

No. 6.— *Australian Reptiles in the Museum of Comparative  
Zoölogy, Cambridge, Massachusetts*

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INTRODUCTION

The collection of Australian reptiles in the Museum of Comparative Zoölogy consists of 2,091 specimens, representing 267 species or races, comprising 1 of crocodilians, 8 of chelonians, 73 of snakes and 185 of lizards.

In the following report on this collection, I give the results of an examination of every individual, except where definitely stated to the contrary. The statistical results of this study are stated under each species so that they may be available to Australian herpetologists, who will have some check upon the identifications and be able to utilize the data in defining geographical races.

The name by which each species is now known is followed by the original citation and type locality. With the latter I have taken the liberty of substituting Australia for New Holland, Tasmania for Van Diemen's Land, and Northern Territory for the old political area of Central Australia. (Native names are given for a few of the central forms; it should be understood, however, that these names are generally quite local, and may not be used among neighboring tribes.)

In listing the material, the registration number in the departmental catalogues is given, followed by the locality. Certain abbreviations for political areas have been deemed advisable; these are:

N.S.W. for New South Wales

N.T. for Northern Territory

Q. for Queensland

S.A. for South Australia

T. for Tasmania

T.S. for Torres Straits

V. for Victoria

W.A. for Western Australia

If little known, the locality is generally amplified below, but it might be as well to state here that the Margaret River so frequently mentioned is the one situated in the South-West Division of Western Australia, and that Lake Violet is at the north end of Lake Way and only three miles from Wiluna, Western Australia.

Where known, the collector's name is given; if unknown, then the source from which the specimen reached the Museum of Comparative Zoölogy. The same procedure has been followed with respect to dates. Either the date of collecting is given or, if this is not known, the date of receipt at the Museum is substituted.

#### THE HARVARD AUSTRALIAN EXPEDITION OF 1931-1932

More than half of our Australian reptiles, *i.e.*, 1,196, representing 157 species of which no fewer than 61 were new to the collection, were actually taken in the field by members of the recent Harvard Expedition. The last figure might be augmented by a dozen more species presented to the party by Australian friends.

The members of the Expedition from August to December, 1931, were Professors W. M. Wheeler and G. M. Allen and Messrs. R. Ellis, I. M. Dixon, P. J. Darlington and W. E. Schevill. During these early months the bulk of the material (388 specimens) was simply credited to the Harvard Expedition. Later, when the seniors returned home, Dr. P. J. Darlington and W. E. Schevill remained in the field and took independent itineraries, so that the material gathered by each (331 and 453 reptiles respectively) is credited to the actual collector in the following pages.

It is entirely unnecessary for me to invite attention to the energetic and thorough way in which these two naturalists prosecuted their work—such will be obvious if one turns the pages of this report—but I cannot refrain from voicing my appreciation after handling so many hundreds of their perfectly preserved and labeled specimens. The remarkably complete collection of Hermannsburg reptiles, embracing as it does 29 species of lizards and topotypes of almost every race described by Sternfeld, made by Mr. Schevill merits special mention. Nor should it be forgotten that the gathering of herpetological material by these gentlemen was but incidental to the prosecution of researches in their own particular fields of geology and entomology.

The receipt last year of the final consignment resulting from the Harvard Expedition, together with the necessity for identifying its component species, resulted in the production of this report.

#### EARLIER HARVARD AUSTRALIAN EXPEDITION

Alexander Agassiz's Great Barrier Reef Expedition of 1896 provided the first direct contact between the Museum of Comparative Zoölogy and Australia. Some 47 reptiles were collected at Cooktown and in its vicinity by Messrs E. A. Olive, A. G. Mayer, and W. M. Woodworth. Of the 18 Australian species represented, two (*Typhlops affinis* and *Ablepharus burnetti*) still remain the only examples of their kind in the Museum. The collection was reported upon by Garman (1901) and references to this paper are cited throughout the present one.

In 1913, Dr. H. L. Clark, aided by a Fellowship of the Carnegie Foundation, visited Australia to study echinoderms. He secured some reptiles which were reported upon by Barbour (1914). On two subsequent visits (1929–1930 and 1932) Dr. Clark obtained further herpetological material making a total of 116 specimens representing 35 species of which 18 were new to the collection, at least so far as Australia was concerned.

Finally, through the generosity of Dr. Barbour, in 1927 Mr. W. S. Brooks was able to visit south Western Australia. He collected 344 reptiles of 34 species, 11 of which were new to the Museum, and four, including such a rarity as *Furina bimaculata*, still remain the only representatives of their kind in the collection.

## OTHER SOURCES OF MATERIAL

The first Australian specimens to reach the Museum consisted of some 15 reptiles without history or precise locality data. In 1861, however, these were augmented by a dozen things from Hobart, Tasmania, presented by J. W. Robertson, Esq. During the years 1864 to 1873, C. L. Salmin contributed 16 more and between 1877 and 1879 Professor Alexander Agassiz obtained 13 from Edward Gerrard. The latter were especially valuable additions as they came from the Torres Straits from which region the Museum had nothing. In 1881 and succeeding years some 16 examples of almost as many species were received from H. A. Ward of Rochester: with but few exceptions they represented species new to the collections. In 1883 a moloch lizard from Sir H. St. George Ord, one time Governor of Western Australia, is of no small historical interest as were also 5 reptiles from the Horn Expedition which were obtained from the American Museum of Natural History by Dr. Thomas Barbour.

Among his own herpetological collection which Dr. Barbour presented in 1903, were 25 Australian specimens representing 18 species, 5 of these still remain the only examples of their kind in the Museum. These were followed by 8 reptiles purchased from W. F. H. Rosenberg to fill other gaps, then, from the same donor, a portion of the historically valuable Malcolm A. Smith collection of sea snakes of which 31 specimens of more than a dozen species came from Australian seas. Other individuals contributed 135 reptiles in small numbers. To enumerate them all would be tedious though these gifts are none the less appreciated, especially those that represented species new to the Museum.

Exchanges with other museums have always been a fruitful method of rounding off the collections. The first of these involving Australian reptiles, took place with the Göttingen Museum in 1865 and is of interest because of W. Keferstein's papers dealing with this material. About the same time half-a-dozen Australian lizards were received from the Paris Museum through A. A. Duméril. Several of these have been generally considered cotypes but in view of the fact that the exchange took place about a quarter of a century after the publication of the famous *Erpétologie Générale* such a view should be accepted with reserve.

In the years 1870, 1876 and 1890, exchanges were carried out with Gerald Krefft of the Australian Museum. They culminated in the magnificent exchange arranged by Dr. Barbour in 1914. The latter

brought up the total number of reptiles received from Sydney to 170 representing 80 distinct species. The inestimable value of such exchanges for purposes of comparative study need not be emphasized. We feel grateful to the Australian Museum authorities for their coöperation in the undertaking. In the same year 19 reptiles were received from the Queensland Museum and were followed by exchanges of lesser importance with the Western Australian Museum (1 specimen), United States National Museum (1), Peabody Academy of Salem (3), British Museum (5), Amsterdam (1), Basel (1) and Vienna (1). Of greater importance was the recent receipt of 14 specimens from the Senckenberg Museum; many of these were cotypes of species described by Sternfeld from the collections made at Hermannsburg by M. von Leonhardi.

#### ACKNOWLEDGEMENTS

I take this opportunity of expressing my indebtedness to Messrs. Darlington and Schevill for permission to incorporate their interesting field notes in the present report, as well as for their kindness in frequently supplying me with information regarding localities. To Mr. W. E. Schevill in particular I am deeply grateful for reading over this manuscript and for his promise to see it through the press during my absence in Africa. I am also greatly indebted to him for much help received, particularly during the last week when my departure necessitated speeding up the revision of *Leiolopisma*, the last genus to be attempted.

This final rush has made it impossible for me to consult the literature on the Scincidae to the same extent as was done with other families; this is the explanation of possible omissions in according due prominence to the findings of other workers in this group.

To Messrs. J. R. Kinghorn, L. Glauert, and H. A. Longman, I desire to express my thanks for so kindly answering questions, supplying me with data pertaining to specimens in their care, and for offering criticisms of portions of this manuscript.

#### SUMMARY OF TAXONOMIC ALTERATIONS

Since the publication of Boulenger's catalogues of the Reptiles in the British Museum (1885-1896), with the notable exception of Kinghorn's fine contributions to our knowledge of the snakes, Australian herpetology scarcely seems to have received that attention which so interesting a fauna demands.

Of outstanding importance are Sternfeld's papers (1919 and 1925) on von Leonhardi's collections from the Hermannsburg Mission in that portion of central Australia now included in the Northern Territory for administrative purposes. I believe that every, certainly almost every, species or race described with such acumen by Sternfeld, will be found worthy of recognition. In a few instances, however, his names must give way to those proposed by Rosèn for reptiles collected by Dr. N. Holst in "West Australia." It would be of no small interest to know exactly where Holst collected. One thing is abundantly clear and that is that many of the races inhabiting central Australia range in a northwesterly direction to Broome on the west coast.

The check list of Australian lizards compiled by Zietz in 1920 has been very helpful though it was obviously largely a non-critical compilation. In synonymizing a great many of the species recognized by Zietz, I have endeavoured to perform for this group what Kinghorn has already done for the snakes. Much apparent synonymizing results from my treatment of the scincids formerly included in the genus *Lygosoma*. I take the view that taxonomy is largely a matter of convenience and *Lygosoma*, already of unwieldy proportions and, by the discovery and description of new forms, increasing more rapidly than almost any other group, had better be split up into a number of genera. Boulenger (1887), followed by Zietz (1920), called these genera 'sections' of *Lygosoma*. Other herpetologists have treated them as subgenera though this course results in unwieldy quadriminials. While perfectly willing to concede that the relationships between certain of these groups such as *Hemiergis* and *Siaphos* are much more slender than those separating the average genus, I prefer to regard them as full genera. In doing so I have to restore to use a number of names preoccupied in *Lygosoma* when used in the larger sense adopted by Boulenger.

No stability of nomenclature in Australian herpetology can be hoped for until some authority examines the types (where still extant) and definitely settles the status of the many names so lavishly proposed by those earlier Australian workers Macleay and De Vis. Longman has done much work in this direction, but I would plead for one comprehensive study of every species described. I have attempted to synonymize some sixteen of them in this present paper and have revived several of their species which had been relegated to the synonymy by other workers. Doubtless much remains to be done in both directions. The descriptions, more particularly the earlier ones, of both these authors—Macleay and De Vis—were so scanty

and meagre that it is often difficult to decide with any confidence what action to take regarding their disposition.

As a result of this study, the following species or races have been described for the first time<sup>1</sup>:

*Nephrurus wheeleri*  
*Amphibolurus darlingtoni*  
*Amphibolurus barbatus minimus*  
*Physignathus gilberti centralis*  
*Sphenomorphus leae brooksi*  
*Sphenomorphus schevilli*  
*Rhodona nichollsi*  
*Lygosoma darlingtoni*

while the undermentioned are revived:

*Typhlops nigrescens* (Gray) from synonymy of *polygrammicus* (Schlegel)  
*Diplodactylus ciliaris* Boulenger " *spinigerus* Gray  
*Egernia nitida* (Gray) " *kingii* (Gray)  
*Egernia napoleonis* (Gray) " *kingii* (Gray)  
*Omolepida melanops* (Stirling & Zietz) " *branchiale* (Günther)  
*Lygosoma lentiginosus* (De Vis) " *verreauxii* (A. Duméril)  
*Lygosoma frontalis* (De Vis) " *ophioscincus* Boulenger  
*Ablepharus anomalus* (Gray) " *lineocellatus* (Gray)

and the following regarded as subspecies:

*Lycodon reticulatus* Gray as a race of *Demansia psammophis* (Schlegel)  
*Lycodon olivaceus* Gray " *Demansia psammophis* (Schlegel)  
*Pseudonaja nuchalis* Günther " *Demansia textilis* (Dum. & Bib.)  
*Pseudonaja affinis* Günther " *Demansia textilis* (Dum. & Bib.)  
*Gehyra australis* Gray " *Peropus variegatus* (Dum. & Bib.)  
*Grammatophora inermis* De Vis " *Amphibolurus reticulatus* (Gray)  
*Lygosoma tympanum* Lönnberg & Andersson as a race of *Sphenomorphus quoyii*  
 (Dum. & Bib.)  
*Lygosoma brachysoma* Lönnberg & Andersson as a race of *Sphenomorphus tenuis* (Gray)  
*Lygosoma (Homolepida) petersi* Sternfeld as a race of *Omolepida casuarinae*  
 (Dum. & Bib.)

The following, then, are believed to be synonyms:

*Emydura signata* Ahl = *Emydura latisternum* (Gray),  
*Typhlops waitii* Boulenger = *Typhlops australis* (Gray)  
*Liasis childreni perthensis* Stull = *Liasis childreni* Gray  
*Pseudelaps muelleri insulae* Barbour = *Pseudelaps muelleri* (Schlegel)  
*Pseudoferania macleayi* Ogilby = *Enhydryis polylepis* (Fischer)

<sup>1</sup>See bibliography.

- Diemenia maculiceps* Boettger = *Demansia p. psammophis* (Schlegel)  
*Diemenia atra* Macleay = *Demansia p. olivacea* (Gray)  
*Diemenia ingrami* Boulenger = *Demansia t. nuchalis* (Günther)  
*Denisonia signata* var. *vagrans* Garman = *Denisonia signata* (Jan)  
*Denisonia maculata* var. *devisi* Waite & Longman = *Denisonia maculata* (Steindachner)  
*Hoplocephalus nigrescens* Günther = *Denisonia pallidiceps* (Günther)  
*Heteronota fasciata* Macleay = *Gymnodactylus pelagicus* (Girard)  
*Heteronota marmorata* Macleay = *Gymnodactylus pelagicus* (Girard)  
*Gymnodactylus heteronotus* Boulenger = *Gymnodactylus pelagicus* (Girard)  
*Gymnodactylus cheverti* Boulenger = *Gymnodactylus pelagicus* (Girard)  
*Heteronota eboracensis* Macleay = *Heteronota binocci* Macleay  
*Phyllodactylus macrodactylus* Boulenger = *P. marmoratus* (Gray)  
*Phyllodactylus affinis* Boulenger = *P. marmoratus* (Gray)  
*Phyllodactylus guentheri* Boulenger = *P. marmoratus* (Gray)  
*Oedurella taeniata* Lönnberg & Andersson = *Diplodactylus michaelsoni* Werner  
*Gymnodactylus laevis* Sternfeld = *Diplodactylus conspicillatus* Lucas & Frost  
  
*Diplodactylus platyurus* Parker = *Diplodactylus hilli* Longman  
? *Diplodactylus bilineatus* Lucas & Frost = *D. pulcher* (Steindachner)  
*Diplodactylus pulcher* var. *dorsalis* Werner = *D. pulcher* (Steindachner)  
? *Diplodactylus lucasi* Fry = *D. pulcher* (Steindachner)  
*Oedura tryoni* De Vis = *Oedura marmorata* Gray  
*Oedura fracticolor* De Vis = *Oedura marmorata* Gray  
*Oedura ocellata* Boulenger = *Oedura marmorata* Gray  
*Oedura cincta* De Vis = *Oedura marmorata* Gray  
*Oedura monilis* De Vis = *Oedura marmorata* Gray  
*Oedura mayeri* Garman = *Oedura marmorata* Gray  
*Phyllodactylus (Oedura) castelnaui* Thominot = *Oedura marmorata* Gray  
*Amphibolurus websteri* Boulenger = *Amphibolurus scutulatus* Stirling & Zietz  
  
*Amphibolurus holsti* Rosén = *Amphibolurus scutulatus* Stirling & Zietz  
  
*Amphibolurus modestus* Ahl = *Amphibolurus pictus* Peters  
*A. reticulatus major* Sternfeld = *A. reticulatus inermis* De Vis  
*Amphibolurus pallidus* Boulenger = *A. adelaidensis* (Gray)  
*Amphibolurus vitticeps* Ahl = *A. b. barbatus* (Cuvier)  
*Physignathus nigricollis* Lönnberg & Andersson = *Diporiphora bilineata* Gray  
*Diporiphora nuchalis* De Vis = *Diporiphora australis* (Steindachner)  
*Diporiphora ornata* De Vis = *Diporiphora australis* (Steindachner)



<i>Physignathus incognitus</i> Ahl	= <i>P. gilberti gilberti</i> (Gray)
<i>Amphibolurus branchialis</i> De Vis	= <i>Physignathus lesueurii</i> (Gray)
<i>Varanus ingrami</i> Boulenger	= <i>V. spenceri</i> Lucas & Frost
<i>Egernia striata</i> Sternfeld	= <i>Egernia inornata</i> Rosén
<i>Egernia pulchra</i> Werner	= <i>Egernia napoleonis</i> (Gray)
<i>Tiliqua o. auriculare</i> Kinghorn	= <i>T. o. multifasciata</i> Sternfeld
<sup>1</sup> <i>Macrogonylus brauni</i> Werner	= <i>Celestus occiduus</i> (Shaw)
<i>Lygosoma ocelliferum</i> Boulenger	= <i>Sphenomorphus ocellatus</i> (Boulenger)
<i>Lygosoma (Hinulia) breviunguis</i> Kinghorn	= <i>S. ocellatus</i> (Boulenger)
<i>Lygosoma lesueurii</i> Duméril & Bibron	= <i>S. a. australis</i> (Gray)
<i>Lygosoma dorsale</i> Boulenger	= <i>S. spaldingi</i> (Macleay)
<i>Lygosoma (Hinulia) quoyi kosciuskoi</i> Kinghorn	= <i>S. quoyii tympanum</i> (Lönnberg & Andersson)
<i>Lygosoma (Hinulia) tenuis intermedia</i> Kinghorn	= <i>S. t. tenuis</i> (Gray)
<i>Lygosoma tamburinense</i> (Lönnberg & Andersson)	= <i>S. tenuis brachysoma</i> (Lönnberg & Andersson)
<i>Mocoo nigricaudis</i> Macleay	= <i>Sphenomorphus pardalis</i> (Macleay)
<i>Lygosoma (Hinulia) elegantulum</i> Peters & Doria	= <i>S. pardalis</i> (Macleay)
<i>Hinulia ambigua</i> De Vis	= <i>S. f. fasciolatus</i> (Günther)
<i>Hinulia domina</i> De Vis	= <i>Sphenomorphus tigrina</i> (De Vis)
<i>Mocoo spectabilis</i> De Vis	= <i>Leiolopisma challengeri</i> (Boulenger)
<i>Mocoo lichenigera</i> O'Shaughnessy	= <i>Leiolopisma cuprea</i> (Gray)
? <i>Mocoo delicata</i> De Vis	= <i>L. guichenoti</i> (Duméril & Bibron)
<i>Lygosoma devisii</i> Boulenger	= <i>L. peronii</i> (Duméril & Bibron)
<i>Heteropus mundus</i> De Vis	= <i>Leiolopisma pectoralis</i> (De Vis)
<i>Lygosoma laeve</i> Oudemans	= <i>Leiolopisma novaeguineae</i> (Meyer)
<i>Lygosoma aeratum</i> Garman	= <i>Leiolopisma novaeguineae</i> (Meyer)
<i>Lygosoma gastrostigma</i> Boulenger	= <i>Omolepida melanops</i> (Stirling & Zietz)
? <i>Hemiergis initiale</i> Werner	= <i>Siaphos maccoyi</i> Lucas & Frost
<i>Siaphos scharffi</i> (Boulenger)	= <i>Lygosoma graciloides</i> Lönnberg & Andersson
<i>Lygosoma praepeditum</i> Boulenger	= <i>Rhodona lineata</i> (Gray)
<i>Siaphus simplex</i> Cope	= <i>Lygosoma verreauxii</i> (A. Duméril)
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<i>Lygosoma bancrofti</i> Longman	= <i>Lygosoma lentiginosus</i> (De Vis)
<i>Ablepharus lineo-ocellatus</i> var. <i>ruficaudus</i> Lucas & Frost	= <i>Ablepharus taeniopleurus</i> Peters
<i>Ablepharus heteropus</i> Garman	= <i>Ablepharus burnetti</i> Oudemans
<i>Ablepharus rhodonoides</i> Lucas & Frost	= <i>Ablepharus timidus</i> De Vis

<sup>1</sup>Extralimital, being West Indian.

*Australian Reptiles in the Museum of Comparative Zoölogy*

Note: Species discussed though unrepresented in the collection are placed in parentheses.

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## CROCODYLIDAE

## CROCODYLUS JOHNSTONI Krefft

*Crocodylus johnsoni* Krefft, 1873, Proc. Zoöl. Soc. London, p. 335: Cardwell, Rockingham Bay, Queensland. Garman, 1901, Bull. Mus. Comp. Zoöl., **39**, p. 13.

*Crocodylus (Philas) johnstoni* Gray, 1874, Proc. Zoöl. Soc. London, p. 177, pl. xxvii.

1 (M. C. Z. 6464) Cooktown, Q. (E. A. Olive) 1896.

2 (M. C. Z. 35001-2) Flinders River, Q. (G. W. de Teliga) 1932.

1 (M. C. Z. 35003) Norman River, Q. (G. W. de Teliga) 1932.

4 (M. C. Z. 35004-7) Saxby River, Q. (G. W. de Teliga) 1932.

The pair from Flinders River were shot by Major G. W. de Teliga on July 29, below the Manfred Arms Hotel, south of Mount Brown.

Those from Saxby River in the Four-mile Hole, "Myola", on August 1, 2, and 3, 1932.

The narrow-snouted crocodile of Australia had for so long been represented in our collections by a single alcohol-preserved embryo that Mr. W. E. Schevill's success in obtaining a representative series of adults, half-grown, and young proved one of the outstanding achievements of the Harvard Expedition. The smallest specimen (No. 35003) is 658 mm. long.

Mr. Schevill's field measurements follow:

No. 35001.	♂	Girth at axillae . . . . .	640 mm.
		Girth at groin . . . . .	591 mm.
		Maximum girth of belly . . . . .	712 mm.
		Girth behind genal bulge . . . . .	545 mm.
		Total length . . . . .	2454 mm.
No. 35002.	♀	Total length . . . . .	2046 mm.
No. 35004.	♀	Total length . . . . .	1510 mm.
No. 35005.	♂	Total length . . . . .	1613 mm.
No. 35006.	♂	Total length . . . . .	1119 mm.
No. 35007.	♂	Total length . . . . .	1674 mm.
Field Mus.	♀	Total length . . . . .	1463 mm.

Mr. Heber Longman (1925, p. 95) has given an important and well-illustrated account of the osteology, external characters and relations of this interesting reptile. Gray (loc. cit.), on the authority of Krefft, changed the spelling of the specific name from *johnsoni* to *johnstoni*, as the name of the collector of the first specimen was Johnstone. It would seem that the emended spelling may be allowed to stand in this case on the grounds of a *lapsus calami* in the original rendering.

## CHELONIIDAE

### ERETMOCHELYS IMBRICATA (Linnaeus)

*Testudo imbricata* Linnaeus, 1766, Syst. Nat., ed. 12, 1, p. 350: American Seas.  
*Eretmochelys squamata* Agassiz, 1857, Contr. Nat. Hist. U. S., 1, Indian and Pacific Oceans.

1 (M. C. Z. 4176) Torres Straits (E. Gerrard) 1877.

I have not reinvestigated the status of the alleged Pacific race of the Hawksbill Turtle but follow Malcolm Smith (1931, p. 67) in referring *squamata* to the synonymy of the Atlantic *imbricata*. Our Torres Straits specimen measures only 46 mm. in total length of carapace.

## CHELONIA MYDAS (Linnaeus)

- Testudo mydas* Linnaeus, 1758, Syst. Nat., ed. 10, p. 197: Ascension Island.  
*Testudo japonica* Thunberg, 1787, Sven. Akad.-Handl. Stockholm, 8, p. 178,  
 pl. vii: Japan.  
*Chelonia japonica* Barbour, 1914, Proc. Biol. Soc. Washington, p. 205.  
 1 (M. C. Z. 9471) Mer Island, Torres Straits (H. L. Clark) 1914.

Here again the much discussed question as to whether *japonica* is really distinct from the Atlantic *mydas* has been disregarded and the latest investigator (Malcolm Smith, 1931, p. 70) followed. The Mer Island turtle has been discussed at length by Barbour (*loc. cit.* p. 205), it agrees with *mydas* and not with *depressa* as outlined by Fry in his key (1913, p. 168). The total length of carapace is only 50 mm.

## CHELONIA DEPRESSA Garman

- Chelonia depressa* Garman (part), 1880, Bull. Mus. Comp. Zoöl., 6, p. 124:  
 North Australia.  
*Natator tessellatus* McCulloch, 1908, Rec. Austral. Mus. Sydney, 7, p. 126,  
 pls. xxvi-xxvii: Port Darwin, Northern Territory.  
 Type (M. C. Z. 4473) North Australia (H. A. Ward) N. D.

The young cotype from Penang, East Indies (M.C.Z. 1413) is definitely known to be a young *Chelonia mydas*.

Fry (1913, pp. 159-185) went very thoroughly into the status of *depressa*, which he considered a valid species of which *Natator tessellatus* is a synonym. The juvenile material at my disposal does not wholly support Fry's views. I think it more probable that the type of *depressa* is an aberrant individual which should be referred to the synonymy of *mydas* as was done by Boulenger (1889, p. 182), Siebenrock (1909, p. 546) and Malcolm Smith (1931, p. 70).

## CHELYDIDAE

## CHELODINA LONGICOLLIS (Shaw)

- Testudo longicollis* Shaw, 1802, Gen. Zoöl., 3, p. 62, pl. xvi: Australasia or  
 New Holland.  
 10 (M. C. Z. 2871, 8368-9, 8371-2, 8374-7, 8383) Australia (D. Franklin) 1913.  
 1 (M. C. Z. 5053) Gippsland Lakes, V. (H. A. Ward) 1881.

This series conforms well to Fry's (1915, p. 90) key to the genus except that No. 8369 has the intergular noticeably less (by 4 mm.) than twice as long as the suture between the pectorals. This results

in its running down to *C. siebenrocki* Werner, a species originally described as from New Guinea but whose type locality was later stated to be incorrect. Our specimen (No. S369) is so obviously conspecific with the remainder of the series which show such astonishing variations in the size and shape of the intergular shield that I regard this specimen as an aberrant individual. Number S368 has the right gular subdivided to form two shields. Number S383 has only 10 marginals on the left side though all other specimens have the normal 11 on both sides. Number S383 has a supernumary vertebral shield resulting from the transverse division of the third vertebral. The length of carapace of the largest terrapin (No. 5053) is 64 mm.

#### CHELODINA STEINDACHERI Siebenrock

*Chelodina steindachneri* Siebenrock, 1914, Anz. Ak. Wiss. Wien, **27**, p. 386: Marloo Station, De Grey River, Western Australia.

*Chelodina millymillyensis* Glauert, 1923, Journ. Roy. Soc. West. Austral., **9**, p. 53, pl. iv: Milly Milly, Murchison River, Western Australia.

1 (M. C. Z. 33501) Marloo Station, W. A. (Senckenberg Mus.) 1931.

This topotype answers correctly to Fry's (1915, p. 90) key excepting that the suture between the humerals and that between the pectorals are almost equal. The length of its carapace is 44 mm.

#### CHELODINA OBLONGA Gray

*Chelodina oblonga* Gray, 1841, in Grey's Journ. Exped. West. Austral., **2**, p. 446, pl. vii: Western Australia.

*Chelodina rugosa* Ogilby, 1890, Rec. Austral. Mus. Sydney, **1**, p. 56, pl. vii: Cape York, Queensland.

1 (M. C. Z. 28758) Port Essington, N. T. (Lieut. Ince) 1929.

This stuffed specimen, received as identified from the British Museum in 1929, agrees with Fry's (1915, p. 90) key excepting that the third vertebral shield is 10 mm. broader than long, not "longer than broad." It reasonably resembles the figures of the aberrant carapace and plastron which served as the type of Ogilby's *rugosa*. The latter was referred to the synonymy of *oblonga* by Siebenrock (1909, p. 573).

#### EMYDURA KREFFTHI (Gray)

*Chelymys krefftii* Gray, 1871, Ann. Mag. Nat. Hist. (5), **8**, p. 366: Burnett River, Queensland.

- 1 (M. C. Z. 4067) Rockhampton, Q. (C. L. Salmin) 1873.
- 1 (M. C. Z. 5197) Australia (Exhibition Gallery) N. D.
- 2 (M. C. Z. 10293-4) Burnett River, Q. (Australian Mus.) 1914.
- 1 (M. C. Z. 10295) Burdekin River, Q. (Australian Mus.) 1914.
- 3 (M. C. Z. 35008-10) Boyne River, Q. (W. E. Schevill) 1932.

Number 10293 is from Eidsvold and was received as *krefftii* from the Australian Museum while nos. 10294-5 were received as *macquarii* from the same institution, though they lack the barbels of that species. The Boyne River terrapin were taken near Mundubbera in March.

The material listed above agrees in possessing a nuchal shield; length of the plastron 3 to  $3\frac{1}{4}$  times the width of the bridge; small rounded tubercles on upper surface of the neck; no barbels. A yellow streak (sometimes only a blob) from the eye to the ear; a yellow band from the end of the snout to the ear.

One Boyne River terrapin differs from its companions in having its plastron obtusely acuminate anteriorly as in *albertisii* Boulenger of New Guinea, not broadly rounded. Perhaps *albertisii* will prove to be at most a race of *krefftii*. The length of carapace of the largest terrapin (No. 5197) measures 255 mm.

#### EMYDURA LATISTERNUM (Gray)

*Elsya latisternum* Gray, 1867, Ann. Mag. Nat. Hist. (4), 20, p. 44: Australia.  
*Emydura signata* Ahl, 1932, Sitz. Ges. Naturf. Freunde, Berlin, p. 127, figs: (Brisbane), Queensland.

- 3 (M. C. Z. 35011-3) Lake Barrine, Q. (W. E. Schevill) 1932.
  - 5 (M. C. Z. 35014-8) Lankelly Creek, Q. (P. J. Darlington) 1932.
- Lankelly Creek is N.E. of Coen, Cape York.

These specimens are characterized by the absence and presence of a nuchal shield; by the width of the intergular at its broadest being contained  $1\frac{1}{2}$  to  $2\frac{1}{2}$  times in its length; length of the plastron 3 to 4 times in the width of the bridge; anterior surface of limbs with a series of very broad, transverse lamellae, the forelimbs particularly strongly fringed on the outer side.

The variation displayed by this material is of considerable interest, the nuchal is absent from the Lake Barrine terrapin (97 to 150 mm. in length) as also in the two younger examples (48 and 84 mm. in length) from Lankelly Creek, is minute in a medium-sized specimen (140 mm.) and best developed in the biggest (200 and 205 mm.) from the same locality, which is in the McIlwraith Range.

The coloration of the plastron varies greatly with age in series from a given locality.

## TYPHLOPIIDAE

## TYPHLOPS GRYPUS Waite

*Typhlops grypus* Waite, 1918, Rec. S. Austral. Mus., **1**, p. 17, figs: Marble Bar, north Western Australia, and Gregory Downs, Queensland.

1 (M. C. Z. 35019) Hughenden, Q. (W. E. Schevill) 1932.

Midbody scale-rows 18; nasal cleft in contact with first labial. Diameter 5.5 mm. Total length 355 (348+7) mm.

Kinghorn (1929, p. 53) states that only four examples of this species were then known, two being without locality. It is interesting to note that *T. kenti* also occurs at Hughenden.

## TYPHLOPS PROXIMUS Waite

*Typhlops proximus* Waite, 1893, Rec. Austral. Mus., **2**, p. 60, pl. xv, figs. 1-4: Cairns, Queensland.

1 (M. C. Z. 2875) Australia (No further history) N. D.

1 (M. C. Z. 10277) Temora, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10278) Murrumbal, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10279) Parkes, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 20; nasal cleft in contact with first labial. Diameters 5-14 mm., included in total lengths 32-34 times. Largest snake (No. 10279) measures 515 (507+8) mm.

## TYPHLOPS NIGRESCENS (Gray)

*Anilius nigrescens* Gray, 1845, Cat. Liz. Brit. Mus., p. 135: Paramatta, New South Wales.

*Typhlops reginae* Boulenger, 1889, Ann. Mag. Nat. Hist., (6), **4**, p. 362: Queensland.

2 (M. C. Z. 10221, 34321) Australia (Australian Mus. & H. A. W.) 1914.

2 (M. C. Z. 10222, 10271) New South Wales (Australian Mus.) 1914.

