

## THE GENUS *MENETIA* (LACERTILIA, SCINCIDAE) IN WESTERN AUSTRALIA

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[Received 1 July 1975. Accepted 1 October 1975. Published 30 September 1976.]

### ABSTRACT

The Australian genus *Menetia* comprises at least five species, three of which occur in Western Australia, namely *M. greyii* Gray, *M. maini* nov. and *M. surda* nov. A lectotype is designated for *M. greyii*.

### INTRODUCTION

Until recently all skinks with an immovable transparent lower eyelid were placed in *Ablepharus*. Fuhn (1969) broke up this polyphyletic assemblage, allotting the Australian species to nine groups, including the genus *Menetia*. Fuhn, and indeed all workers till now, regarded *Menetia* as monotypic. Greer (1974) believes that *Menetia* is derived from the genus *Carlia*.

All the material used in this revision is lodged in the Western Australian Museum.

### Genus *Menetia* Gray

*Menetia* Gray, 1845, 'Catalogue of the specimens of lizards in the collection of the British Museum', p.65. Type-species (by monotypy): *M. greyii* Gray.

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## Diagnosis

Very small, smooth, terrestrial skinks with lower eyelid immovable and bearing a large circular transparent disc incompletely surrounded by granules; digits 4 + 5; first supraocular long and narrow and obliquely orientated.

## Distribution

Most of Australia except the wettest and coolest regions. At least five species, three of them in Western Australia.

## Description

Snout-vent length up to 38 mm. Tail fragile, 1.2-2.0 times as long as snout to vent.

Nasals usually separated widely. No supranasals or postnasals. Prefrontals usually separated very narrowly. Frontal small, little if any larger than prefrontals. Frontoparietal single, much the largest head-shield. Interparietal small to very small. Mostly one pair of nuchals. Supraoculars 1 or 2 (excluding a large upper postocular that could be construed as a supraocular). Supraciliaries 2-4 (excluding a small upper postocular that could be construed as a supraciliary), second largest. Circumocular granules interrupted (or partly hidden) by large second supraciliary. Loreals 2, in horizontal series. Upper labials normally 6, fourth subocular and much the widest. Temporals 3, uppermost largest. Midbody scale rows 18-26. Lamellae under fourth toe 13-24, smooth, callose or feebly keeled.

Generally drab in colour, with little or no pattern except in *M. greyii*.

## KEY

1. First supraocular nearly three times as long as wide; uppermost circumocular granule not enlarged; ear aperture small or minute ... .. 2  
First supraocular about twice as long as wide; uppermost circumocular granule much enlarged; no ear aperture ... .. *M. surda*
2. Second supraciliary much larger than first and in contact with prefrontal; white mid-lateral and dark upper lateral stripe well

developed or only discernible anteriorly ... .. *M. greyii*  
 Second supraciliary a little larger than first  
 and not in contact with prefrontal; no lateral  
 stripes ... .. *M. maini*

*Menetia greyii*

*Menetia Greyii*, Gray, 1845, 'Catalogue of the specimens of lizards in the collection of the British Museum', p.66. W.Australia.

**Diagnosis**

First (and only) supraocular much more than twice as long as wide, and separated from first supraciliary by very large second supraciliary (see Fig. 1). Uppermost circumocular granule not greatly enlarged. Ear aperture minute. Usually some indication (especially anteriorly) of white midlateral and dark upper lateral stripes.

**Distribution**

Greater part of Western Australia from Derby and Lake Argyle south to Nannup, Rocky Gully and Mt Barker (i.e. all but the wettest parts of the State). Extralimital in Northern Territory, South Australia and New South Wales.

**Description**

Snout-vent length (mm): 11-38 (N 326, mean 28.7). Tail up to 1.76 times as long as snout to vent.

