of a Kangaroo, and *Tmesipteris obliqua* (Long Fork-fern) – a primitive plant which lacks true roots but is a close fern relative – with a pendulous flattened stem and broad leaves arranged spirally around it. The mosses included *Dicranoloma menziesii* with long setae carrying brown/yellow capsules and *Cyathophorum bulbosum***,** a species that could be mistaken for a fern but has a distinctive third row of circular leaves and orange-brown capsules on very short setae often overlooked since they are hidden on the underside of the plant.

Pomaderris vacciniifolia (Round-leaf Pomaderris), note the stellate hairs around the buds.
Photo: P. Grey

Some *Dicksonia* have a defensive system to prevent epiphytes growing on the stem. Dead fronds sometimes remain attached to the stem, hanging down to create a skirt-like mass which discourages the establishment of epiphytes.

In a reversal, one *Dicksonia* was seen growing high up on the trunk of a *Nothofagus cunninghamii* (Myrtle Beech) and another case was that of a *Nothofagus* growing on the stem of a *Dicksonia*. Here the *Nothofagus*

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trunk had a braided structure at the base formed from numerous anastomosing cables forming a 'basket of roots'. This tree is probably over 200 years old.

The other tree commonly seen is *Atherosperma moschatum* (Southern Sassafras), a nutmeg-scented tree, leaves shiny green above, whitish below, opposite and hanging below branchlets. Often there are lumpy woody nodules on the straight grey-green trunk, which are caused by woody tissue malforming in the cambial layer. These nodules can be twisted off the trunk, the bark removed and the musky-smelling marble can be sucked to alleviate thirst (and, as the early settlers discovered, a heart stimulus!, acting like the Fox Glove *Digitalis*).

Most ecological studies of rainforest vegetation have traditionally concentrated on vascular plants, but with the inclusion of bryophytes and fungi (including lichens) the documented species richness of temperate rainforest is increased three- to five-fold. One very interesting question came up as to whether it is possible to regard the prominent and familiar elements in a community, such as mammals and dominant trees and shrubs, as surrogates for the protection of the 'orphan' floras and faunas i.e. species not yet officially described or those not yet discovered. The answer is not known.

Numerous ferns covered the ground including: *Blechnum wattsii* (Hard Water-fern), robust and noted for the new bronze-pink fronds, and the erect and fan-shaped *Sticherus urceolatus* (Silky Fan-fern), which is usually found on creek banks where the ground is very wet. The Giant Dawsonia, *Dawsonia superba* was there – the Tallest moss in the world (except for a taller species in Papua-New Guinea). It has dark green leaves, thinly triangular and straight radiating around the stem to look a bit like a pine seedling.

Then we had fun with the Liverwort *Plagiochila fasciculata*. A piece was passed around and we had to identify the smell after crushing it. Only one person recognised it as 'mothball' (camphor). Its common name is Forest Camphor. One other, *Plagiochila strombifolia*, has the smell of parsnip when crushed (Forest Parsnip). Other *Plagiochila* species do not have such distinctive smells.

After this wonderful excursion, it was a race back to the bus to drive home. Thanks to David Cameron, Steve Mueck, Peter Fagg and the bus driver

Pat Grey

From the office….

Donations for Hall

Thank you to the people who have responded to my unusual request for items for the hall. These items will be used in the running of the kitchen and the hall generally. If you could put one item from the list in your shopping trolley and bring it to the hall when you are in next it would be greatly appreciated. This month's donations are:

Coffee (instant Nescafe or Moccona)
Biscuits (packet)
Long Life Milk
Pine-o-clean wipes (for bin)
Peppermint Tea—*we have run out*
Green Tea Or
Gift vouchers from Office Works, Coles or Safeway.

Volunteer Register

As the Club moves forward, the role of the volunteer is more vital than ever before. To facilitate our volunteer resources and spread the load, we are once again asking members to take the time to fill in the Volunteer Register form and return it to the office. The form can be collected from the office or down loaded from the website. Please help us with this vital piece of club business.

Future Directions of the Club 2012

Thank you for the 10 submissions that were received. These submissions were read and the Council met on Sunday 4th March to discuss the suggestions. The council are preparing a plan for the Club which will be presented (in written form) to the members at the AGM.

Vic Nat Back Issues

Some of you will have seen the table with back issues of the Vic Nat on the table in the hall. I replenish this table with new issues as they run out. Please take the time to have a look and fill any gaps you may have in your collection and leave a donation in the tin on the table.

ATTENTION SIG CO-ORDINATORS
Calendar of Events due

This is your first reminder that the calendar deadline for the June to September Calendar is **April 13th.** Please try and get as much information about each talk and/or excursion as possible. Try to include:

- Name of talk,
- Name of speaker with association (eg Monash University etc.)
- Something about the talk that will stimulate interest.
- Contact person.