1 (M. C. Z. 10270) Randwick, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10272) Armidale, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 35029) Hartley Vale, N. S. W. (P. J. Darlington) 1932.

Midbody scale-rows 22; nasal cleft in contact with first labial. Diameters 6-10 mm., included in total lengths 37-49 times. Largest snake (No. 10271) measures 495 (484+11) mm.

Numbers 10221-2 were received as *reginae* Boulenger, numbers 10270-2 as *nigrescens* Jan.

Waite (1918, p. 18), followed by Kinghorn (1929, p. 56) considered *nigrescens* Gray (1845), *ruppelli* Jan (1864) and *reginae* Boulenger

(1889) synonymous with *polygrammicus* Schlegel (1884) from Timor. However Malcolm Smith (1927, p. 219) has shown that Australian snakes may be separated on account of the nasal cleft being in contact with the first labial while in *polygrammicus* it proceeds from the suture between the first and second labials or frequently from the second labial only. The above specimens have been compared with a topotypic series of *polygrammicus*.

Mr. Kinghorn, to whom these notes have been shown, writes me that he has examined over a hundred of these snakes and finds that in all "the cleft proceeds from the first labial, so apparently all our specimens are *T. nigrescens*."

#### TYPHLOPS KENTI Boulenger

*Typhlops kenti* Boulenger, 1914, Ann. Mag. Nat. Hist., (8), 11, p. 482: Northern Queensland.

1 (M. C. Z. 35020) Hughenden, Q. (W. Charles) 1932.

Midbody scale-rows 18; nasal cleft in contact with second labial. Diameter 3 mm., included in total length 72 times. Total length 218.5 (216+2.5) mm.

Parker (1931, p. 605) has recently figured the type of *kenti* to show that the Western Australian species figured by Waite (1918, p. 22) was really an undescribed form which he then names *nigroterminatus*. Though *kenti* was described from Queensland, Kinghorn (1929, p. 59) omits all mention of Queensland in the distribution of the species.

#### TYPHLOPS NIGROTERMINATUS Parker

*Typhlops nigroterminatus* Parker, 1931, Ann. Mag. Nat. Hist., (10), 8, p. 604: Roebuck Bay, north Western Australia.

1 (M. C. Z. 32809) Mullewa, W. A. (W. E. Schevill) 1931.

Midbody scale-rows 18; nasal cleft in contact with second labial. Diameter 3 mm., included in total length 92 times. Total length 276 (265+11) mm.

#### TYPHLOPS AFFINIS Boulenger

*Typhlops affinis* Boulenger, 1889, Ann. Mag. Nat. Hist., (6), 4, p. 363: Queensland.

*Typhlops wiedii* Garman (not of Peters), 1901, Bull. Mus. Comp. Zoöl., 39, p. 11.

1 (M. C. Z. 6487) Cooktown, Q. (E. A. Olive) 1896.

Midbody scale-rows 18; nasal cleft apparently joining second labial. Diameter 2.5 mm., included in total length 57 times. Total length 144 (141+3) mm.

This is the specimen referred to *wiedii* by Garman. Its state of preservation leaves much to be desired but I am reasonably confident that the reidentification is correct.

#### TYPHLOPS BITUBERCULATUS (Peters)

*Onychocephalus bituberculatus* Peters, 1864, Monatsb. Akad. Wiss. Berlin, 1863 (1864), p. 233: near Adelaide, South Australia.

1 (M. C. Z. 10284) Bourke, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10285) Gandenbah, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10286) Hillston, N. S. W. (Australian Mus.) 1914.

3 (M. C. Z. 24425, 24494-5) Mundaring, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 32810) Lake Violet, W. A. (W. E. Schevill) 1931.

Midbody scale-rows 20; nasal cleft joining second labial; head trilobed. Diameters 2.5-9 mm., included in total length 49-61 times. Largest snake (No. 10284) measures 442 (436+6) mm.

The specimen from Lake Violet, near Wiluna, was "dug out of the nest of a small species of ant [*Melophorus* sp., *vide* Dr. W. M. Wheeler]. There were very few ants in the nest." (W. E. S.)

#### TYPHLOPS WIEDII Peters

*Typhlops wiedii* Peters, 1867, Monatsb. Akad. Wiss. Berlin, p. 24: Brisbane, Queensland.

1 (M. C. Z. 10223) Warren, Macquarie R., N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10224) Eidsvold, Burnett R., Q. (Australian Mus.) 1914.

Midbody scale-rows 20; nasal cleft joining second labial; head rounded. Diameter 3 mm., included in total lengths 57-65 times. Larger snake (No. 10223) measures 202 (195+7) mm.

#### TYPHLOPS PINGUIS Waite

*Typhlops pinguis* Waite, 1897, Trans. Roy. Soc. S. Austral., **21**, p. 25, pl. iii: South Australia.

*Typhlops opisthophachys* Werner, 1917, Mitt. Zoöl. Mus. Hamburg, **34**, p. 35: Tanga, Tanganyika Territory.

1 (M. C. Z. 32813) Lake Preston, W. A. (J. McCallum Smith) 1931.

Midbody scale-rows 20; nasal cleft joining second labial; snout pointed in lateral view. Diameter 21 mm., included in total length 16 times. Total length 345 (333+12) mm.



Lake Preston is near Cookernup. Elsewhere I (1933, p. 222) have given my reasons for doubting the accuracy of the type locality of *opisthopachys* which I feel convinced is a synonym of *pinguis* Waite.

#### TYPHLOPS AUSTRALIS (Gray)

*Anilius australis* Gray, 1845, Cat. Liz. Brit. Mus., p. 135: Western Australia.  
*Typhlops waitii* Boulenger, 1894, Proc. Linn. Soc. N. S. W., (2), 9, p. 718:  
 north Western Australia.

- 1 (M. C. Z. 10265) s. of Perth, W. A. (Australian Mus.) 1914.
- 1 (M. C. Z. 10266) Strelley River, W. A. (Australian Mus.) 1914.
- 3 (M. C. Z. 24424, 24492-3) Mundaring, W. A. (W. S. Brooks) 1927.
- 2 (M. C. Z. 32811-2) Rottneest Island, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 22; nasal cleft joining second labial. Diameters 3.5-13 mm., included in total length 29-42 times, 31-42 times in Rottneest Island snakes alone. Largest snake (No. 10266) measures 378 (370+8) mm.

Waite (1918, p. 29) hesitated to synonymize Boulenger's species with *australis* but I think that there is little reason for considering it distinct.

#### TYPHLOPS ENDOTERUS Waite

*Typhlops endoterus* Waite, 1918, Rec. S. Austral. Mus., 1, p. 32, figs.: Hermannsburg, Northern Territory.

*Typhlops leonhardii* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 77: Hermannsburg Mission, Upper Finke River, Northern Territory.

Cotype (M. C. Z. 22082) Hermannsburg, N. T. (M. v. Leonhardi) 1910.

This cotype of *leonhardii* was received from the Senckenberg Museum. The species has recently been referred to the synonymy of *endoterus* by Kinghorn (1932, p. 355) a conclusion already reached by Dr. Robert Mertens, who wrote that name upon the label when sending us the specimen in 1926.

Midbody scale-rows 22; nasal cleft joining preocular. Diameter 4 mm., included in total length 48 times. Total length 192 (186+6) mm.

### BOIDAE

#### LIASIS CHILDRENI Gray

*Liasis childreni* Gray, 1842, Zoöl. Miscell., p. 44: northwest Australia.

*Liasis childreni perthensis* Stull, 1932, Occ. Papers Boston Soc. Nat. Hist., 8, p. 26: Perth, Western Australia.

- 2 (M. C. Z. 4215) Island in Torres Straits (A. Agassiz) 1877.
- 1 (M. C. Z. 24426) Perth, W. A. (W. S. Brooks) 1927.

The Perth snake is the holotype of the race *perthensis* which Dr. Stull differentiated from the typical form of northern and eastern Australia by its "smaller number of scale rows (35 instead of 39-45), in the smaller number of ventrals (250 instead of 257-287, average 270.8), and the three pairs of prefrontals, as opposed to two in *L. e. childreni*."

Regarding the status of this form, Mr. L. Glauert of the Western Australian Museum wrote to me under date of September 28, 1932. "On examining our series I have come to the conclusion that this subspecies cannot stand. The scalation of the body varies with the age and size of the individual, while the head shields are not by any means constant as was pointed out in the British Museum Catalogue." i.e. Boulenger (1893, p. 77).

Subsequently, in reply for a request for more definite information, Mr. Glauert wrote that "the smallest snake in our collection is No. 102" and furnished me with the undermentioned scale-counts. Unfortunately precise localities are not furnished but from the context I gather that most, or all, came from the vicinity of Perth.

Museum Number	Scale-rows	Ventrals	Museum Number	Scale-rows	Ventrals
192	31	212	R. 2651	42	273
R.1417	41	293	R. 4062	42	270
345	42	264	R. 1837	43	268

When passing through London recently, I took the opportunity of examining such specimens of *childreni* as had been received by the British Museum since the publication of the "Catalogue of Snakes." These supply the following data:

Locality	Scale-rows	Ventrals	Subcaudals
Cooktown, Queensland	42	264	43
Groote Eyelandt, N. Terr.	48	291	50
Baudin Id., north W. A. (yng)	43	247	46
" (ad)	43	253	44

It will be observed that the Baudin Island snakes conform to typical *childreni* in possessing 43 midbody scale-rows, but to *perthensis* in the low number of ventrals. With more abundant material it may yet be demonstrated that *perthensis* is valid on a basis of average lower counts.

#### LIASIS AMETHISTINUS AMETHISTINUS (Schneider)

*Boa amethystina* Schneider, 1801, Hist. Amph., 2, p. 254.

*Python amethystinus* Boulenger (part), 1893, Cat. Snakes Brit. Mus., 1, p. 83.

*Liasis clarki* Barbour, 1914, Proc. Biol. Soc. Washington, 27, p. 202: Mer Island, Murray Islands, Torres Straits.

1 (M. C. Z. 9600) Mer Id., Torres Straits (H. L. Clark) 1914.

This specimen is the holotype of *clarki* which Barbour correctly referred to *Liasis*, his action being confirmed by Stull in mss. who finds that it conforms to typical New Guinea *amethistinus*. I might add that our two New Guinea and this Mer Island snake differ from the continental material in lacking an interparietal.

#### LIASIS AMETHISTINUS KINGHORNII Stull

*Liasis amethistinus kinghornii* Stull, 1933, Occ. Pap. Mus. Zoöl., Univ. Michigan, No. 227, June 28, p. 3: Lake Barrine, Queensland. /6

1 (M. C. Z. 35021) Cucania, near Babinda, Q. (W. E. Schevill) 1932.

3 (M. C. Z. 35022-4) Lake Barrine, Q. (W. E. S. & P. J. D.) 1932.

The above are the original type series, one of which has since been presented to the Queensland Museum, Brisbane.

Midbody scale-rows 45-52; ventrals 332-344; subcaudals 108-116; supralabials 13-14, 4 pitted; infralabials 22-24, 7-9 pitted; preoculars 2-3; postoculars 3-5; loreals 4-5; *interparietal present*. Largest snake (No. 35023) measures 3650 (3180+470) mm. These are field measurements made before skinning by Mr. W. E. Schevill, who further writes regarding this snake: "Shortly after midnight, April 4, 1932, this python raided the fowl-yard, but on detection abandoned the hen, which was already dead, and took refuge in a papaya tree about 15 feet high. A dog that was chained nearby, and which ordinarily gave the alarm when dasyures or cats were raiding, made no sound, but lay low." (W. E. S.)

Of the others Mr. Schevill writes: "One, taken at night, was lying fully extended on a trail near Lake Barrine. It made no move; had recently shed. Measured 2437 mm. immediately after death. Stomach empty. Aboriginal name *Goondai*." "At Dinner Creek, Cucania, Queensland, a male measuring 2315 mm. was caught killing a hen. April 6, 1932." (W. E. S.)

#### MORELIA ARGUS (Linnaeus)

(*Coluber*) *Arges* Linnaeus, 1758, Syst. Nat., 10th ed., 1, p. 227: "Africa."

(*Coluber*) *Argus* Linnaeus, 1766, Syst. Nat., 12th ed., 1, p. 389: "Africa."

*Coluber spilolus* Lacépède, 1804, Ann. Mus. Paris, 4, pp. 194, 209: Australia.

*Morelia variegata* Gray, 1842, Zoöl. Miscell., p. 43: Port Essington, Northern Territory.

*Python spilotes macrospila* Werner, 1909, Zoöl. Jahrb. Syst., **28**, p. 274: no locality.

- 3 (M. C. Z. 2200, 2513, 18379) Australia (Paris & Australian Mus.) V. D.
- 2 (M. C. Z. 2214, 6305) Sydney, N. S. W. (Göttingen & Austral. Mus.) V. D.
- 2 (M. C. Z. 10555 Exhibit) Queensland (Queensland Mus. & N. Y. Zoo) 1914.
- 5 (M. C. Z. 32801-5) West Wallaby Id., W. A. (W. E. Schevill) 1931.
- 1 (M. C. Z. 32806) Margaret River, W. A. (P. J. Darlington) 1931.
- 3 (M. C. Z. 35025-7) Lake Barrine, Q. (W. E. Schevill) 1932.
- 1 (M. C. Z. 35028) Hermannsburg Mission, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 43-51; ventrals 259-290; anal single; supralabials 12-14; infralabials 16-20; preoculars 2-4; postoculars 3-6; loreals 5-8. The largest snake (No. 32804) measures 1691 (1430+261) mm.

Boulenger (1893, p. 82, footnote) rejected *argus* (*argus errore* in 10th ed.) as it was based on a figure in Seba (Thes., **2**, pl. ciii, fig. 1) which appeared to be a composite. The body pattern is undoubtedly that of the snake more recently called *spilotes* but large cephalic plates have been drawn in. Dr. O. G. Stull (in mss.) considers that *argus* must be recognized, and has revived the genus *Morelia* for its reception.

*M. variegata* Gray, though so strikingly different in color and pattern from typical *argus*, appears to me to be nothing but a dimorphic form, its distribution uncorrelated with any definite geographical region or topographical environment. Of the above series Nos. 2214, 6305 and 18379 might be referred to typical *argus* and the rest to *variegata* but numerous intermediates occur so that one form grades into the other. Of the distribution of *argus* (as *spilotes*) Kinghorn (1929, p. 80) states: "The coastal districts of Australia generally. It is also found inland in some eastern parts" while of *variegata* he (1929, p. 78) says: "Essentially an inland variety though it may be met with in some of the coastal areas." The West Wallaby Island series are quite definitely of the *variegata* type, however.

Of these West Wallaby snakes Mr. Schevill writes: "Very sluggish, at least at the time of our visit (October 10-23, 1931). Generally found coiled up into a truncated cone, asleep—sometimes under a bush or in the mouth of a shearwater burrow, but more often in a secluded niche among the rocks. Even when found crawling about were quite sluggish and easily captured. One was taken just after swallowing a small *Egernia stokesii*."

#### ASPIDITES MELANOCEPHALUS RAMSAYI Macleay

*Aspidiotes ramsayi* Macleay, 1882, Proc. Linn. Soc. N. S. W., **6**, p. 813: Fort Bourke, New South Wales.

*Aspidites collaris* Longman, 1913, Mem. Queensl. Mus., 2, p. 140: Avondale Station, via Cunnamulla, Queensland.

1 (M. C. Z. 32806) Near Burracoppin, W. A. (W. Australian Mus.) 1931.

1 (M. C. Z. 32807) ? Merredin, W. A. (E. A. LeSouef) 1931.

Midbody scale-rows 53; ventrals 283-296; anal entire; subcaudals 44-48; labials 11-13, 6th or 7th or 6th and 7th entering the orbit; the eye is not separated from the labials; prefrontals form a median suture. Both are within a millimetre of the same measurements, the larger 1717 (1585+132) mm.

When Boulenger (1893, p. 91) dealt with this genus he had only Krefft's type of *melanocephalus*. *A. ramsayi* was only known to him from Macleay's description.

Waite (1917, pp. 436-440) has given a good summary of our knowledge of this genus and states that Longman suggests the possibility of *collaris* being based on a semi-albino juvenile.

Glauert (1928, p. 28) gives the range of *melanocephalus* in Western Australia as "Kimberly Tableland, North Wheat Belt and Burracoppin." (the last record doubtless based on the specimen listed above); for *ramsayi* he gives "Geraldton to Meckering."

Kinghorn (1929, p. 82) is probably more correct in restricting the range of *melanocephalus* to northern Australia. The type locality is Port Denison, Queensland and the only other records known to Waite were all northern Queensland. He follows Waite in referring *collaris* to the synonymy of *ramsayi*.

On comparing the material listed above with the descriptions of *melanocephalus* and *ramsayi*, they are found to be in agreement with the latter both in coloration and in the number of ventrals; the number of midbody scale-rows and subcaudal shields are so close in both forms as to be of doubtful diagnostic value; the same might be said regarding the number of supralabials—10 to 12 in *melanocephalus*, 11 to 14 in *ramsayi*. They are in agreement with *melanocephalus* in having the eye in contact with the labials. Waite has shown that this is constant in *melanocephalus* but inconstant in *ramsayi*. It seems to me therefore that we are dealing with geographical forms of one species which may be separated as follows:

- |   |                             |
|---|-----------------------------|
| Ventrals more than 310 (known range 320-350); head usually black in adults. Eastern and northern Queensland . . . . .                                     | <i>A. m. melanocephalus</i> |
| Ventrals less than 310 (known range 283-308); head usually brown in adults. Western and central Australia; New South Wales; southern Queensland . . . . . | <i>A. m. ramsayi</i>        |

## COLUBRIDAE (COLUBRINAE)

## NATRIX MAIRII (Gray)

*Tropidonotus mairii* Gray, 1841, in Grey's Journ. Exped. West. Austral., 2, p. 442: Australia.

1 (M. C. Z. 2524) Queensland (Australian Mus.) 1870.

1 (M. C. Z. 10269) Clarence R., N. S. W. (Australian Mus.) 1914.

3 (M. C. Z. 35070-2) Nr. Mundubbera, Q. (J. Parker et al.) 1932.

Midbody scale-rows 15; ventrals 149-153; anals 2; subcaudals 67-70; supralabials 8-9, 3rd, 4th and 5th or 4th, 5th and 6th entering the orbit; preoculars 1 (being abnormal in No. 2524) or 2. Largest snake (No. 10269) measures 640 (530+110+) mm.; tip of tail missing.

Number 2524 was received from Dr. Krefft as *picturatus* (Schlegel), a species with which *mairii* was for some time confused. According to Rooij (1917, p. 77) *picturatus* does occur in Northern Australia but is omitted by Kinghorn (1929). In view of such records as the Clarence River snake it is surprising that the latter author (1929, p. 87) gives the distribution of *mairii* as "From the Moluccas, through New Guinea to the northern parts of Australia." though Lucas and Le Souef (1909, p. 170) under the name *picturatus* had given it as "East Australia, north of the Clarence River."

DENDROPHIS CALLIGASTER Günther<sup>1</sup>

*Dendrophis calligaster* Günther, 1867, Ann. Mag. Nat. Hist., (3), 20, p. 53: Cape York, northeastern Australia.

*Dendrelaphis schlenkeri* Ogilby, 1898, Proc. Linn. Soc. N. S. W., 23, p. 361, fig: Fife Bay, British New Guinea.

*Dendrophis calligaster* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, p. 12; Barbour, 1914, Proc. Biol. Soc. Washington, 27, p. 203.

1 (M. C. Z. 6488) Cooktown, Q. (A. E. Olive) 1896.

1 (M. C. Z. 9472) Mer Id., T. S. (H. L. Clark) 1914.

2 (M. C. Z. 35062-3) Lankelly Creek, Q. (P. J. Darlington) 1932.

3 (M. C. Z. 35064-6) Rocky Scrub, Q. (P. J. Darlington) 1932.

Both the last mentioned localities are in the McIlwraith Range, near Coen.

Midbody scale-rows 13; ventrals 179-183; anals 2; subcaudals 119-144; labials 8-9, 4th and 5th or 5th and 6th entering the orbit, the latter condition occurring in three snakes and then on one side of the

<sup>1</sup> For use of *Dendrophis* and not *Ahaetulla*, see Stejneger, Copeia, 1933, p. 199.

head only; temporals 2+3 except for two snakes where it is 1+1 or aberrant; a dark streak on the side of the head. Largest snake (No. 35064) measures 1162 (772+390) mm.

#### DENDROPHIS PUNCTULATUS (Gray)

*Leptophis punctulatus* Gray, 1827, in King's Voy. Austral., 2, p. 432: Careening Bay, Northern Territory.

*Dendrophis (Ahetula) olivacea* Gray, 1842, Zoöl. Miscell., p. 54: Port Essington, Northern Territory.

*Dendrophis (Ahetula) fusca* Gray, 1842, Zoöl. Miscell., p. 54: Port Essington, Northern Territory.

*Dendrophis prasinus* Girard, 1857, Proc. Acad. Nat. Sci. Philad., p. 181: Australia.

*Dendrophis gracilis* Macleay, 1877, Proc. Linn. Soc. N. S. W., 2, p. 220: Townsville, Cleveland Bay, Queensland.

Head (M. C. Z. 2521) New South Wales (G. Krefft) 1870.

1 (M. C. Z. 3099) Australia (C. L. Salmin) N. D.

1 (M. C. Z. 7797) Mossman, Q. (J. C. Kershaw) 1910.

Midbody scale-rows 13; ventrals 204-208; anals 2; sub-caudals 126-128; labials 8, 4th and 5th entering the orbit; temporals 1+2; no dark streak on side of head. Larger snake (No. 3099) measures 1508 (1082+426+) mm., tip of tail missing.

These snakes are strongly reminiscent of the neotropical *Leptophis*, species of which are now known to be very variable. Longman regards *gracilis* as worthy of recognition as a color form but being doubtful of its status I follow Boulenger (1896, p. 82) in referring it to the synonymy.

### COLUBRIDAE (HOMALOPSINAE)

#### ENHYDRIS POLYLEPIS (Fischer)

*Hypsirhina polylepis* Fischer, 1886, Abh. Nat. Geb. Hamburg, 9, p. 14: Fly River, New Guinea.

*Pseudoferania macleayi* Ogilby, 1890, Proc. Linn. Soc. N. S. W., (2), 5, p. 51: Herbert River at Ripple Creek, Queensland.

♀ (M. C. Z. 35067) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 21; ventrals 152; anals 2; subcaudals 41; labials 8, 5th and 6th entering the orbit as in *polylepis*; 3 infralabials in contact with anterior chin shields; preocular 1; postoculars 2, temporals 1+2. Total length 673 (575+98) mm. Gravid with a dozen eggs measuring about 15 x 10 mm.; considerable deposits of fat; stomach empty.

De Rooij (1917, p. 183) gives the range for New Guinea *polylepis* as: Midbody scale-rows 21 or 23 (25); ventrals 137-156; subcaudals 37-48. Kinghorn (1929, p. 90) just repeats Boulenger's (1896, p. 9) old figures for *maclayi* (viz. Midbody scale-rows 21-23; ventrals 147-152; subcaudals 38-47), though Lönnberg and Andersson (1913, p. 8) had recorded a specimen from Cairns, under the name of *polylepis*, as having 155 ventrals and 38 subcaudals. As the other supposedly differential characters are now known to be variable I propose to unite *maclayi* with *polylepis* for they do not appear to be even geographical races.

## COLUBRIDAE (BOIGINAE)

### BOIGA FUSCA (Gray)

*Dendrophis fusca* Gray, 1842, Zoöl. Miscell., p. 54: Port Essington, Northern Territory.

*Dipsas boydii* Macleay, 1884, Proc. Linn. Soc. N. S. W., 9, p. 548: Ripple Creek, Ingham, northern Queensland.

*Dipsas ornata* Macleay, 1888, Proc. Linn. Soc. N. S. W. (2), 3, p. 416: King George's Sound, north Western Australia.

1 (M. C. Z. 7800) Queensland (H. A. Ward) 1910.

1 (M. C. Z. 35068) Lake Barrine, Q. (P. J. Darlington) 1932.

Midbody scale-rows 19-21; ventrals 238-255; anal 1; subcaudals 97-100; labials 8-9, 3rd, 4th and 5th or 4th, 5th and 6th entering the orbit. Larger snake (No. 7800) measures 1485 (1190+295) mm.

Kinghorn (1929, p. 84) has synonymised *ornata* with *fusca* and states that the type has 19 midbody scale-rows, not 15 as appeared in the original description.

## COLUBRIDAE (ELAPINAE)

### GLYPHODON TRISTIS Günther

*Glyphodon tristis* Günther, 1858, Cat. Snakes Brit. Mus., p. 211: northeast Australia.

*Denisonia fenestrata* De Vis, 1905, Ann. Queensl. Mus., No. 6, p. 50: Queensland.

*Glyphodon tristis* Barbour, 1914, Proc. Biol. Soc. Washington, 27, p. 203.

3 (M. C. Z. 9499-9501) Mer Id., T. S. (H. L. Clark) 1914.

1 (M. C. Z. 10155) Murray Is., T. S. (Australian Mus.) 1914.

Midbody scale-rows 17; ventrals 168-173; anals 2; subcaudals 46-47, paired except anterior three of No. 10155. Largest snake (No. 10155) measures 921 (790+131) mm.



Longman (1912, p. 23) has shown that *feneestrata* should be referred to the synonymy of this species.

#### PSEUDELAPS SQUAMULOSUS Duméril & Bibron

*Pseudelaps squamulosus* Duméril & Bibron, 1854, *Erpét. Gén.*, **7**, p. 1235:  
Type locality uncertain.

*Pseudelaps fordeï* Krefft, 1869, *Proc. Zoöl. Soc. London*, p. 318, fig: Ipswich, Queensland.

1 (M. C. Z. 10280) Clarence R., N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 35073) Cascade, Dorrigo, N. S. W. (P. J. Darlington) 1932.

Midbody scale-rows 15; ventrals 172-177; anals 2; subcaudals 36-43, paired; temporals 1+2; nasal divided. Larger snake (No. 10280) measures 575 (500+75) mm.

#### PSEUDELAPS HARRIETTAE (Krefft)

*Cacophis harriettae* Krefft, 1869, *Proc. Zoöl. Soc. London*, p. 319, fig: Warro, Port Curtis, Queensland.

1 (M. C. Z. 5227) Australia (H. A. Ward) 1884.

1 (M. C. Z. 10243) Blackall Range, Q. (Australian Mus.) 1914.

1 (M. C. Z. 10541) Brisbane, Q. (Queensland Mus.) 1914.

Midbody scale-rows 15; ventrals 171-183; anals 2; subcaudals 26-34, paired. Despite its low ventral count, the Brisbane snake is undoubtedly *harriettae*. Largest snake (No. 10541) measures 398 (350+48) mm.

Longman (1918, p. 40) has published some interesting notes on the habits and variation of this species.

#### PSEUDELAPS DIADEMA (Schlegel)

*Calamaria diadema* Schlegel, 1837, *Phys, Serp.*, **2**, p. 32: Australia.

*Pseudelaps diadema* Garman, 1901, *Bull. Mus. Comp. Zoöl.*, **39**, p. 12.

1 (M. C. Z. 6309) Sydney, N. S. W. (Australian Mus.) 1890.

1 (M. C. Z. 6489) Cooktown, Q. (E. A. Olive) 1896.

1 (M. C. Z. 35074) Coen, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35075) Nr. Mundubbera, Q. (J. Parker) 1932.

Midbody scale-rows 15; ventrals 170-176; anals 2; subcaudals 43-58, paired. Largest snake (No. 35074) measures 452 (360+92) mm.

Fry (1915, p. 92) has suggested that the records of this species from northern and western Australia may include examples of *christicauus* which closely resembles *diadema*.

## PSEUDELAAPS CHRISTIEANUS Fry

*Pseudelaps christieanus* Fry, 1915, Proc. Roy. Soc. Queensl., 27, p. 91, fig. 6:  
Port Darwin, Northern Territory.

1 (M. C. Z. 29790) Near Darwin, N. T. (H. L. Clark) 1929.

Midbody scale-rows 17; ventrals 170; anals 2; subcaudals 56. Total length 326 (260+66) mm.

Kinghorn (1926, p. 65) has drawn attention to Tate Regan having entered this species in the Zoölogical Record for 1915 as *P. (i.e. Pseudechis) christieanus*, unfortunately, however, both then and later (1929, p. 127) Kinghorn omits the second "i" in the specific name; the author's original spelling is given above.

Though in a footnote Fry suggested that the tail of the type might be incomplete with 38 subcaudals, the suggestion is omitted by Kinghorn. In this connection I might remark that I have examined the type of *Pseudelaps muelleri insulae* Barbour from Djamna islet which was said to differ from the typical New Guinea snake in its shorter tail, fewer subcaudals and different coloring. The tail of the type has been truncated in life and healed over; the snake is a rather melanistic example but some of the underlying markings can be detected. As similar dark specimens are known to occur on the mainland I consider *insulae* to be a synonym of *muelleri* (Schlegel).

Kinghorn (1929, p. 127) states that only two examples of *christieanus* are known, our topotype is therefore the third and it should be observed that it has 56 subcaudals, paired.

## DEMANSIA PSAMMOPHIS PSAMMOPHIS (Schlegel)

*Elaps psammophis* Schlegel, 1837, Phys. Serp., 2, p. 455: Australia.

*Diemenia maculiceps* Boettger, 1898, Katal. Rept. Mus. Senckenb., 2, p. 116:  
Burnett River, Queensland.

2 (M. C. Z. 2516-7) New South Wales (Australian Mus.) 1870.

2 (M. C. Z. 3100, 20172) Australia (C. L. Salmin) 1864

1 (M. C. Z. 10260) Clarence River, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 15; ventrals 174-183; anals 2; subcaudals 75-79, paired; No. 2516 is aberrant with 7 supralabials, 3rd and 4th entering the orbit. Largest snake (No. 2516) measures 762 (582+180) mm.

Of our material all those with vague data are pale olive above and undoubtedly represent the typical form. The Clarence River snake agrees with them in possessing the circumorbital markings characterizing *psammophis* and *reticulata* according to Kinghorn's figures

(1929, pp. 136-7) but it is black above. Boettger's *maculiceps* appears to me to be an intermediate between typical *psammophis* and *olivacea*.

To judge by Boulenger's (1896, p. 322) data, there would appear to be at least three good geographical color races: In the southeast (*psammophis*), in the west and northwest (*reticulata*), in the north and northeast and New Guinea (*papuensis*). To these I propose to add a fourth by reducing *olivacea* to subspecific rank. In African snakes of the genera *Psammophis* and *Trimerorhinus* I have found that the relative width and breadth of the rostral is not always of specific importance. In practice, also, the fine distinctions used in Boulenger's key to *Demansia* (1896, p. 321) where he utilises the length of the prefrontals in relation to that of the internasals, break down and do not separate *psammophis*, *olivacea* and *torquata*. In our material listed above, the rostral is broader than deep (*olivacea*) and the internasals more than half the length of the prefrontals (*psammophis* or *torquata*). Kinghorn's (1932, p. 356) recent records of *torquata* from southwestern Queensland makes one wonder if *torquata* is anything more than a color mutant of *psammophis*.

Kinghorn (1929, pp. 136-7) gives the ranges of *psammophis* and of *reticulata* as "Known from almost all over Australia, and parts of New Guinea" and "Probably all over Australia" but these are generalizations in a popular handbook. A reëxamination of all the material in Australian museums would help to clear up the status of the proposed races.

#### DEMANSIA PSAMMOPHIS RETICULATA (Gray)

*Lycodon reticulatus* Gray, 1842, Zoöl. Miscell., p. 54: Australia.

1 (M. C. Z. 24438) Geraldton, W. A. (W. S. Brooks) 1927.

Midbody scale-rows 15; ventrals 188, the last one being divided; anals 2; subcaudals 71, paired; rostral broader than deep; internasals rather more than half the length of the prefrontals. Total length 749 (582+167) mm.

"Taken beneath a stone on February 17, 1927." (W. S. B.) A western and northwestern race extending eastwards to Alice Springs in central Australia.

#### DEMANSIA PSAMMOPHIS OLIVACEA (Gray)

*Lycodon olivaceus* Gray, 1842, Zoöl. Miscell., p. 54: northeast Australia.

*Diemenia atra* Macleay, 1884, Proc. Linn. Soc. N. S. W., 9, p. 549: Ripple Creek, Ingham, northern Queensland.

1 (M. C. Z. 35076) Lankelly Creek, Q. (P. J. Darlington) 1932.