Nasals separated, usually widely. Prefrontals usually separated (usually very narrowly, occasionally moderately narrowly); very rarely in short contact. Nuchals usually 1, occasionally 0 or 2, rarely 3 or 4. Supraciliaries 2, second greatly enlarged and usually in contact with prefrontal. Upper labials 6 (rarely 5). Midbody scale rows 20-24 (22 in 74% of specimens, N 191, mean 22.1). Lamellae under fourth toe 13-22, mostly (84%) 17-20 (N 191, mean 18.4).

Dorsally pale to dark olive-grey or olive-brown, usually with obscure dark brown or blackish spots roughly aligned in 2 or 4 longitudinal rows. Broad dark brown or black upper lateral stripe usually present, occasionally margined above by narrow indistinct, pale dorsolateral stripe, and extending forward narrowly through orbit to lores. White midlateral stripe usually present, extending forward as labial streak. Ventral surfaces usually immaculate.

## Geographic variation

In this continuously distributed species much of the variation is clinal. Most clines are from north to south, including

- 1) slight increase in body size
- 2) marked decrease in relative length of tail
- 3) decrease in diameter of ear aperture (in southern specimens a slight depression is more easily discerned than the aperture itself, which tends to be hidden anteriorly by a scale)
- 4) decrease in length of toes and in number of subdigital lamellae
- 5) toes changing from slightly compressed with fine, weakly mucronate subdigital keels in north to cylindrical with narrow to wide subdigital calli in south
- 6) increasing darkness of coloration and obscurity of pattern. First the dark upper lateral stripe becomes narrower on body than in front of forelegs, and the white midlateral stripe becomes increasingly suffused with greyish brown. In the southernmost specimens these stripes are usually discernible only in front of forelegs and even there they tend to be faint and irregular. The lips, chin and under tail become increasingly spotted with dark brown or grey.

Non-clinal variation is exemplified by number of midbody scale rows. Counts of 24 are most frequent in the Perth Metropolitan Area and on Eyre Peninsula (S.A.). Counts of 20 are almost as frequent as 22 in the Northern Territory and northern South Australia.

## Remarks

I am grateful to Mr A.F. Stimson of the British Museum (Natural History) for the loan of five of Gray's syntypes from the series of twenty-five (XI 7a-e), collected in "West Australia" and purchased from a Mr Turner. I hereby designate one of them (1946. 8. 16. 9) as lectotype.

## Material

Kimberley Division (W.A.): Lake Argyle (42917, 49167); Derby (20294).

North-west Division (W.A.): Port Hedland (18470); 10 and 24 km E of Mundabullangana (18465-9); Depuch Island (14558); 32 km S of Marble Bar (22786); Tambrey (20068); N of Wittenoom (37076); near Tom Price (31014); Poonda (27984); Junction Well, Oakover River (42261); 34 km NNW of Ullawarra (25254); Marrilla (5337); Ningaloo (16866); Quobba (32639); islet off Point Charles (18473); Callagiddy (40666); Faure I. (13193); Yaringa (18461, 19049); 14 km W of Hamelin Pool (18472); Mileura (15809, 28341, 40226); 32 km N of Meekatharra (20542); Nannine

