

# THE GENUS CTENOTUS (LACERTILIA, SCINCIDAE) IN SOUTH AUSTRALIA

BY G. M. STORR

CURATOR OF BIRDS AND REPTILES, WESTERN AUSTRALIAN MUSEUM

## SYNOPSIS

Examination of the material in Australian museums reveals that 17 species and subspecies of *Ctenotus* occur in South Australia, including two new species, *C. brachyonyx* and *C. regius*, and two new subspecies, *C. uber orientalis* and *C. brooksi euclae*. A key is provided,

## INTRODUCTION

Of the 14 species of *Ctenotus* known from South Australia, all but two occur in neighbouring parts of Western Australia or the Northern Territory. My papers on the *Ctenotus* of the Eastern Division of Western Australia (Storr 1969) and of the Northern Territory (Storr 1970) thus serve as an introduction to the South Australian fauna. The reader is also referred to those papers for descriptions of the seven species and subspecies restricted in South Australia to the far north and west; they are represented by too few South Australian specimens to warrant a local description.

As the foregoing remarks imply, the arid northwest of South Australia is much richer in *Ctenotus* than the humid southeast. The differences are probably still greater than is apparent here, for much of western South Australia is virtually unexplored, and a further six taxa could eventually be found there: *dux* and *colletti nasutus* in the far northwest; *graudis*, *piankai* and *calurus* in the Great Victoria Desert; and *u. uber* on the Nullarbor Plain. Users of the key will need to bear this in mind when identifying western specimens.

*C. inupar* has been omitted from this paper. This species is certainly known only from southwestern Australia, and the provenance of a specimen from Ooldea (SAM 9980) requires confirmation.

For the loan of specimens in the South Australian Museum (SAM), National Museum of Victoria (NMV), Australian Museum, Sydney (AM), Queensland Museum (QM), Arid Zone Research Institute, Alice Springs (NTM), and the Pianka Collection (ERP), I am grateful respectively to Mr. F. J. Mitchell, Miss J. M. Dixon, Dr. H. G. Cogger, Miss J. Covacevich, Mr. B. L. Bolton, and Dr. E. R. Pianka.

I dedicate this paper to the memory of Francis John Mitchell, late Curator of Reptiles in the South Australian Museum.

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### Key to Species and Subspecies

1. Pattern consisting of longitudinal stripes and/or series of spots, but no ocelli; nasal weakly or not grooved; midbody scale rows 22-34 . . . . . 2
  - Pattern consisting solely of black-and-white ocelli; nasal strongly grooved; midbody scale rows 32-38 . . . . . *pantherinus ocellifer*
2. Adults large (SVL = snout-vent length up to 95 mm.); toes slightly or not compressed; subdigital lamellae smooth or broadly callose; second supraocular longer than first; nasals separated; prefrontals usually forming median suture—*lesueurii* group . . . . . 3
  - Adults small to moderately large (SVL up to 80); toes moderately or strongly compressed; subdigital lamellae keeled or narrowly callose . . . . . 6
3. Vertebral stripe distinctly pale-edged . . . . . 4
  - Vertebral stripe with little or no indication of pale edge . . . . . 5
4. White midlateral stripe extending forward to lores; vertebral stripe nearly as wide as a paravertebral scale; brow subacute . . . . . *robustus*
  - White midlateral stripe extending forward only to arm; vertebral stripe much narrower than a paravertebral scale; brow obtuse . . . . . *saxatilis*
5. White dorsolateral and midlateral stripes moderately well developed; claws very short . . . . . *brachyonyx*
  - White dorsolateral and midlateral stripes absent or barely discernible; claws moderately long . . . . . *helenae*
6. Adults moderately large (SVL up to 80); subdigital lamellae obtusely keeled or narrowly callose . . . . . 7
  - Adults small (SVL up to 62); subdigital lamellae sharply keeled and mucronate . . . . . 11