Midbody scale-rows 15; ventrals 172; anals 2; subcaudals 78; rostral as broad as deep; internasals more than half as long as the prefrontals. Total length 748 (565+183) mm.

This snake from the Mellwraith Range, Cape York, differs from typical *psammophis* and the race *reticulata* in lacking the circumorbital and transrostral markings and by possessing, though but faintly discernible, the temporal spotting as figured for *olivacea* by Kinghorn (1929, p. 131). Otherwise it is melanistic, except for the slightly paler head, light throat and posterior subcaudal region. It undoubtedly represents *atra* of Macleay (not Krefft as in Kinghorn) of which Kinghorn states that only the type is known.

#### DEMANSIA MODESTA (Günther)

*Cacophis modesta* Günther, 1872, Ann. Mag. Nat. Hist., (4), 9, p. 35, pl. iii, fig. C: Perth and northwest Australia.

*Furina ramsayi* Macleay, 1885, Proc. Linn. Soc. N. S. W., 10, p. 61: Milparinka, western New South Wales.

1 (M. C. Z. 22379) Geraldton, W. A. (British Mus.) 1926.

Midbody scale-rows 17; ventrals 155; anals 2; subcaudals 51, paired. Total length 437 (360+77+) mm., tip of tail missing.

Fry (1914, p. 192) has reexamined the types of *ramsayi* and points out numerous discrepancies in Macleay's description. He confirms Boulenger's action in synonymising *ramsayi* with *modesta*.

#### DEMANSIA TEXTILIS TEXTILIS (Duméril & Bibron)

*Furina textilis* Duméril & Bibron, 1854, Erpét. Gén., 7, p. 1242: Australia.

*Pscudochis cupreus* Boulenger (part), 1896, Cat. Snakes Brit. Mus., 3, p. 329: Murray River, Australia.

1 (M. C. Z. 6306) Sydney, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 6307) Richmond, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 6308) Germanton, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 35089) The Coorong, S. A. (W. E. Schevill) 1932.

Midbody scale-rows 17; ventrals 198-212; anals 2; subcaudals 63-66, paired, except in the Coorong snake which has the anterior six single; middle portion of frontal narrower than a supraocular; portion of rostral visible from above less than two-thirds its distance from the frontal. The three New South Wales specimens are very young, the first two listed exhibit transverse barring. The largest (No. 35089) which is uniformly dark brown above, below each scale edged with brown and usually mottled with grey, measures 1547 (1326+221) mm.

Considerable confusion has resulted from the earlier determinations of this snake and its immediate allies. The relationships of the confused forms are outlined in the following key, which should be tested by larger series than are at my disposal. In view of Thomson's (1930, p. 128) findings as to the wide range of variation in frontal width in *Pseudechis australis*, including *Pseudechis cupreus* Boulenger (part), it seems probable that this character will prove of little value in *Demansia* also. It is doubtful if *D. t. inframacula* Waite is worthy of recognition; as might be expected, our Coorong snake is intermediate between *textilis* and *inframacula* in belly coloring. Undoubtedly the key will require amending when tested by more material; care should be taken, however, to avoid inclusion of related species such as *carinata* (Longman) and *guttata* Parker, both of Queensland.

I regard *D. t. affinis* as the parent form which has given off *nuchalis* in the northwest and Northern Territory, *inframacula* on Coffin's Bay Peninsula, and *textilis* in the southeast.

- |   |                          |
|---|--------------------------|
| Scales in 19 rows (Western Australia from Perth southwards) . . . . .   | <i>D. t. affinis</i>     |
| Scales in 17 rows . . . . .   | 1.                       |
| 1. Frontal narrower than a supraocular (New South Wales and South Australia; adjacent regions) . . . . .  | <i>D. t. textilis</i>    |
| Frontal broader than a supraocular . . . . .  | 2.                       |
| 2. Frontal almost straight-sided; belly grey, each ventral scute with a pair of black blotches (Coffin's Bay Peninsula, South Australia) . . .                            | <i>D. t. inframacula</i> |
| Frontal distinctly bell-shaped; belly yellow, immaculate, or with reddish-brown spots fading out in the adult. (North Western Australia and Northern Territory) . . . . . | <i>D. t. nuchalis</i>    |

The foregoing conclusions were reached before reading Fry's (1914, pp. 190-6) views on this group. Though he treats the forms as full species we have arrived at much the same conclusions as to distribution. Regarding *nuchalis*, however, he has been led astray by accepting records such as that of Werner (1909, p. 257) for Rottneest Island, whereas I hazard a guess that Werner used *nuchalis* in the earlier sense and what he had was really *affinis*. Fry treats *Pseudoclaps bancrofti* De Vis as a synonym of *nuchalis* which, if correct, would extend the range as defined above. I think, however, that the status of *bancrofti* and a number of other names should all be reconsidered carefully in the light of modern views of geographical races.

## DEMANSIA TEXTILIS NUCHALIS (Günther)

*Pseudonaja nuchalis* Günther, 1858, Cat. Snakes Brit. Mus., p. 227: Port Essington, Northern Territory.

*Diemenia ingrami* Boulenger, 1908, Ann. Mag. Nat. Hist., (8), 1, p. 334: Alexandra, Northern Territory.

1 (M. C. Z. 29789) Broome, W. A. (H. L. Clark) 1929.

1 (M. C. Z. 35077) Port Darwin, N. T. (H. L. Clark) 1932.

1 (M. C. Z. 35078) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 17; ventrals 189-213; anals 2; subcaudals 55-60; the labials on the right side of No. 35077 are aberrant, being 7, the 3rd, 4th and 5th entering the orbit. Largest snake (No. 35078) measures 1198 (1017+181) mm.

As indicated above, Boulenger (1896, p. 326) confounded *nuchalis* and *affinis*. Later (1908, *loc. cit.*) he described *ingrami*, stating that the diameter of the eye was equal to one-third the length of the snout. This is an age character, being a third in our large Hermannsburg snake, half in the half-grown Port Darwin reptile, and once and a half in the juvenile specimen from Broome. The portion of the rostral visible from above is equal, or slightly longer (No. 35077) than its distance from the frontal (not "about one half"). Frontals are broader than the supraoculars (not "equal to") and their sides almost straight, being but slightly bell-shaped; nasal barely, or broadly, in contact with the preocular (not "separated from"); fifth supralabial broadly (in young) or narrowly (in largest) separated from the parietal. Despite these differences I feel reasonably sure that our three snakes represent the same race as Boulenger's holotype of *ingrami* which was a very old snake measuring 1510 (1270+240) mm.

Kinghorn (1929, p. 129) in writing of the distribution of *nuchalis*, states that he has "a somewhat doubtful record from Port Essington (Q.)" Apart from Port Essington not being in Queensland, this is strange, for Port Essington is the type locality of *nuchalis*.

## DEMANSIA TEXTILIS AFFINIS (Günther)

*Pseudonaja affinis* Günther, 1872, Ann. Mag. Nat. Hist., (4), 9, p. 35, pl. iv, fig. C: Australia.

1 (M. C. Z. 10281) Perth, A. W. (Australian Mus.) 1914.

2 (M. C. Z. 24444-5) Perth, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 32814) Rottnest Id., W. A. (P. J. Darlington) 1931.

Midbody scale-rows 19; ventrals 214-215; anals 2; subcaudals 56-62; portion of rostral visible from above is equal to (Nos. 10281,

24445) or only two-thirds (Nos. 24444, 32814) its distance from the frontal. Largest snake (No. 32814) measures 1160 (1000+160) mm.

Boulenger (1896, p. 326) confused *affinis* with *nuchalis*. Fry (1914, p. 193) followed by Kinghorn (1929, p. 133) revived *affinis* as a full species, a course which is probably the correct one for it differs from *textilis* and the other races in its more numerous midbody scale-rows and more numerous ventrals. It has, however, been confused with *nuchalis* so often that for the present I prefer to treat it as a race. Both Fry and Kinghorn give its number of midbody scale-rows as from 17 to 21, obtaining the former number from Boulenger and the latter from Lucas and Frost's (1896, p. 148) record of a snake from Reedy Creek, George Gill Range, Northern Territory. I suggest that a reëxamination of this snake will reveal it to be another species, possibly *guttata* Parker which has 21 midbody scale-rows.

#### PSEUDECHIS AUSTRALIS (Gray)

*Naja australis* Gray, 1842, Zoöl. Miscell., p. 55: northeast Australia.

*Pseudechis cupreus* Boulenger (part), 1896, Cat. Snakes Brit. Mus., 3, p. 329: Murray River, Australia. (Krefft's specimen).

*Pseudechis australis* Loveridge, 1927, Bull. Antivenin Inst. Amer., 1, p. 58.

1 (M. C. Z. 7099) Australia (T. Barbour don.) 1903.

1 (M. C. Z. 35086) Jones Valley, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35087) Templeton River, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35088) Coen, Q. (P. J. Darlington) 1932.

Jones Valley is N.W. of Hughenden; Templeton R. between Mt. Isa and Camooweal.

Midbody scale-rows 17; ventrals 198-208; anals 2; subcaudals 57-67, partly single, partly paired. In this connection I might remark that I have very carefully reëxamined the snake from Merauke, New Guinea (MC.Z. 22811) which has all except the last subcaudal single (*loc. cit. supra*) and am satisfied with its identification. All five snakes are uniformly yellowish beneath. Largest snake (No. 35086) measures 1716 (1470+246) mm. Waite (1915, p. 737) mentions an example of 1640 mm., which he thinks may be the largest recorded; it is surpassed by one from Stewart River, Queensland, recorded by Thomson (1930, p. 128), which measured 2039 mm.

I am deeply indebted to Mr. J. R. Kinghorn for drawing my attention to Thomson's important paper in which that author synonymises *P. darwiniensis* with *australis*. Thomson (1930, p. 153) also shows that *cupreus* was based on McCoy's colored plate of a *Demansia*, plus Krefft's description of two snakes from the Murray River and Port

Denison which were undoubtedly *P. australis*. Thus *cupreus* Boulenger is a composite and may be dropped from the Australian list. The snake from the Coorong, now referred to *Demansia t. textilis*, agreed so well with McCoy's figure and description that I confess to having referred it to *cupreus* before reading Thomson's paper and examining its teeth.

In the above series the rostral is slightly (No. 35086) or considerably broader than long; the internasals measured along the median suture, are less than half, or exactly half (Nos. 35086, 35088) the length of the prefrontals; the frontal is from once and a half (Nos. 35086, 35088) to twice (Nos. 7099, 35087) as broad as long, and either barely broader than (No. 35087), broader than (Nos. 7099, 22811<sup>1</sup>) or much broader than (Nos. 35086, 35088) the supraocular. It will be seen that the Jones Valley and Coen snakes vary in the direction of *darwiniensis*, but Thomson has showed wide variation in frontal width not only in his series from Coen but in three specimens supposedly from the type locality—Port Darwin. The temporals may be 1+1 or 1+2 on different sides of the head in the same snake.

Eradu, type locality of *Pseudechis denisonioides* Werner, is near Geraldton, so that it is hardly correct to say "Restricted to South-western Australia" (Kinghorn, 1929, p. 161). Glauert (1928, p. 74) has recorded it from Dorre Island, about 300 miles north of Eradu. Whether this second specimen had an entire anal like the type is not stated, nor am I certain whether an entire anal in such a genus as *Pseudechis* is of diagnostic value as a specific character. A critical study of all Western Australian "*australis*" might show that the name *denisonioides* could be applied in a wider sense. Unfortunately Fry (1914, p. 197) did not give the locality of the western snake with a divided anal whose scale counts agreed with those of *denisonioides*.

Mr. Glauert, to whom the preceding paragraph was submitted, writes me (May 19, 1933) as follows: "When I checked recently a specimen from Dorre Island which was regarded as *denisonioides* in my list of Western Australian reptiles on a determination made when the Reptilia were not under my control, I found that the snake had a divided anal and that in other respects it was within the variation of the series of *australis* in the collection. I agree with Donald F. Thomson who, (1930, p. 133) maintains that *P. darwiniensis* and *P. cupreus* are synonyms of *P. australis*. To these I would add *P. denisonioides* which I think was described from an abnormal specimen of *P. australis*.

"Concerning *Pseudechis australis*, of which we possess fifteen specimens ranging from the Kimberley district in the north to the country

<sup>1</sup>From Merauke, New Guinea.



around Perth, I find that the individuals collected in that part of the state known as the South-west Division resemble one another fairly closely. The tail is rather long and their ventrals less numerous, ranging between 189 and 198; the anals are all divided; the subcaudals, which range from 51 to 58, have from 32 to 41 undivided scales followed by from 15 to 25 divided ones, the tail ending as usual in a small undivided scale. In spite of all that may have been written concerning the rarity of this snake it is one of the commonest in the vicinity of Perth. On the sandhill country towards the coast according to my experience it outnumbers the so-called Brown Snake (*Demansia nuchalis*) of which we consider *D. affinis* to be a variety."

Of the Templeton River snake, taken in August, fifteen miles west of Mount Isa, Mr. W. E. Schevill has made the following note: "This snake came out of a hole among the roots of a large gum on the bank where de Teliga was skinning birds. It was evidently lying by his foot when he moved it and the snake struck. The fangs penetrated his trousers, but did not reach the skin, although venom was spilled upon it."

#### PSEUDECHIS PORPHYRIACUS (Shaw)

*Coluber porphyriacus* Shaw, 1794, Zool. New Holland, p. 27, pl. x: Australia.

- 1 (M. C. Z. 2215) Sydney, N. S. W. (W. Keferstein) 1865.
- 1 (M. C. Z. 3106) Melbourne, V. (C. L. Salmin) 1864.
- 1 (M. C. Z. 10715) New South Wales (T. Barbour don.) 1903.
- 1 (M. C. Z. 35079) Blackheath, N. S. W. (P. J. Darlington) 1932.
- 1 (M. C. Z. 35080) Dorrigo, N. S. W. (W. Heron) 1932.
- 1 (M. C. Z. 35081) Bunya Mountains, Q. (W. E. Schevill) 1932.
- 1 (M. C. Z. 35082) Lake Barrine, Q. (P. J. Darlington) 1932.
- 1 (M. C. Z. 35083) Millaa Millaa, Q. (P. J. Darlington) 1932.
- 2 (M. C. Z. 35084-5) Mt. Spurgeon, Q. (P. J. Darlington) 1932.

Midbody scale-rows 17; ventrals 176-193; anals 2; subcaudals 51-56, partly single, partly paired; length of the frontal is *equal to* (Nos. 35080-1), longer than, or much longer than (Nos. 35082, 35085) its distance from the rostral. Though the last to be collected, the most northerly Red-bellied Black Snakes (Nos. 35082-5) comprising both very young and adults, are without, or with but a faint tinge of, the red which is so characteristic of the southern examples. Largest snake (No. 35084) measures 1589 (1395+194) mm.

"The largest black snake that I got at Millaa Millaa showed a remarkable defensive habit. I caught it in the evening twilight under a log, recently felled, in 'scrub' country. I dragged it out and put my foot upon its neck. The next moment it was striking viciously at my

foot with what certainly looked like its head, each stroke landing with a thump. I nearly let the reptile go to avoid being bitten, but on looking more closely I saw that it was striking with its tail which it had looped tightly near the end to simulate a head. There was a single loop, not a knot. A minute later, after I had got my light on it, the snake struck repeatedly in the same way so that I am sure that the action was deliberate." (P. J. D.)

#### DENISONIA SUPERBA (Günther)

*Hoplocephalus superbus* Günther (part), 1858, Cat. Snakes Brit. Mus., p. 217: Australia and Tasmania.

- 1 (M. C. Z. 919) Hobart, T. (J. W. Robertson) 1861.
- 1 (M. C. Z. 5238) Victoria (H. A. Ward) 1884.
- 1 (M. C. Z. 10283) Moss Vale, N. S. W. (Australian Mus.) 1914.
- 1 (M. C. Z. 13291) Boggabri, N. S. W. (W. F. H. Rosenberg) 1918.
- 1 (M. C. Z. 32823) Mill Grove, V. (Harvard Exped.) 1931.
- 2 (M. C. Z. 32824-5) Mt. Kosciusko, N. S. W. (W. E. Schevill) 1931.

Midbody scale-rows 15; ventrals 148-158; anal 1; subcaudals 40-48, single; frontal once and three-quarters to twice and an eighth as broad as long. Largest snake (No. 32824) measures 793 (670+123) mm.

Number 919 has long been in the collection as *coronoides* while No. 13291 was received from Rosenberg as *gouldii*.

#### DENISONIA CORONATA (Schlegel)

*Elaps coronatus* Schlegel, 1837, Phys. Serp., 2, p. 454: Australia.

- 1 (M. C. Z. 22385) Western Australia (British Mus.) 1926.
- 4 (M. C. Z. 24428-31) Nr. Denmark, W. A. (W. S. Brooks) 1927.
- 1 (M. C. Z. 24432) Mt. Melville, W. A. (W. S. Brooks) 1927.
- 3 (M. C. Z. 24433-5) Augusta, W. A. (W. S. Brooks) 1927.
- 2 (M. C. Z. 24436-7) Pemberton, W. A. (W. S. Brooks) 1927.
- 1 (M. C. Z. 32820) Pemberton, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 15; ventrals 133-146; anal 1; subcaudals 40-49, single; frontal once and two-thirds to two and a quarter times as broad as long so this character cannot be utilized to differentiate this species from *superba* as employed by Boulenger (1896, p. 333). Largest snake (No. 22385) measures 507 (426+81) mm.

Numbers 24428-9 are gravid females with embryos present in the ova. They were "taken together beneath a log near Denmark River, south of Denmark on 21.i.1927." (W. S. B.)

## DENISONIA CORONOIDES (Günther)

*Hoplocephalus coronoides* Günther, 1858, Cat. Snakes Brit. Mus., p. 215: Tasmania, and Swan River, Western Australia.

*Pseudelaps minutus* Fry, 1915, Proc. Roy. Soc. Queensl., 27, p. 93, fig. 7: Wilde's Meadow, near Moss Vale; Colo Vale; Tamworth or Guntawang; all in New South Wales.

1 (M. C. Z. 5239) Victoria (H. A. Ward) 1884.

4 (M. C. Z. 32815-8) Below Dead Horse Pass, N. S. W. (P. J. Darlington) 1931.

Dead Horse Pass is near the summit of Mt. Kosciusko.

Midbody scale-rows 15; ventrals 132-142; anal 1; subcaudals 48-55, single; No. 32815 is abnormal in that the lower temporal borders the lip on the right side making 7 supralabials on the right, the left side remaining normal; frontal two and a third to two and a quarter times as broad as long. Longest snake (No. 5239) measures 416 (335+81) mm.

## DENISONIA SIGNATA (Jan)

*Alecto signata* Jan, 1859, Rev. & Mag. Zoöl., p. 128: Australia.

*Denisonia signata* var. *vagrans* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, p. 13: Dunk Island, Queensland.

11 (M. C. Z. 2242) Melbourne, V. (C. L. Salmin) 1869.

1 (M. C. Z. 2528) New South Wales (G. Krefft) 1870.

Type (M. C. Z. 6490) Dunk Island, Q. (W. M. Woodworth) 1896.

1 (M. C. Z. 10258) Warrell Creek, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 17; ventrals 151-167; anals 2; subcaudals 47-55, single; frontal from one and two-thirds to two and an eighth times as broad as long. Largest snake (No. 10258) measures 469 (385+84) mm.

Number 6490 is the holotype of *vagrans* which Garman proposed to separate from *signata* because its frontal is one and a half times the width of a supraocular, the fifth supralabial being longer than the sixth, and because "*D. signata* has a darker color in the middle of the ventral surface which is not seen in the present type." With regard to this alleged color difference, Garman's snake was apparently about to slough, hence the opaque olivaceous coloring of the ventrals; if a few scutes be removed, the underlying ones in no way differ from many of those in the Melbourne series. It is true that Boulenger states (1896, p. 338) of the frontal "but slightly broader than the supraocular" while Garman's type has a frontal one and a half times as broad.

However, in the Melbourne series alone are snakes representing both these extremes. There remains then the character of the fifth supra-labial which in *signata* is usually slightly shorter than the sixth but varies from much shorter than, to others in which it equals, the sixth; the fact of its being slightly longer in *vagrans* does not seem to me to be sufficient grounds on which to recognize a local race.

#### DENISONIA SUTA (Peters)

*Hoplocephalus sutus* Peters, 1863, Monatsb. Akad. Wiss. Berlin, p. 234: Adelaide, South Australia.

*Hoplocephalus frenatus* Peters, 1870, Monatsb. Akad. Wiss. Berlin, p. 646: Lake Elphinstone, Queensland.

*Hoplocephalus frontalis* Ogilby, 1889, Proc. Linn. Soc. N. S. W., (2), 4, p. 1027: Narrabri, New South Wales.

*Hoplocephalus stirlingi* Lucas & Frost, 1896, Report Horn Sci. Exped., 2, p. 149, pl. xii, fig. 5: Oodnadatta, S. A.; Charlotte Waters, Alice Springs, Hermannsburg, Northern Territory.

*Denisonia frontalis* var. *propinqua* De Vis, 1905, Ann. Queensl. Mus., No. 6, p. 51: Queensland.

*Denisonia forresti* Boulenger, 1906, Ann. Mag. Nat. Hist., (7), 18, p. 440: Alexandria, Northern Territory.

1 (M. C. Z. 10268) Gidley, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 19; ventrals 154; anal 1; subcaudals 33, single; frontal one and a quarter times as long as broad. Total length 410 (365+55) mm.

Longman (1912, p. 23) has recorded *forresti* from Careena Station, Queensland. Kinghorn (1920, p. 110 and 1929, p. 84) in two most interesting papers adds *forresti*, as well as the four other names enumerated above, to the synonymy of *suta*. It seems just possible that *forresti* might be retained as a northern race characterized by a higher number of ventrals; *stirlingi* consisted of intermediates. Southern with 154-164, northern 168-178. Seeing that *gouldii* has a greater range it seems likely that this apparent difference is attributable to the inadequacy of material in the case of *suta*.

#### DENISONIA FLAGELLUM (McCoy)

*Hoplocephalus flagellum* McCoy, 1878 (Decem. 2), Prodr. Zoöl. Vict., p. 7, pl. xi, fig. 1: Victoria.

1 (M. C. Z. 32822) Mt. Lofty, S. A. (W. M. Wheeler) 1931.

Midbody scale-rows 17; ventrals 132; anal 1; subcaudals 35, single. So recently as 1929, Kinghorn (1929, p. 188) gives the subcaudal

count as 25-27 as quoted by Boulenger (1896, p. 340) who had no specimen. Further, Kinghorn states that this species is apparently restricted to southern Victoria, so that the example taken at 1,000 feet by Dr. Wheeler provides an interesting extension of range. Total length 333 (280+53) mm.

#### DENISONIA MACULATA (Steindachner)

*Hoplocephalus maculatus* Steindachner, 1867, Reise Oesterr. Freg. Novara. Reptiles, p. 81: New South Wales.

*Denisonia ornata* Krefft, 1869, Proc. Zoöl. Soc. London, p. 321, fig.: Rockhampton, Queensland.

*Hoplocephalus ornatus* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 100, pl. xv: Near Surat, Queensland.

*Denisonia maculata* var. *devisi* Waite & Longman, 1920, Rec. S. Austral. Mus., 1, p. 177, fig. (New name for *ornatus* De Vis).

1 (M. C. Z. 10255) Tamworth, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 17; ventrals 136; anal 1; subcaudals 25, single. Total length 297 (263+34) mm.

In coloration this snake agrees with the color variant *devisi* rather than with *maculata* as figured by Kinghorn (1929, p. 171). When renaming it Waite and Longman (1920, p. 178) believed it to be confined to Western Queensland. Kinghorn (1921, p. 147) upholds the race because his only specimen of *maculata* had four teeth following the fang while his big series of *devisi* had five. His extension of the range of *maculata* and *devisi* (1929, pp. 171-2) does not lend support to the view that *devisi* can be recognized as a geographical race.

#### DENISONIA FASCIATA Rosén

*Denisonia fasciata* Rosén, 1905, Ann. Mag. Nat. Hist., (7), 15, p. 179: West Australia.

1 (M. C. Z. 32819) Perth, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 17; ventrals 159; anal 1; subcaudals 30, single. Total length 782 (695+87) mm.

Kinghorn (1929, p. 173) apparently without material, has treated this big snake as a variety of *maculata*. Though falling next to that species in Boulenger's (1896, p. 333) key, as indicated by its author, it is a perfectly distinct species, differing in many ways of which I need only mention:

Ventrals 121-140; subcaudals 20-37 . . . . .	<i>D. maculata</i>
Ventrals 153-165; subcaudals 28-31 . . . . .	<i>D. fasciata</i>

Though the type locality is given as "West Australia," Kinghorn says: "Found only in south-western Australia."

#### DENISONIA GOULDII (Gray)

*Elaps gouldii* Gray, 1841, in Grey's Journ. Exped. West. Australia, **2**, p. 444, pl. v, fig. 1: Western Australia.

*Hoplocephalus nigriceps* Günther, 1863, Ann. Mag. Nat. Hist., (3), **12**, p. 362: No locality.

*Hoplocephalus spectabilis* Krefft, 1869, Snakes Australia, p. 68, pl. xii, fig. 7: Port Lincoln, South Australia.

1 (M. C. Z. 3666) Melbourne, V. (F. Müller) 1865.

1 (M. C. Z. 10233) Manila, Namoi R., N. S. W. (Australian Mus.) 1914.

3 (M. C. Z. 24439-41) Perth, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 24442) Mundaring, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 24443) Yalgoo, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 32821) Mullewa, W. A. (W. E. Schevill) 1931.

1 (M. C. Z. 35090) Dalby, Q. (Mrs. H. McKee) 1932.

This last record from Dalby, southeastern Queensland, being the first record of the occurrence of *gouldii* in that state, should be received with caution. The snake was given by Mrs. H. McKee of Dalby to a member of the Harvard Expedition and was believed to have been taken locally by the donor.

Midbody scale-rows 15; ventrals 143-177; anal 1; subcaudals 22-35, single; frontal one and a quarter to one and a half times as long as broad. Largest snake (No. 24443) measures 472 (413+59) mm.

#### DENISONIA PALLIDICEPS (Günther)

*Hoplocephalus pallidiceps* Günther, 1858, Cat. Snakes Brit. Mus., p. 214: Port Essington, Northern Territory and Northeast Australia.

*Hoplocephalus nigrescens* Günther, 1862, Ann. Mag. Nat. Hist., (3), **9**, p. 131, pl. ix, fig. 12: Sydney, New South Wales.

*Alecto permixta* Jan, 1873, Icon. Gén., **44**, pl. i, fig. 2: Australia.

*Hoplocephalus assimilis* Macleay, 1885, Proc. Linn. Soc. N. S. W., p. 68: Herbert River, Queensland.

1 (M. C. Z. 6310) Sydney, N. S. W. (Australian Mus.) 1896.

2 (M. C. Z. 35091-2) Cascade, N. S. W. (P. J. Darlington) 1932.

1 (M. C. Z. 35093) Lake Barrine, Q. (P. J. Darlington) 1932.

3 (M. C. Z. 35094-6) Millaa Millaa, Q. (P. J. Darlington) 1932.

Midbody scale-rows 15; ventrals 169-193; anal 1; subcaudals 32-46, single; frontal one and an eighth to one and a quarter times as long as broad; No. 35096 is abnormal in that the lower temporal borders the lip on the right side, making 7 supralabials on the right, the left

side remaining normal. Largest snake (No. 35094) measures 755 (652+103) mm.

As a result of a careful study of the above series, I am of the opinion that *nigrescens* is a synonym of *pallidiceps*. No. 35091 has the eye noticeably shorter than its distance from the mouth and though an old male about to slough, has the olive coloring of *pallidiceps*, a species long known only from the types. Number 35092 is a juvenile and though taken at the same time as the other snake it is typically *nigrescens*; the scale counts of these two specimens are almost identical. The variability of this species is further demonstrated by No. 35096 which differs from all the rest in having the nasal separated from the preocular. The young *Millaa Millaa* snake is white below except for the black throat and a dusky spot in the middle of each ventral and subcaudal shield; in the half-grown reptile from the same locality the central spots are enlarged and by coalescing tend to form a median stripe; in the adult, also from *Millaa Millaa*, the whole lower surface is uniformly black.

#### DENISONIA CARPENTARIAE (Macleay)

*Hoplocephalus carpentariae* Macleay, 1888 (1887), Proc. Linn. Soc. N. S. W., (2), 2, p. 403: Normanton, Queensland.

1 (M. C. Z. 35097) Mundubbera, Q. (J. Kahler) 1932.

This locality may be accepted with reserve as the snake was given to Mr. J. Kahler and though he believes that it was taken locally, there remains an element of uncertainty. The species has been recorded from Peak Downs, and our example agrees in every detail with Boulenger's (1896, p. 344) redescription embracing specimens from both localities.

Midbody scale-rows 15; ventrals 16S; anal 1; subcaudals 33, single; second labial in contact with the prefrontal, it is well to remember that such a condition occurs in *pallidiceps* as an aberration. Total length 417 (360+57) mm.

#### HOPLOCEPHALUS BITORQUATUS (Jan)

*Alecto bitorquata* Jan, 1859, Rev. et Mag. Zoöl., p. 128: Australia.

1 (M. C. Z. 2518) New South Wales (Australian Mus.) 1870.

1 (M. C. Z. 6311) Tamworth, N. S. W. (Australian Mus.) 1890.

1 (M. C. Z. 10230) Manila, N. S. W. (Australian Mus.) 1914.

2 (M. C. Z. 35098-9) Mundubbera, Q. (J. Kahler) 1932.

Midbody scale-rows 21; ventrals 202-216; anal 1; subcaudals 46-

52; single, occasionally a few divided. Largest snake (No. 2518) measures 593 (520+73) mm.

Numbers 2518 and 6311 were received from Dr. G. Krefft as *Denisonia pallidiceps* (Günther), then included in the genus *Hoplocephalus*.

#### HOPLOCEPHALUS BUNGAROIDES (Boie)

*Naja bungaroides* Boie, 1828, Oken's Isis, p. 1034: no locality.

1 (M. C. Z. 2525) New South Wales (Australian Mus.) 1876.

1 (M. C. Z. 3642) Australia (W. Keferstein) 1865.

1 (M. C. Z. 10282) Mt. Wilson, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 21; ventrals 213-217; anal single; subcaudals 45-53, last two divided in No. 2525. Largest snake (No. 3642) measures 667 (580+87) mm.

#### NOTECHIS SCUTATUS (Peters)

*Naja (Hamadryas) scutata* Peters, 1861, Monatsb. Akad. Wiss. Berlin, p. 690: "Java."

1 (M. C. Z. 920) Hobart Town, T. (J. W. Robertson) 1862.

1 (M. C. Z. 7867) Australia (New York Zoöl. Soc.) 1911.

1 (M. C. Z. 10275) Randwick, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 17-19; ventrals 170-172; anal 1; subcaudals 49-56, single. Largest snake (No. 10275) measures 993 (830+163) mm.

Though Kinghorn's (1921, p. 145) subspecies *niger* from Kangaroo Island, South Australia, may stand as an insular melanistic race, it is extremely doubtful whether the relative length of the anterior and posterior chin shields can be used for diagnostic purposes, for in one of our specimens the anterior chin shield is shorter than the posterior on the left side, while the right anterior is longer than the right posterior on the same reptile. In most groups of snakes the length of the chin shields is a variable character.

#### RHINHOPEPHALUS BICOLOR Müller

*Rhinoplocephalus bicolor* Müller, 1885, Verh. Nat. Ges. Basel, 7, p. 690, pl. ix, figs. f-i: Australia.

1 (M. C. Z. 24449) Augusta, W. A. (W. S. Brooks) 1927.

Midbody scale-rows 15; ventrals 159; anal 1; subcaudals 28, single, this is a new low number. Total length 404 (355+49) mm. Kinghorn (1931, p. 87) has recently figured this rare snake and contributes interesting information on range of variation and diet.



## ACANTHOPHIS ANTARCTICUS (Shaw)

*Boa antarctica* Shaw, 1794, Nat. Miscell., pl. mxxxv; no locality.

1 (M. C. Z. 10549) s. Queensland (Queensland Mus.) 1914.

1 (M. C. Z. 35100) Coen, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35101) Dalby, Q. (Mrs. H. McKee) 1932.

Midbody scale-rows 21-22; ventrals 122-127; anal 1; subcaudals 39-47; anterior single, posterior paired. Largest snake (No. 10549) measures 588 (500+88) mm.

