

# REIDENTIFICATION OF *CTENOTUS SCHOMBURGKII* (PETERS, 1864) (LACERTILIA: SCINCIDAE)

*Lygosoma schomburgkii* Peters<sup>1</sup> was described in 1864 from a collection of reptiles made by Richard Schomburgk of Buchsfeld, South Australia (= Loos, 4.5 km W of Gawler<sup>2</sup>). Peters neither indicated the number of specimens on which he based the species, nor whether all of the collection was from the vicinity of Buchsfeld. However, with the exception of *Moloch horridus* ("ein einziges verstümmeltes Exemplar"), a single specimen of *Litoria adelaidensis*<sup>3</sup> and *Ctenotus schomburgkii* (auctorum), all of the 42 species of reptiles and amphibians recorded in the paper (on modern synonymies) have been subsequently recorded within 50 km of Buchsfeld (our data: T. D. Schwaner, pers. comm.).

After devoting "a month to the examination of the specimens in the Berlin Museum", at which Peters was based, Boulenger<sup>4</sup> placed *L. schomburgkii* in the synonymy of *L. lesueurii*, diagnosed in the generic key as having 24–32 midbody scales, feebly keeled subdigital lamellae, four supraoculars and prefrontals in contact. However, *C. schomburgkii* as currently recognised has mucronate subdigital lamellae and prefrontals usually not in contact<sup>5,6</sup>.

Storr<sup>5</sup> examined four specimens identified as types of *Lygosoma schomburgkii* in the collection of the Zoologisches Museum, Universität Humboldt, Berlin (ZMB). Two species were represented and ZMB 4713a (SVL 45 mm) was designated lectotype<sup>5</sup> (not Storr<sup>6</sup> as listed by Cogger *et al.*<sup>7</sup>). One of the paralectotypes (ZMB 4713b) is conspecific with the lectotype, while the others (ZMB 4713c–d) were subsequently<sup>6</sup> (as ZMB 4719c–d) included in the paratype series of *Ctenotus uber orientalis* Storr<sup>6</sup>. These latter two specimens were re-registered ZMB 41236–37.

Subsequent collections of reptiles from about the type locality by us, and examination of South Australian Museum specimen records, have revealed only *C. uber orientalis* (AM R59944, Thompsons Beach; R115921, 6.3 km S Mongalata; R115926, "Tracy", 4.8 km N Mongalata; R115979, Middle Beach; R115989, R115991, nr "Glenview", Barossa Range; SAM R11202, 1.6 km N Tea Tree Gully; R15034a–b, Pt Prime; R15141, Sturt Ck, Adelaide Hills; R15617, Golden Grove; R16543, Morialta Conservation Park; R16867, Belair Recreation Park) and *C. robustus* Storr (AM R111491–92, 4.5 km SSE Gawler; R115878–79, Burra Creek Gorge; SAM R1703, Bute; R2093, Fifth Ck, Montacute; R8144, Hummock Mt; R9983–86, R9992, R9994–95, Waterfall Gully, R10006, foot of Mt Osmond; R11208, Eden Hills, nr Sturt Ck; R11209, 1.6 km N Tea Tree Gully; R14192a–b, Aroona Rd, Reynella; R27413–14, 4 km W Palmer) from the Adelaide Plains and Mt Lofty Ranges. The latter is presumably Peters'<sup>1</sup> "*Lygosoma australe* Gray sp. = *L. Lesueurii* D.B." There have been no subsequent records of *C. schomburgkii* (*sensu* Storr and subsequent authors) from the Adelaide Plains, the nearest record being from Bungunnia Station (33°50'S 139°50'E; South Australian Museum R15045), over 120 km from Buchsfeld, in the Murray Mallee.

A translation of the type description of *Lygosoma schomburgkii* reads:

"Stands between *L. labillardieri* and *australe*. Head and tail brown, back black, with four white or green stripes, of which the two middle ones are the thinnest and are almost twice as far apart from the outer stripes as from each other; on either side of the body is a line, which is twice as far from the outer back stripes as they are from the middle back stripes which lie next to them; between each outer and inner back stripe is a line of white spots; between the side stripes and the outer back stripes are three to four rows of small white spots, and below the side stripes a few largish speckles, which often blend in with the greenish-white belly."

In the nomenclature of subsequent workers on *Ctenotus*, *Lygosoma schomburgkii* has a pair of paravertebral stripes (Peters' "middle back stripes"), a single laterodorsal line of white spots between the paravertebral and dorsolateral stripes ("outer back stripes") and three to four lines of small spots in the upper lateral zone between dorsolateral and midlateral stripes ("side stripes") on a black dorsal ground. Our interpretation is supported by the stated degree of separation between stripes.

