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WILSONS PROMONTORY BIOSCAN

Ken Harris and Margaret Rowe were part of a team organized by Museum Victoria and Parks Victoria to undertake a Bioscan at Wilsons Prom in October 2012.

Terrestrial, freshwater and marine wildlife were to be studied in a two week intensive biodiversity study to assess the impacts of recent extreme weather, namely the fires in 2005 and 2009 and the flood in February 2011, when 370 mm of rain fell in one day.

A Bioscan had already been conducted in Western Victoria and another was scheduled in November in Ned's Corner in the Mallee.

The most remarkable find at the Prom was a crayfish which climbed into the branches of trees.

Margaret Rowe was in a team of five volunteers, part of a group who attend workdays in the Marine Invertebrate section of Museum Victoria, and three or four staff from the Museum looking at the intertidal zone. They walked to Picnic Bay, Millers Landing and Whisky Bay. Field work was conducted in the afternoons at low tide, and mornings and evenings were spent in the lab sorting and listing small animals. A photographer was employed to photograph as much as possible in the field and the lab. A series of photographs taken at Whisky Bay are to be used by Parks Vic rangers in their educational programs.

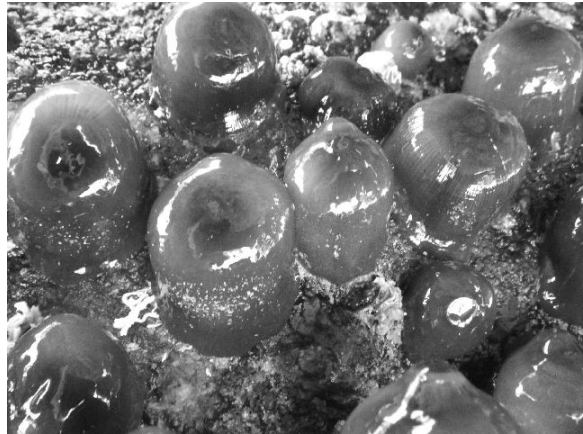


Vertical Zonation

Photo: Margaret Rowe

The steep granite shorelines along much of the coastline of the Prom offers little shelter to intertidal creatures but, although it doesn't support as many different species as is usual on flatter, more sheltered and extensive shore platforms, it was amazing to

see the wide variety of invertebrates flourishing at the Prom. The animals on the rock faces show a distinct vertical zonation, largely according to the length of time a species can tolerate exposure to the air, sun, wind and rain as the tide recedes.



Red Waratah

Photo: Margaret Rowe

Margaret showed pictures of many of the species found, referring to some details of their identification and their way of life. Around the rocky headlands of the bays several species of limpet and barnacle clung to the exposed areas of rock at the highest levels. At mid-tide level, thick beds of Galeolaria tube-worms sheltered molluscs among their tubes and spectacular clusters of Red Waratah sea anemones hung from protected ledges. In the pools, and under rocks were a variety of sea anemones which were of special interest to one of the scientists. Clumps of Cunjevoi stood at low water level. Beds of mussels coated granite headlands which were battered mercilessly by the waves and it was amazing to see tiny black amphipods rushing for shelter deep among the mussels as each wave receded.

At Millers Landing the large areas of mud housed Sentinel Crabs, a range of molluscs and a variety of tiny amphipods. While five species of barnacle were found on the rocky shores, the rocks here were clothed with only one species, a Four-plated Barnacle typical of sheltered muddy coasts.

Ken Harris was part of a group who were taken into Sealers Cove by helicopter. The walking track in had suffered major wash-outs in the floods and will not be repaired for a good while. Ken spent four nights in a tent, but comfort was supplied at the rangers hut with hot showers and meals cooked by a ranger. All the gear was helicoptered in as

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well, including Ken's generator and his trolley which proved very useful for transporting all the gear across the creek to the board walk. The group included a herpetologist, mammalogist and fish experts, as well as Ken who was concentrating on finding and identifying moths. Ken spent nights photographing the moths attracted to his lighted sheet, then looking at other things of interest during the day. When the rain set in one night he was able to continue by setting up on the verandah of the rangers hut. He found 23 different lichens on the granite rocks. Ken showed many slides of the moths which were enormously varied.