## ACANTHOPHIS PYRRHUS Boulenger

*Acanthophis pyrrhus* Boulenger, 1898, Ann. Mag. Nat. Hist., (7), 2, p. 75: Station Point, Northern Territory.

1 (M. C. Z. 35102) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 19; ventrals 145; anal 1; subcaudals 49, anterior single, posterior paired; labials 6, separated from orbit by suboculars. Total length 199 (167+32) mm.

Waite (1915, pp. 737-9) has given a most interesting account of this pink adder.

## RHYNCHOELAPS BERTHOLDI (Jan)

*Elaps bertholdi* Jan, 1859, Rev. et Mag. Zoöl., p. 123: Australia.

1 (M. C. Z. 10220) Strelley River, W. A. (Australian Mus.) 1914.

2 (M. C. Z. 24450-1) Perth, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 24452) Yalgoo, W. A. (R. C. Richardson) 1927.

1 (M. C. Z. 32826) West Wallaby Id., W. A. (G. M. Allen) 1931.

1 (M. C. Z. 32827) 50 mi. N. W. Menzies, W. A. (W. E. Schevill) 1931.

Midbody scale-rows 15; ventrals 116-124; anals 2; subcaudals 16-24, paired; labials usually 6, though sometimes 5 (No. 24452) or 7 (No. 32826) on one side of the head, always 3rd and 4th entering the orbit. Largest snake (No. 32827) measures 232 (205+27) mm.

Of No. 32826, Mr. W. E. Schevill writes: "Found coiled beneath a stone by Dr. G. M. Allen. Though quite active it made no attempt to bite, either at time of capture or later when I handled it preparatory to preservation." (W. E. S.)

## RHYNCHOELAPS AUSTRALIS (Krefft)

*Simotes australis* Krefft, 1864, Proc. Zoöl. Soc. London, p. 180: Port Curtis, Queensland.

1 (M. C. Z. 10226) Clarence River, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10241) Copmanhurst, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 17; ventrals 149-151; anals 2; subcaudals 16-

20, paired except for last two of No. 10241; labials 5, 3rd and 4th entering orbit. Larger snake (No. 10241) measures 272 (250+22) mm.

The striking resemblance of these little burrowing snakes to their aglyphous allies of the genus *Prosymna* of Africa, makes me suspect that with longer series it will be found that head shield characters are unstable in the genus *Rhynchoelaps*. This view is borne out by our two specimens, the frontal shield of the smaller agreeing in part with *australis* and in part with *semifasciatus* of Boulenger's (1896, p. 362) key. That of the larger being less than twice the width of the supra-ocular. It will be noted that both agree with *campbelli* Kinghorn (1929, p. 191) of Almaden, Queensland, in the number of labials. Kinghorn compares *campbelli* with the western *fasciolatus*, to me it appears much more closely related to *australis*. I might mention that *R. anomalus* Sternfeld (1919, p. 77) from Hermannsburg, Northern Territory is omitted from Kinghorn's (1929, p. 192) key.

#### FURINA BIMACULATA Duméril & Bibron

*Furina bi-maculata* Duméril & Bibron, 1854, *Erpét. Gén.*, **7**, p. 1240: "Tasmania" (*errore*).

2 (M. C. Z. 24446-7) Perth, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 24448) Yalgoo, W. A. (W. S. Brooks) 1927.

Midbody scale-rows 15; ventrals 184-198; anals 2; subcaudals 25-26, paired; labials 5, 3rd and 4th entering the orbit; preocular in contact with the nasal. Largest snake (No. 24446) measures 366 (346+20) mm.

Though the type was supposed to have come from Tasmania, subsequent material is only known from Western Australia. Fry (1914, p. 197) refers to it as a very rare species, mentions that there are two examples in the Western Australian Museum, and figures the head of one.

#### FURINA ANNULATA (Gray)

*Calamaria annulata* Gray, 1841, in *Grey's Journ. Exped. West. Australia*, **2**, p. 443: Australia.

*Elaps occipitalis* Duméril & Bibron, 1854, *Erpét. Gén.*, **7**, p. 1220: Australia.

1 (M. C. Z. 6312) Sydney, N. S. W. (Australian Mus.) 1890.

1 (M. C. Z. 6313) Paramatta, N. S. W. (Australian Mus.) 1890.

1 (M. C. Z. 8065) Bundara, N. S. W. (W. F. H. Rosenberg) 1911.

1 (M. C. Z. 10547) Brisbane, Q. (Queensland Mus.) 1914.

1 (M. C. Z. 35103) Brisbane, Q. (Queensland Mus.) 1932.

1 (M. C. Z. 35104) Mundubbera, Q. (J. Parker) 1932.

1 (M. C. Z. 35105) Ayr, Q. (W. Charles) 1932.

Midbody scale-rows 15; ventrals 201-238; anals 2; subcaudals 17-25, paired; labials 6, 3rd and 4th entering the orbit; black annuli on body and tail 27-58. Largest snake (No. 8065) measures 462 (439+23) mm.

Longman (1918, p. 42) has pointed out the priority of Gray's name which had escaped Boulenger's (1896, p. 407) notice. Kinghorn (1929, p. 196) is in error in attributing *annulata* to Duméril & Bibron.

### HYDROPHIIDAE

The Museum of Comparative Zoölogy possesses examples of all the sea snakes of the world excepting seven species. Five of these occur in Australian Seas and are earnestly desired; they are:

- Aipysurus tenuis* Lönnberg & Andersson, 1913, Broom, W. A.
- Ephalophis greyi* Malcolm Smith, 1931, Cape Boileau, W. A.
- Hydrelaps darwiniensis* Boulenger, 1896, Port Darwin, N. T.
- Hydrophis mertonii* (Roux), 1910, Sungei Waskai, Aru Islands.
- Hydrophis belcheri* (Gray), 1849, New Guinea.

Three other species from Oceania are unrepresented by Australian examples, though the Museum possesses series of them from other regions.

As Dr. Malcolm A. Smith utilized our material in connection with his recent (1926) Monograph of the Sea-Snakes, no useful purpose would be served in reprinting the data concerning them. A simple list of the material in this group from the Australian region is therefore given. The major portion of the collection of sea snakes was presented to the Museum by Dr. Thomas Barbour.

#### LATICAUDA LATICAUDATA (Linnaeus)

- Coluber laticaudatus* Linnaeus (part), 1778, Syst. Nat., ed. 10, 1, p. 222: Indies.  
 1 (M. C. Z. 921) Melbourne Harbour, V. (F. Müller) 1862.  
 1 (M. C. Z. 23793) Geelvink Bay, N. G. (M. A. Smith) 1927.

#### LATICAUDA COLUBRINA (Schneider)

- Hydrus colubrinus* Schneider, 1799, Hist. Amphib., 1, p. 238: Type locality unknown.  
 1 (M. C. Z. 10546) British New Guinea (Queensland Mus.) 1914.  
 1 (M. C. Z. 23788) Queensland (M. A. Smith) 1927.

#### LATICAUDA SCHISTORHYNCHUS (Günther)

- Platurus schistorhynchus* Günther, 1874, Proc. Zoöl. Soc. London, p. 297, pl. xlv: Savage Island, South Pacific.  
 1 (M. C. Z. 25137) Savage Island (H. C. Kellers) 1927.

## AIPYSURUS EYDOUXII (Gray)

*Tomogaster eydouxi* Gray, 1849, Cat. Snakes Brit. Mus., p. 59: Indian Ocean.  
1 (M. C. Z. 29786) Roebuck Bay, W. A. (H. L. Clark) 1930.

## AIPYSURUS FUSCUS (Tschudi)

*Stephanohydra fusca* Tschudi, 1837, Arch. für Naturg. Berlin, p. 335, pl. viii:  
Ashmore Reefs, Timor Sea.  
9 (M. C. Z. 23481-9) Ashmore Reefs, Timor Sea (M. A. Smith) 1927.

## AIPYSURUS LAEVIS Lacépède

*Aipysurus laevis* Lacépède, 1804, Ann. Mus. Hist. Nat. Paris, 4, pp. 197, 210,  
pl. lvi, fig. 3: Australia.  
1 (M. C. Z. 23498) Queensland (M. A. Smith) 1927.  
1 (M. C. Z. 35069) Broome, W. A. (H. L. Clark) 1932.

The Broome specimen has: Midbody scale-rows 23; ventrals 148;  
anals 2; subcaudals 30; labials 9, the 4th only on the right, the 4th,  
5th and 6th on the left entering the orbit. Total length 1205 (1047 +  
158) mm. The creature is encrusted with small barnacles.

## AIPYSURUS DUBOISII Bavay

*Aipysurus duboisii* Bavay, 1869, Mem. Soc. Linn. Normandie, No. 5, p. 33:  
New Caledonia.  
2 (M. C. Z. 23475-6) Ashmore Reefs, Timor Sea (M. A. Smith) 1927.

## AIPYSURUS FOLIOSQUAMA Malcolm Smith

*Aipysurus foliosquama* Malcolm Smith, 1926, Monog. Sea-Snakes, p. 22,  
figs. 11 and 12: Ashmore Reefs, Timor Sea.  
6 (M. C. Z. 23492-7) Ashmore Reefs, Timor Sea (M. A. Smith) 1927.

The above form part of the paratype series.

## AIPYSURUS APRAEFONTALIS Malcolm Smith

*Aipysurus apraefrontalis* Malcolm Smith, 1926, Monog. Sea-Snakes, fig. 13,  
p. 24: Ashmore Reefs, Timor Sea.  
2 (M. C. Z. 23477, 24900) Ashmore Reefs, Timor Sea (M. A. Smith) 1927.

The above form part of the paratype series.

## EMYDOCEPHALUS ANNULATUS Krefft

*Emydocephalus annulatus* Krefft, 1869, Proc. Zoöl. Soc. London, p. 322:  
? Australian Seas.

4 (M. C. Z. 23536-9) Ashmore Reefs, Timor Sea (M. A. Smith) 1927.

## ENHYDRINA SCHISTOSA (Daudin)

*Hydrophis schistosus* Daudin, 1803, Hist. Nat. Rept., 7, p. 386: Tranquebar,  
India.

1 (M. C. Z. 10276) Australian Seas (Australian Mus.) 1914.

## HYDROPHIS KINGI Boulenger

*Hydrophis kingi* Boulenger, 1896, Cat. Snakes Brit. Mus., 3, p. 276: North  
Australia.

1 (M. C. Z. 23649) Broome, W. A. (M. A. Smith) 1927.

## HYDROPHIS ELEGANS (Gray)

*Aturia elegans* Gray, 1842, Zoöl. Misc., p. 61: Port Essington, Northern  
Territory.

1 (M. C. Z. 23625) Moreton Bay, Q. (M. A. Smith) 1927.

## HYDROPHIS MAJOR (Shaw)

*Hydrus major* Shaw (part), 1802, Gen. Zoöl., 3, p. 558, pl. 124: Indian Ocean.

1 (M. C. Z. 23664) Holothuria Bank, W. A. (M. A. Smith) 1927.

## HYDROPHIS ORNATUS OCELLATUS Gray

*Hydrophis ocellata* Gray, 1849, Cat. Snakes Brit. Mus., p. 53: Australia.

*Distira mjobergi* Lönnberg & Andersson, 1913, Svenska. Vetensk.-Akad  
Handl., Stockholm, 52, No. 3, p. 13: Broome, Western Australia.

1 (M. C. Z. 23672) Locality uncertain (M. A. Smith) 1927.

## HYDROPHIS FASCIATUS ATRICEPS Günther

*Hydrophis atriceps* Günther, 1864, Rept. Brit. India, p. 371, fig: Siam.

1 (M. C. Z. 29787) Broome, W. A. (H. L. Clark) 1930.

## ACALYPTOPHIS PERONII (Duméril)

*Acalyptus peronii* Duméril, 1853, Mem. Acad. Sci. Paris, 23, p. 522: ?New  
Holland.

*Pseudodistira horrida* Kinghorn, 1926, Proc. Zoöl. Soc. London, p. 71, pl. 1,  
text-fig. 1: McCulloch Reef, Great Barrier Reef.

1 (M. C. Z. 23474) Broome, W. A. (M. A. Smith) 1927.

## LAPEMIS HARDWICKII Gray

*Lapemis hardwickii* Gray, 1834, *Illus. Ind. Zoöl.*, 2, pl. lxxxvii, col. fig: India.  
1 (M. C. Z. 29788) Broome, W. A. (H. L. Clark) 1930.

## GEKKONIDAE

## NEPHRURUS LAEVIS De Vis

*Nephrurus levis* De Vis, 1886, *Proc. Linn. Soc. N. S. W.*, (2), 1, p. 168: Queensland.

*Nephrurus platyurus* Boulenger, 1886, *Ann. Mag. Nat. Hist.*, (5), 18, p. 91: Adelaide, South Australia.

1 (M. C. Z. 28654) South Australia (British Mus.) 1929.

1 (M. C. Z. 35106) Hermannsburg, N. T. (W. E. Schevill) 1932.

Supralabials 20; 5-6 tubercles at narrowest point between interorbital semicircles; transverse grooves on dorsal surface of tail 18; tail longer than fore limb and longer than head. Larger gecko (No. 28654) measures 111 (73+38) mm.

I follow Lucas and Frost (1896, p. 116) in treating *platyurus* as a synonym for our specimens, agree with *laevis* in the number of their supralabials and possibly in the number of tubercles, but with *platyurus* in respect to caudal grooves and relative tail length.

The following key may be found of use in defining the three species of the genus.

- |   |                    |
|---|--------------------|
| Enlarged, smoothly conical, dorsal tubercles are surrounded by a ring of granules no larger than the adjacent granules (South and central Australia; New South Wales, Queensland) . . . . . | <i>N. laevis</i>   |
| Enlarged dorsal tubercles surrounded by a ring of enlarged tubercles larger than the adjacent granules . . .  | 1.                 |
| 1. Enlarged dorsal tubercles smoothly conical; postmental granules much larger than the fine granules covering the greater part of the throat (Western Australia) . . . . .                 | <i>N. wheeleri</i> |
| Enlarged dorsal tubercles sharply spinose; postmental granules merging imperceptibly with the fine granules covering the greater part of the throat (Queensland) . . . . .                  | <i>N. asper</i>    |

It is possible that these ranges can be extended. Zietz (1920, p. 182) gives Western and central Australia in addition for *asper* and

Western in addition for *laevis*. As however, *wheeleri* was confused with *asper* and *laevis* at that time, I have omitted copying the ranges as defined by Zietz.

#### NEPHRURUS WHEELERI Loveridge

*Nephrurus wheeleri* Loveridge, 1932, Proc. New England Zool. Club, **13**, p. 31:  
Yandil, thirty miles northwest of Wiluna, Western Australia.  
5 (M. C. Z. 32950-4) Yandil, W. A. (A. G. Paterson) 1931.

The above are part of the original type series; others have been dispatched to the Western Australian and British Museums. Largest gecko measures 119 (87+32) mm.

Lucas and Le Souef (1909, p. 206) have figured *wheeleri* under the name of *laevis*. If this figure be compared with Lucas and Frost's colored plate in the Horn Report (1896, pl. ix, fig. 1) the difference in the color pattern will be apparent immediately. Werner (1910, p. 452) figures *platyurus* which is now regarded as a synonym of *laevis*.

#### NEPHRURUS ASPER Günther

*Nephrurus asper* Günther, 1876, Journ. Mus. Godeffroy, **5**, 12, p. 46: Peak Downs, Queensland.  
3 (M. C. Z. 13351, 13961-2) Queensland (Queensland Mus.) 1919-20.

The largest gecko (No. 13961) measures 104 (92+22) mm. The specimen from Kimberley, northwestern Australia, referred to *asper* by Lönnberg & Andersson (1913, p. 1) should be reexamined in view of the subsequent description of *wheeleri*. Longman (1918, p. 37) has photographed this curious reptile (pl. xi) and gives an interesting account of its strange movements.

#### RHYNCHOEDURA ORNATA Günther

*Rhynchoedura ornata* Günther, 1867, Ann. Mag. Nat. Hist., (3), **20**, p. 50:  
Nicol Bay, Western Australia.  
1 (M. C. Z. 35107) Hermannsburg, N. T. (W. E. Schevill) 1932.

Total length 77 (46+31) mm. Distinguished by its beak-like rostral, so well figured by Boulenger (1885, p. 12, pl. ii, fig. 1).

#### LUCASIUS DAMAEUS (Lucas & Frost)

*Ceramodactylus damaeus* Lucas & Frost, 1896, Proc. Roy. Soc. Vict., (2), **8**, p. 1:  
Charlotte Waters, Northern Territory.  
1 (M. C. Z. 29009) Northern Territory (G. Buchanan) 1926.  
1 (M. C. Z. 35108) Hermannsburg, N. T. (W. E. Schevill) 1932.

Supralabials 10-11. Number 29009 measures 95 (52+43) mm., and was received as from Central Australia.

Kinghorn (1929, p. 77) proposed the generic name *Lucasius* for *damacus*, which is not closely related to the Perso-Arabian genus *Ceramodactylus*. Kinghorn furnishes considerable data on the variation and distribution, giving its range as from New South Wales to South and Western Australia in the vicinity of Perth. Zietz (1920, p. 182) has Queensland.

#### CARPHODACTYLUS LAEVIS Günther

*Carphodactylus laevis* Günther, 1897, Novit. Zoöl., 4, p. 403, pl. xi: Bartle Frere Mountains, Queensland.

14 (M. C. Z. 35109-18) Lake Barrine, Q. (P. J. D. & W. E. S.) 1932.

This bizarre-looking gecko has been excellently figured and the description leaves little to add. Reproduced tails, however, lack the five, prominent, white bands of the original tail, and evidence of its fragility is shown by the fact that only four of our series carry their original tails. Thus the larger gecko measures 115 mm. from snout to vent, the largest tail is 102 mm., exceeding the type by 17 mm.

"At night these geckoes habitually stand rigidly with tail extended in line with the body. This rigid stance may be in any direction, even head downwards on a sapling." (W.E.S.) "I have seen the carrot-tailed species only at Lake Barrine, usually on the ground in 'scrub' (rain forest). Barred-tailed individuals occurred with the others." (P.J.D.)

#### PHYLLURUS PLATURUS (Shaw)

*Lacerta platura* Shaw, 1790, in White's Journ. Voyage N. S. W., App., p. 246, pl. iii, fig. 2: New South Wales.

1 (M. C. Z. 6297) Wentworth Falls, N. S. W. (Australian Mus.) 1890.

1 (M. C. Z. 10185) Greenwich, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10259) Mt. Tambourine, Q. (Australian Mus.) 1914.

2 (M. C. Z. 18808-9) Hornsby, N. S. W. (W. F. H. Rosenberg) 1924.

2 (M. C. Z. 35119-20) Dorrigo, N. S. W. (W. Heron) 1932.

The largest gecko (No. 10259) measures 158 (95+63) mm., original tail.

This Tambourine specimen was received as *cornutus* (Ogilby) and is an intermediate, agreeing with *platurus* in the development of spinous tubercles upon its back, nearer to *cornutus* in tail characters though these are not nearly so pronounced as in more northerly examples. Lönnberg and Andersson (1915, p. 3) refer a specimen from the Tambourine Mountains to *platurus*.



## PHYLLURUS CORNUTUS (Ogilby)

*Gymnodactylus cornutus* Ogilby, 1892, Rec. Austral. Mus. Sydney, **2**, p. 8: Bellenden Ker Ranges, Queensland.

*Phyllurus lichenosus* Günther, 1897, Novit. Zoöl., **4**, p. 404, pl. xii: Bartle Frere Mountains, Queensland.

*Phyllurus cornutus* Garman, 1901, Bull. Mus. Comp. Zoöl., **39**, p. 2.

1 (M. C. Z. 6468) Cooktown, Q. (E. A. Olive) 1896.

2 (M. C. Z. 35121-2) Mt. Spurgeon, Q. (P. J. Darlington) 1932.

2 (M. C. Z. 35123-4) Lake Barrine, Q. (P. J. Darlington) 1932.

19 (M. C. Z. 35125-34) Millaa Millaa, Q. (P. J. Darlington) 1932.

The largest gecko (No. 35125) measures 206 (141+65) mm., but the tail is reproduced and relatively small.

"The remarkable flat-tailed lizard from Millaa Millaa, of which I got a few also at Lake Barrine and which I saw at Vine Creek, Ravenshoe, all in "scrub", is found chiefly on tree-trunks, rarely on the ground. I only found them by shining their eyes at night; even after shining the eyes I often could not see the body against the trunk, even at close range and with a strong light. They are very sluggish and I have shot them down from thirty feet or so up the tree." (P.J.D.)

## GYMNODACTYLUS LOUISIADENSIS De Vis

*Gymnodactylus louisiadensis* De Vis, 1892, Ann. Queensl. Mus., No. 2, p. 11: Sudest Island, New Guinea.

*Gymnodactylus olivii* Garman, 1901, Bull. Mus. Comp. Zoöl., **39**, p. 1, pl. i, figs. 1-1d: near Cooktown, Queensland.

Type (M. C. Z. 6470) Near Cooktown, Q. (E. A. Olive) 1896.

1 (M. C. Z. 7329) Rockhampton, Q. (T. Barbour don.) 1909.

No preanal pores on either specimen. The holotype of *olivii* measures 200 (101+99) mm., and so is slightly larger than the Rockhampton gecko which is 195 (115+80) mm.

## GYMNODACTYLUS MILII (Bory)

*Phyllurus milii* Bory de St. Vincent, 1825, Diet. Hist. Nat., **7**, p. 183, pl. —, fig. 1: Shores of the Baie des Chiens-marins, Australia.

1 (M. C. Z. 2226) Sydney, N. S. W. (W. Keferstein) 1865.

2 (M. C. Z. 3223) Australia. (No History) N. D.

1 (M. C. Z. 10167) Peak Hill, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10168) Colah, Sydney, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 24487) Swan View, Perth, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 32857) Mr. Brown, W. A. (St. Joseph's School) 1931.

10 (M. C. Z. 32858-67) West Wallaby Id., W. A. (Harvard Exped.) 1931.

The largest gecko (No. 10168) measures 154 (88+66) mm. "Not rare on West Wallaby Island. Quite sluggish when first exposed under rocks." (W. E. S.)

#### GYMNODACTYLUS PELAGICUS (Girard)

*Heteronota pelagica* Girard, 1857, Proc. Acad. Nat. Sci. Philad., 1857, p. 197: Fiji and Navigator Islands.

*Heteronota fasciata* Macleay, 1877, Proc. Linn. Soc. N. S. W., 2, p. 100: Hall Sound, New Guinea.

*Heteronota marmorata* Macleay, 1877, Proc. Linn. Soc. N. S. W., 2, p. 100: Fitzroy Island and Endeavour River, Queensland.

*Gymnodactylus heteronotus* Boulenger, 1885, Cat. Liz. Brit. Mus., 1, p. 41: n.n. for *fasciata* Macleay.

*Gymnodactylus cheverti* Boulenger, 1885, Cat. Liz. Brit. Mus., 1, p. 41: n.n. for *marmorata* Macleay.

*Gymnodactylus pelagicus* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, p. 1.

3 (M. C. Z. 6473) Cooktown & Barrier Reef (Olive & Mayer) 1896.

1 (M. C. Z. 35135) Coen, Q. (P. J. Darlington) 1932.

The characters on which Macleay based his two species appear to have but little significance. The Cooktown series show the internasals in contact (*marmorata*) but in the Coen gecko they are separated by two granules (*fasciata*). The Cooktown gecko has subtriangular chin-shields (*fasciata*) while the Coen specimen possesses rounded chin-shields (*marmorata*) and so forth. Boulenger (1885, p. 41), who had no specimens, renamed both when transferring them to the genus *Gymnodactylus* where they would be preoccupied. Garman has already discussed variation in the Cooktown series. There are about 14 rows of conical, striated tubercles, the lateral rows ill-defined. Largest perfect gecko measures 87 (41+46) mm.

Kopstein has named a race from the Kei Islands which, if valid, would necessitate the use of trinomials for the present form. The species is so widely distributed among the islands and so variable in any locality that it is doubtful if the Kei Island form is recognizable. These geckos, except for their keeled ventral scales etc., so closely resemble *Heteronota* that I have rearranged the order adopted by Boulenger by transferring *Phyllurus* in front of *Gymnodactylus* in its present restricted sense so that *pelagicus* comes next to *Heteronota*.

#### HETERONOTA BINOEI Gray

*Heteronota binoei* Gray, 1845, Cat. Liz. Brit. Mus., p. 174: Houtman's Abrolhos, Western Australia.

*Eublepharis derbiana* Gray, 1845, Cat. Liz. Brit. Mus., p. 274: Port Essington, Northern Territory.

*Heteronota eboracensis* Macleay, 1877, Proc. Linn. Soc. N. S. W., 2, p. 101: Cape York, Queensland.

*Gymnodactylus pelagicus* Barbour (not of Girard), 1914, Proc. Biol. Soc. Washington, 27, p. 203.

2 (M. C. Z. 9494-5) Prince of Wales Id., T. S. (H. L. Clark) 1913.

1 (M. C. Z. 10202) Eidsvold, Q. (Australian Mus.) 1914.

1 (M. C. Z. 10203) Narrabri N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 31876) Broome, W. A. (H. A. Clark) 1929.

2 (M. C. Z. 31896-7) Near Darwin, N. T. (H. L. Clark) 1929.

3 (M. C. Z. 32868-70) Mullewa, W. A. (P. J. Darlington) 1931.

8 (M. C. Z. 32871-7) Meekatharra, W. A. (P. J. D. & W. E. S.) 1931.

2 (M. C. Z. 32878-9) Yandil, W. A. (P. J. Darlington) 1931.

1 (M. C. Z. 32914) Dalganger, W. A. (G. E. Nicholls) 1931.

1 (M. C. Z. 32946) West Wallaby Id., W. A. (W. E. Schevill) 1931.

1 (M. C. Z. 35136) Rutherford, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35137) Dunraven, Q. (W. E. Schevill) 1932.

11 (M. C. Z. 35138-46) Coen, Q. (P. J. Darlington) 1932.

4 (M. C. Z. 35147-50) Hermannsburg, N. T. (W. E. Schevill) 1932.

Yandil is near Wiluna; Rutherford near Mount Coolon; Dunraven near Hughenden.

Dorsal tubercles in 12-16 rows, usually 14; preanal pores of thirteen males 4-6, average 5. Largest gecko (No. 32874) measures 113 (47 + 66) mm., original tail intact.

Lucas and Frost (1896, p. 120) have presented cogent reasons for considering *derbiana* a synonym of *binoci*. Independently Procter (1923, p. 1074) arrived at the same conclusion. A study of our material confirms these views and it will be noted that we possess a toptype of *binoci*, while the Darwin specimens are not far from the type locality of *derbiana*. The specimen with the most irregularly arranged rows of tubercles is from Eidsvold in southern Queensland and, together with the Narrabri gecko, was received from the Australian Museum as *derbiana*. Werner (1910, p. 453) furnishes good data on variation of a large series of *binoci* from Western Australia.

Our Coen series, which may be considered as toptypes of *eboracensis*, agree with the description of that species, except for "scales mostly tricarinate," which is somewhat ambiguous.

#### PHYLLODACTYLUS MARMORATUS (Gray)

*Diplodactylus marmoratus* Gray, 1844, Zoöl. Erebus and Terror, Rept., pl. xv, fig. 6: Australia.

- Phyllodactylus macrodactylus* Boulenger, 1885, Cat. Liz. Brit. Mus., 1, p. 89, pl. vii, fig. 2: Australia.
- Phyllodactylus affinis* Boulenger, 1885, Cat. Liz. Brit. Mus., 1, p. 89, pl. vii, fig. 4: Aneitum, New Hebrides.
- Phyllodactylus guentheri* Boulenger, 1885, Cat. Liz. Brit. Mus., 1, p. 90, pl. vii, fig. 3: Lord Howe Island; Norfolk Island; Champion Bay, Western Australia.
- 2 (M. C. Z. 10195-6) Lord Howe Island (Australian Mus.) 1914.
- 1 (M. C. Z. 10204) Victoria (Australian Mus.) 1914.
- 13 (M. C. Z. 24472-84) Augusta, W. A. (W. S. Brooks) 1927.
- 2 (M. C. Z. 24485-6) Pemberton, W. A. (W. S. Brooks) 1927.
- 3 (M. C. Z. 32915-7) Rottneft Id., W. A. (Harvard Exped.) 1931.
- 2 (M. C. Z. 32918-9) Darling Range, W. A. (Harvard Exped.) 1931.
- 5 (M. C. Z. 32920-4) West Wallaby Id., W. A. (Harvard Exped.) 1931.
- 4 (M. C. Z. 32925-8) Walleliffe, W. A. (Harvard Exped.) 1931.
- 6 (M. C. Z. 32929-34) Margaret River, W. A. (Harvard Exped.) 1931.
- 1 (M. C. Z. 32935) Bridgetown, W. A. (Harvard Exped.) 1931.
- 2 (M. C. Z. 32936-7) Perth, W. A. (Harvard Exped.) 1931.
- 2 (M. C. Z. 32947-8) Pemberton, W. A. (Harvard Exped.) 1931.
- 1 (M. C. Z. 32949) Forrest, W. A. (C. Barrett) 1931.

Walleliffe is near Margaret River.

The variations such as nostril in contact with, or separated from, the rostral; 8 or 10 transversely enlarged lamellae under the fourth toe, which led Boulenger to describe *affinis* and other species, may be found in the Augusta series alone. See also Werner's (1910, pp. 454-5) comments. Lönnberg and Andersson (1913, p. 1) record *macrodactylus* from Adelaide. Glauert (1929, p. 43, footnote) states that *marmoratus* had only recently been found on Rottneft Island, his record finds confirmation in our series. Largest gecko (No. 32935) measures 114 (56+58) mm.

"Beneath bark of red gums and under logs." (W. S. B.) Of the Pemberton specimens Mr. Schevill writes: "Collected by Ira M. Dixson on November 12, 1931 from under loose bark of a karri gum tree (*Eucalyptus diversicolor*) felled in his presence, the geckoes being taken at a point about a hundred feet above the ground." (W. E. S.)

#### PHYLLODACTYLUS OCELLATUS (Gray)

- Diplodactylus ocellatus* Gray, 1844, Zoöl. Erebus and Terror, Rept., pl. xv, fig. 4: Australia.
- Diplodactylus bilineatus* Gray, 1844, Zoöl. Erebus and Terror, Rept., pl. xv, fig. 3: Houtman's Abrolhos, Western Australia.
- 8 (M. C. Z. 32938-45) West Wallaby Id., W. A. (Harvard Exped.) 1931.

West Wallaby Island being one of the Abrolhos group, these little geckoes are topotypes. From their larger relatives they are distinguished by their keeled dorsal scales. Largest gecko (No. 32941) measures 54 (30+24) mm.

DIPLODACTYLUS SPINIGERUS SPINIGERUS Gray

*Diplodactylus spinigerus* Gray, 1842, Zoöl. Miscell., p. 53: Houtman's Abrolhos, Western Australia.

1 (M. C. Z. 5725) Southwest Australia (Peabody Museum) 1886.

1 (M. C. Z. 32840) Wiluna, W. A. (Harvard Exped.) 1931.

10 (M. C. Z. 32841-50) West Wallaby Id., W. A. (Harvard Exped.) 1931.

Number 5725, which has for long been in the collection as the type of *Peropus pusillus* Cope, cannot be that type for it has little in common with the original description.

Number 32850 is of considerable interest as it lacks the spinose scales on back and tail of typical *spinigerus*, though one of a topotype series; they are, however, indicated. In this respect it approaches *strophurus* (Duméril & Bibron) but disagrees in length of head which is no different from that of its fellows. Kinghorn (1929, p. 81) has resurrected *strophurus* from the synonymy of *spinigerus* to which it was referred by Zietz (1920, p. 185).

"Color in life; Light gray with black or sepia dots; lining of mouth dark blackish blue, as is also the tough subcutaneous membrane on the belly. Eye: a ring of bright, slightly greenish yellow surrounding an area of rich dark metallic brown which bears a number of nacreous white irregular spots; the slit for the pupil is on this brown area, and along either edge the white markings are regular and opposite: at top and bottom a vertical white streak, between these are three (occasionally four) equally spaced spots—these streaks and spots join when the pupil is closed." (W. E. S.)

"A very sluggish species. After exposure beneath a long piece of timber, three lay still while I picked them up one by one. Another was captured by Dr. G. M. Allen as it was walking slowly past his bed one morning." (W. E. S.)