7. Ground colour brownish; pattern consisting of dark and pale stripes and longitudinal series of pale spots—*leonhardii* group . . . . . 8
- Ground colour blackish; pattern consisting solely of pale stripes—*taeniolatus* group . . . . . 10
8. White midlateral stripe well developed (broad, straight, and extending forward to ear); blackish vertebral stripe moderately wide and narrowly margined with white; midbody scale rows 24-28 . . . . . *regius*
- White midlateral stripe absent or poorly developed (not extending forward to arm); dark brown vertebral stripe narrow, with or without pale brown margin; midbody scale rows 26-34 . . . . . 9
9. White midlateral stripe absent or scarcely indicated; dark laterodorsal stripe enclosing a series of pale spots; nasals usually separated; prefrontals contiguous or separated . . . . . *uber orientalis*
- White midlateral stripe well defined posteriorly; dark laterodorsal stripe not enclosing pale spots; nasals usually forming median suture; prefrontals usually separated . . . . . *leonhardii*
10. Pale lines and stripes totalling 8 or 10, with only one line on each side between midlateral and dorsolateral stripes . . . . . *atlas*
- Pale lines and stripes totalling 14 or 16, with at least 2 lines on each side between midlateral and dorsolateral stripes . . . . . *quattuordecimlineatus*
11. Pattern consisting of stripes, spots, blotches and variegations: tail less than twice as long as SVL—*schomburgkii* group . . . . . 12
- Pattern consisting solely of alternating dark and pale stripes; tail bright red, more than 2.3 times as long as SVL . . . . . *leae*

12. Nasals usually separated (occasionally in short contact); prefrontals in contact or narrowly separated; ear lobules short to moderately long; lamellae under fourth toe 19-28; hindleg 41-56% of SVL . . . . . 13  
 Nasals usually forming a median suture; prefrontals widely separated; ear lobules very short; lamellae under fourth toe 16-20; hindleg 33-41% of SVL . . . . . *strauchii*
13. Usually only one presubocular; plantars opposite fourth toe enlarged and keeled; prefrontals usually in contact . . . . . 14  
 Presuboculars 2; plantars uniformly granular; prefrontals usually separated . . . . . *schomburgkii*  
*schomburgkii*
14. Head and back bright red in life (fading to pale green in alcohol) . . . . . 15  
 Head and back pale pink or brown . . . . . 16
15. Blackish vertebral stripe and laterodorsal variegations persistent in adults; lamellae under fourth toe usually fewer than 23; hindleg usually less than 47% of SVL . . . *brooksi aranda*  
 Dorsal pattern obsolete; lamellae under fourth toe usually more than 23; hindleg usually more than 47% of SVL . . . . . *brooksi brooksi*
16. Head and back pinkish white; blackish upper lateral stripe enclosing a series of pale spots *brooksi euclae*  
 Head and back pale brown; blackish upper lateral stripe reduced to a series of vertically elongate, rectangular blotches . . . . . *brooksi taeniatus*

***Ctenotus pantherinus ocellifer* (Boulenger)**

*Synonymy, diagnosis and description:* See Storr (1969, 1970).

*Distribution:* Northwestern interior. [Extralimital in Western Australia and Northern Territory.]

*South Australian material:* Mt. Davies (AM 17316); Erliwunyawunya, Musgrave Range (AM 17245); 98 mi. N of Cook (WAM 34522).

***Ctenotus robustus* Storr**

*Diagnosis:* A member of the *lesueurii* group, distinguishable from *saxatilis* and *helenae* by sharper brow and more strongly developed pattern, e.g., white midlateral stripe extending forward unbroken to ear aperture, whence it continues narrowly forward to lores.

*Distribution:* Southeastern and central districts, north and west to Bute. [Extralimital in eastern Australia from northeast Queensland to Victoria and in Northern Territory.]

*Description:* Snout-vent length (mm): 40-82 (62.7). Length of appendages (% SVL): tail 167-204 (188), foreleg 24-28 (26.2), hindleg 37-47 (42.6).

Nasals separated, not grooved. Prefrontals in contact (except in two specimens where separated by azygous scale). Supraoculars 4, first 3 in contact with frontal, first much smaller than second. Supraciliaries 8-11 (8.8), fourth to penultimate very small and tending to be concealed by moderately sharp brow. Palpebrals 9-14 (10.7). Second loreal 1.2-2.1 (1.44) times as wide as high. Upper labials 8 (rarely 9), second to fourth about twice as high as wide. Ear lobules 3-5 (3.6), acute in adults, first or second largest. Nuchals 3 or 4. Midbody scale rows 28-34 (30.4). Lamellae under fourth toe 19-23 (20.9); proximal lamellae divided and subtubercular, remainder smooth or widely callose.

