

Revision of *Lerista microtis* (Lacertilia: Scincidae)

G.M. Storr*

Abstract

'*Lerista microtis arenicola*' is now regarded as a full species and is redescribed. '*L. m. microtis*' is divided into three subspecies, *L. m. microtis* and *L. m. intermedia* of southern Western Australia and *L. m. schwaneri* of far western South Australia; and *L. viduata*, a new species from the southern Western Australia is described.

Introduction

Only eight '*Lerista m. microtis*' and three '*L. m. arenicola*' were available for my generic revision (Storr 1972). Since then many more specimens of these taxa have been collected, permitting a re-assessment of their status. In view of its substantial differences from *L. microtis* (and their possible sympatry in South Australia), *L. arenicola* is raised to a full species. *L. microtis* itself is divided into three subspecies, and a new species is separated from it.

This paper is based on 108 specimens in the Western Australian Museum (catalogue numbers not prefixed) and eight specimens kindly loaned by the South Australian Museum (catalogue numbers prefixed by SAM).

Systematics

Lerista microtis (Gray)

Moca microtis Gray, 1845, *Cat. Liz. Brit. Mus.*, p. 23.

Diagnosis

A small *Lerista* with 5 fingers, 5 toes and movable eyelid. It is distinguishable from *L. arenicola* by its wide sharp-edged black upper lateral stripe, from *L. viduata* by its white midlateral stripe and from *L. bougainvillii* (Gray) of south-eastern Australia by its 3 (rather than 4) supraoculars, 6 (rather than 5) supraciliaries, lesser size and longer limbs.

Lerista microtis microtis (Gray)

Figure 1

Diagnosis

A small short-legged subspecies, with few dorsal markings apart from black laterodorsal stripe or spots and with strong complex lateral pattern including whitish dorsolateral, midlateral and ventrolateral stripes.

* Western Australian Museum, Francis Street, Perth 6000



Figure 1. A *Lerista m. microtis* from Torbay Head, photographed by R.E. Johnstone.

Description

Snout-vent length (mm): 20-52 (N 72, mean 38.7). Length of appendages etc (%SVL): foreleg 13.5-20 (N=46, mean 16.3), hindleg 23-35 (N 45, mean 29.7), tail 104-134 (N 23, mean 121.7), snout to foreleg 25-38 (N 45, mean 31.1).

Nasals narrowly separated (N 27), just touching (5) or in short contact (13). Prefrontals widely separated. Frontoparietals in long contact, about as large as interparietal. Supraoculars 4, first two in contact with frontal. Supraciliaries 6, first largest. Loreals 2. Presuboculars 2 (including lower of two preoculars). Upper labials 7 (44) or 8 (2). Nuchals 2-5 on each side (N39, mean 3.2). Midbody scale rows 18 (N 4), 20 (26) or 22 (3). Lamellae under fourth toe 16-22 (N 38, mean 19.5).

Dorsally medium to dark olive grey or brown, usually with little pattern; commonly some black flecks and a narrow to wide laterodorsal stripe or series of spots. Narrow greyish white or brownish white dorsolateral stripe on body, becoming wider and more diffuse on tail. Very wide, sharp-edged black upper lateral stripe from snout to tail, on which it becomes paler, narrower and ragged-edged. Narrow to moderately wide white midlateral stripe from upper lip to base to tail. Usually a narrow to moderately wide black lower lateral stripe from in front of foreleg to behind hindleg. Usually a white or

greyish white ventrolateral stripe from in front of foreleg to hindleg. Under tail and legs pinkish white; rest of lower surfaces greyish white or pinkish white, scales sparsely to heavily stippled and/or edged with grey or black.

Distribution

Humid and subhumid south-west of Western Australia: Darling Range from Dwellingup south to the Collie River; and south coast from Augusta east to Bremer Bay and inland to the Manjimup district. See map, Figure 2.

Remarks

The specimen from Torbay Head (Figure 1) has the back unusually pale and strongly patterned. For other extreme see colour photograph of an Albany specimen in Wilson and Knowles (1988 : 300, pl. 555).