DIPLODACTYLUS SPINIGERUS CILIARIS Boulenger

*Diplodactylus ciliaris* Boulenger, 1885, Cat. Lizards Brit. Mus., 1, p. 98, pl. viii, fig. 2: Port Darwin, Northern Territory.

1 (M. C. Z. 35151) Dunraven, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35152) Prairie, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35153) Army Downs, Q. (W. E. Schevill) 1932.

Dunraven is near Hughenden and Army Downs near Richmond.

Zietz (1920, p. 185) has referred *ciliaris* to the synonymy of *spinigerus*. Kinghorn (1929, p. 80) agrees with this though he suggests "the possibility of a geographical variety or race."

Its relationship is probably best expressed by trinomials, though with the material at my disposal I was at first inclined to treat it as a full species. These Queensland specimens differ from our southwestern *spinigerus* in possessing very long supraciliary spines; when such spines occur in southwestern geckoes they are relatively very small. The heads of Queensland specimens are proportionately bigger than those of the southwestern series. Largest ♀ gecko measures 113 (69 + 44) mm.

*D. s. ciliaris* ranges across tropical Australia. Glauert (1923, p. 58) has recorded it from Wallal in northwestern Australia, and Zietz (1914, p. 441; 1915, p. 767) from the MacDonnell Ranges and other localities. Longman (1912, p. 24) remarks on some variations in a specimen from Carpentaria. Zietz comments on a foul-smelling sticky substance "exuded from the spines on the upper surface of the tail" in both *ciliaris* and *spinigerus*. In a recent letter Mr. Glauert tells me that this liquid is rather viscid and almost transparent; in some clippings from a local newspaper which he enclosed he states that he has seen it squirted from the soft spines and believes it to be blood. It has a peculiar smell.

Mr. Schevill detected differences between *ciliaris* and the typical race while in the field, for his notes read: "Diplodactylus taken at Prairie, 26 miles east of Hughenden, May 19, 1932. Iris differently marked from those of West Wallaby specimens; no yellow ring, brown field covered closely with mosaic of pale (yellow) phylliform spots. Further, no black dots (some adherent black soil!) but entirely silvery grey except for tubercles and spines, which are light brown. Some dark shows through between scales, especially on the legs. Arrangement of the spines seems different from my memory of those on the West Wallaby specimens." (W. E. S.)

Respecting their habits he writes: "Dunraven specimen taken at night late in May while hunting like the *Carphodactylus* from Lake Barrine." and "Army Downs *Diplodactylus* hibernating (in July)—at least it was dug out, with a *Peropus* and a skink, from under the concretions containing plesiosaur R-6." (W. E. S.)

#### DIPODACTYLUS ELDERI Stirling & Zietz

*Diplodactylus elderi* Stirling & Zietz, 1893, Trans. Roy. Soc. S. Austral., 16, p. 161, pl. vi, fig. 1: Barrow Range, Northern Territory.

1 (M. C. Z. 35154) Hermannsburg, N. T. (W. E. Schevill) 1932.

Total length only 62 (43+19) mm., tail in process of reproduction. Zietz (1914, p. 441) has already recorded this rare gecko from Hermannsburg in the MacDonnell Ranges, and gives a description of the tail for the first time; the tail of the type having been regenerated.

#### DIPLODACTYLUS BYRNEI Lucas & Frost

*Diplodactylus byrnei* Lucas & Frost, 1896, Proc. Roy. Soc. Victoria, **8**, p. 2: Charlotte Waters, Northern Territory.

1 (M. C. Z. 35157) Savages Creek, Q. (G. W. de Teliga) 1932.

Savages Creek is on "Charlotte Plains", northwest of Hughenden, Queensland. This record involves a considerable extension of range so that it is well to point out that our gecko is not wholly typical.

The rostral is about twice, not four times, as long as high; on the right side of the head the nostril is between the rostral, first labial, an internasal and four other scales. It differs principally in its very short, thick, rather carrot-shaped tail; dorsally the latter displays more than "five white spots",—actually these are enlarged white tubercles similar to those scattered over the back. There is an additional transverse band between the fore and hind limbs to those possessed by the type as shown in the Horn Report (1896, pl. xii, fig. 2). While the type was said to have "undersurfaces whitish", our specimen has this white surface blotched or spotted with dusky pigment, chiefly along the margin of the jaws and along the flanks while a dusky streak occupies the median line of the belly. Total length of the type was 77 (44+33) mm., and of our gecko 39 (27+12) mm.

#### DIPLODACTYLUS TAENICAUDA De Vis

*Diplodactylus taenicauda* De Vis, 1886, Proc. Linn. Soc. N. S. W. (2), **1**, p. 169: Chinchilla, Queensland.

1 (M. C. Z. 10225) Eidsvold, Q. (Australian Mus.) 1914.

1 (M. C. Z. 10539) Queensland (Australian Mus.) 1914.

The rostral enters the nostril, thus agreeing with *taenicauda* and not *stenurus* Werner, also of Queensland, which seems very closely related. Kinghorn (1929, p. 79) has recently discussed the series in the Australian Museum. Larger gecko (No. 10225) measures 122 (72+50) mm.

#### DIPLODACTYLUS MICHAELSENI Werner

*Diplodactylus michaelсени* Werner, 1910, in Michaelsen & Hartmayer's Fauna Südwest-Austral., **2**, p. 460, fig. 3: Denham, Western Australia.

*Oedurella taeniata* Lönnberg & Andersson, 1913, Svenska Vetensk.-Akad. Handl. Stockholm, 52, No. 3, p. 5, fig. 1: Broome, Western Australia.

I believe that *Oedurella taeniata* is a synonym of *michaelsoni*. Whether the genus *Diplodactylus* should be divided to eliminate those species answering to the definition of *Oedurella* is doubtful as many intermediate conditions of digital dilation occur among the numerous species at present referred to *Diplodactylus*. The subject is worthy of further consideration.

#### DIPODACTYLUS VITTATUS Gray

*Diplodactylus vittatus* Gray, 1832, Proc. Zoöl. Soc. London, p. 40: Australia.

*Diplodactylus ornatus* Gray, 1844, Zoöl. Erebus & Terror, Rept., pl. xvi, fig. 2: Houtman's Abrolhos, Western Australia.

*Diplodactylus polyophthalmus* Günther, 1867, Ann. Mag. Nat. Hist., (3), 20, p. 49: Champion Bay and Nicol Bay, Western Australia.

1 (M. C. Z. 2870) Australia (No history) N. D.

1 (M. C. Z. 8060) Parramatta, N. S. W. (T. Barbour don.) 1912.

1 (M. C. Z. 9357) Sydney, N. S. W. (T. Steel) 1914.

1 (M. C. Z. 10227) Western Australia (Australian Mus.) 1914.

1 (M. C. Z. 21925) South Australia (F. R. Zietz) 1925.

6 (M. C. Z. 32851-6) Swan View, W. A. (Harvard Exped.) 1931.

1 (M. C. Z. 33045) Mullewa, W. A. (Harvard Exped.) 1931.

Supranasals in contact except in Nos. 2870 and 21925; snout as long as the distance between the eye and the ear opening in all the smaller specimens, slightly longer in all the larger. Boulenger (1885, p. 98) uses this character to distinguish between *vittatus* and *polyophthalmus* but apparently it does not do so, both types of snout length may be found in the Swan View, Perth series. It is significant that Boulenger records both *vittatus* and *polyophthalmus* from Champion Bay and Werner (1910, pp. 458-459) from Gooseberry Hill. This opinion was reached before I noted that Kinghorn (1929, p. 78) had already referred *polyophthalmus* to the synonymy of *vittatus*, an action which I confirm. Largest gecko (No. 10227) measures 91 (55+36) mm.

#### DIPODACTYLUS CONSPICILLATUS Lucas & Frost

*Diplodactylus conspicillatus* Lucas & Frost, 1897, Proc. Roy. Soc. Victoria, 9, p. 55: Charlotte Waters, Northern Territory.

*Gymnodactylus laevis* Sternfeld, 1925, Abh. Senckenb. Naturf. Gesell., 38, p. 229: Hermannsburg Mission, Upper Finke River, Northern Territory.

♀ (M. C. Z. 35155) Hermannsburg, N. T. (W. E. Schevill) 1932.



This gecko possesses an intact, paddle-shaped tail like that of a beaver. She is gravid and displays a group of five flat tubercles on either side of the tail, postero-laterally to the anus. Lönnberg and Andersson (1913, p. 5) have recorded this species from Broome. Total length 85 (62+23) mm. See also the discussion below.

#### DIPLODACTYLUS HILLI Longman

*Diplodactylus hilli* Longman, 1915, Mem. Queensl. Mus., **3**, p. 32: Port Darwin, Northern Territory.

*Diplodactylus platyurus* Parker, 1926, Ann. Mag. Nat. Hist., (9), **17**, p. 665: Torrens Creek, northern Queensland.

♂ (M. C. Z. 35156) Coen, Q. (P. J. Darlington) 1932.

This specimen differs from *conspicillatus* in coloring which has been admirably described by Lucas and Frost. This individual also differs from our example of *conspicillatus* in not having the tip of its spatulate tail prolonged and tapering; apparently an individual or age character, however, for Waite has figured *conspicillatus* with a tail no different from that of *hilli*.

This specimen differs from the description of *hilli* in that the mental does not project beyond the rostral, nor has the mental a small median process posteriorly; there is a tendency towards enlargement of some of the median dorsal scales.

It differs from *platyurus* in that its snout is twice the length of the orbit instead of once and a half. It agrees so closely in other respects including the cluster of spinous scales postero-laterally to the anus, and particularly in every little detail of coloration so ably noted by Parker that there is not the slightest doubt but that it represents *platyurus*.

Recently Kinghorn (1929, p. 81) has discussed the relationships of these three species and makes a key in which *platyurus* is shown to differ by possessing two internasal shields. He evidently overlooked Parker's statement that one of the paratypes had but a single shield between the nasals; this is the condition in our specimen.

*D. platyurus* does not differ from *conspicillatus* in either the breadth of the rostral or in the character of the upper caudal scales as was thought to be the case by Parker. I do not consider that *platyurus* can be held as distinct from *hilli* and I imagine that the relation of the latter to *conspicillatus* will prove to be subspecific when more material is available. Total length 85 (62+23) mm.

## DIPLODACTYLUS ALBOGUTTATUS Werner

*Diplodactylus alboguttatus*, 1910, in Michaelsen & Hartmeyer's Fauna Südwest-Austral., 2, p. 462, fig. 4: Denham, Western Australia.

1 (M. C. Z. 24538) Geraldton, W. A. (J. Clark) 1927.

This gecko is extremely young but in all its characters it agrees with *alboguttatus* Werner as set forth in Fry's (1914, p. 177) key when differentiating *woodwardi* Fry. Whether much importance can be attached to these differential characters is doubtful for in other species of the genus it may be noted that several of them are subject to variation within a species. Total length 41 (24+17) mm.

## DIPLODACTYLUS PULCHER (Steindachner)

*Stenodactylopsis pulcher* Steindachner, 1870, Sitz. Akad. Wiss. Wein, 62, p. 343, pl. ii, figs. 3-5: Swan River, Western Australia.

?*Diplodactylus bilineatus* Lucas & Frost, 1903, Proc. Roy. Soc. Victoria, 15, p. 146: Carnarvon, Western Australia.

*Diplodactylus pulcher* var. *dorsalis* Werner, 1910, in Michaelsen & Hartmeyer's Fauna Südwest-Austral., 2, p. 462: Eradu, Western Australia.

?*Diplodactylus lucasi* Fry, 1914, Rec. West. Austral. Mus., 1, p. 177: n.n. for *bilineatus* Lucas & Frost (not of Gray).

2 (M. C. Z. 32828-9) Pindawa, W. A. (Harvard Exped.) 1931.

22 (M. C. Z. 32830-9) Mullewa, W. A. (Harvard Exped.) 1931.

Pindawa is 35 miles southeasterly from Mullewa.

Back covered with small, uniform, granular scales; digits with small, round tubercles inferiorly. Largest gecko (No. 32835) measures 89 (55+34) mm.

I am by no means confident that I am correct in synonymising *bilineatus*, hence *lucasi*, with *pulcher*. The former is said to have the nostril "pierced between the rostral, first labial, and five or six nasals"; in *pulcher* and our series the nostril is excluded from the rostral and first labial by a narrow rim. The type should be reexamined and if correctly described and the rim has not fused with the rostral and first labial, I am probably in error. Except for this I fail to detect any difference between *pulcher* and *bilineatus*.

Taken alone our Mullewa series present very beautifully the transitional stages between the *pulcher* type with black-edged, light dorsal patches of irregular shape, and the *bilineatus* (inc. *dorsalis*) type in which through coalescing of the dorsal blotches a regular, black-edged, light dorsal streak is formed from occiput to base of tail.

## DIPLODACTYLUS STENODACTYLUS Boulenger

*Diplodactylus stenodactylus* Boulenger, 1896, Ann. Mag. Nat. Hist. (6), 18, p. 232: Roebuck Bay, north Western Australia.

S (M. C. Z. 33037-44) Mullewa, W. A. (Harvard Exped.) 1931.

Snout *longer* than the distance between eye and ear-opening; ear-opening both round and oval; nostril in contact with the first labial, internasal, and three or four granules, in a few geckoes the nostril is also in contact with the rostral; internasals in contact, or separated by granules (No. 33037); supralabials 9-12. Largest gecko (No. 33039) measures 96 (51+45) mm.

The series presents a wide variation in color pattern due to the light dorsal line (frequently absent) breaking up into irregular-shaped blotches yet distinct enough from *pulcher*.

## OEDURA MARMORATA Gray

*Oedura marmorata* Gray, 1842, Zoöl. Miscell., p. 52: Port Essington, Northern Territory.

*Oedura tryoni* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 54: Stanthorpe, Queensland.

*Oedura fracticolor* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 160: Kimberley, Gulf of Carpentaria, Queensland.

*Oedura ocellata* Boulenger, 1885, Cat. Lizards Brit. Mus., 1, p. 105, pl. ix, fig. 1: Australia.

*Oedura cincta* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2), 2, p. 811: Charleville, southwestern Queensland.

*Oedura monilis* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2), 2, p. 812: Queensland.

*Phyllodactylus (Oedura) castelnaui* Thominot, 1889, Bull. Soc. Philom. Paris, (8), 1, p. 22: Australia.

*Oedura mayeri* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, p. 3, pl. ii, figs. 2-2c: (Cooktown) Queensland.

6 (M. C. Z. 6469, 6471) Cooktown, Q. (Mayer & Olive) 1896.

1 (M. C. Z. 6728) Australia (T. Barbour don.) 1903.

1 (M. C. Z. 10161) North Australia (Australian Mus.) 1914.

1 (M. C. Z. 10540) Southern Queensland (Queensland Mus.) 1914.

2 (M. C. Z. 35158-9) Coen, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35160) Mt. Carbine, Q. (P. J. Darlington) 1932.

Dorsal scales large, flat; preanal-femoral pores 18-22, average for seven males 20. Largest gecko (No. 10161) measures 151 (93+58) mm., tail regenerated.

Longman (1915, p. 33) has commented on a specimen of *marmorata* from Port Darwin in which the infralabials are separated by an azygous scale behind the mental. This character was believed to be distinctive of *tryoni* but is inconstant in a series from one locality so I refer *tryoni* to the synonymy of *marmorata*. Our North Australian gecko, received as *marmorata* from the Australian Museum, agrees with *tryoni* in this character.

*O. fracticolor* appears to have been described chiefly on the grounds of its unusual color pattern; indications as to how its lateral stripes may have formed from coalescing of the more usual markings are present in some of our specimens.

Boulenger (1887, p. 483) referred his distinctively marked *ocellata* to the synonymy of *tryoni*.

*O. cincta* was differentiated on the basis of having a completely cleft rostral. Our series shows much variation in this respect from those which possess but a slight indication of a cleft to No. 10161 in which the cleft (or groove) extends to the buccal border.

*O. monilis* has been redescribed and figured by Fry (1915, p. 87) who, because it was found occurring with *tryoni* at Tamworth, New South Wales, thought it should be treated as a full species. Notwithstanding this view I believe that they are synonymous, that the ocelli are produced by fusion of the bordering lines, and that a good series from Tamworth should produce the intermediate stages.

Though Garman differentiated *mayeri* from *marmorata* on the grounds that the infralabials were separated behind the mental, two of his type series have the infralabials in contact. He further cited the greater number of femoral pores (20) but one of his series has 18. His third point, the longer and more slender tail, was presumably on account of three specimens retaining their original tails. *O. mayeri* has long been considered a synonym of *tryoni*.

#### OEDURA ROBUSTA Boulenger

*Oedura robusta* Boulenger, 1885, Cat. Lizards Brit. Mus., 1, p. 106, pl. x, fig. 1: Australia.

1 (M. C. Z. 10198) Moree, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10544) Sladevale, Q. (Queensland Mus.) 1914.

1 (M. C. Z. 35161) Mundubbera, Q. (J. Kahler) 1932.

Dorsal scales small, granular; divided lamellae beneath the median toes 4; preanal pores 2 (No. 10198) to 13 (No. 10544). Largest gecko (No. 10544) measures 141 (80+61) mm. In recent times this species

has been recorded from Cairns and Chillagoe, northern Queensland, by Lönnberg and Andersson (1915, p. 1).

#### OEDURA LESUEURII (Duméril & Bibron)

*Phyllodactylus lesueurii* Duméril & Bibron, 1836, *Erpét. Gén.*, **3**, p. 392: Australia.

1 (M. C. Z. 5252) Australia (H. A. Ward) 1884.

2 (M. C. Z. 10156-7) Kingstown, N. S. W. (Australian Mus.) 1915.

3 (M. C. Z. 18810-1, 22016) Hornsby, N. S. W. (W. F. H. Rosenberg) 1924-5.

Dorsal scales small, granular; divided lamellae beneath the median toes 3; preanal pores absent. Largest gecko (No. 18810) measures 106 (68+38) m., tail regenerated.

#### OEDURA RHOMBIFER Gray

*Oedura rhombifer* Gray, 1844, *Zoöl. Erebus & Terror, Rept.*, pl. xvi, fig. 6: Australia.

1 (M. C. Z. 6742) Western Australia (T. Barbour don.) 1903.

Poor condition, very shrivelled. Total length 73 (37+36) mm.

#### THECADACTYLUS AUSTRALIS Günther

*Thecadactylus australis* Günther, 1877, *Ann. Mag. Nat. Hist.* (4), **19**, p. 414: Islands of Torres Straits.

1 (M. C. Z. 35162) Lankelly Creek, Q. (P. J. Darlington) 1932.

The finding of this rare gecko in the McIlwraith Ranges of the mainland is an interesting addition to the mainland fauna. Excepting that its rostral is completely divided and the absence of the prominent crossbands of the figured type, it agrees closely with the description. Total length 186 (112+74) mm.

#### HEMIDACTYLUS FRENATUS Duméril & Bibron

*Hemidactylus frenatus* Duméril & Bibron, 1836, *Erpét. Gén.*, **3**, p. 366: "l' Afrique australe" etc. also, Barbour, 1914, *Proc. Biol. Soc. Washington*, **27**, p. 203.

2 (M. C. Z. 9473-4) Mer Island, T. S. (H. L. Clark) 1913.

These geckoes from the Murray Islands have been reported upon by Barbour already. The larger measures 95 (50+45) mm.

#### PEROPUS VARIEGATUS VARIEGATUS (Duméril & Bibron)

*Hemidactylus variegatus* Duméril & Bibron, 1836, *Erpét. Gén.*, **3** p. 353: Tasmania and Bay of the Chiens Marins, Australia.

- 1 (M. C. Z. 24540) Swan View, W. A. (J. Clark) 1927.  
 1 (M. C. Z. 32880) Yalgoo, W. A. (Hills) 1931.  
 13 (M. C. Z. 32881-90) Mullewa, W. A. (Harvard Exped.) 1931.  
 2 (M. C. Z. 32891-2) Pindawa, W. A. (Harvard Exped.) 1931.  
 4 (M. C. Z. 32893-6) Meekatharra, W. A. (P. J. Darlington) 1931.  
 7 (M. C. Z. 32897-903) Wiluna, W. A. (Harvard Exped.) 1931.  
 1 (M. C. Z. 32904) Yandil, W. A. (P. J. Darlington) 1931.  
 2 (M. C. Z. 32905-6) Geraldton, W. A. (Harvard Exped.) 1931.  
 16 (M. C. Z. 35163-9) Hermannsburg, N. T. (W. E. Schevill) 1932.  
 1 (M. C. Z. 35170) Alroy Downs, N. T. (W. E. Schevill) 1932.  
 1 (M. C. Z. 35171) Mona Vale, Q. (W. E. Schevill) 1932.  
 2 (M. C. Z. 35172-3) Pelican Bore, Q. (W. E. Schevill) 1932.  
 1 (M. C. Z. 35174) Soda Creek, Q. (W. E. Schevill) 1932.  
 3 (M. C. Z. 35175-7) Artesian Downs, Q. (W. E. Schevill) 1932.  
 1 (M. C. Z. 35178) Mt. Fort Bowen, Q. (W. E. Schevill) 1932.  
 Mona Vale, Pelican Bore and Soda Creek are near Hughenden; Artesian  
 Downs near Richmond; Pindawa is 35 miles southeasterly from  
 Mullewa; Yandil is near Wiluna.

Digital lamellae divided by a median groove; preanal pores 9-15; average 12. Largest ♂ (No. 35163) measures 116 (61+55) mm., largest ♀ (No. 35164) measures 105 (56+49) mm.

Zietz (1920, p. 190) refers *punctatus* Fry and *australis* Gray to the synonymy of *variegatus*. Our material, however, does give grounds for considering that these names may be retained in a subspecific sense with a distribution having geographical significance. Thus, while the typical form is distributed right across the continent approximately south of a line connecting Geraldton, Alice Springs and Mackay, in the northwest is a slightly larger race (*punctatus*) and in the extreme north and northeast a still larger one (*australis*) whose distribution may possibly be found to correspond fairly well with that of the Savannah Woodland zone. The arrangement of the digital lamellae of *australis* show that it occupies an intermediate position between typical *variegatus* and *oceanicus* both taxonomically as well as geographically.

It will be noted, however, that one of Gray's types of *australis* came from the Swan River. If this means the Swan River near Perth, I suggest that it is an aberrant individual; alternately there may be some error in its provenance, the term "Swan River" being used somewhat vaguely by the early explorers. In recent times Lönnberg and Andersson (1913, p. 7) have recorded *australis* from the interior of the Kimberley district.

"At Mullewa found most frequently under stones, more rarely under bark. At this early season (11-22. ix. 31) the nights are probably too cold for foraging." (W.E.S.)

PEROPUS VARIEGATUS PUNCTATUS Fry

*Peropus variegatus* var. *punctatus* Fry. 1914, Rec. West. Austral. Mus., 1, p. 178: Strelley River, Pilbara, Western Australia.

1 (M. C. Z. 24541) Yalgoo, W. A. (R. C. Richardson) 1927.

1 (M. C. Z. 31875) Broome, W. A. (H. L. Clark) 1929.

8 (M. C. Z. 32907-13) Dalganger St., W. A. (G. E. Nicholls) 1931.  
Dalganger is 50 miles N.E. of Yalgoo.

Digital lamellae divided by a median groove; preanal pores of two males 11-13; Largest ♂ (No. 32909) measures 128 (60+68) mm., largest ♀ (No. 32907) measures 119 (58+61) mm.

This race appears to occur alongside the typical form at Yalgoo but it will be noted that our material was donated and may not actually have come from the same township. The range extends northwards from Yalgoo to the Strelley River and Broome. The race is characterized by its striking coloration in conjunction with its larger size and arrangement of the digital lamellae. It should be noted, however, that specimens of *australis* from Coen are almost identical in markings with our series of *punctatus*.

PEROPUS VARIEGATUS AUSTRALIS (Gray)

*Gehyra australis* Gray, 1845, Cat. Lizards Brit. Mus., p. 163: Port Essington and Swan River, Australia.

*Gehyra variegata* Garman (not of Duméril & Bibron), 1901, Bull. Mus. Comp. Zoöl., 39, p. 4.

6 (M. C. Z. 6472, 6474) Cooktown, Q. (E. A. Olive) 1896.

1 (M. C. Z. 35179) Green Id., off Cairns, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35180) Army Downs, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35181) Mt. Carbine, Q. (P. J. Darlington) 1932.

8 (M. C. Z. 35182-9) Coen, Q. (P. J. Darlington) 1932.

Army Downs is near Richmond.

Digital lamellae distally with more or less of a median groove which, however, does not separate them as in the typical form, their condition being intermediate between typical *variegatus* and *occaneus*; with the exception of the individual with 6 azygous pores, referred to by Garman, the preanal pores of five males are 13-19, average nearly 15. Largest ♂ (No. 35182) measures 66 mm. plus a regenerated tail, largest ♀ (No. 35183) measures 124 (61+63) mm.

## PYGOPODIDAE

## PYGOPUS LEPIDOPODUS (Lacépède)

*Bipes lepidopodus* Lacépède, 1804, Ann. Mus. Paris, pp. 193 and 209, pl. lv, fig. 1: Australia.

1 (M. C. Z. 2522) New South Wales (G. Krefft) 1870.

1 (M. C. Z. 10197) Wentworthville, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10287) Lindfield, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10288) Parramatta, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 24470) Perth, W. A. (J. Clark) 1927.

Preanal pores 10-16, average 11. Largest scalefoot (No. 2522) measures 464 (227+237) mm., tail regenerated. The Perth specimen differs from all our eastern examples in possessing the longitudinal rows of rectangular, white-edged, sepia blotches mentioned by Kinghorn.

Zietz (1920, p. 191) drew attention to the correct spelling of this name which I have verified as *lepidopodus*, not *lepidopus*.

In view of Kinghorn's (1926, pp. 40-64) revision of this family, which has been of great help to me, I have tested all our pygopods by his keys and descriptions and avoided discussing the numerous minor variations to which these unstable creatures are liable.

## PYGOPUS NIGRICEPS (Fischer)

*Cryptodelma nigriceps* Fischer, 1852, Arch. für Natur., 48, part 1, p. 289, pl. xvi, figs. 5-9: Nicol Bay, Western Australia.

*Pygopus schraderi* Boulenger, 1913, Ann. Mag. Nat. Hist. (8), 12, p. 564: Milparinka, New South Wales.

1 (M. C. Z. 33063) Hillston, N. S. W. (T. A. White) 1914.

Preanal pores 16. Total length 237 (114+123) mm.

The reference given by Zietz (1920, p. 191) for *schraderi* is wrong both for volume, page, year, and habitat. Kinghorn (1926, p. 45) has referred it to the synonymy of *nigriceps*.

## PYGOPUS BAILEYI (Günther)

*Delma (Cryptodelma) baileyi* Günther, 1897, Ann. Mag. Nat. Hist. (6), 19, p. 170, figs. 1-3: Cue, Western Australia.

1 (M. C. Z. 21884) Australia (Senckenberg Mus.) 1925.

1 (M. C. Z. 24469) Dudu, W. A. (R. C. Richardson) 1927.

Preanal pores 12. Larger scalefoot (No. 24469) measures 479 (154+325) mm., tip of tail missing.



It should be noted that the original spelling of the specific name was *baileyi*, not *bayleyi*. Number 21884 was received as *Cryptodelma nigriceps* Fischer; while *baileyi* closely resembles *nigriceps* in head markings it differs by possessing perfectly smooth scales.

#### DELMA FRASERI FRASERI (Gray)

*Delma fraseri* Gray, 1831, Zoöl. Miscell., p. 14; Western Australia.  
5 (M. C. Z. 24461-4) Perth, W. A. (J. Clark) 1926.

Two pairs of frontonasals; 3 anal scales, this character distinguishing typical *fraseri* from *plebeia* De Vis as well as from *impar* both of which have but 2. Largest scalefoot (No. 24461) measures 314 (76+238) mm.

In his key, Kinghorn (1926, p. 51) states that the snout is longer than the distance between the eye and the ear, but in the text (pp. 51, 52) that it is as long both for *D. fraseri* and what he calls *D. f. var. plebeia*. In our Perth series the length of the snout might be said to be equal to, or a trifle longer, while in *tincta* and *impar* it is a trifle shorter than the distance between the eye and the ear. The difference is so slight, however, as to be of doubtful value as a specific character.

#### DELMA FRASERI aberration

1 (M. C. Z. 8974) Broome Hill, W. A. (W. F. H. Rosenberg) 1913.

This individual only differs from typical *fraseri* in having a single pair of frontonasals and a minute interparietal. It is not *tincta*, however, for it has the 4th labial below the eye, nor *impar* as it possesses 3 anal shields. Total length 271 (71+200) mm.

In view of the fact that Werner (1909, p. 265) records a normal *fraseri* from Broome Hill and had others from Eradu and Northampton, Western Australia, which had a single pair of frontonasals but combined with having the 3rd labial below the eye, and also Longman's (1916, p. 50) remarks on the variation shown by twenty Queensland specimens, as well as Kinghorn's (1926, p. 51) reference to *tincta* of examples labelled "Mt. Barker" and "Western Australia," it seems to me that we are dealing with one very variable species which has a preponderant proportion of *fraseri* characters in Western Australia and the Northern Territory and a preponderance of *tincta* characters in Queensland and New South Wales. If this view is found to be acceptable, then *plebeia* De Vis, of which only two examples are known, would

probably be regarded as an aberration of *tincta* De Vis, which has page precedence. Alternatively it can be retained as a third race of restricted range.

#### DELMA FRASERI TINCTA De Vis

*Delma tincta* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2), **2**, p. 824: Normanton, Gulf of Carpentaria; Springsure, central Queensland.

*Delma reticulata* Garman, 1901, Bull. Mus. Comp. Zoöl., **39**, p. 5, pl. ii, figs. 1-1f: Cooktown, Queensland.

Type (M. C. Z. 6486) Cooktown, Q. (R. A. Olive) 1896.

1 (M. C. Z. 35190) Mt. Carbine, Q. (P. J. Darlington) 1932.

One pair of frontonasals; nasal and first labial distinct; 3rd labial below the eye; midbody scale-rows in all 14; anal shields 3, the point of the median one not always reaching so far forward as the others. Larger scalefoot (No. 35190) measures 213 (75+138) mm.

An unfortunate slip has occurred in Kinghorn's key (1926, p. 51) where "nasal and rostral not fused, 4th labial under eye" should read "nasal and 1st labial not fused, 3rd labial under eye" as is obvious from the text and from his figure 11.

#### DELMA IMPAR (Fischer)

*Pseudodelma impar* Fischer, 1882, Arch. für Natur., **48**, part 1, p. 287, pl. xvi, figs. 1-4: Melbourne, Victoria.

*Delma lineata* Rosén, 1905, Ann. Mag. Nat. Hist., (7), **16**, p. 131, figs. 2a, 2c, pl. viii, fig. 1: Victoria.

1 (M. C. Z. 22159) Victoria (Hauschild) 1900.

One pair of frontonasals; nasal and 1st labial fused; 4th labial below the eye; anal shields 2. Total length 176 (97+79) mm., tail intact.

Unfortunately in defining this species in his key, Kinghorn (1926, p. 51) states "nasal and rostral fused," the 1st labial is intended, not the rostral, *cf.* his figure 12.

#### APRASIA PULCHELLA Gray

*Aprasia pulchella* Gray, 1839, Ann. Nat. Hist., **2**, p. 332: Australia.

1 (M. C. Z. 24460) Mundaring Weir, W. A. (W. S. Brooks) 1927.

3 (M. C. Z. 24467-8) Geraldton, W. A. (J. Clark) 1927.

Postocular scale present; snout shorter. Longest scalefoot (No. 24467) measures 149 (87+62) mm., tail intact. "Taken under stone." (W. S. B.).

## APRASIA REPENS (Fry)

*Ophioseps repens* Fry, 1914, Rec. W. Austral. Mus., 1, p. 178, figs. 2 and 3: Western Australia.

- 1 (M. C. Z. 24427) Balcatta Beach, W. A. (W. S. Brooks) 1927.
- 2 (M. C. Z. 24458-9) Geraldton, W. A. (W. S. Brooks) 1927.
- 1 (M. C. Z. 33027) Swan View, W. A. (W. M. Wheeler) 1931.
- 8 (M. C. Z. 33028-35) Rottnest Id., W. A. (Harvard Exped.) 1931.

Postocular scale absent; snout longer. Longest scalefoot (No. 33033) measures 174 (117+57) mm.

## LIALIS BURTONIS Gray

*Lialis burtonis* Gray, 1834, Proc. Zoöl. Soc. London, p. 134: New South Wales.