Dorsally olive brown, darker on head, paler on tail. Black vertebral stripe from nape to proximal part of tail, nearly as wide as a paravertebral scale, narrowly edged with creamy white. Whitish dorsolateral line from brow to middle of tail (on which it is wider and suffused with brown), margined above by black laterodorsal stripe. Upper lateral zone blackish brown, enclosing a series of moderately large brownish-white spots; represented on tail by pale, dark-edged stripe. Whitish midlateral stripe from ear aperture to middle of tail, partly interrupted by thigh and sending down branch to insertion of arm; anteriorly represented by fine line curving under eye to lores. Lower lateral zone narrow, greyish, flecked with whitish marks.

*South Australian material:* Bute (SAM 1705); Mt. Osmond (SAM 10006); Waterfall Gully (SAM 9983-6, 9992, 9994-6); Encounter Bay (SAM 1697, 10010); Avenue Range (SAM 3789).

***Ctenotus saxatilis* Storr**

*Diagnosis:* A member of the *lesueurii* group with dark vertebral stripe considerably narrower than a paravertebral scale and very narrowly pale-edged; white dorsolateral line; dark upper lateral zone with indistinct whitish mottling; white midlateral stripe seldom extending anteriorly as far as arm.

*Distribution:* Far north. [Extralimital in the Northern Territory.]

*South Australian material:* Erliwunyawunya, Musgrave Range (AM 17246-7); Oodnadatta (SAM 43).

***Ctenotus brachyonyx* sp. nov.**

*Holotype:* D 13944 in National Museum of Victoria, collected by J. L. Hayward in June, 1969, at Annuello, Victoria (34°52'S, 142°49'E).

*Diagnosis:* A member of the *lesueurii* group with reduced colour pattern and extremely short claws. Further distinguishable from *saxatilis* by unmarginated vertebral stripe and by some indication of pale subocular line, from *helenae* by presence of dark laterodorsal stripe and pale dorso-lateral and midlateral stripes, and from *robustus* by number and nature of supraciliaries (fewer than 8, fourth to penultimate not greatly smaller than others and not tending to be hidden by brow).

*Distribution:* Valley of the Murray River. [Extralimital in north-western Victoria.]

*Description* (based on all specimens): Snout-vent length (mm): 73-83 (79.4). Length of appendages (% SVL): tail 181-214 (194), foreleg 23-25 (24.3), hindleg 38-40 (39.3).

Nasals narrowly separated, not grooved. Prefrontals usually in contact (very narrowly separated in one specimen). Supraoculars 4, first 3 in contact with frontal. Supraciliaries 6 or 7. Palpebrals 8-12 (10.5). Second loreal 1.4-2.0 (1.62) times as wide as high. Upper labials 8 or 9. Ear lobules 2-5 (3.8), subacute or truncate, rather small. Nuchals 2 or 3. Midbody scale rows 30-32 (30.6). Lamellae under fourth toe 22-24 (23.2), widely callose.

Dorsally (South Australia) brown or (Victoria) olive grey. Black vertebral stripe moderately wide, beginning narrowly on nape and ending abruptly at base of tail; little or no indication of pale edge. Indistinct dorsolateral stripe individually varying from whitish to nearly as dark as ground colour, margined above by narrow black laterodorsal stripe beginning well behind vertebral stripe and usually ending a little before it. Upper lateral zone a little darker than ground colour, with or without blackish dots or whitish flecks. Pale midlateral stripe, indistinct owing to suffusion with ground colour, extending back on to base of tail after being wholly or almost wholly interrupted by thigh; represented anteriorly by short fine line curving below eye. Lower lateral zone paler than ground colour.

*Paratypes:* South Australia—Purnong (NMV D 3074, 5295-6). Victoria—Cowangie (NMV D 12026); Hattah Lakes (NMV D 14213).

***Ctenotus helenae* Storr**

*Diagnosis:* A greenish member of the *lesueurii* group with dark vertebral stripe very narrow and not pale-edged, and little or no indication of white dorsolateral and midlateral stripes.

