SEGments

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SEGments

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SEGments is the authorised journal publication of the Scientific Expedition Group Inc., PO. Box 501, Unley SA 5061. It is published four times a year to promote articles about biodiversity, scientific exploration and ecological research.

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Cover Photograph by Alun Thomas: A New Zealand fur seal pup with head clipped for counting

EDITORIAL

Helen Johnson

The where, when and how of expedition planning is one of SEG's strengths. Our inaugural President C. Warren Bonython mused on these things in "Reflections in a Billy-Can" in the first edition of the Scientific Expedition Group's Newsletter in November 1984. The name "SEGments" was yet to be chosen. Almost thirty years since SEG's founding it is pertinent to revisit Warren's musings, and his article is re-printed here in full.

"Over a campfire, gazing at the water in the billy-can through the smoke plume constantly moved about by the wind, you muse on where and how you will plan the next expedition.

South Australia has plenty of unique and exciting places for young and old to explore, whether they be aquatic ones on the great River Murray, the lakes at its mouth or the inimitable Coorong to the south; whether they be coastal areas in one of the gulfs or on the Great Australian Bight; whether they be inland places like the incomparable Flinders Ranges, the salty wastes of Lake Eyre or the endless expanse of the Nullarbor Plain.

Factors that influence your choice include the season of the year, the travel time to and from the place against the time allotted for the expedition, whether you want a place having multiple interest or landscape attraction will satisfy you.

Then there is the leader - is there a good one available for whom you must find a compatible environment, or do you settle for a particular venue and then advertise for the leader to suit it?

Finally, where did you go last time? This year do you look for something different?

When you have focussed on your particular place, think of whether you will need permission or help of the controlling authority to go there, or of whether you must come to terms with a local landholder.

You call your committee together and thrash this all out, deciding how you will fund it.

The smoke has now thinned, and a clear picture suddenly appears on the steamy water in the billy-can."

SEG still holds to these sound principles when planning expeditions. "Past Expeditions" listed on the SEG website read like a dream come true for Warren's musings. Starting in 1985 with the Chowilla Creek region on the River Murray, on the borders of South Australia, Victoria and NSW, SEG has indeed over the past 30 years covered the choice of regions that our President reflected on; from the Coorong to many inland regions including the Flinders Ranges, the coastal areas of the Great Australian Bight and in SEG's 28th year the Nullarbor Plain.

Our lead article in this edition describes ill-health in wombats, written by Dr Wayne Boardman and Dr Lucy Woolford, wildlife veterinarians of the University of Adelaide.

Our President Richard Willing has reminded us that SEG's Birthday is coming up, and he has written the interesting history about SEG's beginnings and the evolution of the many projects that involve SEG members during each year.

Counting fur seals can be problematic as they hide out of clear sight much of the time and are always moving. Alun Thomas has been to Kangaroo Island working on just this problem. He explains the clever work-around that involves some volunteer effort to help the census personnel.

John Love and Graham Hill spent some of their time on the August Hiltaba expedition surveying the water resources on the property and John has written about what they found.

Searching for *Cardonocarpus pyramidalis*, the slender bell fruit tree was one of the tasks on the Arkaroola expedition in 2011. Very few were found. Garry Trethewey spent time at Arkaroola in 2013 and reports some good news on the elusive trees.

Terry Kreig's book "Walking With Warren; during one half life" was launched in September 2013 to a packed audience. Richard Willing has written a succinct review of Terry's book.

KDolphin@Internode.on.net

Wombat Health in the Murraylands

Wayne Broadman and Lucy Woolford

The southern hairy nosed wombats (SHNW, *Lasiorhinus latifrons*) is the subject of a strange love-hate relationship. On the one hand it is South Australia's faunal emblem and yet surprisingly little is known of this uniquely adapted burrowing marsupial. On the other hand, in some areas, many wombats are destroyed because of concerns associated with excessive grazing and burrowing which causes damage to farming infrastructure.

The most abundant population occurs on the Nullarbor Plain, with an estimated 50,000-100,000 individuals in the South Australian portion. The wombat population is highly fragmented on the Yorke and Eyre Peninsulas, and is declining in the Murraylands with estimates of less than 5000 animals. Their distribution has contracted considerably since European settlement and is largely due to land clearing for agriculture, persecution and competition with introduced herbivores.

Several wombats were seen in the wild in very poor condition with alopecia

The Murraylands population is thought to have declined by about 70 percent since 2002, most likely due to drought and sarcoptic mange. More recently, however increased SHNW mortalities have been reported in this region following the La Nina heavy summer rainfall and flooding events of 2010 and 2011. These conditions contributed to a flush of summer plant growth of native and introduced summer annuals. We believe many wombats may have drowned when warrens were flooded.

