

NOTES ON A FIELD TRIP TO THE LOWER MORNINGTON PENINSULA WITH COMMENTS ON THE WIDER SIGNIFICANCE OF SOME OBSERVATIONS.

By Raymond Hoser and Robert Valentic.

INTRODUCTION:

On 17th October 1995, both author's went to the lower Mornington Peninsula in search of the Swamp Skink *Egernia coventryi* with a view to photographing a specimen. Besides locating four specimens of this species, a number of observations were made that have either been rarely reported in the literature or have significance for the conservation strategy of the Swamp Skink.

DETAILS OF THE FIELD TRIP:

LOCATION: Tootgarook Swamp area - Melways reference map 169, F7. Lat. 38° 23' Long. 144° 52'.

The site is adjacent to an area known as Truemans Road Recreational Reserve.

WEATHER: Overcast and with occasional sunny breaks. There had been a northerly wind just prior to arrival in the area at about 12:30 hrs. (a cold front had arrived about one hour earlier at about 11:30 hrs. - but apparently was weak and did not appear to get to Melbourne on this day). The search in the area went from approximately 12:30 to 14:20 hrs.

Air temperature at the time was estimated at about 15°C but may have been up to 5°C hotter or colder as no thermometer was used - but the temperature had dropped sharply an hour earlier from well over 20°C. (The estimates would be fairly accurate as usually both authors carry a thermometer in the field).

OBSERVATIONS (IN ORDER):

Egernia coventryi (RH). Young specimen sheltered under a solid bitumen slab, immediately adjacent to a drainage ditch. The drainage ditch referred to here and later in these notes runs parallel to Hiscock Road. The swamp and adjacent areas referred to are to the immediate south of Hiscock Road (right hand

side if heading east from Truemans Road).

- Delicate Skink *Lampropholis delicata* (RH/RV). About five adults found under cover in a grassy, grazed paddock.
- Metallic Cool-skink *Pseudemoia metallica* (RH). One large noticeably gravid female found under a sheet of embedded tin in the above paddock.
- Swampland Cool-skinks *Pseudemoia rawlinsoni* (RV). Two adult lizards sighted basking on tussock grass swards above ground level near the boundary of dense Melaleuca thickets bordering the swamp.
- Blotched Bluetongue *Tiliqua nigrolutea* (RV). An adult basking amongst grasses at the edge of the swamp. Two ticks were seen in one ear. No evidence of mite infestation (see Eastern Bluetongue below).
- White-lipped Snake *Drysdalia coronoides* (RV). A large, dorsally green adult, coiled amongst dense grass swards at the edge of the swamp, adjacent to dense Melaleuca thickets.
- Eastern Bluetongue - *Tiliqua scincoides* (RV/RH). One adult found active in a grassy area at the edge of the swamp. Mites and ticks were noted. Mites were first located by the presence of white droppings on the dorsum. Closer inspection revealed brown coloured mites under the scales, which were raised as well as in other places such as under the vent.
- *Drysdalia coronoides* (RV). An adult male basking on top of a flattened grass tussock in a tight coil close to the swamp. The eyes were opaque in preparation for sloughing. Dorsally olive, the snake had a number of small to medium sized ticks present.

- *Drysdalia coronoides* (RV). One gravid female found active on top of flattened grass swards on the edge of the swamp. Russet dorsally.
- *Lampropholis delicata* (RV/RH). Two lizards found beneath cover adjacent to the drainage ditch.
- *Egernia coventryi* (RH). A young specimen observed active amongst a pile of dead vegetation overhanging shallow water within the drainage ditch.
- *Egernia coventryi* (RV). A young lizard found sheltered amongst grass beneath a small sheet of tin. There was about 50 mm clearance under the tin, with flattened grasses in this space. The grasses were immediately above the shallow water within the canal.
- *Drysdalia coronoides* (RH). A juvenile snake, which appeared to have been born last season was found beneath tin on a dirt pile beside the drainage ditch. The eyes were opaque in prep-

aration for sloughing. Dorsally reddish.

- *Egernia coventryi* (RV). A very large specimen was seen basking on top of grasses adjacent to the pile of dead vegetation where above *E. coventryi* was observed by RH five minutes earlier. Due to its extreme girth it was speculated that it may have been a gravid female.

Shortly after termination of search at 14:20 hrs., storm clouds came over and it started to rain at about 14:35 hrs.