*Distribution:* Extreme northwest (Tomkinson Range). [Extralimital in Western Australia and Northern Territory.]

*South Australian material:* Mt. Davies (SAM 5317, 10016).

***Ctenotus regius* sp. nov.**

*Holotype:* R 24492 in Western Australian Museum, collected by G. M. Storr and A. M. Douglas on 4 October 1964 at Kingoonya, South Australia, in 30°54'S, 135°19'E.

*Diagnosis:* A member of the *leonhardii* group differing from *C. leonhardii* and *uber* by fully developed white midlateral stripe (extending forward to lores) and low number of midbody scale rows (28 or fewer). Distinguishable from the superficially similar *robustus* by grooved nasal and nature and number of subdigital lamellae.

*Distribution:* Interior of South Australia and northwestern Victoria.

*Description* (based on all specimens): Snout-vent length (mm): 37-74 (60). Length of appendages (% SVL): tail 191-252 (219); foreleg 24-30 (26.9); hindleg 44-58 (51.3).

Nasals separated (rarely in short contact), weakly grooved. Pre-frontals in contact. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 7 (rarely 8). Palpebrals 9-14 (11.3). Second loreal 1.0-2.1 (1.64) times as wide as high. Upper labials 8 (rarely 7 or 9). Ear lobules 3-6 (4.7), acute in adults, obtuse in juveniles, second or third largest. Nuchals 3-6 (4.0). Midbody scale rows 26 or 28 (rarely 24). Subdigital lamellae slightly compressed, 23-30 (26.0) under fourth toe, each with a dark brown obtuse keel or narrow callus.

Dorsally brown, darkest on back, more olive on head, paler and reddish on tail. Narrow blackish-brown vertebral stripe from nape to base of tail, narrowly margined with white. Narrow but conspicuous white dorsolateral line from brow to about middle of tail (on which it gradually merges with background), widely or narrowly margined above with blackish brown (this margin or laterodorsal stripe rarely enclosing a series of pale dots or short dashes). Upper lateral zone dark brown or reddish brown, enclosing two (occasionally one) longitudinal series of whitish dots or small longitudinally elongate spots; represented on tail by pale, dark-edged stripe. White

midlateral stripe from lores to middle of tail, straight and moderately broad, interrupted by ear aperture and partly by thigh; margined below (on body) by a brown stripe which occasionally encloses some spots.

Paratypes: South Australia—Lambina (NTM 1552); Lake Eyre (NMV D3115, 3118); Killalpaninna (SAM 759); Goyders Lagoon (SAM 10342); Lakes Mulligan and Callabonna (SAM 9988-91); 6 mi. E of Vokes Hill (WAM 36605); Ooldea (NMV D352); "Overland Railway" (NMV D3045); Kingoonya (WAM 24493); Andamooka Ranges (SAM 2788, 10024-6); Yudna Swamp, Moralana (SAM 3177, 10013-4); Mern Merna (SAM 2657, 10028-9, 10031-3); "Waterfall Gully" (SAM 9993). Victoria—Cowangie (NMV D12027); Irymple (NMV D8406); Karawinna (NMV D5651); Mildura (NMV D8138); Red Cliffs (NMV D8546).

### ***Ctenotus leonhardii* (Sternfeld)**

*Diagnosis:* A member of the *leonhardii* group with nasals usually in contact and prefrontals usually separated. Further distinguishable from *regius* by failure of white midlateral stripe to extend forward to level of arm (let alone to ear aperture); and from *uber* by absence of laterodorsal series of pale spots.

*Distribution:* Far north. [Extralimital in Northern Territory and Western Australia.]

*South Australian material:* Erliwunyawunya, Musgrave Range (AM 17248); "50 miles south of South Australian border" [presumably between Granite Downs and De Rose Hill] (SAM 9956).

### ***Ctenotus uber orientalis* subsp. nov.**

*Holotype:* D825 in National Museum of Victoria, collected by W. A. Hall in 1911 at Ouyen, Victoria, in 35°05'S, 142°19'E.

*Diagnosis:* Differing from *C. u. uber* of Western Australia (Storr 1969) in its well-developed vertebral stripe and shorter tail. Distinguishable from *leonhardii* by presence of laterodorsal series of pale spots and absence or feeble development of white midlateral stripe.