Material

South-west Division (WA): 5km E Dwellingup (40118) and 28km SE (80833); Waroona (88478); 15km NW Collie (76271, 81282) and 25km W (49275-7); 3.5km NE Augusta (90185-6); Canebrake Road, 23km N Scott River (36047-8); Scott River (49955); 18.5km E Black Point (90210) and 13km ESE (90200); 33km NE Nyamup (96796-8); Perup (56751, 97420, 97424); 10km S Manjimup (86944); 10km S Pemberton (89959); Meerup (47895); near Mt Chudalup (90189, 95254, 95304); south-east corner of Broke Inlet (68160); near Walpole (57415, 78317); near Bow Bridge (93544-5); William

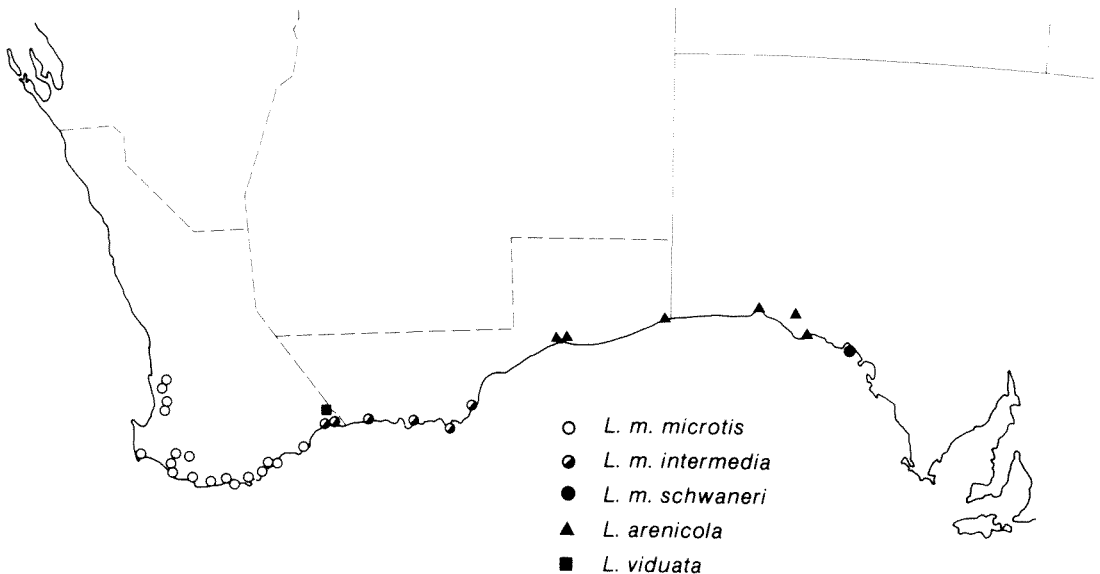


Figure 2. Map of southern Western Australia and far western South Australia, showing location of specimens of *L. m. microtis*, *L. m. intermedia*, *L. m. schwaneri*, *L. arenicola* and *L. viduata*.

Bay (76268); near Denmark (31063, 31195, 90241); Torbay Head (51777); near Albany (53329-30, 56082-6); Two Peoples Bay (36382, 44991, 44996, 69824); 6km ENE Manypeaks (75624); Waychinicup Inlet (61386); near Cheyne Beach (10755, 36017, 62240, 67795); Bremer Bay (33410); Hood Point (93863-7).

***Lerista microtis intermedia* subsp. nov.**

Holotype

89408 in Western Australian Museum, collected by R. Elston in 1982 at Culham Inlet, Western Australia, in 33°55'S, 120°04'E.

Paratypes

South-west Division (WA): Barrens Beach (89292); East Mt Barren (95394, 95401-2); Culham Inlet (78227, 89404-7, 89409); Hopetoun (56058).

Eucla Division (WA): Quaggi Beach (97333-4); Rossiter Bay (42590); Wickham I. (97579); Israelite Bay (31103, 66875, 67207, 67214) and 8km NE (17623).

Diagnosis

A medium-sized subspecies, differing from *L. m. microtis* mainly in coloration: dorsal ground colour paler but more heavily dark-spotted, spots tending to align on back into 3 diffuse stripes, and dark upper lateral stripe narrower; and differing from *L. m. schwaneri* in having fewer midbody scale rows and its smaller size.

Description

Snout-vent length (mm): 22-57 (N 21, mean 43.1). Length of appendages etc. (%SVL): foreleg 14-20 (N 20, mean 16.8), hindleg 26-35 (N20, mean 30.3), tail 110-134 (N6, mean 121.8), snout to foreleg 25-38 (N20, mean 31.5).