FURTHER NOTES:

The *Pseudemoia rawlinsoni*, *Tiliqua nigrolutea*, three of the *Drysdalia coronoides* and *Tiliqua scincoides*, all came from a pristine swamp habitat or immediately adjacent to it. All the *Egernia coventryi*, *Lampropholis delicata*, *Pseudemoia metallica* and one *Drysdalia coronoides* came from a heavily grazed and highly disturbed paddock, in or adjacent to a drainage ditch. All vegetation in the area was introduced species and all ground cover in the

TABLE OF SPECIES FOUND AT TOOTGAROOK BY RAYMOND HOSER AND ROBERT VALENTIC ON 17TH OCTOBER 1995.

Species	Number	Habitat	Further notes
Swamp Skink <i>Egernia coventryi</i>	4	Drainage ditch and immediate environs	Some sheltering and active
Delicate Skink <i>Lampropholis delicata</i>	7	In and around highly degraded habitat, and sheltering under man-made debris.	All found under cover.
Metallic Cool-skink <i>Pseudemoia metallica</i>	1	Grazed paddock	Sheltering under tin.
Swampland Cool-skink <i>Pseudemoia rawlinsoni</i>	2	Melaleuca swampland.	Basking.
Blotched Bluetongue <i>Tiliqua nigrolutea</i>	1	Melaleuca swampland	Basking.
Eastern Bluetongue <i>Tiliqua scincoides</i>	1	Melaleuca swampland	Basking. Had major mite infestation
White-lipped Snake <i>Drysdalia coronoides</i>	4	3 in Melaleuca swampland. 1 in degraded habitat.	3 basking. 1 under tin.



Gravid White-lipped Snake *Drysdalia coronoides* from Tootgarook Swamp, Mornington Peninsula, Victoria. Photo: Rob Valentic



Gravid Metallic Skink *Pseudemoia metallicum* from Tootgarook, Mornington Peninsula, Victoria. Photo: Rob Valentic

form of rocks, tin, etc. was man-made.

A subsequent trip to the area by Michael Kearney and Phil Marantelli on 29th December 1995 (pers. comm. 1995) yielded two Tiger Snakes *Notechis scutatus* from the degraded area in and adjacent to the drainage ditch. A large brownish adult was found basking on a log during a brief sunny period on a cloudy day. A banded sub-adult was found sheltering under tin. The temperature at the time was in the low 20's (°C). Also found by Kearney in the area were some frogs including a single Brown Tree Frog *Litoria ewingii* found sheltering on the side of a disused washing machine, metamorphosing Common Eastern Froglets *Crinia signifera* under cardboard in a drainage ditch and an Eastern Banjo Frog *Limnodynastes dumerilii* calling from the Melaleuca swamp.

In January 1996, RH found two sub-adult *E. coventryi* active in cool and sunny weather (air temp. low 20's (°C)) adjacent to two small bridges over the edge of an ornamental bird watching lake on the north-east side of Truemans Road Reserve. This was about 600 metres from the drainage ditch. There was no visible corridor by which the skinks could have arrived at the lake, but prior to development of the area for housing, a football oval and other uses one may have existed.

DISCUSSION:

That *Tiliqua scincoides* and *Tiliqua nigrolutea* are sometimes sympatric around Melbourne is known. For example Michael Kearney (pers. comm. 1995) has noted both species at the One Hundred Acres Bushland Reserve at Park Orchards. Danny Goodwin (pers. comm. 1995) has noted both species along Butterman's Track, Christmas Hills. RV has noted both species together at the following locations:-

- Plenty Gorge, near South Morang (basking 2 metres apart);
- Greensborough (2 sites);
- Fitzsimons Lane, adjacent to Yarra River at Templestowe at Westerfolds Park;
- Campbellfield, at Merri Creek (both

sheltering under a single piece of tin - a relatively notable find as *T. nigrolutea* are not common in dry basalt habitats).

However there has been little study as to the preferences of habitat or micro-habitat between the two species where they occur together. In the Tootgarook swamp both lizards were found in close proximity in identical circumstances. There is clearly a need for investigation to see whether these species directly compete for resources or occupy somewhat different ecological niches where they occur together.

