

LANDSCOPE Expeditions

Western Australian Department of Conservation and Land Management, PO Box 104, Como, WA 6152
in association with
UWA Extension, The University of Western Australia, Nedlands, WA 6907

Wildlife and Flora of the Great Victoria Desert 1995 Expedition Report

FROM THE EXPEDITION LEADERS

On behalf of CALM and UWA Extension, we thank all the members of the Expedition for their financial support, hard work and good humour, which together made the Expedition such a success. The data collected greatly improve our knowledge of the rich biological and conservation values of Queen Victoria Spring Nature Reserve. Such information will be vital in the long-term management of the area for nature conservation. We acknowledge the fine support of our colleagues, Daphne Edinger, Andy Williams and Geoff Young, and the cheerful communications support of June and Carol in the CALM office in Kalgoorlie. Tom Keating did a tremendous job, piloting the bus through some difficult country and cooking up a tasty array of meals. A big thank you to Joe Raudino for bringing his vehicle and carrying around lots of equipment and passengers. Thanks also to Kevin Kenneally and Jean Paton who ably arranged logistics and pre- and post-Expedition functions. We certainly enjoyed the Expedition and we hope you did as well. We look forward to meeting you again, perhaps on another *Landscape* Expedition.

David Pearson and Andy Chapman



Members of the Great Victoria Desert LANDSCOPE Expedition 1995



Queen Victoria Spring, not what we expected!



Camp at Queen Victoria Spring
under a giant Marble Gum
(*Eucalyptus gongylocarpa*).

MAJOR EXPEDITION ACHIEVEMENTS

1. Pitfall and Elliot trapping in several quadrats around two campsites in Queen Victoria Spring Nature Reserve. Neither of these areas had been previously surveyed. Interesting captures include: three rare skinks *Proablepharus reginae*, numerous breeding Western Pygmy Possums (*Cercartetus concinnus*) and dunnarts (*Sminthopsis dolichura* and *S. hirtipes*), and a breeding pair of burrowing snakes (*Vermicella bertholdi*).
2. First records for Queen Victoria Spring Nature Reserve of many species of waterbirds, including breeding records, on ephemeral water-bodies along Ponton Creek. Sightings of other rare birds included Princess and Scarlet-chested Parrots, Pink Cockatoos and the location of a Mallee Fowl mound.
3. An impressive 200 species of plants were collected from the Reserve and its environs including the first flowering specimen of *Choretrum glomeratum*. New localities of rare flora were recorded.
4. A total of 14 species of butterfly were collected in the Reserve, including several species beyond their previously known ranges. Also new information was obtained on larval food plants.

SUMMARY OF 1995 GREAT VICTORIA DESERT LANDSCAPE EXPEDITION

Thursday October 12 1995 David Pearson and Andy Williams left Perth bound for Kalgoorlie towing the Travelabout trailer full of pit-trapping equipment, tarps and essential liquid supplies. They paused briefly near Moorine Rock and Yellowdine to search for *Patersonia*, the larval plant for a butterfly of particular interest to Andy. They arrived in Kalgoorlie in the late afternoon and stopped off to see Andy Chapman, to consume his last can of beer and finalise logistics.

Friday October 13 Andy W and David loaded up the vehicle and trailer with even more gear, and arranged piles of gear to be brought out by Joe Raudino, and Andy Chapman and Geoff Young. Vital last minute purchases were also made, notably a top-of-the-range folding toilet seat. David and Andy W. then drove out along the access road which follows the Trans-continent railway line eastwards. A brief stop for lunch was made at Cardunia Rocks Nature Reserve, to check the area for the first night stop for the main group the next day. Andy collected a number of interesting butterflies (Amaryllis Azures, Wood Whites). A rare mallee, *Eucalyptus kruseana*, was observed in full flower and an interesting mistletoe, *Amyema benthamii*, was collected growing on local Kurrajongs (*Brachychiton gregorii*). They continued on until dark and camped beside the Kanandah dingo fence.

Saturday October 14 The main body of the Expedition assembled at 7 am at UWA Extension to board the OKA for the trip to Kalgoorlie. Joe Raudino arrived from Denmark and a portion of the luggage was loaded onto his vehicle. Trucks and a headwind made the trip to Kalgoorlie slow. Some passengers also argued that it was uphill all the way. A stop was made at Coolgardie Cemetery to view the grave of Ernest Giles (who discovered and named Queen Victoria Spring). In Kalgoorlie, extra equipment was taken on board. Geoff Young guided the group to the outskirts of town with directions to camp at a dam in Majestic Timber Reserve, only 50 km from Kalgoorlie, as it would soon be dark. Majestic T.R. was reached at last light and, despite rumbling trains, it was a pleasant night, though cool. The campsite was situated in a grove of Goldfields Blackbutts with a carpet of mulla mullas. Supper and a warm swag were most welcome. Meanwhile, David and Andy W had driven on to Queen Victoria Spring, unhitched the trailer and begun setting up camp. Later that afternoon they drove west to find a suitable campsite on Ponton Creek for the second part of the trip.

