

IV. REPTILES AND FROGS OF COCKLESHELL GULLY RESERVE

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INTRODUCTION

Reptiles and frogs were collected in Cockleshell Gully Reserve No. 15018 from 22 October to 11 November 1973 and from 12 to 29 May 1974. All main geological and vegetation formations were examined. The usual Museum collecting techniques were used, e.g. shooting with .22 dustshot, active searching in daytime, turning over stones and litter, digging out burrows and searching at night with head torches.

Data on each species are listed below. An assessment of abundance is made from sightings as well as from specimens collected. Additional data are provided for a few species from information obtained by R.E. Johnstone and G.M. Storr. Vegetation classifications are from Muir (1977).

All specimens are in the Western Australian Museum. Those collected in October-November are R48412-48557 and those collected in May are R48991-49-66 and R49212-49215. Other specimens used were R47802, 47807, 48802-09, 48818-19 and 48822-26; dates of these specimens are included in the annotated list.

ANNOTATED LIST

HYLIDAE

Litoria moorei. Recorded at Eatha Spring and Stockyard Gully. Common in *Typha* sp. and less common in *Juncus maritimus* in freshwater at Eatha Spring. Two adults collected in November, and 15 in April 1971. Large tadpoles present in May 1976.

LEPTODACTYLIDAE

Ranidella sp. An adult frog, probably of *pseudinsignifera*, collected under a slab of rock in *Eucalyptus wandoo* woodland on dissected plateau near head of Cockleshell Gully in May. Four subadults collected at entrance to Stockyard Gully caves in May.

Heleioporus albopunctatus. Many seen at night on surface of sand in heath near Mt Peron in May and October-November. Two adults collected in May

and 2 in November. A subadult collected on edge of temporary pond after rain at Jurien No. 1 Well in May.

Heleioporus eyrei. One adult and 2 subadults collected at night on white sand with *Adenanthos cygnorum* and *Banksia* spp. 6 km southwest of Padbury farm in November. One subadult collected at edge of temporary pond after rain in Jurien No. 1 Well in May.

Limnodynastes dorsalis. Many calling in rushes at Eatha Spring in December 1971 (R.E. Johnstone, pers. comm.) and in May 1974. Two adults collected at night in October on white sandy heath 5 km northwest of Padbury.

Neobatrachus pelobatoides. Many seen round edges of samphire flats and at edges of temporary ponds at Jurien No. 1 Well after heavy rain in May. Fourteen specimens collected in May. One collected under slab of rock in *Eucalyptus wandoo* woodland on dissected plateau 4 km east of Mt Peron in May. Eggs just hatching collected from temporary ponds 5 km west of Padbury farm on 16 May.

Pseudophryne guentheri. Many seen around temporary ponds and swamps near saltlakes in May. Several seen under laterite and sandstone rocks on dissected plateau in *E. wandoo* east of Mt Peron in May and October-November. Fifteen collected in May and 2 in October. Many calling in May after heavy rain.

CHELUIDAE

Chelodina oblonga. Not seen by us. Specimens have been collected in the Hill River. F.A. Grigson (pers. comm. to D.L. Serventy) states that tortoises were not present in Cockleshell Gully or Eatha Spring.

GEKKONIDAE

Crenadactylus ocellatus. Many seen under logs, rocks and deep litter in *E. wandoo* — *E. accedens* woodland on dissected plateau east of Mt Peron. Six collected in May and 3 in October. One collected under *Acacia rostellifera* litter among limestone rocks 1 km east of saltlakes. A juvenile collected in May.

Diplodactylus alboguttatus. Many seen in heath on white sand. Mostly seen at night, active on bare sand especially on edge of firebreaks. Two collected in May and 14 in September. One May specimen under a laterite slab on a rocky hill with low heath on the dissected plateau 4 km east of Mt Peron; another inside a dead hollow *Xanthorrhoea reflexa* in sandy heath 2 km west of Mt Peron.

Chapman & Dell (in prep.) state that *D. maini* lives in lycosid spider burrows in sandy or loamy soils. It thus appears that *D. alboguttatus* occupies a wider range of habitats than *D. maini*.

A juvenile was collected in May and 2 in October. Of the 11 undamaged October adults 8 were males with enlarged testes.

Diplodactylus spinigerus. Many seen in heath on sand and limestone in a belt from 2 km east of Mt Peron to the coast. Twenty-one collected in May and 11 collected in October-November. Most collected at night on low bushes. One collected on a *Melaleuca* shrub at edge of samphire flats.