The presence of reptile mites *Ophionyssus natricus* on the *T. scincoides* is notable. RV has observed reptiles in several Melbourne or near Melbourne locations with these parasites. These include: three sites along the Merri Creek, near Campbellfield, Somerton, and Donnybrook, Kororoit Creek at Altona and Rockbank Golf Course, Rockbank. All areas are basalt plains and heavily disturbed habitat. At all sites, RV found *T. scincoides* with mites and at Rockbank Tiger Snakes *Notechis scutatus* also had mites. On 26th May 1993, RV found an adult *T. scincoides* in torpor under a sheet of tin in Plenty, near Greensborough. This was the first reptile found by RV in the north-eastern suburbs to carry mites, even though RV has inspected the area regularly over the preceding 12 years. Danny Goodwin (pers. comm. 1995) has caught a number of heavily mite infested *N. scutatus* at Kororoit Creek, Altona.

Peter Comber (pers. comm. 1995) found what he thought was these same parasites on a Carpet Snake *Morelia spilota* sub.sp. near Mount Hope, Victoria, Lat. 36° 03' Long. 144° 07'. This find is notable due to it's distance from major population centres such as Melbourne. Dale Gibbons (pers. comm. 1996) found an adult *M. spilota* sub. sp. at the above location which he thought had mites. The arachnids thought to be mites were examined by a Melbourne Zoo veterinary surgeon under a microscope and diagnosed as immature ticks.

While it is possible that the *T. scincoides* found above (at Tootgarook) was a released captive specimen, this is thought to be unlikely. Furthermore later inspection of photos of one of the *E. coventryi* found at Tootgarook showed it

to have mite infestation. The evidence of these lizards and other mite infested reptiles found elsewhere (also cited above), appears to indicate that wild reptiles are not always able to rid themselves of these parasites. Investigation is required to see if the mites found on wild reptiles in Victoria are naturally occurring or have at some stage originated from captive reptiles, with wild populations originally not carrying these parasites. If the latter is the case, then there may be potential for health problems for some wild reptiles in the longer term. This may ultimately result in population declines through the blood sucking actions of the mites and their acting as a vector for diseases.

The presence of *E. coventryi* in highly disturbed habitat (above) is thought to have resulted from migration of animals from adjacent areas of habitat, known to support these lizards (the nearby swamp). It is also noted that specimens of this species are highly territorial and aggressive to one another (Taylor, 1995), possibly leading to specimens being forced from optimal habitat to seek refuge in suboptimal habitat in adjacent areas. Our finding of specimens in highly altered adjacent habitat concurs with those of Taylor (1995) who noted that *E. coventryi* moved into an area where a pipeline was constructed before a revegetation program was completed.

That *E. coventryi* is able to invade areas of apparently suboptimal habitat indicates a degree of resilience in this species in terms of its ability to cope with human induced changes to habitat. A site found to harbour *E. coventryi* near Yarra Junction, consisted of a small relict patch of Melaleuca bordering a farm dam, surrounded by heavily grazed paddocks (see below).

The invasion of areas of apparently suboptimal habitat would also indicate that more specimens are bred each year in the nearby swamp, than the swamp can maintain (in terms of the territorial requirements of the lizard). This could mean a forced mortality in these lizards as specimens are pushed into less than optimal areas where risks of predation, and so on are increased. Taylor (1995) also noted the high mortality of new born skinks in the Tootgarook Swamp area.

From a conservation point of view, it would seem that deliberate removal of specimens from an area such as Tootgarook Swamp would not in all likelihood adversely affect the population, the net result being only that fewer specimens would be forced out of the swamp by competing lizards and less young lizards would be attacked by others of the same species.

Taylor (1995) indicated a substantial population of these lizards in the area. This is confirmed by our observations. Furthermore on 15th October 1995, Michael Kearney (pers. comm. 1995) observed more than 15 specimens (mostly adults) at Tidal River, Wilson's Promontory National Park, Lat. 39° 02' Long 146° 19'. All the lizards were basking, with some retreating to burrows. The lizards were amongst tussock grass in brackish swamp habitat adjacent to Tidal River, which is an estuarine creek with dense Melaleuca and understory.

As a further note, Michael Kearney observed these lizards basking at Wilson's Promontory in a sunny break on a cloudy day when the air temperature was estimated at about 14° C. Our own observations (above) also indicated activity at relatively cool temperatures and below 18° C. A statement by Taylor (1995) that these skinks are only active at temperatures in excess of 18°C, does not appear to be strictly corroborated by observations reported here.

On 5th January 1993, RV observed an adult *E. coventryi* basking on a Melaleuca trunk about 1.4 metres above ground level adjacent to Darby River, Wilson's Promontory National Park, Lat. 38° 59' Long. 146° 11'. Neil Davie (pers. comm. 1995) has also noted unconfirmed reports of this species occurring in relatively large numbers near Anglesea golf course, Lat. 38° 25' Long. 144° 11'.