Sunday October 15 The main group were up early and some took advantage of the dam to have a wash. They then continued east along the Trans-access track. Near Zanthus, a detour was taken around floodwaters which cut the Transcontinental Railway line for several weeks after cyclonic rains in February 1995. They crossed the receding, but still flowing, Ponton Creek. The OKA then turned north up the western boundary of Kanandah and followed the dingo fence through a myall and bluebush country typical of the Nullarbor. Eventually they turned north-west at Cable's Corner onto a grid-line used by uranium explorers. Shortly after, David and Andy W., were encountered patiently waiting under a shady Marble Gum. Some of the interesting desert flora were viewed including desert grass-trees, grevilleas and other flowering shrubs. The convoy drove on towards Queen Victoria Spring, stopping to look at a few interesting plants, Thorny Devils and bloated female Bearded Dragons looking for a place to deposit their enormous egg masses. The 'PNC Highway', an all-weather road running to a mining exploration camp was reached and the convoy turned west. About 40 km further on, it turned south on a grid-line running into Queen Victoria Spring Nature Reserve. The sun began to set casting vibrant hues across the sky and the ever-present Marble Gums. A flat tyre on the

OKA and an altercation with a low branch delayed arrival at Queen Victoria Spring until 7 pm. After a hasty dinner, everyone retreated to their swags to rest after a long day of travelling.

Monday October 16 The day dawned fine and people began stirring at first light around 5 am. It was the first opportunity for expeditioners to orient themselves after the late finish the previous day. The camp was shaded by several large Marble Gums, and the environs dotted with *Acacia burkitti*, *Acacia ramulosa* and native cypress, *Callitris preissii*. As it warmed up, pink parakeetya began to open, providing a striking contrast to the yellows of goodenias and daisies. A leisurely breakfast was accompanied by a discussion of the exploits of early explorers. Giles found the Spring in 1875 after travelling from Boundary Dam near the South Australian border without discovering any water. His camels were near perishing and the "spring" (actually a claypan) was full of water and saved them. He named it in honour of the reigning monarch. Both Giles and Lindsay (Elder Exploring Expedition, 1891) described the dunes near the Spring as 'white', rather than their obvious yellow hue. Gilbert advanced the idea that perhaps they referred to the dunes as 'white' in the same way that their underwear was 'white'. Without colour photographic evidence, it will be difficult to determine whether the colour of their underwear supports Gil's contention. After breakfast, the Spring and the nearby Aboriginal well were inspected. The claypan held a few centimetres of water, but would soon be dry again. Budgerigars, cockatiels and bronzewings were observed arriving at the Spring to drink. The tracks of Emus, kangaroos and camels radiated out from the Spring. The Aboriginal well also held water, which looked unappealing, but was pronounced to possess: "good body". The day was warming up rapidly, so shovels were manned to dig in pitfall traps near the Spring (QV1). The sun was obscured by clouds but it remained hot and humid. Twenty pitfall traps were positioned in four lines. Each pit was separated by 10 m and each line by 30 m. Once the pitfalls were dug in, aluminium flywire drift fences were erected, connecting the pits in each line. A break for morning tea was well deserved! Some hearty souls completed the erection of fences after morning tea, while others retreated to shady sites to rest up. After lunch those still standing trekked out to a nearby dune 2 km east of the Spring (QV2) to dig in another pitfall trapping grid. The toilet pit and privacy screen were erected after much discussion of the pros and cons of various sites, height of screen, depth of trench, etc.. Dinner of soup, roast chicken with baked vegetables and trifle for dessert was well received! Meanwhile, Andy Chapman and Geoff Young had an early start from Kalgoorlie with a vehicle and trailer heavily laden with extra fuel and more than 900 litres of water. Progress was slow and they finally reached the camp around 9 pm. It was a very pleasant relief to have them arrive with the majority of the water needed for the party. During the night, there was a spectacular lightning display, and unfortunately a little rain which prompted retreat to swags.

Tuesday October 17 The morning dawned clear. After an early breakfast, people left to check pitfall traps at QV1 and QV2. Interesting captures included numerous Sandy Inland Mice (*Pseudomys hermannsburgensis*), Knob-tailed Geckoes (*Nephrurus laevis*) and a variety of skinks. The use of keys to identify lizards was demonstrated on several of the captures. The remarkable variation of the number of toes and fingers in the skink genus *Lerista* was discussed and its correlation with the mode of foraging from active on leaf litter to burrowing. Our resident hand surgeon also took exception to our imprecise use of the term: 'opposable thumbs'. After morning tea, the group set out for a site 5 km east of the Spring (15 km by road) to establish another pitfall trapping grid on a steep dune (QV3) and a line of Elliot traps to capture Sandhill Dunnarts. Returned to camp about 1 pm for lunch and a rest. The traps were checked in the afternoon. Of interest was the capture of several Thorny Devils (how does something so slow-moving fall into a pit trap?), legless lizards (*Delma* spp.) and *Ctenophorus fordi*, a dragon with a strong preference for living on dune crests. Andy W., with help from various fleet-footed assistants, took advantage of any spare time and sunny breaks to pursue butterflies. Near camp, Small Grass Yellows, Meadow Argus, Australian Painted Ladies, Rayed Blues and Common Grass Blues were the common species observed. Of particular interest were a number of Icilius Blues, which were active around *Senna nemophila* shrubs near camp. In Western Australia this species had previously been recorded only as far east as Kalgoorlie. A pleasant cool evening was punctuated by another excellent meal.

