

# Bronzeback Legless Lizard and Floodplains Skink Survey

Coober Pedy - Oodnadatta Area, October 2007



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## Contents

### 1. Bronzeback Legless Lizard (*Ophidiocephalus taeniatus*) Survey

#### List of Tables

<b>Table 1.</b> Details of sites where Bronzeback Legless Lizards were captured during survey.....	6
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#### List of Figures

<b>Figure 1.</b> Map of survey area showing previous records (SA Biological Databases), sites searched during this survey and locations of new records. ....	5
<b>Figure 2.</b> Mt Willoughby IPA Biological Survey Site BBB00301, where two <i>Ophidiocephalus taeniatus</i> were found under deep leaf litter under the large <i>Exocarpus aphylla</i> on the right side of the picture in 2003. A third individual was found under the same tree during this survey. ....	6
<b>Figure 3.</b> Site 120 on Oolgelima Creek, ~15 km North of Coober Pedy. One adult <i>O. taeniatus</i> was found under this juvenile <i>Acacia papyrocarpa</i> in matted leaf litter, approximately 50 mm deep. ....	7
<b>Figure 4.</b> Microhabitat below <i>A. papyrocarpa</i> at site 120, Oolgelima Creek, showing depth of matted leaf litter and underlying substrate. ....	7
<b>Figure 5.</b> Adult <i>O. taeniatus</i> found at site 120, Oolgelima Creek, ~15 km North of Coober Pedy. ....	8
<b>Figure 6.</b> Landscape view of Oolgelima Creek, where <i>O. taeniatus</i> was found during the survey.....	8

### 2. Black-striped Floodplains Skink (*Egernia slateri virgata*) Survey

#### List of Tables

<b>Table 1.</b> Summary of captures from Pitfall and Elliot traps over two nights.....	13
--	----

#### List of Figures

<b>Figure 1. a), b) &amp; c).</b> Elliot and pitfall traps set in the vicinity of reptile burrows associated with <i>Eremophila duttoni</i> on pedestal mounds. ....	13
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# 1 Bronzeback Legless Lizard (*Ophidiocephalus taeniatus*)

## 1.1 Introduction

The Bronzeback Legless Lizard (*Ophidiocephalus taeniatus*) is the sole member of its genus and is a distinctive member of the Pygopid Family (Cogger 2000). This fossorial species lives beneath the leaf litter of several *Acacia* species which grow along ephemeral watercourses in stony table and breakaway country.

The Bronzeback Legless Lizard was described from a specimen collected near Charlotte Waters, NT in 1897, but no further records were made until 1978 when it was rediscovered at Abminga near the South Australian/Northern Territory Border (Ehmann 1981). In 1985 the species was also discovered several hundred kilometres to the south in Coober Pedy, when some chopped up remains were sent to the SA Museum after being mistaken for a snake (Hutchinson 1994). Since this time, there have been further records from the Coober Pedy area and a number from the Arkaringa Hills, between Coober Pedy and Abminga (Hutchinson 1994, Brandle and Hutchinson 1998, Brandle *et al.* 2005), suggesting that their distribution between these areas may be somewhat continuous (Brandle and Hutchinson 1998).

The Bronzeback Legless Lizard is currently listed as *Vulnerable* in South Australia and Nationally (SA National Parks & Wildlife Act 1972, EPBC Act 1999) due to its small area of known distribution. Within this area Bronzeback Legless Lizard have been found under leaf litter of Gidgee (*Acacia cambagei*), Mulga (*Acacia aneura*), Dead Finish (*Acacia tetragonaphylla*) as well as Leafless Exocarpus (*Exocarpus aphylla*) in drainage lines flowing out of stony tablelands and breakaways (Hutchinson 1994, Brandle and Hutchinson 1998, Brandle *et al.* 2005, Matejcic 2003). These narrow, linear strips of habitat represent relatively small areas within the total area of occurrence. Suitable leaf litter habitat along these drainage lines may also be patchily distributed, thus further reducing the possible area of occupancy and leading to small isolated local populations. In addition, these habitats are likely to be vulnerable to impacts from disturbance by domestic stock and scouring of leaf litter and debris by ephemeral water flow (Hutchinson 1994, Matejcic 2003).

The aim of the current survey was to search beyond limits of currently known distribution of the Bronzeback Legless Lizard and to identify possible threats to the species' survival.