(22301); Buntine Reserve (44922); 5 km E of Green Head (49071); Eatha Spring (30°07'S, 115°03'E) (49139-41); 4 km E of Mt Peron (49000); 10 km NE of Cockleshell Gully (22233-4); Cockleshell Gully (49128); 5 km W of Padbury HS (30°10'S, 115°04'E) (49076, 49088-9); 24 km W of Watheroo (25822); Miling (48146); Moora (18457, 25300); Dandaragan (25990); 24 km N of Lancelin (18455); Koorda (7804, 22837); Trayning Reserve, 11 km NE of Kununoppin (46142-3, 46146-7, 46374); Gingin (34104); Chittering East (12835); Julimar Forest (47814); Walyunga (12884); Culham (22458); Toodyay (18435, 36342); Tammin (39086); Northam (29522, 31447); 8 km N of Wanneroo (31451-64); Upper Swan (18453-4); Herne Hill (4778-82); John Forrest National Park (14048); Mundaring (21237); Mundaring Weir (18554, 19828); 8 km E of Kalamunda (19981); Helena Valley (47987-9); Swan View (14085); Guildford (19862, 22856); Mt Lawley (29053); Perth (389, 3417); West Perth (23820); Wembley (14007, 18441-6, 21271, 21641, 39957); Floreat Park (26232); Crawley (18456); Nedlands (14178); Dalkeith (18451); Bentley (32384, 40018); Kenwick (18437-40); Lesmurdie (18447-50, 19668); Bickley Camp (29895); Seaforth (18436); Spearwood (2767); Thompsons Reserve (36563-5); East Rockingham (18452); Boyagin Reserve (41019-24); near Beverley (4506); Tutanning Reserve (21646); Bendering Reserve (43413); Hyden (44891); Wave Rock (48623); Lake Varley (19806-7, 27258); Culeenup I., Yundurup (37750-2, 39161, 42611-2); Banksiadale (34260); Boddington (13606); Dryandra (39008); Yornaning (19752); 20 km SE of Williams (29691); Harris River, near Collie (46393); 5 km SW of Collie (18425); north end of Lake Grace Reserve (44205-6, 44232); Lake Grace south (42605); Lake Chinocup Reserve (43494, 44100-01); 25 km E of Pingrup (39825); Ongerup (34268) and 10 km SE (42628); Nannup (45743, 47399); 10 km W of Rocky Gully (18420-4); 16 km E of Rocky Gully (18416-9); Mt Barker (37971-3); Chester Pass, Stirling Range (18415); middle Fitzgerald River (36878, 36947, 39911); Boondardup River (34°13'S, 119°31'E) (37211).

Eucla Division (W.A.): 112 km NE of Rawlinna (34024); 96 km N of Rawlinna (37050-1); 80 km NNE of Rawlinna (39062-4, 41209, 43588-9); 72 km N of Seemore Downs (25869); Seemore Downs (18462-3, 40193); 8 km N of Rawlinna (26430); 27 km E of Rawlinna (37662-3); 103 km NNE of Loongana (41627); 8 km S of Loongana (29432-7, 34503); 80 km N of Forrest (41621); 16 km NE of Eucla (24592); Wilsons Bluff (43798); Eucla Pass (31073); Eucla (24640-3); Madura Airstrip (29461-3); Cocklebidy (36556-7, 40950); Cardanumbi R.H. (291); 40 km WSW of Caiguna (24672); Balladonia HS (17403-4, 29891) and 19 km SW (17415, 17421); 9 km E of Noondonia (17401-2); 8 km SW of Noondonia (17393); 11 km S of Balladonia Hotel (17387, 17468); 13 km E of Frazer Range (30761); 29 km E of Norseman (18426-7); Norseman (30778-9); Moir Rocks (18406-7); 6 km S of Nanambinia (17429); Toolinna R.H. (45348);

Coragina Rock (18408); Israelite Bay (17618, 18409); 3 km NW of Duke of Orleans Bay (41980); 23 km E of Esperance (18410); 35 km N of Esperance (18411-3); Esperance (13369); Dalyup River (18414).

Northern Territory: 15 km SE of Elliott (24162); 23 km N of Wauchope (24276); 42 km SW of Barrow Creek (24373); 26 km NE of 'Teatree (24378); Aileron (24410-1); Kintore Range (31033); Alice Springs (20905); Hermannsburg (20871-2); Curtin Springs (20815); Ayers Rock (46642); 35 km W of Victory Downs (20930-2).

South Australia: 8 km S of Mt Davies (31706, 44356-8); 17 km S of Mt Davies (31707); Cheesmans Peak (44378-81); 61 km E of Vokes Hill (36651); 27 km E of Emu (36630); 43 km E of Emu (36629); Churina Well, 214 km N of Cook (36654); 10 km N of Kokatha (24501-4); Fowlers Bay (24580-2); Ceduna (25552-3) and 6 km E (24570); Smoky Bay (24531); Kyancutta (25516); Arno Bay (27317); Port Neill (27325); Marree-Birdsville Track (40573); Milurina (44933-4); Etadunna (44935, 44940); Wild Horse Plain (27306); Lower Light (27305); 10 km N of Murray Bridge (27272-4).