Wednesday October 18 A pot of Tom's special porridge ensured the group had a sound start to the morning. The cool overnight temperature had limited the captures of nocturnal reptiles, but not so for the mammals. Large numbers of Sandy Inland Mice were again caught, along with Spinifex Hopping Mice (*Notomys alexis*), Western Pygmy Possums (*Cercartetus concinnus*), and the Hairy-footed (*Sminthopsis hirtipes*) and Little Long-tailed (*S. dolichura*) Dunnarts. The exceptional conditions meant that most of the female rodents had enlarged mammary glands, indicating they were suckling. The female dunnarts and pygmy possums were carrying tiny young in their pouches. The Elliot traps failed to catch anything; in fact, they were conspicuously unsuccessful throughout the entire expedition. After morning tea and a session on the use of compasses, everyone piled into three vehicles to Streich Mound, a large sand dune named after Victor Streich, the geologist and meteorologist of the Elder Exploring Expedition. The vehicles were left at the terminus of the nearest grid-line and the group fanned out to walk across to the Mound looking out for rare plants, particularly *Caesia rigidifolia*. Unfortunately, no specimens of *Caesia* were found, but several rare species were located and collected, *Conospermum toddii*, *Grevillea secunda* and *Lepidobolus deserti*. It was a pleasant walk through rolling sand dunes to reach Streich Mound. On top is a concrete post and plaque erected by the grandsons of Streich

commemorating the visit of the Elder Exploring Expedition. Brief glimpses of sunlight were sufficient for Andy Williams and helpers to catch *Cyprotus Blues* and *Simplex Dusky Blues*, the only place on the Reserve where these two butterflies were captured. Many Wood Whites were also observed around the summit. Judy in her journal entry of the day noted: "Andy went into paroxysms of joy, waving a very large net at very small butterflies and exclaiming joyfully each time he trapped one. This behaviour is aggravated by the isolated conditions". After a team photograph on the summit, everyone returned to the vehicles along the track, except Nixie who decided to try out her newly-acquired navigation skills and did an admirable job in finding her way back. Concern that she may be lost was fleeting as she soon appeared walking calmly along the grid-line. After a late lunch back at camp, traps were checked (there were very few captures) and preparations made to shift camp the following day. Geoff Young supervised the construction of a fine shower and everyone took advantage of the abundance of water to enjoy a much-needed wash.

Thursday October 19 Despite retiring to bed under a starry sky, by 3 am clouds had appeared and a light drizzle commenced. This forced a retreat to shelter by less hardy campers. A 5 am rise was made for breakfast and to commence the onerous task of packing wet swags, tents, tarps and equipment. Geoff and Andy C. left for the long drive around to the other side of Ponton Creek so there would be transport on the western side of the creek for the following days. Pit-traps were checked for a final time and closed. The drizzle had not deterred the mammals, with good captures of *Sandy Inland* and *Spinifex Hopping Mice*, *Pygmy Possums*, and three burrowing snakes (*Vermicella bertholdi*) including a pair in the same pit, suggesting mating was occurring. Some fences were rolled up to transport to the next site. Tom had prepared a great morning tea of damper and billy tea. Then it was the final big pack-up and departure at 11 am for the next camp near Ponton Creek. The convoy turned south along the narrow track towards Cundeelee, dodging low branches and cutting those which might cause damage. About 5 km south of the Spring, we turned west onto a gridline and travelled slowly along it for a further 22 km until reaching a cross-roads. Near here Joe noticed a Mallee Fowl mound which contained many small fragments of egg shell among the sand. Loisetta found some dead land snails here, the first seen. The convoy then turned north onto a better gridline and travelled through mallee shrubland and spinifex, exploiting a break in the drizzle, there was a lunch stop at 3 pm. The new camp in a grove of Marble Gums about 1 km from Ponton Creek, was finally reached at 5.30 pm. A cold breeze during the evening ensured that no-one lingered too long around the fire. Some camped out in the open; others huddled behind a hastily-erected windbreak. There was no sign of Andy C. and Geoff. As it turned out, they had a very slow trip and elected to camp well south of the arranged rendezvous.

Friday October 20 A more leisurely start as there were no traps to check. Strong cold winds necessitated jumpers, (some reported ice on their swags) but the skies remained clear and sunny. David P. left camp early to investigate a route down to the lake alongside Ponton Creek. He became geographically embarrassed and almost missed breakfast, but did manage to see a flock of Princess Parrots. A trapping grid was established close to camp in Marble Gum woodland (P1). Workers were almost fighting over digging the holes in an effort to keep warm. By 9 am, the grid was completed. Daphne, Gil and Kate collected plants in a nearby mulga thicket. Eventually radio contact was made with Andy C. and Geoff and a rendezvous point arranged. Nixie, Gail, David B. and Kate went along for the ride to the rendezvous site and then walked back to camp upstream along Ponton Creek. Meanwhile, other people were exploring around the two lakes near camp and observing the many waterfowl. Andy C. and Geoff finally arrived in time for a late lunch. After lunch, we set out to cross Ponton Creek and travel up to Bursaria Rockhole and the nearby breakaway to observe birds, collect plants and recover pollen traps in the caves at the breakaway. Bursaria Rockhole was surrounded by a carpet of wildflowers and brimming with water, although rather murky and uninviting. Lines of Elliot traps were placed along the breakaway edge and into surrounding woodland. Cundill traps, which are used to sample pollen 'rain' were collected from locations in breakaway caves close to long-abandoned nests of stick-nest rats (now extinct on the mainland). Stuart Pearson from the University of NSW is using these traps to document modern pollen rain for comparison with the record preserved in the layers of the stick-nest rat nests. Flowering vegetation around each study site was recorded and flowers collected for Stuart's reference collection of pollen grains. The first group returned in fading twilight to prepare dinner. The remainder huddled in the lee of the breakaway in the dark to wait for their lift back. Dinner was consumed with fervour!

