

# THE GENUS *CTENOTUS* (LACERTILIA, SCINCIDAE) IN THE KIMBERLEY AND NORTH-WEST DIVISIONS OF WESTERN AUSTRALIA

G.M. STORR\*

[Received 8 November 1974. Accepted 7 May 1975. Published 30 June 1975]

## ABSTRACT

The following 30 taxa are defined and keyed out: *C. pantherinus calx* Storr, *C. pantherinus ocellifer* (Boulenger), *C. pantherinus acripes* nov., *C. grandis* Storr, *C. robustus* Storr, *C. lesueurii* (Duméril & Bibron), *C. alleni* Storr, *C. inornatus* (Gray), *C. fallens* Storr, *C. severus* Storr, *C. helenae* Storr, *C. mastigura mastigura* nov., *C. mastigura burbidgei* nov., *C. youngsoni* nov., *C. mimetes* Storr, *C. uber uber* Storr, *C. militaris* nov., *C. leonhardii* (Sternfeld), *C. serventyi* nov., *C. decaneurus decaneurus* Storr, *C. decaneurus yampiensis* nov., *C. quattuordecimlineatus quattuordecimlineatus* (Sternfeld), *C. quattuordecimlineatus iapetus* nov., *C. quattuordecimlineatus atlas* Storr, *C. piankai piankai* Storr, *C. piankai duricola* nov., *C. colletti colletti* (Boulenger), *C. calurus* Storr, *C. schomburgkii* (Peters), *C. tantillus* nov.

## INTRODUCTION

This is the fifth in a series of regional surveys of the genus *Ctenotus*. Previous papers covered the Eastern Division of Western Australia (Storr 1969), the Northern Territory (Storr 1970), South Australia (Storr 1971), and the South-west and Eucla Divisions of Western Australia (Storr 1974).

This paper is based on material in the Western Australian Museum (registered numbers without prefix) and a few specimens borrowed on earlier occasions from the National Museum of Victoria (numbers prefixed with NMV); Australian Museum, Sydney (AM); Museum of Comparative Zoology, Harvard (MCZ); Muséum National d'Histoire Naturelle (Paris); and Zoologisk Museum (Oslo). The number of specimens examined in each taxon were *C. pantherinus calx* (30), *C. p. ocellifer* (51), *C. p. acripes* (28), *C. grandis* (18), *C. robustus* (23), *C. lesueurii* (11), *C. alleni* (9), *C. inornatus* (450), *C. fallens* (282), *C. severus* (31), *C. helenae* (28), *C. m. mastigura* (3), *C. m. burbidgei* (21), *C. youngsoni* (2), *C. mimetes* (4), *C. u. uber* (13), *C. militaris* (18), *C. leonhardii* (43), *C. serventyi* (40), *C. d. decaneurus* (11), *C. d. yampiensis* (3), *C. q. quattuordecimlineatus* (8), *C. q. iapetus* (4), *C. q. atlas*

---

\*Curator of Birds and Reptiles, W.A. Museum

(1), *C. p. piankai* (10), *C. p. duricola* (6), *C. c. colletti* (3), *C. calurus* (1), *C. schomburgkii* (6), *C. tantillus* (9).

In the descriptions, quantitative characters are usually expressed as ranges with means in brackets. The term 'palpebrals' here applies to the scales along the free edge of the upper eyelid. The term 'calli' (singular 'callus') refers to thickenings of the subdigital lamellae too broad to be called keels. 'Presuboculars' are the scales aligned with and immediately posterior to the loreals.

Users of the following key having difficulty in identifying specimens should consult my revisions for neighbouring regions. Certain species now known only from the Eastern Division (e.g. *C. ariadnae*) and Northern Territory (e.g. *C. tanamiensis*) could well extend to the present region.

### KEY

1. Dorsal and lateral pattern consisting wholly or mainly of black-and-white ocelli; nasal with strong groove behind nostril — *pantherinus* group ... .. 2  
     No ocelli; post-narial groove weak or absent ... .. 4
2. Subdigital lamellae narrowly callose ... .. *C. pantherinus calx*  
     Subdigital lamellae finely keeled ... .. 3
3. Sole of foot smooth ... .. *C. pantherinus ocellifer*  
     Sole of foot spiny ... .. *C. pantherinus acripes*
4. Dorsal and lateral pattern simple and full, i.e. consisting wholly or nearly wholly of alternating dark and pale longitudinal stripes, latter numbering 6 to 14 ... .. 5  
     Dorsal and lateral pattern complex (i.e. including pale blotches, spots, dots and dashes, and/or longitudinal stripes of varying width and colour) or reduced (resulting in wide strips or zones without pattern) ... .. 6
5. Subdigital lamellae obtusely keeled or narrowly callose; SVL up to 70 mm — *taeniolatus* group ... .. 22  
     Subdigital lamellae sharply or finely keeled; SVL up to 50 mm — *colletti* group ... .. 28
6. First three of four supraoculars (or first two when only three supraoculars present) in contact with frontal; presuboculars 2 or 1 ... .. 7

	First two of four supraoculars in contact with frontal; presuboculars 3 — <i>labillardieri</i> group	...	...	<i>C. youngsoni</i>
7.	Dorsal pattern simple, i.e. alternating dark and pale stripes of subequal width; lateral pattern consisting solely of pale dots that tend to align vertically; second loreal pentagonal with angular apex	...	...	<i>C. grandis</i>
	Dorsal pattern complex or reduced, i.e. longitudinal stripes of varying width and colour, or back mostly unpatterned; pale lateral dots (if any) aligned longitudinally; second loreal quadrilateral with flat or curving top	...	...	8
8.	Toes cylindrical or compressed; subdigital lamellae smooth or callose (usually widely); first supraocular much narrower than second (except when first and second fused into single scale much the widest of three)	...	...	9
	Toes compressed; subdigital lamellae keeled or narrowly callose; first supraocular not much narrower than second	...	...	10
9.	Toes not or only slightly compressed; subdigital lamellae smooth or widely callose; upper lateral zone bearing pale blotches or spots; head, body and tail stout to moderately slender; SVL up to 123 mm; occurring throughout the region — <i>lesueurii</i> group	...	...	11
	Toes strongly compressed; subdigital lamellae smooth or with wide to moderately narrow calli; upper lateral zone solid blackish or with small pale spots, especially anteriorly; head, body and tail slender; SVL up to 63 mm; occurring only in north-west Kimberley — <i>essingtonii</i> group	...	...	17
10.	Subdigital lamellae obtusely keeled or narrowly callose; SVL up to 79 mm — <i>leonhardii</i> group	...	...	18
	Subdigital lamellae finely keeled; SVL up to 51 mm — <i>schomburgkii</i> group	...	...	29
11.	Upper labials usually 8; suture between second and third supraoculars straight; dark vertebral			

	stripe (when present) usually much narrower than a paravertebral scale ... .. 12	
	Upper labials usually 7; suture between second and third supraoculars undulating; dark vertebral stripe (when present) as wide or almost as wide as a paravertebral scale ... ..	<i>C. robustus</i>
12.	A pale dorsal line on nape between pale paravertebral and dorsolateral lines, continuing forward along outer edge of frontoparietal and frontal ... ..	<i>C. lesueurii</i>
	At most only two pale lines on each side of nape (a paravertebral and a dorsolateral) ... .. 13	
13.	Lamellae under fourth toe 16-26, slightly or not compressed, smooth or widely callose; nuchals seldom more than 3 — <i>inornatus</i> sub-group ... .. 14	
	Lamellae under fourth toe 27-34, moderately compressed, calli of medium width; nuchals usually more than 3 ... ..	<i>C. alleni</i>
14.	Well-defined, moderately wide black vertebral stripe with pale edge ... ..	<i>C. fallens</i>
	Vertebral stripe narrow, faint or absent, and without pale edge (except in young <i>C. inornatus</i> ) ... .. 15	
15.	Narrow but conspicuous white dorsolateral stripe ... .. 16	
	Dorsolateral stripe normally faint or absent ... ..	<i>C. helenae</i>
16.	White dorsolateral stripe narrowly edged above with black and in contact below with dark upper lateral zone ... ..	<i>C. inornatus</i>
	White dorsolateral stripe broadly edged above with black and separated from dark upper lateral zone by hiatus of ground colour ... ..	<i>C. severus</i>
17.	Supraoculars 3; vertebral stripe narrow but distinct ... ..	<i>C. mastigura mastigura</i>
	Supraoculars 4; vertebral stripe faint or absent ... ..	<i>C. mastigura burbidgei</i>
18.	Some indication of dark vertebral stripe; upper lateral zone dark brown with 1-3 longitudinal series of whitish dots ... .. 19	
	No pattern between narrow, unspotted black	

- laterodorsal stripes; upper lateral zone consisting of alternating dark and pale squarish blotches ... .. *C. mimetes*
19. Vertebral stripe very narrow and not pale-edged; no white midlateral stripe ... .. 20
- Vertebral stripe moderately narrow and pale-edged; white midlateral stripe present ... .. 21
20. No dark dorsal line between dark vertebral stripe and dark laterodorsal stripe (which encloses a series of pale spots); nasals usually separated ... .. *C. uber uber*
- A dark dorsal line between vertebral stripe and unspotted laterodorsal stripe; nasals forming a median suture ... .. *C. militaris*
21. White midlateral stripe usually extending forward not quite as far as foreleg, occasionally to ear aperture but no further; prefrontals usually separated; midbody scale rows usually more than 26 ... .. *C. leonhardii*
- White midlateral stripe extending forward to lores; prefrontals usually in contact; midbody scales rows seldom more than 26 ... .. *C. serventyi*
22. No pale upper lateral line between pale dorsolateral and midlateral stripes ... .. 23
- One or two pale upper lateral lines ... .. 26
23. A pale dorsal line between pale paravertebral and dorsolateral lines ... .. 24
- No pale dorsal line between paravertebral and dorsolateral lines ... .. 25
24. Nasals in contact; midbody scale rows 24-26 *C. decaneurus decaneurus*
- Nasals separated; midbody scale rows 30-32 *C. decaneurus yampiensis*
25. Midbody scale rows 24-27; habitat sandy ... *C. piankai piankai*
- Midbody scale rows 28-31; habitat stony ... .. *C. piankai duricola*
26. A pale dorsal line between pale dorsolateral and paravertebral lines ... .. 27
- No pale dorsal line between pale dorsolateral and paravertebral lines ... .. *C. quattuordecimlineatus atlas*
27. One pale upper lateral line (between pale dorsolateral line and pale midlateral stripe) ... ..