One juvenile collected in May. Some October females more than 60 mm in SVL (snout-vent length) were gravid. The following clutches were noted: (a) 2 eggs in right oviduct, 2 in left; (b) 1 in right; (c) 2 in left, 1 in right. When two eggs were present in same oviduct the second was about half the size of the first. This almost certainly indicates intervals between laying. The animal with only one egg may have commenced laying as the egg was about half terminal size (judging from the largest egg measured).

Breeding females were larger (mean SVL 59.3 mm) than breeding males (51.7 mm).

Diplodactylus vittatus. Many seen in heath and Low Woodland A (*E. calophylla* and *E. wandoo* — *E. accedens*). Eleven collected in May and 10 in October-November. Only seen east of the chain of saltlakes. Most collected while active at night; some collected in daytime under laterite slabs on dissected plateau or emerging from burning windrows on farm 10 km northwest of Mt Peron.

Juveniles collected in May and October. Two adult females (SVL 53 mm) collected in November had 1 egg 14 mm long in each oviduct. Males collected in October-November had large testes.

Specimens included in this sample show considerable differences in colour pattern, and we would not be surprised if more than one taxon were involved.

Gehyra variegata. Many seen under peeling bark of dead *Casuarina obesa* around saltlakes. Others seen under bark of dead *Acacia rostellifera*, inside dead *Xanthorrhoea reflexa* on heath, and under slab of travertine limestone. Ten collected in May and 4 in October-November.

A female (SVL 43 mm) collected in October had an egg 8 mm long in the right oviduct.

Phyllodactylus marmoratus. Several seen on trunks of Marri trees (*Eucalyptus calophylla*) along Cockleshell Gully. One collected in May, and 1 in October.

The October female (SVL 50.5 mm) had 1 egg 9 mm long in each oviduct.

Phyllurus milii. Two juveniles collected under laterite rocks on hilltops in dissected plateau 4 km east of Mt Peron in May. Two adults collected by R.E. Johnstone under rubbish in vicinity of travertine limestone near Green Head in December.

A December female (SVL 71 mm) had 1 egg 7.5 mm long in each oviduct. Other ovarian follicles were developing, and the right oviduct below the egg was distended, possibly indicating that the animal had already laid some eggs.

PYGOPODIDAE

Aclys concinna. A female collected under litter among *Adenanthos cygnorum* on white sand 4 km west of Mt Peron in May. Another female collected by J. Dell and M. Hanlon on white sand with heath less than 1 m tall 2 km east of Mt Peron in March; a second caught here while basking 9.5 m above ground escaped.

Delma grayii. A male collected in May from gravelly sand during burning-off windrows on a farm 4 km northwest of Mt Peron. Another male collected in November under sheet of asbestos at Green Head.

Delma fraseri. Three collected in May and 1 in October. One under rotten sack at edge of samphire flats, 1 among *Acacia rostellifera* on outcropping travertine limestone, and 2 on dissected plateau east of Mt Peron. The October female (SVL 100 mm) had one large follicle (4 mm) in each ovary.

Lialis burtonis. Two collected in May and 1 in October, on gravelly sand, laterite heath slopes, and limestone-derived soils in *Acacia rostellifera* clumps. One collected while burning-off windrows had partially swallowed a gecko *Diplodactylus alboguttatus*.

Pygopus lepidopodus. Widespread from dissected laterite plateau to coast at Green Head. Three collected in May and 6 in October-November. Most specimens in heath and active in daytime. One collected near Eatha Spring on edge of saltlake samphires.

Three males collected in October-November (SVL more than 135 mm) had enlarged testes (12 mm long). Two females (SVL more than 160 mm) collected in October were gravid. One had a large egg (11 mm long) in the posterior end of each ovary. The other had 2 eggs in the left oviduct and 1 in the right. The left oviduct eggs were 31 and 5 mm long, and the right oviduct egg was 30 mm long. The large egg in the left oviduct was only 7 mm from the cloaca. The egg in the right oviduct was entirely anterior to the large egg in the left oviduct, together they occupied 37.5% of the snout-vent length of the animal. This animal was probably producing eggs alternately in each oviduct.

AGAMIDAE

Amphibolurus adelaidensis adelaidensis. One collected in May and 16 in October-November. Many others seen during the spring survey in heath on white sand in 7 km wide belt from 2 km east of Mt Peron westward to eastern edge of Spearwood Dunes. One collected on foredunes at Green Head.