There were 107 species recorded at Sealers Cove including an Arctiid, only previously found much further east. A Noctuid, *Agrotis ipsilon*, was the first photographed in Victoria and may be a new species for the state. Bogong moths were the most common moths. The Helena Gum moth shown is similar to the Emperor Gum moth but is separated by the position of the 'eye' and is more orange. The face on view showed striped orange and black legs. One beautiful moth Ken had not seen before was the Banksia Moth, *Psilidostetha banksiae*, which was one of the first to visit the sheet.

Ken also photographed and captured a Southern Water Skink whose tip was taken from its tail for DNA testing. He also helped the fish scientists to photograph the fish that they caught, River Black Fish, Spotted Galaxias, Flat-headed Gudgeon and Tupong.

After returning from Sealers Cove the next site was Vereker Track, but the wind prevented satisfactory mothing, so only 9 species were recorded there.

The next day they explored a heath area and found about 6 species of the Geometrid genus *Dichromodes*, which are very much day-flying moths of heathland.

Darby Saddle west was the third site visited. Ken showed photographs of many moths, a male cockroach commonly found under the bark of gum trees, some beetles and a fly with striped wings. One moth at his sheet, a Geometrid, *Picromorpha pyrrhopa*, was only previously seen in Victoria at Mallacoota.

Ken photographed 150 moth species at the three sites and altogether 400 species were

recorded by all the groups.

Our club can be very proud to have two of our members selected to be part of the team conducting the bioscan, and we appreciate the excellent presentation they prepared.

Wendy Savage, with assistance from Margaret Rowe and Ken Harris

The following is another Summer Members' Night report.

GRAMPIANS AFTER THE FLOOD

During October we visited the northern part of the Grampians. The last time we spent time there was in September 2006 when we went to see how it was recovering after the bushfires in that January. Although roads were still being resurfaced and reopened even while we were there, the walking tracks had been cleared and were open. The ground was blackened and the vegetation burnt but everything was recovering and there was a profusion of wildflowers and a magnificent display of flowering grass trees.

This time we went to see the damage done by the tremendous storm and floodwaters earlier in the year. The road between Halls Gap and Dunkeld in the south had been reopened only a couple of weeks before we were there. Three bridges and the road passing over creeks flowing into Lake Bellfield had been damaged and a culvert had to be replaced. The flood of water had actually widened the creek beds.

In a shop in Halls Gap village there were photos of the flood waters. Those of you who have been to Halls Gap will remember that there are shops along the eastern side of the north-south road and other shops curved round above the creek. The photos showed a sea of water raging past and it rose high enough to enter some of the shops. In the picnic area between the shops and the creek the ground level had been lowered and I think some of the trees had gone. New picnic tables had been put there and the ground surface was covered by tan bark as the grass was mostly gone. A huge effort had obviously been put in to prevent further erosion along the creek with the now bare creek banks being totally lined with rocks. It would have been a huge amount of work as, in places, the banks are quite high and steep. The bridge had been slightly damaged on the east side and the road had been narrowed to create another footbridge.

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To the north of the village there didn't look to be any damage at all except along the creek itself, though most of the vegetation was still there. On the Stawell road the Devil's Garden, which was totally the wrong name, was massed with wildflowers and the bush along the Mt Zero road was undamaged though we only went along it as far as the quarry. From the village all roads to the west were still closed though we were told that there was only one land slip between the village and McKenzie Falls where the road had to be rebuilt. All walking tracks both to the east and west remained closed.

The road and walking track into Silverband Falls had been reopened and along that creek the devastation was immense. Even after the fires it was still lined with tall trees and massed with treeferns, smaller ferns and other vegetation, all recovering well. Now it looked as if a bulldozer had been put through it. The bridge across the creek, a sturdy, solid structure was a twisted and broken wreck further downstream, so large stone blocks had been placed across the creek, now a harmless, gentle flow of water. A board of photos had been erected to show the area as it was before the flood and as it was afterwards. There were piles of smashed tree trunks and branches massed along the course of the creek. The falls themselves looked much the same as they had previously and the smaller vegetation such as mosses and ferns were already colonising the area but it will be many years before the trees regrow, and probably not in my lifetime. While we were there, we were talking to a Park Ranger who said that on the hills beyond the Silverband car park the damage was so great that the whole hillside had been washed away and the area was unstable at present.

