

SEGMENTS

Journal of the Scientific Expedition Group

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SEGMENTS

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Janet Furler

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**Cover : Native fuchsia (*Eremophila latrobei*,
probably ssp. glabra) photograph by Bill Doyle**

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A jewel in the crown of SEG'S projects and achievements over its 29 years is the Vulkathunha-Gammon Ranges Scientific Project, V-GRaSP, which began in 1988, and has been led by Chris Wright since its inception. Chris was awarded the Order of Australia Medal (OAM) in 2010 for his services to V-GRaSP and to other volunteering activities.

Regular V-GRaSP articles in SEGments have given reader's an insight into the activities and adventures of the intrepid group of 6 to 8 people who undertake the long trip from Adelaide to the base of the Gammons and then bush walk up to the Plateau for several days in order to carry out the activities of the project, carrying all personal and servicing equipment on their backs. The SEGments articles are always varied and interesting and have included details of the vagaries of weather; wildlife sightings; the impact on vehicles; and the hazards of camping in the flat areas that can become raging rivers overnight when downpours in the high areas unexpectedly race down the ranges.

SEGments readers occasionally offer suggestions for articles. One such suggestion from Mara Pearson led to two articles, one of which, written by Ric Williams is printed in this edition. Mara and I travelled with Ric to Bimbowrie in 2010. We were surprised by the number of road trips undertaken by Ric in that year, all of which were in some volunteering capacity.

Later Mara suggested that SEG members would probably be interested to know about the volunteering activities of members besides their SEG work. Ric has provided a very interesting article which will have readers inspired about volunteering. As Ric says "It beats the pants off sitting in front of the box". Ric also suggested that a suitable article for SEGments would be the 86 year Koonamore revegetation project. On request, Russ Sinclair provided an interesting article (SEGments March 2013) which included a wonderful photo from 1950 of female students in their dresses and overcoats standing alongside their transport to Koonamore which was Ding's mail truck.

For readers who receive SEGments online, you will have noticed that the email you received with the link to the current SEGments now has the Table of Contents included as well as important notices of forthcoming events. Again this constructive idea was offered by a member. I believe this information will help busy readers to note the content and important notices before filing SEGments to "read another day" (which may never happen).

The AGM was held in September and the Chairman's Report is printed in this edition. V-GRaSP is 25 years old and our lead article is a detailed review with report card which has been prepared by Chris Wright. Ric Williams has provided an interesting and inspiring article on his long experience as a volunteer for many conservation causes.

Kate Matthews who attended the April Hiltaba survey had an abbreviated version of her student report printed in the June SEGments. We have reprinted her excellent article in full. Peter Matejcic prepared a thorough summary of the April survey and an abbreviated article with interesting photographs has been printed.

Several important notices appear in this edition. The malleefowl monitoring will be on 16th and 17th November and details of contacts for interested members are included. SEG is running a competition for a new logo, and SEG also requires space to store its truck, trailers and much other equipment.

The Kangaroo Island Planting Festival was held in June 2013 and was a great success. The results of the plantings are described in a brief article, and dates for the 2014 Planting Festival are provided.



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AGM Chairman's Report 2013



The year 2013 has been another great year for SEG. Each of our projects has continued to flourish and we have undertaken two and a half major expeditions this year, rather than the usual one.

Vulkathuna-Gammon Ranges Scientific Project V-GRaSP

Chris Wright and his team have been working on a significant upgrade to the equipment used to record the rainfall in the Gammon Ranges. They have designed a range of equipment to be used on the harsh environment of the Gammons, and have received a State NRM Community Grant of \$30,000 to pay for the new equipment. All assembly and installation work will be done by the volunteer team. Besides all the hard work done by Chris Wright, special thanks must go to Graham Blair, Simon Sherriff and Chris Iwanicki. The team now have the equally hard job of building, testing and installing the equipment.

Minnawarra Biodiversity Project

Janet Furler and Richard Willing have successfully trialled the use of micro-chipping to assist the identification of mammal recaptures. The process has improved efficiency and is providing valuable insights into the populations of small mammals in the heritage scrub areas.

Major Expeditions

This year has been a departure from SEG's usual operations because there has been one minor and two major expeditions. The minor expedition was a trip to Morella near Salt Creek on the Coorong. Morella is a Wetlands and Wildlife property which is being revegetated from being a pastoral property. On the expedition most of the captures were house mice so there is a long way to go. This trip was ably organised by John Love and attended by about six members.

The two major expeditions have been to Hiltaba Reserve in the Gawler Ranges. This is a property which was recently purchased by The Nature Foundation of South Australia and SEG has now carried out a baseline survey.

In April SEG undertook at Hiltaba what was effectively a full biodiversity survey, although concentrating mainly on fauna. Unfortunately there

were low numbers of mammals trapped, but as the land had only recently been destocked and the survey was concentrated on degraded areas, the low numbers were not surprising. It is intended to repeat the survey in several years time to see what improvements occur. Overall, the survey was very successful. Since it was held in school and university break time about ten students participated, each enjoying the valuable practical work to balance their studies, and as a group they added a lot of life to the party.

In August the focus of the Hiltaba survey turned to flora. The flora survey involved two main activities. The first activity was transects across the hills to look at vegetation at various altitudes. The second was population viability studies at sites in three different habitats, a current grazing property, Yardea, a well established park, Gawler Ranges National Park and on Hiltaba. It is intended to repeat the study in about five years to see how the numbers in each type of region vary. I visited the expedition and it had a great feel to it. Everyone was enjoying the experience except those one or two who weren't getting enough sleep because of others' snoring. The Hiltaba shearers quarters is a great campsite and with Trent's menus and willing cooks the camp worked well.