*Distribution:* Northern interior, east of the Nullarbor Plain and Great Victoria Desert, south to central Eyre Peninsula and the Murray Mallee. [Extralimital in northern Victoria, western New South Wales and south of Northern Territory.]

*Description* (based on all specimens): Snout-vent length (mm); 36-80 (58.5). Length of appendages (% SVL): tail 151-214 (186); foreleg 23-30 (27.1); hindleg 39-55 (48.8).



Nasals separated. Prefrontals separated or in contact. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 7 or 8 (6 in two Eyre Peninsula specimens). Palpebrals 9-13 (10.4). Second loreal 1.0-1.8 (1.42) times as wide as high. Labials 8 (occasionally 7 or 9). Ear lobules 3-7 (4.6), acute in adults, obtuse in juveniles, second or third usually largest. Nuchals 1-7 (3.9). Midbody scale rows 28-34 (31.3). Lamellae under fourth toe 19-29 (24.1), slightly to moderately compressed, each with a narrow dark callus.

Head and back olive grey, olive brown or dark brown; tail pale brown. Blackish vertebral stripe from nape to base of tail, narrowly edged with greyish white or pale brown. A laterodorsal series of pale dots or short dashes. White dorsolateral line extending from brow back for varying distances before breaking up into a series of short dashes or small spots. Broad upper lateral zone dark brown or blackish, enclosing white flecks, dots or short dashes which tend to align in three longitudinal series; upper lateral zone represented on tail by dark stippling. White midlateral stripe absent or indistinct on body (resulting from coalescence of fourth series of dashes). Lower lateral zone greyish brown, enclosing one or two series of whitish spots, dots or dashes, or flecked with white and pale grey.

Paratypes: Northern Territory—Macdonnell Ranges (SAM 10055), South Australia—Dalhousie Springs (SAM 9735); between Pernatty and South Gap Homesteads, Andamooka Ranges (SAM 2789, 9466-9); Lake Gilles (NMV D9499); Blue Range Creek, Eyre Peninsula (SAM 10122); Lake Palankarina, 62 mi. N of Marree (SAM 3618); Mern Merna (SAM 10017, 10027, 10030); Panaramitee, near Yunta (SAM 5738); "Buchsfield, near Adelaide" (Berlin 4719c-d); Turners Well (SAM 23-4); Pinnaroo (SAM 1507). New South Wales—Milparinka (SAM 10044). Victoria—Red Cliffs (NMV D2681, 2734); Ouyen (NMV D283-4, 826, 10032); Mangalore (NMV D3433); Bright (NMV D5578).

### ***Ctenotus atlas* Storr**

*Diagnosis:* A member of the *taeniolatus* group with a total of 10 whitish dorsal and lateral stripes and lines on a blackish ground. Distinguishable from *quattuordecimlineatus* by single pale line between midlateral stripe and dorsolateral line, and no pale dorsal line between paravertebral and dorsolateral lines.

*Distribution:* Southern sector of Great Victoria Desert (mallee-spinifex zone) southeast through similar country round Lake Everard to eastern interior of Eyre Peninsula. [Extralimital in Western Australia and New South Wales (central-west).]

*Description:* Snout-vent length (mm): 38-69 (58). Length of appendages (% SVL): tail 160-221 (204), foreleg 26-30 (27.9), hindleg 35-51 (42.7).

Nasals in short contact. Prefrontals in long contact. Supraoculars normally 4, with first 3 contacting frontal (5 with 4 in one specimen). Supraciliaries 7 (occasionally 8). Palpebrals 10-12 (11.0). Second loreal 1.2-2.0 (1.52) times as wide as high. Labials 8 or 9. Ear lobules 3-7 (5.5), first 2 or 3 usually very small and acute. Nuchals 1-3 (2.2). Midbody scale rows 28-34 (30.3). Lamellae under fourth toe 20-28 (23.7), compressed, each with a narrow dark brown callus or obtuse keel.