The damage from the storm ceased about half way down the road south to Dunkeld.

Estelle Adams

THE WILDLIFE OF SOUTH AFRICA

The March talk was presented by three of our local members – Ken H, David M and David S. The talk gave an overview of one of the largest game reserves in Africa - Kruger National Park. It is located in the north-east corner of South Africa and is close to Zimbabwe to its north and Mozambique to its east. It covers nearly 20,000 sq kilometres and extends 360 kilometres long from north to south and 65 kilometres from east to west. It has more species of mammals than any other national park in Africa and well over 500

species of birds in the park

Our tour started in Johannesburg and David M began the talk by introducing us to some of the birds and mammals seen on the way to Kruger NP on the so called 'highveld'. These were very different from the wildlife in Kruger itself because the park is in the 'lowveld'. It is at a much lower altitude than the highveld and we had to travel down a long steep escarpment to go to the park. Since our main objective was to experience the maximum diversity of wildlife in Africa, we spent quite a bit of time exploring this area. There were three main habitats in the highveld which were highland grasslands which was the dominant habitat, some wetlands and a small pocket of highland forest where we stayed on our first night at Mount Sheba. We found many endemic birds in these areas which are only found in the highlands west of Kruger and not in the park itself.

David's favourite bird was the Secretary Bird which we had excellent views of in the grasslands. It is a terrestrial bird of prey that hunts by running and walking with long strides. They can fly but infrequently. Many of the birds in the wetlands are not found in Australia but occupy similar niches. The grasslands were well populated with antelopes of various species, perhaps because there are no large predators here, with names that we had not encountered before such as Blesbok, Steenbok, Oribi and Grey Rhebok. We spent two days in the Highveld and the next three days in the Park.

On entering the Park We were confronted with two of their largest herbivores. The first was a herd of African Buffalo which are like large stocky cows that can weigh up to 700kg. If we thought that was large our next encounter was with a massive bull White Rhino which crossed the road and can weigh more than two tonnes. We also had a number of encounters with African Elephants where the bulls can weigh more than six tonnes. Elephants can be very destructive animals and several methods have been attempted to control their numbers to more sustainable levels.

There were several restrictions on the Park which limited our freedom of access to the Park. We were not allowed to leave our vehicles, the vehicles were not allowed to leave the roads and we were not allowed to drive at night. We were however allowed to walk around the accommodation areas which were fenced off from the rest of the

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Park. These areas proved to be quite productive for bird watching and many photographs were taken in these enclosed areas.

To explore the park at night the camps organised large trucks with local guides who provided a valuable insight into nocturnal wildlife. These night drives were extremely productive and we were able to see spectacles that we did not see during the daylight. We were able to have some close encounters with Africa's 'Big Five' which were elephants, rhinos, buffaloes, lions and a leopard. We did not see these last two predators during the day.

We focussed on bird watching during the day with our excellent guide Errol de Beer from 'Birding Encounters' who managed to find well over 230 species for us. Many families of birds are not found in Australia such as Hornbills (4 species), Francolins (4 species), Vultures (3 species), Weavers (6 species) and Woodpeckers (4 species). There were many more but it was interesting to speculate why there were so many differences. Australia is very much like Madagascar where we had recently been because both countries have been isolated for much longer so both have evolved their own wildlife diversity whereas South Africa is still geographically connected to Europe and Asia. It therefore shares many of the same families that can be found in both these continents.

Ken concluded his talk with some photographs of the wildlife in Kruger NP. I believe Ken's favourite encounter was the leopard seen on one of our night drives and mine would have to be the Small-spotted Genet, also seen on the night drive, which ran up a tree, dived into a hole but forgetting to take his large bushy tail and then poked his head out so we could all photograph it. Kruger NP has the greatest diversity of mammals of any other National Park in the world and has to be top of everybody's list to see a wildlife spectacle. I would like to thank Ken and David for their companionship on this most spectacular wildlife experience.