Malleefowl Monitoring

In the first week in November last year SEG did the malleefowl surveys on Bakara Conservation Park and the property of one of our members, Henry Short. A number of active sites were seen. It is very heartening to see malleefowl numbers picking up after a number of years of drought and very few birds sightings. The 2013 survey will be held on the weekend of 16 and 17 November.

SEGments

Andrew Barr and Helen Johnson have continued to produce wonderful editions of SEGments. Helen has proved to be a terrier getting articles from far and wide to make a very interesting

magazine. Andrew intends to resign from his editorship role but Helen will continue as assistant editor. SEG will require a person with excellent word processing and artistic layout skills to undertake the role of editor. We would be very grateful if someone with these skills came forward.

SEG Website

Michelle and Garry Trethewey have continued to maintain and update the website as a source of information to members and the general public. We want to make the website more interactive for members, and so if someone has the necessary skills to design websites we would love to hear from you.

Assets

The Group has continued to build up assets to facilitate all the surveys we conduct. We have a truck with a storage canopy, a food trailer and a second luggage trailer as well as camping and trapping equipment. We require a place to safely store this equipment. If anyone knows of a space in a secure shed or knows of some land on which we can erect a shed we would be pleased to hear from you. The shed would have to have a high clearance.

Committee

My job as Chairman is made easy by a strong committee. I have mentioned several of the committee already but everyone provides valuable

skills. Particular thanks go to Sarah Telfer as Secretary and provider of the venue for our committee meetings. Graeme Oats has kept us on the financial straight and narrow, and whenever he has been away Michelle Trethewey has stepped in. Trent Porter as our quartermaster on our expeditions has ordered all the necessary food and prepared the menus. Duncan Mackenzie has provided stability and his invaluable experience in relation to Gluepot to the committee. Stuart Pillman has worked tirelessly to get the truck and canopy up to a usable condition.

The Future

In 2014 the Scientific Expedition Group will be 30 years old. Who would have thought that the hopes espoused at a simple meeting on 22 August 1984 in the western suburbs of Adelaide would lead to a group which is in high demand to do biodiversity surveys around the state, and has additionally provided education and enjoyment to so many expeditioners? The driver of this meeting was of course our President Richard Willing, who has championed and pushed the Scientific Expedition Group to the pre-eminent position it holds today. The committee is planning special celebrations next year. Keep an eye on SEGments and on the website as arrangements are finalised.

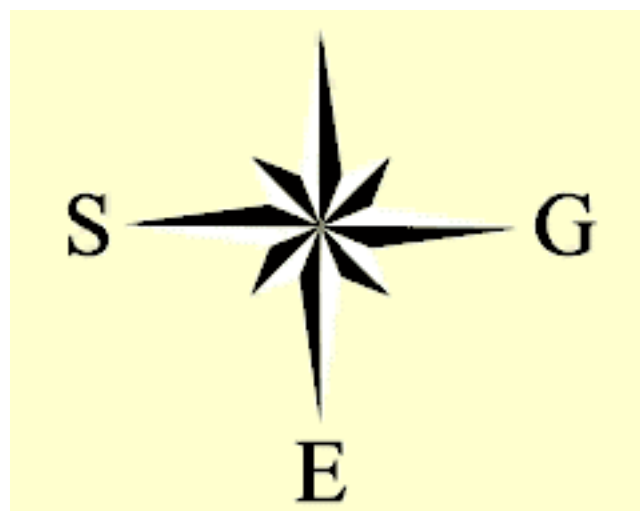
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LOGO COMPETITION

SEG has had the same logo for nearly thirty years and as part of our 30 year celebrations we are having a competition to design a new logo. The logo competition is open to all SEG members. A new logo should be able to be used in colour and black and white on the website and on printed publications. It should also be able to be used on the sides of our trailers and truck. A prize will be awarded to the entry which in the opinion of the judges best embodies the aims and objectives of SEG. Entries which must include the name and address of the author should be sent to the Chairman, Alun Thomas at athomas6@bigpond.net.au by the end of January 2014.



25 Years of Vulkathunha-Gammon Ranges Scientific Project-General Review

Chris Wright OAM



Figure 1: Arcoona catchment Area

Introduction

The Scientific Expedition Group's Vulkathunha-Gammon Ranges Scientific Project (V-GRaSP) began in the Arcoona Creek catchment area in 1988 as a long-term rainfall monitoring project which would also provide a valuable opportunity for SEG to assist in the training of young people in scientific field work.

The project arose out of the observation and question of how did the Gammon Plateau support the dense growth of vegetation in a low rainfall area? During a visit to the area, extremely heavy rain was observed to be almost entirely confined to the ranges. It was agreed that a long-term rainfall and monitoring project to study the variability of rainfall with height in this semi-arid climate would likely answer some questions about whether the orographic (topography/mountain ranges) effects cause a significant increase in rainfall in favourable locations. On 11 September 1988 the project was officially commenced with the turning on of a pluviometer (rainfall gauge) installed on the Gammon Plateau.

The V-GRaSP was intended to run for 30 years, until 2018, and it is on track to achieve this goal, having successfully run for 25 years. This year NRM Grant money of \$30,000 will be used to build newly designed pluviometers to be installed in 2013/2014, and potentially extending the life of the project by another 15 years.

The Vulkathunha-Gammon Ranges in the far northern Flinders Ranges consist of a deeply dissected quartzite plateau with steep gorges and spectacular cliffs. The rainfall measurement sites for the SEG project are all located towards the western side of the Gammon Ranges and are reached from an access track off the Mt Serle to Yankaninna road. Access to the Gammon Ranges is normally via Leigh Creek, about 600km north of Adelaide, then via the road from Copley, east towards Balcanooka, turning to the north at Mt Serle. After passing Owiendana Station there is an access road into the Gammon Ranges National Park and camping area beside Arcoona Creek. After leaving the vehicles there is a walk along Arcoona Creek to Vandenberg camp taking four to six hours, and then a day's walk up on to the Gammon Plateau.

