Expedition Scrubby Peak September 2007

Expedition Scrubby Peak was the main expedition of the Scientific Expedition Group for 2007. This destination was chosen after discussions with the Department for Environment and Heritage (DEH) and National Parks and Wildlife Service (NPWS) and resulted from a DEH request to carry out a biodiversity survey of the area adjacent to Scrubby Peak within the Gawler Ranges National Park.

The aim of the expedition was to gather information on the flora and fauna and to document human occupation within selected areas.

Locality and History[1]

Gawler Ranges National Park conserves approximately 1,660 square kilometres of ancient volcanic hills and valleys of the southern Gawler Ranges on upper Eyre Peninsular and an abundance of native flora and fauna, including several species of conservation significance at state or national levels

The South Australian Government, with the assistance of the Australian Government Natural Heritage Trust and a generous contribution from the Nature Foundation SA Inc. purchased the 119,700 hectare pastoral property, formerly known as Paney Station, and adjacent crown land for the purpose of establishing the Gawler Ranges National Park in 2000. In 2001, parts of Scrubby Peak pastoral lease (approximately 46,600 hectares) were added, again with funding support from the Australian Government Natural Heritage Trust and Nature Foundation SA Inc. The park was proclaimed on 15th January 2002.

The park spans the transition zone between the agricultural and pastoral regions of northern Eyre Peninsular. The flora and fauna have affinity with communities in eastern Australia and far western Australia. Numerous species within the park are at the extreme edge of their natural distribution, making this area a crossroad for species to the north, south, east and west. The park is a crossroad for more than wildlife however; agriculture meets pastoralism, the outback meets settled areas and ancient volcanic rock meets recent dune formation.

The Gawler Ranges as a whole separate temperate Eyre Peninsular from the arid South Australian interior. Northern parts of the ranges show affinities with the arid zone but southern parts, especially within the park, show an affinity to temperate Eyre Peninsular, indicated by the presence of sclerophyllous vegetation and a slight predominance of winter rainfall.

The climate of the Gawler Ranges is mild to hot in summer and cool to cold in winter, with low, unreliable rainfall and a high evaporation rate throughout the year. Average annual rainfall in the park is between 300 mm in the south and about 200 mm in the north, modified by higher rainfall expected on the elevated parts of the ranges in the north of the park. The park regularly experiences extended dry periods.

[1] These notes selected from *Expedition Scrubby Peak Handbook*, J. Love (2007)

Gawler Ranges National Park sits on the colossal Gawler Craton and protects unique geological features. The rock formations are the result of a massive volcanic eruption about 1,500 million years ago. These rocks have never been buried but have been exposed to the elements since formation. The landscape is one of the oldest of its type in the world.

Peaks range from approximately 60 metres above sea level in the southern portion to 460 metres on the summit of Nukey Bluff in the extreme northeast of the park. Numerous rounded peaks rise to 200 metres and more in the northern two-thirds of the park. Almost 1,500 million years of weathering has exposed spectacular cliffs of columnar rhyolite, referred to as organ pipe formations along with rock holes, springs and intermittent waterfalls throughout the hills.

The park contains evidence of long human occupation, both indigenous and, more recently, post-colonial exploration, pastoral and agricultural use.

Expedition Leader Phil Cole collaborated with DEH and NPWS personnel including Nicki De Preu, Stewart Pilman, John McDonald and others over many months and with a small group carried out a recce to Scrubby Peak. During this recce, 29 potential trapping sites were identified including several sites that had been sampled during a survey in 1985. Sites were also identified where ground searches would be undertaken for evidence of mallee-fowl and where collection sites for bats would be placed. Preplanning also included selection of the main campsite.

At a SEG committee meeting on 10th September it became apparent that, due to personal reasons, Phil would not be available for the expedition. I agreed at that meeting to become the expedition leader for the period of the survey. Not being a party to the planning that had taken place (work commitments had kept me away from several committee meetings), I was a little apprehensive. Phil filled me in on the background and, due to his thoroughness, the expedition proceeded without drama.