- ... .. *C. quattuordecimlineatus iapetus*  
 Two pale upper lateral lines ... ..  
 ... .. *C. quattuordecimlineatus quattuordecimlineatus*
28. Back and sides brown with 12 pale stripes;  
 tail pale brown; scales under foot uniformly  
 small ... .. *C. colletti colletti*
- Back and sides black with 8 whitish stripes;  
 tail blue or bluish grey; plantar scales opposite  
 fourth toe enlarged and keeled ... .. *C. calurus*
29. Nasals separated; upper lateral zone consisting  
 of alternating black and reddish vertically  
 narrow bars ... .. *C. schomburgkii*
- Nasals in contact; upper lateral zone blackish,  
 enclosing a series of small whitish spots ... .. *C. tantillus*

*Ctenotus pantherinus calx*

*Ctenotus pantherinus calx* Storr, 1970, J. Roy. Soc. W. Aust. 52: 99.  
 Dunmarra, N.T. (A.J. Coventry & C. Tanner).

**Diagnosis**

A very large, stout *Ctenotus* whose colour pattern consists wholly of black-and-white ocelli, distinguishable from other subspecies of *C. pantherinus* by subdigital lamellae callose rather than finely keeled.

**Distribution**

East Kimberley. Extralimital in Northern Territory.

**Description**

Snout-vent length (mm): 45-110 (96.6). Length of appendages (% SVL): foreleg 24-30 (26.2), hindleg 34-46 (39.0), tail 178-208 (190).

Nasals forming a median suture. Prefrontals usually forming a median suture, occasionally narrowly separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, occasionally 6 or 8 (7.0). Palpebrals 11-15 (12.4). Second loreal 0.9-1.6 (1.12) times as wide as high. Upper labials 8 (rarely 7 or 9). Ear lobules 4-9 (6.2), subacute, usually third or fourth largest. Nuchals 2-4 (2.8). Midbody scale rows 33-40 (36.6). Lamellae under fourth toe 19-23 (21.0), each bearing a narrow to wide callus.

Dorsally and dorsolaterally greenish brown, becoming paler and purplish grey ventrolaterally. Usually 10, occasionally 12, longitudinal series of ocelli, which on tail tend to coalesce into a white, dark-edged midlateral stripe. Subocular labials barred black and white. Lower surfaces, especially of tail, occasionally spotted with grey.

## Material

Kimberley Division: 61 km SSE of Wyndham (25090-1); 37 km SE of Kununurra (23125); Lake Argyle (42745, 45569-94).

### *Ctenotus pantherinus ocellifer*

*Lygosoma ocelliferum* [Boulenger], 1896, Ann. Mag. Nat. Hist. (6) 18: 342.

Roebuck Bay, W.A. (K. Dahl). For synonymy see Storr (1969: 99).

## Diagnosis

A large stout *Ctenotus* whose colour pattern consists wholly of black-and-white ocelli, distinguishable from other subspecies of *C. pantherinus* by following combination of characters: finely keeled subdigital lamellae, smooth soles of feet, and lack of black vertebral stripe.

## Distribution

Southern third of Kimberley Division, north to Derby (intergrading with *C. p. calx* in east); and northern half of North-west Division, south to the Gascoyne. Extralimital in Eastern and Eucla Divisions of Western Australia, Northern Territory and South Australia.

## Description

Snout-vent length (mm): 34-102 (74.2). Length of appendages (% SVL): foreleg 22-33 (26.0), hindleg 32-49 (39.4), tail 141-200 (173).

Nasals forming a median suture. Prefrontals forming a median suture (just touching in one specimen). Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, occasionally 6 or 8. Palpebrals 9-15 (11.9). Second loreal 0.8-1.7 (1.12) times as wide as high. Upper labials 8 (rarely 7 or 9). Ear lobules 3-9 (5.4). Nuchals 1-4 (2.7). Midbody scale rows 32-38 (35.7). Lamellae under fourth toe 20-27 (23.7).

## Remarks

Specimens from south-east Kimberley show some intergradation with *C. p. calx*; their nails are dark and the proximal plantars may be considerably enlarged.

## Material

Kimberley Division: 83 km SW of Halls Creek (46030); Wolf Creek Meteorite Crater (46063); 26 km E of Bohemia Downs (23050); 56 km SSW of Christmas Creek (45981); 146 km E of McLarty Hills (46036-7); 56 km E of McLarty Hills (45980); Derby (23000); Frazier Downs (27842, 45794-5).

North-west Division: Wallal (1019-21, 45800); 50 km W of Wallal (45979); 52 km E of Port Hedland (46500-2); Mundabullangana (17065,

17293-7); Roebourne (29063); 60 km SE of Mallina (22935); 28 km NE of Bamboo Creek (13212); Braeside (14589); Mt Edgar (17286-90, 22785, 45763); Abydos (10805); Woodstock (17291); Chichester Range (31845); Millstream (20007); 96 km S of Onslow (29112); 28 km SE of Yanrey (17298); Yardie Creek (13272); Marrilla (5046); Winning Pool (17082); 30 km S of Ethel Creek (17292); 32 km NW of Mundiwindi (24008); Turee Creek (25138, 25140); Kumarina (23974-5).

*Ctenotus pantherinus acripes* subsp. nov.

**Holotype**

R27843 in Western Australian Museum, collected by W.H. Butler on 2 June 1964 on Barrow I., Western Australia, in 20° 45'S, 115° 25'E.

**Diagnosis**

A large stout *Ctenotus* whose colour pattern consists wholly or mainly of black-and-white ocelli, distinguishable from other subspecies of *C. pantherinus* by spiny soles of feet, more numerous midbody scale rows and extremely high keels of subdigital lamellae.

**Distribution**

Barrow I., Western Australia.

**Description**

Snout-vent length (mm): 42-94 (67-5). Length of appendages (% SVL): foreleg 24-30 (27.1), hindleg 33-43 (39.0), tail 134-180 (161).

Nasals forming a median suture. Prefrontals usually forming a short to moderately long median suture, occasionally separated very narrowly. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, occasionally 8, rarely 6 (7.2). Palpebrals 9-14 (11.1). Second loreal 0.9-1.7 (1.17) times as wide as high. Upper labials usually 8, rarely 7 or 9 (8.0). Ear lobules 3-10 (6.1), usually subacute. Nuchals 2-4 (2.8). Midbody scale rows 36-40 (38.0). Lamellae under fourth toe 20-26 (22.9), each with an extremely high, fine keel. Plantar scales tubercular (i.e. conical with high sharp apex).

Back and sides dark olive brown, becoming paler and more purplish ventrolaterally, with 10-12 longitudinal rows of black-and-white ocelli and occasionally a black vertebral stripe. Nails dark brown or black.

**Paratypes**

North-west Division: Barrow Island (12894, 45415-38, 45674, 45735).



### *Ctenotus grandis*

*Ctenotus grandis* Storr, 1969, J. Roy. Soc. W. Aust. 51: 100. 38 km ENE of Laverton, W.A. (E.R. & H.L. Pianka).

#### Diagnosis

A very large *Ctenotus*; back with 5-7 dark brown or black stripes on reddish brown ground (adults) or greenish white ground (juveniles); sides dark with pale dots tending to align vertically; second loreal high, pentagonal, with angular apex.

#### Distribution

Northern half of North-west Division, south nearly to the Tropic. Extralimital in Eastern Division of Western Australia and Northern Territory.

#### Description

Snout-vent length (mm): 34-117 (mean 90.0). Length of appendages (% SVL): foreleg 23-29 (25.6), hindleg 37-48 (41.1), tail 152-201 (183).

Nasals narrowly separated or forming a short median suture. Prefrontals usually forming a median suture, occasionally narrowly separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 6-9 (8.0). Palpebrals 9-12 (11.0). Second loreal 0.8-1.8 (1.24) times as wide as high. Upper labials usually 8, occasionally 9 (8.1). Ear lobules 4-7 (5.8). Nuchals 2-5 (3.2). Midbody scale rows 34-38 (36.2) on Barrow Island, 32-35 (33.3) on mainland. Lamellae under fourth toe 19-27 (23.4), smooth or weakly callose.

#### Material

North-west Division: Mundabullangana (17293); Balmoral (28727); Tambrey (20006); Abydos (10804); Woodstock (13093, 13234, 27860-1, 28725); Meentheena (46166-7); North West Cape (28726, 31434); Yardie Creek (13210); Marrilla (5341); 23 km SW of Winning Pool (36103); Barrow Island (28455-6, 40028, 45361).

### *Ctenotus robustus*

*Ctenotus robustus* Storr, 1970, J. Roy. Soc. W. Aust. 52: 100. 'Barrow Creek', N.T. (W.B. Spencer & F.J. Gillen).

#### Diagnosis

A very large member of the *lesueurii* group, usually with a very wide black vertebral stripe and 7 upper labials. Further distinguishable from *C. inornatus* by more numerous nuchals (usually 3 or 4 rather than 2 or 3) and third supraciliary usually not much smaller than second.

#### Distribution

Northern half of Kimberley Division, south to the King Leopold Range

and Lake Argyle. Extralimital in Northern Territory, South Australia and eastern Australia.