From its humble start and with the help of many people and organisations, V-GRaSP has now grown into a significant, broad, environmental monitoring exercise. Groups of volunteers visit the project area two to three times a year to collect rainfall data, monitor growth of vegetation, count feral animals and Yellow Footed Rock Wallabies. Many people have participated, amongst whom Paul Harvey, John Waterhouse, David West, David Kemp, Graham Blair, Robert Henzell, John Love, Phil and Janet Davill, Garry and Michelle Trethewey have all provided invaluable leadership and support. John Vandenberg, Hydrographer at Crystal Brook gave essential support in the early days; tragically he was killed in a car accident at Moomba.

The program has gradually expanded to include seven activities as outlined below:

- Continuous rainfall records at high and low altitudes from nine sites
- Streamflow monitoring in Arcoona Creek
- Photographic botanical monitoring
- Human impact monitoring
- Aquatic biology

- Yellow-footed rock wallaby monitoring
- Feral animal counts

Rainfall Monitoring

Nine pluviometers are ideally located at elevations from 320 to 930 metres to investigate the orographic effect of the ranges on rainfall. Five of the pluviometers (which send rainfall reports via NextG mobile phone connection) can now be interrogated daily from the South Australian Bureau of Meteorology website.



Figure 2: Lizard observing the rainfall

Streamflow Monitoring

Since 1991 V-GRaSP has operated a stream flow monitoring program in Arcoona Creek. When heavy rains fall, an instrument in the creek records the rise and fall of the water level. Engineering calculations are used to convert the water levels to a rate of flow, from which the total volume of water is calculated. It is then possible to compare the volume of water that fell as rain (recorded via a pluviometer at the head of the creek) with the amount of water that flowed down the creek as runoff. This can give an indication of how much water recharges the groundwater supply, and how much goes to support the trees and other vegetation.

Photographic Botanical Monitoring

In 1988 and 1989 vegetation photo-points with associated quadrats were installed in each of the six identified plant communities on the Gammon Plateau and on the slopes of North Tusk Hill. Long-term changes in vegetation are assessed twice a year by taking photographs from fixed photo-points. Identifying and logging of the individual plants at each site is less frequent because of the scarcity of people with detailed botanical knowledge.



Figure 3: Vegetation photopoints

In 1999 the Department for Environment and Heritage set up a land condition monitoring program for the Gammon Ranges National Park, using the methods that are used on pastoral lease properties. Two of the original V-GRaSP photo-points have been adapted as part of the above program. Their structure has been modified so that they are consistent with the pastoral monitoring methods, and SEG will continue to monitor them as part of the V-GRaSP program.

Human Impact Monitoring

Even though all V-GRaSP expeditions operate on minimum impact principles (eg No Camp Fires), SEG's presence will always have some impact on the environment. As this project involves regular expeditions in the same locality, an ideal opportunity exists to gather quantitative data on the impact caused by bushwalking groups in an arid environment. Photographs at three photo-points are taken twice a year.



Figure 4: Impact caused by bushwalking groups

Aquatic Biology

For some years an attempt has been made to assess the quantity and quality of water in two ephemeral pools (Wild Ass and Sambot) by photography and by identifying macro-invertebrates which are present after rain.



Figure 5: Creek monitoring

Yellow-footed Rock Wallaby Monitoring

In September 1997 the Scientific Expedition Group, with help from the Animal and Plant Control Commission and the Department of Environment, Heritage and Aboriginal Affairs (as it was then) embarked on a program to control foxes and monitor wallaby populations in the Arcoona Creek area. Fox baiting by SEG ceased in 2002 when aerial baiting



Figure 6: Yellow-footed Rock Wallaby

was begun by the then Department for Environment and Heritage. Counting of wallabies continues on regular walks over a spur of Arcoona Bluff, and opportunistically elsewhere. The populations of other large herbivores is similarly monitored. The Arcoona Bluff wallaby walk is normally done once on each of the two regular visits to the project area each year.

Feral Animal Counts

Sightings of feral animals, or recent scats, are recorded in all phases of the project.

Report Card for the V-GRaSP

Scientific relevance

The V-GRaSP is still scientifically relevant. The monitoring undertaken in the project becomes more useful by persistent accumulation of data over a long period. This long term monitoring history is particularly true of hydrology, which ideally thinks in terms of centuries rather than decades.

Several reviews of the rainfall and river flow data have been carried out (eg: Kemp 2008), and it seems that the high ground of the Plateau probably attracts more rainfall during the winter, but that summer rainfall appears to be random in distribution. Overall there is more rainfall on the higher ground, and this allows the vegetation growth to become more dense, although by no means luxurious. River flow is heavily influenced by channel storage in gravels in the creek, and very high loss rates occur in comparison with less arid regions.

The botanical monitoring photographs show some significant changes in vegetation over the study period. Although botanical monitoring is done by amateurs, there is enough consistency to provide a useful record, and continuation is warranted.

The relevance of human impact photographs was recently demonstrated by evidence of spontaneous regeneration at a heavily used camp site near North Tusk Hill, following abundant rain.

Counting of yellow-footed rock wallabies and other animals is of continuing interest to the Department of Environment, Water and Natural Resources. Skulls of indigenous animals are collected for the South Australian Museum.

Cost of V-GRaSP

The project is financially viable and V-GRaSP is

virtually self sustaining. Investment in V-GRaSP over 25 years has been approximately \$120,000 for instruments, and considerably more in volunteer time and transport costs. Money collected from survey volunteers largely meets the running costs of the vehicles.

Equipment upgrades cost about \$5000 per site, for each of the 10 sites. Commonwealth and State Government grants mostly cover these costs, with SEG topping up any shortfall. The costs for the next upgrade of equipment which is currently at the prototype stage will be met by a Natural Resource Management grant of \$30,000.