Saturday October 21 Woke to another chilly morning with clear skies. Breakfast was eaten in close proximity to the fire. One group returned to the breakaway to check Elliot traps and to collect the remaining pollen traps. A goat skull and droppings indicated this feral animal was present there. Loisetta collected a number of land snails. Despite Jim's lament about the DCB (dull colourless and boring) countryside, he snapped many photos of the gimlets and outcropping rock at the breakaway. Daphne and Gil made extensive collections of plants, including some beautiful flowering *Frankenia*. Another group checked the pitfall traps near camp and then explored around the camp or the lakes. Captures were few, but included a rare tiny skink, *Proablepharus reginae*; three other species of skink and a *Spinifex Hopping Mouse*. Joe became temporarily disoriented travelling from the lake to camp and contemplated setting the spinifex alight to attract attention. Thankfully, he eventually found his way back to camp without having to resort to such extreme action. Andy C. and assistants sampled the water at the lakes for aquatic invertebrates, and sighted many interesting waterbirds. A leisurely afternoon was spent exploring, bird-watching or resting. David P. and Mark drove

up to a fire study site and recovered a weather station that needed repairs. Two more *Proablepharus* were captured in the afternoon. Cold damp weather impeded butterfly work at the second camp near Ponton Creek. However, some lycaenid butterflies, tentatively identified as *Acilius* Blues, were found not far from this camp. The butterflies were feeding on *Daviesia benthamii*, a previously unrecorded foodplant. Their pupae, attended by *Iridomyrmex* ants, were found at the bases of these shrubs. Interestingly, adult butterflies emerging from pupae did not always escape from the ant nest unscathed. One individual was being consumed alive by the ants, which normally protect the larvae and pupae. Native bees were also collected for Dr Terry Houston at the Western Australian Museum. Three species were obtained at Queen Victoria Spring Nature Reserve, and these will be identified shortly. Tom whipped up another superb meal of fettuccine carbonara and banana cake. After dinner, Geoff brought out his guitar and led a singsong around the fire.

Sunday October 22 Another early start to ensure an early return to Kalgoorlie. There was yoghurt for breakfast, to give us a bit of culture for our return to civilisation, Tom said. Mark recounted disturbing dreams of rare red-headed and poisonous skinks biting him and attributed his sleeplessness to the constant squawking of baby night parrots! He remarked in the journal: "I should have remembered my grandfather's advice to always put a couple of shot-gun blasts through the bush where one was to camp in night parrot country". After a quick breakfast, the pack-up started. It was described by Mark as proceeding "with the smoothness of Bullens' Circus ... similar language I imagine and complete with clowns". Geoff and Andy C. checked the pits and closed them. Only two captures: a Sandy Inland Mouse and a Pygmy Possum. Andy C. and Geoff were dropped back at the Ponton Creek crossing to head back to the breakaway and collect up the Elliot traps (which failed to catch anything) then drove to Kalgoorlie. The main group returned home the same way as they came, via PNC Highway, the Kanandah dingo fence and the Trans-access road. David P. and Andy W. stopped off on the northern boundary to collect more pollen traps, catching up with the others for lunch by the railway line. The OKA and Joe reached Kalgoorlie around 5 pm and stopped to look into the Super Pit. David P. and Andy C. were forced to stop at Coonana to get fuel. Being a Sunday, the store was shut and the keeper of bowser keys was away canoeing on a local lake. Eventually, they milked fuel from the store's truck. Back in Kalgoorlie, everyone enjoyed a hot shower at the Tower Hotel, emerging almost unrecognisably clean. A pleasant dinner followed, with an impromptu award ceremony hosted by Andy C.

Monday October 23 A subdued crowd assembled for a cooked breakfast; tiredness and the wine from the previous night ensuring some were less than chirpy. Andy C. and Geoff came to say their goodbyes and Joe took off for the green fields of Denmark. The OKA departed Kalgoorlie at 8 am for the long rumble back to Perth. The group stopped at the Yilgarn vermin proof fence to inspect a diverse display of wildflowers, grevilleas, hakeas, verticordias, stylidiums among others. At Yellowdine lolly supplies were replenished, and on again. A Mallee Fowl darting across the road west of Yellowdine was a surprise. Lunch was in the local park at Merredin and then it was on to Meckering for fuel, before finally reaching Perth and waiting pick-ups at 5.40 pm.

LIST OF PARTICIPANTS

Andy Chapman
David Pearson
Andy Williams
Geoff Young
Daphne Edinger
Tom Keating
Mark Allison
Nixie Angeloni
Helen Fitzgerald
Norah Brockman

David Brown
Gail Putz
Kate Hooper
Loisette Marsh
Gilbert Marsh
Joe Raudino
Jim McGeough
Phyllis Bentley
Judy Mitchell

APPENDIX: TRAPPING DATA

Campsite 1: Queen Victoria Spring

Three grids of pitfall traps were established in the vicinity of the Spring campsite. Each grid consisted of four 50 m aluminium flywire fence approximately 35 cm high with pitfalls spaced at 10-metre intervals. Two types of pitfalls were used: a bucket 320 mm diameter and 400 mm deep, and a PVC pipe 160 mm in diameter and 600 mm deep. Although data for the comparative effectiveness of these two pitfalls is lacking, there is general consensus that hopping mice and perhaps some other mammals can escape from buckets. However, buckets seem to be more effective for catching some larger mammals and reptiles such as snakes.

QV 1: 500 m NW of Queen Victoria Spring

30° 25' 42" S, 123° 34' 24" E

Gentle sloping sandplain with yellow sandy soils, clay content increasing with depth. Vegetation: open woodland of *Callitris priessii* subsp. *verrucosa* over a 25-30% cover (aerial projective cover) of mainly the spinifex *Plectrachne desertorum*; occasional shrubs, mainly *Verticordia helmsii*.