Head dark brown; tail brown. Back and sides blackish brown with a total of 10 white or brownish stripes and lines: on each side a paravertebral line from occiput to base of tail; dorsolateral line from brow to proximal quarter of tail; upper lateral line from orbit to proximal quarter of tail; narrow midlateral stripe from ear nearly to end of tail, partly interrupted by thigh, extending forward indistinctly below eye to lores; ventrolateral stripe from below and behind ear to groin, partly interrupted by arm.

*Remarks:* Apart from minor differences in coloration and number of midbody scales, *C. atlas* is very similar to *C. quattuordecimlineatus*, which it replaces in slightly less arid regions. The two forms could therefore prove to be conspecific. The specimen of *atlas* from 100 miles north of Cook has the beginning of a pale line between the midlateral and dorsolateral stripes, and the beginning of one between the midlateral and ventrolateral stripes; it is thus an intergrade with *quattuordecimlineatus* which was collected only 25 miles further north.

*South Australian material:* 100 mi. N of Cook (WAM 31863); 73 mi. N of Cook (WAM 36603); 28 mi. NE of Maralinga (WAM 36645); 10 mi. S of Everard (WAM 24515); Mt Wedge (SAM 9979); Hincks National Park, Blue Range and Verran Hill (SAM 10123-8).

### ***Ctenotus quattuordecimlineatus* (Sternfeld)**

*Diagnosis:* A member of the *taeniolatus* group with a total of 14 pale dorsal and lateral stripes and lines on a blackish ground.

*Distribution:* Great Victoria Desert. [Extralimital in Western Australia and the Northern Territory.]

*South Australian material:* Near the Serpentine Lakes (WAM 34521); 125 mi. N of Cook (WAM 31856-7).

***Ctenotus leae* (Boulenger)**

*Diagnosis:* A moderately small *Ctenotus* with dorsal and lateral pattern consisting of alternating dark and pale stripes; tail bright red and very long; midbody scale rows usually 22 or 24. Distinguishable from all members of the *taeniolatus* group by its sharply keeled, mucronate subdigital lamellae.

*Distribution:* Great Victoria Desert. [Extralimital in Western Australia.]

*South Australian material:* 10 mi. E of Golden Well (NMV D1565); "Adelaide" (holotype).

***Ctenotus schomburgkii schomburgkii* (Peters)**

*Diagnosis:* A member of the *schomburgkii* group with nasals usually separated and back strongly striped with black. Further distinguishable from *strauchii* by its longer appendages and less widely separated prefrontals, and from *brooksi* by its two presuboculars and homogeneous plantars.

*Distribution:* Northern interior. [Extralimital in Western Australia, Northern Territory and western New South Wales.]

*Description:* Snout-vent length (mm): 25-50 (41). Length of appendages (% SVL): tail 165-213 (196), foreleg 25-33 (27.8), hindleg 44-55 (49.4).

Nasals narrowly separated (occasionally widely separated or in very short contact). Prefrontals narrowly separated or in short contact. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, often 6. Palpebrals 7-11 (9.3). Second loreal 1.5-2.3 (1.98) times as wide as high. Labials 7 (occasionally 8). Ear lobules 2-4 (3.2), short and obtuse, first usually much the largest. Nuchals 3-5 (3.7). Midbody scale rows 24-28 (25.9). Lamellae under fourth toe 20-26 (22.5), each with a fine, sharp, dark, mucronate keel.

Head, foreback and forelegs bright reddish brown (changing to greenish in alcohol). Hindback, tail and hindlegs yellowish brown. Black vertebral line from nape to proximal quarter of tail. Black dorsal line from nape to base of tail, often breaking up into a series of dots or dashes. White dorsolateral line from brow to base of tail, margined above with black. Black upper lateral zone enclosing an irregular series of spots similar in colour to corresponding part of dorsum; represented anteriorly by a narrow loreal streak. White midlateral stripe from snout to base of tail, interrupted by ear aperture and partly by thigh. Lower lateral zone like upper but narrower and less distinctly spotted.