Eleven of the spring specimens were males with enlarged testes. Four of the 5 females were gravid. Breeding males were smaller than breeding females (SVL mean 41.2 mm, range 36-44 mm, compared with 46.0 and 44-49 mm). Two females had 1 egg in the right oviduct and 2 in the left; 1 female had 2 eggs in the right oviduct and 1 in the left. Length of eggs ranged from 7.5 mm to 11 mm. However, eggs within individual females were uniform in size. Eggs of the third gravid specimen were damaged.

Amphibolurus maculatus maculatus. One collected in May and 5 in October-November. Only collected a short distance from banks of Cockleshell Gully, from edge of dissected plateau to eastern edge of Spearwood Dunes. On white or pale yellow alluvial sands, sometimes with travertine limestone slabs.

Three spring males (SVL more than 43 mm) had enlarged testes (more than 5 mm long). A female (SVL 49 mm) had 2 eggs in right oviduct and 1 in the left; they were about 9 mm long.

Amphibolurus minor. Nine collected in May and 9 in October-November. Many others seen throughout Reserve except in coastal dunes. One collected by R.E. Johnstone at Green Head in December 1972.

A juvenile was collected in May. Four spring specimens were male (SVL 68-91 mm) and had enlarged testes (more than 7 mm long). Four of the 5 spring females (SVL 89-105 mm) had the following number of eggs in oviducts (left oviduct mentioned first): (a) 3,3; (b) 2,3 (c) 2,3 (d) 0,2. Eggs within each animal were uniform in size, but ranged between 6 and 22 mm in different animals.

SCINCIDAE

Cryptoblepharus plagiocephalus. Seven collected in May and 2 in October-November. On logs and trunks of trees and bushes in Low Woodland A, including *Eucalyptus wandoo*, *E. accedens*, *E. calophylla* on dissected plateau, *E. calophylla* along Cockleshell Gully and *Casuarina obesa* at edges of saltlakes; and in shrublands, including clumps of *Acacia rostellifera*.

Two May specimens were juvenile. An October male (SVL 39 mm) had enlarged testes. A November female (SVL 49 mm) was gravid with 2 eggs in right oviduct and 1 in left; eggs were about 5 mm long.

Ctenotus fallens. Eleven collected in May and 11 in October-November. Many others seen in Low Woodland A on dissected plateau and shrublands on Spearwood Dunes east of the saltlakes. On soils ranging from laterite gravels with rocks through hard stony clay to white sand and aeolianite limestone in Spearwood Dunes. In May many hibernating under laterite rocks on dissected plateau. One collected under rubbish at Green Head.

No specimens were gravid. Spring males had testes approximately same size as in autumn but in spring the testes were turgid compared with flaccid in autumn.

Ctenotus lesueurii. Three collected in November. In spearwood Dunes on east side of saltlakes. Low heath and *Acacia rostellifera* shrublands on limestone-derived sands and loams.

Two males (SVL 88-91 mm) had enlarged testes more than 7 mm long.

Ctenotus pantherinus pantherinus. Five collected in May and 1 in October. On dissected plateau under laterite rocks.

Two collected in May were juvenile. An October male (SVL 67 mm) had enlarged testes.

Ctenotus impar. One collected in October. In *Adenanthos cygnorum* heath on white sand 2 km east of Mt Peron.

Egernia multiscutata bos. Five collected in May and 3 in October-November. Dug from burrows along track in heath on white sand. Found in a 10 km wide strip from 2 km east of Mt Peron westward to eastern edge of Spearwood dunes.

Two collected in May were juvenile. In May both juveniles and adults occupied the same burrows. Burrows were similar to those described by Storr (1960) except they were mainly on flat ground or along gently sloping sides of wheel tracks. Most burrow systems had several entrances and often had a low woody bush growing in the middle.

Egernia napoleonis. Three collected in May and 1 in October. Three were in dead *Xanthorrhoea reflexa* in heath on western edges of dissected plateau, 1 was in breakback mammal trap in *Melaleuca preissiana* — *Banksia littoralis* swamp.

Two collected in May were juvenile. A November female (SVL 91 mm) had 3 large follicles in left ovary and 1 in right. These follicles were more than 5 mm long. This animal was presumably beginning to breed.

Lerista elegans. Not collected by us, but Storr (1971) lists a specimen from Stockyard Gully and 1 from Fisherman Island.

Lerista planiventralis. A dead specimen collected in November. On sand-

track in *Banksia* spp. — *Adenanthos cygnorum* heath just east of the Spearwood Dunes.