QV 2: 1.5 km E of Queen Victoria Spring

30° 25' 45" S, 123° 35' 08" E

Dunefield of steep yellow dunes with broad swales of orange clayey sands. Vegetation on dunes: *Eucalyptus gongylocarpa* and *Allocasuarina helmsii* open woodland and shrubland with understorey of shrubs, *Pityrodia* and *Opercularia* with sparse *Plectrachne desertorum*. Swales: open woodland of *E. gongylocarpa* and *Callitris* with patchy understorey of *Banksia elderiana*, *Xanthorrhoea* and *Plectrachne* sp. Pitlines were established at the base of the dune, on the slope and at the crest. A line of 25 Elliot traps was laid out in the swale.

QV3: 5 km E of Queen Victoria Spring

30° 25' 52" S, 123° 35' 53" E

Dunefield of steep yellow dunes with very broad yellow sand swales. Vegetation on dunes: open woodland of *Eucalyptus gongylocarpa* and *Callitris* and shrubland of *Grevillea* spp., *Banksia elderiana*, *Conospermum toddii* and other shrubs. Understorey of *Plectrachne desertorum*. Broad swale vegetated by mallee shrubland of *Eucalyptus concinna*, *E. mannensis* and other mallees with occasional emergent *E. gongylocarpa*. Pitlines situated on dune slopes and crest. Two lines of 25 Elliots each were placed out for Sandhill Dunnarts in mallee shrubland.

Campsite 2: Ponton Creek

P1: 30 km north-west of Queen Victoria Spring

Undulating sandplain of yellow-orange sands. Vegetation: *E. gongylocarpa* woodland with scattered shrubs and an understorey of *Plectrachne desertorum*.

ANNOTATED LIST OF MAMMALS CAPTURED

The listing below includes captures in pitfalls; there were no captures in Elliot traps. The sex of each is listed, unless it was not or could not be determined ('not det. '); the weight and any comments about reproductive status.

Hairy-footed Dunnart (*Sminthopsis hirtipes*)

QV2	18/10/95	female	19.0 g	6 hairless pouch young
QV3	18/10/95	female	15.5 g	lactating

Little Long-tailed Dunnart (*Sminthopsis dolichura*)

QV1	18/10/95	female	8.5 g	not breeding
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Ride's Ningau (Ningau ridei)

QV3	18/10/95	female	7.3 g	6 hairless pouch young
QV3	19/10/95	male	8.2 g	
		female	—	6 hairless pouch young

Western Pygmy Possum (Cercartetus concinnus)

QV1	18/10/95	male	9.0 g	
QV2	18/10/95	female	8.5 g	
		juv. female	3.0 g	
	19/10/95	male	9.5 g	
		male	11.0 g	
		juv. female	3.8 g	
QV3	19/10/95	male	12.5 g	

Spinifex Hopping Mouse (Notomys alexis)

QV1	18/10/95	male	25.0 g	
QV2	18/10/95	juv. male	18.0 g	
		juv. female	12.5 g	
QV3	18/10/95	male	29.0 g	
		female	37.5 g	
	19/10/95			killed by bull ants
P1	21/10/95	female	23.5 g	

Sandy Inland Mouse (Pseudomys hermannsburgensis)

QV1	17/10/95	juv.		
	18/10/95	male	9.5 g	
		male	12.0 g	
		male	12.5 g	
		juv. female	8.5 g	
		male	12.0 g	
		male	9.0 g	
	19/10/95	male	13.0 g	
		male	12.0 g	
		male	14.0 g	
QV2	17/10/95	male	11.5 g	
	18/10/95	male	13.5 g	
		female	8.5 g	
	19/10/95	male	13.0 g	
QV3	18/10/95	male	13.5 g	
		male	11.0 g	
		male	8.0 g	
P1	21/10/95	male	13.0 g	

House Mouse (Mus musculus) *introduced

QV1	18/10/95	female	22.5 g	pregnant
QV2	18/10/95	female	9.0 g	
	19/10/95	female	9.0 g	

ANNOTATED LIST OF REPTILE CAPTURES

Skinks

Ctenotus atlas

QV1	16/10/95	female	7.6 g	
	17/10/95	not det.		injured, kept as specimen
	18/10/95	not det.	6.5 g	

QV2	17/10/95	not det.	4.0 g	
		not det.	5.0 g	
	18/10/95	not det.	5.0 g	
		not det.	5.0 g	
QV3	17/10/95	male	4.8 g	
P1	21/10/95	juvenile	2.0 g	
<i>Ctenotus brooksi</i>				
QV2	18/10/95	not det.	1.0 g	
<i>Ctenotus leae</i>				
QV3	17/10/95	female	4.4 g	
		male	2.4 g	
		female	3.2 g	
		female	3.3 g	
<i>Ctenotus quattuordecimlineatus</i>				
QV1	17/10/95	female	7.1 g	escaped during handling
QV2	18/10/95	not det.	6.0 g	
	19/10/95			recapture of above
QV3	17/10/95	male	5.4 g	
		male	5.5 g	
		juvenile	not recorded	

Ctenotus schomburgkii

QV1	17/10/95	not det.	1.4 g	
QV2	18/10/95			killed by centipede
P1	21/10/95	not det.	2.0 g	

Cyclodomorphous branchialis

QV1	16/10/95	male	6.3 g	
QV3	17/10/95	juv.	2.6 g	

Eremiascincus richardsonii

QV2	18/10/95	not det.	4.5 g	
	19/10/95			recapture of above

Lerista bipes

QV2	17/10/95	not det.	0.7 g	
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Lerista desertorum

QV1	17/10/95	male	7.5 g	
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Menetia greyii

QV1	17/10/95	not det.	0.4 g	
		not det.	0.3 g	
P1	21/10/95	not det.	0.1 g	

Proablepharus reginae

First collected at Queen Victoria Spring by Harry Butler in 1959 and described by Glauert in 1960. One further specimen collected by Butler in 1961 at the Spring. A sparsely distributed skink in central desert regions and Barrow Island. Not recorded south of Queen Victoria Spring.

