

Volume 28 Number 3 December 2012



# Scientific Expedition Group Website



#### Items of Interest

Watch for the announcements of the 2013 SEG expeditions.

The December SEGMENTS is now online to be read.

Please send any Comments to the Editor, Andrew Barr and Helen Johnson

#### A Bit of a Writer?

If you have been on any SEG activity lately or have been a past member thinking about returning to the fold, perhaps you would like to write about your experience. This might have been taking part in an Expedition or one of our on going projects. <u>Andrew Barr</u>, our SEGments Editor or <u>Helen Johnson</u> our assistant SEGments Editor would love to hear from you.

#### Spot any Problems

If you find a problem with our website, please contact <u>Michelle Trethewey</u> or <u>Garry Trethewey</u> and we will endeavour to fix it as soon as possible. Contact

Scientific Expedition Group Inc. PO Box 501 Unley S.A. 5061 email: Scientific Expedition Group

#### About

The Scientific Expedition Group Inc. is a non profit organisation which aims to promote and run expeditions of a scientific, cultural and adventurous nature, to encourage knowledge and appreciation of the natural environment, and to develop interpersonal skills by living and working towards a common goal!

#### Http://www. communitywebs.org/Scientificexpedition group

# SEGMENTS

### Scientific Expedition Group Inc.

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**Cover Photograph:** Great Egret (*Ardea alba*) by Duncan Mackenzie

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Contact: Scientific Expedition Group INC. SEG email: scientificexpeditiongroup@gmail.com

SEG Secretary: Sarah Telfer PO. Box 501, Unley SA 5061 Email: sarahtelfer@internode.on.net

SEG Treasurer: Graeme Oats Email: gdoats@bigpond.net.au

SEG Website:Http://www.communitywebs.org/ ScientificExpeditionGroup

# Editorial



The ABC Catalyst program of 6 September 2012 exposed a troubling issue for our seabirds. The program reported that flesh footed shearwaters on Lord Howe Island were dying in large numbers. An autopsy on one bird found one hundred and seventy five pieces of plastic in the bird's stomach, including bottle tops, balloon ties and even a small doll's arm. By body weight this is equivalent to an adult carrying 3 to 5kg of plastic.

The Catalyst program reported that "3.5 million pieces of plastic enter the world's oceans daily". They accumulate via currents into large gyres – rubbish dumps of the oceancausing injuries to marine life and washing up on beaches. Catalyst reported that "over 275 species worldwide are known to be affected by marine debris including nearly half of all seabird species."

The plastic accumulates contaminants from the ocean, concentrating them up to 1000 times the background concentration. Over decades the plastic breaks into smaller and smaller pieces and can be ingested by animals as small as plankton. As one predator ingests a smaller one, the contaminants magnify up the food chain. The catalyst program warned that we can no longer certify as organic food coming out of the ocean.

Each of us can make a difference to this burden of plastic. South Australia does better than the other states through our container deposit scheme, with less debris being found off our coast (as rubbish is also blown offshore). In South Australia the use of carry-home plastic supermarket bags have dramatically declined, but what about those smaller plastic bags used for vegetables, bulk food and delicatessen items? They are used in ever increasing numbers. My greengrocer in Jetty Road, Glenelg is happy to have me return the polystyrene trays which are used for small bulk sales. I am assured that the greengrocer reuses them. These trays are not recyclable according to our local council rules. Even though the problem of plastic pollution is a global one, maybe we in South Australia can make part of the solution a local one by limiting our use of plastic even further, or by re-using items for as long as possible.

In this edition the lead article by Duncan Mackenzie explores the evolution of the cameras that he has used from his teenage years to his current Nikon D300S digital camera. Duncan delights us with a sample of the many birds he photographed whilst on a recent trip to the Cooper Creek.

In September/October Michelle and Garry Trethewey enjoyed a leisurely trip to the Gammons, finishing in Brachina Gorge in the Flinders Ranges. Michelle has written an interesting article about their unusual finds including the quite rare Codonocarpus pyramidalis (Slender Bell-fruit) tree.

Trent Porter has been exploring Hiltaba Station as a location for SEG's next major expedition. Trent entertains us with their exploits on their Hiltaba holiday.

I have written an article describing results of reinstated habitat over the four years of the Kangaroo Island Planting Festival.

Janet Furler has provided an article with results of Minnawarra's spring biodiversity survey, and a second article describing the progress with new plantings in the old poplar site and others sites on the property.

The final article is about a short trip to Gluepot Reserve that I recently undertook with Annette Vincent. I describe my surprise and delight at what I saw.

Contact Editor: Helen Johnson kdolphin@internode.on.net

# The Beauty and Magic of Flight Duncan Mackenzie



Figure 1: Australian Pelican in Flight (Pelecanus conspicillatus)

My interest in birdwatching started at age 11 and rapidly moved to encompass the art of bird photography.

