# Revision of *Lerista orientalis* (Lacertilia: Scincidae) of northern Australia

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#### Abstract

Lerista orientalis is divided into three species, viz. L. orientalis from north-eastern Western Australia to north-western Queensland, L. zonulata from north-eastern interior of Queensland and L. ingrami from south-east coast of Cape York Peninsula.

#### Introduction

When L. orientalis was recently recorded from Western Australia (Greer 1990), I borrowed material in order to draw up a description and to check the suspicion that L. orientalis was composite (Wilson and Knowles 1988: 181). This suspicion was well-founded, for the material proved to consist of three allopatric species.

This paper is based on specimens kindly loaned by the Australian Museum (catalogue numbers prefixed by AM, Northern Territory Museum (NTM), Queensland Museum (QM), South Australian Museum (SAM) and Western Australian Museum (WAM).

## **Systematics**

# Lerista orientalis (DeVis)

Miculia orientalis DeVis 1889: 160.

#### Diagnosis

A small slender *Lerista* with 4 fingers, 4 toes, and immovable eyelid (a spectacle) differing from *L. zonulata* mainly in its broad dark diffuse upper lateral zone with more or less definite upper edge but no definite lower edge, and from *L. ingrami* in its greater size, overall darker colouration, more numerous superciliaries (5 vs 4 or 5) and midbody scale rows (mostly 20 vs mostly 18) and larger nasals and frontoparietals.

## Description.

Snout-vent length (mm): 21-49 (N 71, mean 38.7). Length of appendages etc. (% SVL): foreleg 8-13 (N 55, mean 9.7), hindleg 17-25 (N 56, mean 20.3), tail 105-143 (N 24, mean 122.4), snout to foreleg 25.5-33 (N 58, mean 29.3).

Nasals in very short to long contact. Prefrontals widely separated. Frontoparietals in moderately short to long contact (N 54) or very short to short contact (2), about as large as interparietal. Nuchals 0-3 on each side (N 55, mean 1.9). Supraoculars 3, first two in contact with frontal. Supraciliaries 5, second and fifth smallest, first occasionally as large as third and fourth. Loreals 2, second smaller. Presuboculars 2, second much the smaller. Upper labials 6 (5 on one side of one specimen). Midbody scale rows 18 (N 1), 20

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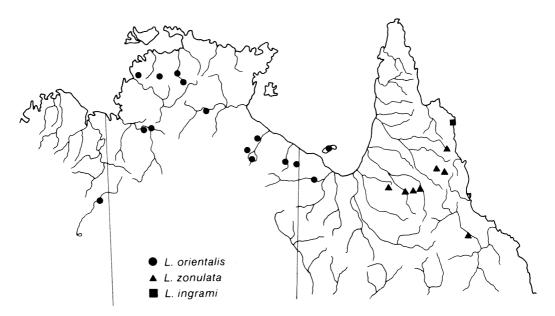


Figure 1 Map of northern Australia showing location of specimens of *Lerista orientalis, L. zonulata* and *L. ingrami*.

(43), 21 (1) or 22 (7). Lamellae under longest toe 11-15 (N 58, mean 13.0), with or without a fine weak keel.

Upper surface pale to moderately dark olive grey, olive brown or reddish brown, becoming paler and more reddish on tail, and marked with blackish brown or dark brown: stippling (often heavy) on head and tail and 4 rows of dots (sometimes faint, especially outer pair) passing through centre of dorsal scales. Upper lateral zone back to base of tail blackish brown (dark pigment sometimes confined to broad edge of scales), usually fairly sharp-edged superiorly but gradually merging inferiorly with lower lateral zone, and extending forward as a stripe through orbit, lore and nasal before becoming paler, narrowing, curving down and meeting opposite number at tip of snout. Labials barred blackish brown. Lower surfaces pale brown to brownish white; lower laterals and sometimes ventrals finely dark-edged.

#### Distribution

Semiarid interior of Kimberleys, Western Australia, subhumid and semiarid coastal drainages of north of Northern Territory and far north-west of Queensland (including Mornington I.), mainly in hilly country. See map, Figure 1.