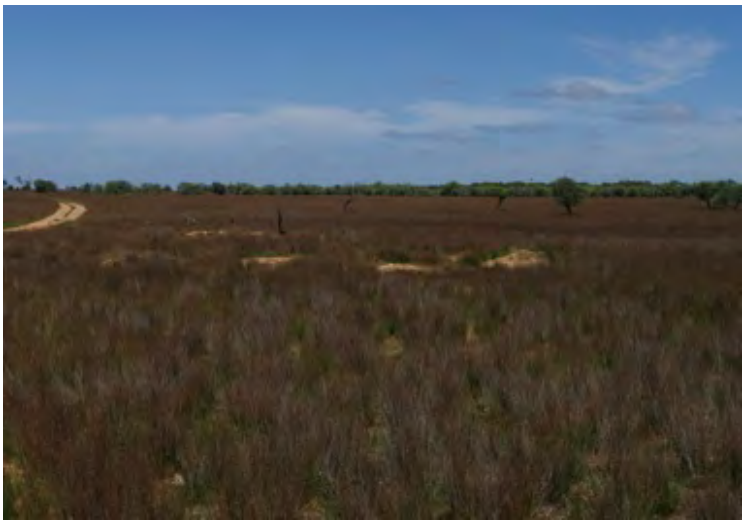
Soon after in April 2011, Wombat Awareness Organisation (WAO) first observed debilitated wombats in poor condition, with hair loss (alopecia) and an otherwise yellow hair colour. Strangely, they would often be seen grazing during the day which is very uncharacteristic. These clinical signs were observed across much of the Murraylands, with a large percentage of wombats affected in particular areas, while some animals remained in reasonable condition. The signs were different to sarcoptic mange which can be seen from time to time in specific wombat populations.

At this point we were asked to investigate the cause of this ill health. We performed post-mortem examinations on some of the younger wombats from the Portee area. These animals were in extremely poor body condition. Some juveniles showed liver disease, which had led to photosensitisation of the upper or dorsal parts of the body. We believed the cause to be due to the ingestion of Potato weed (*Heliotropium europaeum*), a very toxic plant which has caused liver disease and death in pigs, cattle, horses and sheep. The alkaloids damage the liver, producing photodynamic agents which can lead to a severe dermatitis on those parts of the body exposed to the sun. Additional findings included alopecia and exudative dermatitis of the skin around the eyes. In some animals we found larval worms in the skin follicles and tapeworms in the bile ducts of the liver. No animals appeared to have sarcoptic mange. In other older animals there was very little liver damage but the animals were still in poor body condition, with loss of body fat, a reduction in muscle mass and exhibiting severe alopecia. By September 2011, clinical signs were still observed by WAO by surveying wombat warrens, yet there were fewer overall wombat sightings suggesting many wombats had died since the first surveys in April.

Alopecia and exudative and haemorrhagic dermatitis of sun exposed dorsal and lateral skin of the hind-limb in a wombat

Normally wombats feed mostly on

native grasses (*Stipa*, *Poa* spp.), fresh shoots and bulbs when available, and will also graze introduced grasses and sedges. They will dig up grass and plant roots, and eat bulbs if these feed sources are not available, particularly during drought. The majority of water requirements are obtained from feed sources. The southern hairy nosed wombat has one of the lowest metabolic rates of all marsupial species and the digestive tract has evolved to become extremely efficient at extracting nutritional and water requirements from low quality and quantity feed sources in a semiarid environment.



Degraded Southern hairy-nosed wombat habitat near Blanchetown, characterised by a loss of native grasses and other suitable wombat herbivory, and a monoculture of introduced Onion weed (Asphodelus fistulosus). Photo: Dr Lucy Woolford

Physiological and behavioural adaptations which assist the SHNW to survive in semiarid regions of Australia include high food retention time, low metabolic rate, low nitrogen requirements, low volume highly concentrated urinary output, production of extremely dry faeces, living in a burrow (stable humidity and temperature), sedentary lifestyle and long periods of inactivity.