### Description

Snout-vent length (mm): 39-123 (85.3). Length of appendages (% SVL): foreleg 22-31 (25.9), hindleg 38-47 (41.9), tail 148-223 (191).

Nasals in short contact or narrowly separated. Prefrontals usually in contact (usually short), occasionally separated very narrowly. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 8-11, mostly 10 (9.6), fourth to penultimate much smaller than others and often hidden by strong brow. Palpebrals 10-13 (11.5). Second loreal 1.2-2.1 (1.65) times as wide as high. Upper labials usually 7, occasionally 8 (7.1). Ear lobules 2-5 (3.9), usually obtuse or subacute in juveniles and subadults, and truncate in adults. Nuchals 2-5 (3.4). Midbody scale rows 28-36 (29.8). Lamellae under fourth toe 17-23 (20.2), each with a wide callus (narrower in juveniles).

Dorsally and laterally brown. Broad black vertebral stripe, beginning narrowly on nape and ending on anterior quarter of tail, about as wide as a paravertebral scale, usually edged with white. White dorsolateral line from temples to distal quarter of tail. Upper lateral zone dark brown with one or two series of white dots or short dashes. Narrow white midlateral stripe from lores nearly to end of tail, sometimes broken on side of body into series of short dashes. Lower lateral zone brown, spotted with white.

### Geographic variation

At Lake Argyle (but not elsewhere on the Ord) the colour pattern is not so well developed as described above. The vertebral stripe is not so dark or wide and is not or indistinctly pale-edged. The pale dorsolateral and midlateral stripes are not so distinct and are less extensive. The upper and lower lateral zones are with or without brownish white flecks.

Ord River specimens differ in their lower midbody scale count (28-30 *vs* 32-36 elsewhere) and high frequency of separated nasals (9 out of 12 specimens *vs* one out of 8 elsewhere).

### Material

Kimberley Division: Mitchell Plateau (43189-92); Prince Regent River Reserve, 15° 47'S, 125° 20'E (46899); 16 km ESE of Kuri Bay (40392); Moll Gorge (32285); Mt Bell (32266); Kimberley Research Station (22362); Lake Argyle (45552-7, 45560-6); Top Springs (29309).

### *Ctenotus lesueurii*

*Lygosoma lesueurii* Duméril & Bibron, 1839, *Erpétologie générale* 5: 733. New Holland (F. Péron & C.A. LeSueur). For designation of lectotype, see Storr (1974: 88).

*Tiliqua australis* Gray, 1839, Ann. Nat. Hist. 2: 291. Australia. For designation of neotype, see Storr (1974: 88).

### Diagnosis

A large, long-tailed, long-legged member of the *lesueurii* group, distinguishable from other members by bolder and more complex colour pattern, fewer midbody scale rows and more numerous subdigital lamellae. Further distinguishable from members of the *inornatus* subgroup (*C. fallens*, *severus*, *helenae* etc.) by more numerous nuchals (usually 4, vs seldom more than 3).

### Distribution

Coasts and islands of the North-west Division south of the Tropic. Extralimital in South-west Division of Western Australia.

### Description

Snout-vent length (mm): 38-93 (73.5). Length of appendages (% SVL): foreleg 24-35 (27.7), hindleg 40-59 (48.8), tail 219-267 (244).

Nasals separated, usually widely. Prefrontals in contact. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, occasionally 8 (7.2). Palpebrals 10-13 (11.8). Second loreal 1.2-2.1 (1.66) times as wide as high. Upper labials usually 8, occasionally 9 (8.2). Ear lobules 4-6 (4.8), obtuse in juveniles, acute or subacute in adults, third usually largest. Nuchals 3-5 (4.1). Midbody scale rows 24-26 (24.4). Lamellae under fourth toe 23-28 (25.2), smooth or widely callose in adults, more compressed and narrowly callose in juveniles.

Ground colour of adults pale brown or brownish grey. Narrow to moderately wide black vertebral stripe from nape to base of tail, margined with white or brownish white (margins extending forward on to head, following outer edge of frontoparietals and frontal). Inner edge of black laterodorsal stripe margined with white. White dorsolateral line from temples to about middle of tail. Black upper lateral zone with two series of white dots or short dashes. White midlateral stripe fairly wide on tail, narrower on body, and breaking up behind foreleg into a series of dark-edged obliquely vertical bars extending forward to upper lip. Lower lateral zone blackish, dotted white (dots tending to clump into vertical bars). Limbs pale brown, longitudinally striped with dark brown.

Juveniles blackish brown marked with white as follows: on each side a paravertebral line and dorsolateral line (which may break up into a series of spots) and between them a dorsal line; a midlateral stripe, anteriorly breaking up into a series of spots; remainder of flanks with large spots, sometimes so close together ventrolaterally as to leave only a fine black reticulum.

### Material

North-west Division: Carnarvon (NMV D1476); Carrarang (39020); Bernier Island (13205, 13207, 34088); Dorre Island (13201, 46525); Dirk Hartog

Island (45813, 45815); holotype (Paris 1892); paralectotype (Paris 1892a).

### *Ctenotus alleni*

*Ctenotus alleni* Storr, 1974, J. Roy. Soc. W. Aust. 56: 89. 18 km N of Galena, W.A. (N.T. Allen).

#### Diagnosis

A member of the *lesueurii* group without vertebral stripe, distinguishable from *C. severus* by narrower black laterodorsal stripe and contact between white dorsolateral stripe and black of upper lateral zone; further distinguishable from *C. severus* (and other members of the *inornatus* sub-group) by more numerous nuchals and subdigital lamellae. Distinguishable from the superficially similar *C. mimetes* by wider subdigital lamellae and smaller pale upper lateral spots.

#### Distribution

Far south-west of North-west Division, north nearly to Shark Bay. Extralimital in South-west Division of Western Australia.

#### Description (based on all available specimens).

Snout-vent length (mm): 67-87 (76.2). Length of appendages (% SVL): foreleg 24-28 (25.1), hindleg 44-52 (48.0), tail 208-264 (248).

Nasals separated (usually narrowly). Prefrontals forming a median suture (usually short). Supraoculars 4, first 3 in contact with frontal, second wider than first and much wider than third. Supraciliaries 6-8 (7.0). Palpebrals 10-13 (11.7). Second loreal 1.3-1.9 (1.58) times as wide as high. Upper labials 8. Ear lobules 3-6 (5.0). Nuchals 3-5 (3.9). Midbody scale rows 24-28 (26.2). Lamellae under fourth toe 27-34 (28.9), slightly compressed and moderately widely callose.

Dorsally olive brown to reddish brown, with or without a dark median line on nape. Black laterodorsal stripe usually narrow. White dorsolateral stripe becoming pale brown as it extends forward to orbit and back on to tail. Black upper lateral zone marked with white and pale reddish brown; pale dots and short dashes usually arranged in 2-3 longitudinal rows but sometimes forming into a series of circular clusters. White midlateral stripe extending back nearly to end of tail and usually forward to lores. Lower lateral zone blackish brown with one or two series of white dots or short dashes. Limbs pale reddish brown, streaked with blackish brown.

#### Material

North-west Division: Hamelin Pool (47699).

South-west Division: 18 km N of Galena (33602); 32 km NE of Yuna (26499); 30 km SE of Yuna (47738-40); 29 km N of Tenindewa (47736-7).

## *Ctenotus inornatus*

*Hinulia inornata* Gray, 1845, Catalogue of the lizards in the British Museum, p. 78. 'Swan River' [probably in error for Port Essington, Northern Territory].

### Diagnosis

A member of the *lesueurii* group, *inornatus* sub-group, with conspicuous white dorsolateral line but other elements of pattern tending to disappear with age, especially dark vertebral stripe (which may be absent or reduced to a line on nape and fore-back). Further distinguishable from *robustus* by more numerous labials (usually 8 *vs* usually 7), fewer nuchals (usually 2 or 3 *vs* 3 or 4), and third supraciliary usually much smaller than second.

### Distribution

Kimberley Division, excluding extreme south but including numerous continental islands from Sir Graham Moore south-west to Koolan. Extralimital in Northern Territory and Queensland.

### Description

Snout-vent length (mm): 29-95 (70.0). Length of appendages (% SVL): foreleg 19-33 (24.4), hindleg 33-54 (42.0), tail 180-298 (231).

Nasals usually separated, occasionally in short contact. Prefrontals forming a median suture (occasionally just touching or very narrowly separated). Supraoculars normally 4, first 3 in contact with frontal, first much narrower than second and occasionally fused to it. Supraciliaries 7-11, mostly 8 or 9 (8.8), third (rarely fourth) to penultimate much smaller than others and often hidden by moderately strong brow. Palpebrals 9-14 (11.1). Second loreal 0.8-1.9 (1.24) times as wide as high. Upper labials 8 (rarely 7 or 9). Ear lobules 3-7 (5.2), usually obtuse in juveniles and subacute in adults. Nuchals usually 2 or 3, occasionally 4, rarely 1, mean 2.6. Midbody scale rows 26-35 (31.6). Lamellae under fourth toe 16-26 (20.9), slightly compressed and widely callose.

Head and back moderately dark brown or olive brown, becoming pale on distal half of tail. Blackish vertebral stripe variably but usually poorly developed, e.g. absent or represented by a line on nape and fore-back or a faint narrow stripe from nape to base of tail with little or no indication of pale edge. Narrow white dorsolateral stripe extending forward to or nearly to level of ear aperture and backward to base of tail (on which it becomes browner and wider), narrowly and indistinctly margined above with blackish. Indistinct whitish or pale grey midlateral stripe of variable width and discernibility, becoming wider, browner and dark-edged on tail. Remainder of sides brown, flecked or mottled with greyish white and blackish brown.