South Australian populations of *Ctenotus schomburgkii* (auctorum) are of the eastern colour type of Storr<sup>5</sup> (Fig. 1A), and have an irregular orange laterodorsal stripe between an orange paravertebral and a white dorsolateral stripe (i.e., six light dorsal stripes), and a single row of large orange squarish to oblong blotches between the dorsolateral and midlateral stripes. Eastern populations do not have a single laterodorsal row of white spots (this being replaced by an orange stripe), and no population of this species has three to four series of small spots between the dorsolateral and midlateral stripes. Specimens ZMB 4713a–b (Fig. 2A) are representative of this species. Both have the prefrontals separated.

In contrast, the populations of *C. uber orientalis* from about Buchsfeld (Fig. 1B), including ZMB 41236–37, agree in all respects with the description of *Lygosoma schomburgkii* Peters, although the white midlateral stripe may be absent in some individuals and the dorsal ground is more brown than black in some (but not all) specimens from coastal situations. A white midlateral stripe is present in ZMB 41236–37 (Fig. 2B).

As Peters did not designate types in his description, and as the four specimens formerly included in ZMB 4713 were untagged, and probably registered after the publication of the description (R. Günther pers. comm.), we consider that the type status of the two syntypes ZMB 4713a–b is open to question, and as these specimens do not agree with the type description or Boulenger's<sup>4</sup> subsequent definition, and are representative of a species not known from near the type locality, we reject their type status. If ZMB 4713a is not a syntype, Storr's<sup>5</sup> designation of this specimen as lectotype is invalid.

The Zoologisches Museum collection contains frogs purportedly collected by Schomburgk from Adelaide<sup>3</sup> additional to those listed by Peters<sup>1</sup>, suggesting that Schomburgk sent material from South Australia to Peters subsequent to 1864 and supporting the possibility that