Wombats do not travel long distances from their burrows; radio tracking studies indicating that home range varies between 1.3 and 4.8 ha. Additional studies have shown that in extreme climatic conditions, like those in the Murraylands region recently, low levels of activity (rather than increased activity in search of sparse resources) and low metabolic rates greatly reduce energy requirements and assist with survival. In addition, they have been found to be physiologically resilient during drought conditions if adequate feed sources remain available. So the finding of thin and emaciated wombats from geographically distinct areas of the Murraylands, along with declining numbers from areas exhibiting severe habitat degradation and/or loss of preferred feed sources, was highly indicative that the food availability in this region could not sustain the nutritional requirements of the local population. The impact of other grazers competing

Potato weed, *Heliotropium europaeum* contains pyrrolizidine alkaloids

Distribution map of *Heliotropium europaeum*

with wombats for feed in this region, such as domestic rabbits, kangaroos, and introduced snail species may also be exacerbating the effects of habitat degradation and loss.

Over the subsequent years we have had the opportunity to investigate these health issues further with grants from the Nature Foundation of SA and DEWNR. This has included looking at the health of wombats, obtaining baseline data so we can compare normal with abnormal, and checking the quality and quantity of forage available around wombat warrens in different quality habitats.

Wombat with severe alopecia

So what in the end do we think has caused this problem in our wombats, why did they lose condition following heavy rains and what is happening now? It seems changes in the environmental conditions precipitated by the La Nina weather events in 2010 and 2011, on top of otherwise degraded habitat has led to the proliferation of weeds at the expense of the normal forage plants in habitats where sheep have been removed. The wombat warrens in some areas are marooned in a sea of weeds unable to move further afield. In some cases, many animals have taken to eating the weeds which has led to toxicity and loss of condition, and in some instances they have survived reasonably well in partially degraded habitat by eating the corms of the introduced thread iris which in some parts is quite abundant.

Older wombat with hair loss of the dorsal aspects

Our research work has looked at wombat health in different quality habitats, and so far without complete analysis it appears those animals in good habitat, often grazed by sheep and containing mostly *Stipa* spp grasses are doing well, and those in poor habitats characterised by an overgrowth of weeds will continue to struggle. Unexpectedly, it appears that sheep grazing keeps down the introduced weeds and maybe, in degraded habitats, sheep are important for the health and survival of the wombats. This is something we would like to research further. Further research has or is taking place at Moorunde and Yookamurra.

Recently we had a paper accepted on alkaloid toxicity caused by Potato weed, and we are in the process of analysing the results of the post mortem examinations and the blood samples we have collected, with a view to further publications in the near future.

On a happier note, the wombats populations in the far west of the state are doing well, and those on habitats well maintained by good farming practices with good levels of forage and low levels of weeds are flourishing. However, it can only be a matter of time before we see the sphere of influence of the weeds expanding, unless we have the will and the wherewithal to reverse this. The IPCC report which came out in late March does not give us too much cause for optimism unless we make radical changes, and we can only imagine that what we are seeing in the Murraylands is being echoed around the country many times in different ecosystems. Sanctuaries like Yookamurra, and the work being done by the Natural History Society of South Australia to resurrect habitats at Moorunde, some discerning farmers, and wombat conservationists and researchers like Dr David Taggart are all required to ensure our state emblem, the southern hairy nosed wombat, not only survives but thrives.

Dr Wayne Boardman and Dr Lucy Woolford are with the University of Adelaide's School of Veterinary Sciences, Roseworthy Campus

Abundance of Fur Seal Pups on Kangaroo Island

Alun Thomas

New Zealand fur seal populations in South Australia were heavily exploited by colonial sealers between 1801 and 1830, resulting in major reductions in range and abundance. On Kangaroo Island over 100,000 fur seal skins were recorded to have been harvested. Numbers remained at very low levels for almost 150 years, when numbers slowly began to build up and colonies across their former range grew. The most detailed information on this recovery comes from pup abundance surveys conducted at colonies on Kangaroo Island, South Australia over the last 25 years.

I was lucky to be involved in one such survey during the last week of January 2014. The survey was organized by South Australian Research and Development Institute in combination with Department of Environment Water and Natural Resources and the South Australian Museum. My involvement came through the Waterhouse Club of the South Australian Museum.

We were based at Rocky River in Flinders Chase and we surveyed seven colonies around Cape du Couedic. The colonies in this region are situated on rocky shelves below steep cliffs. Simply counting numbers would be very inaccurate due to the nooks and crannies in which pups can be hiding. Hence, a statistical method is used to estimate the numbers of pups in each colony. The method has two stages. In the first stage a number of pups in each colony is distinctly marked and the number of marked pups is recorded. In the second stage a count is made of those pups which can be easily seen in each colony, recording whether they are marked or clear. The second count is repeated six times to improve statistical accuracy and to improve confidence in the estimate. The total number in each colony is then estimated from an equation using the known number of seal pups marked and the ratio of marked to total number observed in the second counts.