At that age and time, I could only afford to purchase a second-hand Zeis Ikon 120mm double extension bellows plate camera with roll-film attachments. In those days cameras used leaf shutters and the blind 'shutters', used in 35mm film photography (until recently), were virtually unknown.

Some years later, 35mm cameras became the camera of choice for serious photographers, but the use of upmarket expensive professional 120 film cameras still persisted in professional photography. At this stage I was able to afford to purchase a couple of second-hand 35mm professional level Nikon cameras and spent the next few years adding a range of sophisticated accessories for these units – motor drives, remote control units, telephoto lenses etc.

telephoto lenses without blurring the images from hand movement, most photography was undertaken using a tripod, which meant that photographing birds at the nest was the most popular form of bird photography. Capturing good images of birds in flight was only a dream to many bird photographers.

The advent of digital photography dramatically changed the whole photographic scene – now almost anything was possible for both the amateur photographer through to the high end professional. Coupled with an 'ethics' movement not to disturb birds at the nest, digital photography moved to capturing images of birds in flight, feeding and interacting with their surrounding environment.

I presently use a Nikon digital camera (D300S) and have a range of digital lenses including a 150-500mm telephoto. The beauty of modern technology lenses is that many have a VR (Vibration Reduction, Nikon) or 'Optical Stabilization' (Sigma) that means you are able to take images at shutter speeds 4 stops slower than is

Because it was almost impossible to hand hold the larger



Figure 2: Australian White Ibis (Threskiornis molucca)

possible without using a VR lens. Coupled with high speed internal focusing, Silent Wave motors that drive the focusing mechanism (Nikon) etc. and a wide range of exposure control, image enhancing and other technical wonders, the digital camera has opened up a whole new world of exciting and affordable nature photography situations to even the most amateur photographer.

An important aspect of flight photography is the ability of the camera lens to automatically distinguish between panning and camera shake, coupled with vibration reduction. Many digital lenses now have this feature and the photos in this article have all been taken with the 500mm zoom lens hand-held and panning.

The images were all taken on a recent two month trip through north-west NSW and Queensland - most were taken on the Cooper Creek. Following the rain events of the past two years, the Cooper is experiencing excellent water flows. These perfect environmental conditions have brought with it an explosion of bird life throughout the north the most noticeable species being the water birds and raptors. Although many different species of birds were photographed during the trip,only the beauty and magic of water birds are shown in this article.



Figure 3: White necked heron (Ardea pacifica)

Contact email : mackenzie@picknowl.com.au

# Vulkathunha Gammon Ranges Trip October 2012 Michelle Trethewey



Figure 1: Sambot Waterhole photopoint; Photograph by Garry Trethewey

Garry and I were the only expeditioners for this trip, possibly due to the fact that there had been a maintenance trip to the area trip a few weeks earlier. Given that we only had ourselves to answer to and we had about 10 days away from work, we thought that we would go with the flow a bit and see how we felt about doing other activities in the area.

We started the drive from Adelaide just before 0600hrs on Thursday 27th September. The Leigh Creek temperature had been forecast at 37 degrees, so we weren't really looking forward to a hot drive and also a hot arrival at Arcoona Creek but there wasn't much that we could do about it. The first couple of hours of driving was really pleasant but about 10km before Hawker a strong north headwind set in. The old diesel worked hard, power hungry air conditioning was off the menu so the rest of the trip was hot and uncomfortable. When we got to our Arcoona Creek car camp site, Garry suggested that we walk straight to Vandenberg for the night rather than camp by the car. We started walking at around 1530hrs and arrived at Vandenberg 1 camp site at about 1800hrs. Interestingly, although the temperature for Leigh Creek reached 36.8 degrees, the wind and low humidity made it seem much cooler.

We had taken only a couple of litres of water each in with us. The intention was to get to upper Sambot that evening to get more water, but given the late hour, we raided the water cache of a few litres for the night and morning start.

The previous group had already told us that Wild Ass and Grandfield had no water in them but when they were there a few weeks earlier, Sambot had beautiful clean water, so good that the cache had been topped up with it. So the plan was to get up in the morning and do the photography circuit climbing up to North Tusk and on to The Plateau, returning to camp via Sambot armed with fresh water for ourselves and to replenish the cache.

On Friday morning, we woke to a warm wind and light rain. That wasn't so bad – we packed a couple of thermal tops and a raincoat and we set off up the hill. Within half an hour, that warm light rain had turned to a strong icy wind and steady rain. We got colder and colder as we pressed on, not stopping on North Tusk on the way up as we usually do for a morning tea as the wind and cold was penetrating. We were hoping that it would be warmer on the way back to complete the photography at North Tusk and have a lunch stop. By the time we reached The Plateau, stopping only long enough to do the photopoints, our fingers were frozen and I was shivering. Belatedly we put on all our warmies and made a retreat.