### Material

Kimberley Division: Anjo Point (44072); Kalumburu (27829-41, 27857,

40496, 40502-3); King Edward River (28195-6, 28210-2); Crystal Creek, Port Warrender (43002-26, 43030-8, 43048-61); Surveyors Pool, Mitchell Plateau (43122, 43128, 43135, 43138); Amax Camp, Mitchell Plateau (41262, 43182-3, 43231-3, 43266, 43345); Careening Bay (44000-2); Prince Regent River Reserve (46695, 46785, 46799, 46801-8, 46820-1, 46846, 46857, 46897, 46902, 46927-8, 46938-9, 46951, 46960, 46968, 46970, 46975-6, 46978, 46999, 47002, 47011, 47013-4); Secure Bay (27824); Wotjulum, Yampi Sound (11210-2); Mt Hart (24069-70); Inglis Gap (27828); Manning Creek (32302-4, 45072); Forrest River Mission (AM 14204, 26970); Wyndham (32356); Parys Creek (27826-7); Ninbing (27823); Kimberley Research Station (22354); 45 km SE of Kununurra (23129); Lake Argyle (12341, 42730, 42735-6, 42748, 42755, 42759, 42773, 42888-9, 45439-58, 45474-549); White Mountain, Ord River Station (37008-9); Mary River, 112 km SW of Halls Creek (AM 38672); Louisa Downs (46055); 25 km E of Bohemia Downs (23051); 56 km SSW of Christmas Creek (45982-3); 80 km SSW of Christmas Creek (45993); 25 km SE of Gogo (23040-2); St George Range (32137-40, 32309); Noonkanbah (13478); Mt Anderson (27821-2, 32090-2); Langey Crossing (23016-7); Lombadina (46412); 11 km E of Lombadina (46445); Coulomb Point (40271-2); Broome (14067, 14110, 28242, 31198); Injudinah Swamp (46494); Lagrange (27798-803, 45780-6); Frazier Downs (45991-2); Sir Graham Moore Is (44008-11, 44038-42, 44063-7); South-west Osborne I. (44113); Fenelon I. (40499-501); Katers I. (41471-2, 41481-6); Wollaston I. (41464-5); East Montalivet I. (41459-61); Bigge I. (41439-40); Maret Is (41458); Boongaree I. (44080-3, 44093-4); Coronation Is (40460-3, 41411-3, 41420); Uwins I. (44133); Augustus I. (40446, 41287-94, 41319, 41911); Heywood Is (40450, 41320-66, 41398, 41402-7); Byam Martin I. (44154-6); Champagne I. (41434, 41912); Wood Is (44166-8, 44176-9); Koolan I. (37766, 45052-3).

### *Ctenotus fallens*

*Ctenotus fallens* Storr, 1974, J. Roy. Soc. W. Aust. 56: 88. 18-km SSE of Kalbarri, W.A. (L.A. Smith).

#### Diagnosis

A member of the *lesueurii* group, *inornatus* sub-group, with well-developed black vertebral stripe and white dorsolateral line, distinguishable from *C. lesueurii* by more numerous midbody scale rows, fewer nuchals and subdigital lamellae, and duller, less complex colour pattern, e.g. no white dorsal line between white paravertebral and dorsolateral lines.

#### Distribution

Extreme south-west of Kimberley Division; greater part of North-west Division, except southern interior south of the middle Gascoyne and upper

Ashburton (which is occupied by the closely related *C. severus*); also numerous islands from Depuch south to Dirk Hartog. Extralimital in South-west Division of Western Australia.

### Description

Snout-vent length (mm): 32-101 (70.3). Length of appendages (% SVL): foreleg 20-31 (24.8), hindleg 33-52 (42.0); tail 177-268 (220).

Nasals usually separated (usually narrowly), occasionally in short contact. Prefrontals usually forming a median suture; rarely separated and then very narrowly. Supraoculars 4, first 3 in contact with frontal (one specimen with first fused to second). Supraciliaries usually 7 or 8, rarely 9, very rarely 6, mean 7.5, third or fourth to penultimate usually much smaller than others and sometimes hidden by moderately strong brow. Palpebrals 9-14 (10.9). Second loreal 0.8-2.2 (1.42) times as wide as high. Upper labials usually 8 (92% of specimens), rarely 9, very rarely 7, mean 8.0. Ear lobules 3-7 (4.9). Nuchals usually 2 or 3 (92% of specimens), rarely 4, very rarely 1 (except at Ningaloo, where all three specimens have only 1), mean 2.6. Midbody scale rows 26-36 (30.5). Lamellae under fourth toe 17-25 (21.5).

Dorsal ground colour olive green, brown or blackish. Moderately wide black vertebral stripe from nape to tail (on which it is paler), edged with white or brownish white, which in turn is usually narrowly edged with black. White dorsolateral line from nape to tail (on which it is suffused with brown), sometimes extending indistinctly forwards to supraoculars, margined above and below with black. Upper lateral zone bearing a series of pale blotches or large spots. White midlateral stripe from behind axilla to tail, edged above and below with black.

### Geographic variation

The above colour description applies to northern specimens, south to Cape Range, Hamersley Range and the sources of the Oakover. At Ningaloo, Ullawarra and Mt Newman and south thereof, colour pattern is reduced: the vertebral stripe is narrower, and its white margin usually lacks a black edge; and the pale midlateral stripe is often narrow and indistinct. These somewhat sparse and scattered southern populations also differ in scutellation: (1) the first supraocular is not quite so narrow relative to the second; (2) because the second and third supraciliaries are seldom fused, it is the fourth (rather than the third) that is the anteriormost of the small supraciliaries; (3) the disparity between small and large supraciliaries is not so marked as in the north; (4) supraciliaries average fewer in number (despite the infrequency of fusion); (5) the second loreal is relatively wider; (6) ear lobules are fewer; and (7) nuchals are fewer.

### Material

Kimberley Division: Anna Plains (27825); Mt Phire (27796-7).

North-west Division: Bulgamurgurdy Soak, 70 km SE of Wallal (36146);

52 km E of Port Hedland (46499); Port Hedland (24906); Mundabullangana (17170-3, 17177); 30 km SE of Mundabullangana (17077); Point Samson (14578); Balmoral (45788-9); Onslow (45790); Mt Herbert (17180-3, 20116, 20121-2); Tambrey (20114, 20119-20, 20123, 37707-8); Coolawanyah (20113, 20118); Hooley (34732); Wittenoom Gorge (29105, 37489); Yampire Gorge (17184-5, 37735); Dale Gorge (13129, 17186-7); Woodstock (13091-2, 13094, 13319, 17169); Shaw River (17167-8); Mt Edgar (17133-65); Meentheena (13209, 46179); Ragged Hills (13208); Ripon Hills (13244); Mosquito Creek (13243); Warrawoona (26693); Nullagine (37978); Cockeraga River (36558, 36746); Coondra Coondra (42287-9, 42296); Mt Newman (25177-8, 25194, 26531); 25 km SSE of Glenflorrie (25244); 44 km WNW of Ullawarra (25245-7); Kookhabinna Gorge, Barlee Range (25267); North-west Cape (17194, 22501-3); Exmouth (31410, 43821); Cape Range (16998, 25098); Yardie Creek (27807-9); 65 km S of Yardie Creek (27806); Ningaloo (16880-2); 15 km N of Cardabia (32599); Quobba Point (32588); gorge ca 30 km W of Mt Vernon (22819); Kumarina (23945-8, 23950-1, 25193); Carrarang (39023); 37 km E of Tamala (23876); Depuch I. (14555-6); Legendre I. (14333-5, 37324-6); Dolphin I. (14278, 14288, 37284-91); Angel I. (37257-61); Rosemary I. (37385-92, 40988); West Lewis I. (14503-4, 37336-8); Enderby I. (37348-54); Kendrew I. (41726-8); Hermite I. (37426-40); Lowendall I. (12887-8); Barrow I. (27811-3, 28457, 28669-71, 45383-411); South Double I. (27816-20, 45412), Sandy I. (27810); North Pascoe I. (42283); South Pascoe I. (45364-82); Thevenard I. (27814-5); South Murion I. (37242-4); Bernier I. (13203-4, 13206, 19983, 34095-6); Dorre I. (13200, 13202, 46524); Dirk Hartog I. (42358-61, 45812, 45814).

#### *Ctenotus severus*

*Ctenotus severus* Storr, 1969, J. Roy. Soc. W. Aust. 51: 101, Galena, W.A. (G.M. Storr).

#### Diagnosis

A member of the *lesueurii* group, *inornatus* sub-group, with vertebral stripe faint, short or absent; dark laterodorsal stripe very wide; and conspicuous white dorsolateral line separated from dark upper lateral zone by narrow hiatus of dorsal ground colour.

#### Distribution

Southern half (mainly interior) of North-west Division, north to Warroora, Landor, Belele and Lake Austin. Extralimital in South-west and Eastern Divisions of Western Australia.

#### Description

Snout-vent (mm): 44-90 (70.7). Length of appendages (% SVL): foreleg 19-27 (24.2), hindleg 34-47 (42.6), tail 196-248 (217).



Nasals usually separated (86% of specimens), occasionally just touching or forming a median suture. Prefrontals usually forming a median suture (88%), occasionally separated very narrowly. Supraoculars 4, first 3 in contact with frontal, first narrower than second (disparity not so marked as in *inornatus* and northern *fallens*). Supraciliaries usually 7, occasionally 8, rarely 6, mean 7.2, fourth to penultimate markedly to slightly smaller than others. Palpebrals 9-13 (10.7). Second loreal 1.2-2.3 (1.41) times as wide as high. Upper labials usually 8, occasionally 9, mean 8.2. Ear lobules 3-7 (4.9). Nuchals usually 3 (86% of specimens), occasionally 2 or 4, mean 3.0. Mid-body scale rows 28-32 (30.0). Lamellae under fourth toe 18-23 (20.8), smooth or widely callose.