Lerista praepedita. Two collected in October-November. One was dead in same locality as *L. planiventralis* and 1 was under rubbish at Green Head.

Menetia greyii. Eight collected in May and 2 in October-November. Widespread on dissected plateau, colluvial sandplain west of Mt Peron and under *Acacia rostellifera* litter on Spearwood Dunes.

Morethia lineocellata. Five collected in October-November. On white sand in heath east of Spearwood Dunes, and at eastern edge of Spearwood Dunes where there are pockets of sand.

A female (SVL 57 mm) collected on 29 October had 3 eggs (5.5 mm long) in left oviduct.

Morethia obscura. One collected in May and 7 in October-November. All were found east (i.e. inland) of *M. lineocellata*. On dissected plateau and western slopes. Heath and Low Woodland A on gravelly sand, sand, clay loams and under litter.

A female (SVL 42 mm) collected on 28 October had 1 egg about 8 mm long in each oviduct.

Storr (1972) lists 9 specimens from Fisherman Island.

Omolepida branchialis. Two collected in May and 4 in October-November. Under deep leaf-litter and fallen branches in dense *Casuarina obesa*. *Acacia rostellifera* and *Calothamnus* sp. around saltlakes.

Three spring specimens (SVL 74-90 mm) were males with large testes. One was a female (SVL 90 mm) with 2 eggs about 9 mm long in each oviduct. Eggs in right oviduct were lying entirely anterior to those in the left. Thus the 4 eggs occupied about 40% of the animal's snout-vent length.

Tiliqua occipitalis. One collected in May and 2 in October-November. Sand with travertine limestone outcropping near Green Head and on sand in heath near Cockleshell Gully.

The stomach of a subadult in spring had many seeds and flowers of *Astroloma* or *Brachyloma*, a cockroach (*Polyzosteria mitchellii*), a grasshopper (*Austracris guttulosa*) and a scarab (*Heteronychus* sp.).

Tiliqua rugosa. One collected in October on white sand in heath near Mt Peron.

VARANIDAE

Varanus gouldii. Not seen by us, but R.E. Johnstone collected 2 at Green Head in December 1971.

Varanus tristis. One collected in November from Low Woodland A (*Casuarina obesa* with *Melaleuca* spp. bushes) on edge of saltlakes.

TYPHLOPIDAE

Typhlina australis. One collected in May under laterite slab on dissected plateau.

BOIDAE

Liasis childreni. Two juveniles collected in May under laterite slabs on dissected plateau. R.E. Johnstone caught one in December 1971 in samphires on edge of saltlakes.

ELAPIDAE

Brachyaspis curta. Five collected in May and one in October. Four in Low Woodland A (*Casuarina obesa*) fringing saltlakes, 1 on gravelly sand with heath and 1 on white colluvial sand among *Adenanthos cygnorum*, *Banksia* spp. heath.

One May specimen was juvenile. Two May males (SVL 240, 295 mm) were adult with enlarged testes and much mesenteric fat; a May female (SVL 305 mm) also had much fat. A spring female (SVL 305 mm) collected on 29 October was gravid.

Pseudonaja nuchalis. A juvenile collected in May under slab of sandstone in heath on top of hill near Mt Peron. R.E. Johnstone collected an adult at Green Head in December 1970 and another in December 1971.

Demansia reticulata reticulata. An adult and a juvenile collected in May on limestone-derived soils with travertine limestone in Spearwood Dunes near Jurien No. 1 Well.

Denisonia gouldii. Four collected in May under logs and laterite rocks on dissected plateau. One was a juvenile.

Vermicella littoralis. A female collected in October on shallow soil on travertine limestone outcrop among *Acacia rostellifera* clumps near Jurien No. 1 Well.

Vermicella bimaculata. One collected by M. Hanlon and J. Dell under decaying *Xanthorrhoea reflexa* in heath on gravel with shallow surface colluvial sands 5 km north of Mt Peron.

DISCUSSION

Seven species of frog and 40 species of reptiles were collected on Cockleshell Gully Reserve. Another species, *Vermicella bimaculata*, was collected 2 km

north of the Reserve on sandplain similar to a large portion of the Reserve. This Reserve has more species of reptiles than any reserve that we have examined in the wheatbelt and compares favourably with Kalbarri National Park which has 45 species (Storr, unpublished data). The only other coastal areas in the South-west that have been examined in detail are Mussel Pool (Harold & Dell, 1975) which has 25 species, and Cape Le Grand National Park (Chapman & Dell, 1975) which has 30 species.