## 1.2 Methods

In early October 2007, 37 sites were searched in an area extending from ~130 km south-east of Coober Pedy to ~10 km North of Oodnadatta. Sites searched were limited to along drainage lines in headwater areas flowing out of breakaway hills and tablelands. Areas that contained trees such as Gidgee (*Acacia cambagei*), Western Myall (*Acacia payrocarpa*), Mulga (*Acacia aneura*) were targeted, especially those that appeared to have significant amounts of leaf litter accumulated beneath them. Leaf litter under other species was also searched when encountered, including Bullock Bush (*Alyectron oleifolius*), Native Plum (*Santalum lanceolatum*) Leafless Exocarpus (*Exocarpus aphylla*), Dead Finish (*Acacia tetragonaphylla*), Oswald's Wattle (*Acacia oswaldii*) and Broughton Willow (*Acacia salicina*).

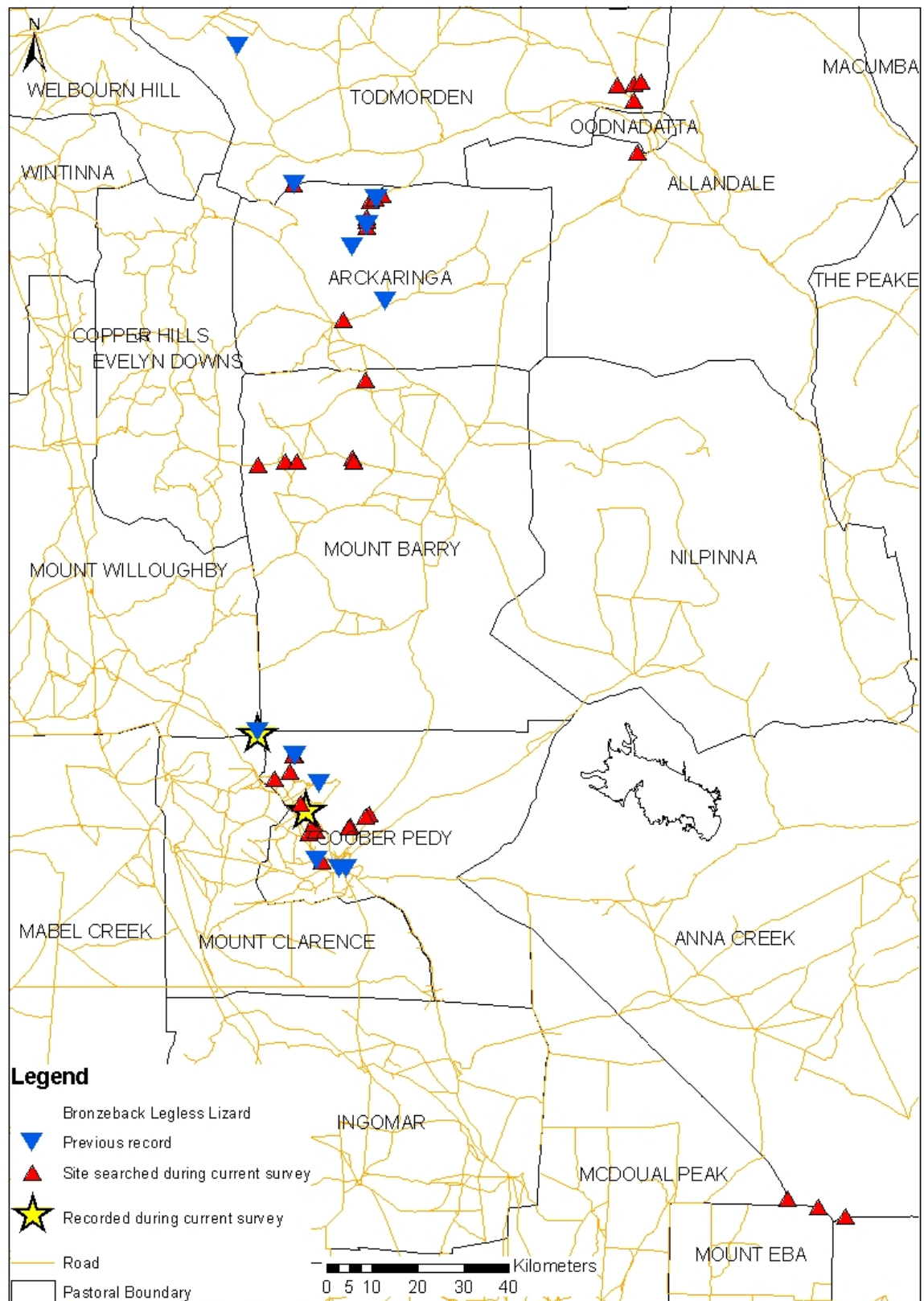
Searching was carried out by John Read and Reece Pedler during daylight hours. Leaf litter was peeled back and searched through using 3-tined cultivators and was replaced afterwards to minimise disturbance to this habitat. The loose substrate below the layer of leaf litter was also disturbed by raking to search for *Ophidiocephalus*. The