Nasals narrowly separated (N 12), just touching (4) or in very short contact (3). Prefrontals widely separated. Frontoparietals in long contact, about as large as interparietal. Supraoculars 4, first two in contact with frontal. Supraciliaries 6, first largest, fourth often nearly as large as first. Loreals 2. Presuboculars 2. Upper labials 7. Nuchals 2-4 (N 15, mean 3.2). Midbody scale rows 18 (N 1), 20 (14), 21 (1) or 22 (1). Lamellae under fourth toe 18-24 (N 19, mean 20.2).

Dorsally pale to medium olive grey or brown, stippled and flecked with black or blackish brown, markings on back tending to align into 3 narrow, more or less diffuse stripes. Usually an indistinct greyish or brownish white dorsolateral stripe. Narrow to wide, sharp-edged blackish upper lateral stripe from snout to tail, on which it becomes paler. Narrow white or whitish midlateral stripe from upper lip to tail. Narrow black or dark greyish brown lower lateral stripe from ear to hindleg. Occasionally a narrow indistinct pale ventrolateral stripe on body. Under tail and legs pinkish or greyish white, with or without dark flecks; rest of lower surfaces greyish white, scales sparsely to heavily stippled and/or edged with dark grey.

Distribution

Semiarid and subhumid south coast of Western Australia from East Mt Barren east to Israelite Bay, including Wickham I. in the Archipelago of the Recherche.

Remarks

For a colour photograph of an Israelite Bay specimen see Storr *et al.* (1981: pl. 13, no. 3).

Lerista microtis schwaneri subsp. nov.

Holotype

25088 in South Australian Museum, collected on 15 December 1983 by K. Jordan on Franklin Is (west), South Australia, in 32°27'S, 133°39'E.

Paratypes

South Australia: St Peter I. (SAM 31513); Goat I. (SAM 21869, SAM 27434); West Coast (SAM 1599).

Diagnosis

A large long-legged subspecies, differing from *L. m. intermedia* mainly in its larger nasals and more numerous midbody scale rows, and from *L. microtis microtis* by its larger size, more numerous midbody scale rows and more complex dorsal pattern.

Description

Snout-vent length (mm): 32-61 (N 5, mean 46.7). Length of appendages etc. (%SVL): foreleg 16-22 (N 5, mean 19.0), hindleg 28-35 (N 5, mean 31.2), snout to foreleg 28-38 (N 5, mean 32.4).

Nasals in very short to short contact. Prefrontals widely separated. Frontoparietals in long contact, about as large as interparietal. Supraoculars 4, first two in contact with frontal. Supraciliaries 6, first largest. Loreals 2. Presuboculars 2. Upper labials 7. Nuchals 2-4 (N 5, mean 2.8). Midbody scale rows 22 (N 3) or 24 (2). Lamellae under fourth toe 18-25 (N 5, mean 20.9).

Dorsally pale olive grey or brown, masked with black or blackish brown: dense stippling on head, flecks and 3 narrow diffuse stripes on back, and stippling on tail. Medium to wide, sharp-edged black or blackish brown upper lateral stripe from snout to tail, on which it becomes ragged-edged. Medium to wide, white or brownish white midlateral stripe from upper lip to proximal part of tail. Narrow black or blackish brown lower lateral stripe from just in front of foreleg to hindleg. Lower surfaces whitish, ventrals grey-edged.

Distribution

Only certainly known from Nuyts Archipelago off semiarid upper west coast of Eyre Peninsula, South Australia.

Remarks

For photograph of a Goat I. specimen see Schwaner and Miller (1984: 215, figure 1).

The 'west coast' specimen was donated in 1930 by Constable Halloran of Fowlers Bay. If it were collected locally, *L. m. schwaneri* and *L. arenicola* would be sympatric here.

Derivation of name

After Dr T.D. Schwaner, formerly Curator of Reptiles in the South Australian Museum.

***Lerista arenicola* Storr**

Lerista microtis arenicola Storr (1972: 61)

Diagnosis

A moderately small, pale *Lerista* with 5 fingers, 5 toes and movable eyelid, differing from *L. microtis* in its greater size and narrow ragged-edged black upper lateral stripe.