P1	21/10/95	not recorded		live to WA Museum
		male	0.9 g	live to CALM Woodvale
		male	0.9 g	live to CALM Woodvale

Geckoes

Nephurus laevisissimus

QV1	17/10/95	male	11.5 g	
		not det.	10.0 g	
		not det.	12.0 g	
	18/10/95			killed by <i>Pseudomys</i>
QV2	17/10/95	male	16.5 g	
		male	16.5 g	
QV3	18/10/95	male	13.5 g	
		juv.	5.6 g	

Pygopods

Delma australis

QV1	17/10/95	not det.	6.5 g	
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Delma butleri

QV2	17/10/95	not det.	5.0 g	
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Lialis burtonis

QV1	16/10/95	female	15.5 g	
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Dragons

Ctenophorus fordi

QV3	17/10/95	male	2.5 g	caught by hand
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Ctenophorus isolepis

QV1	16/10/95			observed
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Moloch horridus

QV1	16/10/95	not det.	30.0 g	
	17/10/95	not det.	28.5 g	
		not det.	31.5 g	

Pogona minor

QV1	19/10/95	female	48.0 g	
5 km N QV3	17/10/95	male	30.0 g	caught by hand
	18/10/95	female		heavily gravid; caught by hand on road

Goannas

Varanus gouldii flaviventus

roadkill on gridline between Queen Victoria junction and Cundeelee Rd.

Snakes

Vermicella bertholdi

QV2	19/10/95	female	5.8 g	same pit as male below
		male	4.4 g	
		female	7.8 g	

ANNOTATED LIST OF BIRDS OBSERVED

Australasian Grebe (*Tachybaptus novaehollandiae*)
Common on both lakes (14/10/95, 20/10/95)

Black Duck (*Anas superciliosa*)
Common on the two lakes near the second campsite (14/10/95, 20/10/95)

Black-faced Cuckoo-Shrike (*Coracina novae-hollandiae*)
Common in a variety of vegetation types, particularly in open woodland surrounding Queen Victoria Spring (16/10/95), near Bursaria Rockhole (20/10/95)

Black-faced Woodswallow (*Artamus cinereus*)
Flock seen wheeling over Bursaria Rockhole (20/10/95)

Black-fronted Plover (*Charadrius melanops*)
Sighted numerous times on mud fringing the small lake (14/10) and the larger lake (20/10/95)

Black Swan (*Cygnus atratus*)
Several observed in larger lake with well-advanced cygnets (20/10/95)

Boobook Owl (*Ninox novaeseelandiae*)
Heard overnight at Queen Victoria Spring camp (16/10/95)

Brown Falcon (*Falco berigora*)
Common in open woodland to the north and east of the Reserve, particularly in areas regenerating after fire. Observed at QV2 (18/10/95)

?Brown Goshawk (*Accipiter fasciatus*)
Distant glimpse of this raptor at QV3 (17/10/95), may have been this species

Brown Honeyeater (*Lichmera indistincta*)
Common in fringing mallee vegetation around the lakes (20/10/95), also in shrubland between Bursaria Rockhole and the breakaway (20/10/95)

Budgerigar (*Melopsittacus undulatus*)
Very common in all areas of the Reserve; large flocks observed feeding on the ground, wheeling through the trees (QV1, QV2, QV3, QV4). Numerous observations of breeding using hollow branches in Marble Gums and various mallees (14-20/10/95). Nesting near lakes (20/10/95) and observed feeding on seed heads of spinifex in nearby mallee shrubland. Also observed feeding young in many occasions

Bustard (*Ardeotis australis*)
Tracks observed at Queen Victoria Spring (16/10/95)

Chestnut Quail-thrush (*Cinclosoma castanotum*)
Observed approximately 15 km NE of Queen Victoria Spring (15/10/95)

Chestnut Teal (*Anas castanea*)
Occasionally observed on small lake near second campsite (14/10/95)

Chestnut-rumped Thornbill (*Acanthiza uropygialis*)
Common in tall shrubland around Queen Victoria Spring (16, 17/10/95), QV2 (18/10/95) and near Bursaria Rockhole (20/10/95)

Cockatiel (*Nymphicus hollandicus*)
Observed in small flocks at Queen Victoria Spring, QV3 (16/10/95), the lakes and Ponton campsite (20/10/95)

?Collared Sparrowhawk (*Accipiter cirrhocephalus*)
Quick glimpses of small raptor arcing through tall shrubland surrounding Queen Victoria Spring (16, 17/10/95)

Common Bronzewing (*Phaps chalcoptera*)

Seen in all parts of Reserve singly or small groups feeding; large congregations around Queen Victoria Spring in early morning and late afternoon (16, 17/10/95); QV1 (17/10/95). Also QV4, the lakes (20/10/95) and Bursaria Rockhole (20/10/95). Nest found in *Eucalyptus optima* with one hatchling, one egg (QV4: 18/10/95)

Eurasian Coot (*Fulica atra*)

Common on both the lakes; with young (20/10/95)

Crimson Chat (*Ephthianura tricolor*)

Very common in spinifex areas regenerating after fire to the north and east of the Reserve. Observed at QV3

Crested Bellbird (*Oreoica gutturalis*)

Heard calling in the dawn chorus at Queen Victoria Spring (16, 17/10/95), Ponton campsite (20/10/95). Seen in open shrubland near Bursaria Rockhole (20/10/95)

Emu (*Dromaius novaehollandiae*)