amount of time spent searching at each location was recorded. Animals captured in the process of searching were measured and photographed before being released at their point of capture. Location information was recorded using a GPS (GDA 1994) along with notes on site characteristics such as tree species and size, surrounding vegetation and depth of leaf litter.

### 1.3 Results

Two Bronzeback Legless Lizards were found during the survey, both from the Coober Pedy area. The first was found on the south-eastern corner of Mt Willoughby Station, near the boundary with Mt Clarence and Mt Barry, at a site where they were previously recorded in 2003 during the Biological Survey of the Mt Willoughby Indigenous Protected Area (Brandle *et al.* 2005). This site (BBB00301) was on the edge of a creekline flowing out of a stony breakaway tableland. The specimen was found under the same large *Exocarpus aphylla* growing on the edge of the creekline in deep alluvial sand where two specimens were previously found. An additional 15 *Exocarpus aphylla* growing further up in the headwaters of the same creekline were searched without success.

The second specimen was found in the headwaters of the Oolgelima Creek, ~15 km NNW of Coober Pedy. This animal was raked up from beneath deep, matted leaf litter under a young Myall, *Acacia papyrocarpa* adjacent to the stream channel. Many of the *A. papyrocarpa* growing along this creekline had deep, matted leaf litter, particularly some of the smaller juvenile trees. This area had no visible signs of grazing by sheep or cattle and had good growth of many grasses and chenopod species. Following this find, a large stretch of Oolgelima Creek was searched, both upstream into the headwaters and downstream towards the junction with the Coober Pedy /Oodnadatta Road. Many of the areas searched had deep, matted, undisturbed leaf litter under *A. papyrocarpa*, representing seemingly ideal habitat, but no further specimens were found.



**Figure 1.** Map of survey area showing previous records (SA Biological Databases), sites searched during this survey and locations of new records.



**Table 1.** Details of sites where Bronzeback Legless Lizards were captured during survey.

Date	Site number and location	Tree species	Approx. tree dimensions	Leaf litter Depth	Aspect	Substrate	Distance from main creek channel
7/10/07	BBB00301 (existing Biological Survey Site #)	<i>Exocarpus aphylla</i>	3 m wide, 4 m high	50 mm	West	Deep alluvial sand/fine gravel	5 m
8/10/07	120 53J 0468594, 6803243	<i>Acacia papyrocarpa</i>	2.5 m wide, 2.5 m high	50 mm	West	Sandy clay	2 m



**Figure 2.** Mt Willoughby IPA Biological Survey Site BBB00301, where two *Ophidiocephalus taeniatus* were found under deep leaf litter under the large *Exocarpus aphylla* on the right side of the picture in 2003. A third individual was found under the same tree during this survey.





**Figure 3.** Site 120 on Oolgelima Creek, ~15 km North of Coober Pedy. One adult *O. taeniatus* was found under this juvenile *Acacia papyrocarpa* in matted leaf litter, approximately 50 mm deep.



**Figure 4.** Microhabitat below *A. papyrocarpa* at site 120, Oolgelima Creek, showing depth of matted leaf litter and underlying substrate.