New South Wales: 16 km N of Mt Hope (46137).

*Menetia surda* sp. nov.

**Holotype**

R13249 in Western Australian Museum, collected by Mr A.M. Douglas in May 1959 at Budjan Creek, Corunna Downs, Western Australia, in 21°42'S, 119°50'E.

**Diagnosis**

First of two supraoculars not much more than twice as long as wide, and in contact with first supraciliary (see Fig. 1). Uppermost circumocular granule greatly enlarged. No indication of ear aperture or of white mid-lateral stripe.

**Distribution**

Western arid zone of Western Australia from the Pilbara south to the far northern Wheat Belt, including islands in the Dampier Archipelago and Shark Bay.

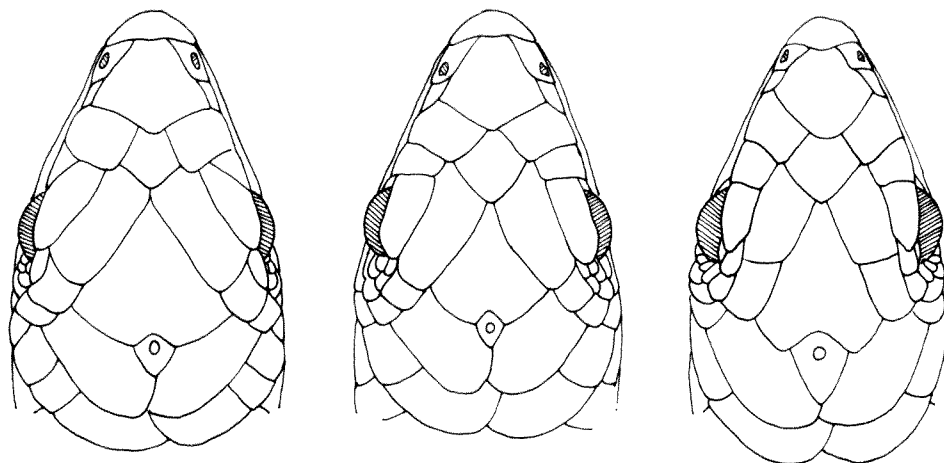


Fig. 1. Heads of *Menetia* species showing differences in supraocular and supraciliary shields. Left to right: *M. greyii*, *M. maini* and *M. surda*.

(18474-6); Meka (29274-9); Marloo (30853); Rothsay (27979).

Eastern Division (W.A.): Well 46, Canning Stock Route (40906); Swindells Field (29384-5); Well 35, CSR (26974-6); 56 km E of Talawana (27107); SW corner of Lake Disappointment (42320); Well 30, CSR (40944); Jupiter Well (45151); Pollock Hills (40176); Giles (34154); Wingelinna Mining Camp (34306); Cavenagh Range (20734); 19 km W of Warburton Mission (18429); Aerodrome Lake, N of Well 11, CSR (40367); Lake Nabberu (3897); Carnegie (45152); 8 km W of Yelma (21107); Terhan R.H. (18428); 16 km SW of Point Wool (27° 19'S, 126° 20'S) (41577); Beegull R.H. (18430); Yamarna (20692); Youanmi (18537); 56 km NW of Leonora (18432); Mt Margaret (17680); Smith's Station, 145 km N of Loongana (18458-9); 96 km S of Neale Junction (41585); Plumridge Lakes (29° 42'S, 125° 14'E) (48727); 110 km NW of Rawlinna (33629-30); Queen Victoria Spring (18433-4); 5 km NW of Callion (22536); Kalgoorlie (18431, 28875); 10 km E of Karonie (17327-9); Emu Rocks, 24 km N of Coonana (30263, 30265); Coonana (12958); 30 km W of Naretha (12237); 48 km N of Norseman (47254).