David Stickney

MAISIE FAWCETT AND EARLY FIELD WORK ON THE BOGONG HIGH PLAINS

Concern over the destructive effects of cattle

(and sheep) grazing on Victoria's high country vegetation has long been voiced. As early as 1887, Stirling recorded in the *Victorian Naturalist* the rapid decline in the buttercup *Ranunculus anemoneus* in summit areas. Later, around the middle of last century, as fear of the damaging consequences of erosion on water catchment capacity increased, there was a move towards scientific study of the effects of stock grazing and trampling. Effort focussed on the Bogong High Plains, which nurture the Mitta Mitta and Kiewa river systems, important respectively for the Murray River system and hydro-electricity generation. The terrible fires of 1939, so devastating in themselves, were followed by prolific growth of grasses and hence increased stock levels.

Following the establishment of Victoria's Soil Conservation Board (later Authority), SCB/SCA, in 1940, a survey of parts of eastern Victoria by agriculture professor Samuel Wadham and botany professor John Turner from the University of Melbourne produced clear evidence of soil erosion in catchments. To facilitate on-going investigation, on Professor Turner's recommendation, botany graduate Miss S.G.M. (Maisie) Fawcett, MSc (1912-1988) was seconded from the School of Botany to conduct field work. Maisie began by arranging for the fencing of a large area on the steep eroded slopes of Mt Mesley, to investigate re-establishment of native vegetation. The fences were designed to exclude rabbits as well as sheep and cattle. It is reported that she gained the friendship and support of local cattlemen as she learnt to ride a horse and joined them on high plains treks. It is of interest that Mr Justice Stretton, heading a Royal Commission appointed in 1945 to investigate the grazing of forests, visited Omeo to interview Maisie.



Following her appointment in 1944 as a

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research officer in the SCB, Miss Fawcett established a 19 acre exclusion plot on the edge of the Rocky Valley catchment. It included a range of vegetation types such as sphagnum bog, snowgrass tussocks, heath and fire-scarred scrub. For each of the main vegetation types, a plot was marked out within the enclosure and an unfenced control plot was selected on similar terrain outside it. Assisted by friends, Fawcett converted a Rover Scout Hut into a botanical specimen holding house. Professor Turner provided important support from his School of Botany, facilitating the laborious regular summer Levy point surveys.

To better represent the full range of vegetation types, a second study site on the edge of the Pretty Valley catchment was also established.

Her work in the decade 1941-1951 produced a massive ecological report to the SCA, arguing that vegetation degeneration and soil erosion were due to over-grazing, with fire a contributing factor. This work led to the SCA recommending future controls on both stock numbers on, and access times to, the Bogong High Plains.

Later, Maisie Fawcett was appointed to a lectureship in the School of Botany, teaching systematics and ecology to science, agriculture and forestry students from 1949. Monitoring on the Bogong High Plains continued even after 1960, when Maisie, now Mrs Stella Carr, departed with her husband for Queens University Belfast.

The extensive research, to which she was a major contributor, and which was backed by the then new Australian Academy of Science, convinced the Land Utilization Advisory Council of Victoria that cattle grazing in catchment areas above 4,500 feet, such as the Bogong High Plains, must be curtailed. A key factor was the deterioration and desiccation of the sphagnum bogs, recorded to be on a massive scale by the late 1950's.

Mrs Carr's contributions continued much later; for example, she was commissioned by the new Land Conservation Council in 1977 to report on the vegetation and soils of the Bogong High Plains.

Philip Rayment

(With grateful thanks to Mary Austin for her loan of two reports on which this article was

based, its compilation motivated by the interest in Maisie's exclusion plots at the club's recent summer camp.)

REPORT ON BUSINESS MEETING HELD 21.3.2012

General Meetings & Excursions

Friday 27 April: The Secret Life of the Powerful Owl – Fiona Hogan (*Speaker not available so topic will be Kangaroo Island – Phil Rayment*)

Saturday 28 April: Evening spotlighting in Morwell NP. Meet 6pm at Kerry Rd picnic area for BBQ tea. Start excursion 7-7.30pm.