**Figure 5.** Adult *O. taeniatus* found at site 120, Oolgelima Creek, ~15 km North of Coober Pedy.



**Figure 6.** Landscape view of Oolgelima Creek, where *O. taeniatus* was found during the survey.



In addition to the two live specimens captured, a number of sloughed legless lizard skins were also found beneath the leaf litter in several locations. Examination of the number of scale rows on these sloughs suggests that some of them are likely to be from Bronzeback Legless Lizards. Three of these sloughs had 16 scale rows at mid-body, in comparison to others that had either 17 or more scale rows. The only other legless lizard or skink species also found in this habitat have more than 16 scale rows. *Delma australis* has 17-20 scale rows, usually 18 and *Lerista desertorum* has at least 20 scale rows at midbody (Cogger 2000, Wilson & Swan 2003, Mark Hutchinson pers. comm.). Given this, it is very likely that these skins are from *O. taeniatus* (Mark Hutchinson pers. comm.).

Interestingly, two of these sloughs were found under a Broughton Willow (*Acacia salicina*) on a tributary of Giddi-Giddina Creek, ~2.5 Km North of Giddi-Giddina Bore. A third skin was found to the west of the Coober Pedy town limits under a Gidgee (*Acacia cambagei*) on a stony breakaway rise. This site (159) was from near where a specimen held in the SA Museum was collected after it was found in the kitchen sink of a dugout house in 2003.

#### 1.4 Discussion

Although only two Bronzeback Legless Lizards were found during the survey, nearly 40 sites were searched over a wide area. In the Coober Pedy region there appeared to be limited suitable habitat for the species. The majority of sites searched in this area had very little leaf litter under trees. In contrast, many of the areas that were searched around Oodnadatta seemed to have highly suitable habitat in terms of tree species, depth, appropriate substrate and degree of interwovenness and 'matting' of leaf litter, yet these sites did not yield any captures.

Interestingly, other species of legless lizard, including *Delma australis* and *Lerista desertorum* were found in much of this habitat. These species may potentially compete with Bronzeback Legless Lizards for territory or resources, however the specifics of these interactions are not known.

In the course of searching for the Bronzeback Legless lizards in the field, a number of potential threats to the species were noted. These included evidence of damage to potential leaf litter habitat by both cattle and kangaroos. These effects appeared to be concentrated within proximity to waterpoints. In the Coober Pedy area the potential for small animals moving across the ground to fall into the literal minefield of open opal shafts was noted. It is difficult to estimate the impact that these open shafts are having on fauna and Bronzeback Legless Lizards in particular. However, several Bronzebacks have been found in underground dwellings in Coober Pedy in the past, indicating that they may be susceptible to open shafts.

In addition to these potential human induced threats, the very nature of Bronzeback life ecology appears to be somewhat precarious. The majority of trees capable of producing leaf litter habitat for the species were observed growing along drainage lines. In the arid conditions typical of the region, this leaf litter must take many years to accumulate to a level sufficient to provide suitable habitat. Intermittent water flow along these drainage lines may have the potential to wash away potential Bronzeback leaf litter habitat, which may take years or decades to replenish. It is not known where Bronzebacks may survive in refuge populations in the interim and how easily they are able to recolonise habitat when it again becomes suitable. However, the nature of the fragmented linear habitat that Bronzebacks use would suggest that this may be particularly challenging. Large rainfall events associated with cyclonic activity may become more frequent under climate change conditions. These events may have the potential to affect the extent of suitable Bronzeback habitat.

## 1.5 Priorities further investigation

- Investigate the feasibility of a program of monitoring open mining shafts in the Coober Pedy area for Bronzeback Legless Lizards. In addition to gaining information regarding the local distribution, movements and behaviour. This will provide information to determine the impact of open shafts on the species.
- Identify other areas of potentially suitable habitat in the Marla-Oodnadatta region and survey these areas for the species. Possible areas may include Evelyn Downs Pastoral Lease, northern areas of Hamilton Pastoral Lease and Witjira National Park.
- Extend future survey efforts for Bronzeback Legless Lizards to searching under alternative species such as Broughton Willow (*Acacia salicina*) as well as other species which may provided similar leaf litter habitats.
- Investigate potential artificial substrates which may be suitable alternative habitat for Bronzeback Legless Lizards in areas where habitat has been removed by kangaroos, stock or water flow. These may include artificial turf, carpets or mesh bags containing natural substances such as straw, seaweed or the like.

## 1.6 References

Brandle, R, Hutchinson, MN (1998) Reptiles. In 'A Biological Survey of the Stony Deserts, South Australia 1994-1997' (Heritage and Biodiversity Section, Department for Environment, Heritage and Aboriginal Affairs, South Australia.)