Saturday 15th September saw a small group meet as the DEH compound at Netley to sort, check and load trapping equipment, tools, tents and a multitude of other equipment that was necessary for a successful expedition. Food was purchased and sorted into daily lots and packed into the food trailer. After loading much of the equipment into the Biological Survey OKA it became apparent that the OKA had a mechanical defect that would prevent it from being used, or at best, delay its departure for several days. Another vehicle (Landcruiser tray top) was quickly procured.

Expeditioners massed in the car park by the Rose Garden on Hackney Road at 5.30am. Sunday 16th September and were on the road by 6.00am. After a short comfort stop at Pt. Wakefield the group proceeded to Pt. Augusta where Chris and Don Lill (keen birdos from Renmark) were waiting for us. Lunch was obtained in Kimba and we arrived at the Kododo Campground in the mid afternoon. The remaining daylight hours (and some of the twilight hours) were utilised in the erection of tents for food preparation and cooking, food storage, scientific activities and personal accommodation. Long drops for ablutions were dug and the modified "thunder boxes" supplied by John Morley were set. An imaginative addition was to light the path to the dunnies with solar powered lights (bright idea, Trent!). Introductions were made around the camp that night and the plan for the next fortnight was laid out.

Leaders introduced themselves and gave a summary of what they expected to achieve in the coming fortnight.

The Leaders:

Expedition Leader (by default)	Bruce Gotch
Scientific Leader/Chief Scientist	Duncan MacKenzie
Mammals (other than bats)	Loraine Jansen
Bats	Annette Scanlon
Reptiles	Adrian Sherriff
Botany	Russell Sinclair
Birds	Dion Grantham
Ants	Annette Vincent
Heritage	John Love
First Aid	Loraine Jansen & John Morley
Transport	John Morley
Quartermaster/Menu Planner	Trent Porter
Chef	Peter Trevaskis

Nick Birks (an accomplished birdo) collected spiders for SA Museum's David Hurst

DEH & NPWS personnel:

Stuart Pilman	Biological Survey
John McDonald	Biological Survey
Jane Cooper	DEH Birds
Craig Nixon	NPWS
Michael Freak	NPWS
Graham Miller	Feral Animal Control Officer/Mallee-fowl coordinator

NPWS rangers, Craig and Michael, delivered a tanker truck containing over 4,000 litres of water, which was more than enough for the fortnight. They also supplied two generators covering our electrical power needs. Petrol and diesel was supplied to cover our fuel requirements during the survey.

Volunteers were divided into small groups to assist leaders with their respective projects and these groups rotated daily through the various activities including cooking duties.

Monday was a very busy day that necessitated the setting of the 8 trap lines and all hands were called upon. Sites had been selected by John McDonald using land type and vegetation type as the main criteria. Loraine, John Morley and myself led teams in the establishment of the trap lines.

Most sites required pitfall traps, Elliott traps, micro-pitfalls and cage traps. Near each site a photo point was established and a vegetation survey and bird survey were conducted.

Sites 1 & 2: Mature mallee; east–west section of "Jimmy's" fence.

Site 3: Melaleuca uncinata shrubland & triodia hummock grassland; north-south section of "Jimmy's" fence.

Site 4: Very mature mallee; thick litter layer, fallen timber; north-south section of "Jimmy's" fence.

Site 5: Low mallee + callitris, low-medium shrub, broad low dune; north-south section of "Jimmy's" fence.

Site 6: Atriplex stipitate, Nitraria sp., kopi flat, wombats; north-south section of "Jimmy's fence".

Site 7: Northern boundary.

Site 8; Open mallee; Brodie Dam

During this first week opportunistic sightings included a pigmy possum found on the first day by Dion. A wedge tail eagles nest containing two fledglings was sighted near the camp and became a daily point of interest to all. Graham Miller organised the mallee-fowl survey and varied the area covered to suite the physical abilities of his helpers so that all volunteers had the opportunity to participate. Jane Cooper passed on her vast knowledge of birds to her group. The birdo group was found to be too large for accurate survey so the group was split between Jane, Dion and the Lills who volunteered their skills.

John Love led a group to investigate early pastoral holdings in the area spending many idyllic days in the Pine Lodge area.