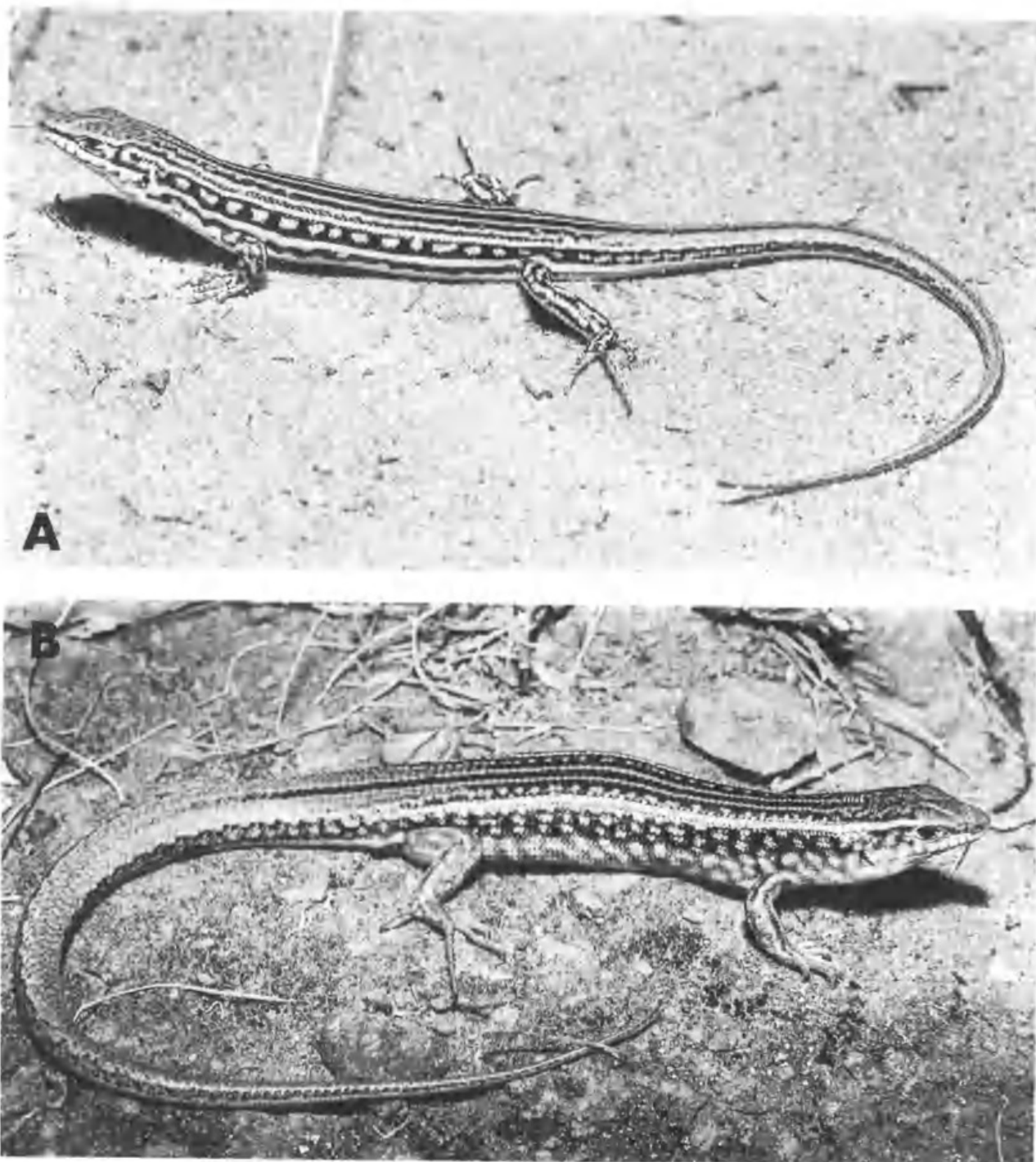


Fig. 1. A, *Ctenotus schomburgkii* auctorum (Australian Museum R114482; Lake Mungo National Park, NSW); B, *Ctenotus uber orientalis* (Australian Museum R115926; 4.8 km N "Mongalata" HS, SA).

ZMB 4713a-b were sent to Peters after the description of *L. schomburgkii*.

We consider that ZMB 41236-37 are syntypes of *L. schomburgkii* Peters, and we designate ZMB 41236 as lectotype.

This reassignment of the name *Lygosoma schomburgkii* necessitates four nomenclatural changes. *C. uber orientalis* Storr<sup>6</sup> becomes a synonym of *C. schomburgkii* (Peters), while *C. uber uber* Storr<sup>5</sup> and *C. uber johnstonei* Storr<sup>8</sup> become *C. schomburgkii uber* and *C. schomburgkii*

*johnstonei* respectively. The only available name for *C. schomburgkii* (auctorum) is *Lygosoma fischeri* Boulenger<sup>4,5,7</sup>, a *nomen novum* for *Hinulia muelleri* Fischer<sup>9</sup>, at that time a junior secondary homonym of *Scincus muelleri* Schlegel<sup>7,10</sup>. Although the types of *H. muelleri* cannot be found<sup>7</sup>, the description and figures<sup>9</sup> clearly apply to the western colour type of *C. schomburgkii* (auctorum).