Brandle, R, Sparrow, B, Foulkes, JN & Robinson, AC (2005) A biological survey of the Mt Willoughby Indigenous Protected Area, South Australia – October 2003. Department for Environment and Heritage South Australia.

Cogger, HG (2000) Reptiles and Amphibians of Australia 6<sup>th</sup> Edn. Reed New Holland, Australia.

Ehmann, H (1981) The Natural History and conservation of the Bronzeback (*Ophidiocephalus taeniatus* Lucas and Frost) (Lacertilia, Pygopodidae). Proceedings of the Melbourne Herpetological Symposium Zoological Board of Victoria.

Ehmann, H (1992) The apparent severe decline of the Bronzeback Legless Lizard (*Ophidiocephalus taeniatus*) at Abminga. *Herpetofauna*, 22 (1).

Environment Protection and Biodiversity Conservation Act 1999.

Hutchinson, M (1994) 'Raking up a rarity': *South Australian Herpetology Group Newsletter*, 87.

Matejic, P (2003) 'South Australian Herpetology Group Ophidiocephalus taeniatus Bronzeback Legless Lizard Survey, 29<sup>th</sup> September to 10<sup>th</sup> October 2002' *South Australian Herpetology Group Newsletter*, 120.

South Australian National Parks & Wildlife Act 1972

Wilson, S and Swan, G (2003) A complete guide to Reptiles of Australia. Reed New Holland, Australia.



## 2 Black-striped Floodplains Skink (*Egernia slateri virgata*)

### 2.1 Introduction

The Black-striped Floodplains Skink (*Egernia slateri virgata*) is known from only a handful of specimens collected in the far north of South Australia in late 1800's and early 1900's (Ehmann 2005). There have been no records of the species since 1914. However, a similar subspecies (*Egernia slateri slateri*) is known from the Northern Territory, where it is listed as Endangered.

Unfortunately, due to inaccurate labelling of specimens there is confusion over the exact collection location of the few records of the SA subspecies and therefore targeted surveys are made more difficult. The NT subspecies is known from several locations and possibly has similar habitat requirements to the SA subspecies. In the Northern Territory, the Floodplains Skink is found in areas associated with watercourses, where they make their burrows in the mounded pedestals which form at the base of shrubs including *Eremophila* and *Hakea* species (S. McAlpine pers.comm.). These mounds tend to form as a result of wind and water erosion (and possibly also deposition) and may be some distance away from stream channels or drainage lines.

In November 2004, Greg Fyfe and Peter Nunn from the Alice Springs Desert Park made a trip to the Northern areas of South Australia in search of *Egernia slateri virgata*. They checked watercourses that intersected major roads for suitable habitat and signs of the species (Fyfe & Nunn, unpublished). Despite searching over a wide area, only one site was selected as being suitable, based on their knowledge of the NT subspecies. This site, north of Oodnadatta on the edge of Todmorden Station was identified as the most appropriate habitat in terms of general appearance, vegetation type and the presence of mounds around vegetation containing reptile burrows of a suitable size.

The aim of the current survey was to visit the area of this sighting and to carry out trapping to determine the presence of *E. s. virgata* following the recommendations made by Fyfe and Nunn.

### 2.2 Methods

The area identified by Greg Fyfe and Peter Nunn to the north of Oodnadatta was visited on 10<sup>th</sup> and 11<sup>th</sup> October 2007. The site listed in their trip report described the site as 5 km north of Oodnadatta, but this location and habitat in the vicinity did not match the description. However, habitat closely resembling their description, featuring stands of *Eremophila sp* with mounds beneath their bases containing multiple reptile burrows was found approximately 10 km north of Oodnadatta in an area of floodplain associated with the Six Mile Creek (a tributary of the Neales Creek).

75 Elliott traps set over two nights (total 150 trap nights) at the site, targeting areas with the most prominent mounded pedestals containing reptile burrows. Elliotts were baited with diced apple and a peanut butter and rolled oats mix. In some areas where multiple reptile burrows were found in clusters, pit-fall lines were installed (using 10L plastic buckets as pits and flywire netting drift fences). These pitfall lines were installed at four sites and were placed so that they were adjacent to burrow entrances (0.5 – 1 m from entrance).





a)



b)





c)

**Figure 7. a), b) & c).** Elliot and pitfall traps set in the vicinity of reptile burrows associated with *Eremophila* sp on pedestal mounds.