#### Remarks

This taxon was based on a specimen (presumably from Gregory Downs) that is no longer extant, but DeVis' excellent description can only apply to this species.

#### Material

Western Australia: Gordon Down (NTM 0285).

Northern Territory: Stapleton National Park at Florence Falls (NTM 8664-5) and Bamboo Creek (NTM 8742-7); Ban Ban Spring (NTM 3143, 3179-80, 3210-2); Kakadu National Park in 13°12′S, 132°18′E (NTM 13920, 13924) and in 13°47′S, 132°34′E (NTM 13977); Roper Hwy, 9 km E Moroak T/O (AM 117090-3); Gregory National Park in 15°36′S, 131°07′E (NTM 13268, 13284); 50 km E Timber Creek (WAM 60201); 26 km WSW Borroloola (AM 54151, 117060); Balbirini Station in 16°44′S, 135°33′E (AM 117014-39); Mallapunyah (AM 20759); Blackfellow Springs, Calvert Hills Station (NTM 14448, 14450); Wollogorang Station, including Echo and Banyan Gorges (NTM 14407-8, 14418, 14426-7).

Queensland: Mornington I. (SAM 5360); Doomadgee (SAM 5391, 5394A-F, 5395; OM 10909, 47699, 47722, 47752, 47818, 47828).

## Lerista zonulata sp. nov.

#### Holotype

R63747 in Australian Museum, collected on 5 July 1977 by A.E. and P. Greer at Georgetown, Queensland, in 18017'S, 143033'E.

## **Paratypes**

Queensland: Mt Windsor Tableland in 16°19'S, 145°01'E (QM 38756); 10 km SW Mareeba (AM 94575-6); Chillagoe (QM 31223) and 3 km SE (AM 87801); near Petford (QM 47103), Georgetown (AM 63733-46, 63748-67) and 34 km W (AM 63724-5) and 40 km E (AM 63258); Croydon (AM 63340-50, 63361-9, 63370-4, 63677-84); Sellheim (QM 46268); Charters Towers (WAM 21485).

## Diagnosis

A small slender *Lerista* with 4 fingers, 4 toes and immovable eyelid (a spectacle), differing from *L. orientalis* mainly in its sharp-edged dark upper lateral stripe, and from *L. ingrami* in its greater size, darker coloration, more supraciliaries (normally 5, v. 4 or 5), more midbody scale rows (mostly 20, v. mostly 18), larger nasals and larger frontoparietals.

## **Description**

Snout-vent length (mm): 25-50.5 (N 90, mean 39.2). Length of appendages etc. (% of SVL): foreleg 6.5-12 (N64, mean 8.5), hindleg 15-22 (N65, mean 18.7), tail 99-139 (N36, mean 118.4), snout to foreleg 25-35 (N67, mean 28.8).

Nasals in very short to long contact. Prefrontals widely separated. Frontoparietals in moderately short to long contact (N51) or very short to short contact (5), about as large as interparietal. Nuchals 1-4 on each side (N56, mean 2.2). Supraoculars 3, first two in contact with frontal. Supraciliaries 5 (N57, second and fifth smallest, first occasionally as large as third and fourth) or 4 (N3, due to fusion of first and second). Loreals 2, second smaller. Presuboculars 2, second much the smaller. Upper labials 6. Midbody scale rows 20 (N 52), 21 (2) or 22 (5). Lamellae under longest toe 11-15 (N 61, mean 12.7), with or without a fine weak keel.

Upper surface pale to moderately dark olive brown, olive grey or greyish brown, becoming paler and more reddish on tail, and marked with dark brown or blackish brown: stippling on head (sometimes heavy) and tail and 4 (occasionally 6) rows of dots or small spots (sometimes faint) passing through centre of dorsal scales. Wide sharpedged dark brown or blackish brown upper lateral stripe (about 2 scales wide) extending back to tail (on which it narrows and breaks up into a series of spots) and forward through orbit, lore and nasal before narrowing, curving down and meeting its opposite number at tip of snout. Upper labials and sometimes lower labials barred or dotted with dark brown. Upper surface of legs pale brown, mottled or stippled with dark greyish brown. Lower surfaces brownish white; lower lateral, lateroventral and sometimes ventral and subcaudal scales edged or dotted with greyish brown.