Tracks and droppings common around Queen Victoria Spring, including tracks of juveniles (16, 17/10/95). Tracks of adults and juveniles around the lakes. Droppings seen at Bursaria Rockhole

Galah (*Cacatua roseicapilla*)

A few pairs observed drinking at Queen Victoria Spring each day (16, 17/10/95); QV1 (17/10/95), QV2 (18/10/95). Seen at the lakes (20/10/95), Bursaria Rockhole and flying over the breakaway (20/10/95)

Grey Butcherbird (*Cracticus torquatus*)

Abundant at Queen Victoria Spring (17/10/95), QV1 (17/10/95), QV2 (18/10/95); Ponton campsite (20/10/95)

Grey Currawong (*Strepera versicolor*)

Common around Queen Victoria Spring, calling noisily (16, 17/10/95); QV2 (18/10/95) and the lakes (20/10/95)

Grey Teal (*Anas gibberifrons*)

Very common on both lakes (14/10/95, 20/10/95); adults observed with ducklings; brood size of 6 (20/10/95)

Hoary-headed Grebe (*Poliiocephalus poliocephalus*)

Group of four on large lake (20/10/95)

Hooded Robin (*Melanodryas cucullata*)

Occasional at Queen Victoria Spring (17/10/95), QV4 (17/10/95)

Horsfield Bronze-Cuckoo (*Chrysococcyx basalis*)

Commonly seen and heard calling at Queen Victoria Spring (16/10/95)

Little Button-Quail (*Turnix velox*)

Common in areas with an understorey of spinifex, including QV3 (17/10/95). Nest with three eggs near Streich Mound (18/10/95)

Little Crow (*Corvus bennetti*)

Common at Queen Victoria Spring (16, 17/10/95) and at the lakes (20/10/95) and Bursaria Rockhole (20/10/95)

Little Wood-swallow (*Artamus minor*)

Seen in small flock at Bursaria Rockhole (20/10/95)

Masked Wood-Swallow (*Artamus personatus*)

Very common throughout the Reserve; large flocks seen wheeling in sandplain areas and in small groups feeding in shrubs or on the ground (14-20/10/95). One nest located at QV3 hidden by a piece of exfoliating bark in a small dead tree at about 2.5 m height, two eggs (17/10/95)

Mistletoe-bird (*Dicaeum hirundinaceum*)

Prominent among mistletoes in Marble Gums at campsite at Queen Victoria Spring (16/10/95, 17/10/95). Also in shrubland between Bursaria Rockhole and the breakaway (20/10/95)

Mountain Duck (*Tadorna tadornoides*)
Occasional in larger lake (20/10/95)

Musk Duck (*Biziura lobata*)
Common on larger lake (20/10/95). Less common on smaller lake (14/10/95), but many of their characteristic large eggs found there

Pallid Cuckoo (*Cuculus pallidus*)
Heard calling during the night at Queen Victoria Spring camp (16/10/95) and during the day (17/10/95), QV1 (17/10/95)

Pied Butcherbird (*Cracticus nigrogularis*)
Commonly seen and heard calling throughout the Reserve. Very prominent around Queen Victoria Spring (16, 17/10/95)

Pink Cockatoo (*Cacatua leadbeateri*)
Pair seen in dead tree close to Queen Victoria Spring (16/10/95)

Pink-eared Duck (*Malacorhynchus membranaceus*)
Abundant on both lakes; observed with young (20/10/95)

Port Lincoln Ringneck (*Barnardius zonarius*)
Common around Queen Victoria Spring and seen on all trapping grids (16, 17/10/95), Ponton campsite (20/10/95)

Princess Parrot (*Polytelis alexandrae*)
Flock of six seen between Ponton campsite and lakes in open Marble Gum woodland (20/10/95)

Rainbow Bee-eater (*Merops ornatus*)
Several observed hawking in open shrubland near Bursaria Rockhole (20/10/95)

Red-backed Kingfisher (*Halcyon pyrrhopygia*)
Heard and observed frequently at Queen Victoria Spring, QV1 and QV2 (17/10/95) and at breakaway (21/10/95)

Red-capped Robin (*Petroica goodenovii*)
Common in shrubland around Queen Victoria Spring (16, 17/10/95), QV2 (18/10/95), Ponton campsite (20/10/95), breakaway (20/10/95)

Redthroat (*Sericornis brunneus*)
Heard at Queen Victoria Spring (16/10/95)

Red Wattlebird (*Anthochaera carunculata*)
Common in mallee and open woodland at QV3 where there were abundant flowering shrubs (17/10/95)

Regent Parrot (*Polytelis anthopeplus*)
Several flocks seen in open woodland near lakes (20/10/95)

Scarlet-chested Parrot (*Neophema splendida*)
Female seen near Ponton campsite (20/10/95), female on track to Ponton Creek (30° 16' 37" S, 123° 20' 43" E 21/10/95) and pair on latter track (22/10/95, no GPS fix)

Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*)
Very common in shrubland communities, especially in *Acacia burkitti* communities at Queen Victoria Spring and other shrublands at the second campsite (16, 17/10/95). Also QV1, QV3 (17/10/95), QV2 (18/10/95)

?Spotted Harrier (*Circus assimilis*)
Distant sighting of harrier at the large lake was possibly this species (20/10/95)

Striated Pardalote (*Pardalotus striatus*)
Frequently seen and heard around Queen Victoria Spring (16, 17/10/95). Also QV1, QV2 (18/10/95), QV3 (16, 17/10/95), QV4. In Marble gums at Ponton campsite (20/10/95), in mallees surrounding the lakes (20/10/95), at breakaway and flying over Bursaria Rockhole (20/10/95)