Dorsal ground colour very variable, e.g. greyish, dark olive brown, dark reddish brown or bright pale brown. Obscure dark brown or blackish vertebral line, usually present only on neck (where very rarely it is narrowly white-edged). Broad dark brown or blackish laterodorsal stripe from occiput to base of tail. Narrower but more conspicuous white dorsolateral stripe from above and behind eye to base of tail, anteriorly and posteriorly suffused with brown. Obscure whitish midlateral stripe from ear to groin, above and below which ground colour is broken by pale dots or small spots of irregular shape and arrangement.

#### Material

North-west Division: Warroora (8214); Landor (2707); Errabiddy (46651-2); 26 km NW of Mileura (28345); Mileura (15773, 15803, 15807, 28340); Belele (7370); Meka (29270); 38 km S of Cue (17191-2); 30 km N of Mount Magnet (34679); Yalgoo (4948); 35 km SW of Yalgoo (17197-8); Gullewa (40848); Burnerbinmah (13970, 13973); Fields Find (17653, 25637, 30835-7); Warriedar (29753); 29 km N of Paynes Find (18549); Paynes Find (12530); Pindabunna (12531-2, 17193); 20 km E of Ninghan (34669).

#### *Ctenotus helenae*

*Lygosoma lesueurii concolor* Glauert, 1952, W. Aust. Nat. 3: 169. Marrilla, W.A. (R.A. Anderson). Not *Lygosoma (Rhodona) bipes* var. *concolor* Werner.

*Ctenotus helenae* Storr, 1969, J. Roy. Soc. W. Aust. 51: 100. 38 km ENE of Laverton, W.A. (E.R. & H.L. Pianka).

#### Diagnosis

A greenish member of the *lesueurii* group, *inornatus* sub-group, with little or no colour pattern.

## Distribution

Far south of Kimberley Division; and greater part of North-west Division, south to lat. 27°S. Extralimital in Eastern Division of Western Australia, Northern Territory and South Australia.

## Description

Snout-vent length (mm): 42-101 (72.9). Length of appendages (% SVL): foreleg 19-29 (24.0), hindleg 33-48 (40.6), tail 186-235 (212).

Nasals usually separated (83%), occasionally just touching or forming a median suture (especially on Pilbara plateau). Prefrontals usually forming a median suture (92%), rarely just touching or very narrowly separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, occasionally 8, rarely 6, mean 7.1, fourth to penultimate smaller than others. Palpebrals 9-13 (10.8). Second loreal 1.0-2.2 (1.53) times as wide as high. Upper labials 8 (rarely 7 or 9). Ear lobules 4-7 (5.0). Nuchals 2 or 3 (2.6). Midbody scale rows 26-34 (29.7). Lamellae under fourth toe 17-25 (21.6).

Ground colour greenish brown or olive grey, sometimes completely without pattern but usually with longitudinally orientated whitish and (less frequently) blackish dotting of flanks. In south usually some indication of dark vertebral stripe; less frequently a trace of dark laterodorsal stripe and of pale dorsolateral and midlateral stripes.

## Geographic variation

Generally pattern is more reduced in north than south. However, the specimens entirely without pattern come from the Pilbara plateau, a region notable for other peculiarities, e.g. high frequency of specimens with contiguous nasals and with high number of midbody scale rows (32-34).

## Remarks

Earlier (Storr 1970: 101), before I had examined much western material, I synonymized *concolor* Glauert with *C. inornatus*. I had wrongly supposed that as it moved west and south from the north of the Northern Territory, *inornatus* lost elements of its pattern and gradually merged with *concolor*. On the contrary, pattern in *inornatus* strengthens as it moves west and south, i.e. towards the range of *fallens*. It is now clear that *fallens* (and *saxatilis* of Central Australia) are the southern representatives of *inornatus*. All three forms are primarily inhabitants of rocky or stony country, whereas *helenae* is primarily an inhabitant of sandy deserts. Moreover *inornatus*, *saxatilis* and northern *fallens* have similar supraciliaries, whereas in *helenae* they are like those of *severus* and southern *fallens*.

## Material

Kimberley Division: 146 km E of McLarty Hills (46038); 26 km NE of McLarty Hills (46044-7); Anna Plains (45804).

North-west Division: Wallal (45803); 26 km SW of Mundabullangana (17250); Karratha (17251, 22934); Daniels Well (17252); Tambrey (20235); Marble Bar (11340); Mt Edgar (17248-9); Talawana (39131-4); 26 km NE of Billanooka (40169); Mt Newman (30936); Turee Creek (25139); Marrilla (5049); Winning Pool (36080); near Carnarvon (5340); Yinnietharra (40548); Kumarina (22703); Boolardy (5013).

*Ctenotus youngsoni* sp. nov.

**Holotype**

R42363 in Western Australian Museum collected by Dr A.A. Burbidge in September 1972 on Dirk Hartog Island, Western Australia, in 25° 50'S, 113° 05'E.

**Diagnosis**

A member of the *labillardieri* group with unbroken pale dorsolateral line; most like *lancelini* but with much darker coloration, spotted legs, little or no indication of pale midlateral stripe, and more numerous midbody scale rows.

**Distribution**

Dirk Hartog Island, off lower west coast of North-west Division.

**Description** (based on holotype and single paratype)

Snout-vent length (mm): 48, 51. Length of appendages (% SVL): foreleg 24, 28; hindleg 42, 45.

Nasals narrowly separated. Prefrontals narrowly separated. Supraoculars 4, first 2 in contact with frontal. Supraciliaries 7. Palpebrals 11, 10. Second loreal 1.5 and 1.4 times as wide as long. Upper labials 8. Ear lobules 3, subacute, second largest. Nuchals 3. Midbody scale rows 28, 30. Lamellae under fourth toe 23, 21.

Dorsal and lateral ground colour olive grey. Very broad ragged-edged blackish-brown laterodorsal stripe, obscurely spotted with ground colour, and extending back to proximal quarter of tail where it breaks up into a series of irregular spots. Pale olive dorsolateral line extending back to base of tail. Side of body spotted with blackish brown, spots tending to align vertically. Legs olive brown, spotted with blackish brown.

**Remarks**

Named after Mr W.K. Youngson of the Western Australian Fisheries and Fauna Department (and formerly of the Western Australian Museum), in appreciation of the many reptiles he has collected for the Western Australian Museum.

**Paratype**

North-west Division: Dirk Hartog Island (42362).

*Ctenotus mastigura mastigura* subsp. nov.

**Holotype**

R43210 in Western Australian Museum, collected by Messrs L.A. Smith and R.E. Johnstone on 15 February 1973 on the Mitchell Plateau, Western Australia, in 14° 52'S, 125° 50'E.

**Diagnosis**

A member of the *essingtonii* group with only three supraoculars, smooth subdigital lamellae, and well-defined vertebral stripe. Both subspecies of *C. mastigura* distinguishable from *C. essingtonii* of Northern Territory by more numerous ear lobules (first never largest) and more numerous midbody scale rows.

**Distribution**

Subhumid hinterland of Admiralty Gulf, north Kimberley.

**Description**

Snout-vent length (mm): 55-63. Length of appendages (% SVL): foreleg 23-29, hindleg 44-47, tail 240-303.

Nasals separated. Prefrontals forming a median suture. Supraoculars 3, first 2 in contact with frontal. Supraciliaries 8 or 9. Palpebrals 10. Second loreal 1.0-1.1 times as wide as high. Upper labials 7 or 8. Ear lobules 5-6, subacute. Nuchals 3. Midbody scale rows 29-32. Lamellae under fourth toe 21-23, compressed, smooth.

Dorsally dark iridescent olive-brown. Narrow pale-edged vertebral stripe. Narrow, but bold, white dorsolateral stripe, narrowly edged above and below with black. Upper lateral zone brownish grey. Whitish midlateral stripe, narrowly edged with dark brownish grey.

**Remarks**

An apparently related population occurs on the Arnhem Land Plateau; see Storr (1970: 104) for brief description of unique specimen (USNM 128758) from Oenpelli.

**Paratypes**

Kimberley Division: Mitchell Plateau (43244, 43344).

*Ctenotus mastigura burbidgei* subsp. nov.

**Holotype**

R41296 in Western Australian Museum collected by Dr A.A. Burbidge *et al.* on 12 May 1972 on Augustus Island, Western Australia, in 15° 20'S, 124° 35'E.

### Diagnosis

A member of the *essingtonii* group with four supraoculars, callose lamellae, and vertebral stripe faint or absent.

### Distribution

Subhumid mainland and islands of north-west Kimberley in vicinity of Kuri Bay, north to the lower Roe drainage.

### Description

Snout-vent length (mm): 34-58 (50.0). Length of appendages (% SVL): foreleg 23-29 (26.2); hindleg 43-53 (47.7), tail 238-297 (265).

Nasals narrowly separated or in very short contact. Prefrontals usually in contact. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 9 or 10 (9.5), third (occasionally fourth) to penultimate much smaller than others. Palpebrals 10-13 (10.9). Second loreal 1.0-1.5 (1.28) times as wide as high. Upper labials 8. Ear lobules 4-6 (5.0), obtuse or subacute, second or third usually largest (never first). Nuchals 2-6 (3.5). Midbody scale rows 27-34 (31.5). Lamellae under fourth toe 22-31 (24.5), compressed, each with a narrow or wide callus.

Dorsally yellowish brown, olive brown, or olive grey. Usually no trace of vertebral stripe. Narrow white dorsolateral stripe, narrowly edged above with black. Upper lateral zone greyish brown with or without a series of pale circular or squarish spots. Pale midlateral stripe narrow or indistinct.

### Remarks

Named after Dr Andrew A. Burbidge of the Western Australian Fisheries and Fauna Department.

### Paratypes

Kimberley Division: Prince Regent River Reserve (46583, 46696, 46698-705, 46852, 46867, 46966, 46988, 47009); 18 km E of Kuri Bay (40426); Augustus I. (40447, 41297-8); largest of Heywood Is (40451).