*Lialis bicaenata* Gray, 1842, Zoöl. Miscell., p. 52: Port Essington, Northern Territory.

*Lialis punctulata* Gray, 1842, Zoöl. Miscell., p. 52: Port Essington, Northern Territory.

*Lialis burtoni* Barbour, 1914, Proc. Biol. Soc. Washington, 27, p. 203.

- 3 (M. C. Z. 5225, 5242, 5251) Australia (H. A. Ward) 1884.
- 1 (M. C. Z. 6298) Dubbo, N. S. W. (Australian Mus.) 1890.
- 1 (M. C. Z. 7098) Australia (T. Barbour don.) 1903.
- 1 (M. C. Z. 9492) Prince of Wales Id., T. S. (H. L. Clark) 1913.
- 2 (M. C. Z. 10548) South Queensland (Queensland Mus.) 1914.
- 2 (M. C. Z. 24465) Perth, W. A. (W. S. Brooks & J. Clark) 1927.
- 1 (M. C. Z. 24466) Mundaring Weir, W. A. (W. S. Brooks) 1927.
- 1 (M. C. Z. 31902) Near Darwin, N. T. (H. L. Clark) 1929.
- 3 (M. C. Z. 33024-5) West Wallaby Id., W. A. (R. Ellis) 1931.
- 1 (M. C. Z. 33026) Rottnest Id., W. A. (Harvard Exped.) 1931.
- 2 (M. C. Z. 35191-2) Hermannsburg, N. T. (W. E. Schevill) 1932.
- 2 (M. C. Z. 35193-4) Port Stewart, Q. (P. J. Darlington) 1932.

Preanal pores 4 or not distinguishable. Longest scalefoot (No. 33024) measures 324 (173+151) mm., tail intact.

"On West Wallaby Island found coiled under stones by day." (W. E. S.)

## AGAMIDAE

## GONYOCEPHALUS SPINIPES (A. Duméril)

*Lophyrus spinipes* A. Duméril, 1851, Cat. Méthod. Coll. Rept. Paris, p. 90: Australia.

- 1 (M. C. Z. 24322) Australia (H. A. Ward) 1932.

Nuchal and dorsal crests subcontinuous; no pronounced gular pouch. Total length 349 (115+234) mm. See also Fry (1915, p. 88).

## GONYOCEPHALUS BOYDII (Macleay)

*Tiaris boydii* Macleay, 1884, Proc. Linn. Soc. N. S. W., 8, p. 432: Herbert River, Queensland.

1 (M. C. Z. 10533) Herbert Gorge, Q. (Queensland Mus.) 1914.

Nuchal and dorsal crests distinctly separated; a pronounced gular pouch with strongly toothed scales on its anterior edge. Total length 400+(140+260+) mm., tip of tail missing.

## AMPHIBOLURUS MACULATUS MACULATUS (Gray)

*Uromastyx maculatus* Gray, 1831, in Griffith's Cuvier, Animal King., 9, Syn., p. 62: no locality.

2 (M. C. Z. 32956-7) Lake Violet, W. A. (W. E. Schevill) 1931.

2 (M. C. Z. 32983-4) Mullewa, W. A. (I. M. Dixson) 1931.

Femoral and preanal pores total 40-53, none in female. Largest ♂ (No. 32983) measures 194 (57+137) mm., and ♀ (No. 32984) 195 (56+139) mm.

## AMPHIBOLURUS MACULATUS GULARIS Sternfeld

*Amphibolurus maculatus gularis* Sternfeld, 1925, Abh. Senckenb. Naturf. Gesell., 38, p. 231: Hermannsburg Mission, Upper Finke River, Northern Territory.

1 (M. C. Z. 10194) Derby, W. A. (Australian Mus.) 1914.

1 (M. C. Z. 31878) Broome, W. A. (H. L. Clark) 1929.

1 (M. C. Z. 35229) Mt. Peake, N. T. (W. E. Schevill) 1932.

6 (M. C. Z. 35230-5) Birchip Downs, N. T. (W. E. Schevill) 1932.

41 (M. C. Z. 35236-50) Hermannsburg, N. T. (W. E. Schevill) 1932.

Mt. Peake is 50 miles in a northwesterly direction from Teatree Well. Birchip Downs is 40 miles west of Barrow Creek Telegraph Station.

Distinguished from the typical form by the tympanum being nearly as large as the eye, larger size, different coloring. Femoral and preanal pores 48-61 (No. 35236), average for 22 males is 50; females without pores. The largest perfect ♂ (No. 35230) measures 227 (72+155) mm., and ♀ (No. 10194) 222 (72+150) mm.

It is interesting to note that the second largest female (No. 35236), measuring 213 mm., though pregnant, her eggs being 11 mm. in circumference, is the only female with a tendency to adopt the secondary sexual coloring of the ♂. She has black sides and white lateral lines; below, dusky on the throat and breast, i.e. just those areas which are jet black in the males.

## AMPHIBOLURUS ORNATUS (Gray)

*Grammatophora ornata* Gray, 1844, Zoöl. Erebus & Terror, Rept., pl. xviii, fig. 4: Western Australia.

- 1 (M. C. Z. 10175) Darling Range, W. A. (Australian Mus.) 1914.
- 2 (M. C. Z. 24542-3) Parkerville, W. A. (J. Clark) 1927.
- 2 (M. C. Z. 24544-5) Swan View, W. A. (W. S. Brooks) 1927.
- 2 (M. C. Z. 32985-6) Darling Range, W. A. (Harvard Exped.) 1931.

Femoral and preanal pores of two males 54-57. In his key, Boulenger (1885, p. 380) states: "No nuchal crest" but at the time had only the type. An extremely low nuchal crest is present in our adults. The largest ♂ (No. 24544) measures 270 (88+182) mm., and ♀ (No. 10175) 208 (70+138) mm.

## AMPHIBOLURUS SCUTULATUS Stirling &amp; Zietz

*Amphibolurus scutulatus* Stirling & Zietz, 1893, Trans. Roy. Soc. S. Austral., **16**, p. 165, pl. vii, figs. 1-2: between Queen Victoria Springs and Fraser Range, Western Australia.

*Amphibolurus websteri* Boulenger, 1904, Ann. Mag. Nat. Hist., (7), **14**, p. 414, pl. xi: Coolgardie district, Western Australia.

*Amphibolurus holsti* Rosén, 1905, Ann. Mag. Nat. Hist., (7), **16**, p. 134, p. 141, pl. ix: West. Australia.

- 8 (M. C. Z. 32998-33005) Lake Violet, W. A. (W. E. Schevill) 1931.
- 6 (M. C. Z. 33006-9) Wiluna, W. A. (W. E. Schevill) 1931.

Lake Violet is only three miles from Wiluna.

Femoral and preanal pores of three males 44-47. The largest ♂ (No. 33006) measures 338 (108+230) mm., and ♀ (No. 32999) 325 (100+225) mm.

## AMPHIBOLURUS CAUDICINCTUS (Günther)

*Grammatophora caudicincta* Günther, 1844, Zoöl. Erebus & Terror, Rept., p. 19: Nicol Bay, Western Australia.

- 3 (M. C. Z. 32980-2) Wiluna, W. A. (Harvard Exped.) 1931.
- 3 (M. C. Z. 32995-7) Meekatharra, W. A. (Harvard Exped.) 1931.
- 1 (M. C. Z. 35251) Hermannsburg, N. T. (W. E. Schevill) 1932.

It seems possible that *imbricatus* Peters and *rufescens* Stirling and Zietz may be regarded as races of *caudicinctus*. Our Hermannsburg specimen is undoubtedly the same species as those from Hermannsburg referred to *caudicinctus* by Sternfeld (1925, p. 232).

If the key devised by Boulenger (1885, p. 380) be applied, our specimens run down to *imbricatus* of South Australia. They differ from

Peters' original description, however, in their shorter limbs, the shortest finger of the fore limb only reaching the eye in the large Hermannsburg dragon, barely reaching the nostril in the six smaller specimens; the adpressed hind limbs do not reach *beyond* the end of the snout but to the nostril (Wiluna) or anterior corner of the eye (Meekatharra). While in general the coloration agrees with that of *imbricatus*, it differs in details, such as the absence of transverse white lines on the back.

From *rufescens* they differ in possessing a total of 29-39 (average of five males 33, instead of 58) femoral and preanal pores. The color description agrees perfectly.

From *caudicinctus* they differ in that their ventrals are very slightly and obtusely keeled, less noticeable in the females; in this respect they agree with *imbricatus* and *rufescens*; the keels are so faint as to be easily overlooked. Judging by the appearance of the type as figured by Boulenger (1885, pl. xxix, fig. 2) it seems obvious that the tail of the holotype was incomplete, Boulenger states that it is one and a half times the length of the head and body but as he gives 78 mm. as the head and body length and 25 mm. for the tail there would appear to be a misprint.

The largest ♂ (No. 35251) measures 265 (80+185) mm., and ♀ (No. 32996) 67 from snout to anus, the tail being injured.

#### AMPHIBOLURUS DECRESI (Duméril & Bibron)

*Grammatophora decresii* Duméril & Bibron, 1837, *Erpét. Gén.*, **4**, p. 472, pl. xli, fig. 1: L'Ile de Decrès (*i.e.*, Kangaroo Island, South Australia).

♀ (M. C. Z. 10186) Boulder, W. A. (Australian Mus.) 1914.

♂ (M. C. Z. 10187) Port Lincoln, S. A. (Australian Mus.) 1914.

These specimens were received as *pictus*. At least the male appears to represent *decresii* though not agreeing well with the color of the figured type; moreover the type had 50 femoral and preanal pores while our male has only 35. This ♂ measures 166 (60+106) mm., the ♀ 137 (57+80) mm.

#### AMPHIBOLURUS PICTUS Peters

*Amphibolurus pictus* Peters, 1867 (1866), *Monatsb. Akad. Wiss. Berlin*, p. 88: South Australia.

*Amphibolurus modestus* Ahl, 1926, *Zoöl. Anz. Leipzig*, **67**, p. 187: Australia.

1 (M. C. Z. 35288) Between Boopiechee & Finnis River, nr. L. Eyre, S. A. (W. E. Schevill) 1932.

This beautiful male dragon is undoubtedly specifically identical with the subject of the colored plate of *pictus* given by Lucas and Frost in the Horn Report (1896, pl. x, fig. 1) and is substantially in agreement with Peters' very detailed original description. Femoral and preanal pores 45 in an uninterrupted series. This ♂ measures 177 (62+115) mm.

AMPHIBOLURUS RETICULATUS RETICULATUS (Gray)

*Grammatophora reticulata* Gray, 1845, Cat. Lizards Brit. Mus., p. 252: Western Australia.

1 (M. C. Z. 7747) Western Australia (Vienna Mus.) 1911.

3 (M. C. Z. 32962-4) Geraldton, W. A. (Harvard Exped.) 1931.

Femoral and preanal pores 37-49 in a continuous series. Larger ♂ (No. 32962) measures 198 (82+116) mm., and ♀ (No. 32963) 147 (62+85) mm.

Werner (1909, pp. 271-5) has contributed an important study of this variable species from which we gather that the range of femoral and preanal pores in his series was 32-50. Ahl (1926, p. 188) has described *tibialis* with "about 60 pores" based on a specimen whose exact locality is unknown. Its color pattern agrees closely with our No. 7747 and it may prove to be a synonym of *reticulatus*.

AMPHIBOLURUS RETICULATUS INERMIS (De Vis)

*Grammatophora inermis* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2), 2, p. 812: Central Queensland.

*Amphibolurus reticulatus major* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 78: Hermannsburg Mission, Upper Finke River, Northern Territory.

17 (M. C. Z. 21879-88) Broome, W. A. (H. L. Clark) 1929.

4 (M. C. Z. 32987-90) Meekatharra, W. A. (Harvard Exped.) 1931.

2 (M. C. Z. 32991-2) Lake Violet, W. A. (P. J. Darlington) 1931.

1 (M. C. Z. 32993) Wiluna, W. A. (Harvard Exped.) 1931.

1 (M. C. Z. 32994) Yalgoo, W. A. (Hills) 1931.

1 (M. C. Z. 35252) Birchip Downs, N. T. (W. E. Schevill) 1932.

17 (M. C. Z. 35253-62) Teatreen Well, N. T. (W. E. Schevill) 1932.

21 (M. C. Z. 35263-72) Hermannsburg, N. T. (W. E. Schevill) 1932.

I regret having to refer the excellently defined race *major* to the synonymy of *inermis* but they appear to be in perfect agreement.

Femoral and preanal pores 16-26, average of forty males 22, average of a dozen Broome males also 22, a dozen Hermannsburg topotypes of *major* average 21; females possess pores but these are usually less dis-

tinctor than in the males. The scattered nature of these pores and their reduced number immediately separate this big race from the typical form inhabiting the middle west coast.

The largest ♂ (No. 35263) measures 277 (116+161) mm., and ♀ (No. 35264) 201 (90+111) mm.

"Native name *Naiia* near Teatree Well, *Kapdalia* at Hermannsburg. Most of the series dug from shallow burrows, not more than six inches deep and one to two feet long." (W.E.S.)

#### AMPHIBOLURUS DARLINGTONI Loveridge

*Amphibolurus darlingtoni* Loveridge, 1932, Proc. New England Zool. Club, **13**, p. 33: Mullewa, Western Australia.

♂ ♀ (M. C. Z. 32958-9) Mullewa, W. A. (P. J. Darlington) 1931.

The two paratype females have been donated to the Western Australian Museum and exchanged to the British Museum respectively.

"When disturbed on a sandy plain near town one of these lizards rushed off and buried itself in the sand, shortly afterwards it pushed its head out again. November 18, 1933." (P. J. D.).

#### AMPHIBOLURUS ADELAISENSIS (Gray)

*Grammatophora muricata* var. *adelaidensis* Gray, 1841, in Grey's Journ. Exped. West. Austral., **2**, p. 439: Swan River, Western Australia.

*Amphibolurus pulcherrimus* Boulenger, 1885, Cat. Lizards Brit. Mus., **1**, p. 388, pl. xxx, fig. 2: Western Australia.

*Amphibolurus pallidus* Boulenger, 1885, Cat. Lizards Brit. Mus., **1**, p. 388, pl. xxx, fig. 3: Perth, Western Australia.

1 (M. C. Z. 24539) Geraldton, W. A. (J. Clark) 1927.

*A. adelaidensis* might possibly be treated as the western representative of *muricatus* and one suspects that the solitary record of *muricatus* from Western Australia collected by Mr. Gilbert should be referred to *adelaidensis* if its locality data is correct. Our material consists of a single juvenile measuring 60 (27+33) mm. It has both gulars and ventrals keeled, is very pale though showing the angular dorsal markings of *adelaidensis*. Zietz (1920, p. 196) has already united *pulcherrimus* with *adelaidensis* and *pallidus* scarcely seems worthy of distinction.

#### AMPHIBOLURUS DIEMENSIS (Gray)

*Grammatophora muricata* var. *diemensis* Gray, 1841, in Grey's Journ. Exped. West. Austral., **2**, p. 439: Tasmania.

*Grammatophora angulifera* Gray, 1844, Zool. Erebus and Terror, Rept., pl. xviii, fig. 3: Tasmania.



*Amphibolurus muricatus* Barbour (not of Shaw), 1914, Proc. Biol. Soc. Washington, **27**, p. 203.

- 1 (M. C. Z. 1109) Australia (No further history) N. D.
- 1 (M. C. Z. 2225) Sydney, N. S. W. (W. Keferstein) 1865.
- 1 (M. C. Z. 5510) Hobart, T. (Peabody Mus.) 1886.
- 1 (M. C. Z. 9488) Wentworth Falls, N. S. W. (H. L. Clark) 1913.
- 3 (M. C. Z. 32965-7) Mt. Kosciusko, N. S. W. (Harvard Exped.) 1931.
- 1 (M. C. Z. 32968) Kurrajong Heights, N. S. W. (W. E. Schevill) 1931.
- 1 (M. C. Z. 35273) Faulconbridge, N. S. W. (W. E. Schevill) 1932.
- 2 (M. C. Z. 35274-5) Mt. Wilson, N. S. W. (P. J. Darlington) 1932.
- 2 (M. C. Z. 35276-7) Blackheath, N. S. W. (P. J. Darlington) 1932.

This species has often been confused with its near, but larger, relative, *muricatus*. Partly, perhaps, because the key characters given by Boulenger (1885, p. 381) are somewhat inconstant and for *angulifer* (*i.e.* *dicmensis*) call for the absence of a dorsal crest or serrated ridge. While actually this is the case, there is a series of enlarged, strongly keeled scales along the vertebral line, but while these are well-separated in *dicmensis* their homologues in *muricatus* are contiguous so as to form a crest. In *muricatus* they lie between two similar ridges forming almost perfect parallel lines until converging upon the tail; in *dicmensis* these ridges are strongly undulating or zigzag.

The adpressed hind limb reaches to the tympanum or to the posterior corner of the eye; femoral and preanal pores in the males 8-19. Young specimens are much speckled with brown below, adults less conspicuously so. Number 32965, taken December 10-14, 1931, only 130 mm. in total length, holds eggs measuring 14 x 9 mm. The largest ♂ (No. 2225) measures 178 (63+115) mm., and ♀ (No. 9488) 207 (70+137) mm.

#### AMPHIBOLURUS MURICATUS (Shaw)

*Lacerta muricata* Shaw, 1790, in White's Journ. Voyage N. S. W., App., p. 244, pl. xxxi, fig. 1: New South Wales.

- 1 (M. C. Z. 1076) Melbourne, V. (F. Müller) 1863.
- 6 (M. C. Z. 2868) Australia (No further history) N. D.
- 1 (M. C. Z. 5812) Australia (C. H. Foster) 1874.
- 1 (M. C. Z. 6299) Mt. Kosciusko, N. S. W. (Australian Mus.) 1890.
- 1 (M. C. Z. 6756) Queensland (T. Barbour don.) 1903.
- 1 (M. C. Z. 19629) Sydney, N. W. S. (Basel Mus.) 1924.
- 1 (M. C. Z. 33010) Mt. Kosciusko, N. S. W. (Harvard Exped.) 1931.
- 1 (M. C. Z. 35275) Blackheath, N. S. W. (P. J. Darlington) 1932.
- 2 (M. C. Z. 35279-80) Hartley Vale, N. S. W. (P. J. Darlington) 1932.
- 1 (M. C. Z. 35281) Herveys Range, N. S. W. (W. E. Schevill) 1932.

The addressed hind limb reaches to the tympanum or posterior corner of the eye; femoral and preanal pores in nine males 12-18, average 16. The largest ♂ (No. 2868) measures 321 (106+215) mm., and ♀ (No. 35280) 278 (92+186) mm.

AMPHIBOLURUS BARBATUS BARBATUS (Cuvier)

*Agama barbatus* Cuvier, 1829, Règne Animal. (2nd ed.), 2, p. 35: Australia.

*Amphibolurus vitticeps* Ahl, 1926, Zoöl. Anz. Leipzig, 47, p. 189: Australia.

skull (M. C. Z. 2219) Sydney, N. S. W. (W. Keferstein) 1865.

5 (M. C. Z. 2867, 2869) Australia (No history) N. D.

skeleton (M. C. Z. 3102) Melbourne, V. (F. Müller) 1864.

skeleton (M. C. Z. 4283) Australia (E. Gerrard) 1877.

1 (M. C. Z. 6300) Brisbane, Q. (Australian Mus.) 1890.

2 (M. C. Z. 7494-5) Rockhampton, Q. (T. Barbour don.) 1903.

skull (M. C. Z. 32236) Australia (No history) N. D.

1 (M. C. Z. 35282) The Coorong, S. A. (W. E. Schevill) 1932.

1 (M. C. Z. 35283) Soda Creek, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35284) Wallerawang, N. S. W. (W. E. Schevill) 1932.

1 (M. C. Z. 35285) 20 mi. N. of Alice Springs, N. T. (W. E. S.) 1932.

Soda Creek is N.W. of Hughenden.

Notwithstanding its author's belief that *vitticeps* is most closely related to *inermis* De Vis and that its ventral scales are "glatt," I believe *vitticeps* to be based on a young (176 mm.) example of the common Bearded Lizard.

Femoral and preanal pores in six males 15-20, rather fewer in females. The largest ♂ (No. 35284) measures 501 (225+276) mm., and ♀ (No. 35285) 521 (221+300) mm. The latter, shot on September 1932, is bloated with 22 eggs measuring approximately 30 x 16 mm.

"When the large female (No. 35285) was first seen running on light-colored sand it appeared to be practically all yellow except for the posterior half of the tail, which was ringed with black, and the anterior lateral and genal spines, which were red. She then hid under dead mulga branches and, except for belly and a few faint grey markings on the back, was completely black when picked up. On being preserved was all black above, except for knees, elbows, toes, fingers, pre-pelvic neural scutes, anterior marginal spines, genal spines, and most of head above mouth (except for supraorbital areas and a patch in the occipital region). These non-black areas showed pale yellow." (W. E. S.)

## AMPHIBOLURUS BARBATUS MINOR Sternfeld

*Amphibolurus barbatus minor* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., **1**, p. 78: Hermannsburg Mission, Upper Finke River, Northern Territory.

- Cotype (M. C. Z. 22418) Hermannsburg, N. T. (M. v. Leonhardi) 1910.  
 1 (M. C. Z. 31877) Broome, W. A. (H. L. Clark) 1929.  
 2 (M. C. Z. 35286-7) Teatree Well, N. T. (W. E. Schevill) 1932.

The Broome specimen, an old male, is slightly intermediate between this excellent race and the typical form, it shows something of a "beard" in the centre of the throat. This ♂ measures 370 (135+235) mm., while the Teatree ♂ measures 355 (122+233) mm., and ♀ 320 (117+203) mm.

## AMPHIBOLURUS BARBATUS MINIMUS Loveridge

*Amphibolurus barbatus minimus* Loveridge, 1933, Proc. New Engl. Zool. Club, **13**, p. 69: West Wallaby Island, Houtman's Albrohlos, Western Australia.  
 3 (M. C. Z. 32969-71) Geraldton, W. A. (W. E. Schevill) 1931.  
 10 (M. C. Z. 32972-79) West Wallaby Id., W. A. (G. M. Allen) 1931.

The above are the type series of this small western race which differs from the typical form in its much smaller size, the gravid female type measuring 335 mm., as against a gravid female *barbatus* of 521 mm.

At the time I described this race, I had overlooked the following interesting note by Mr. Schevill, written during his stay on West Wallaby Island, October 10-23, 1931.

"*Amphibolurus sp.*, called *barbatus* (Cuvier) by Alexander, Glauert, and others, but unlike Waite's figures, the most frequently seen of all local reptiles. It occurs all over the island in both sandy and rocky areas. Lighter phase in sand and open rocky country, darker in bush. Frequently found in or on top of bushes, as well as on the ground. (The same species was seen on the ground and in low bushes in the Geraldton dunes.) Showed great variation in intensity of markings, apparently to a slight degree, at least, voluntary. When alarmed or angry it extends ribs, exaggerating the width and depressed form of the body, at the same time opening the mouth wide, displaying the yellow interior." (W. E. S.)

## TYMPANOCRYPTIS LINEATA LINEATA Peters

*Tympanocryptis lineata* Peters, 1864 (1863), Monatsb. Akad. Wiss. Berlin, p. 230: near Adelaide, South Australia.  
 ♂ (M. C. Z. 33017) Forrest, W. A. (Harvard Exped.) 1931.

Forrest is a station on the transcontinental railway; it is almost on the border of South Australia. Ventral scales almost smooth. Total length 143 (53+90) mm.

#### TYMPANOCRYPTIS LINEATA CENTRALIS Sternfeld

*Tympanocryptis lineata centralis* Sternfeld, 1925, Abh. Senckenb. Naturf. Gesell., **38**, p. 234: Hermannsburg Mission, Upper Finke River, Northern Territory.

Cotype (M. C. Z. 21885) Hermannsburg, N. T. (M. v. Leonhardi) 1910.

♀ (M. C. Z. 35228) Hermannsburg, N. T. (W. E. Schevill) 1932.

The grounds on which Sternfeld based this race are somewhat slender. He believed that *centralis* had a longer tail than *lineata*. Thus the length from snout to anus in *lineata* is included in the length of tail 1.1 (Boulenger's S. Australian specimen) to 1.7 (M. C. Z. 33017) times. In the eight cotypes of *centralis* 1.2 to 1.5 times in the females, 1.5 to 1.6 times in the males. In addition *centralis* lacks the prominent, outer lateral, white lines of the typical form. Another character, observable in our scanty material, might be added. Our male *T. l. lineata* has almost smooth ventral scales, while those of the two female *T. l. centralis* are strongly keeled. The larger ♀ (No. 35228) measures 113 (50+63) mm. This lizard, taken in September, is distended with large eggs in which there are no signs of embryos. Lucas and Frost (1896, p. 132) state that from 9-12 eggs are laid in February or March.

#### TYMPANOCRYPTIS CEPHALUS Günther

*Tympanocryptis cephalus* Günther, 1867, Ann. Mag. Nat. Hist. (3), **20**, p. 52: Nicol Bay, Western Australia.

*Tympanocryptis tetraporophora* Lucas & Frost, 1895, Proc. Roy. Soc. Victoria **7**, p. 265: Adminga and Dalhousie, South Australia.

♀ (M. C. Z. 7496) Central Australia (W. A. Horn) 1910.

This specimen was received in exchange from the American Museum of Natural History in 1910.

Lucas and Frost differentiated their *tetraporophora* on the grounds of it possessing four pores, i.e. a preanal and femoral on either side. Later, they (1896, p. 131) published a note on additional material from the type localities, which are just across the border from the Northern Territory (formerly Central Australia). Zietz (1920, p. 198) considered both *cephalus* and *tetraporophora* synonyms of *lineata* but in that I think he was mistaken; one imagines from the literature that these related species may have been confused. Kinghorn (1932, p. 360)

resurrects *cephalus* as a race of *lineata*. I doubt if such a course is permissible on geographical grounds. His very interesting note contains important observations and extends the range to Ardmore in north-western Queensland.

Nostril much nearer the eye than to the tip of the snout; upper head scales larger and with fewer keels than in *lineata*; being a female it has no pores. Total length 125 + (57 + 68 +) mm., tip of tail missing.

#### DIPORIPHORA BILINEATA Gray

*Diporiphora bilineata* Gray, 1842, Zoöl. Miscell., p. 54: Port Essington, Northern Territory.

*Grammatophora calotella* Günther, 1867, Ann. Mag. Nat. Hist., (3), 20, p. 52: Cape York, Queensland.

*Diporiphora brevicauda* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 99: Cape York, Queensland.

*Diporiphora pentalineata* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 99: Cape York, Queensland.

*Diporiphora bilineata* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, p. 6. Barbour, 1914, Proc. Biol. Soc. Washington, 27, p. 203.

*Physignathus nigricollis* Lönnberg & Andersson, 1915, Svenska. Vetensk. Akad. Handl. Stockholm, 52, No. 7, p. 4: Cooktown, Cape York, Queensland.

1 (M. C. Z. 6467) Queensland (Barrier Reef Exped.) 1896.

2 (M. C. Z. 9497-8) Prince of Wales Id., T. S. (H. L. Clark) 1913.

2 (M. C. Z. 10205-6) Mapoon, Q. (Australian Mus.) 1914.

11 (M. C. Z. 35215-21) Coen, Q. (P. J. Darlington) 1932.

On looking up Gray's original description of both genus and species, I note that he spells the genus *Diporiphora*; it will be regrettably necessary to revert to this spelling instead of *Diporophora*.

It is probable that No. 6467 is a topotype of *Physignathus nigricollis* Lönnberg and Andersson, for most of the Barrier Reef Expedition's mainland material came from Cooktown. After synonymising *nigricollis* with *bilineata* I came across a note by Longman (1916, p. 51) in which he makes a similar suggestion.

All our specimens are characterized by an absence of a gular fold. The smallest lizard (No. 35215) is uniformly plumbeous above so that it would appear that the dorsal blotches and light dorsolateral lines are a later development. The largest lizard (No. 9497) measures 213 (65 + 148) mm.

## DIPORIPHORA AUSTRALIS (Steindachner)

*Calotella australis* Steindachner, 1867, Reise Oesterr. Freg. Novara., Rept., p. 29, pl. i, fig. 9: Australia.

*Grammatophora macrolepis* Günther, 1867, Ann. Mag. Nat. Hist., (3), 20, p. 51: Australia.

*Diporiphora nuchalis* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 98: no locality mentioned except "central and south coast district" (? of Queensland).

*Diporiphora ornata* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 99: locality as last.

1 (M. C. Z. 10162) Gayndah, Q. (Australian Mus.) 1914.

1 (M. C. Z. 10538) Queensland. (Queensland Mus.) 1914.

A gular fold; tail twice as long as the body. Larger lizard (No. 10162) measures 200 + (73 + 127 +) mm., tip of tail missing.

## DIPORIPHORA WINNECKEI Lucas &amp; Frost

*Diporiphora winneckeii* Lucas & Frost, 1895, Proc. Roy. Soc. Victoria, 8, p. 3: Charlotte Waters, Northern Territory.

1 (M. C. Z. 22371) Hermannsburg, N. T. (M. v. Leonhardi) 1927.

3 (M. C. Z. 35222-4) Hermannsburg, N. T. (W. E. Schevill) 1932.

A gular fold; throat and abdomen prominently streaked with grey. Largest lizard (No. 35222) measures 212 (60 + 152) mm.

## PHYSIGNATHUS GILBERTI GILBERTI (Gray)

*Lophognathus gilberti* Gray, 1842, Zoöl. Miscell., p. 53: Port Essington, Northern Territory.

*Redtenbacheria fasciata* Steindachner, 1867, Reise Oesterr. Freg. Novara. Rept., p. 31: Australia.

*Physignathus incognitus* Ahl, 1926, Zoöl. Anz. Leipzig, 67, p. 190: Australia.

1 (M. C. Z. 28661) Groote Eylandt, N. T. (British Mus.) 1929.

3 (M. C. Z. 31889-91) Broome, W. A. (H. L. Clark) 1929.

The young Groote Eylandt lizard was received from the British Museum as *gilberti*; it agrees with the Broome series in having the nostril situated a trifle nearer the end of the snout than to the eye. Boulenger (1885, p. 396) states of *gilberti*, however, "nostril a little nearer the orbit than to the tip of the snout". Ahl based his *incognitus* on a female in which the nostril was equidistant between the orbit and the end of the snout. To judge by our large series of *longirostris* this is an inconstant character within the genus *Physignathus*, it differs as between adult and young of *P. gilberti centralis* from the same locality.

Keels of the upper dorsal series forming parallel lines with the dorsal crest. Largest lizard (No. 31890) measures 320+ (100+220+) mm., tip of tail missing.

PHYSIGNATHUS GILBERTI CENTRALIS Loveridge

*Physignathus gilberti centralis* Loveridge, 1933, Proc. New Eng. Zoöl. Club, **13**, p. 71: Anningie, Northern Territory.

Type (M. C. Z. 35207) Anningie, N. T. (W. E. Schevill) 1932.

Anningie is about thirty miles in a westerly direction from Teatree Well.

The paratype No. 35208 has been sent to the Australian Museum, Sydney.

Characterized by the shorter hind limbs which only reach the eye; smaller ventral scales; dorsal crest extending on to the tail. Total length of ♂ type 273+ (103+170+) mm., tip of tail missing.

PHYSIGNATHUS LONGIROSTRIS (Boulenger)

*Lophognathus longirostris* Boulenger, 1883, Ann. Mag. Nat. Hist., (5), **12**, p. 225: Champion Bay and Nicol Bay, Western Australia.

2 (M. C. Z. 33015-6) Lake Violet, W. A. (W. E. Schevill) 1931.

2 (M. C. Z. 35195-6) Birchip Downs, N. T. (W. E. Schevill) 1932.

17 (M. C. Z. 35197-206) Hermannsburg, N. T. (W. E. Schevill) 1932.

Birchip Downs is 40 miles W. of Barrow Creek Tel. Stn.

I am undecided whether to employ the name *P. l. quattuorasciatus* Sternfeld for these lizards of which the Hermannsburg series are topotypes; the Birchip Downs specimens are certainly of the same form, while those from Lake Violet appear indistinguishable. Reasoning from analogy one would expect *quattuorasciatus* to be a valid race like the majority of Sternfeld's forms. In the absence of toptypical material of *longirostris* Boulenger I must leave the status of *quattuorasciatus* an open question.