Description

Snout-vent length (mm): 30-66 (N 18, mean 49.1). Length of appendages etc. (%SVL): foreleg 14-21 (N 18, mean 17.5), hindleg 22-35 (N 18, mean 30.2), tail 105-132 (N 9, mean 117.0), snout to foreleg 26-35 (N 18, mean 30.5).

Nasals narrowly separated (N 2) or in very short to moderately long contact (16). Prefrontals widely separated. Frontoparietals in long contact, about as large as interparietal. Supraoculars 4, first two in contact with frontal. Supraciliaries 6, first largest. Loreals 2. Presuboculars 2. Upper labials 7. Nuchals 1-4 (N 18, mean 2.9). Midbody scale rows 20 (N 2), 21 (2) or 22 (14). Lamellae under fourth toe 17-23 (N 18, mean 18.7).

Dorsally usually pale olive grey or greyish brown (becoming greyish or pinkish white on tail), flecked with black, flecks on back tending to form a fine laterodorsal line. Narrow to wide, pale grey or greyish white dorsolateral stripe often discernible on body. Narrow, ragged-edged or diffuse, black upper lateral stripe from snout to proximal half of tail. Wide white midlateral stripe from upper lip to base of tail. Very narrow, ragged-edged or diffuse, black or dark grey lower lateral stripe. Under tail and legs pinkish white; rest of lower surfaces usually greyish white, ventrals grey-edged.

Distribution

Semiarid and arid sandy shores of Great Australian Bight: from Twilight Cove east to Eucla, Western Australia; and from Head of Bight east to Fowlers Bay, South Australia.

Remarks

For colour photograph of specimen from 13km W Eyre see Storr *et al.* (1981 : pl. 13, no. 4). Two of the specimens from Eyre (91438 and 92055) have the back and venter much darker than in other specimens.

Material

Eucla Division (WA): Eyre (60815, 91438, 92055) and 13km W (66914-22); old Eucla (24608, SAM 23032). South Australia: Head of Bight (SAM 5860); 12.5km NE Colona (SAM 25654); Fowlers Bay (24586-7).

***Lerista viduata* sp. nov.**

Holotype

96771 in Western Australian Museum, collected on 27 October 1986 by B. Maryan in the Ravensthorpe Range, Western Australia, in 33°33'S, 119°06'E.

Diagnosis

A dark, weakly patterned *Lerista* with 5 fingers, 5 toes and movable eyelid, differing from *L. microtis* and *L. arenicola* in its more widely separated nasals, shorter limbs and

little lateral pattern (especially absence of white midlateral stripe).

Description (of only available specimen)

Snout-vent length (mm): 43. Length of appendages etc. (%SVL): foreleg 12, hindleg 21, tail 116, snout to foreleg 30.

Nasals moderately widely separated. Prefrontals widely separated. Frontoparietals in long contact, about as large as interparietal. Supraoculars 4, first two in contact with frontal. Supraciliaries 6, first and fifth largest. Loreals 2. Presuboculars 2. Upper labials 7. Nuchals 3. Midbody scale rows 22. Lamellae under fourth toe 18.

Dorsally olive grey, darkest on tail. Head and tail stippled with black. Back with 4 series of small black spots or short dashes, inner (paravertebral) pair larger. Black upper lateral stripe from snout to tail, upper edge sharp, lower edge indefinite. Lateral surfaces, upper surface of limbs and venter dark grey, spotted black. Throat whitish, scales grey-edged. Under tail whitish, stippled with black.

Distribution

Only known from the Ravensthorpe Range in the semiarid southern interior of Western Australia.



Figure 3. Holotype of *Lerista viduata* photographed in life by D. Robinson.

Derivation of name

Latin for widowed, in allusion to its dark coloration and loss of white midlateral stripe.

References

- Schwaner, T.D. and Miller, B. (1984). Range extension of reptiles in South Australia. *Trans. R. Soc. S. Aust.* **108**: 215-216.
- Storr, G.M. (1972). The genus *Lerista* (Lacertilia, Scincidae) in Western Australia. *J. Proc. R. Soc. West. Aust.* **54**: 59-75.
- Storr, G.M., Smith, L.A. and Johnstone, R.E. (1981). *Lizards of Western Australia, I. Skinks*. Univ. West. Aust., Nedlands WA.
- Wilson, S.K. and Knowles, D.G. (1980). *Australia's Reptiles, a Photographic Reference to the Terrestrial Reptiles of Australia*. Collins, Sydney NSW.

SHORT COMMUNICATIONS