On our approach back to North Tusk the sun was trying really hard to have a presence which was lovely but the cold wind and the rain coming now in patchy downpours didn't let up. Getting back to North Tusk, we took the photos and found a lovely spot in the lee side of the wind, where we lay about on the rocks trying to warm up and dry out. The rain had all but ceased and out of the wind it was quite pleasant. Returning to camp via Eichler Creek, we turned off to collect water at Sambot. The water was no longer beautiful and clean, but rather a brownish colour and not very deep. It was a bit marginal, but we needed it, so we took a few litres back to camp to use for cooking. We didn't top up the cache with any of this water. On the next trip we will need to do a water walk into Vandenberg 2 for use by the expeditioners.

Back at our camp, we listened to the sounds of lots of birds that were flitting about from tree to tree and propelling themselves quite low above us, sounding like jet engines at times. There were masses of tiny budgies and what we think were martins. We also listened unhappily to the sound of goats calling out to one another.

On Saturday we spent some time exploring caves in the cliffs around Vandenberg, looking out for whatever interesting animal remains we might Having poked our heads into every cave and crack that we could find, we were nearly at the end of our search when amazingly, out on an open ledge exposed to the weather, we spotted a lump of amberat (stick -nest rat excreta). What a good morning of exploring.

We packed up camp and headed back to the car, deciding to do the Wallaby walk and stay another night



Figure 2: Lump of amberat on exposed ledge; Photograph by Garry Trethewey

in Arcoona Creek before heading out towards Adelaide. The walk up was lovely – beautiful weather, light breeze, 20 degrees. We weren't particularly quiet with our walking or our talking. Most people who have seen the wallabies in and around the rocky hillsides and cliffs of Wallaby and Evasive Creeks have seen them whenever they haven't been quiet.

In theory you are meant to creep along as silently as possible and communicate with one another by tapping rocks together with at least one person scaling dangerously loose rocky cliffs. Any way, this takes forever to do, so most people tend to amble up and just stop from time to time to look and listen. It was at one such stop that Garry spotted a yellow footed rock wallaby on a rocky hillside above Wallaby Creek. We sat and watched for a while and discovered a total of 5 of them watching us back. That was lovely. Needless to say that this walk was also another opportunity to look in every cave that we saw that wasn't too high up for amberat and animal remains.

We took a break at a high point near the top of Wallaby

Creek so that I could test my phone reception. Pointing towards Owieandana, I got one bar, so that was good to know. While we were resting Garry said to me that he thought that he could see a *Codonocarpus pyramidalis* (Slender Bell-fruit) tree. I turned to look in the general direction and said that I could see it too. In fact, I was looking at a different tree. Then we started to see many of them on one small ridge only. There was only one thing for it – to map it, GPS it and make some notes. The trees were amongst masses of *Gossypium sturtianum* (Sturts Desert Rose) which curiously were also only on this one small ridge in such abundance. This was a wonderful find since the *Codonocarpus pyramidalis* is quite rare and are considered a vulnerable species.

After a long distraction with the *Codonocarpus pyramidalis* find, we made our way to the top of wallaby creek where we stopped for lunch looking across the steep sides of the hills bounding Evasive Creek. As we were sitting there, a yellow footed rock wallaby bolted past just below us. Great. After lunch, we began the decent into Evasive Creek. This is the part that I always hate.



Figure 3: Codonocarpus pyramidalis and Gossypium sturtianum on one small ridge; Photograph by Garry Trethewey

The slope is very steep and the ground is loose, so every slip is likely to end up with a handful (or bumful) of spinifex, or worse, a big slide down the steep slope. It is a slow and thoughtful descent until you reach the creek. Once in the creek there is lots of large rock hopping, but that is a relief and a pleasure after the hairy descent. Again, poking around in caves, we found another lump of amberat. This had turned out to be a very productive and enjoyable day.

Overall, we saw, emus, sleepy lizards, goats, yellow footed rock wallabies, euros, pretty birds and no snakes. The following morning we packed up and left Arcoona Creek. On the way out we met the new Manager of Owieandana, Greg Smithson, who invited us in for a cup of tea. Greg has just finished a four month trial at Owie and has now signed up for four years. After tea, mince pies and a rest we headed off towards Edeowie where we hoped to find a room for the night where we could clean up, get into a bed, use a kitchen and then start the next few days of the walking and tenting trip.

Unfortunately, being school holidays and the long weekend, there was nothing available for us. Wilpena was going to be the same. We asked if there would be a spare room over the next couple of nights but there was nothing. We decided to pitch tent in one of the designated camp sites in Brachina Gorge. We called into 3 of the camp sites which were all full. The last one we went to had one pretty good spot left. We set up in the fading light and were gone again by 0730hrs the next morning.