Data Storage and Use

1. Rainfall monitoring

The leader of each survey writes a report for the whole trip. These reports are held by SEG and available for study. Garry Trethewey is building a database of all V-GRaSP information, retrospective as far as possible, and it is intended to continue the database into the future. This database is held by SEG.

Meteorological and hydrological data is edited, archived and stored by SEG. A copy is held by the Department of Environment, Water and Natural Resources (DEWNR) and another by the Bureau of Meteorology. The hydrological data is used periodically for engineering and scientific investigations by DEWNR and the Department of Planning, Transport, and Infrastructure. Local farmers, managers of national parks and mine operators use the rainfall data routinely for assessing water availability and movement.

The hydrographic record is becoming a unique major State Archive record for the semi-arid region, with a full cross section from the plains to the ranges. The information is relevant to the on-going management of the Vulkathunha-Gammon Ranges National Park.

2. Biological and human impact monitoring

Botanical and human impact photographs are held by SEG. Digital cameras are now used. All the original colour slides have been digitised and added to the current data base. The original films are retained.

SEG has vegetation quadrat raw data sheets of

surveys done from 1988 to 1999, a total of nine surveys, although not all sites were surveyed each time. Scoring of individual plants in the quadrats at the photopoints depends on the availability of a keen botanist. It has not been done for at least a decade but could be resumed at any time.

Ray Hickman has done a comparative study of selected vegetation photopoints (Vandenberg camp site, Sambot and Wild Ass waterholes), relating photos in the digital photo database to rainfall data. This is a fine example of what that can be done using the photo retrieval system devised by Garry Trethewey along with the hydrological data.

3. Aquatic biology

Photographic records taken at Wild Ass and Sambot are held by SEG. Early attempts using artificial substrate to collect aquatic invertebrates were not successful. Samples were taken back to Adelaide, but were not identified on a systematic basis. The only information held in SEG or DEWNR, is in the document "Grasp 10 Year Report", and one or two data sheets found in the cache at Wild Ass waterhole.

Assessment of water quality by recording macro-invertebrates in ephemeral pools (Sambot and Wild Ass waterholes) has always been problematical. The macro-invertebrates collected during the 1990 expedition were sorted and identified by the State Water Lab and that data is in the report of the expedition. However, reliable identification at species or genus level is beyond the capability of amateurs. While this activity has educational value in drawing the attention of expeditioners to the importance of aquatic life, its value as a scientific record is questionable.

A conductivity meter was installed at the gauging station to record water quality in ephemeral pools, and it operated for several years. However the creek flows rarely and it was decided that it was better to take grab samples and get them analysed. Such analysis was ad hoc and always depended on the good will of someone in the State Water Labs.

4. Yellow footed rock wallaby monitoring

The monitoring of yellow footed rock wallabies was instituted in 1996 by Peter Bird, DEWNR, who devised data sheets for recording sightings of wallabies and other vertebrates. This data is entered into the SA Biological Database. A spreadsheet

showing raw data and analytical graphs of wallaby reports from Jan 1996 (when the wallaby walk was instituted) to Apr 2006 is available from SEG. Since 2010 V-GRaSP reports include data on wallaby sighting. Regular V-GRaSP survey articles in SEGments refer to sightings, so much of the raw data is available. In an article in SEGment (Vol 26, No 1, June 2010) John Love wrote that Christine Arnold (then working with Dept Environment and Heritage) concluded that the main yellow footed rock wallaby colony lives on Gammon Creek on the north side of Arcoona Bluff and that the wallabies seen on V-GRaSP surveys are an overflow from the colony.

Recommendations and Conclusions

V-GRaSP is an intensive, long-term study of a comparatively small, defined area. The different activities in the project were set up by experts in different scientific disciplines: meteorology, hydrology, botany, zoology and human impact.

The on-going accumulation of data provides a store from which experts can draw for specific purposes. The data, tabulated in various ways, is now on the SEG website.

The hydrographic record is a major State Archive Record for the semi-arid region, (being the only one of its kind) and it is specifically used in the ongoing management of the Vulkathuna-Gammon Ranges National Park.

Most of the data collecting is done by amateurs who are interested in the whole project. In the past, the data and management expertise have been scattered among different experts. While this is a logical thing to do and should continue, some of the information is now difficult to access. In future, SEG should keep copies of all its statistical and other reports. This would make it easier for a scientist with wide-ranging interests to relate the different disciplines into a study of the Arcoona valley as a whole.

A weak point in the V-GRaSP is that some of the scientific work tends to suffer when relevant experts are not available.

SEG's aims are being fulfilled with the current project. The V-GRaSP trips are still scientific and adventurous; they further knowledge, understanding and appreciation of the natural environment; the project area can still be described as a wilderness;

and participants cooperate in planning and applying field techniques.

References

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“Wallaby Walks”, John Love. SEGments Vol 26, No. 1, June 2010

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Other sources

SEG Website and Articles by expeditioners in numerous editions of SEGments reporting V-GRaSP trips.

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Figure 1: Rock pool at Boolcoomatta

Helen Johnson has asked me to write an article about my volunteering activities, which seems like “blowing my own trumpet” a lot, so I hope you will find it interesting. When I stop to think about it, a significant part of most peoples’ lives is taken up with volunteering of one sort or another. It covers a huge range of activities. I have been volunteering in one way or another, all of my adult life.

The *MacMillan Dictionary* definition is:

someone who offers to do something
without being forced

someone who is not paid for the work that
they do

So again, when I think right back to my early employment at Whyalla with the BHP, I found after a couple of years I was helping to organise work social club events, and so I started a long time ago.