The frogs are all within their known range. It is likely that Cockleshell Gully is near the northern limit of *Heleioporus eyrei*. *Ranidella pseudinsignifera* has not been collected north of Stockyard Gully.

We expect that other species of frog will be found in the Cockleshell Gully area. In particular, the genus *Neobatrachus* is at present poorly represented; and *Myobatrachus*, although not collected here, has been recorded from as far north as Geraldton.

With one exception, all the reptiles are within their known range. *Ctenotus impar* had not previously been collected north of the Gingin district (Storr, 1973). The specimens of *Aclys concinna* are the third and fourth ever collected. Our specimens came from ca 13 km northwest of where the paratype was collected. It is likely that *Aclys* is common in heaths around Mt Peron. *Lerista planiventralis* is rarely collected in the South-west; Storr (1971) only had two southwestern specimens, the southernmost coming from Watheroo. The specimen of *Vermicella littoralis* was collected close to the southern end of its range (see Storr, 1967).

Storr (1966) has commented on the close proximity of *Amphibolurus maculatus maculatus* at Jurien Bay to *A. m. griseus* from the Coorow-Marchagee sandplain. Our specimen of *A. m. maculatus* from Cockleshell Gully Reserve are only 80 km west of where we have collected *A. m. griseus* 10 km south of Coorow. We have examined the country between these localities and noted a belt of laterite with only a thin covering of colluvial sands. We believe that this laterite belt is unsuitable habitat for *A. maculatus* and therefore may act as a barrier between the two subspecies.

The reptiles on Cockleshell Gully Reserve include nine taxa which we have not recorded on any wheatbelt reserve. These are *Diplodactylus alboguttatus*, *Aclys concinna*, *Amphibolurus adelaidensis adelaidensis*, *Ctenotus lesueurii*, *C. fallens*, *Lerista elegans*, *L. planiventralis*, *Liasis childreni* and *Vermicella littoralis*. In addition it includes the sandplain species *Morethia lineoocellata* which we have collected on only one wheatbelt reserve, Tarin Rock Reserve (Smith & Chapman, 1976).

Of the 25 species of reptile recorded as Mussel Pool (Harold & Dell, 1975) only four species, *Aprasia repens*, *Ctenotus gemmula*, *Leiopisma*

trilineatum and *Notechis scutatus*, were not found at Cockleshell Gully. Both the *Aprasia* and *Ctenotus* are easily overlooked; but we believe that *Leiopisma* and *Notechis* do not occur as far north as Cockleshell Gully. Also the frog *Litoria adelaidensis* was common at Mussel Pool but not found at Cockleshell Gully.

Colluvial sands on the western slopes of the Gairdner Range are particularly rich in reptiles and frogs, there being 28 species. Next in richness are the Spearwood Dunes with 23 species and the Gairdner Range with 20 species. Safety Bay sands are very depauperate with only 6 species, moreover, one of these, *Egernia kingii*, probably occurs only on coastal limestone exposures. Species occupying the different soil types are shown in Appendix 1.

Many reptiles breed during October-November at Cockleshell Gully Reserve. Four geckos were gravid and another had enlarged testes. *Phyllurus milii* was gravid in December. Among the pygopodids only *Pygopus lepidopus* was gravid. Each of the three agamids was gravid in October-November. Only four species of skink were gravid in October-November. Most of the other skinks had enlarged testes, indicating they were beginning to breed. Too few snakes were collected for an analysis of breeding season; *Brachyaspis curta* was gravid in October.

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REFERENCES

- CHAPMAN, A. & DELL, J. (1975)—Reptiles, amphibians and fishes. In A biological survey of Cape Le Grand National Park. *Rec. West. Aust. Mus.* Suppl. no.1: 34-38.
- CHAPMAN, A. & DELL, J. (1977)—Reptiles and frogs of Bendinger and West Bendinger Reserve. In Biological Survey of the Western Australian Wheatbelt. Part III. *Rec. West. Aust. Mus.* Suppl. no. 5. (in press)
- CHAPMAN, A. & DELL, J. (in prep.)—Reptiles and Frogs of Dongolocking Nature Reserve. In Biological survey of the Western Australian Wheatbelt. Part IV.