Pups are marked by clipping the black natal hair on the top of the head with curved surgical scissors to reveal the light grey underfur. This is a temporary mark, in that the natal hair is shed in March or April when the adult type pelage emerges. Marked seal pups therefore have a triangle of white on their foreheads. The shaving of the forehead is extended down between the eyes so that when seal pups are observed under rocks, in the second stage counting, the marking can be seen.

A team of about ten persons was assembled for marking with one data recorder. The markers move through the colony capturing and clipping pups. Capture of pups can be difficult as many are asleep under rocks and others hide there in an attempt to avoid capture, and they must be carefully extracted to avoid injury to the animal or handler. It was quite exhausting work getting up and down the cliffs, climbing over and around rocky shores, catching the pups and holding them while giving them a haircut. Old clothes, knee pads and gloves were essential. Adult female seals and sub-adult males readily moved out to sea as we moved through the colonies. Occasionally dominant males stood their ground and we had to encourage them to move by looking more threatening than they did or we had to bypass them. They have very large canine teeth which we did not want to test and can move surprising fast over the rocks.

In the second stage teams of two worked through the colonies, one person observing and calling out and the other recording each pup readily seen as either “marked” or “clear”.

On the longest day in the first stage over 800 seal pups were marked in two colonies and all over in three days over 1700 seal pups were marked. About half the pups in a colony were marked. The second stage counting showed that there were over 4000 pups in the seven colonies investigated at

Cape du Couedic. Previous work has shown that there are about four times as many total seals in the colony as pups, hence there are about 16,000 New Zealand fur seals in the colonies around Cape du Couedic.

Some expeditioners stayed at the University of Adelaide Flinders-BaudinResearch Centre and the Waterhouse Club team stayed at May's Cottage at Rocky River in Flinders Chase. Fortunately we had mild weather throughout the week. On most days the survey team was supplemented by National Parks staff who worked hard and learned more about the animals in their park.

The week long survey was perhaps the hardest and most intense physical work I have done for some time but it was enjoyable and all of the expeditioners worked well together.

The rocky roastline we scrambled along

LOGO COMPETITION

We have received a number of entries for the logo competition but more are needed before a decision can be made. Please send entries to:

SEG Chairman
23 Rutland Ave
Brighton SA 5048

30 Years On - SEG's Birthday Coming Up

Richard Willing, President,

Scientific Expedition Group Inc.

The Scientific Expedition Group (SEG) was formed in August 1984 at a public meeting of outdoor and science enthusiasts, many of whom had been involved with SEG's fore-runner, the SA Branch of the Australia and New Zealand Schools Exploring Society (ANZSES). It functioned well in SA, and had expeditions to the Coorong, Mt Remarkable and Kangaroo Island before organising a national expedition to Coffin Bay, then a newly destocked, recently proclaimed Conservation Park. The great success of the expedition exacerbated existing tensions with the national HQ of ANZSES, which led to a mutual parting of the ways. Those who thought we had discovered a good formula for running expeditions formed a steering committee to build another organisation, and SEG was born.

With a little coaxing Warren Bonython agreed to be President, and I was elected Chairman, a rewarding partnership that lasted for 19 years, when Warren retired and I became President. Elected annually, many members have served on the management committee over time, and currently there are 6 members who have served for 10 years or more in one position or another. This is the think tank and the powerhouse of SEG that keeps its wheels well-oiled and running smoothly. Incorporation of SEG in 1988 added an Inc. to its official name, and removed any personal liability from individual members in case of accident etc. In 1994, the establishment of SEF, the Scientific Expedition Foundation, allowed donors to make tax-deductible donations to SEG, and has helped secure its financial stability.

Many of the original committee had been involved with ANZSES, so SEG soon ran its first expedition to Chowilla in the upper Murray. Annual scientific expeditions have occurred since then and have covered many remote areas of South Australia. Within a couple of months the first edition of the quarterly journal, now named SEGments had been published. The editor is usually part of the committee, and several people have done this important job over the years, building it towards its current high standard.

In 1986 Expedition Freeling Plateau (now named Mawson Plateau) was held in the North Flinders Ranges with its base camp on the Hamilton Creek. A little further north is Mount Babbage which was chosen as the point to start Youth Trek, as the official opening of the Heysen Trail. SEG installed a plaque on Mt Babbage which was uncovered in the presence of more than 70 people - a record population on the top of this relatively small hill. Following this, relays of secondary school students walked the length of the trail, while SEG set about its scientific work, which included mammal trapping, mist netting and bird banding. Climbing up to the plateau, three groups went off in different directions for several days, observing areas of quite dense vegetation and taking water samples from rock pools following recent rains. There were no rainfall data for this part of the world, and the idea of setting up a pluviometer to measure rainfall on the plateau was born.