Once I had children of my own at school I was the only Dad who was willing to look after the cricket team my boys were in, which meant transport,

umpiring etc. But before that I joined a car club – being the typical single man - petrol head - that most young men were in those days (and still are), and started rallying. The money ran out pretty quickly, so then I became a rally committee member, and then Deputy Director of some quite major events held in South Australia in the 70’s, and later a control official at locations right throughout the State with my wife and children. Great fun!

Somewhere in my 30’s though something clicked and I began to realise how important the natural world and our environment was, and that all resources were finite. We couldn’t keep digging up everything even slightly valuable. Without a viable environment we ultimately have nothing, as far as I can see. If everything around you is “stuffed”, then what is left? We have to be wise and careful carers and custodians of our natural world as a whole and put something back in where necessary, or not start the destruction in the first place! We are duty bound to make sure we leave something good for the following generations.

It is imperative. I know this sounds trite, but it's very true!

These beliefs have been my motivation for volunteering ever since, as well as the fact that it is a great way to participate in "life", and great fun to boot – very satisfying and good for the soul. I love the natural world and dislike the way we treat it. "We" being man in general, all over the world. We need to do everything we can to put back what we have made such a mess of. Every little bit helps – it doesn't matter how small, it still helps. If everyone did a little "something" each week, we could make a huge difference, quite rapidly.

Thus to my membership and my volunteering with many environmental organisations. It's not possible to volunteer for them all, but I think that membership of these organisations is important. Membership fees can be used to fund important work, even if that is simply administration. Membership numbers are also very important politically as far as I am concerned. The more members an organisation has the more clout it has!

Thus, I am a member of:

The Adelaide Parklands Preservation Association

The Australian Conservation Foundation

The Tasmanian Land Conservancy

The Nature Conservation Society of South Australia

The Australian Wildlife Conservancy

Arid Recovery (based at Roxby Downs)

Bush Heritage Australia

Trees for Life / Bush for Life

Nature Foundation of South Australia

The Scientific Expedition Group

It's the last four organisations that I do the "physical" volunteering for, as well as for the Lions Club of Blackwood at their Eden Hills Bargain Centre every Saturday morning that I am able. I was also Captain of the Blackwood Boys' Brigade Company for 25 years, and a Leader for 3 years before becoming Captain. I endeavoured to combine Boys' Brigade and environmental work to meet the badge

work requirements of Boys' Brigade whenever I could. Hopefully I was able to teach the Boys the importance of our natural world.

The most rewarding part of all volunteering for me is meeting, getting to know and working with people with the same interest/s – preserving the very precious and fragile environment that we are so privileged to live in, and to be part of. The world is full of wonderful, interesting people with very interesting stories to tell, and my life is much richer for having met them, and been with them, listening and learning. I have made many lasting friendships with people I would never have met if I hadn't "given it a go". I've also been to many places that I would never have known existed, particularly before joining SEG. I also look forward to the journeys – travelling to new places and seeing new countryside. There is always something of interest to see – old farmhouses that make you think about how life would have been "back then" - how difficult, the harder times, back breaking work, loneliness, sourcing food, trying to make a living, children, schooling – all the ordinary, everyday things of life that would have been so much harder then. Then come the thoughts about how lucky and privileged we are to be living in the best country in the world with all the modern aids to living and working.

I don't need to say anything about what I do with SEG. I became involved with Bush Heritage and SEG as a result of my membership of Nature Foundation. In 2005/06 when Duncan Mackenzie was CEO of Nature Foundation, he negotiated the purchase of a property called Boolcoomatta, about an hour's drive South of Broken Hill. The property belonged to Langdon Badger – a name many of my vintage would remember. In those days Nature Foundation didn't manage the properties they purchased. My understanding was that the management of Boolcoomatta was offered to Bush Heritage, but they wouldn't manage the property unless they owned it. So, very simply, it was signed over to them. SEG was then engaged to carry out the initial biodiversity survey of the property, and members of Nature Foundation were offered a chance to participate. I took up that opportunity, as did Henry Short and Graham Hill, to name two. Both remain members of SEG, as far as I am aware. I had never done anything like it before, but it sounded very interesting and so I "signed up" and haven't looked back.



Figure 2: Students and Science leaders in the science area at Bimbowrie

One of the really inspiring aspects of the SEG Surveys is the participation of the students. “Our budding new Scientists”. Their knowledge always amazes me, as does their willingness to learn, and join in with the whole SEG system. I often remember a young French University exchange student named Quentin. He had been at Gluepot with Duncan and then came to Boolcoomatta – a very interesting and funny young man. He came home in my car and was asleep before we had covered the first kilometre, and slept for at least half the trip, woke up and had us all in fits of laughter for the rest of the trip. A wonderful introduction to SEG. I was also fortunate to have a young year 12 student from Urrbrae named Jarryd with me on the Nullarbor survey trip. A very funny young man. We laughed a lot on what was a very long trip. His knowledge of birds and reptiles was quite incredible. The DEWNR Scientists were really supportive of him as well, showing him all of the survey system requirements. Another invaluable experience helping a future scientist. The most recent trip in April to Hiltaba in the Gawler Ranges was also another great trip for the students. Each evening before tea they sat out under the shelters having a drink and discussing the days’ happenings. It was a highlight for me to sit out there, not actually being part of their conversation, but simply enjoying their camaraderie and their obvious enjoyment of life – much laughter and joking. Very inspiring to think that these are the ones who will follow us.