Garry was keen to do the geological trail again seeing as we were there and we had the time. At a nice stopping point we looked into a couple of promising caves and low and behold found the mother-load of amberat and stick nest rats nests. This nest would have been about 600mm wide by about 250mm high. Unfortunately the slope of the floor of the cave put it just out of reach and unable to be attained by climbing (smooth wrong sloping walls with no holds). We have GPS referenced it and taken photos for Graham Medlin. It is possible that this one is already known about and is still intact due to it's inaccessibility. The drive through Brachina was really crowded this time, but was still good. With hopping in and out of the car every 5 minutes, Garry thoroughly recommends the Brachina Geological Trail to anybody with the slightest interest in geology. It took us about 5 hours for us to get through, so we were very tired at the end of it. It was also day 5 without a shower, a bed or a kitchen and there was no promise of being able to get this package of things within the next few days if we were to stay in the area. We wanted to do some more walking in Wilpena Pound either from the Edeowie end or the



Figure 4: Garry in Evasive Creek cave collecting a piece of amberat; Photograph by Michelle Trethewey



Figure 5: Very large stick nest rat nest and amberat found in Brachina; Photography by Garry Trethewey

Wilpena Camp ground end but more than that, we both wanted one night of home comforts before we started out again. I think that one's longing for comfort is heightened when very tired. In the end we decided to come home to Adelaide and make Wilpena Pound the subject of a separate walk on another occasion.

What an enjoyable trip. Having arrived back home, I can't wait to get to back to the Flinders and North Flinders Ranges again

#### Contact: michtreth@bigpond.com

# A Hiltaba Holiday

### **Trent Porter**



#### Figure 1: Hiltaba homestead and outbuildings

Back in September, Ray and I were feeling a bit in need for some time off and the word had got around that Nature Foundation had recently bought Hiltaba Station. As I had done a number of kangaroo surveys on the property with DEH several years before, I had fond memories of the place and there was now an opportunity to volunteer as a temporary caretaker for a week. SEG were also considering an invitation to do a biodiversity survey in 2013. Stuart Pillman had been doing some mining of data bases about the place in preparation for this and he offered to come along so that we might try and locate previous photo and survey points. Greg Johnston (Nature Foundation Ecologist) also joined in so that he could take his family and show them what Hiltaba was all about. So on the 24th September we met on the Port Augusta Foreshore for coffee, lunch and planning.

The rest of the day was spent negotiating the largely dirt road through station country arriving at Hiltaba sometime after dark where we settled into the rather beautiful homestead. Some time had to be spent locating and reading all the instructions on operating the generator, lights, batteries etc. but we eventually had all the machinery going. Next morning we tottered out to be greeted by a beautiful day and a white Euro just behind the homestead and many, many birds feeding from the flowering eucalypts over-hanging the homestead verandahs. A very pleasant way to begin the day!! There was much to explore around the homestead, including several different generations of Jackaroo's quarters, workshops, many different rubbish dumps, and visible a kilometer or two away were the shearing shed and shearers quarters. These turned out to be well worn but an ideal base for an Expedition.

One of our first jobs was to fill the water tank at 'The Gap' which meant quite a long drive with a jerry can of diesel, along the pipeline, past several old windmills, bores, tanks etc. to Barry Bore where there is a tiny shed containing an elderly looking diesel pump. Here we had to fill the fuel tank, connect the batteries, bleed air from the fuel lines and start the pump, then travel several kilometers back to await the arrival of the water.

By the time the Gap Tank was full the diesel tank at Barry Bore was empty which meant a trip back to disconnect the battery 'till the next pumping session was needed. While the boys were engaged in mechanical things, Ray was exploring the homestead grounds and came back to report a large snake. This caused great excitement and several sprint records were broken and sheets of old galv were flung aside recklessly until I managed to grab a large snake by the tail. I hung on grimly as Greg and Stuart disengaged the bitey end from a roll of chicken wire and other entanglements Fortunately, it had been quickly identified as a carpet python before the captureso it wasn't as heroic or foolish as it sounds. The snake turned out to quite unfazed by the capture and was very easy to handle. After taking a scale clipping, it was eventually released where it was found, no doubt to its relief. It's probably telling tall tales of giants to it's grandpythons as we speak!



#### Figure 2: Greg Johnston with Carpet Python

#### (Morelia spilota)

We explored the property locating photo points and taking new photographs over the next few days. Part way through this we had to move out of the homestead to the Jackaroo's quarters because a party of bushwalkers were being brought up by Nature Foundation Council to investigate the potential of Mt Friday and Mt Hiltaba for adventure hiking and they had first dibs on the fancy digs. Meanwhile Greg had to travel back to Port Augusta to pick up his family and some additional supplies.

On the next morning, there was great excitement as Greg's son spotted a large black goanna (*Varanus tristus*) basking on the sidewall of their quarters. Many photos were taken but it was not possible or necessary to capture him at that point. Meanwhile we were surrounded by a flock of about 200 merino sheep coming and going to the only available water in a quite elaborate dam behind the homestead. The animal noises eventually

subsided after Peter Privett (Manager of Yarna) came roaring over the mountain in his ultra light and mustered them all into the yards at the shearing shed. Very hairraising to watch!! Don't know what his insurance company would think!