Now known as the Vulkathunha Gammon Ranges Scientific Project (V-Grasp), it has been running non-stop for 26 years. The initial pluvio was set up in 1987, and dedicated to Louise Grandfield, one of the science leaders on Freeling Plateau, killed accidentally soon after the expedition. This has been one of SEGs great success stories. Under the guidance of Chris Wright, V-Grasp has expanded to include a string of pluviometers capable of sending data to the Bureau of Meteorology, thus contributing to the accuracy of forecasting for the area. Small teams of vigorous volunteers have made their way to the top of the plateau 3 or 4 times per year to service and maintain them. Observations made on these trips include monitoring of feral goats, counting yellow footed rock wallabies, vegetation assessments including exclosures keeping grazing animals out,

and a stream gauge recorder in Arcoona Creek. When it rains in these parts it is sometimes a deluge, so an estimate of water volume flowing down the creek is available.

After about ten years there were suggestions in committee meetings that some SEG activities closer to home would enable younger people and families to be involved for shorter periods than the usual activities. This led to the Fleurieu Roadside Biodiversity surveys, which ran for about 3 years in the 1990s. With cooperation of local councils and private landholders, several sites, mainly on the western end of the Fleurieu, were selected because there was more remnant native vegetation there. A rough roadside vegetation survey had recently been done, so we concentrated on small mammal trapping and bird counts, with some vegetation ground-truthing. The surveys revealed a wealth of wildlife where the size and density of native vegetation was sufficient to support it. Other surprises were the remarkable number of feral deer in the Second Valley Forests, and the frequent finding of previous cannabis plantations secreted in quiet corners of the scrub along the roads.

As a result of making 120 ha of scrub over to a Heritage Agreement around this time, the Willing farm, "Minnawarra", at Hindmarsh Tiers, near Myponga, was undergoing a program to fence Heritage Areas of native vegetation so that domestic grazing animals were excluded. When this happens, there is usually a well-documented regeneration of native vegetation. Only limited evidence relating to the biota is available, though, so a long term monitoring program was proposed. Hopefully it would demonstrate a resurgence of small animals in the scrub, even though it might take a long time. It would also allow SEG to involve people to help with the surveys, including children, who learn about animals in the scrub by being up close to them. The Minnawarra Biodiversity Program (MBP) was up and running, with the first survey occurring in autumn 2001.

MBP runs surveys in autumn and spring each year, each running for 4 days and nights. There are 8 sites spread around the scrub, each containing 6 permanent pit-fall traps, to which are added 15 Elliott traps and 2 cage traps. Small mammals are captured, identified, weighed, sexed and microchipped. Reptiles are marked with Texta, birds counted, bats caught in a harp trap, or recorded with an Anabat. Less frequently vegetation surveys are undertaken. On average, between 100 and 200 small mammals are trapped each survey, and a useful sequential series of data are being fed into the SA Biological Database. After 14 years these data are becoming quite significant, and it is hoped that the surveys will continue for a long time. Some of the more amusing encounters with animals have been extracting an echidna from nose first in a pit, various birds in the cage traps, some Antechinus so keen on peanut butter bait that they are caught twice a day during the survey, and, infrequently, a cute thumb-sized Pygmy Possum.

More recently a new addition to SEG activities has been the Malleefowl Project, which involves surveying Malleefowl nesting mounds in the Bakara Conservation Park, and on Henry Short's adjacent farm in the SA Mallee. The surveys occur in spring or early summer, checking known nests which have been marked by GPS, with occasionally an "emu parade" through scrub searching for new nests.

It can be seen that SEG activities have extended over its lifetime. Originally set up for 15 - 25 year olds, the initial demand from this population decreased as schools and universities developed their own outdoor programs, and 4 wheel-drive vehicles became common in households, meaning more family bush trips. The demand then came from mature-age volunteers, who now fill many of the vacancies on annual expeditions. Over the past few years Nature Foundation of SA has sponsored students so that they can attend surveys in remote areas for a much reduced fee. For several young people this has proved a turning point in their career choice, or added a valuable experience to their chosen career. This is all in keeping with the SEG aims and ideals as set out in its original constitution.