South-west Division (W.A.): Gee Gie Outcamp, 34 km NNW of Murchison House (34049); Culcurdoo, 32 km N of Kalbarri (34341); Kalbarri (33844, 33934, 34140); Meanarra Hill, 6 km E of Kalbarri (33933); Junga Dam, 23 km E of Kalbarri (33835); Lockwood Spring, Kalbarri National Park (37564); Binu (22319); East Yuna Reserve, 30 km ESE of Yuna (48111, 48252); Eastern I., Wallabi Group, Houtman Abrolhos (25977); Suomi, Rat, Leo and Morley Is, Easter Group, Houtman Abrolhos (37503, 41236-7, 41520, and 41527 respectively); 6 km E of Dongara (30313); Caron

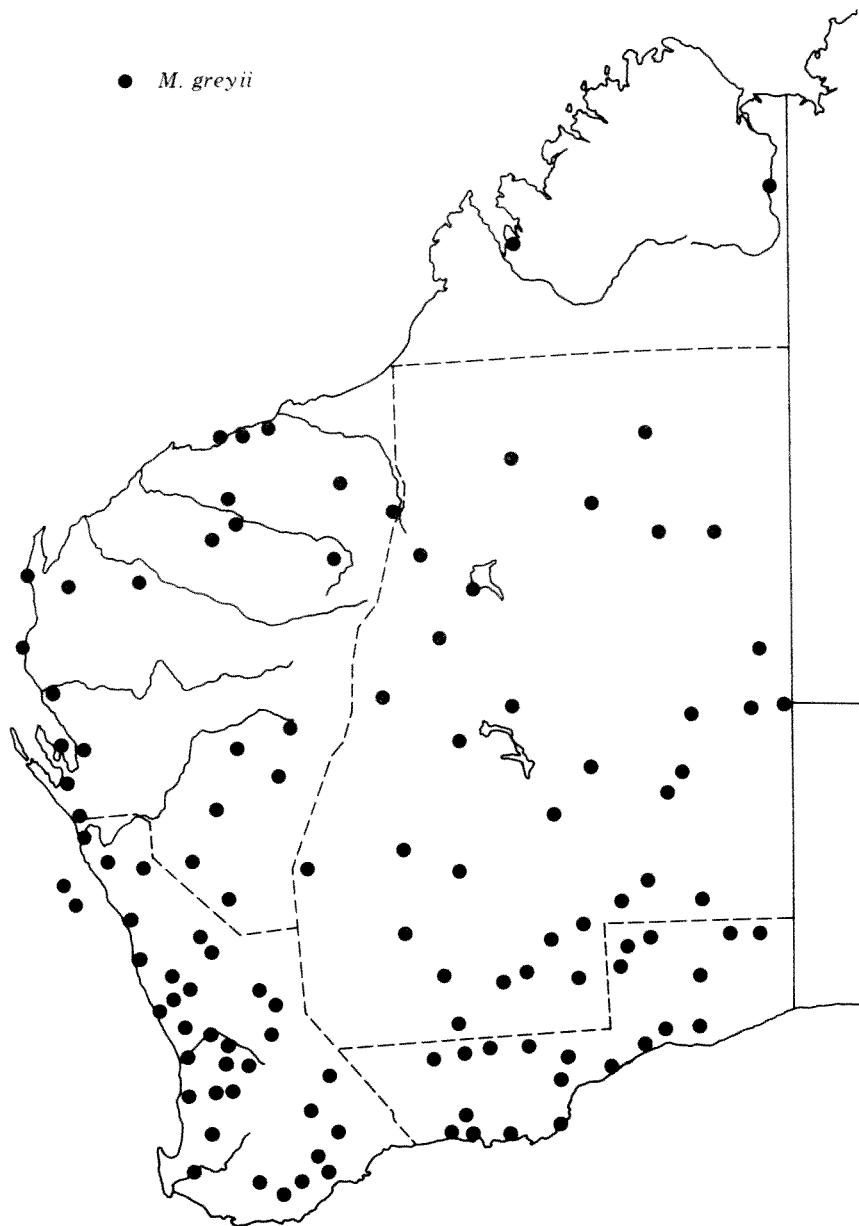


Fig. 2. Map of Western Australia showing location of specimens of *Menetia greyii*.