As the days passed all too quickly, we toured most of the property and re-located all the photo points and past survey points and re-took photos to compare with those taken in previous years - the difference in vegetation cover, particularly grasses was very striking - what a difference a bit of extra rain makes!

This obviously has an effect on the larger fauna as there were more emus and kangaroos and evidence of wombats than I've seen anywhere. In fact, wombat excavations made driving on the station tracks quite a hazardous undertaking and stretched the nerves a bit, especially at night. There were lots of other reptiles, in particular, caught and observed as we travelled around. It's easy to see the problems trying to run it as a sheep property (little water) but it is an ancient and beautiful landscape and we look forward to returning to explore more of it's secrets.

On Friday, we had to pack to leave, but Greg and his tribe stayed to spend time becoming more familiar with the place, so we bid them farewell and started the long trek back to Adelaide.



Figure 3: Local reptile wildlife: Peninsula Dragon (*Ctenophorus fionni*)

Contact email: Trentasaurus@bigpond.com

# Kangaroo Island Planting Festival

### Helen Johnson



Figure 1: Reinstated habitat on Kangaroo Island planted in 2008 and photographed in 2012. Photograph courtesy DEWNR

The Kangaroo Island Nationally Threatened Plant Program (KINTPP), a project run by the Department of Environment, Water and Natural Resources (DEWNR), was started in 2002 to facilitate the recovery of nationally threatened plant species on Kangaroo Island. The lack of habitat posed the main problem for these threatened species, particularly those that live on the eastern half of the island. In 2004 the KINTPP commenced work on a project to reinstate habitat in specific areas of the island that had been cleared of native vegetation, with the areas being selected so as to restore connectivity between existing native vegetation fragments.

One of the key aims of the project is to put back habitat, not just plant trees. The plantings include as many species as possible: grasses, sedges, shrubs and trees over many different structural layers: under, mid and upper storey. Plantings are made as densely as possible with a minimum of 2000 plants per hectare. This approach is very different from many revegetation projects.

I have been searching for a reason to print this stunning and inspiring photo (Figure1 taken in July 2012) of reinstated habitat planted in 2008. The reason came in the form of an email from Danny Male, DEWNR, advertising the next Kangaroo Island Planting Festival to be held on Friday 5th, Saturday 6th and Sunday 7th July 2013. Preparations are already underway on a new site where the aim is to restore 25 hectares of habitat for some of Kangaroo Island's rarest plant life.

The planting site pictured above is part of Cygnet Park Sanctuary, the majority of which was cleared and used as a farm. The property is 300ha in total and approximately 75ha of remnant vegetation was left on the property before work started on it in 2008. Cygnet Park is now one of the largest blocks of intact native vegetation in the Eastern Plains area of Kangaroo Island. The University of Adelaide has a PhD student working on the property looking into whether important ecological processes (such as pollination) are starting to happen within reinstated areas.

In order to achieve the habitat restoration, the project relies on the help of volunteers, and every year the Kangaroo Island Planting Festival is held over one weekend in July when hundreds of volunteers descend on the island to help out with the planting. The project has involved over 2000 volunteers and has planted over 400,000 plants to reinstate close to 200 hectares of habitat in eastern Kangaroo Island. Over 130 different species have been planted, all sourced locally to the planting area and grown in a purpose-built nursery by KINTPP staff. In addition to the planting, the whole area is seeded (by hand) with a mixture of 20-30 different species.

After 2 years the results from annual surveys show that over 90% of the original plants are still alive. At the oldest site (2008) there is still over 80% survival after 4 years, and those plants are now well established, producing flowers and viable seeds and are providing habitat to a huge array of invertebrates, reptiles, birds and small mammals. I attended the Kangaroo Island Planting Festival in 2011 for just one day as a volunteer. I planted at Cygnet Park Sanctuary, and wrote an article for SEGMENTS about this inspiring experience (December 2011, Vol. 27, No. 3).

If you would like to be part of next year's event please contact Heiri Klein at the Department of Environment, Water and Natural Resources at: heinrich.klein@sa.gov.au

#### Contact: kdolphin@internode.on.net



Figure 2: Volunteers at work at the 2012 Kangaroo Island planting festival. Photograph courtesy DEWNR

# Minnawarra Poplar Project

## Janet Furler



#### Figure 1: The ridge being revegetated

In September last year we were successful in applying for a Federal Government Caring for Our Country grant, allowing for fencing and revegetating sections of Minnawarra. A large portion of the work has been completed, with a huge amount of help from working bee volunteers.

There are two parts to the work, a concerted attack on a weed species, and fencing and planting for revegetation.

The poplar attack has been extraordinarily effective. The site was cleared of maybe 1000 stems on a warm day in February, a length of fence erected and bales of hay for erosion control were put in place. In September we had the next of a series of weekend working bees and planted about 100 local native species where the poplars were removed. When I checked the site at the beginning of November all the plantings looked very happy, and some had grown out the top of their tree guards. As for the reshooting of the poplars, I found a dozen small shoots over the whole site. These will be very easy to poison as

they appear. Unfortunately for the hard workers who made the poplar pile, we had to burn the pile before the fire ban season started. I can say it was very satisfactory to see!