Danny Goodwin (pers. comm. 1995) noted a number of specimens from adjacent to the Milner Road council depot in Melaleuca swampland near Little Yarra Road, Yarra Junction, Victoria, Lat. 37° 47' Long 145° 37'. On 31/10/95 the authors and D. Goodwin searched this site and found a number of *E. coventryi*. Some other nearby swamps and waterways were also searched and more *E. coventryi* were located. These sites were 1.3 km

from Upper Yarra Secondary College, adjacent to Little Yarra Road on the way to Powelltown Lat. 145° 38' Long. 37° 39' and Barrier Creek, Stephenson's Lane, which is about 1 km further down the road from the previous site, towards Powelltown Lat. 145° 38' Long 37° 40'.

Paul Tamis (pers. comm. 1996), found two adult *E. coventryi* in cattle grazing country 10 km south-east of Colac in western Victoria on a farm at the end of Tomahawk Creek Road Lat. 38° 55' Long 143° 31'. The lizards were found beneath logs in disturbed habitat adjacent to a fragmented Melaleuca swamp habitat. This was in 1988 when the land owner was building a fence line through the swamp.

E. coventryi has been recorded by Mark Schultz from near the mouth of the Bunyip River, Lat. 38° 12' Long 145° 29' (Coventry 1996).

The *E. coventryi* were located by the authors at the above cited sites with minimal effort and along with the other records cited above have led both authors to suspect that the species is both common and widespread throughout areas of suitable habitat in southern and eastern Victoria. Coventry (1995) stated that the Museum of Victoria has records of *E. coventryi* from the hills east of Melbourne, which is where three of the above sites are. These sites may not be the same as those referred to by Coventry. Ehmann (1992) also describes the species as 'abundant'.

Cogger et. al. (1993) describes the species as either 'rare or insufficiently known', while Taylor (1995) describes the species as 'threatened'. In a 1992 internal DCNR Report (not cited here) herpetologist Peter Robertson stated that there were only nine locality records for Victoria. Rawlinson (1971) cited six known Victorian localities as Ballarat area, Warrnambool area, Rosedale area, Mallacoota area, Kentbruck area and Boneo area. A booklet titled Threatened fauna in Victoria - 1995 (CNR, 1995) lists *E. coventryi* as 'rare' according to a formula that is not strictly in line with that used by the IUCN.

While it is conceded that this lizard's distribution is believed to be restricted to

southern Victoria and further that it may be disjunct within this area, we do not believe there is any evidence of major decline in this species. The lack of records for this species is in line with many other species of small and innocuous skinks found throughout Australia, which to date have attracted relatively little attention. We believe it is likely that *E. coventryi* may be more common than is currently indicated by official records and that the alleged rarity of the species may have more to do with it's being overlooked rather than a fundamental rarity. Furthermore some populations of this species are within National Parks and reserves (e.g. Yellingbo State Reserve) and appear secure. The evidence provided by Taylor (1995) and ourselves above, would indicate that collection of small numbers of lizards from healthy swamp populations would not threaten those populations.

While not necessarily advocating the collection of these or any other lizards from the wild, current protection laws in Victoria do nothing more than restrict collection of the species. In view of the small and innocuous nature of the lizard, any such legal restriction is unlikely to have any realistic impact on the long term status of the species. Few people are ever going to want to collect the lizard. However by according the lizard some sort of status as rare, threatened or even endangered, the State Wildlife authorities do run the risk of inadvertently devaluing the status of species of reptile or other animal that really are endangered and under much more serious threat. We are concerned that unnecessary effort may be devoted to 'protecting' this lizard while species under greater need for help may expire through lack of resources devoted to their protection.

We consider that it would be ludicrous to put *E. coventryi* in a class alongside that of the Victorian Spotted Tree Frog *Litoria spenceri*, which may be endangered, and has declined rapidly in some areas where it was formerly common for reasons that are not entirely clear, and is potentially under far greater threat (Ehmann, et. al. 1992; Gillespie, 1992; Marc Hero, et. al., 1991; Tyler, 1992; Watson, et. al. 1991).



PHOTO 1: Coventry's Skink *Egernia coventryi*. Young specimen from drainage ditch at Tootgarook, Victoria, with mite droppings visible on posterior lateral scales. Photo: Rob Valentic



PHOTO 2: Habitat of Coventry's Skink overlooking Tootgarook Swamp at Tootgarook, Mornington Peninsula, Victoria. Photo: Raymond Hoser

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