In addition SEG has a reputation for running well-conducted biological surveys and providing accurate data collected from these. This is reflected in the number of grants awarded to SEG for its various activities. These have resulted in SEG being in charge of its own equipment, of which there is much, instead of having to borrow

it, (usually at a time when somebody else wants it). Having been part of SEG since it started, I am proud of its achievements. Thanks must go to our members, our families, the committee and various sub-committees, the volunteers who put up with all sorts of weather to get the work done, our sponsors, and all the helpers who turn up to push the next project forward. May SEG be a strong force in promoting scientific endeavour through this sort of field work for a long time to come.

Watch this space for more details of a great program of activities later in the year to celebrate SEG's 30th birthday.

Committee members with more than 10 years service.

Clockwise from top left: Richard Willing, Trent Porter, Alun Thomas, Duncan McKenzie, John Love and Graeme Oats

WATER AT HILTABA

JOHN LOVE

There is nothing that can be called a river in the Gawler Ranges.

When it rains, water tumbles down the small rocky gullies to disappear into the sandy flats. Hiltaba homestead stands at the mouth of one of these gullies. A stone wall was built across the gully to provide water to the house and the shearers quarters quite a sizeable dam. What looks like blue paint on the wall is fibre reinforced resin which was an unsuccessful attempt to make it watertight. Obviously more work is needed here!

Meanwhile water has to be retrieved from underground. Barry Bore, more or less in the middle of the Hiltaba property, is one of the few reliable sources of water good enough for domestic use. There is not much to see there: a diesel powered dynamo in a tin shed generates electricity to drive a pump at the bottom of the bore. From here the water is piped about ten kilometres north-west to Four Corners Bore. Then a windmill pushes it up to Gap Tank, about one kilometre north.

Gap tank is a fine, round, stone structure picturesquely sited on a saddle. From this elevated position a constant supply of tap water flows a few hundred metres down to the house and the shearers quarters. The members of the Hiltaba expeditions drank rain water from the tank just outside the kitchen door but cooked, washed and showered in fairly good bore water that was, in fact, quite expensive.

Homestead Dam. John Love at water's edge.

Graham Hill at Barry Bore.

Four Corners Bore.

Graham admiring Gap Tank.

BOOK REVIEW by Richard Willing

Walking with Warren: during one half life
Terry Krieg
6 maps, 70 photographs. ISBN 978-0-646-91387-2

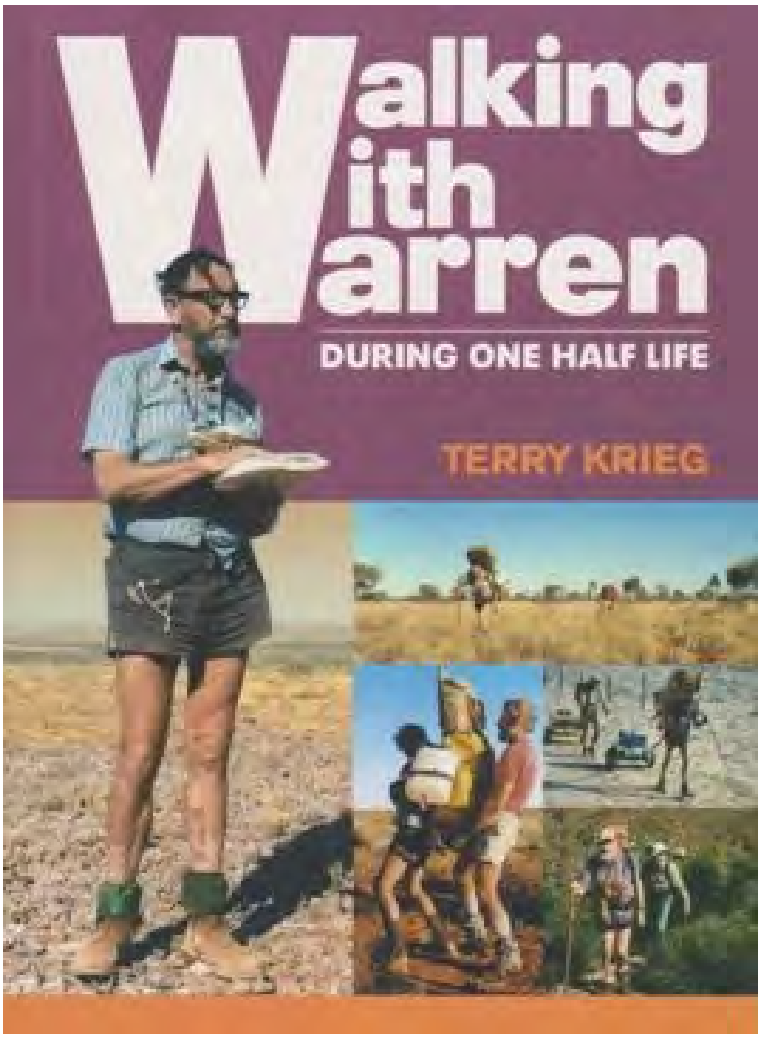
This is an important book, as it is so far the only publication to detail some aspects of Charles Warren Bonython's interesting and unusual life. Terry Krieg bonded closely with him over many years ("one half life") and miles of walking and talking, and is uniquely qualified to relate these bush experiences and the long-standing friendship. Terry's career was as a dynamic senior secondary school teacher whose special subjects were geography and geology, and he spices his commentary with interesting scientific observations as the story unfolds.