*South Australian material:* Mt. Davies, Tomkinson Range (SAM 5318, 10015); Ernabella (AM 17526); 6 mi. E of Vokes Hill (WAM 31827-8); 15 mi. E of Emu (WAM 36609); 24 mi. NE of Maralinga (WAM 36640); 150 mi. N of Cook (WAM 36607-8); 144 mi. N of Cook (WAM 36604); 103 mi. N of Cook (WAM 36661); Ooldea (SAM 679, 10012); "Overland Railway" (NMV D2667, 3063, 3065); 10 mi. of Golden Well, Overland Railway (NMV D995, 1567); Kychering Soak (NMV D2671); Kingoonya (SAM 994, 10341); Birthday Well (SAM 3050); Mullaroo Peninsula (SAM 3054); Moralana (SAM 3182); Blesing Reserve (SAM 9190); "Buehsfeld, near Adelaide" (lectotype and paralectotype, Berlin 4713a-b).

### ***Ctenotus strauchii* (Boulenger)**

*Diagnosis:* A member of the *schomburgkii* group with extremely short appendages and ear lobules, and little or no dorsal pattern.

*Distribution:* Northeastern interior, west to Lambina and south to Mern Merna. [Extralimital in Northern Territory, Queensland and New South Wales.]

*Description* (based on all specimens cited below): Snout-vent length (mm): 41-52 (46). Length of appendages (%SVL): tail 126-160 (148), foreleg 21-27 (23.9), hindleg 33-41 (37.3).

Nasals forming a median suture (narrowly separated in one specimen). Prefrontals moderately to widely separated. Supraoculars normally 4, with first 3 in contact with frontal (5 with 4 in one specimen). Supraeiliaries 6 or 7 (9 in one specimen). Palpebrals 8-11 (9.2). Second loreal 1.4-1.9 (1.59) times as wide as high. Labials 8 (occasionally 7 or 9). Ear lobules 1-4 (usually 3; mean 2.9), very short and obtuse, first or second basally much wider than others. Nuchals 2-4 (3.2). Midbody scale rows 26-30 (27.9). Lamellae under fourth toe 16-20 (18.0), each with a sharp, mucronate keel.

Dorsally reddish brown. Vertebral stripe faint, narrow and pale-edged; or absent. Dark laterodorsal markings variable: sometimes arranged as small blotches or cross-bars, sometimes as a stripe enclosing a series of pale spots. Whitish dorsolateral line from brow to base of tail. Upper lateral zone variable: essentially consisting of narrow vertical or oblique, alternating dark and pale blotches; but fine transverse connections between dark blotches so frequent that zone could often be described as a dark stripe enclosing two series of pale spots. White midlateral stripe extending narrowly forward to below eye after bending sharply up and down around top of ear aperture. Lower lateral zone reduced to a narrow faint streak or absent.

*Material:* Northern Territory—Tempe Downs (NMV D280); Charlotte Waters (NMV D946). Queensland—Birdsville (OM J9743). South Australia—Lambina (NTM 1548); 10 mi. N of Clifton Hills (SAM 10345); Mern Merna (SAM 2611, 2646, 10018-23). New South Wales—Milparinka (SAM 9930, 10042-3).

### ***Ctenotus brooksi brooksi* (Loveridge)**

*Diagnosis:* Species *brooksi* distinguishable from all other members of *schomburgkii* group by single presubocular and enlarged, keeled plantars opposite fourth toe. Subspecies *brooksi* distinguishable by red head and back, and little or no indication of dorsal and lateral pattern apart from an upper lateral series of small, blackish, rectangular blotches.

*Distribution:* Great Victoria Desert. [Extralimital in Western Australia and Northern Territory.]

*South Australian material:* Ooldea (SAM 3217); 10 mi. E of Golden Well, Trans-Australian Railway (NMV D1566).

### ***Ctenotus brooksi aranda* Storr**

*Diagnosis:* Agreeing with *C. b. brooksi* in red head and back, but differing in fewer subdigital lamellae and stronger pattern (including pale-edged vertebral stripe and blackish laterodorsal variegations).

*Distribution:* Sand dunes of the Lake Eyre Basin, west to Dalhousie and south to Marree. [Extralimital in adjacent deserts of Queensland and Northern Territory.]

*Description:* Snout-vent length (mm): 28-55 (46). Length of appendages (% SVL): tail 140-163 (150), foreleg 24-32 (27.1), hindleg 41-50 (44.4).