Friday 25 May: Bird Photography – Tips & Techniques – Chris Tzaros

Saturday 26 May: Gippsland Water Factory & Wirilda. Check at GM if enough people interested in Water Factory for tour. (*Tours are not run on Saturdays*)

Botany Group: Saturday 5 May: Plant survey at Rokeby flora and fauna reserve. Contact: Wendy Savage ☎ 5634 2246

Bird Group: Tuesday 1 May: Tyers bridge, Seninis Track and Rawson. Meet by 9.30EST at Tyers bridge. Thurs May 10 TRU Wetlands. Contact: Alix Williams ☎ 5127 3393, alixw@spin.net.au

Finance – Balances: Club A/c \$1322.35. Investment A/c \$13,742.33. David presented audited annual financial statement for AGM. Investment account is currently invested in an ethical account with Bendigo Bank at around 3% interest. This will drop to 1.8%. Motion: That David be authorized to reinvest the money in the Bendigo Bank if an interest rate similar to what we have received is available. K Harris/G Bremner

Business Arising, Correspondence & General Business

Sound system – John Sunderland will bring some of his equipment for us to trial.

UHF CB radios – David Stickney has purchased 4 and a carry bag for \$414.88.

Digital Photo Frame – David S has purchased one for \$197 for showing photos at publicity events. Members will be encouraged to bring photos on USB stick for showing at meetings.

LVFNC Web page – Google has picked up 2012 changes to program. John Sunderland has changed email addresses. SEANA is keen to have clubs put their newsletters on

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their websites. John is willing to do this.

Callignee plant survey - club is still to be paid \$500. Have rung Sam Fenton, Latrobe City, who has the paperwork, and David will send an invoice.

Picnic area development at Traralgon South Flora and Fauna Reserve - Ken Harris attended meeting. Interpretation boards will show walking tracks and flora and fauna likely to be seen or of particular interest. Club will walk track to advise on material. Will meet 9.30 Wed 28 March at Reserve carpark.

Latrobe City has emailed Management Plan and terms of reference for Crinigan Rd Reserve. Ken Smith has obtained printed copy for this as well as Ollerton Avenue and Edward Hunter.

LCHS meeting room – need to find temporary venue from June or later. Uniting Church Hall, Newborough suitable at \$50. Will look at other options as well.

AGM nominations – have filled in nomination forms. Will add a co-opted position of Web Manager. No longer need Equipment Officer position.

Crinigan Rd bushland education activity for a Morwell school grade 4/5 – Ken Smith prepared activity sheets which will be modified for future activities. Ken, David Mules, and 3 others ran it. Robert Mrzygloski, member of Crinigan Rd and Edward Hunter committees initiated this and has invited schools in the area to participate. Club members will be asked to assist if available.

Grand Strzelecki track is complete. Friends of Morwell NP will walk to park boundary at next working bee. Official opening Sunday May 6 at midday. Guided walks on both May 5 and 6 including return transport.

SEANA camp at Camperdown March 16-19 – well run with 112 participants, 19 LVFNC members and friends. Focus on geology and volcanic landforms.

Conservation Matters

Ken Smith reported an area in Mullundung has been burnt, which had already been burned frequently.

GUEST SPEAKER FOR MAY

Chris Tzaros, MSc is employed with Birdlife Australia where he coordinates a major woodland bird conservation project

throughout South Eastern Australia. He is a regular contributor to a number of magazines, etc and presents illustrated talks and seminars to a wide audience. An accomplished bird photographer, Chris's passionate hobby complements his professional career. His talk will introduce some of the bird species that are the subject of his ongoing work, and discuss where our woodland birds are headed at a time of climatic uncertainty.

INVITATION – FUNGUS FORAY

The Friends of Morwell NP have received an invitation to join the FNCV Fungi Group in a Fungus Foray at Mt Worth. Interested members of our club are welcome to join in.

Where: Mt Worth – Moonlight Creek Picnic Area

When: Sunday 20 May, 10.30am to ~3pm

Bring: Lunch