Figure 2: The poplar heap burning

Part two of the grant was fencing areas for regeneration or creating corridors. Having worked out where the fencing was going, we had to wait until the fence post basher-inners could do their bit without sliding sideways down the hill (it has happened before!). With the fence posts up we were set for Poplar Day 2. Various teams ran wires for fencing and planted 300 local undergrowth species in three different places. Poplar Day 2b, on the following Sunday, saw another 150 plants in, with the remaining 150 planted by Richard Willing and me. These plants have all had at least one watering and two good rains since being planted. While they aren't growing as quickly as the poplar plantings, due to the thin topsoil on the ridge, they are still looking happy. There are also gum seedlings and resprouting. Banjo the puppy is definitely growing faster than the trees.



**Figure 3: Banjo helping with tree guards** The plants we put in this year were Trees for Life plants, grown for us by Masto Myles (thank you Masto). We have another 1,000 plants, different local species, coming next autumn, grown by Trees for Life. We will be organising another planting weekend next winter and will be very grateful for all assistance given. We will also try to pick a better date and avoid important days like Father's day!

#### **Bush For Life**

About 18 months ago, the whole 380 ha of Minnawarra was recognised a Bush for Life site. BFL organises mini-BATs, which are small groups of people who come to take care of a site on a casual basis. We have mini-BATs on the third Sunday of each month, from 10am to 1pm. Mostly the jobs done are weeding various species, in different spots around the property. The SEG Biodiversity sites get special attention.

Although it is preferable for participants to have attended a BFL basic training morning, all comers are welcome and some training and gear is provided at the time.

Contact : Janet on 0419 842 667 Email: thefurlers@gmail.com



Figure 4: Some of the new plants in the poplar site. This was all dense poplar growth.

# Minnawarra Biodiversity Survey

### Janet Furler



Figure 1 : Rattus fuscipes caught in the new pit

The run up to this survey (from 29th September to 3rd Ocotber) was even busier than usual, with two projects to get up and running before we could start. We have been aware that the pits we began using at the beginning of the survey are not the best shape for catching mammals. Replacing the buckets with PVC tubing (150mmx500mm) will allow us to see how many beasties we have missed in the last 11 years. It has also given us the chance to refine the pitfall fence lines and adjust the placing of the pits. What it actually meant was cutting, drilling and gluing PVC pipe (2x6m lengths generously donated by Iplex Pipelines, thanks Phil Sutton, and Jack Holgar for your help), two weekends of posthole e digging by Alex and Andreas (thanks guys), filling in other holes, repositioning fence lines, (thanks Alun), to get back to where we started from!

The other project was transferring our ID system from ear holes to microchips. This was the easier option than growing extra ears on the animals. It was another of those 'Just do this' thoughts that then had many details – training injectors and holders, developing a system to minimise holders getting bitten, changing all our paperwork.

In the end we had everything organised on time to open the sites and catch a few animals, enabling David Schultz to approve our system (thanks Schultzy for your help).



Figure 2 : Scanning the chip in *Rattus fuscipes* caught in the new pit

We kept the number of participants low so we could refine our technique, but the animals got wind of it as well and stayed away in droves. This may have been due to the full moon on the first night. The recent 14mm of rain probably kept temperatures down to slow the reptiles as well.

The weather began quite cool, warming gradually.

Saturday29<sup>th</sup> 6-10 deg C. Cloudy, isolated showers 1mm. Mod SW wind

Sunday 30<sup>th</sup> Sept. 6-11 deg C. Cloud clearing, light showers. Light SW wind

Monday  $1^{st}$  Oct. 5-15 deg C. Cloudy with sunny periods. Light SE wind. Rain nil

Tuesday  $2^{nd}$  6-19 deg C. Clear, sunny. Light NE wind Wednesday  $3^{rd}$  13-23 deg C. Clear, sunny. Mod NW wind

The most surprising result this time was a Nil round at our most populous Site 1 – a previously unheard of event. Site 2 (the swamp over the road) had the best showing with 21 animals. All the other sites ranged from 2 to 8 animals. Our total catch was 64 animals, quite a low number, which we handled 128 times (range 1-8 times caught). We had one female antechinus who turned up every round (8 times) and had maintained her weight throughout. Peanut butter and oats is obviously good food! Of the 64 mammals we had 37 Bush rats (*Rattus fuscipes*), 16 Swamp rats (*Rattus lutreolus*) and 11 Marsupial mice (*Antechinus flavipes*, all female at this time of year). We caught no feral rats or mice. The practical side of micro-chipping ended up easier than we were dreading. One or two wriggled at the wrong (right?) time and got away but a 95% success rate for the first survey is OK. Add the absence of bitten or microchipped fingers and I would declare it a successful operation.