After a career as a chemical engineer Warren devoted his long retirement to exploration of some of Australias desert regions, often at an age when many others are content to fall into a chair and read about them. These include crossing the Gammon Ranges, crossing the Simpson Desert, walking the McDonnell Ranges, and the "circumambulation" of Lake Eyre. The latter walk was described in "Walking on Eyre" published in 1982, and is produced in full in Chapter 2. It is an account of remarkable endurance for 33 days covering 550 km. If walking through endless miles of desert and salt lake sounds boring, Terry makes it exciting by his descriptions of details, such as preparation of meals, walking across different surfaces, interesting geology, finding caches of water and the once weekly wash. The author has a way with words that can turn a small event into something of interest.

Other trips are described, with Terry and others also joining Warren. The underlying theme is the meticulous planning that went into the preparation of each adventure, and Warren's detailed note taking during each trip. Maps in the back give a good indication of routes taken, and the photographs add considerably to the story.

The book refers to events during Terry's latter "half life", and necessarily has some autobiographical content, such as family, nuclear energy, politics, church life and his continuing educational bush trips to the Flinders Ranges. It makes very interesting reading, and is an important document relating some of the bush travels of Warren Bonython, the Foundation President of the Scientific Expedition Group.

In Adelaide the book is available at Dymocks in Burnside, Rundle Mall and Glenelg, Imprints in Hindley St, and SA Museum bookshop at $40 unsigned. Rush to buy one, or, if you prefer a signed copy, at the same price including postage, contact Terry: patez1@yahoo.com or phone 08 8682 1571.



Arkaroola Reprieve
Garry Trethewey

Just an exciting note for those who were on our Arkaroola expeditions 2009 &/or 2011.

Several of us spent time searching for Desert Poplar, or Slender Bell-fruit, *Codonocarpus pyramidalis*, with little success. We found a few old trees, probably none under 30 years old. Our 2009 trip was just before the end of a ten year drought. Then the rain started, and we returned two years later to see the difference. We still found no young *Codonocarpus* on that trip. But I spent a month driving Arkaroola's "Ridgetop Tour" in September 2013, and was delighted to see groves of young trees springing up all over the place.

The photo shows the track just past Reg's underground "barometer" at the base of Mt Gee, with Mt Painter in the background. Here there are ten trees in 20 metres. Some of these "babies" less than 2 years old are over 4 metres tall. And if you remember the small hill with the UHF repeater just past Coulthard's Lookout, Lorraine Edmunds has just labelled and GPS'ed nearly 500 on that hill, as well as a large number south of the village, so as to take this chance to document their life cycle.

ADVANCE NOTICE

SEG's 30 year Celebration Barbecue

Belair National Park
Sunday 24th August 2014

Keep the day free. More details later.

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 runningexpeditions, and to develop sound field techniques.

APPLICATION FOR MEMBERSHIP AND MEMBERSHIP RENEWAL for 2014

SUBSCRIPTIONS

Adult member	$30.00
Concession cards/ student	$15.00
Family membership	$35.00
Corporate membership	$35.00

Name. . . . . .

Address . . . . . .

. . . . . .

Telephone (H) . . . . . (W) . . . . . .