### 2.3 Results and Discussion

Pitfall lines yielded a variety of captures including Ctenotus Skinks, Sand Swimmers and geckos (Table 1). Elliot traps yielded only one capture (a Ctenotus Skink). Based on the capture of *Eremiascincus richardsoni* outside the burrows in pedestal mounds, it is very likely that this species is responsible for the burrows rather than *Egernia* sp.

**Table 2.** Summary of captures from Pitfall and Elliot traps over two nights.

Common Name	Species Name	Method		Total
		Pitfall	Elliot	
Binoe's Gecko	<i>Heteronotia binoei</i>	2		2
Beaked Gecko	<i>Rhynchoedura ornata</i>	1		1
Sand Swimmer	<i>Eremiascincus richardsoni</i>	3		3
Striped Skink	<i>Cetnotus schomburgkii</i>	2		2
Striped Skink	<i>Ctenotus leonhardii</i>		1	1
Mulch Slider	<i>Lerista muelleri</i>	1		1

No other areas of similar habitat were noticed during the trip. However, this survey was useful in helping to understand the habitat requirements of *Egernia slateri*. Since this time, other areas of potentially suitable habitat have been opportunistically noted in several other areas, including further to the north along the Oodnadatta to Mt Dare road, along the Stuart Highway on Oakden Hills Station, in the vicinity of Yarra-wurta Spring (near northern tip of Lake Torrens) and on Leigh Creek Station, south of Lyndhurst. Searching these areas for

reptile burrows and targeted trapping to determine species may yield some results in the search for this likely extinct species.

## 2.4 References

Ehmann H, (2005) South Australian Rangelands and Aboriginal Lands Wildlife Management Manual: A resource handbook. Department of Water, Land and Biodiversity Conservation, SA.

Fyfe, G and Nunn, P. Unpublished fieldtrip report.



## Appendix

Table 1. Summary of sites searched for Bronzeback Legless Lizards (*Ophidiocephalus taeniatus*), including search effort, habitat description and other species observed (particularly reptile).

Date	Property Name	Site No.	Location	Habitat Description/Other Notes	Time spent searching	Other Species Recorded
6/10/07	Anna Creek	108	53J 0587101, 6713675	Extensive floodway area – well vegetated understorey, very little sign of grazing by cattle. Searched leaf litter of <i>Acacia oswaldii</i> , Mulga and Bullock Bush	30 min	
6/10/07	Anna Creek	109	53J 0581202, 6715700	Creekline with large patch of Bullock Bush, <i>Eremophila longifolia</i> and <i>Acacia oswaldii</i> .	20 min	
6/10/07	Anna Creek	110	53J 0574467, 6717383	Large creekline with Grevillea trees, Bullock Bush and <i>Eremophila longifolia</i> .	20 min	Pogona vitticeps White-fronted Honeyeater Echidna (diggings)
7/10/07	Mt Willoughby	BBB00301		Previous site from Mt Willoughby Biosurvey, where <i>O. taeniatus</i> recorded. Rocky creekline flowing out of breakaway hills. Many <i>Exocarpus aphylla</i> in upper reaches of creek but few in lower area around site (apart from one isolated, large tree). Also some Grevillea trees in upper reaches, Myall and Coolibah trees in lower areas. Searched under ~15 <i>E. aphylla</i> , 15 Myall and 4 Coolibah trees. Leaf litter deep and well matted under Myalls. <i>O. taeniatus</i> found under large <i>E. aphylla</i> in creekline.	1 hr	Red-backed Kingfisher Rainbow Bee-eater
7/10/07	Mt Clarence	O01 O02		Both sites ~1 km S of Dog fence on Mt Clarence (very close together). Creekline well-vegetated with grasses – not many trees with suitable leaf litter found except for a few Myalls with reasonable leaf litter.	30 mins	Ramphthops bituberculatus (1) in leaf litter of <i>A. papyrocarpa</i> .
7/10/07	Mt Clarence	113	53J 0465207, 6811358	Creekline flowing out of breakaway hills lined with Mulga and Northern Myall, close to Northern boundary of Mt Clarence. Skin of legless lizard found in Mulga leaf litter. Litter very sparse under Mulga trees. Also searched under several large <i>Acacia salicina</i> trees ~ 500m to north - 2 legless lizard skins found.	1 hr	
7/10/07	Mt Clarence	114	53J 0465207, 6811358	Area of Northern Myall and Broughton Willow around opal mullock heaps. Deep leaf litter under some Myalls (up to 10 cm).	30 min	<i>Demansia reticulata</i> (1) <i>Menetia greyii</i> (1) <i>Gehyra sp</i> (1)
7/10/07	Breakaways Reserve	115	53J0479917, 6806056	Breakaways reserve. Extensive patches of debris deposited by waterflow along drainage line adjacent to Dog Fence. <i>Astrebla sp</i> lining bottom. Gypseous, cracking clay habitat.	20 min	