Annette Scanlon worked the night hours monitoring harp traps, mist nets and the electronic Anabat recorder at her various sites.

Annette S. at bat site (source B. Gotch)

Annette Vincent collected and sketched ants at the mammal trapping sites and seemed very content to study the various species whilst sketching both the ants and their habitat. On some evenings we had an exhibition of her latest works

Russell set up his quadrats and settled into the time-consuming specimen sampling, identification, pressing and physical properties recording of the veg. sites

Nighttime around a small fire (weather permitting) was the time for the leaders and SEG members to share with the rest of us the interesting events that had occurred in their group during the day. It was also the time for the poets and spruikers to entertain us. The bards amongst us delivered renditions of well-known, sometimes obscure and sometimes spontaneously original verse. May thanks to Russell, Kevin Sappho and Peter.

Our President, Richard Willing and Treasurer, Graeme Oats joined us during the week but could only stay a couple of days before returning to Adelaide.

Wednesday of that first week was the occasion of the "Big Flood." Not everyone experienced the Big Flood because it was localised and was not all that big. Some people hadn't seen a drop of rain at all out on their worksites. But the 10-15mm of rain and hail that fell over about 30 minutes was enough to flood the cooking tent and the food storage tent mainly due to the fact that these tents were pitched on the lowest ground around. Those that were in camp at the time quickly grabbed shovels and post hole diggers and managed to cut drainage trenches to divert the water to drainage holes. Quick action by these people enabled our food, which was in danger of becoming a soggy mass, to be raised above the flood level.

Flood clean-up (source B. Gotch)

A bus-load of Primary school students, teachers and parents camping in the Gawler Ranges visited one evening and several of our leaders carried out an impromptu "Show and Tell." This information session explaining SEG's aims and showing some of the results of the biodiversity survey were well received by the students. Local residents Hank and Denise from Wudinna and Peter and Annette from Minnipa also visited our camp. Graham Millers family, (partner Robin and son Murray), also joined us for several days and, with Robin's local knowledge and her interest in the area's flora and fauna, was able to assist us in our survey.

Brian and Goulds (source B. Gotch)

Traps were left open until Friday when again all hands were called upon to remove the trap lines and relocate them to the next 8 sites.

At the end of the first week it was time for John McDonald and Jane Cooper to return to Adelaide. John had selected all of the survey sites and photo sites and had assisted us greatly in understanding the DEH methodology in respect to the extensive vegetation survey. Jane's willingness to pass on her knowledge and her cooperation with the SEG volunteers was greatly appreciated, working as she does in a field where minimum distraction and disturbance and timing are crucial to an accurate bird survey. One day later Stuart arrived in the repaired Biological Survey OKA.

Site 9:	Euc. lansdowneana; south facing slope – close to camp – Elliotts only.
Site 10:	Former PIN00501 (1985); Dodonaea – Pine Lodge.
Site 11:	Former SCR00401; Bluebush Maireana sedifolia.
Site 12:	Former PP2972; Casuarina stand.
Site 13:	Nth-west of Scrubby Valley Well; rocky shelf/deep crevices
Site 14:	Nth-west of Scrubby Valley Well; gentle boulder slope – Elliott traps only.
Site 15:	Southern boundary; Low mallee, triodia.
Site 16;	Southern boundary; Tall mallee, mixed shrubs, fallen timber.

The second week continued in the same manner as the first week. . At the Bluebush site (site 11), Loraine gave a demonstration of snake catching without tools when a mulga snake opportunistically appeared. Weather conditions were variable; hot and dust storms, cool and overcast, strong winds and calm – we had it all. One evening we were exposed to a spectacular thunderstorm that caused us to hastily produce an emergency response plan for use should a lightning strike start a bushfire. We now had a little more time to do things other than digging holes, erecting fence lines,

collecting flora and fauna specimens and delving into the past. Some took the opportunity to visit the Wudinna Show held on the Sunday. Others climbed high points such as Scrubby Peak or Cotton's Knob whilst others visited features such as the Organ Pipes. Maintenance was carried out; universal joints were repaired, tray bodies re-attached and car battery supports remade. Trapping ended on Tuesday 25/9 when all trapping equipment was removed from the sites. The Morley Roller again greatly reduced the effort required to roll up the many metres of fence line.