(22301); Buntine Reserve (44922); 5 km E of Green Head (49071); Eatha Spring (30°07'S, 115°03'E) (49139-41); 4 km E of Mt Peron (49000); 10 km NE of Cockleshell Gully (22233-4); Cockleshell Gully (49128); 5 km W of Padbury HS (30°10'S, 115°04'E) (49076, 49088-9); 24 km W of Watheroo (25822); Miling (48146); Moora (18457, 25300); Dandaragan (25990); 24 km N of Lancelin (18455); Koorda (7804, 22837); Trayning Reserve, 11 km NE of Kununoppin (46142-3, 46146-7, 46374); Gingin (34104); Chittering East (12835); Julimar Forest (47814); Walyunga (12884); Culham (22458); Toodyay (18435, 36342); Tammin (39086); Northam (29522, 31447); 8 km N of Wanneroo (31451-64); Upper Swan (18453-4); Herne Hill (4778-82); John Forrest National Park (14048); Mundaring (21237); Mundaring Weir (18554, 19828); 8 km E of Kalamunda (19981); Helena Valley (47987-9); Swan View (14085); Guildford (19862, 22856); Mt Lawley (29053); Perth (389, 3417); West Perth (23820); Wembley (14007, 18441-6, 21271, 21641, 39957); Floreat Park (26232); Crawley (18456); Nedlands (14178); Dalkeith (18451); Bentley (32384, 40018); Kenwick (18437-40); Lesmurdie (18447-50, 19668); Bickley Camp (29895); Seaforth (18436); Spearwood (2767); Thompsons Reserve (36563-5); East Rockingham (18452); Boyagin Reserve (41019-24); near Beverley (4506); Tutanning Reserve (21646); Bending Reserve (43413); Hyden (44891); Wave Rock (48623); Lake Varley (19806-7, 27258); Culeenup I., Yundurup (37750-2, 39161, 42611-2); Banksiadale (34260); Boddington (13606); Dryandra (39008); Yornaning (19752); 20 km SE of Williams (29691); Harris River, near Collie (46393); 5 km SW of Collie (18425); north end of Lake Grace Reserve (44205-6, 44232); Lake Grace south (42605); Lake Chinocup Reserve (43494, 44100-01); 25 km E of Pingrup (39825); Ongerup (34268) and 10 km SE (42628); Nannup (45743, 47399); 10 km W of Rocky Gully (18420-4); 16 km E of Rocky Gully (18416-9); Mt Barker (37971-3); Chester Pass, Stirling Range (18415); middle Fitzgerald River (36878, 36947, 39911); Boondardup River (34°13'S, 119°31'E) (37211).