Date	Property Name	Site No.	Location	Habitat Description/Other Notes	Time spent searching	Other Species Recorded
8/10/07	Coober Pedy	116	53J 0469297, 6798033	Large Mulga-lined creekline with headwaters in breakaway country. Searched right along creek upstream to pt 117 under Myall, Mulga, <i>Santalum</i> and <i>Grevillea</i> trees.	30 min	
8/10/07	Coober Pedy	117	53J 0470859, 6798345			
8/10/07	Coober Pedy	118	53J 0470246, 6799960	Mulga – lined creekline flowing out of breakaway hills. Leaf litter very sparse. Not enough to cover ground.	10 min	
8/10/07	Coober Pedy	119	53J 0468831, 6802419	Mulga and western Myall – lined creek in lowland area of Oolgelima Creek. Not much appropriate leaf litter – appears to have mostly been washed away by water flow. Remaining leaf litter has high amount of clay content.	30 min	
8/10/07	Coober Pedy	120	53J 0468594, 6803243	Further upstream on Oolgelima Creek. Better, deep leaf litter under young Western Myalls. Access road via entry point 24 off Stuart Hwy, past Crocodile Harry's. <i>O. taeniatus</i> found under young Myall, in creekline.	30 min	
9/10/07	Todmorden	126	53J 0540692, 6962672	Six Mile Creek. Heavily timbered with Gidgee. Searched for <i>O. taeniatus</i> . Good deep, matted leaf litter, especially under smaller young trees. Some Coolibah downstream, but leaf litter not forming dense mats as with Gidgee.	1 hr	<i>Lerista desertorum</i> (2)
9/10/07	Todmorden	128	53J 0542107, 6963197	Six Mile Creek. Downstream from area previously searched. Thick Gidgee with deep, matted leaf litter. Looks like really good habitat for <i>Ophidiocephalus</i> .	1.5 hrs	<i>Lerista desertorum</i> (4)
10/10/07	Todmorden	129	53J 0541501, 6947467	Neales Creek. Upstream from Hookey Waterhole. Followed creek up headwaters (~1 km upstream) including several branches. Gidgee lining creekline all the way up. Some dense, deeply matted leaf litter but most had been washed away by water flow.	1 hr	<i>Lerista desertorum</i> (1)
10/10/07	Arkaringa	130	53J 0482112, 6931265	Myall and gidgee lined creekline near area where <i>O. taeniatus</i> previously found by Arkaringa Biosurvey. Good, deep, matted leaf litter beneath trees of both species.	40 mins	
10/10/07	Arkaringa	131	53J 0482134, 6932618	Myall creekline. Big trees with deep leaf litter, most >10cm deep, but up to 20cm deep in some places. Appears to be ideal habitat for <i>Ophidiocephalus</i> .	30 mins	<i>Lerista desertorum</i> (2)
10/10/07	Arkaringa	132	53J 4822089, 6933298	Myall/Mulga creekline. Good leaf litter in some spots. <i>Lerista desertorum</i> found in leaf litter of Myall.	20 mins	<i>Lerista desertorum</i> (1)

