### The identity of Lygosoma (Rhodona) goerlingi Ahl, 1935 (Squamata: Scincidae)

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After *Ctenotus*, the scincid lizard genus *Lerista* is the most species-rich genus of Australian lizards, with over 50 species currently recognised. Recent work has identified several radiations within the genus, including the *L. wilkinsi* group of north-east Queensland (Greer *et al.* 1983), the *L. bipes* group, centred over north-west Australia (Greer 1986), and the *L. nichollsi* complex of the central west coast and hinterland (Storr 1984, 1986; Kendrick 1989). Within these groups, the species are often only subtly different, and may have very restricted distributions.

With the number of such species continuing to grow, it is relevant to reconsider the status of early names, placed in synonymy by Storr (1971) at a time when minor differences were given less importance.

One such species is Lygosoma (Rhodona) goerlingi Ahl, 1935, described from a single specimen from Wurarga, Marloo Stn, W.A. Since its description, it has been mentioned only four times: Greer (1967), who transferred the species to Lerista, and Glauert (1961) treated it as distinct, while Storr (1971) and Cogger et al. (1983) tentatively placed it in the synonymy of L. muelleri (Fischer, 1881), although none of these authors indicated that they had examined the holotype (Zoologisches Museum, Berlin 35352).

As described by Ahl (1935), *L. goerlingi* has the following unique combination of character states for *Lerista*: fingers two, toes three, frontoparietals fused, supraoculars four, supraciliaries five, midbody scale rows 20. In addition, while it was not explicitly noted by Ahl, the placement of the species in the subgenus *Rhodona* rather than the genus *Ablepharus* implies the presence of a moveable lower eyelid. In most respects, the description of coloration and scalation given by Ahl is similar to *L. muelleri*. However, two fingers, four supraoculars and a presumably moveable lower eyelid are characters not known for *L. muelleri* (Storr 1971; Greer 1987). Kendrick (1989) recently described *L. allochira*, a species similar to *L. muelleri*, but having only two fingers, but did not compare it with *L. goerlingi*, possibly following Storr's synonymy.

During a recent visit to the Berlin collection, I was able to locate the holotype of L. goerlingi and subsequently borrow it for examination. The specimen is in most respects typical of south-western populations of L. muelleri. The eye is ablepharine, and the fourth "supraocular" appears to be what can be either termed the last supraciliary (Taylor 1935) or a single pretemporal (Greer 1986). The reduction to two fingers described by Ahl appears to be due to injury: the right forelimb is largely missing (represented by a healed-over humeral stump), while on the left forelimb are two digits of

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equal length (comparable to the axial and lateral digits of *L. muelleri*), bordered medially by a scarcely distinct tubercle. The palm of the manus is extended medially to support this tubercle.

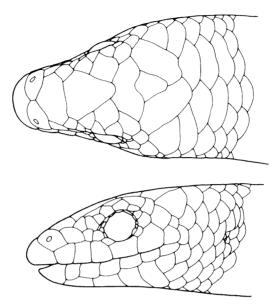


Figure 1. Dorsal and left lateral views of head of holotype of Lygosoma goerlingi.

The holotype (Figure 1) has the following combination of character states: nasals enlarged, in moderate contact; prefrontals present, broadly separated; frontoparietals fused into a single shield; interparietal distinct; parietal eyespot present, just caudal to centre of interparietal; parietals in broad contact behind interparietal; nuchals two/three [four pairs vide Ahl]; supraoculars three, first two contacting frontal, first smallest; supraciliaries six; first supraciliary short, tall, contacting prefrontal and first supraocular, narrowly separated from frontal; second supraciliary small, bordering first supraocular; third supraciliary subequal to first, strongly projecting between first and second supraoculars; fourth supraciliary subequal to first, strongly projecting between second and third supraoculars; fifth supraciliary low, bordering third supraocular; sixth supraciliary subequal to first, moderately projecting between third supraocular and frontoparietal; loreals two, first larger; presuboculars two; postsuboculars two; eye ablepharine; primary temporal single, moderate; secondary temporals two, upper much the larger, overlapped by lower; ear small, slightly larger than nostril; supralabials six, fourth below centre of eye; infralabials six, first two contacting postmental; three pairs of transversely enlarged chin shields, first pair contacting medially, second pair separated by one scale, third pair separated by three scales.