At the Boolcoomatta survey Bush Heritage called for volunteers to help out at Booly, and once again I put up my hand. I have now had about a dozen trips to Booly, volunteering in many roles – firstly, as a “Locum Ranger” deputising for the Rangers when they had to go away. I have helped supervise working

bees of up to 12 people; I have been a member of working bees; I was involved in the original setting up of some of the infrastructure needed to make the use of the property easier than in times past – for example: picking up modern furniture etc. purchased in Broken Hill, and setting it up in the Shearers’ Quarters and Shearers’ Accommodation blocks; re-equipping the workshop; fence removal; and general clean ups and weed control – particularly peppercorn trees around the homestead area. A big job was GPS mapping of rabbit warrens using the 4 wheeler “quad” bikes, then later follow-up checks on the warrens after they had been ripped to establish whether they had been re-inhabited. An important job was erecting temporary safety/warning fencing and reflective tape around the old disused copper mine. A very diverse array of tasks, combined with



Figure 3: Henry Short on quad bike mapping rabbit warrens at Boolcamatta

the pleasure of being out in the wonderful Australian bush, with beautiful scenery and skies, and wildlife. Wonderful times in this lovely country of ours.

I have been a member of Trees for Life for nearly 20 years and have grown trees for all of that time for many different property owners. I would estimate that I have grown an average of 400 trees per year for 18 years – somewhere around 7,000 trees. The friendships made at TFL have been inspiring. For the last eight years I have grown for a lovely couple at Delamere who would be in their late seventies, still farming, and who are now very dear friends of my wife and me. We are welcome on their farm any time – it’s one of the little things that makes volunteering so worthwhile. It beats the pants off sitting in front of “the box”!

Kevin Burrows (my No.2 at Boys’ Brigade at the



Figure 4: Bush for Life: poisoning blackberries.

Blackwood Church of Christ) and I have been working as “Bushcarers” on the Karinya Reserve in Eden Hills for over 20 years – before Bush for Life came into being. It started with the Mitcham Council as a “Service to the Community” project for the Boys, and although Boys’ Brigade in Blackwood has closed down now, we continue to visit the site weekly, weather permitting. Kevin and I both attended one of the original Bush for Life workshops to become trained “Bushcarers”. In the early stages all we did once a month for two hours, often with up to ten Boys, was to chop down olive trees and pull up boneseed – a South African introduced weed that pervades the Mitcham Hills. It took us eight years to rid the site of boneseed – many, many truck loads, which the Mitcham Council used to take away. I also work on a small site just 100 metres up the hill from my house with three other “Carers” every Thursday morning, early, for about an hour.

In recent years I was asked by Nature Foundation South Australia (NFSA) to be part of a small group of people to set up the Friends of Nature Foundation and I am now the Vice-President and Treasurer of the group. Again I have made some great, and lasting friendships within this group. Graeme Oats, SEG Treasurer, is also one of the “Friends”. This has led to an opportunity in volunteering to look after/help out on the two properties that Nature Foundation now own AND manage – a change of direction for the Foundation. NFSA’s property Witchelina covers over a million hectares, and is situated between Lyndhurst and Maree in the North of the State. NFSA’s property Hiltaba covering about 7000 hectares, abuts the North Western corner of the

Gawler Ranges National Park. These two properties increase the corridor of Parks and Reserves all the way up the Eyre Peninsula. There is now only a smallish “gap” to the Nullarbor Parks where SEG was surveying in 2012 with Harald Ehmann.

In fact I’m writing this article whilst at Hiltaba with an old friend, looking after – being the human presence - on the property while the caretakers are having two weeks off. Great way to have a “holiday” away from the city in glorious surroundings! Recent rains have been very beneficial and the property is looking terrific. There have been Scientists here for the past four days, catching and measuring etc., the Yellow Footed Rock Wallabies. They have found only five, but happily, two of the females are carrying “pouch young”. We have also had professional shooters here for the last 3 nights and they have shot another 30 goats – a good result! Without all the goats eating everything in sight, the Yellow Foots have a much better chance of surviving and prospering.

Volunteering is great therapy, if you need therapy. It’s a great way to see this marvellous country of ours! It’s a great opportunity to do important tasks/duties within our community, without which the “system” wouldn’t function. In fact community life would be very much poorer without volunteers. The “system” simply wouldn’t work. It’s a great way to meet new people, hear new and inspiring stories. A great way to spend your retirement. There is much to be done to help our natural world, and I intend to keep going for as long as I am able. Two great examples of this are SEG members Henry Short and John Love. I hope I can reach their age and still be able to contribute.

Email contact: camper17@gmail.com

Photographs : Ric Williams



Figure 1: *Ctenotus orientalis*

Me: “Hi, what did you catch today?”

Scientist: “We got a *Ctenotus orientalis* and a *Ctenotus robustus*”



Figure 2: *Ctenotus robustus*

Me: “Oh, yeah that’s good” ... What?

Turns out they’re both skinks.

Earlier this year in April I was lucky enough to volunteer on a fauna survey with the Scientific Expedition Group up on the Nature Foundation property, Hiltaba. I had always wanted to do something like this, as I have always been interested in animals, so when the opportunity arose I jumped at the chance. Over the two-week survey I learnt a huge amount about a wide range of topics from a very intelligent and interesting bunch of people.

Altogether we set up 16 trap lines in groups of two, one grazed site and one un-grazed site for each pair. We did sites 1-8 in the first week and sites 9-16 in the second week. Each site consisted of 6 pitfall traps, 4 funnel traps, 10 micropits, 15 Elliot traps and 2 cage traps. Setting the traps up took a fair while but we all pulled together as a group and got the job done. We didn’t catch quite as much as I thought we would, so I am keen to go back on the next survey in 3 years to see how things have changed. I’m only 15, which made me the youngest of the group, but I was never made to feel out of place or inadequate. Everyone there welcomed me with open arms, especially the Uni students who went out of their way to make sure I felt included, which I am very thankful for.

My favourite parts of the trip were getting to release the lizards; the people that were there; and definitely the food! It was incredible. Since returning from the expedition I have developed a deep interest in trying to remember and learn the scientific names and characteristics of different animals. I have also had to start saving my pennies to be able to afford all the reference books I now want to buy after the trip.