Cotton's Knob (source B. Gotch)

Wednesday was a "relax" day and Graham Miller offered to lead us on a walk to some of his favourite spots. Passing by Yellow Foot Rock Wallaby trapping sites, we made our way to the base of a dry waterfall. Climbing out of this gully we traversed a plateau passing by a Mallee-fowl nest then on to a rest stop overlooking another magnificent dry waterfall. On leaving this site the group was entertained by an impromptu Snake Dance performed by Brian and an obliging snake. Brian, being in the middle of the group, was the only person able to entice the snake from its trioda resting place to join him in the complicated steps of the dance.

Second Falls (B. Gotch)

On the Thursday, Graham again offered his services to lead us on a drive to the tourist sites of Gawler Ranges National Park. Using a circuitous route we visited Stone Dam, Old Paney, Policeman's Point, Paney Homestead, Kolay Hut, Kolay Mirica Falls, a pair of graves belonging to father and son John and Patrick Bennett and then on to Conical Hill where Stuart relocated and resurrected an old photo site.

Stone Dam (source B. Gotch)

Friday was pack up day. As much gear as possible was disassembled and packed to enable an early start on Saturday. We departed Saturday morning about 10am and made our way back to Adelaide. Apart from the odd wrong turn and some mechanical problem with one of the vehicles, the trip home was uneventful.

Annette V. detoured via Poochera on her way home to try to locate a Dinosaur ant *(Nothomyrmecia macrops)* specimen and was successful in her search. Nick Birks

delivered his collection of spiders to the SA museum and it is possible that there are some previously undescribed specimens in this collection.

A full report will be produced by SEG which will include a detailed list of mammals, reptiles, birds and vegetation recorded during the survey.

I gratefully acknowledge the assistance and effort put in by the DEH and NPWS personnel. Without their input this expedition would not have occurred. It would have been a very difficult exercise to run this camp without the water tanker and fuel that was so generously supplied by the NPWS rangers, Craig and Michael. Graham Miller not only organised the mallee-fowl survey but also was a wealth of local knowledge and in his own time guided us to the various highlights that the Gawler Ranges has to offer. DEH generously supplied vehicles. Stuart, John and Jane from DEH guided us in all aspects of this expedition and to them I give my thanks.

Thanks are also due to the Food Managers. To Trent for carrying out the huge task of sourcing the massive amount of food and planning the extensive and varied menu and to Peter for running the kitchen and ensuring that meals were culinary delights.

My sincere gratitude goes to the scientific leaders who gave their time so generously and shared their knowledge with us. Sometimes we may forget that the end of the expedition is only the start of a very time consuming process for these people. They will expend much time and effort in the following months collating the data and producing scientific reports. My thoughts also go out to our original Leader, Phil and Chief scientist, Duncan who between them will ensure that all relevant information is collected and collated into a report on Expedition Scrubby Peak.

Now to the heart of the expedition – the Volunteers – the suppliers of the labour force. It was gratifying to see how much effort the volunteers expended on this expedition. The workload was heavy, the labour arduous, the hours long and the complaints zero. Also, without the use of volunteer vehicles the logistics of moving people from place to place would have been impossible. The camaraderie of the group was exceptional and it was very pleasurable for me, as acting leader, to work with such fine people. To all of you I say THANKS.

The SEG Volunteers:

Andrew Barr
Gina Breen
Kevin Burrett
Sappho Burrett
Sherrie Gotch
Graham Hill
Neville Hudson
Kelsey Klinger
Raylene Klinger
Sue Kneebone
Chris Lill
Don Lill
Graeme Oats
Trent Porter
Henry Short
Zita Stokes
Brian Swan
Garry Trethewey
Michelle Trethewey
Peter Trevaskis
Ric Williams
Richard Willing

Hope to see you all on our next expedition.

Bruce Gotch (Acting Expedition Leader)

–––––fff–––––