Nasals in short contact or narrowly separated. Prefrontals forming a median suture. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 6 or 7 (6.3). Palpebrals 9-11 (9.6). Second loreal 1.6-2.5 (2.15) times as wide as high. Usually only one presubocular, occasionally 2. Labials 7 or 8. Ear lobules 3 or 4, obtuse or subacute, second usually largest. Nuchals 2-8 (mostly 3 or 4; mean 3.7). Midbody scale rows 26. Lamellae under fourth toe 19-22 (20.2).

*South Australian material:* Dalhousie (NMV D207); Lake Eyre shoreline, including Hunt Peninsula and Madigan Gulf (SAM 3338, 3732, 3769, 9921, 10007, 10041, 10051, 10058-9); Marree (SAM 4704).

**Ctenotus brooksi taeniatus** (Mitchell)

*Diagnosis:* Generally similar to *C. b. aranda*, including relatively short appendages, low number of subdigital lamellae, and colour pattern; but differing in brown (rather than red) dorsal ground colour, separated (rather than contiguous) prefrontals, and weakly keeled subdigital lamellae.

*Distribution:* Lake Torrens Basin.

*Remarks:* More material is required for determining whether the high number of supraoculars (5) and supraciliaries (8) in the only known specimen (SAM 2803) is diagnostic for this taxon. Each of these counts can occur in other subspecies of *brooksi*, but only rarely and singly.

A specimen of *C. schomburgkii* from Alice Springs (NMV D166) with the unique combination of 5 supraoculars, 8 supraciliaries and 8 labials was wrongly identified as *taeniatus* by Storr (1970: 107); in so doing *taeniatus* was wrongly described as having two presuboculars.

**Ctenotus brooksi euclae** subsp. nov.

*Holotype:* R287 in Western Australian Museum, collected in 1914 by W. B. Alexander at Eucla, Western Australia, in 31°43'S, 128°53'E.

*Diagnosis:* Differing from all other subspecies of *brooksi* by whitish back strongly patterned with black, upper lateral zone a black stripe enclosing whitish spots, and broad white midlateral stripe.

*Distribution:* White sand dunes bordering the Great Australian Bight between Eyre, Western Australia, and Point Sinclair, South Australia.

*Description:* Snout-vent length (mm): 26-51 (43). Length of appendages (% SVL): tail 153-193 (173); foreleg 24-31 (26.8); hindleg 45-54 (48.3).

Nasals narrowly separated (occasionally in short contact). Prefrontals in contact or narrowly separated (sometimes by a small azygous scale). Supraoculars 4, with first 3 contacting frontal (5 with 4 in one specimen). Supraciliaries usually 7, occasionally 6, rarely 8. Palpebrals 9 or 10 (occasionally 11). Second loreal 1.4-2.3 (1.84) times as wide as high. Labials 7 or 8. Ear lobules 2-5 (3.6); obtuse in juveniles; acute, subacute and truncate in adults; second or third usually largest. Nuchals usually 3; occasionally 0, 2 or 4. Midbody scale rows 26 or 28, rarely 24 or 30). Lamellae under fourth toe 19-25, each with a fine, sharp, dark, mucronate keel.

Dorsally a very pale flesh colour in life (E. R. Pianka, pers. comm.), fading in alcohol to creamy white. Narrow, black, white-edged vertebral stripe. On each side of dorsum two more blackish stripes, as wide as vertebral but anteriorly wavy and posteriorly breaking up into variegations. Upper lateral zone blackish with an irregular series of pale spots variable in size and shape; upper edge of zone continuing forward through orbit to nostril as a dark narrow streak. Broad white midlateral stripe from ear aperture to hindleg. Lower lateral zone narrow, variably marked with pale grey. Upper surface of limbs boldly streaked with black.

*Paratypes*: Western Australia—4 mi. N of Eyre (WAM 34478-80); Eucla (WAM 288; ERP 13702, 13704, 13713-4, 13716, 13721-2, 13729-33, 13735-6, 13738-40, 13745, 13750-1, 13753, 13761, 13763-6, 13788). South Australia—Point Sinclair, 13 mi. S of Penong (WAM 36559).

#### REFERENCES

- Storr, G. M., 1969: The genus *Ctenotus* (Lacertilia, Scincidae) in the Eastern Division of Western Australia. *J. Roy. Soc. W. Aust.*, **51**: 97-109.
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