As for other catches, there were only 6 Common Froglets, one Garden Skink, a scorpion and about 40 sawfly larvae in a mass in the middle of the track. The award for prettiest goes to the Superb Blue Wren male (*Malurus cyaneus*) caught in an Elliott trap three times.



Figure 3 Superb Blue Wren (Malurus cyaneus)

Many thanks as usual to the scribes, foot sprayers, gate openers, coffee makers, trap counters, bait rollers, diggers, fillers, proppers and general good company. It absolutely wouldn't be the same without you.

#### FOUND

A gold **ladies watch** with a stretch band was found recently hanging on a sprinkler near the farm house. It may be from the survey, a poplar day or a visitor. I am happy to send a photo to anyone who is interested.

Contact: Janet Furler Janet on 0419 842 667 Email : thefurler@gmail.com

#### Dates for next year Autumn 2013

Saturday 13<sup>th</sup> April to Wednesday 17<sup>th</sup> April Help needed to set up on Friday

#### Spring 2013

Saturday 27<sup>th</sup> September to Wednesday 2<sup>nd</sup> October. Help needed to set up on Friday. TV screen available on Saturday afternoon.

# Morella in March 2013

SEG is planning a small expedition to do a survey of birds, mammals and reptiles on Morella, a property owned by Wetlands and Wildlife, near Salt Creek in the upper South-East, from Friday 1 March to Wednesday 6 March 2013.

Morella had been cleared for grazing. The survey is to record the effects on local fauna of revegetating, which is in progress.

There will be six lines of pitfall and Elliott traps and opportunistic searching. Invertebrates are not in our brief. We need six volunteers to help the three scientific leaders. If you are interested, please email me at <<u>jhlove@internode.on.net</u>> or write to me at 17 Lascelles Avenue, Beaumont 5066. **John Love.** 

# A Trip to Gluepot

# Helen Johnson



Figure 1: White- Browed Babblers (Pomatostomus superciliosus)

As a result of a chance conversation with Annette Vincent, SEG's ant expert, I found myself at Gluepot Reserve for six days in October. Annette has been conducting regular ant surveys at Gluepot since 2007, monitoring seasonal and annual changes in ant populations. On the Nullarbor trip I had taken responsibility for the ant surveys at the Hughes and Muckera camps and was keen to learn more. I had heard about Gluepot from Duncan Mackenzie whilst we were on the long drive to Arkaroola for the 2011 survey, and I had been very keen to visit the Reserve. BirdLife Australia owns Gluepot Reserve which is run as a publicly funded reserve with a voluntary Management Committee (Chair, Duncan Mackenzie). Teams of volunteers undertake the tasks laid out in a five year management plan and donate an average of 27,760 hours per year. Gluepot Reserve runs like clockwork and is very much on the map "internationally".

The trip to Gluepot is an easy four hour drive via Waikerie where you stock up with fruit and vegetables, since the region is in a fruit fly control area. John Weyland, a volunteer with the S.A. Museum, and I travelled in Annette's car, and I was glad to be "on the road again". We enjoyed a light lunch at the Waikerie Bakery where Annette's handbag remained for the next six days. It says something about the "leaving behind of your worldly goods" when you go on biodiversity trips, that you can manage without those personal things (as long as you can find a spare comb in your car!).

I had heard from Duncan about the many awards that Gluepot had won, but I was completely unprepared for the "wall" of framed awards in the impressive Visitor's Centre, which is the first stop for all visitors to Gluepot. My image of semi-arid mallee country was of fairly sparse vegetation, and I imagined camping sites in open areas of red earth with a long-drop toilet somewhere rather prominently placed. The reality is so far from that as to be quite breathtaking. The camping sites (three of them) are set back a little from the tracks in dense woodland, and as you drive past you have to look quite hard to see whether there are campers present. When Gluepot was purchased by Birds Australia in 1997 there were eighteen dams on the property. The decision was made to fill in sixteen of the dams and fence off two (from herbivores) for domestic use. This action resulted in a natural de-stocking of both native and feral animals and allowed the mallee woodland to recover. The results are amazing, with Gluepot Reserve now regarded as a world leader in conservation and land management. It is indeed a semi-arid woodland paradise.

Gluepot is a centre for scientific research with 295 permanent biodiversity sites. The sites are monitored annually for birds, mammals, reptiles, photo points, vegetation and malleefowl. Bat research and fire effects on biodiversity are also important research areas. About a third of the 51,300ha property (which is approx. 37km x 14km) is old growth intact mallee with some trees being hundreds of years old. Gluepot has the largest block of intact mallee in Australia according to the website(which is very informative). The property supports over 200 bird species with 18 of these being nationally threatened, 53 species of reptiles and 12 species of bats (some nationally threatened) - there are very few areas in the world that support such a concentration of threatened species.

Annette, John and I as a scientific team stayed in the comfortable permanent accommodation and prepared and ate meals in the communal kitchen. We worked in the impressively-resourced science centre to study ants collected opportunistically. I peered down a microscope and became "knowledgeable" about shapes of gastors and petioles, and even remembered a few funny sounding names of species.