All our specimens, including those from Lake Violet, have the four stripes of Sternfeld's race and though Boulenger, in describing *longirostris* makes no mention of the faint lower ones, it is possible that he considered them of no significance. It is important to note that Boulenger had only one adult female and two young lizards as types, for there is a tendency to reduction of the number of femoral pores in females. The following data is now available:

5-8 femoral pores in Boulenger's cotypes of *longirostris*.

8-10 femoral pores in Sternfeld's cotypes from Hermannsburg.

6-11 femoral pores in the M.C.Z. series from Hermannsburg, average 8.7.

9-12 femoral pores in the M.C.Z. specimens from Birchip Downs.

7-8 femoral pores in M.C.Z. specimens from Lake Violet.

The shorter snout of *quattuorfasciatus* is inconstant, the nostril probably averages being equidistant between the end of the snout and the anterior corner of the orbit, in some it is a little nearer the orbit. That our material represents *longirostris* rather than *temporalis* of Port Essington seems certain for the clear, longitudinal, lateral stripes are not impinged upon by any dark, transverse bars. As the diameters of their tympana are equal to (in young) or larger than the eye-openings, they cannot represent *craducensis* Werner.

These lizards were "often found in trees along the shores of Lake Violet. If surprised upon the ground they frequently took refuge in trees, where they climbed to a height of at least six feet, probably more." (W.E.S.)

#### PHYSIGNATHUS LESUEURII (Gray)

*Lophura lesueurii*, Gray, 1831, in Griffith's Cuvier, Animal King., 9, Syn., p. 60: "Paramatta" (New South Wales.)

*Amphibolurus heterurus* Peters, 1867, Monatsb. Akad. Wiss. Berlin, 1866 (1867), p. 86: Clarence River, New South Wales.

*Amphibolurus branchialis* De Vis, 1884, Proc. Roy. Soc. Queensl., 1, p. 55: Brisbane, Queensland.

*Gonycephalus spinipes* Barbour (not of Duméril), 1914, Proc. Biol. Soc. Washington, 27, p. 203.

1 (M. C. Z. 4499) Queensland (H. A. Ward) N. D.

1 (M. C. Z. 9487) Kuranda, Q. (H. L. Clark) 1913.

1 (M. C. Z. 10176) Ourimbah, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 27218) Brooklana, N. S. W. (G. C. Crampton) 1928.

1 (M. C. Z. 35209) Blackheath, N. S. W. (P. J. Darlington) 1932.

1 (M. C. Z. 35210) Hartley Vale, N. S. W. (P. J. Darlington) 1932.

4 (M. C. Z. 35211-4) Lake Barrine, Q. (W. E. Schevill) 1932.

Femoral pores 14-23 on each side; curiously enough the lowest number was found on the largest old male (No. 35211) which measures 700+ (260+440+) mm., tip of tail missing, regenerating and forked.

#### CHLAMYDOSAURUS KINGII Gray

*Chlamydosaurus kingii* Gray, 1827, in King's Voy. Austral., 2, p. 425, pl. A: Port Nelson, Kimberley.

*Chlamydosaurus Kingi* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, no. 1, p. 6.



- 1 (M. C. Z. 5204) Australia (No further history) N. D.
- 1 (M. C. Z. 5226) Australia (H. A. Ward) 1884.
- 4 (M. C. Z. 6465-6) Queensland (E. A. Olive) 1896.
- 1 (M. C. Z. 7493) Rockhampton, Q. (T. Barbour don.) 1903.
- 1 (M. C. Z. 35225) Coen, Q. (P. J. Darlington) 1932.

The largest Frilled Lizard (No. 35225) measures 638 (218+420) mm.

#### MOLOCH HORRIDUS Gray

*Moloch horridus* Gray, 1841, in Grey's Journ. Exped. West. Austral., 2, p. 441, pl. ii: Western Australia.

- 1 (M. C. Z. 5131) York district, W. A. (H. St. George Ord) 1883.
- 1 (M. C. Z. 6980) South Australia (T. Barbour don.) 1903.
- 1 (M. C. Z. 12318) Interior of W. A. (Dr. A. Garrett) 1917.
- 1 (M. C. Z. 33011) Ooldea, S. A. (Australian Mus.) 1931.
- 3 (M. C. Z. 33012-4) Nr. Mullewa, W. A. (I. M. Dixon) 1931.
- 1 (M. C. Z. 35226) Birchip Downs, N. T. (W. E. Schevill) 1932.
- 1 (M. C. Z. 35227) Teatree Well, N. T. (W. E. Schevill) 1932.

The largest Thorny Devil is a female (No. 35227) bloated with eggs which measure approximately 25 x 15 mm., September, 1932. This ♀ measures 192 (112+80) mm.

#### VARANIDAE

##### VARANUS SALVATOR (Laurenti)

*Stellio salvator* Laurenti, 1768, Syn. Rept., p. 56: "Zeylaniam ad littora maris."

- 2 (M. C. Z. 6723) Australia (T. Barbour don.) 1903.

The larger measures only 388 (150+238) mm., but the species is represented in the collection by a score of monitors from the Philippine Islands, Sarawak, Borneo, and Java.

##### VARANUS INDICUS (Daudin)

*Tupinambis indicus* Daudin, 1802, Hist. Rept., 3, p. 46, pl. xxx: ? "Indiae orientalis."

- 2 (M. C. Z. 4433) Murray Is., T. S. (E. Gerrard) 1879.
- 1 (M. C. Z. 35030) Lankelly Creek, Q. (P. J. Darlington) 1932.
- 1 (M. C. Z. 35031) Rocky Scrub, McIlwraith Range, Q. (P. J. D.) 1932.

Both the last mentioned localities in the McIlwraith Ranges, northern Queensland. The largest monitor (No. 35031) measures 1005+(425+580+) mm., tip of the tail missing.

## VARANUS VARIUS VARIUS (Shaw)

*Lacerta varia* Shaw, 1790, in White's Journ. Voyage N. S. W., App. p. 253, pl.: New South Wales.

1 (M. C. Z. 5217) Victoria (H. A. Ward) 1874.

2 (M. C. Z. 19973-4) Australia (Zoöl. Soc. London) 1925.

The largest of these fine monitors (No. 19973) measures 1660 (640+1020) mm.

## VARANUS VARIUS BELLII Duméril &amp; Bibron

*Varanus bellii* Duméril & Bibron, 1836, Erpét. Gén., p. 493, pl. xxxv: Australia.

1 (M. C. Z. 35032) Near Baldry, N. S. W. (W. E. Schevill) 1932.

This monitor from Baldry (Balderodgery on old maps) is darker on the sides of the face than is represented in Duméril's figure of the type. Its immaculate belly as well as its dorsal coloration is so totally different from that of the typical form that one suspects it may be a full species. Zietz (1920, p. 201) includes it with the typical form and gives their range as Western Australia! See also Procter (1923, p. 1072). Total length 1410 (510+900) mm.

"Shot out of a dead Eucalyptus about three miles west of Baldry." (W. E. S.)

## VARANUS GOULDII (Gray)

*Hydrosaurus Gouldii* Gray, 1838, Ann. Nat. Hist., 1, p. 394: Australia.

3 (M. C. Z. 2866) Australia (No further history) N. D.

1 (M. C. Z. 31898) Nr. Night Cliff, N. T. (H. L. Clark) 1929.

1 (M. C. Z. 33020) Mullewa, W. A. (W. E. Schevill) 1931.

1 (M. C. Z. 33021) Pindawa Stn., W. A. (J. McCallum Smith) 1931.

2 (M. C. Z. 33022-3) Lake Violet, W. A. (W. E. Schevill) 1931.

1 (M. C. Z. 35033) Flinders River, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35034) Coalbrook, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35035) Grampian Valley, Q. (L. A. Stevens) 1932.

1 (M. C. Z. 35036) E. of Julia Creek, Q. (W. E. Schevill) 1932.

1 (M. C. Z. 35037) Hermannsburg, N. T. (W. E. Schevill) 1932.

4 (M. C. Z. 35038-41) Birchip Downs, N. T. (W. E. Schevill) 1932.

2 (M. C. Z. 35042-3) Alice Springs, N. T. (W. E. Schevill) 1932.

1 (M. C. Z. 35044) Nr. Trewilga, N. S. W. (W. E. Schevill) 1932.

Night Cliff is near Darwin; Pindawa is 35 miles southeasterly from Mullewa; Lake Violet is three miles from Wiluna; Coalbrook and Grampian Valley are near Richmond; Trewilga is five miles south of Peak Hill.

Not one of these monitors has an immaculate belly as would appear to be the case with *V. giganteus* (Gray). On the other hand several

have transverse rows of large dorsal spots as in *giganteus*, and the distance from the anterior corner of the eye to the end of the snout is greater than from the anterior corner of the eye to the anterior border of the ear in the larger examples, in which respect they agree with *giganteus*; an age, rather than a specific character perhaps. On the other hand in none is the nostril more than twice as far from the orbit as from the end of the snout. The largest monitor (No. 35035) measures 1292 (640+652) mm.

"Native name (*Iluaitchirra* at Birchip Downs, where dug out of burrows, in September. The Trewilga specimen ran up a tree from which it was shot." (W. E. S.)

#### VARANUS SPENCERI Lucas & Frost

*Varanus spenceri* Lucas & Frost, 1903, Proc. Roy. Soc. Victoria, 7, p. 145: Tablelands 50 miles n.e. of Tennant's Creek, Central Australia.

*Varanus ingrami* Boulenger, 1906, Ann. Mag. Nat. Hist. (7), 18, p. 440: Alexandria, Northern Territory.

Though this species is unrepresented in the collections of the Museum of Comparative Zoölogy, a perusal of the description leaves little doubt that Boulenger, in describing *ingrami* from a skin, overlooked Lucas and Frost's description of *spenceri*, of which I consider *ingrami* a synonym.

#### VARANUS PRASINUS (Schlegel)

*Monitor prasinus* Schlegel, 1844, Abbild. Amphibien, p. 78: west coast of New Guinea.

1 (M. C. Z. 4435) Cornwallis Id., T. S. (E. Gerrard) 1877.

A very young example measuring 211 (85+126) mm. The Museum would welcome an example of the related *boulengeri* described from Coquet Island, Howich Group, by Kinghorn.

#### VARANUS PUNCTATUS PUNCTATUS (Gray)

*Odatia punctata* Gray, 1838, Ann. Nat. Hist., 1, p. 394: Sharks Bay, Western Australia.

*Monitor tristis* Schlegel, 1884, Abbild. Amphibien, p. 73: Swan River, Western Australia.

2 (M. C. Z. 35049-50) Teatree Well, N. T. (W. E. Schevill) 1932.

2 (M. C. Z. 35051-52) Hermannsburg, N. T. (W. E. Schevill) 1932.

The Teatree monitors are adult with dark heads and necks; their tails are uniformly black except at the base. The Hermannsburg specimens are young, one very young; the latter has the head punctate

with yellow spots, while its companion is already assuming the darker head and neck of the adults. These young reptiles also resemble our paratype of *orientalis* in the shape of their scales rather than those of the adults which are tectiform. The adult ♂ (No. 35049) measures 602+(252+350+) mm., tip of tail missing.

"Native name *Albóngara* at Teatree Well. Found in hollow trees." (W. E. S.)

#### VARANUS PUNCTATUS ORIENTALIS Fry

*Varanus punctatus* var. *orientalis* Fry, 1913, Rec. Austral. Mus. Sydney, 10, p. 18, figs. 7-10: Eidsvold, Upper Burnett River, Queensland.

1 (M. C. Z. 4136) Australia (E. Gerrard) 1877.

2 (M. C. Z. 4434) Murray Id., T. S. (E. Gerrard) 1874.

1 (M. C. Z. 7492) Rockhampton, Q. (T. Barbour don.) 1903.

Paratype (M. C. Z. 10267) Eidsvold, Q. (T. L. Bancroft) 1914.

1 (M. C. Z. 35048) Anakie, Q. (J. Kahler) 1932.

The Murray Island monitors were received as *timorensis* but on comparing them with examples of that species from Timor, collected and determined by Dr. Malcolm Smith, they were found to agree rather with the *punctatus* group. The adult ♂ possesses tufts of spinous scales near the anus and has 90 rows of abdominal scales between the anus and the gular fold. Boulenger, who doubtless identified these two lizards, recorded (1885, p. 323) *timorensis* from Murray Island. If these Murray Island specimens are correctly identified with *orientalis* of which No. 10267 is a paratype, Fry's characters do hold; the larger monitor (No. 4434) measures 494 (207+287) mm.

#### VARANUS GILLENI Lucas & Frost

*Varanus gilleni* Lucas & Frost, 1895, Proc. Roy. Soc. Victoria, 7, p. 266: Between Glen Edith and Deering Creek, also Charlotte Waters, Northern Territory.

1 (M. C. Z. 33521) Finke River, N. T. (M. v. Leonhardi) 1932.

2 (M. C. Z. 35053-4) Hermannsburg, N. T. (W. E. Schevill) 1932.

Breast and belly, as well as the throat, spotted with brown. The largest monitor (No. 35053), a ♂ if one may judge by the group of small spines on either side of the anus, measures 294+(137+157+) mm., tip of tail missing.

#### VARANUS CAUDOLINEATUS Boulenger

*Varanus caudolineatus* Boulenger, 1885, Cat. Lizards Brit. Mus., 2, p. 324, pl. xviii: Champion Bay, Western Australia.

- 1 (M. C. Z. 24546) Yalgoo, W. A. (W. S. Brooks) 1927.  
 1 (M. C. Z. 33018) Pindawa, W. A. (P. J. Darlington) 1931.  
 1 (M. C. Z. 33019) Mullewa, W. A. (P. J. Darlington) 1931.  
 Pindawa is 35 miles from Mullewa.

The expedition failed to secure examples of the closely related *brevicaudus* Boulenger. The largest of the three monitors listed above (No. 24546) measures 236 (108+128) mm.

#### VARANUS EREMIUS Lucas & Frost

- Varanus eremius* Lucas & Frost, 1895, Proc. Roy. Soc. Victoria, **7**, p. 267:  
 Idracowra, Northern Territory.  
 1 (M. C. Z. 33522) Finke River, N. T. (M. v. Leonhardi) 1932.  
 7 (M. C. Z. 35055-61) Hermannsburg, N. T. (W. E. Schevill) 1932.

The Hermannsburg Mission is on the Upper Finke River in the former political area of Central Australia. M. von Leonhardi, in charge of the mission, collected for the Senckenberg Museum, from which our first examples of both *gilleni* and *eremius* were received. The largest monitor (No. 35055) measures 398 (145+253) mm.

Of number 35056, Mr. Schevill writes: "Shortly after being dropped into water, it vomited a mouse." (W. E. S.)

#### VARANUS ACANTHURUS BRACHYURUS Sternfeld

- Varanus acanthurus brachyurus* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., **1**, p. 78: Hermannsburg Mission, Upper Finke River, Northern Territory.  
 1 (M. C. Z. 29791) Broome, W. A. (H. L. Clark) 1929.  
 1 (M. C. Z. 35045) Alice Springs, N. T. (W. E. Schevill) 1932.  
 2 (M. C. Z. 35046-7) Birchip Downs, N. T. (W. E. Schevill) 1932.

The type locality of typical *acanthurus* is northwest Australia. That being the case one would expect the Broome lizard to be more or less typical, however, I am assured by Mr. W. E. Schevill and others that the term "northwest" is used in a very vague sense by residents in the populous regions around Perth and is often applied loosely to Western Australia north of the chief settled area. It is probable, therefore, that the type of *acanthurus* came from somewhere south of Broome.

The Broome specimen conforms to Sternfeld's definition of *brachyurus* and this is in line with other records which show that many central Australian forms extend westward to Broome. The head and body length of the Broome monitor are contained 1.31 times in the

length of the tail, the others 1.2 and 1.6 times. Sternfeld's type series ranged from 1.31 to 1.76 times as against 2.0 times in the typical form.

Sternfeld cites a second character, that of relative limb length, but is in error in stating that the hind limb of Boulenger's type is exactly half as long as the trunk without head and neck, for Boulenger's figures for the trunk are 135 mm., and 90 mm. for the hind limb. If the length of the hind limb is divided into the length from snout to anus it is 2.2 times in the type of *acanthurus*; 2.6 to 3.0 times in the four cotypes of *brachyurus*; 2.9 times for the Broome lizard.

Our largest monitor (No. 35046) measures 622 (350+272) mm.

"Native name *Kirrikirra* near Birchip Downs. ♂ and ♀ dug from shallow burrows one foot deep and two or three feet long." (W. E. S.)

## SCINCIDAE

### EGERNIA LUCTUOSA (Peters)

*Cyclodus (Omolepida) luctuosus* Peters, 1866, Monatsb. Akad. Wiss. Berlin, p. 90: King George Sound, Western Australia.

4 (M. C. Z. 33101-4) Pemberton, W. A. (Harvard Exped.) 1931.

Midbody scale-rows 24-25; dorsals almost smooth. Largest skink (No. 33102) measures 325 (125+200) mm.

Kinghorn (1932, p. 359) discusses the interesting variations displayed by a topotype.

"Most of these skinks were taken in rat traps set at the edge of a swamp." (P. J. D.)

### EGERNIA WHITII WHITII (Lacépède)

*Scincus whitii* Lacépède 1804, Ann. Mus. Paris, 4, p. 192: Australia.

*Lygosoma moniligera* Duméril & Bibron, 1839, Erpét. Gén., 5, p. 736: Australia.

1 (M. C. Z. 1078) Hobart, T. (J. W. Robertson) 1860.

1 (M. C. Z. 2133) Australia (A. A. Duméril) 1865.

1 (M. C. Z. 2221) Sydney, N. S. W. (W. Keferstein) 1865.

1 (M. C. Z. 6301) Mt. Kosciusko, N. S. W. (Australian Mus.) 1914.

3 (M. C. Z. 33121-3) Thredbo River, N. S. W. (Harvard Ex.) 1931.

The Thredbo River is near Mount Kosciusko.

Number 2133 is believed to be a cotype of *L. moniligera* Duméril & Bibron; in this connection see remarks under *E. napoleonis* (Gray).

Midbody scale-rows 32-38; dorsals smooth. The frontonasal, in contact with the frontal in the Hobart, Australia, and Sydney lizards, is widely separated in the four from Mt. Kosciusko. If, therefore,

these all represent one race, then this character, which is used by Kinghorn (1931, p. 88) for distinguishing *E. w. carnarae* from Canara, North West Cape, Western Australia, fails though *carnarae* is undoubtedly racially or specifically distinct from *whitii*. Largest skink (No. 33121) measures 219 (81+138) mm.

It would appear as if *E. dahlii* Boulenger (1896, p. 233) from Roebuck Bay, Western Australia, might be a synonym of *E. kintorei* Stirling and Zietz (1893, p. 171) from the northern part of the Victoria desert, south of the Barrow Range. As the latter authors only gave a skeleton description, however, promising a more detailed one later, it is impossible to decide. Zietz (1920, p. 203) referred *kintorei* to the synonymy of *whitii*; it is obviously a good race, more probably a full species.

#### EGERNIA INORNATA Rosén

*Egernia inornata* Rosén, 1905, Ann. Mag. Nat. Hist., (7), 16, p. 139, fig. 3:  
West Australia.

*Egernia striata* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 79:  
Hermannsburg Mission, Upper Finke River, Northern Territory.

2 (M. C. Z. 7497) Central Australia (Horn Expedition) 1896.

Cotypes (M. C. Z. 35525-6) Hermannsburg, N. T. (M. v. Leonhardi)  
1908.

10 (M. C. Z. 35289-98) Teatree Well, N. T. (W. E. Schevill) 1932.

10 (M. C. Z. 35300-7) Hermannsburg, N. T. (W. E. Schevill) 1932.

At first I attempted to keep the Teatree Well series distinct as representing *inornata* with 40-46 midbody scale-rows, (the type had 42) but failed. Sternfeld's long series of cotypes ranged from 38-42 but these extremes were only represented by one example of each while the remaining nine had 40 midbody scale-rows. Two distinct color phases, a pale (deserticolor) and a dark (olive) occur at Hermannsburg, but do not appear separable on scale characters.

Midbody scale-rows 38-46, average 41, all smooth; prefrontals broadly or narrowly in contact, or narrowly separated. Largest skinks measure 228 mm., viz. (No. 7497) 93+135 mm., and (No. 35289) 105+123 mm.

The two specimens from Central Australia, received as *whitii*, agree in their color pattern with those described from Alice Springs in the Report on the Horn Expedition. They are brighter than the cotypes, but rather paler than the topotypes, of *striata*. Sternfeld claims that the tail of *striata* is much shorter than that of *whitii*. After eliminating those with damaged or regenerated tails, it was

found that the length from snout to anus is included in that of the tail from:

1.1 to 1.3	times in Sternfeld's 6 cotypes of <i>striata</i>
1.2 to 1.3	“ “ the 5 M. C. Z. topotypes of <i>striata</i>
1.3 to 1.4	“ “ the 2 Central Australian skins
1.1 to 1.3	“ “ the 5 Teatree examples
1.3 to 1.4	“ “ the 2 M. C. Z. examples of <i>whitii</i>

so that at best the difference can be but an average one.

#### EGERNIA MAJOR (Gray)

*Tropidolepisma major* Gray, 1845, Cat. Liz. Brit. Mus., p. 107: Australia.  
1 (M. C. Z. 35299) Ravenshoe, Q. (P. J. Darlington) 1932.

Midbody scale-rows 32, dorsals striated; supraciliaries 10. Total length 452 (176+276) mm.

Longman (1918, p. 37) considers that *bungana* De Vis (1888, p. 814) may be distinguished from *major* by different coloration and habits. De Vis separated his 665 mm. holotype from *major* (470 mm.) on the grounds of larger size, color, and a few trifling characters. I was inclined to think that the change in habits might be correlated with larger size of old specimens, but defer to Longman's personal acquaintance with both species.

#### EGERNIA STRIOLATA (Peters)

*Tropidolepisma striolatum* Peters, 1870, Monatsb. Akad. Wiss. Berlin, p. 642: Lake Elphinstone, Queensland.  
1 (M. C. Z. 6852) Queensland (T. Barbour don.) 1903.  
1 (M. C. Z. 10545) Darling Downs, Q. (Queensland Mus.) 1914.

Midbody scale-rows 30-32, dorsals tri- or quinquecarinate; supraciliaries 7; prefrontals narrowly or broadly in contact. Larger skink (No. 6852) measures 230 (105+125) mm.

#### EGERNIA FORMOSA Fry

*Egernia formosa* Fry, 1914, Rec. W. Austral. Mus., 1, p. 184, pl. xxvii: Perth, paratypes from Boulder, Western Australia.  
14 (M. C. Z. 33067-77) West Wallaby Id., W. A. (Harvard Exped.) 1931.  
2 (M. C. Z. 33078-9) Cottesloe Beach, W. A. (Harvard Exped.) 1931.  
1 (M. C. Z. 33080) Pindawa, nr. Canna, W. A. (W. E. Schevill) 1931.

Cottesloe Beach is near Perth and these specimens are therefore practically topotypes.



Midbody scale-rows 28-32, dorsals smooth, average 30. Largest skink (No. 33070) measures 285 (90+195) mm.

Scanty or no reference has been made to this very distinct species in the literature since described by Fry from eight examples. Our series differ from the description in lacking a curved groove behind the nostril. One wonders if Fry was not mistaken on this point, perhaps from lack of comparative material of *luctuosa*. The same variability in head squamation, as figured by Fry, is to be noted in our series. Fry gives only 28 midbody scale-rows. The throats in our specimens lack brown reticulations.

"Most abundant in rocky areas though occasionally found in sandy saltbush country on West Wallaby Island." (W. E. S.)

#### EGERNIA KINGII (Gray)

*Tiliqua kingii* Gray, 1839, Ann. Nat. Hist., 2, p. 290: Australia.

1 (M. C. Z. 6754) Australia (T. Barbour don.) 1903.

8 (M. C. Z. 33081-8) West Wallaby Id., W. A. (Harvard Exped.) 1931.

Under this name, Boulenger confused three perfectly distinct species or forms. See further discussion below.

Midbody scale-rows 34-36 (on island) to 38 (No. 6754); dorsals tricarinate. Largest skink (No. 6754) measures 468 (228+240) mm., but tail regenerated.

"Seems more abundant in sandy country on West Wallaby Island. It is much more wary than *E. stokesii*, rarely stopping to look until in thick cover; relatively difficult to take alive. Has been taken in dog-tooth rock at edge of tidal flat, though generally found near bushy cover. Unlike *E. stokesii*, this species may cast its tail, though not nearly so readily as do *E. formosa* or the geckoes. It is quite strong and when taken up, writhes actively, using its claws (and teeth if possible) to good advantage. Though apparently much less abundant, in general the species seems to be more intelligent than "*E. stokesii*"; in captivity it soon learns to take food directly from the hand, while *E. stokesii* was never observed to take any food, even when left within reach for some hours." (W. E. S.)

#### EGERNIA NITIDA (Gray)

*Tropidolepisma nitida* Gray, 1845, Cat. Liz. Brit. Mus., p. 106: Australia.

2 (M. C. Z. 24549-50) Augusta, W. A. (W. S. Brooks) 1927.

8 (M. C. Z. 24551-8) Manjimup, W. A. (W. S. Brooks) 1927.

2 (M. C. Z. 24559-60) Pemberton, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 24561) Perth, W. A. (W. S. Brooks) 1927.

- 5 (M. C. Z. 33089-93) Margaret River, W. A. (Harvard Exped.) 1931.  
 1 (M. C. Z. 33094) Wallecliffe, W. A. (W. E. Schevill) 1931.  
 6 (M. C. Z. 33095-100) Pemberton, W. A. (Harvard Exped.) 1931.  
 Wallecliffe is near Margaret River.

Distinguished from *E. kingii* by its much smaller size, as judged by gravid females, and distinctive coloration; from *E. napoleonis* (Gray) by sharper keeling of the dorsals and by coloration.

Midbody scale-rows 32-38 (32 Perth only, 38 Margaret River only); dorsals very strongly tricarinate. Largest skink (No. 33091) measures 228 (103+125) mm.

The Manjimup skinks were taken "under logs by clearing on February 4, 1927" (W. S. B.) at which time some of the females were gravid.

#### EGERNIA NAPOLEONIS (Gray)

*Tiliqua napoleonis* Gray, 1839, Ann. Nat. Hist., 2, p. 290: Australia.

*Egernia pulchra* Werner, 1910, in Michaelsen & Hartmeyer's, Fauna Südwest-Austral. 2, p. 470, fig. 8: Torbay, Western Australia.

1 (M. C. Z. 2133, part) Australia (A. A. Duméril) 1865.

8 (M. C. Z. 24488-91, 24562-5) Denmark, W. A. (W. S. Brooks) 1927.

Number 2133 may be a cotype of *Tropidolopisma dumerilii* Duméril & Bibron. It was catalogued a decade after it was received together with a juvenile example of *Lygosoma moniligera* Duméril & Bibron. The latter species is a synonym of *E. w. whitii* and may be distinguished from *napoleonis* by its smooth dorsals; otherwise the striking color pattern of *whitii* is common also to *napoleonis* which would appear to be localised in the Denmark-Albany area where so many peculiar forms occur.

*E. napoleonis* was described by Gray in the paragraph following the description of *E. kingii*. Duméril & Bibron made a composite of the two (and *nitida*?) and redescribed it under the name of *Tropidolepisma dumerilii* varieties A, B, C, and D. Boulenger followed their action in lumping the forms, but under the name of *kingii*. Evidently he considered *napoleonis* to be the young of *kingii* but that this is not the case is obvious from the gravid, embryo-bearing females in the Denmark series which are but little more than half the size of average *kingii*.

Midbody scale-rows 34-38; dorsals bi- or tricarinate. Largest skink (No. 24489) measures 293 (107+186) mm.

Gravid females taken "under logs in burnt land on hill." January 23, 1927. (W. S. B.)

## EGERNIA CUNNINGHAMI (Gray)

*Tiliqua cunninghami* Gray, 1832, Proc. Zoöl. Soc. London, p. 40; West Australia, lat. 29°.

1 (M. C. Z. 2514) New South Wales (G. Krefft) 1870.

1 (M. C. Z. 33055) Threadbo River, N. S. W. (P. J. Darlington) 1931.

Threadbo River is at Mount Kosciusko. I should like to have been able to compare these skinks with topotypical Western Australian specimens. I am not sure of the status of the closely allied *E. lohmanni* Werner which was described from a single specimen without locality. The description of the caudal scales read like those of a regenerated tail.

Midbody scale-rows 38 (No. 2514) to 48; dorsals unicarinate. Larger specimen (No. 33055) measures 368 (210+158) mm.

## EGERNIA STOKESII (A. Duméril)

*Silubosaurus stokesii* A. Duméril, 1851, Cat. Méthod. Coll. Rept. Paris, p. 180; Houtman's Abrolhos and Western Australia.

18 (M. C. Z. 33105-19) West Wallaby Id., W. A. (Harvard Ex.) 1931.

1 (M. C. Z. 33120) Morawa, W. A. (J. MacCallum Smith) 1931.

Midbody scale-rows 32-36, average 33; dorsals spinose; frontonasal in contact with the rostral; upper caudal scales unicuspid, rarely bi- or tricuspid (for, e.g. No. 33113). Largest skink (No. 33120) measures 233 (166+67) mm.

Longman, having examined the type of *Silubosaurus zellingi* De Vis, states that it is undoubtedly synonymous with the present species.

"*Egernia stokesii* occurs alike in all kinds of country all over West Wallaby Island. Shows none of the bluff or aggression of *Amphibolurus*; in sandy country it scuttles for cover in a bush or mutton-bird burrow. When uncovered in rocky country, where several of different sizes are frequently found under one stone, scuttles either beneath the same or another stone or a bush—occasionally attempting to climb inside trouser leg! The distribution of all color phases appears to be quite haphazard, all being found in various associations. The stones between which they pass the day sometimes show quite a polish." (W. E. S.)

## EGERNIA DEPRESSA (Günther)

*Silubosaurus depressus* Günther, 1875, Zoöl. Erebus and Terror, Rept., p. 15; Swan River, Western Australia.

1 (M. C. Z. 10165) Western Australia (Australian Mus.) 1914.

1 (M. C. Z. 10166) Boulder, W. A. (Australian Mus.) 1914.

- 1 (M. C. Z. 33056) Yalgoo, W. A. (Hills) 1931.  
 6 M. C. Z. 33057-62) Wiluna, W. A. (D. Crofts) 1931.  
 4 (M. C. Z. 33063-6) Mullewa, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 32-36, average 34; dorsals trispinose; frontonasal separated from the rostral except in No. 33060; upper caudal scales tricuspid except in the very young (No. 33060), the development of the lateral cusps is well shown in this series. Largest skink (No. 10165) measures 143 (102+41) mm. to tip of terminal spine.

#### TRACHYSAURUS RUGOSUS (Gray)

*Trachysaurus rugosus* Gray, 1827, in King's Voy. Austral., 2, p. 430: King George Sound, Western Australia.

- 1 (M. C. Z. 9325) Australia (Amsterdam Mus.) 1914.  
 1 (M. C. Z. 18428) Australia (T. Barbour don.) 1924.  
 4 (M. C. Z. 24453-6) Denmark, W. A. (W. S. Brooks) 1927.  
 1 (M. C. Z. 24457) Augusta, W. A. (W. S. Brooks) 1927.  
 1 (M. C. Z. 26651) Bunbury, W. A. (T. S. Ledyard) 1927.  
 1 (M. C. Z. 29792) Largs Bay, S. A. (C. Walton) 1930.  
 1 (M. C. Z. 33046) Near Mingenew, W. A. (W. E. Schevill) 1931.  
 1 (M. C. Z. 33047) Swan View, W. A. (P. J. Darlington) 1931.  
 1 (M. C. Z. 33048) Mullewa, W. A. (P. J. Darlington) 1931.  
 1 (M. C. Z. 33049) Wallcliffe, W. A. (W. E. Schevill) 1931.  
 1 (M. C. Z. 33050) Pemberton, W. A. (P. J. Darlington) 1931.  
 1 (M. C. Z. 33051) Mullewa, W. A. (W. E. Schevill) 1931.

Largest skink, a male (No. 26651), measures 344 (265+79) mm.

"Copros of Mullewa specimen contained fragments of large weevils November 9, 1931." (P. J. D.)

#### TILIQUA SCINCOIDES (Shaw)

*Lacerta scincoides* Shaw, 1790, in White's Journ. Voyage N. S. W., app., p. 242, pl.: Australia.