Midbody scales 20; paravertebral scales (from caudal edge of parietals to level of hind edge of thigh) 78; toes three; subdigital lamellae of longest toe 15/16 [13 vide Ahl]; supradigital scales of same toe 11.

Snout-vent length 43mm; tail length 38mm; [total length 80mm vide Ahl]; hindlimb length 10mm.

Coloration in preservative grey-brown dorsally, more brown on tail. Dark streaks centrally on paravertebral scales aligned to form a pair of narrow dark paravertebral stripes from nape to tail base, more diffusely onto tail. A dark brown upper lateral stripe from eye, over ear, to tail base, more diffusely onto tail, formed by dark lateral edge of third and dorsal edge of fourth scale rows from midline. Flanks yellow cranially, grey with fine brown flecks caudally. Venter yellow with fine brown flecks over vent and on tail.

All characters are within the range of variation of *L. muelleri*, and consequently I confirm the tentative actions of Storr (1971) and Cogger *et al.* (1983) in synonymising *L. goerlingi* with *L. muelleri*.

#### Acknowledgements

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#### References

Ahl, E. (1935). Beschreibung einer neuen Eidechse aus Westaustralien. Zool. Anz. 112: 204-205.

- Cogger, H.G., Cameron, E.E. and Cogger, H.M. (1983). Zoological Catalogue of Australia. Vol. 1. Amphibia and Reptilia. Australian Government Publishing Service, Canberra; 313pp.
- Fischer, J.G. (1881). Beschreibung neuer Reptilien. Arch. Naturgesch. 47: 225-238.
- Glauert, L. (1961). A Handbook of the Lizards of Western Australia. Handbook No. 6, Western Australian Naturalists' Club, Perth; 100pp.
- Greer, A.E. (1967). A new generic arrangement for some Australian scincid lizards. Breviora (267): 1-19.

Greer, A.E. (1986). Diagnosis of the *Lerista bipes* species-group (Lacertilia: Scincidae), with a description of a new species and an updated diagnosis of the genus. *Rec. West. Aust. Mus.* 13: 121-127.

Greer, A.E. (1987). Limb reduction in the lizard genus *Lerista*. 1. Variation in the number of phalanges and presacral vertebrae. J. Herpet. 21: 267-276.

Greer, A.E., McDonald, K.R. and Lawrie, B.C. (1983). Three new species of *Lerista* (Scincidae) from northern Queensland with a diagnosis of the *wilkinsi* species group. J. Herpet. 17: 247-255.

Kendrick, P.G. (1989). Two new species of *Lerista* (Lacertilia: Scincidae) from the Cape Range and Kennedy Range of Western Australia. J. Herpet. 23: 350-355.

Storr, G.M. (1971). The genus Lerista (Lacertilia, Scincidae) in Western Australia. J. Proc. R. Soc. West. Aust. 54: 59-75.

#### Identity of Lygosoma goerlingi

- Storr, G. M. (1984). Revision of the Lerista nichollsi complex (Lacertilia: Scincidae). Rec. West. Aust. Mus. 11: 109-118.
- Storr, G. M. (1986). Two new members of the Lerista nichollsi complex (Lacertilia: Scincidae). Rec. West. Aust. Mus. 13: 47-52.
- Taylor, E. H. (1935). A taxonomic study of the cosmopolitan scincoid lizards of the genus *Eumeces* with an account of the distribution and relationships of its species. *Kansas Univ. Sci. Bull.* (23): 1-643.

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