## Distribution

Interior of north Queensland from the Mt Windsor Tableland south to Charters Towers, mainly in semiarid hilly country. See map, Figure 1.

#### Remarks

Because of its sharp-edged upper lateral stripe, this species is superficially similar to L. ingrami, but I believe that it is closer to L. orientalis, which it resembles in size, scalation, habitat preferences and most aspects of coloration. For colour photograph of a specimen from Chillagoe see Wilson and Knowles (1988, pl. 563).

## Derivation of name

From Latin zonula (small belt), in reference to the upper lateral stripe.

## Lerista ingrami sp. nov.

#### Holotype

J 32396 in Queensland Museum collected on 27 July 1976 by G.J. Ingram near beach north of mouth of McIver River, Queensland, in 15007'S, 145015'E.

#### Paratypes

Queensland: 7 km N of mouth of McIver River (QM 20644-51) and 5 km N (QM 20653).

## Diagnosis

A very small, very pale, slender *Lerista* with 4 fingers, 4 toes, immovable eyelid (a spectacle) and sharp-edged dark upper lateral stripe, differing from *L. zonulata* and *L. orientalis* in its lesser size, paler coloration (especially white lower lateral and ventral surfaces), fewer supraciliaries (4 or 5, v. normally 5), fewer midbody scale rows (mostly 18, v. mostly 20) and smaller nasals and frontoparietals.

## Description

Snout-vent length (mm): 20-36 (N 10, mean 25.1). Length of appendages etc. (% SVL): foreleg 9-13 (N 9, mean 10.4), hindleg 19-27 (N 9, mean 23.6), tail 93-114 (N 6, mean 103.5), snout to foreleg 28-36 (N 9, mean 32.2).

Nasals in very short to short contact (N 7) or just touching (1). Prefrontals widely separated. Frontoparietals in medium contact (N 4), very short to short contact (4) or just touching (1), smaller than interparietal. Nuchals 2-4 on each side (N 5, mean 2.6).

Supraoculars 3, first two in contact with frontal. Supraciliaries 5 (N 5, third and fourth largest) or 4 (N 5, due to fusion of first and second). Loreals 2, second smaller. Presuboculars 2, second much the smaller. Upper labials 6. Midbody scale rows 18 (N 7) or 20 (3). Lamellae under longest toe 12-15 (N 10, mean 13.6), smooth.

Upper surface very pale greyish brown, marked with dark brown: small spots on head and 4 rows of dots passing through centre of dorsal scales. Moderately wide, sharpedged dark brown upper lateral stripe from side of rostral to base of tail, about  $1\frac{1}{2}$  scales wide on body, narrowing on lore, dilating at and surrounding eye and nostril, and occasionally meeting its opposite number after narrowing and curving down on front of rostral. Upper surface of legs brownish white, stippled with brown. Other surfaces (including lips and under tail) white.

#### Distribution

Only known from south-east coast of Cape York Peninsula near mouth of McIver River.

## Remarks

The humid sandy coastal heaths between Cooktown and Cape Flattery are also the exclusive home of two other skinks, viz. *Ctenotus rawlinsoni* and *Carlia dogare* (Ingram 1979).

#### Derivation of name

After Dr G.J. Ingram of the Queensland Museum.

## References

- DeVis, C.W. (1889). Characters of a naked-eyed skink apparently new. Proc. R. Soc. Qd 5: 160-161.
- Greer, A.E. 1990. The taxonomic status of *Lerista aericeps* Storr 1986 with a diagnosis of the *Lerista orientalis* species group *Rec. West. Aust. Mus.* 14: 443-448.
- Ingram, G.J. (1979). Two new species of skinks, genus Ctenotus (Reptilia Lacertilia, Scincidae) from Cape York Peninsula, Queensland, Australia. J. Herpetol. 13: 279-282.
- Wilson, S.K. and Knowles, D.G. (1988). Australia's Reptiles, a Photographic References to the Terrestrial Reptiles of Australia. Collins, Australia.