### *Ctenotus mimetes*

*Ctenotus mimetes* Storr, 1969, J. Roy. Soc. W. Aust. 51: 103. 20 km E of Paynes Find, W.A. (D.A. Richards).

### Diagnosis

A moderately large member of the *leonhardii* group; back brown and unpatterned between narrow, unspotted black laterodorsal stripes. Further distinguishable from *C. uber* and *C. leonhardii* by white midlateral stripe extending forward to lores and by upper lateral zone enclosing a series of large pale red squarish blotches rather than 1-3 series of whitish dots. Distinguishable from the superficially similar *C. severus* and *C. alleni* by toes

laterally compressed with subdigital lamellae narrowly callose or obtusely keeled.

#### Distribution

Southern interior of North-west Division north to the Ashburton. Extralimital in South-west Division.

#### Description

Snout-vent length (mm): 53-73 (63.7). Length of appendages (% SVL): foreleg 25-27 (25.8); hindleg 50-56 (52.6); tail 193-280 (234).

Nasals separated. Prefrontals forming a median suture or very narrowly separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 5-8 (7.0). Palpebrals 11-13 (12.0). Second loreal 1.1-1.6 (1.32) times as wide as high. Upper labials 8. Ear lobules 3 or 4 (3.7). Nuchals 3 or 4 (3.5). Mid-body scale rows 26-32 (28.5). Lamellae under fourth toe 23-28 (25.8).

#### Material

North-west Division: Wyloo (13211); 68 km SW of Youanmi (19119); 70 km NE of Paynes Find (ERP 10006); 20 km E of Paynes Find (17991).

#### *Ctenotus uber uber*

*Ctenotus uber* Storr, 1969, J. Roy. Soc. W. Aust. 51: 102. 35 km SE of Yalgoo, W.A. (P.J. Fuller).

#### Diagnosis

A member of the *leonhardii* group with white midlateral stripe completely absent and black laterodorsal stripe enclosing a series of pale spots. Further distinguishable from *C. leonhardii* by weak development of vertebral stripe and nasals usually separated rather than forming a median suture.

#### Distribution

Central and southern interiors of North-west Division north to the Fortescue. Extralimital in Eastern and Eucla Divisions of Western Australia.

#### Description

Snout-vent length (mm): 40-70 (57.2). Length of appendages (% SVL): foreleg 22-31 (26.6), hindleg 44-58 (50.5), tail 191-238 (211).

Nasals separated (just touching in one specimen). Prefrontals usually separated (83% of specimens), occasionally forming a short median suture. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 7 or 8 (7.3). Palpebrals 9-14 (11.2). Second loreal 1.0-1.7 (1.34) times as wide as high. Upper labials usually 8, occasionally 9, mean 8.2. Ear lobules 4-9 (5.2). Nuchals usually 4, occasionally 2 or 3, mean 3.7. Midbody scale rows 30-34

(31.6). Lamellae under fourth toe 23-27 (24.7), each with a dark obtuse keel or narrow callus.

Dorsally brown or pale greenish brown. Dark vertebral stripe poorly developed (at best very narrow, unmarginated, and extending only to base of tail; at worst barely discernible or confined to nape). Blackish laterodorsal stripe enclosing a series of pale brown spots. White dorsolateral line sometimes broken into a series of short dashes. Blackish or dark reddish brown upper lateral zone enclosing 2 or 3 longitudinal series of white dots or short dashes, sharply separated from pale reddish brown lower lateral zone.

#### Material

North-west Division: Coolawanyah (13286); Koordarrie (30334); 18 km SW of Winning Pool (36112); Yinnietharra (40537-42); Jiggalong (13341, 25118); Gnows Nest, 35 km SE of Yalgoo (17654, 26349).

#### *Ctenotus militaris* sp. nov.

#### Holotype

R40779 in Western Australian Museum collected by Mr W.H. Butler on 19 September 1971 at Lake Argyle, Western Australia, in 16° 25'S, 128° 40'E.

#### Diagnosis

A moderately small member of the *leonhardii* group with 5 dark dorsal stripes and no white midlateral stripe; nasals in contact; prefrontals usually separated.

#### Distribution

East Kimberley, on or near the Ord.

#### Description

Snout-vent length (mm): 39-65 (50.8). Length of appendages (% SVL): foreleg 23-31 (26.7); hindleg 42-59 (50.4), tail 192-246 (217).

Nasals forming a median suture. Prefrontals separated (in very short contact in one specimen). Supraoculars normally 4 with 3 contacting frontal (5 with 4 in one specimen). Supraciliaries 6-8 (7.1). Second loreal 1.0-1.6 (1.23) times as wide as high. Upper labials 8 (7 in one specimen, 9 in another). Ear lobules 3-7 (5.1), subacute, obtuse or truncate. Nuchals 2-5 (3.6). Midbody scale rows 30-40 (only one specimen with more than 35; mean 32.4). Lamellae under fourth toe 20-25 (22.4), compressed, each with a brown obtuse keel.

Dorsally pale brown, darker and greyer on head. Narrow blackish or dark brown vertebral stripe from nape to base of tail. On each side two blackish

or dark brown dorsal lines, the outer (laterodorsal) margined below by white or pale brown dorsolateral line. Upper lateral zone reddish brown with 1-3 series of whitish dots or short dashes. Lower lateral zone pale greyish brown. Limbs pale brown longitudinally striped with dark brown.

#### Paratypes

Kimberley Division: Wyndham (13619); Lake Argyle (40767-8, 42681-8, 42747, 42834, 42893, 42901-2, 45558); Lissadell (11779).

#### *Ctenotus leonhardii*

*Lygosoma (Hinulia) leonhardii* Sternfeld, 1919, *Senckenbergiana* 1: 79.  
Hermannsburg, N.T. (M. von Leonhardi).

#### Diagnosis

A moderately large member of the *leonhardii* group with well-developed dark vertebral stripe, a dark laterodorsal stripe (usually unspotted) but no other dark dorsal stripe; white midlateral stripe not extending to lores; nasals usually contiguous; prefrontals usually separated.

#### Distribution

North-west Division between lat. 22° 30' and 27° 30'S. Extralimital in Eastern Division of Western Australia, Northern Territory and South Australia.

#### Description

Snout-vent length (mm): 29-76 (60.7). Length of appendages (% SVL): foreleg 21-34 (26.4), hindleg 44-58 (49.4), tail 173-235 (212).

Nasals usually forming a median suture (73% of specimens), occasionally separated or just touching. Prefrontals usually separated (86%), occasionally in short contact. Supraoculars normally 4 with 3 contacting frontal (5 with 4 in one specimen). Supraciliaries usually 7 (86%), occasionally 8, rarely 6, mean 7.1. Palpebrals 9-13 (10.3). Second loreal 1.0-1.8 (1.34) times as wide as high. Upper labials 8. Ear lobules 3-6 (4.6). Midbody scale rows 26-31 (28.2). Lamellae under fourth toe 21-29 (25.3), compressed, each with a narrow dark brown callus.

Dorsally brown to blackish brown. Narrow dark vertebral stripe, edged with pale brown. Dark laterodorsal stripe of variable width, rarely enclosing a series of white spots or short dashes, margined below by whitish dorsolateral stripe. Dark brown upper lateral zone enclosing 2-3 longitudinal series of pale dots. Whitish midlateral stripe moderately well developed posteriorly but often breaking up into a series of spots before reaching forward to level of arm, occasionally reaching forward to ear aperture.



## Material

North-west Division: 26 km N of Minilya (36093, 36108-10, AM 38705); Booloogooroo (45796); 40 km N of Carnarvon (36086); Talawana (39135, 42227, 42242-6); Jiggalong (13340, 13354-7, 17282, 25119-20); Murramunda (40179); Mt Newman (25195, 26530, 30937); Turee Creek (25141); 37 km NW of Mt Vernon (25243); Kumarina (23949); 26 km NW of Mileura (28344); Mileura (15774-8, 15804-6); 15 km N of Meekatharra (17188); Nannine (17189-90); Big Bell (31496-7, 31509).

*Ctenotus serventyi* sp. nov.

## Holotype

R46000 in Western Australian Museum, collected by Messrs L.A. Smith and R.E. Johnstone in April 1974 at Christmas Creek, Western Australia, in 18°53'S, 124°53'E.

## Diagnosis

A very small member of the *leonhardii* group with 5 dark stripes on back and white midlateral stripe extending forward to lores; nasals and prefrontals usually contiguous.

## Distribution

South of Kimberley Division, and north-west coastal plains and islands of North-west Division.

## Description

Snout-vent length (mm): 31-57 (43.6). Length of appendages (% SVL): foreleg 23-33 (27.8), hindleg 39-53 (47.6), tail 201-254 (227).

Nasals contiguous (79% of specimens) or separated (usually narrowly). Prefrontals contiguous (75%) or narrowly separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 6-9, usually 7, mean 7.1. Palpebrals 8-12 (9.8). Second loreal 0.9-1.6 (1.14) times as wide as high. Second pre-subocular small, often fused to first. Upper labials 8. Ear lobules 3-7 (4.6). Nuchals 1-5 (3.5). Midbody scale rows 24-28 (26.0). Lamellae under fourth toe 18-24 (21.2), compressed, each bearing a dark brown or black obtuse keel or narrow callus.

Dorsally pale brown, more reddish on head, more greenish or greyish on back, more buffy on tail. Narrow black vertebral stripe from nape to base of tail, edged with brownish white. Narrow dark dorsal stripe between vertebral and laterodorsal stripes, fading to pale brown with age. Narrow white dorso-lateral stripe from last supraocular to middle of tail or beyond. Upper lateral zone dark brown with 1 or 2 longitudinal series of brownish white dots or

short dashes. Narrow whitish midlateral stripe from lores to proximal quarter of tail. Narrow lower lateral zone pale brown. Limbs pale brown, longitudinally striped with dark brown. Under surface lustrous white (under tail occasionally suffused with pink).