- HAROLD, G. & DELL, J. (1975)—Reptiles. *In A spring, 1975, biological survey of the proposed Mussel Pool complex and recommendations for its future development.* Western Australian, Museum, Perth. [Unpublished report.]
- LOWRY, D.C. (1974)—*Dongara-Hill River, Western Australia. 1:250,000 geological series map and explanatory notes SH/50-5,9.* Canberra: Australian Government Publishing Service.
- MUIR, B.G. (1977)—Biological Survey of the Western Australian Wheatbelt. Part 2—vegetation and habitat of Bending Reserve. *Rec. West. Aust. Mus.* Suppl. no. 3.
- SMITH, L.A. & CHAPMAN, A. (1976)—Reptiles and frogs of Tarin Rock and North Tarin Rock Reserves. *In* Biological survey of the Western Australian wheatbelt. Part 1. *Rec. West. Aust. Mus.* Suppl. no. 2: 85-86.
- STORR, G.M. (1960)—*Egernia bos* a new skink from the south coast of Western Australia. *West. Aust. Nat.* 7: 99-103.
- STORR, G.M. (1965)—The *Amphibolurus maculatus* species-group (Lacertilia, Agamidae) in Western Australia. *J. Proc. R. Soc. West. Aust.* 48: 45-54.
- STORR, G.M. (1967)—The genus *Vermicella* (Serpentes, Elapidae) in Western Australia and the Northern Territory, *J. Proc. R. Soc. West. Aust.* 50: 80-92.
- STORR, G.M. (1971)—The genus *Lerista* (Lacertilia, Scincidae) in Western Australia. *J. Proc. R. Soc. West. Aust.* 54: 59-75.
- STORR, G.M. (1972)—The genus *Morethia* (Lacertilia, Scincidae) in Western Australia. *J. Proc. R. Soc. West. Aust.* 55: 73-79.
- STORR, G.M. (1973)—The genus *Ctenotus* (Lacertilia, Scincidae) in the South-west and Eucla divisions of Western Australia. *J. Proc. R. Soc. West. Aust.* 56: 86-93.

APPENDIX I

Species	Safety Bay Sands	Saltlake Mosaics	Spearwood Dunes	Plateau Derived Sands	Dissected Plateau
<i>Litoria moorei</i>		X	X		
<i>Ranidella pseudinsignifera</i>			X		X
<i>Heleioporus albopunctatus</i>			X	X	
<i>Heleioporus eyrei</i>			X	X	
<i>Limnodynastes dorsalis</i>		X		X	
<i>Neobatrachus pelobatoides</i>		X	X		X
<i>Pseudophryne guentheri</i>		X		X	X
<i>Crenadactylus ocellatus</i>			X		X
<i>Diplodactylus alboguttatus</i>				X	X
<i>Diplodactylus spinigerus</i>	X		X	X	
<i>Diplodactylus vittatus</i>				X	X
<i>Gehyra variegata</i>		X	X	X	
<i>Phyllodactylus marmoratus</i>				X	
<i>Phyllurus milii</i>			X		X
<i>Aclys concinna</i>				X	
<i>Delma grayii</i>			X	X	
<i>Delma fraseri</i>		X	X		X
<i>Lialis burtonis</i>			X	X	X
<i>Pygopus lepidopus</i>	X	X	X	X	X
<i>Amphibolurus adelaidensis adelaidensis</i>	X			X	
<i>Amphibolurus maculatus maculatus</i>				X	
<i>Amphibolurus minor</i>		X	X	X	X
<i>Cryptoblepharus plagiocephalus</i>		X	X	X	X
<i>Ctenotus fallens</i>				X	X
<i>Ctenotus lesueurii</i>			X		
<i>Ctenotus pantherinus pantherinus</i>					X
<i>Ctenotus impar</i>				X	
<i>Egernia kingii</i>	X				
<i>Egernia multiscutata bos</i>				X	
<i>Egernia napoleonis</i>				X	
<i>Lerista planiventralis</i>				X	
<i>Lerista praepedita</i>			X		
<i>Menetia greyii</i>			X	X	X
<i>Morethia lineocellata</i>			X		
<i>Morethia obscura</i>				X	X
<i>Omolepida branchialis</i>		X			
<i>Tiliqua occipitalis</i>			X	X	
<i>Tiliqua rugosa</i>				X	
<i>Varanus gouldii</i>			X		
<i>Varanus tristis</i>		X			
<i>Typhlina australis</i>					X
<i>Liasis childreni</i>		X			X
<i>Brachyaspis curta</i>	X	X		X	
<i>Pseudonaja nuchalis</i>	X				X
<i>Demansia reticulata reticulata</i>			X		
<i>Denisonia gouldii</i>					X
<i>Vermicella littoralis</i>			X		
<i>Vermicella bimaculata</i>				X	

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