Experts come and go at Gluepot, and at dinner time you meet and converse with interesting people from around Australia and across the world. I was fortunate to spend

a half a day with bird experts on a research project on fairy wrens. In their company I was delighted to see Butcher Birds, White-Browed Babblers, White Fairy Wrens, Splendid Fairy Wrens, Variegated Fairy Wrens, Elegant Parrots, Orange Chats, and a gorgeous painted dragon. On other occasions I saw a Brown Falcon, Spiney-cheeked Honeyeaters, Major Mitchells, Galahs, a pair of Rainbow Bee-eaters, a Mallee Ringneck and a pair of Mulga Parrots.

We set up twelve sites each with ten micropits in a range of different habitats. One area had had a bushfire in 2006, another area had undergone a controlled burn and a third area was unburnt. The vegetation varies across these sites and I became interested in collecting samples of vegetation and attempting to identify them. On the afternoons after the micropits had been checked we would retreat to the science centre and whilst Annette and John were busy with their work I began to look at the extensive library. The Reserve has its own herbarium collection (a duplicate is lodged with the State Herbarium), and a comprehensive survey of vegetation was undertaken by Michael Hyde and reported in 2001. His publication is available for sale at the Visitor Centre. Annette was interested in doing opportunistic ant surveys in vegetation areas different to the twelve micropit sites, and so this report was invaluable for aiding in the choice of several other areas.

With the "Field Guide to Plants of the Outback of South Australia" (also from the science centre) and a list of the plants identified by Hyde for one of the chosen areas, we set out; John and Annette to "ant" and me to identify plants. On returning to the accommodation with the Field Guide and a few unidentified plants in my hand, I stopped to say hello to two new arrivals outside the accommodation. Imagine my surprise and delight when



Figure 2: Spendid Fairy-Wren (*Malurus splendens*)



Figure 3: Mulga Parrots (*Psephotus varius*)

instead of introducing himself the man said to me "I wrote that book!" It was none other than Frank Kutsche, who with Brendan Lay had published the Guide. The young lady with him was Ellen Ryan-Colton, a specialist in mallee plants, whom I had met at Ceduna when two of the four Nullarbor groups had congregated on the last night of the trip.

Ellen Ryan-Colton (who is also a member of the Gluepot Management Committee) and Frank Kutsche took me out with them on a late afternoon foray measuring and logging several plant species to record goat damage. I learned a lot in their company and decided to collect samples of vegetation from all the micropit sites whilst we were retrieving the micropits on the last day of the survey. On the last night, in poor light and between predinner drinks, preparing a meal and eating a meal, I had the expert identification skills of Frank and Ellen, who generously and skilfully identified and logged plants from sites 1 to 4. Annette and I felt confident to continue the identification later when we arrived back in Adelaide, especially since Annette had a copy of Frank's book in her private library, a book which is currently out of print. Over several days we identified and logged plants from the remaining eight sites (storing the plants in the fridge in the meantime). We felt that we had learned a lot and Annette had added to her ant survey in a useful way. Frank at the Museum would be called upon to "id" those few pesky plants that defied us.

Photography by Duncan Mackenzie Contact: Helen Johnson Email: kdolphin@internode.on.net



Figure 4: Australian Ringneck Parrot (Barnardius zonarius)

# HILTABA

SEG's Expedition for 2013 will be to HILTABA, which is Nature Foundation's new conservation property on northern Eyre Peninsula near Lakes Everard and Acraman. This ancient and spectacular land has been de-stocked and the Foundation has asked SEG to do a baseline study to find out what life is there presently and to assist with future monitoring. Quite a few very uncommon critters and plants have been noticed already!

The survey will take place in two phases – FAUNA (meat & not much veg.) from April 14th. 2013 to April 27th. 2013 and FLORA (veg. & not much meat) from August 25th. 2013 to Sept. 7th. 2013. Applications are open for either or both. Accommodation will be available in Shearer's quarters or camping among shady Casuarinas. Costs are not yet set but will be minimal.

Contact Trent now to obtain application forms as numbers will be much lower than usual. A/H 82789078 or trentasaurus@bigpond.com

### **BirdLife Australia**



9 & 10 March 2013 Code: REP12 Facilitator: Dr. Mark Hutchinson

A short course on the basics of observing and identifying lizards and snakes in arid environments. The course will run for 2 days. It is aimed at anyone who would like to improve their abilities in finding and identifying reptiles. Field activities will include both night and day observation. Aspects of lizard photography will also be included.





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.

#### APPLICATION FOR MEMBERSHIP AND MEMBERSHIP RENEWAL for 2013

#### **SUBSCRIPTIONS**

Adult member	\$30.00
Concession cards/ student	-\$15.00
Family membership	\$35.00
Corporatemembership	\$35.00

	Name
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•••	E-mail

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

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