#### Remarks

Named after Dr Dominic L. Serventy in recognition of his services to the natural history of Western Australia.

#### Paratypes

Kimberley Division: Christmas Creek HS (45995-9, 46001-22); presumably Derby (20331-2); Lagrange (46211).

North-west Division: Mundabullangana (17175-6, 17280); Cossack (17178-9); Legendre I. (14338, 14358); Rosemary I. (14530); Surf Point, Barrow I. (45414).

### *Ctenotus decaneurus decaneurus*

*Ctenotus decaneurus* Storr, 1970, J. Roy. Soc. W. Aust. 52: 104. 34 km NW of Newry, N.T. (G.M. Storr & A.M. Douglas).

#### Diagnosis

A very small member of the *taeniolatus* group with 10 (8 when ventrolateral missing) whitish stripes and lines on a black or blackish-brown ground. Distinguishable from all subspecies of *C. quattuordecimlineatus* by separated prefrontals and absence of white upper lateral lines between white dorso-lateral and midlateral stripes.

#### Distribution

North and north-east Kimberley. Extralimital in Northern Territory.

#### Description (based on all material)

Snout-vent length (mm): 25-47 (37.5). Length of appendages (% SVL): foreleg 24-30 (27.1), hindleg 38-48 (43.0), tail 171-232 (196).

Nasals in short to moderately long contact. Prefrontals separated (in short contact in one specimen). Supraoculars 4, first 3 in contact with frontal. Supraciliaries 7 or 8 (7.6). Palpebrals 8-10 (9.1). Second loreal 1.2-1.9 (1.48) times as wide as high. Upper labials 7 or 8 (7.3). Ear lobules 3-6, obtuse, very small (except in Darwin area). Nuchals 2-5 (3.7). Midbody scale rows 24-26 (25.7). Lamellae under fourth toe 20-24 (21.5), each with a narrow to moderately wide dark callus.

On each side a brownish-white paravertebral line, a narrow dorsolateral stripe, and between them a dorsal line; white midlateral stripe, extending forward to lores after looping above ear aperture; and white ventrolateral stripe (occasionally indistinct or absent).

#### Geographic variation

The three specimens from the Darwin region differ from other specimens in having the uppermost ear lobule very much larger than others.

#### Material

Kimberley Division: Michell Plateau, 14° 52'S, 125° 30'E, (43152, 43162, 43188, 43247, 43526); Lake Argyle, at dam (45559). Northern Territory/Western Australia border in lat. 15° 59'S (23130, 45595-6).

Northern Territory: Darwin area (AM 13005); Berrimah (NTR 233); Tapa Bay, Cox Peninsula (NTR 303).

#### *Ctenotus decaneurus yampiensis* subsp. nov.

#### Holotype

R11795 in Western Australian Museum, collected by Mr A.M. Douglas in 1955 at the former Wotjulum Mission Station, Western Australia, in 16° 11'S, 123° 37'E.

#### Diagnosis

A member of the *taeniolatus* group with 10 whitish lines and stripes on a black ground, distinguishable from *C. d. decaneurus* by its separated nasals and more numerous midbody scales; it also seems to be larger, with relatively longer appendages, and to have more palpebrals.

#### Distribution

Yampi Sound, west Kimberley.

#### Description

Snout-vent length (mm): 46-48. Length of appendages (% SVL): foreleg 25-27, hindleg 46-48, tail 205-241.

Nasals and prefrontals separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 8. Palpebrals 10-12. Second loreal 1.1-1.2 times as wide as high. Upper labials 8. Ear lobules 4 or 5, subacute, second largest. Midbody scale rows 30 or 32. Lamellae under fourth toe 20 or 21, each with a wide dark callus.

Back and sides black; snout and tail pale brown. On each side a greenish-white paravertebral line and dorsolateral line and between them a greenish-white dorsal line; white midlateral stripe extending forward to lores after

looping over ear aperture; and white ventrolateral stripe. Legs pale brown, longitudinally striped with blackish brown.

#### Paratypes

Kimberley Division: Wotjulum (11796-7).

### *Ctenotus quattuordecimlineatus quattuordecimlineatus*

*Lygosoma (Hinulia) quattuordecimlineatum* Sternfeld, 1919, *Senckenbergiana* 1: 80. Hermannsburg, N.T. (M. von Leonhardi).

#### Diagnosis

A large member of the *taeniolatus* group with 14 whitish lines and stripes on a blackish ground (on each side a paravertebral and dorsolateral line and between them a dorsal line; a midlateral and ventrolateral stripe and between them two upper lateral lines).

#### Distribution

Desert sand dunes of far south of Kimberley Division and of far north of North-west Division. Extralimital in Eastern Division of Western Australia, Northern Territory and South Australia.

#### Description

Snout-vent length (mm): 34-68 (46.5). Length of appendages (% SVL): foreleg 23-32 (28.0), hindleg 40-50 (46.4), tail 220-230 (225).

Nasals forming a median suture (very narrowly separated in one specimen). Prefrontals forming a median suture. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, occasionally 6 or 8. Palpebrals 9-11 (10.2). Second loreal 1.2-1.8 (1.44) times as wide as high. Upper labials 8 (9 in one specimen). Ear lobules 3-7 (4.8). Midbody scale rows 26-29 (27.5). Lamellae under fourth toe 23-26 (24.3), compressed, each bearing a dark obtuse keel (juveniles) or moderately narrow callus (adults).

#### Material

Kimberley Division: 80 km SSW of Christmas Creek HS (46028); 146 km E of McLarty Hills (46033-5); 117 km W of McLarty Hills (45904); 37 km E of Mt Phire (46025).

North-west Division: Wallal (45801-2).

### *Ctenotus quattuordecimlineatus iapetus* subsp. nov.

#### Holotype

R27887 in Western Australian Museum, collected by Mr W.H. Butler on 29 July 1963 at 13 km S of North West Cape, Western Australia, in 21°54'S, 114°08'E.

### Diagnosis

A member of the *taeniolatus* group with 12 pale lines and stripes on a dark ground. Distinguishable from *C. q. quattuordecimlineatus* by one (rather than two) pale upper lateral stripes, and from *C. q. atlas* by presence of pale dorsal line between paravertebral and dorsolateral lines.

### Distribution

Coastal plains of North-west Division from the Ashburton south nearly to the Tropic.

### Description

Snout-vent length (mm): 39-59 (48.5). Length of appendages (% SVL): foreleg 25-31 (28.0), hindleg 45-53 (48.7), tail 214-240 (225).

Nasals forming a short median suture. Prefrontals forming a median suture. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 7. Palpebrals 10-13 (11.5). Second loreal 1.2-1.9 (1.47) times as wide as high. Upper labials 8. Ear lobules 2-4 (3.0), acute in adults, obtuse in juveniles. Nuchals 2 or 3 (2.5). Midbody scale rows 25-27 (26.0). Lamellae under fourth toe 25-28 (26.2), each with a dark obtuse keel or narrow to moderately wide callus.

Back and sides black or blackish brown. On each side a white paravertebral and dorsolateral line and a dorsal line between them, a narrow upper lateral stripe, and a wide midlateral and ventrolateral stripe.

### Remarks

In South Australia *C. atlas* and *C. quattuordecimlineatus* seem to intergrade in the Great Victoria Desert (Storr 1971: 10). Now we have a taxon that is intermediate between *atlas* and *quattuordecimlineatus*. All three forms are therefore treated here as subspecies of a single species, the oldest name for which is *C. quattuordecimlineatus*.

### Paratypes

North-west Division: 26 km S of Urala (30324); 30 km E of Ningaloo (16883); 32 km N of Warroora (21776).

### *Ctenotus quattuordecimlineatus atlas*

*Ctenotus atlas* Storr, 1969, J. Roy. Soc. W. Aust. 51: 105. 28 km S of Atley, W.A. (E.R. & H.L. Pianka).

### Diagnosis

A large member of the *taeniolatus* group with 8 or 10 whitish lines and stripes on a blackish ground (on each side a paravertebral and dorsolateral

line. a narrow upper lateral stripe, a wide midlateral stripe, and usually a wide ventrolateral stripe.

#### Distribution

South-eastern quarter of North-west Division. Extralimital in Eastern and Eucla Divisions of Western Australia, South Australia and New South Wales.

#### Description

See Storr (1969: 105, 1971: 9).

#### Remarks

*C. atlas* and *C. quattuordecimlineatus* are now treated as conspecific for the reasons given under *C. q. iapetus* and despite their apparent sympatry at Queen Victoria Spring in the Eastern Division. Queen Victoria Spring is close to the south-western edge of the Great Victoria Desert and presumably also close to the boundary between the two taxa. Though three specimens of *quattuordecimlineatus* and one of *atlas* are labelled Queen Victoria Spring, I suspect that they were collected in different habitats some miles apart.

#### Material

North-west Division: 3 km SE of Turee Creek (25142).

### *Ctenotus piankai piankai*

*Ctenotus piankai* Storr, 1969, J. Roy. Soc. W. Aust. 51: 106. 38 km ENE of Laverton, W.A. (E.R. & H.L. Pianka).

#### Diagnosis

A small member of the *taeniolatus* group with 6 (8 when ventrolateral present) whitish lines and stripes on a black or dark brown ground. Distinguishable from all subspecies of *C. decaneurus* by absence of dorsal line between paravertebral and dorsolateral lines, and from all subspecies of *C. quattuordecimlineatus* by absence of upper lateral stripe between dorso-lateral and midlateral stripe.

#### Distribution

Southern drier half of Kimberley Division, and far north of North-west Division. Extralimital in Eastern Division of Western Australia, Northern Territory and Queensland.