Be sure to check your contact people on the back of the current calendar and let me know if there are any changes.

If you have difficulty meeting this deadline please contact me. The most frustrating thing is to have no news.

STOP PRESS
The FiNCV is now on Facebook!!

Just press '**Like'** and you will receive weekly updated calendars and Club news quickly and easily. While you are there, the Marine Research Group is also now on Facebook.

SIG Co-ordinators

Also, as a result of the Future Directions meeting, it was decided that a good resource would be to have a "Recommended Reading List" for new members. I will stock these books in the bookshop so any new members can purchase them straight away. Could each SIG supply me with a list of 5-6of the most important books in your area to purchase for the book shop.

Cheers, Hali Ferguson

Help the Club fundraise for the President's Roof Appeal with Good Will Wine

Goodwill wine is a fundraising website, which offers Charities and Not for Profit Organisations the opportunity to raise money through wine sales. Simply go to the website www.goodwillwine.com.au or call them on 59629155 and order half a dozen or a dozen bottles of wine. Most of the wine is sourced within Victoria, Yarra Valley, Mornington Peninsula etc, with the rest coming from elsewhere in Australia. For every dozen bottles sold the club will receive $20.00 ($10.00 per ½ dozen).

The wine comes with a 100% money back guarantee if you are not happy with the vintage and will be delivered to your door. These bottles of wine, with our FNCV label, would make a great gift and a wonderful way to advertise the club. So drink up, enjoy a good wine and raise money for the Club.

Donations requested for the Second Mural in the Hall

If you are in the building, please take the time to look at our wonderful new mural on the wall next to the kitchen. *See FNN 217 for story*.

We are raising money for a second mural to be painted by the same artist, Lori Duncan, on the back (south) wall of the hall. A coloured drawing of the design of the proposed mural is available to view in the office. If you care to donate, mail your details to FNCV, Locked Bag 3, BLACKBURN 3130; ring 9877 9860 or email: admin@fncv.org.au All donations will be acknowledged in FNN.

Name: _____

Address:_____

TOTAL ENCLOSED	$

*Please make cheques payable to *Field Naturalists Club of Victoria Inc* or provide credit card details:

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Extracts from SIG written reports presented to the last FNCV Council Meeting

Bat Study group

The highlight of this year for Bat people is the Australasian Bat Society's Conference. This will be held at Melbourne University next month, starting on the 10th April and culminating in a field trip to Kinglake on 14th and 15th. The ABS covers a broad range as far as Bat lovers are concerned with contributions from amateurs, wildlife carers and some of the top bat researchers in Australia. If you can spare the time I recommend it.

Botany Group

Graeme Lorimer presented on Rushes and Sedges. He introduced us to all the Genera found in Victoria and the number of species for each genus. Graeme also explained the main identifying features for each genus. Our field trip was on Saturday at the Bon View Wetland, at Ruffey Lake Park. Graeme identified many rushes and sedges, and pointed out their reproductive structures and identifying features. Both the presentation and the field trip were extremely interesting, educational and well attended.

Fauna Survey Group

Meeting, 6-3-2012 The speaker for the meeting was Dr Mike Weston from Deakin University on the subject Determining the Fate of Shore Birds Nests. Mike discussed his research into the constant battle of nesting shore birds such as Red -capped Plover, Hooded Plover and Masked Lapwing with predators including foxes, ravens and human interference.

Stagwatch Survey, 24 March 2012

This survey was attended by 10 members and at a site previously surveyed 4 years ago. Again Leadbeater's Possum was recorded, as were Sugar Glider, Greater Glider, Yellow-bellied Glider and Mountain Brushtail. Unusually, a Bush Rat was spot-lit on the track and approached closely; it was in a poor state of health and moved slowly into the bush.

Fungi Group

The Fungi Group held its first 'monthly meeting' for 2012 on 5 March, when Paul George gave an interesting presentation about how to photograph fungi. Twenty-one members and three visitors attended.

Your milk bottle caps can make $ for the club. Box is in kitchen.

Marine Research Group News

Report on the MRG meeting Monday 6th February, 2012: 'Using Fish as Indicators of the ecological condition of Victoria's Estuaries' by Fiona Warry and P. Reich of the Arthur Rylah Institute for Environmental Research (with acknowledgements to Melbourne Water, collaborators and the field team).

(NB. This summary has been prepared solely on the basis of the PowerPoint presentation provided by the speaker).

Estuaries are the interface between fresh- and marine water. They are highly dynamic environments and often very productive systems with high faunal diversity.

Estuaries face a number of threats such as modified catchment land use (agriculture, grazing); water flow modification and water abstraction; urbanisation of coastal catchments; and modification of estuary mouth geomorphology which impacts on how and when estuaries open and close.