Tawny Frogmouth (*Podargus strigoides*)
Ponton campsite (20/10/95)

Wedge-tailed Eagle (*Aquila audax*)
Observed to the east of Streich Mound, at the large lake (20/10/95) and at Bursaria Rockhole (20/10/95)

Weebill (*Smicrornis brevirostris*)
Queen Victoria Spring area in tall shrubland (16, 17/10/95), QV2 (18/10/95). In fringing vegetation around lakes (20/10/95)

Whistling Kite (*Haliastur sphenurus*)
At least one pair around the small lake, also a single bird seen at large lake (20/10/95)

White-browed Babbler (*Pomatostomus superciliosus*)
Frequently observed in tall shrubland at Queen Victoria Spring (16/10/95), QV1 (17/10/95). Also open woodland around the lakes and mulga thicket near Ponton campsite

White-faced Heron (*Ardea novaehollandiae*)
Two observed at the large lake (20/10/95)

White-fronted Honeyeater (*Phylidonyris albifrons*)
Very common in tall shrubland and mallee around Queen Victoria Spring (16, 17/10/95), QV1, QV2 (18/10/95), QV3, QV4 (17/10/95); 1.7 km S of Spring (17/10/95) and in open woodland at the Ponton campsite, and in vegetation bordering the two lakes (20/10/95). Nest with 2 eggs near Streich Mound (18/10/95)

White-winged Triller (*Lalage sueurii*)
Pair seen in tall shrubland near Bursaria Rockhole (20/10/95)

Willy Wagtail (*Rhipidura leucophrys*)
Common in fringing vegetation around the lakes (20/10/95)

Yellow-throated Miner (*Manorina flavigula*)
Common around Queen Victoria Spring in tall shrubland and open woodland, also QV1 and QV3 (17/10/95). Observed feeding newly fledged young at Ponton campsite (20/10/95)

Yellow-rumped Thornbill (*Acanthiza chrysorrhoa*)
Common in open areas between large *Acacia burkitti* shrubs and in *Acacia jennerae* thickets near Queen Victoria Spring (16, 17/10/95)

LIST OF BUTTERFLIES COLLECTED

PAPILIONIDAE

Chequered Swallowtail *Papilio demoleus*

PIERIDAE

Small Grass Yellow *Eurema smilax*
Wood White *Delias aganippe*
Lesser Wanderer *Danaus chrysippus*
Meadow Argus *Junonia villida*
Australian Painted Lady *Vanessa kershawi*

LYCAENIDAE

Amaryllis Blue *Ogyris amaryllis*
Icilius Blue *Jalmenus icilius*
Cyprotus Blue *Candalides cyprotus*
Simplex Dusky Blue *Candalides hyacinthinus simplex*
Rayed Blue *Candalides heathi*
Double-spotted Lineblue *Nacaduba biocellata*
Miskin's Blue *Theclinessthes miskini*
Common Grass Blue *Zizina labradus*



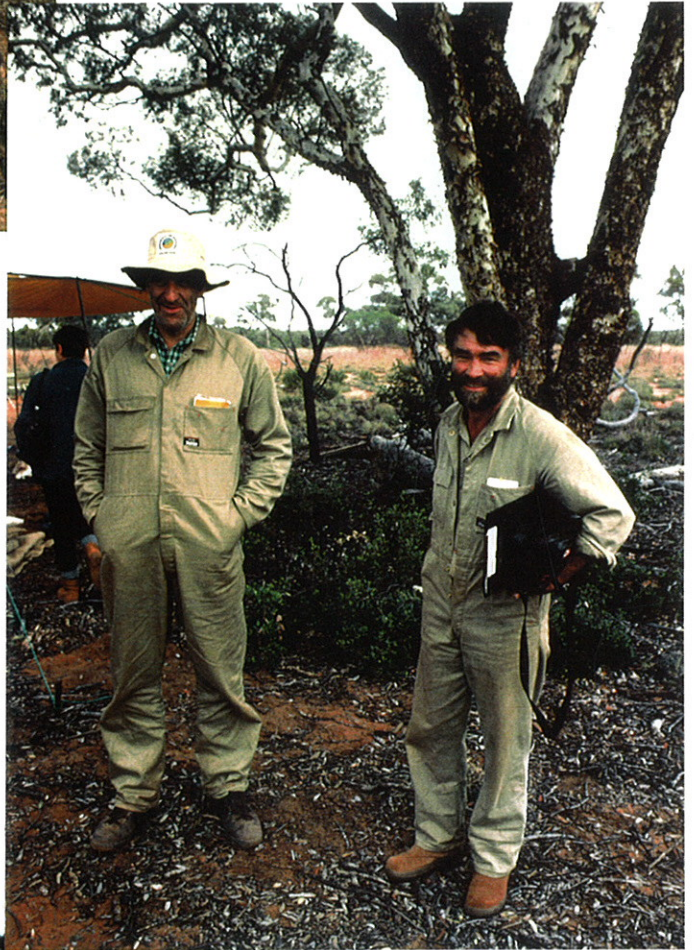
Plaque commemorating the Elder Expedition's visit in 1891.



Wading across Ponton Creek to set pit traps.



Digging pitfall traps at Queen Victoria Spring (QVI). Andy Williams on his knees assisted by Kate Hooper and Mark Allison.



The twins, Mark Allison and Andy Chapman showing off their matching overalls.



Enjoying a fire and billy en route to Ponton Creek campsite. L to R: Phyllis Bentley, Loisetta Marsh, Andy Williams, Joe Raudino, Norah Brockman and Helen Fitzgerald.