#### Description

Snout-vent length (mm): 29-59 (42.6). Length of appendages (% SVL): foreleg 23-32 (28.2), hindleg 39-52 (45.9), tail 205-260 (226).

Nasals forming a median suture. Prefrontals contiguous or separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7,

occasionally 6, mean 6.8. Palpebrals 8-12 (9.6). Second loreal 1.0-1.7 (1.28) times as wide as high. Upper labials 8 (7 in one specimen). Ear lobules 2-5 (3.6). Nuchals 2-4 (3.4). Midbody scale rows 24-27 (25.0). Lamellae under fourth toe 22-26 (24.4), each with a narrow to moderately wide callus.

#### Material

Kimberley Division: White Mountain, Ord River Station (27131); 10 km SW of Christmas Creek HS (45987-8); 30 km NW of McLarty Hills (45986); Frazier Downs (27884-5); Anna Plains (45805).

North-west Division: Wallal (45797-9).

#### *Ctenotus piankai duricola* subsp. nov.

#### Holotype

R17163 in Western Australian Museum, collected by G.M. Storr and B.T. Clay on 15 February 1961 at Mt Edgar, Western Australia, in 21°19'S, 120°02'E.

#### Diagnosis

A member of the *taeniolatus* group with 6 or 8 pale stripes, distinguishable from *C. p. piankai* by more numerous midbody scale rows and preference for hard, stony country rather than sandy country.

#### Distribution

Northern quarter of North-west Division, south to the Fortescue; also Barrow Island. A possibly different subspecies south of the Hammersley Range.

#### Description

Snout-vent length (mm): 35-60 (47.2). Length of appendages (% SVL): foreleg 23-28 (25.2), hindleg 40-48 (44.1), tail 173-180 (177).

Nasals in contact. Prefrontals narrowly separated or in short contact. Supraciliaries 6 or 7. Palpebrals 8-11. Second loreal 1.1-1.7 (1.42) times as wide as high. Upper labials 8. Ear lobules 3-7 (4.7), acute or subacute. Nuchals 2-5 (3.8). Midbody scale rows 28-31 (29.3). Lamellae under fourth toe 20-23 (21.2), each with a narrow to wide brown callus.

Back and sides reddish brown to blackish brown. On each side a narrow brownish-white paravertebral and dorsolateral stripe, and a slightly wider and whiter midlateral and ventrolateral stripe. Anterior sector of upper lateral zone bearing a series of whitish dots. Limbs pale reddish brown, foreleg spotted and hindleg striped with dark brown.

### Remarks

Our single specimen from south of the Hamersley Range, *viz.* 31010 from Tom Price, is tentatively excluded from *C. p. duricola*. It has 9 upper labials and 27 subdigital lamellae and differs slightly in coloration: its ground colour is black; the whitish paravertebral and dorsolateral lines are markedly narrower than the midlateral stripe; the upper lateral zone does not enclose any pale dots; and there is no ventrolateral stripe.

### Paratypes

North-west Division: Woodstock (12629); Mt Herbert (20117); Pindrina Waters, Tambrey (20115); Barrow Island (45362-3).

### *Ctenotus colletti colletti*

*Lygosoma colletti* Boulenger, 1896, Ann. Mag. Nat. Hist. (6) 18: 234.  
Roebuck Bay, W.A. (K. Dahl).

### Diagnosis

A small brown-tailed member of the *colletti* group with 12 pale stripes on a dark ground. Further distinguishable from *C. calurus* by absence of enlarged plantars and of black markings under toes and tail.

### Distribution

South-west coastal plains of Kimberley Division.

### Description

Snout-vent length (mm): 33-42 (37.1). Length of appendages (% SVL): foreleg 24-27, hindleg 40-45, tail 162-213.

Nasals forming median suture. Prefrontals separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries 6. Palpebrals 9-10. Second loreal 1.3-1.6 times as wide as high. Upper labials 7. Ear lobules 2, first much the larger and very obtuse. Nuchals 3 or 4. Midbody scale rows 26-27. Lamellae under fourth toe 24-25, each with a fine weak keel.

Back and sides dark brown with following brownish white stripes on each side: a narrow paravertebral and moderately narrow dorsolateral and between them two narrow dorsal; a moderately wide midlateral and ventrolateral. Head pale brown marked with dark brown, including a median streak on frontal. Legs pale brown longitudinally striped with dark brown.

### Material

Kimberley Division: holotype (Oslo); Lagrange (27883, 27886).



### *Ctenotus calurus*

*Ctenotus calurus* Storr, 1969, J. Roy. Soc. W. Aust. 51: 107. 38 km ENE of Laverton, W.A. (E.R. & H.L. Pianka).

#### Diagnosis

A small blue-tailed member of the *colletti* group with 8 whitish stripes on a black ground (on each side a narrow paravertebral and dorsolateral and between them a narrow dorsal, and a moderately wide midlateral extending forward to snout). Further distinguishable from *C. colletti* by plantar scales opposite fourth toe enlarged and keeled and by black spots under toes and tail.

#### Distribution

Desert dunes south-east of Exmouth Gulf, North-west Division. Extralimital in Eastern Division of Western Australia and Northern Territory.

#### Description

See Storr (1969: 107).

#### Material

North-west Division: Marrilla (5342).

### *Ctenotus schomburgkii*

*Lygosoma schomburgkii* Peters, 1863, Mber. Akad. Wiss. Berlin 1863: 231. Buchsfeld, S.A. (R. Schomburgk).

*Hinulia muelleri* Fischer, 1882, Arch. Naturgesch. 48 (1): 295. Nickol Bay, W.A. (F. von Mueller).

*Lygosoma fischèri* Boulenger, 1887, Cat. Liz. Brit. Mus. 3: 228. [Based on *Lygosoma muelleri* (Fischer) not *L. muelleri* (Schlegel).]

#### Diagnosis

A strongly patterned member of the *schomburgkii* group with nasals and prefrontals separated; back pale green with black vertebral stripe and latero-dorsal variegations; well-developed white dorsolateral and midlateral stripe; black upper lateral zone broken by a series of narrow reddish 'windows'.

#### Distribution

Greater part of North-west Division, north to Nickol Bay, Woodstock and the upper Oakover. Extralimital in Eastern, South-west and Eucla Divisions of Western Australia, Northern Territory, South Australia and New South Wales.

## Description

Snout-vent length (mm): 25-49 (39.8). Length of appendages (% SVL): foreleg 22-28 (25.5), hindleg 40-54 (47.7), tail 165-197 (183).

Nasals separated. Prefrontals separated. Supraoculars 4, first 3 in contact with frontal. Supraciliaries usually 7, occasionally 6, mean 6.8. Palpebrals 8-11 (9.3). Second loreal 1.4-2.2 (1.72) times as wide as high. Upper labials usually 7, occasionally 8, mean 7.2. Ear lobules 2-3 (2.7), obtuse, first much the largest. Nuchals 3-5 (4.3). Midbody scale rows 24-30 (27.7). Lamellae under fourth toe 21-23 (21.7), each with a fine dark mucronate keel.

Coloration mainly of western type, as described by Storr (1969: 108), but the easternmost specimen (42241) has the back black with four greenish-white lines.

## Material

North-west Division: Woodstock (17281); Talawana (42241); 34 km NNW of Ullawarra (25248); Meekatharra (MCZ 33274); Meka (29270); 13 km E of Wurarga (23325).

## *Ctenotus tantillus* sp. nov.

### Holotype

R45567 in Western Australian Museum collected by Messrs L.A. Smith and R.E. Johnstone on 10 January 1972 at Kununurra, Western Australia, in 15° 42'S, 128° 42'E.

### Diagnosis

A member of the *schomburgkii* group, most like *C. pallescens* of Northern Territory and *C. schomburgkii* but distinguishable from both species by its contiguous nasals.

### Distribution

Northern Kimberley south to about lat. 16° 30'S, including the Sir Graham Moore Islands.

### Description

Snout-vent length (mm): 32-45 (37.2). Length of appendages (% SVL): foreleg 26-30 (27.9), hindleg 39-50 (44.5), tail 148-241 (194).

Nasals forming a short to moderately long median suture. Prefrontals separated. Supraoculars 4, with first 3 contacting frontal (5 with 4 in one specimen). Supraciliaries usually 7, occasionally 6, mean 6.9. Palpebrals 8-10 (9.2). Second loreal 1.0-1.7 (1.43) times as wide as high. Upper labials usually 7, occasionally 8, mean 7.1. Ear lobules 1-4 (2.5), obtuse,

first much the largest. Nuchals 2-5 (3.8). Midbody scale rows 26-30 (27.9). Lamellae under fourth toe 18-23 (20.4), compressed, finely keeled.

Back pale green with or without a dark vertebral and (on each side) dorsal and laterodorsal line. White dorsolateral line, sometimes broken into a series of short dashes. Upper lateral zone black or dark brown, enclosing a series of whitish dots or spots of variable distinctness. White midlateral stripe variable, e.g. it may be well-developed and extending to lores, faint, broken into a series of short dashes, or completely absent. Under surface glossy white.

#### Paratypes

Kimberley Division: Kununurra (45568); Cockatoo Spring, 37 km SE of Kununurra (23127); Grotto Creek, 35 km SSE of Wyndham (26790); Sir Graham Moore Is (44062); Anjo Point (44069-71); Manning Creek (32070).

#### 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.
- STORR, G.M. (1970). The genus *Ctenotus* (Lacertilia, Scincidae) in the Northern Territory. *J. Roy. Soc. W. Aust.* 52: 97-108.
- STORR, G.M. (1971). The genus *Ctenotus* (Lacertilia, Scincidae) in South Australia. *Rec. S. Aust. Mus.* 16 (6): 1-15.
- STORR, G.M. (1974). The genus *Ctenotus* (Lacertilia, Scincidae) in the South-West and Eucla Divisions of Western Australia. *J. Roy. Soc. W. Aust.* 56: 86-93.