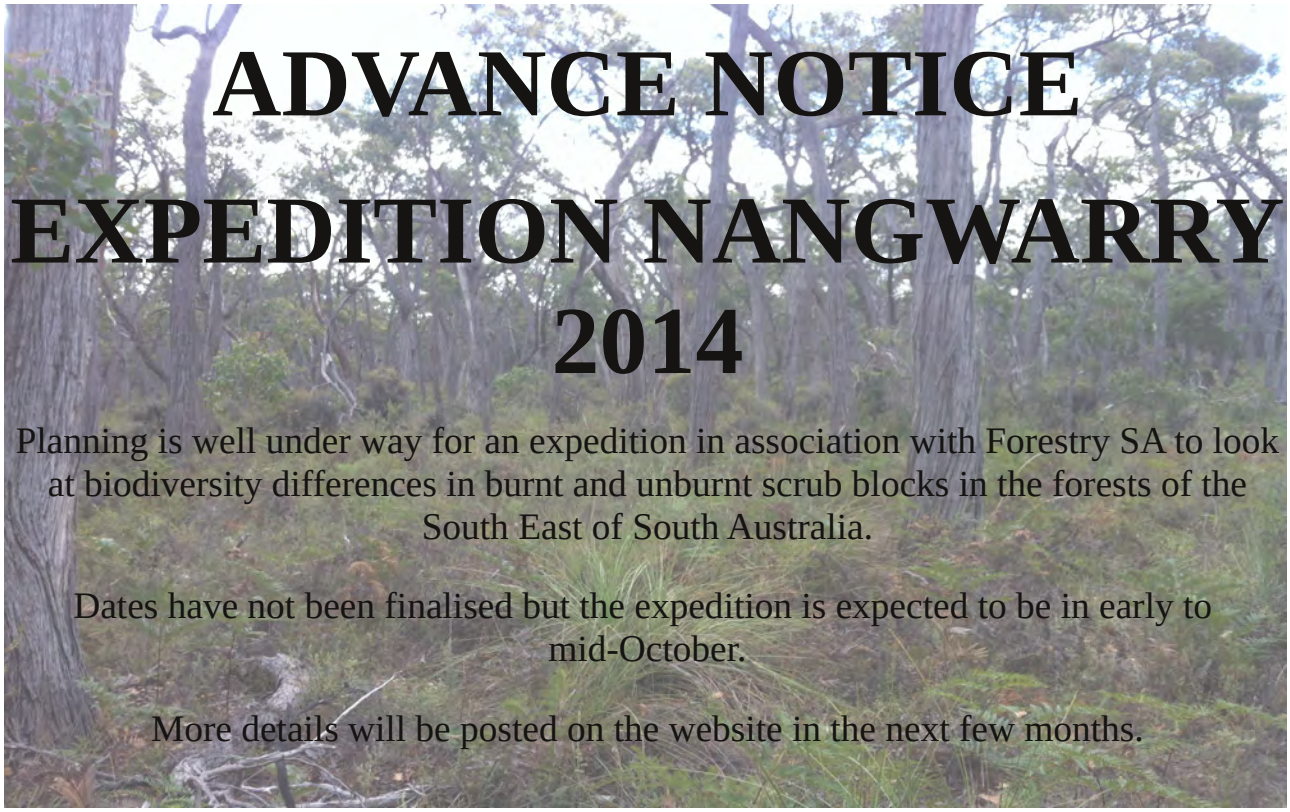
E-mail . . . . . .

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

EXPEDITION NANGWARRY 2014

Planning is well under way for an expedition in association with Forestry SA to look at biodiversity differences in burnt and unburnt scrub blocks in the forests of the South East of South Australia.

Dates have not been finalised but the expedition is expected to be in early to mid-October.

More details will be posted on the website in the next few months.

SCIENTIFIC EXPEDITION GROUP MINNAWARRA BIODIVERSITY SURVEY Autumn 2014

Welcome to the Autumn Minnawarra Biodiversity Survey, to be held during school holidays from Wednesday 23rd until Sunday 27th April, 2014. Come for one or several days. Volunteers are welcome. Many hands make light work! Meet some other SEG supporters.

"Minnawarra" is situated mid-way along Springmount Rd, Myponga, between Hindmarsh Tiers Rd and James Track, adjacent to and across the road from Springmount Conservation Park. From Adelaide, after Sellicks Hill turn left onto Pages Flat Road 1 km north of Myponga (sign post Victor Harbor). After 1.5 km turn right into Hindmarsh Tiers Road (also sign post Victor Harbor.) Springmount Road is 7.5 km on the right. Minnawarra is 5 km up the hill. The farmhouse, shed and camping area are on the north side of the road. If lost or mislaid, ring number below.

If staying overnight please bring your own food, camping gear and wet weather clothes. There are gas rings, cooking pots, bbq, water, refrigerator, ancient microwave and heater in the shed. The available space in the shed is much reduced because of storm damage to another shed, but there is still room for meal preparation and shelter.Before joining the survey registration is necessary for insurance purposes.A small donation of $10 adults, $5 students to cover costs is welcome, as are any other tax-deductible donations to the Scientific Expedition Foundation.Look forward to seeing you soon for what promises to be an interesting few days.

Contact Richard or Janet for attendance forms.

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