H. G. Cogger kindly allowed access to unpublished notes and reproduction of photographs of the types

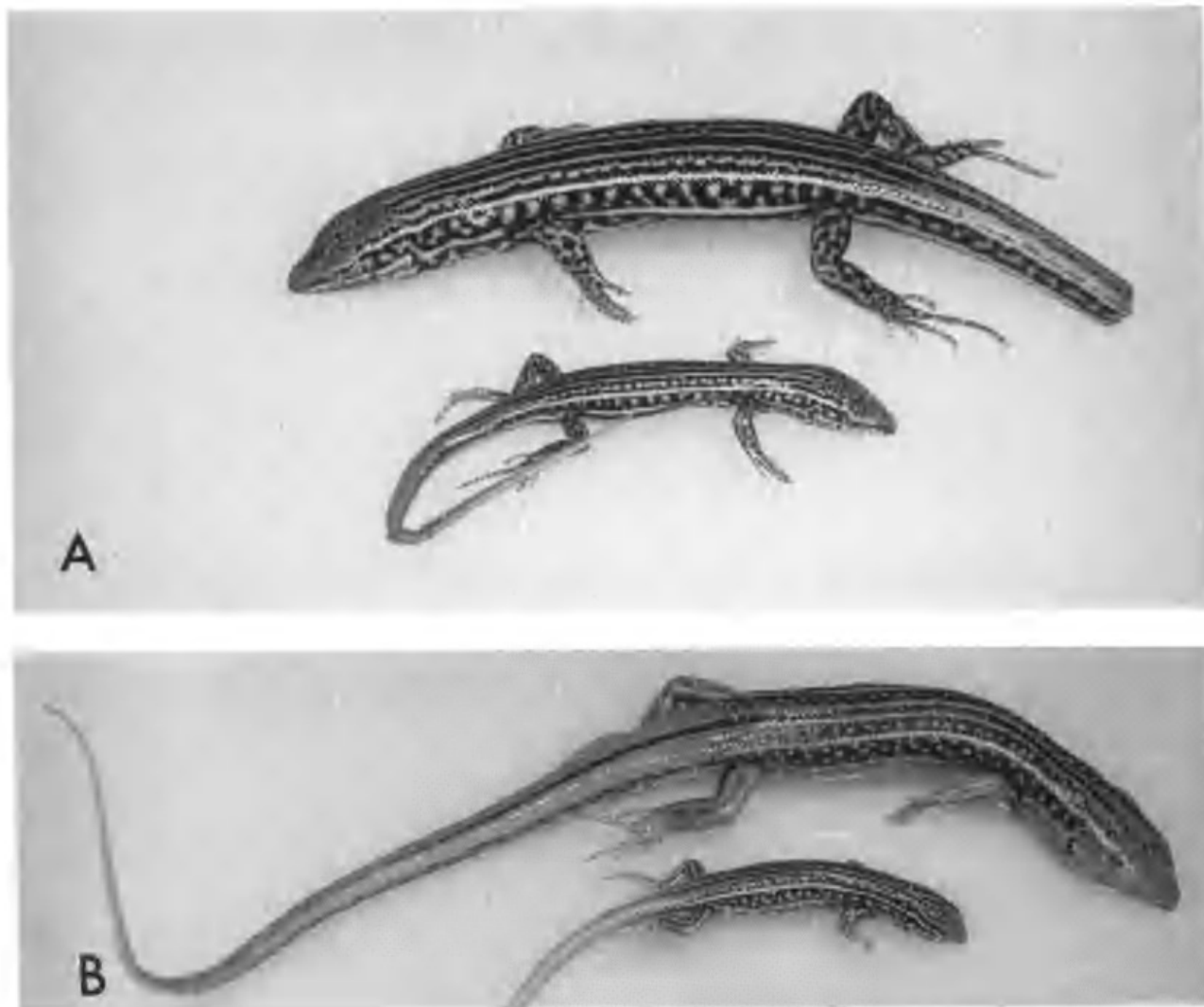


Fig. 2. Syntypes (*sensu* Storr) of *Lygosoma schomburgkii* Peters. A, ZMB 4713a (upper; lectotype of Storr) and 4713b (lower) and B, ZMB 41236 (upper; lectotype designated herein) and 41237 (lower; paralectotype).

(Fig. 2), and provided useful comments on the manuscript. T. D. Schwaner and A. Edwards permitted us to examine South Australian Museum material, and checked locality data. N. Shea translated much of Peters' paper. B. Coulson provided Fig. 1B. A. E. Greer and R. Sadler also

commented on the manuscript.

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<sup>1</sup>Peters, W. (1864) Mber. K. Preuss. Akad. Wiss. Berlin 1863, 228-236.

<sup>2</sup>Praire, R. & Tolley, J. C. (1970) "Place Names of South Australia." (Rigby, Adelaide).

<sup>3</sup>Tyler, M. J. (1985) Mitt. zool. Mus. Berl. 61, 335-337.

<sup>4</sup>Boulenger, G. A. (1887) "Catalogue of the Lizards in the British Museum (Natural History). 3." (British Museum, London).

<sup>5</sup>Storr, G. M. (1969) J. Proc. R. Soc. W. Aust. 51, 97-109.

<sup>6</sup>—— (1971) *Rec. S. Aust. Mus.* 16(6), 1-15.

<sup>7</sup>Cogger, H. G., Cameron, E. E. & Cogger, H. M. (1983) "Zoological Catalogue of Australia. I. Amphibia and Reptilia." (Aust. Govt Publishing Service, Canberra).

<sup>8</sup>Storr, G. M. (1980) *Rec. West. Aust. Mus.* 8, 441-447.

<sup>9</sup>Fischer, J. G. (1882) *Arch. Naturgesch.* 48, 281-302.

<sup>10</sup>Schlegel, H. (1837) "Abbildungen neuer oder unvollständig bekannter Amphibien, nach der Natur oder dem Leben entworfen." (Arnz, Düsseldorf).



Peterson, H and Shea, Glenn M. 1987. "Reidentification of *Ctenotus schomburgkii* (Peters, 1864) (Lacertilia: Scincidae)." *Transactions of the Royal Society of South Australia, Incorporated* 111, 115–117.

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