I had an excellent time on the trip and am more than eager to get involved in future trips. I’m also very thankful to all the people on the trip for giving me this fantastic opportunity and teaching me so much over such a short space of time. It really surprised me that so many people from so many different walks of life all came together to support one cause. It made me really proud to be a part of the group and keen to remain involved with SEG for many years to come.



Figure 1: Barking Gecko (*Underwoodisaurus milli*) found near site 11.

Highlights included:

Warm sunny dry days and cool dry nights followed by 12 mm rainfall overnight on Saturday and Sunday morning. Mount Hiltaba became covered in rain cloud. Excursions to Waroona Bluff, Pretty Point, North Wall, Mount Hiltaba, 'Mount Thursday', Mount Friday to view the cairn, access into Gawler Ranges NP. Plain landscapes with Black Oak, Eucalyptus and Bullock Bush woodlands with Bluebush and Saltbush Chenopod understorey. Eucalyptus, Melaluca and Acacia on the rocky hillsides with *Triodia irritans*, Senna and Dodonaea species. Three species of kangaroo included Western Greys, Euros and Red Kangaroos. Seasonal lack of insects, spiders and lack of reptile activity on cooler, 'almost-ideal' days. Stuart's 4WD Rodeo in a wombat's burrow, numerous Southern Hairy-nosed Wombat burrow complexes across most plains and finally sighting a wombat at its entrance near the campsite.



Figure 2: Site 11, heavily grazed grass and saltbush near Mallee woodland



Figure 3: Five-lined Earless Dragon (*Tympanocryptis lineata*)

Summary list of Reptiles and Frog Species:

- A Five-lined Earless Dragon (*Tympanocryptis lineata*)
- A female Peninsula Dragon (*Ctenoporus fionni*)



Figure 4: Sub-adult Gidgee (*Egernia stokesii*)

- A Dwarf Bearded Dragon (*Pogona minor*) found at Site 11 Tues. (23/4).
- A sub-adult Gidgee (*Egernia stokesii*) found in a crevice near the campsite granite hillside
- An adult Dwarf Skink (*Menetia greyii*) Australia's smallest skink and with four fingers and five toes.
- An adult Adelaide Snake-eye (*Morethia adelaidensis*)
- Two adult Sandplain Ctenotus (*Ctenotus schomburgkii*)
- An adult Eastern Striped Skink (*Ctenotus robustus*).
- Two adult Spotted Ctenotus (*Ctenotus orientalis*).
- An adult Myall Slider (*Lerista edwardsae*) with no front limbs and a hind leg with two toes.
- An Eastern Tree Skink (*Egernia striolata*) captured while basking on the warmer last two days.
- An adult Three-toed Slider (*Lerista timida*) with three toes on front and rear legs.
- An adult Bynoe's Gecko (*Heteronotia binoei*) common under rocks and fallen logs.
- An adult Ranges Stone Gecko (*Diplodactylus furcosus*) found while spotlighting at the base of a granite outcrop.
- Southern Rock Dtetella (*Gehyra lazelli*) gecko with five fingers and toes, but four claws.
- Barking Gecko (*Underwoodisaurus milii*) found near Site 11 in Mallee woodland.
- A juvenile Desert Whipsnake (*Demansia reticulata*) born a few months ago. Two were captured and recorded.
- An adult 1.2m Mulga Snake (*Pseudechis australis*) found at Site 11 in Mallee understorey.
- *Neobatrachus* sp. Frog and numerous tadpoles.
- Sleepy Lizard (*Tiliqua rugosa*) seen three-times during the survey.
- Common Snake-eye (*Morethia boulengeri*)



Figure 5: Eastern Striped Skink (*Ctenotus robustus*).

recorded twice at Site 11 near the ruined green tank.

- Sand Goanna (*Varanus gouldii*) from numerous diggings at several sites.
- A juvenile Crested Dragon (*Ctenophorus cristatus*) near the Gawler Ranges NP boundary fenceline.
- An unidentified 30cm small brown snake crossing track near Site 2 eluded capture efforts.

Mammal species include:

- Fat-tailed Dunnart (*Sminthopsis crassicaudata*)
- Long-tailed Dunnart (*Sminthopsis dolichura*)
- Southern Hairy-nosed Wombat (*Lasiornhinus latifrons*) from numerous active burrow complexes, tracks, diggings, trails and scats at most trapline sites. One individual sighted at entrance.
- Red Kangaroo (*Macropus rufus*) numerous sighted on chenopod plains.
- Western Grey Kangaroo (*Macropus fuliginosus*) numerous sighted on chenopod plains.
- Euro (*Macropus robustus*) several sighted at base and slopes of rocky hillsides.
- Short-beaked Echidna (*Tachyglossus aculeatus*) from numerous scats on rocky outcrop slopes.
- House Mouse (*Mus musculus*) captured in a few traplines.
- Cat (*Felis catus*) one seen.
- Goats (*Capra hircus*) numerous, 28 and 70+ in a herd on the base of northern cliff hillsides, also numerous skulls.
- Sheep (*Ovis aries*) herd of 5 seen, numerous

skeletal remains.

- Rabbit (*Oryctolagus cuniculus*) skeleton and scat piles, but a few active rabbits sighted as very low in numbers.
- Fox (*Vulpes vulpes*) numerous scats at several sites and a few skeletal remains.
- Horse (*Equus caballus*) several large scats in paddocks near homestead.



Figure 6 : The morning after eating a cockroach and two large moths by a little Long-tailed Dunnart (*Sminthopsis dolichura*).