Date	Property Name	Site No.	Location	Habitat Description/Other Notes	Time spent searching	Other Species Recorded
10/10/07	Arkaringa	133	53J 0482895, 6936972	Gidgee creekline. Mulga adjacent in nearby drainage	20 mins	
10/10/07	Arkaringa	134	53J 0485313, 65938199	Gidgee along edge of creekline. Some deep matted litter, especially under smaller trees. Some <i>Eremophilas</i> growing along creekline also possible habitat for <i>E. slateri</i>	10 mins	
10/10/07	Arkaringa	135	53J	Previous site from Arkaringa Biosurvey on boundary of Arkaringa and Todmorden. Good Gidgee and Myall habitat, with deep leaf litter. Very little sign of cattle in this area.	20 mins	
10/10/07	Todmorden	136	53J	Upper reaches of gidgee breakaway creek on high tableland. Some good leaf litter.	10 mins	
11/10/07		141	53J 0476778, 6910662	Gidgee-lined creek crossing Arkaringa Road. Some good deep leaf litter under Gidgee trees but a fair bit of cattle activity present.		
11/10/07	Mt Barry	143	53J 0481794, 6897540	Gidgee-lined creek. Substrate very stony – very little leaf litter present.	10 min	
11/10/07	Mt Barry	144	53J 0458021, 6878926	Gidgee, Mulga and Broughton Willow in creekline – tributary of Evelyn Creek. Some appropriate leaf litter under gidgee trees.	20 min	<i>Lerista sp</i> (not captured)
11/10/07	Mt Barry	145	53J 0464115, 6879723	Gidgee-lined creek – tributary of Evelyn Creek.. Some appropriate leaf litter under a few trees, however most with little litter – appears to have been removed by water flow or stock activity.	30 min	
11/10/07	Mt Barry	146	53J 0466657, 6879672	Evelyn Creek. Multiple channels lined with Gidgee and Coolibah. Little leaf litter and gravelly substrate.	30 min	
11/10/07	Mt Barry	147	53J 0478835, 6880331	Small creekline lined with Gidgee trees in between rocky hills. No appropriate leaf litter for <i>O. taeniatus</i> . Large Mulgas in breakaway headwaters also searched – little or no leaf litter.	30 min	
12/10/07	Mt Barry	148	53J 0479038, 6879748	Rocky gidgee-lined creek. Followed up into headwaters where resembled breakaway country and lined with Mulga (~1km upstream). Leaf litter sparse or non-existent - no appropriate habitat present.	30 min	



Date	Property Name	Site No.	Location	Habitat Description/Other Notes	Time spent searching	Other Species Recorded
12/10/07	Coober Pedy	152	53J	Oolgelima Creek, North of Coober Pedy. Searched upstream along creekline for several km from near junction with Coober Pedy/Oodnadatta road (152) to (156). Litter deep and matted under many Myall trees. Substrate fine sandy loam. Appeared to be excellent habitat. One legless lizard skin found.	2 hrs	Jacky Winter (2) Fork-tailed Kite Nest (2 chicks) <i>Delma australis</i>
12/10/07	Coober Pedy	153	53J 0481867, 6801485			
12/10/07	Coober Pedy	154	53J 0480914, 6801332			
12/10/07	Coober Pedy	155	53J 0478305, 6799358			
12/10/07	Coober Pedy	156	53J 0478050, 6799131			
12/10/07	Coober Pedy	157	53J 0467379, 6804445	Oolgelima Creek, upstream of site 120, where <i>O. taeniatus</i> found on 8/10/07. Good deep and matted leaf litter under many Myall trees. Vegetation in creekline in good condition with little or no grazing impact visible.		<i>Delma australis</i>
13/10/07	Coober Pedy	159	53J 0472170, 6791602	Searched area surrounding Underwood family's dugout house in Coober Pedy where <i>O. taeniatus</i> previously found in kitchen sink in 2003. Good, deep matted leaf litter under gidgee trees on hill and along creekline. Minefield of open opal shafts.	2 hrs	

Table 2. Maximum and minimum temperatures recorded in the area during the survey (Bureau of Meteorology 2007)

Date	Coober Pedy		Oodnadatta	
	Min (°C)	Max (°C)	Min (°C)	Max (°C)
6 <sup>th</sup> Oct 2007	16.5	27.1	22.0	33.5
7 <sup>th</sup> Oct 2007	14.5	29.0	18.9	34.5
8 <sup>th</sup> Oct 2007	15.5	30.9	19.4	35.7
9 <sup>th</sup> Oct 2007	16.1	35.6	17.4	37.7
10 <sup>th</sup> Oct 2007	19.2	32.3	24.8	36.4
11 <sup>th</sup> Oct 2007	12.1	24.8	17.7	29.0
12 <sup>th</sup> Oct 2007	11.4	21.3	14.3	24.6
13 <sup>th</sup> Oct 2007	8.8	24.5	8.5	26.4