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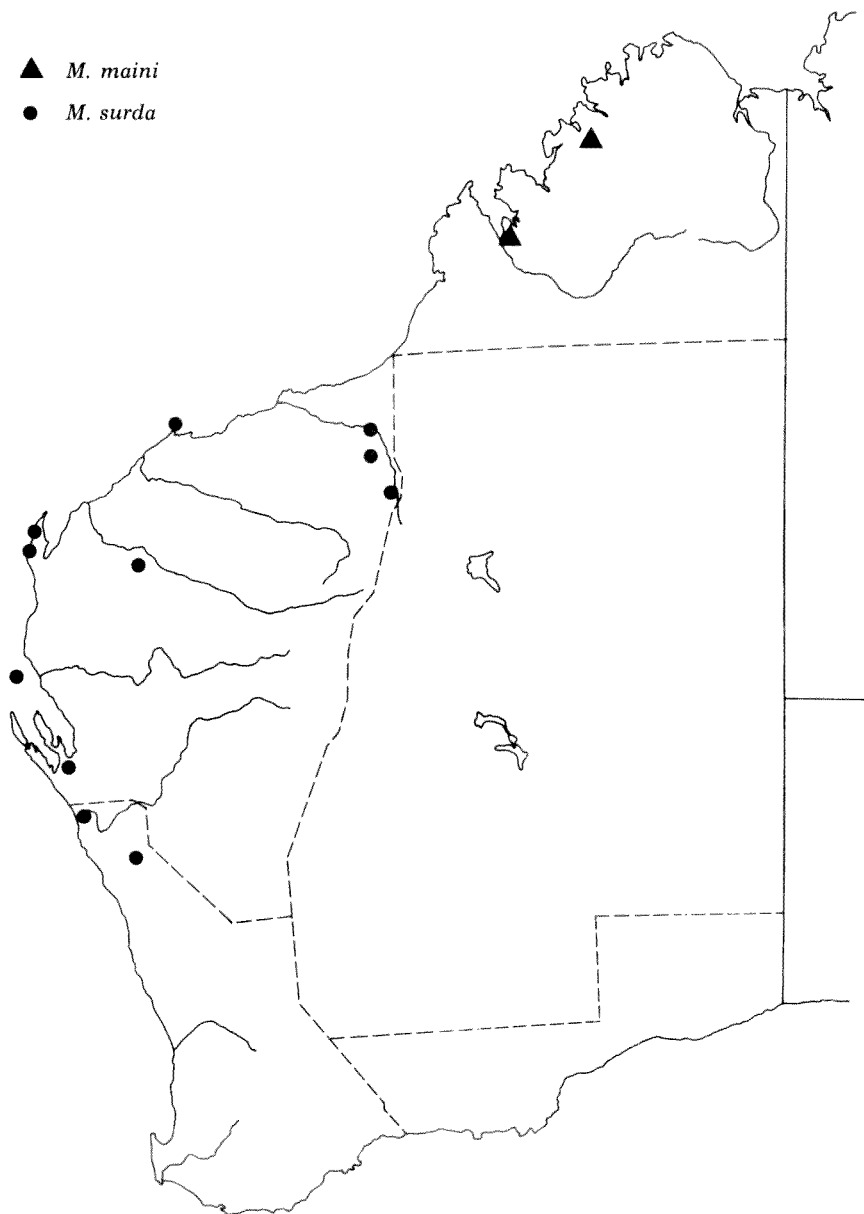


Fig. 3. Map of Western Australia showing location of specimens of *Menetia maini* and *M. surda*.

## Description

Snout-vent length (mm): 20-32 (N 35, mean 27.0). Tail up to 2.01 times as long as snout to vent.

Nasals widely separated. Prefrontals very narrowly separated or forming a short to moderately long suture. Nuchals 0 or 1, rarely 2. Supraciliaries 3 or 4, second largest but not in contact with prefrontal. Upper labials 6 (rarely 7). Midbody scale rows 20-24 (N 23, mean 21.7). Lamellae under fourth toe 20-24 (N 22, mean 21.9), smooth.

Dorsally and laterally pale to dark olive-brown, usually without pattern, but dark upper lateral stripe faintly discernible in some of palest northern specimens, and a dark median stripe discernible on dorsal and lateral scales of most southern specimens. Upper labials and ventral surfaces pale.

## Geographic variation

In the north prefrontals are almost as often contiguous as separated; in the south they are always separated. Subdigital lamellae are slightly fewer in the north than south, counts averaging 21.4 in the North-west Division and 22.4 in the South-west Division. Coloration tends to be paler and more uniform in the north, and darker and more striate in the south.

## Paratypes

North-west Division (W.A.): Warrawagine (13248); Ripon Hills (13247); Junction Well, upper Oakover River (42228-9, 42239-40); Dolphin I., Dampier Archipelago (14329-30); Yardie Creek HS (13192*a-b*) and 50 km S (27980-3); 3 km E of Norwegian Bay, Ningaloo (32030); 21 km NW of Ullawarra (25262-4); Bernier I. (20524-5); 27 km E of Tamala (18271).