Email Contact : pmatejci@bigpond.net.au

EQUIPMENT STORAGE

SEG has accumulated a considerable amount of equipment to enable it to carry out surveys in remote regions of the state. This includes the truck and canopy, the food trailer and cage trailer as well as a considerable amount of tents, camping and cooking equipment. We are looking for somewhere secure to store this equipment, or if a suitable shed is not available a piece of land upon which a shed can be erected. As the truck and canopy are quite high, a high clearance door to a shed is necessary. If you have some suggestions and possibilities please contact Trent Porter trentasaurus@bigpond.com or Stuart Pillman aspillman@netspace.net.au.

2013 Kangaroo Island Planting Festival

The 2013 Kangaroo Island Planting Festival was held on Friday 5th, Saturday 6th and Sunday 7th July 2013, and the event was another enormous success. Despite the odd shower and slightly muddy conditions we managed to plant 56,548 plants over 25 hectares, which was an awesome effort by all involved.

Including some additional plantings carried out by small groups of Conservation Volunteers, the final planting statistics for this year's festival are as follows:

<u>Event</u>	<u>Seedlings</u>	<u>People</u>
Friday 5 th	14,096	56
Saturday 6 th	38,632	184
Sunday 7 th	3,240	68
Other plantings	580	11
TOTALS		56,548 319

Once again the Kangaroo Island Planting Festival has shown that it really is possible to make a significant and positive difference to our environment simply by bringing together enthusiastic and hard-working people in a targeted and organised way.

Thank you very much for your interest from everyone in the Kangaroo Island Nationally Threatened Plant Species team. Hope to see you at next year's Planting Festival!

Dates for 2014 Kangaroo Island Planting Festival in your diary now

4th–6th July 2014

Contact: Danny.Male@sa.gov.au

SCIENTIFIC EXPEDITION GROUP INC.

The Scientific Expedition Group (SEG) came into being at a public meeting on 21st August 1984. Members receive regular information on SEG activities and expeditions. Membership is open to any persons, family or organisation interested in the following aims:

- * The promotion and running of expeditions of a scientific, cultural and adventurous nature.
- * The furthering of knowledge, understanding and appreciation of the natural environment.
- * Promotion of the values and philosophy of wilderness.
- * Enabling people to learn the skills required for planning and running expeditions, and to develop sound field techniques.

APPLICATION FOR MEMBERSHIP AND MEMBERSHIP RENEWAL for 2014

SUBSCRIPTIONS rates

Adult member - - - - - \$30.00

Concession cards/ student----- \$15.00

Family membership - - - - - \$35.00

Corporatemembership - - - - - \$35.00

Name

Address

.

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Telephone (H) (W)

E-mail

Details of scientific, cultural, and adventuring or other relevant skill or interests you may be prepared to share with the group:

.

Send a cheque (Scientific Expedition Group Inc.)
with a Photocopy of this page to
The Secretary
Scientific Expedition Group Inc.
P.O. Box 501
Unley S.A. 5061.

ADVANCE NOTICE

SEG Malleefowl Monitoring 16-17th November 2013

This annual malleefowl monitoring project forms part of the South Australian and National malleefowl monitoring programme. SEG members and volunteers will survey the Bakara Conservation Park survey grid on the 16th November and Henry Short's adjacent Heritage Agreement survey grid on Sunday the 17th November. The survey will consist of several groups of 2-4 persons walking for several kilometres between mapped malleefowl mounds to determine whether the mounds are being used for breeding this season. This will involve moderate walking each day through open mallee and over low sandy rises although hot weather may add to the difficulty. Approximately 96 nests will be checked & documented.



When: Saturday 16th November and Sunday 17th November 2013.

Arrive at site Friday afternoon or evening and camp overnight so that an early start (08:30 am) can be made on Saturday morning. If you can't arrive Friday night, please arrive very early Saturday morning so that you don't get left behind. Training will take place early Saturday morning.

Where: Camp at Henry Short's farm approx 30km east of Swan Reach (map will be sent to those responding).

Travel: Make your own travel arrangements. 4WD vehicle is not necessary but the last 15 km is a dirt/gravel road. If anyone requires transport, contact an organiser and we will try to arrange something.

Sites: Bakara grid on Saturday. Henry's grid on Sunday.

Bring: All food and drink requirements, something to cook on, something to sleep in (tent, swag, van etc.), chair, UHF radio if you have one, suitable clothing, (Checklist will be sent to those responding). Henry can supply water. Toilet facility will be available. There are no showering facilities, so plan to go without. We may be able to have a campfire depending upon weather conditions. You need to be self sufficient in everything.

Clothing: Covered shoes/boots suitable for extended walking, hat, long sleeved shirt (recommended), long trousers (snake habitat), gaiters (recommended), high vis. jacket (if you have one). SEG has some high vis. jackets in various sizes for loan.

Supplied: Monitoring kits which contain a Palm Pilot, digital camera, GPS.
Feel free to bring your own GPS and camera.

Return Home: We should be finished by 4:00 pm on Sunday. It could be earlier than this depending on the number of participants.

General: We will be on the grids for most of the day, so be prepared to pack lunches.

RSVP: Please notify SEG of your intention to attend so that final numbers can be given to the State coordinator.

Contact:

- **Trent Porter**
trentasaurus@bigpond.com

Home 08 8278 9078 Mob 0438827890.

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Some Affiliated Organisations



<http://www.naturefoundation.org.au/>

SA Herpetology Group Inc.

The SAHG is a group of people dedicated to the study and conservation of reptiles and amphibians through regular meetings, field trips, educational displays, talks and involvement with government and non-government conservation groups.

<http://www.swiftpages.com/sahg/index.html>

Wetlands & Wildlife

Wetlands & Wildlife is a conservation company that was founded by Mr Tom Brinkworth to hold land of significant conservation value for the benefits of future generations. It is hoped that it will prove a viable model for conservation in the private sector to complement the National Park systems.

<http://www.wetlandsandwildlife.org.au/>



<http://www.gluepot.org/>