The presence of threats to estuaries led to them being incorporated into the Victorian Strategy for Healthy Rivers, Estuaries and Wetlands in 2009, with a need for consistent condition assessment of estuaries.

Currently there is a trial of a multi themed Victorian Index of Estuarine Condition (IEC) involving consistent state-wide assessment, prioritisation of resource allocation and evaluation of management interventions.

The Index of estuarine condition themes are:

1. Physical (bathymetry, sediment load, upstream barriers, no. & type of artificial structures on foreshore);

2. Hydrology (marine exchange, freshwater flow, salinity);

3. Water quality (water clarity – turbidity, dissolved oxygen content);

4. Sediment (sediment particle size, bank erosion, sediment respiration rate);

5. Flora (aquatic macrophytes, aquatic macroalgae, fringing macrophytes, microphytobenthos, phytoplankton), and

6. Fauna (fish, birds).

The group at the Arthur Rylah Institute for Environmental Research is dealing with the trial and development of the fish component of the fauna theme of the IEC. Fish are good indicators of the health of an estuarine environment.

A trial and appraisal of sampling and assessment was undertaken in eleven estuaries in the Melbourne Water region in 2010, these being in Port Phillip Bay (Little River, Werribee River, Yarra and Maribyrnong Rivers, Balcombe Creek) and Westernport Bay (Merricks Creek, Warringine, Watsons Creek, Cardinia Creek, Bunyip River and Bass River).

Estuaries were studied in their lower, middle and upper reaches, were selected to represent a gradient of perceived threats, and were sampled in autumn and spring using a rapid assessment approach.

Fish data gathered includes:

1. assemblage structure (species composition and diversity, rare or threatened species, introduced species);

2. estuary use (residents, dependants or opportunists), and

3. diets (fish or invertebrate eaters; the potential of stable isotopes in providing dietary insights is also being examined).

Results are still preliminary but seem to reflect catchment land uses and environmental variables in the ways predicted.

The program is under ongoing trial and development. A further ten estuaries in western Victoria were sampled in 2011 and ten estuaries in eastern Victoria are currently being evaluated in 2012.

Ultimately the aim is to gather consistent data from around eighty estuaries across the state on a rolling three to five year time interval.

We thank Fiona very much for her work and presentation.

P. Vafiadis

Microscopical Group

Eye Diseases and Diagnosis

The Microscope Group's March meeting was presented by Dannilla Grando, diagnostic microbiologist and project leader for Bio-technology at RMIT. She spoke on 'Eye Diseases and Diagnosis' and of the importance the microscope plays in quick and accurate diagnosis.

Dannilla spoke on several eye diseases, accompanied by illustrative photos and instructional videos. Acanthamoeba is a commonly found amoeba that can cause several rare but severe illnesses. These amoeba are everywhere, dust, soil, rivers and hot springs and can enter the body through a wound or via the nostrils. Pastuella causes 'pink eye' in cattle and sheep and is also known as 'cat bite/scratch fever' resulting in abscesses, ulcers and conjunctivitis. Gas gangrene is a bacteria found in soil and bowel flora, resulting in an anerobic infection producing toxins that kill cells resulting in the need for corneal transplants. River Blindness is caused by a parasitic worm, Black Fly larvae, *Onchocera Volvulus*, which enter and migrate through the body, releasing bacteria. These larvae can live in the body for 14 years, symptoms can appear 1-3 years after infection. 99% of the 18 million people infected live in Africa, 270,000 are blind! There is now a safe effective yearly dose drug available. Trachoma is an infectious eye disease caused by Chlamydia Trachomatis and is a major cause of blindness in Aboriginal communities and developing countries. It is passed on via contact with mucus secretions through sharing towels or wash cloths and is treated with antibiotics.

Dannilla was an enthusiastic, entertaining speaker, well able to present her work in a clear and easily understood manner, prompting a great question and answer session, so much so, that we are now all experts!!

Phillipa Sterpin

NOMINATION FORM FOR FNCV COUNCIL 2012

The FNCV AGM will be held on Sunday 6th May,

2 pm FNCV Hall, 1 Gardenia Street, Blackburn 3130

Name of Member Nominated

……..

Position Nominated * …….…….

Signature of Member Nominated

……..

TWO MEMBERS SUPPORTING NOMINATION

Name …….. Signature ……...…Date……

Name ……. Signature ……...Date……...

*Elected members of the FNCV Council are President, two Vice-Presidents, Secretary, Treasurer and six Councillors. Councillors must be FNCV members. (*Council also consists of Immediate Past President, and a representative, nominated in writing by each Special Interest Group.)*

Please return this form to the FNCV office
Locked Bag 3, Blackburn 3130- Phone/Fax 9877 9860
E-mail: admin@fncv.org.au

Nominations must reach the registered office of the Club no later than 48 hours before the AGM, i.e. Friday 4th May by 2 pm..

Field Nats News 219

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