South-west Division (W.A.): Meanarra Hill, 7 km E of Kalbarri (33536); East Yuna Reserve, 30 km ESE of Yuna (48109, 48112-3, 48124-5, 48225, 48235-7, 48253); Bindoo Hill Reserve, 20 km NNW of Tenindewa (48194, 48203).

*Menetia maini* sp. nov.

## Holotype

R18464 in Western Australian Museum, collected by A.R. Main on 3 November 1961 at 23 km SSE of Derby, Western Australia, in 17°29'S, 123°43'E.

## Diagnosis

First (and only) supraocular much more than twice as long as wide, and in contact with first supraorbital (see Fig. 1). Uppermost circumocular granule not enlarged. Ear aperture small. No indication of lateral stripes.

## Distribution

North-west coast and coastal plains of the Kimberley Division from the Prince Regent River south-west to King Sound.

## Description

Snout-vent length (mm): 19-28 (N 17, mean 24.3). Tail up to 1.55 times as long as snout to vent.

Nasals widely separated. Prefrontals usually narrowly separated, occasionally in very short contact. Nuchals usually 1, occasionally 2, rarely 0. Supraorbitals 2, second not in contact with prefrontal. Upper labials 6. Midbody scale rows 22-26 (N 12, mean 23.7). Lamellae under fourth toe 16-21 (N 15, mean 18.1), smooth.

Upper surfaces brown, dorsal scales sometimes with an indistinct dark median streak. Laterally brown, indistinctly flecked with dark brown and and occasionally with brownish white. Ventral surfaces generally pale, but scales (especially of throat and under tail) often edged with greyish brown.

## Geographic variation

The single specimen from the Prince Regent River differs from the remainder (all from the Derby district) in being the only specimen with (1) more than 24 midbody scale rows, (2) more than 19 subdigital lamellae, (3) with no nuchals (on one side of neck), and (4) snout-vent length greater than 27 mm. This specimen was misidentified by Storr and Smith (1975) as *Menetia greyii*.

## Remarks

Named after Professor A.R. Main, University of Western Australia, in appreciation of his services to Western Australian herpetology.

## Paratypes

Kimberley Division (W.A.): Prince Regent River Reserve (15°28'S, 125°40'E) (46945); Derby (20283-93, 20343-6).

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Papers may be illustrated by black and white line drawings or black and white photographs. One set of illustrations will be required. Photographs should be printed on white glossy paper, showing a full range of tones and good contrast. Top and bottom should be clearly indicated. Line drawings should be no more than three times the maximum size for publication, which is 19 cm x 12.5 cm, including caption. Authors should indicate their preferred degree of reduction. Numbering and lettering should be done lightly in blue pencil. Composite illustrations are to be submitted separately, with a sketch of authors' requirements. Final illustrations will be produced by the Western Australian Museum's display artists.

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Footnotes should be avoided whenever possible. Essential footnotes, indicated by superscript figures in the text, should be inserted immediately below the reference and should be separated from it by a line drawn across the top and bottom of the footnote and extending the width of the page.

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## CONTENTS

	Page
BAKER, A.N. & MARSH, L.M. The rediscovery of <i>Halityle regularis</i> Fisher (Echinodermata: Asteroidea) ... ..	107
DELL, J. Birds of Lake Magenta Wildlife Sanctuary, Western Australia ... ..	117
ALLEN, G.R. Two new species of Damselfishes (Pomacen- tridae) from Western Australia ... ..	133
BRAY, D.M. Larval development of two Western Australian shrimps, <i>Palaemonetes australis</i> Dakin and <i>Palaemonetes atrinubes</i> Bray (Decapoda, Palaemonidae), reared in the laboratory ... ..	145
STORR, G.M. The genus <i>Omolepida</i> (Lacertilia, Scincidae) in Western Australia ... ..	163
DIX, W.C. & MEAGHER, S.J. Fish traps in the South-West of Western Australia ... ..	171
STORR, G.M. The genus <i>Menetia</i> (Lacertilia, Scincidae) in Western Australia ... ..	189

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