- 1 (M. C. Z. 10552) S. Queensland (Queensland Mus.) 1914.  
 1 (M. C. Z. 31894) Near Broome, W. A. (H. L. Clark) 1929.  
 1 (M. C. Z. 31895) Darwin, N. T. (H. L. Clark) 1929.  
 1 (M. C. Z. 33054) Kurrajong Heights, N. S. W. (W. E. Schevill) 1932.  
 1 (M. C. Z. 35308) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 34; supraoculars 3-6; supraciliaries 3-6; temporals greatly elongate; fore limb shorter than the head. Largest skink (No. 31895) measures 502 (322+180) mm.

## TILQUA NIGROLUTEA Gray

*Tilqua nigroluteus* Gray, 1831, in Griffith's Cuvier Animal King., 9, Syn., p. 68: Australia.

Skull & 4 (M. C. Z. 1077) Hobart, T. (J. W. Robertson) 1862.

1 (M. C. Z. 25930) Western Australia (F. Werner) 1928.

Midbody scale-rows 28-30; supraoculars 4; supraciliaries 5; temporals not greatly enlarged. Largest skink (No. 1077) measures 397 (270+127) mm.

## TILQUA OCCIPITALIS OCCIPITALIS (Peters)

*Cyclodus occipitalis* Peters, 1863, Monatsb. Akad. Wiss. Berlin, p. 231: Adelaide, South Australia.

2 (M. C. Z. 33052-3) Mullewa, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 40; supraoculars 2-3; supraciliaries 5-6; auricular lobules 3-4; frontonasal separated from the frontal. Bands on body 4, on tail 3-4. Larger skink (No. 33052) measures 413 (295+118) mm.

## TILQUA OCCIPITALIS MULTIFASCIATA Sternfeld

*Tilqua occipitalis multifasciata* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 79: Hermannsburg Mission, Upper Finke River, Northern Territory.

*Tilqua occipitalis auriculare* Kinghorn, 1931, Rec. Austral. Mus. Sydney, 18, p. 88: Broome, Western Australia.

2 (M. C. Z. 31892-3) Broome, W. A. (H. L. Clark) 1929.

2 (M. C. Z. 35309-10) Birchip Downs, N. T. (W. E. Schevill) 1932.

1 (M. C. Z. 35311) Mt. Peake, N. T. (W. E. Schevill) 1932.

1 (M. C. Z. 35312) Anningie, N. T. (W. E. Schevill) 1932.

2 (M. C. Z. 35313-4) Teatree Well, N. T. (W. E. Schevill) 1932.

2 (M. C. Z. 35315-6) Hermannsburg, N. T. (W. E. Schevill) 1932.

Birchip Downs is 40 miles west of Barrow Creek Telegraph Station; Mt. Peake 50 miles in a northwesterly direction from Teatree Well; Anningie is 30 miles west of Teatree Well. All lie about 150 miles northerly of Hermannsburg Mission in what was formerly known as Central Australia.

It will be observed that our Hermannsburg specimens are topotypes of *multifasciata* while our Broome material is topotypic of *auriculare*. The two alleged races appear indistinguishable, a further instance of the homogeneity of the Broome and central Australian fauna. The type of *auriculare* had 45 midbody scale-rows.

Midbody scale-rows 39-41; auricular lobules usually 5, sometimes 3 or indistinguishable; the frontonasal is separated from the frontal in every specimen which agree closely with Sternfeld's description. Bands on body 12-15, on tail 10-12. Largest skink (No. 35310) measures 365 (250+115) mm.

"Native name *Lulga* near Anningie. Dug from shallow burrow at Birchip Downs. Most of those from west of Teatree Well were found strolling about in the daytime. One vomited a mixture of seeds, small white split ones predominating, into the sand." (W. E. S.)

#### HEMISPHAERIODON GERRARDII (Gray)

*Hinulia gerrardii* Gray, 1845, Cat. Liz. Brit. Mus., p. 75: Australia.

*Tiliqua longicauda* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2) 2, p. 816: Rockhampton and Johnstone River, Queensland.

1 (M. C. Z. 9015) Rockhampton, Q. (Kny-Scheerer) 1908.

1 (M. C. Z. 10177) Cudgeon, N. S. W. (Australian Mus.) 1914.

Cudgeon is on the Tweed River. The Rockhampton skink is topotypic of *longicauda* (De Vis) but was received as *T. scincoides*! I have checked the description of *longicauda* with our specimen and confirm the action of other workers in referring it to the synonymy of *gerrardii*.

Midbody scale-rows 30-33; an enormous crushing tooth on either side of the lower jaw. Larger skink (No. 9015) measures 295 (145+150) mm.

#### (MACROGONGYLUS BRAUNI Werner)

*Macrogongylus brauni* Werner, 1901, Zoöl. Anz., pp. 298-299; figs. 1 and 2: "New Holland."

This genus and species, based on an old specimen in the Königsberg Museum believed to have come from New Holland, must be considered a synonym of *Celestus occiduus* (Shaw) of Jamaica, West Indies. I am indebted to Dr. Thomas Barbour for advising me to try the genus *Celestus* after I had suggested that *Macrogongylus* was not a scincid and extralimital to the scope of this paper.

#### SPHENOMORPHUS OCELLATUS (Boulenger)

*Lygosoma ocellatum* Boulenger, 1896, Ann. Mag. Nat. Hist. (6), 18, p. 233: Roebuck Bay, north Western Australia.

*Lygosoma ocelliferum* Boulenger, 1896, Ann. Mag. Nat. Hist. (6), 18, p. 342: *n.n.* for *ocellatum* preoccupied in *Lygosoma* but not in *Sphenomorphus*.

*Lygosoma (Hinulia) breviunguis* Kinghorn, 1932, Rec. Austral. Mus., 18, p. 300, fig. 1: Carnarvon district, North West Cape.

3 (M. C. Z. 35351-3) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 24-28; supraoculars 4. Largest skink (No. 35351) measures 190 (89+101) mm.

These only differ from Boulenger's description of his holotype, which species has been reported from Hermannsburg by Sternfeld (1925, p. 246) in possessing 3 instead of 2 pairs of nuchals; 3-5 ear lobules instead of 4-5; 34-38 midbody scale-rows instead of 36; 22-25 lamellae beneath the fourth toe instead of 22; the digits of the adpressed limbs sometimes fail to meet.

They agree well with Kinghorn's figure of *breviunguis* which had 36 midbody scale-rows and is an undoubted synonym of *ocellatum*.

It seems probable that one of the color varieties listed by Lucas and Frost (1896, p. 138) under *Egernia whitii*, may be referable to this species which was at that time undescribed.

#### SPHENOMORPHUS AUSTRALIS AUSTRALIS (Gray)

*Tiliqua australis* Gray, 1839, Ann. Nat. Hist., 2, p. 291: Australia.

*Lygosoma lesueurii* Duméril & Bibron, 1839, Erpét. Gén., 5, p. 733: Australia.

1 (M. C. Z. 3222) Australia (No history) N. D.

4 (M. C. Z. 10180-3) Ipswich, Q. (Australian Mus.) 1914.

1 (M. C. Z. 35354) Mt. Carbine, Q. (P. J. Darlington) 1932.

10 (M. C. Z. 35364-73) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 28-34, average 30; supraoculars 4, 5 on left side of No. 35354 only; prefrontals forming a median suture except in No. 10181. Largest skink (No. 10180), a male, measures 279 (90+189) mm.

Boulenger rejected the name *australis* as being preoccupied in the genus *Lygosoma*. It is not, however, in *Sphenomorphus*. It is unfortunate that this change must be made.

As might be expected, in the matter of coloration the Hermannsburg series occupy an intermediate position between the Queensland *australis* and the Western Australian *inornatus*.

#### SPHENOMORPHUS AUSTRALIS INORNATUS (Gray)

*Hinulia inornata* Gray, 1845, Cat. Liz. Brit. Mus., p. 78: Swan River, Western Australia.

1 (M. C. Z. 24566) Yalgoo, W. A. (R. C. Richardson) 1926.

Midbody scale-rows 30; supraoculars 4. Length from snout to anus 75 mm., tail regenerating.

Differs from the Queensland form in color and pattern. Whether it can be retained as a western race seems extremely doubtful in view of Boulenger (1887, p. 226) listing a specimen from Cape York.

#### SPHENOMORPHUS LEONHARDII (Sternfeld)

*Lygosoma (Hinulia) taeniolatum* White, var. *maculata* Rosén, 1905, Ann. Mag. Nat. Hist. (7), **16**, p. 140: West Australia.

*Lygosoma (Hinulia) leonhardii* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., **1**, p. 79: Hermannsburg Mission, Upper Finke River, Northern Territory.

Cotype (M. C. Z. 33529) Hermannsburg, N. T. (M. v. Leonhardi) 1908.  
49 (M. C. Z. 35364-73) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 26-30 (but only a dozen counted); supraoculars 4 (in whole series); prefrontals in contact in 41 skinks, separated in 9, so that Sternfeld was misled by his material into saying that the prefrontals were usually separated by the frontonasal and frontal forming a suture; rostral and frontonasal separated in 27, in contact in 21, while in 2 skinks a small azygous scale occupies this area. Largest skink (No. 35364) measures 213 (72+141) mm.

Rosen's holotype of *maculata*, collected by Dr. N. Holst in 1896, was also an example with the prefrontals separated. The specific name *maculata* is preoccupied both in *Sphenomorphus* and *Lygosoma* (in its broader usage) by *maculata* Blyth of India. It seems possible that the series of skinks from Broome and the St. George Range, referred to *lesueurii* by Lönnberg and Andersson (1913, p. 8), are actually referable to *leonhardii*. It is important to ascertain the relationship of *T. essingtoni* Gray which may be more nearly related to this form than to *taeniolatus* (Shaw).

#### SPHENOMORPHUS SPALDINGI (Macleay)

*Hinulia spaldingi* Macleay, 1877, Proc. Linn. Soc. N. S. W., **2**, p. 63: Endeavour River.

*Lygosoma dorsale* Boulenger, 1887, Cat. Liz. Brit. Mus., **3**, p. 226, pl. xii, fig. 1: Fly River, New Guinea.

6 (M. C. Z. 35374-9) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 26-28; supraoculars 3; prefrontals broadly, or narrowly, in contact, or well separated. Largest skink (No. 35374) measures 312 (99+213) mm.



## SPHENOMORPHUS LEAE BROOKSI Loveridge

*Sphenomorphus leae brooksi* Loveridge, 1933, Occ. Pap. Boston Soc. Nat. Hist., 8, p. 95: Perth, Western Australia.

Holotype (M. C. Z. 25055) Perth, W. A. (W. S. Brooks) 1927.

Midbody scale-rows 26; prefrontals forming a long median suture; lamellae beneath the fourth toe sharply keeled, 26. Total length 103 (47+56) mm.

## SPHENOMORPHUS QUATTUORDECIMLINEATUS (Sternfeld)

*Lygosoma (Hinulia) quattuordecimlineatum* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 80: Hermannsburg Mission, Upper Finke River, Northern Territory.

1 (M. C. Z. 35380) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 30 (28 in type); supraoculars 4; prefrontals in contact. Total length 150 (51+99) mm.

This topotype is the first entire example recorded.

## SPHENOMORPHUS TAENIOLATUS TAENIOLATUS (Shaw)

*Lacerta taeniolata* Shaw, 1790, in White's Journ. Voy. N. S. W., p. 245, pl. xxxii, fig. 1: New South Wales.

8 (M. C. Z. 2520, 6730, 16276-7) New South Wales (Various) 1870, 1903, 1922.

4 (M. C. Z. 2220, 6302, 19611) Sydney, N. S. W. (Various) 1865, 1890, 1924.

1 (M. C. Z. 10542) Southern Queensland (Queensland Mus.) 1914.

1 (M. C. Z. 35381) Mt. Wilson, N. S. W. (P. J. Darlington) 1932.

Midbody scale-rows 25-28; prefrontals separated; 4 labials anterior to the subocular. Largest skink (No. 6302) measures 208 (65+143) mm.

The action of Zietz (1920, p. 206) in synonymizing half-a-dozen species with this name, is quite unjustifiable. Nor can they be regarded as races if that was his intention.

## SPHENOMORPHUS COLLETTI (Boulenger)

*Lygosoma colletti* Boulenger, 1896, Ann. Mag. Nat. Hist. (6), 18, p. 234: Roebuck Bay, Western Australia.

1 (M. C. Z. 33273) Caron, W. A. (Harvard Expedition) 1931.

1 (M. C. Z. 33274) Meekatharra, W. A. (P. J. Darlington) 1931.

1 (M. C. Z. 33275) Wiluna, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 24-26 (24 in type); lamellae beneath fourth toe 23-27 (23 in type). Largest skink (No. 33275) measures 113 (47+66) mm.

Though falling under *tacniolatus* in Boulenger's key (1887, p. 212), to judge by its color pattern this skink appears to be the Western Australian representative of the Queensland *strauchii*. It is sufficiently well-differentiated from both, however, to be regarded as a full species. The frontonasal is in contact with the frontal in all three, with the rostral in two skinks, barely separated in No. 33275; two moderate ear lobules are more usual than "one large opercle-like scale on its anterior border". Boulenger makes no mention of the prominent vertical barring on the flanks which is characteristic of our examples, possibly our series are subspecifically distinct from *colletti*. There are indications of the seven dark longitudinal streaks in No. 33274 but in the others four streaks are obsolete, leaving only three dark and six white lines running the full length of the body.

#### SPHENOMORPHUS SCHEVILLI Loveridge

*Sphenomorphus schevilli* Loveridge, 1933, Occ. Pap. Boston Soc. Nat. Hist., 8, p. 96: Army Downs, 35 miles northerly of Richmond, Queensland.

Holotype (Queensland Museum) Army Downs, nr. Richmond, Q. (W. E. Schevill) 1932.

Midbody scale-rows 40; prefrontals separated by a small interspace; lamellae beneath the fourth toe unicarinate, 24. Total length 207 (80+127) mm.

#### SPHENOMORPHUS LABILLARDIERI (Gray)

*Tiliqua Labillardii* Gray, 1839, Ann. Nat. Hist., 2, p. 289: Australia.

1 (M. C. Z. 2222) Australia (W. Keferstein) 1865.

1 (M. C. Z. 7742) Western Australia (F. Werner) 1911.

2 (M. C. Z. 24686-7) Mt. Melville, W. A. (W. S. Brooks) 1927.

2 (M. C. Z. 24688-9) Denmark River, W. A. (W. S. Brooks) 1927.

13 (M. C. Z. 24690-702) Augusta, W. A. (W. S. Brooks) 1927.

21 (M. C. Z. 24703-10) Manjimup, W. A. (W. S. Brooks) 1927.

25 (M. C. Z. 24711-35) Pemberton, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 33276) Pemberton, W. A. (Harvard Exped.) 1931.

29 (M. C. Z. 33277-300) Margaret River, W. A. (Harvard Exped.) 1931.

Midbody scale-rows 24-30 (24 in 3 specimens, 30 in No. 24703 only) Pemberton and Margaret River skinks not counted; frontonasal forming sutures with both rostral and frontal; frontal in contact with

two supraoculars only (every specimen examined for these characters). Largest skink (No. 24700) measures 194 (72+122) mm.

Gray's original spelling of the specific name was undoubtedly a *lapsus* for the generally accepted corrected form, the man's name being Labilliardière.

#### SPHENOMORPHUS TRYONI (Longman)

*Lygosoma (Hinulia) tryoni* Longman, 1918, Mem. Queensl. Mus., 6, p. 38, pl. xiii: Macpherson Ranges, 3,000 feet, South Queensland.  
9 (M. C. Z. 35382-9) Macpherson Ranges, Q. (P. J. Darlington) 1932.

Taken at an altitude of between 3,000 and 4,000 feet.

Midbody scale-rows 34-40; frontonasal forming sutures with both rostral and frontal; lamellae under fourth toe 17-19; adpressed limbs overlap; tail longer than the head and body. Largest skink (No. 35382) measures 220 (105+115) mm.

This series of topotypes upholds in every respect Mr. Longman's diagnosis of this very distinct species. The coloration is perhaps more variable than indicated in his description which was based on two skinks; transverse barring is common.

#### SPHENOMORPHUS QUOYII QUOYII (Duméril & Bibron)

*Lygosoma quoyii* Duméril & Bibron, 1839, *Erpét. Gén.*, 5, p. 728: Australia.  
*Sphenomorphus quoyi* Barbour, 1914, Proc. Biol. Soc. Washington, 27, p. 204.  
1 (M. C. Z. 9486) Kuranda, Q. (H. L. Clark) 1913.  
1 (M. C. Z. 10169) Camden, N. S. W. (Australian Mus.) 1914.  
3 (M. C. Z. 10170-1, 10174) Wentworth Falls, N. S. W. (Aus. Mus.) 1914.  
1 (M. C. Z. 10172) Cootamundra, N. S. W. (Australian Mus.) 1914.  
1 (M. C. Z. 10173) Kerr's Creek, N. S. W. (Australian Mus.) 1914.  
3 (M. C. Z. 35390-2) Mt. Wilson, N. S. W. (P. J. Darlington) 1932.  
3 (M. C. Z. 35393-5) Blackheath, N. S. W. (P. J. Darlington) 1932.  
1 (M. C. Z. 35396) Cascade, N. S. W. (P. J. Darlington) 1932.  
1 (M. C. Z. 35397) Barrington Tops, N. S. W. (P. J. Darlington) 1932.

Midbody scale-rows 36-40, average 38; frontonasal forming a suture with the rostral, also with the frontal excepting in Kuranda, Camden, Cootamundra, Kerr's Creek, Cascade, Barrington Tops, and one of the Mt. Wilson skinks; all these are typical in having the prefrontals in contact; adpressed limbs overlap; lamellae under fourth toe 23-30, average 25. Largest skink (No. 10169) measures 295 (104+191) mm.

## SPHENOMORPHUS QUOYII TYMPANUM (Lönnerberg &amp; Andersson)

*Lygosoma tympanum* Lönnerberg & Andersson, 1913, Svenska Vetensk.-Akad. Handl. Stockholm, **52**, No. 3, p. 9: "said to have been collected near Melbourne."

*Lygosoma (Hinulia) quoyi kosciuskoï* Kinghorn, 1932, Rec. Austral. Mus., **18**, p. 359: Mt. Kosciusko, 3,000 to 7,000 feet, New South Wales.  
10 (M. C. Z. 33301-10) Mt. Kosciusko, N. S. W. (Harvard Exped.) 1931.

Midbody scale-rows 36-42, average 39; frontonasal forming a suture with the rostral and also with the frontal, except in Nos. 33301, 33303 and 33307, where the prefrontals are in contact; adpressed limbs overlap or the toes may reach to the elbow of the forelimb; lamellae under fourth toe 18-23. Largest skink (No. 33309) measures 200 (87+113) mm.

If I am correct in synonymizing *kosciuskoï* with *tympanum*, it is the greatest pity in view of the uncertainty attaching to the type locality of the latter. It might be possible that *tympanum* can be regarded as an intermediate between typical *quoyii* and *kosciuskoï* for Lönnerberg and Andersson state of *tympanum* "underparts yellowish white, chin and throat spotted with grey." The Kosciusko specimens on the other hand are most readily distinguished from *quoyii* by their under-surfaces being so heavily streaked with grey. In our material of typical *quoyii* the belly is almost immaculate. Perhaps too much reliance cannot be placed upon this character in view of Boulenger's (1887, p. 230) statement that "the throat and sometimes also the belly, with longitudinal series of black dots." The smaller number of lamellae beneath the fourth toe would appear to be the most reliable distinguishing character.

"Taken in Diggers Creek at about 5,000 feet. Near the water, sometimes on rocks jutting into the stream. Occasionally takes to the water when pursued." (W.E.S.)

## SPHENOMORPHUS TENUIS TENUIS (Gray)

*Tiliqua tenuis* Gray, 1831, in Griffith's Cuvier, Animal King., **9**, Syn., p. 71: No locality (Subsequently given as Australia).

*Lygosoma murrayi* Boulenger, 1887, Cat. Lizards Brit. Mus., **3**, p. 232, pl. xiii, fig. 1: Queensland.

*Lygosoma tambourinense* Lönnerberg & Andersson, 1915, Svenska Vetensk.-Akad. Handl. Stockholm, **52**, No. 7, p. 5: Mt. Tambourine, Queensland.

*Lygosoma (Hinulia) tenuis intermedia* Kinghorn, 1932, Rec. Austral. Mus., **18**, p. 358: numerous localities on the north coast of New South Wales.

1 (M. C. Z. 2529) New South Wales (G. Krefft) 1870.

1 (M. C. Z. 27219) Brooklana, N. S. W. (G. C. Crampton) 1928.

4 (M. C. Z. 35398-401) Cascade, N. S. W. (P. J. Darlington) 1932.

Midbody scale-rows 30-32, average 31; frontonasal forming sutures with the rostral and frontal; 3 pairs of scales bordering the parietals except in No. 2529 where there are 4; adpressed limbs overlap. Largest skink (No. 35398) measures 220 (98+122) mm.

Boulenger (1887, p. 231) gives 20-25 lamellae under the fourth toe for *tenuis*, more recent material in the British Museum extends the range to 17-25; Kinghorn's *intermedia* had 17-20; Lönnberg's *tambourinense* is said to have 15 but a topotype of the latter in the British Museum has 18-19. Our New South Wales material listed above ranges from 16-20. The type of the northern race *brachysoma* had 20, our northern Queensland material listed below is from 16-21.

Lönnberg and Andersson give Mt. Tambourine as being in north Queensland, the Wilkins specimen is labelled Mt. Tambourine, south-east Queensland. The only name of the sort that I have been able to locate on the Times Atlas is "Tamborine" in southeast Queensland. It seems probable therefore, that Lönnberg and Andersson were mistaken in locating it in north Queensland.

I have examined the types of *tenuis* and *murrayi*. The latter has been synonymized with the former by Procter (1923, p. 1072). It was separated from *tenuis* by Boulenger on the grounds that the "ear-opening is a little larger than the eye-opening; 34 scales round the body." On examining it I find that the ear-opening is a little smaller than the eye-opening, and that there are only 32 scales at midbody, though 34 or even 38 can be counted anteriorly as is the case with typically colored *tenuis*. *L. murrayi* was founded on a large individual comparable both in size and coloring to the skink from Mt. Tambourine which also has 32 midbody scale-rows.

Both Brooklana and Cascade are close to Dorrigo, which is one of the type localities for *intermedia*. In regard to the post-parietal scales which Boulenger rejects as nuchals but which Kinghorn calls nuchals—either position seems tenable—considerable variation in their development occurs in New South Wales material which does not differ in this respect from the Queensland series referred to *brachysoma*.

#### SPHENOMORPHUS TENUIS BRACHYSOMA (Lönnberg & Andersson)

*Lygosoma tenue* Garman (not of Gray), 1901, Bull. Mus. Comp. Zoöl., **39**, p. 7.

*Lygosoma brachysoma* Lönnberg & Andersson, 1915, Svenska Vetensk.-Akad. Handl. Stockholm, **52**, No. 7, p. 5: Atherton, north Queensland.

- 4 (M. C. Z. 6477, 6479) Cooktown, Q. (E. A. Olive) 1896.  
 1 (M. C. Z. 6747) Queensland (T. Barbour don.) 1903.  
 1 (M. C. Z. 35402) Lankelly Creek, Q. (P. J. Darlington) 1932.  
 Lankelly Creek is in the McIlwraith Ranges.

Midbody scale-rows 28-30, average 29; frontonasal forming a suture with the rostral, and also with the frontal excepting in two of the Cooktown series where the prefrontals are in contact; 3 pairs of scales bordering the parietals; adpressed hind limbs overlap. Largest skink (No. 6477) measures 156 (70+86) mm.

Distinguished from the typical form by the smaller ear opening of the northern specimens. The dark individual from Lankelly Creek has the coloring of *brachysoma*, the rest agree with that of *tamburinense*.

The Lankelly Creek skink differs from the description of *brachysoma* in possessing 28 (instead of 30) midbody scale-rows, 3 (instead of 4) pairs of much enlarged scales called nuchals by Lönnberg and Andersson; and in the adpressed hind limb reaching to the elbow (instead of to the axilla); 19 (instead of 21) lamellae beneath the fourth toe. For further discussion on relationships see under *S. t. tenuis*.

#### SPHENOMORPHUS ISOLEPIS ISOLEPIS (Boulenger)

*Lygosoma isolepis* Boulenger, 1887, Cat. Liz. Brit. Mus., 3, p. 234, pl. xv, fig. 1: Nicol Bay and Swan River, Western Australia.

♂ (M. C. Z. 6749) North Western Australia (T. Barbour don.) 1903.

Midbody scale-rows 30; lamellae beneath fourth toe 22. Total length 140 (64+76) mm., but tail regenerated.

This specimen agrees in every detail with Boulenger's description excepting that the tail, being regenerated, is not once and two thirds as long as the body; also the left nuchal is divided so that 3 scales border the left parietal, the normal 2 on the right. This arrangement caused the specimen to be identified by the dealer who supplied it to the donor as *L. pallidum* (Günther), a species which was also described from Nicol Bay.

Kinghorn (1932, p. 358) has recently described a race from Forest River, East Kimberley under the name of *S. i. forresti*. It differs principally in its shorter limbs which, when adpressed, fail to meet by the length of a forearm.

#### SPHENOMORPHUS PARDALIS (Macleay)

*Hinulia pardalis* Macleay, 1877, Proc. Linn. Soc. N. S. W., 2, p. 63: Barrow Island, northeast Australia.

*Mocoo nigricaudis* Macleay, 1877, Proc. Linn. Soc. N. S. W., 2, p. 63: Darnley Island, Torres Straits.

*Lygosoma (Hinulia) elegantulum* Peters & Doria, 1878, Ann. Mus. Genova, **13**, p. 341: Somerset, Australia.

*Homolepida crassicauda* Barbour (not of Duméril), 1914, Proc. Biol. Soc. Washington, **27**, p. 204.

1 (M. C. Z. 9485) Darnley Island, T. S. (H. L. Clark) 1913.

1 (M. C. Z. 10199) Bloomfield River, Q. (Australian Mus.) 1914.

1 (M. C. Z. 35403) Lake Barrine, Q. (P. J. Darlington) 1932.

3 (M. C. Z. 35404-6) Rocky Scrub, Mellwraith Ranges, Q. (P. J. D.) 1932.

2 (M. C. Z. 35407-8) Lankelly Creek, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35409) Mt. Spurgeon, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35410) Mt. Carbine, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35411) Coen, Q. (P. J. Darlington) 1932.

The Bloomfield River specimen was received as *Omolepida crassicaudum*, that species, however, has 22 midbody scale-rows.

Midbody scale-rows 24-30 (24 in one Rocky Scrub skink only, 30 in the Mt. Spurgeon skink only), average 27; frontonasal forming sutures with the rostral and frontal; usually 3 (2-4) but often an azygous arrangement of scales bordering the parietals posteriorly, such as 2 on one side, 3 on the other, or 2 and 4 in No. 35410; adpressed limbs do not nearly meet; lamellae beneath the fourth toe 16-20, average 18. Largest skink (No. 35407) measures 186 (68+118) mm.

I follow Zietz (1920, p. 208) in referring *elegantulum* to the synonymy; judged by a comparison of the descriptions the course seems justifiable. I venture to add *nigricaudis* on the strength of our No. 9485 which is a topotype and does not differ in any structural character but only in details of coloring. It lacks the concentration of dots on the base of the tail which caused Macleay to name it *nigricaudis* but it is certainly conspecific with the rest of our series.

#### SPHENOMORPHUS ATROMACULATUS (Garman)

*Lygosoma atromaculatum* Garman, 1901, Bull. Mus. Comp. Zoöl., **39**, p. 8: Barrier Reef and Queensland.

2 Cotypes (M. C. Z. 6475) Barrier Reef, Q. (A. G. Mayer) 1896.

3 Cotypes (M. C. Z. 6478) Cooktown, Q. (E. A. Olive) 1896.

23 (M. C. Z. 35412-34) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 24 (every individual counted); frontonasal forming sutures with the rostral and frontal; scales bordering the parietals posteriorly on right and left sides respectively 2+2 (in 13 skinks), 2+3 (in 10), 3+2 (in 2), 3+3 (in 3); adpressed limbs do not nearly meet. Largest skink (No. 35412) measures 142 (63+79) mm.

This skink is very similar to *S. pardalis* and must be extremely difficult to distinguish without comparative material. It is well named, for the aggregation of black markings along the flanks are, perhaps, its most distinguishing feature. The unusual constancy in a skink of a fixed number of midbody scale-rows is interesting; in this connection it may be noted that a single *pardalis* was also taken at Coen but was eliminated by its larger size and absence of characteristic *atromaculatus* markings quite apart from its 26 midbody scale-rows. It will also be noted that there is a single skink with 24 midbody scale-rows referred to *pardalis*. Here again I have no doubts as to its correct relegation to that species. Possibly *atromaculatus* has but recently been subject to speciation.

SPHENOMORPHUS FASCIOLATUS FASCIOLATUS (Günther)

*Hinulia fasciolata* Günther, 1867, Ann. Mag. Nat. Hist. (3), 20, p. 47: Rockhampton and Port Curtis, Queensland.

*Hinulia ambigua* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W., 2, p. 817: Charleville, southwest Queensland.

1 (M. C. Z. 6734) Queensland (T. Barbour don.) 1903.

Midbody scale-rows 36, smooth; frontonasal forming sutures with the rostral and frontal; adpressed limbs just meet; lamellae beneath the fourth toe 21. Total length 199 (98+101) mm.

I have no misgivings in referring *ambigua* De Vis to the synonymy of *fasciolatus*.

SPHENOMORPHUS FASCIOLATUS INTERMEDIUS (Sternfeld)

*Lygosoma (Hinulia) fasciolatum intermedium* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 81: Hermannsburg Mission, Upper Finke River, Northern Territory.

1 (M. C. Z. 32800) Mullewa, W. A. (I. M. Dixson) 1931.

Cotype (M. C. Z. 33530) Hermannsburg, N. T. (M. v. Leonhardi) 1908.

3 (M. C. Z. 35435-7) Hermannsburg, N. T. (H. Heinrich) 1932.

6 (M. C. Z. 35438-43) Hermannsburg, N. T. (W. E. Schevill) 1932.

1 (M. C. Z. 35444) Birchip Downs, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 32-34, obtusely keeled; frontonasal forming sutures with the rostral and frontal; adpressed hind limbs just meet or fail to do so. Largest skink (No. 35438) measures 185 (80+105) mm.

This skink, which Sternfeld made a race of *fasciolatus*, is so nicely intermediate between *fasciolatus* (with which it agrees in the range of



midbody scale-rows) and *monotropis* (with which it agrees in its obtusely keeled scales and color pattern) that rational treatment demands that *monotropis* (Boulenger) be also regarded as a race of *fasciolatus*. It is the extreme western representative and characterized by possessing only 28-30 midbody scale-rows.

#### SPHENOMORPHUS TIGRINA (De Vis)

*Hinulia tigrina* De Vis, 1888 (1887) Proc. Linn. Soc. N. S. W. (2), 2, p. 817: Geraldton, Queensland.

*Hinulia domina* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2), 2, p. 818: Queensland.

1 (M. C. Z. 35445) Millaa Millaa, Q. (P. J. Darlington) 1932.

Midbody scale-rows 28; prefrontals forming a very broad suture; interparietal as large as a frontoparietal; 3 scales border each parietal posteriorly; fourth toe of the adpressed hind limb reaches the elbow of the fore limb; lamellae beneath the fourth toe 21. Total length 159 (82+77) mm.

This species appears to be at most but a race of *maindromi* (Sauvage) of New Guinea, the type of which agrees with that of *domina* in possessing 30 midbody scale-rows; upper border of rostral pointed (finely truncated in our skink); posterior border of frontonasal straight (obtusely angular in our skink). De Rooij (1915, p. 178) states that there are 5 pairs of nuchals (four in our skink and of these the first pair is divided) in *maindromi*. De Vis does not think these scales sufficiently differentiated to call them nuchals in either *tigrina* or *domina*.

The type of *tigrina* had 29 midbody scale-rows and 23 lamellae beneath the fourth toe; otherwise our skink agrees substantially with De Vis description.

The type of *domina* had 30 midbody scale-rows and 22 lamellae beneath the fourth toe. In other respects it agrees with the description of *tigrina*.

I would respectfully suggest that the skink from Mt. Tambourine, with 30 midbody scale-rows and 23 lamellae beneath the fourth toe, referred by Lönnberg and Andersson (1915, p. 5) to *Lygosoma rufum* Boulenger of the Aru Islands, should more properly be identified with *Sphenomorphus tigrina* (De Vis).

#### EMOIA CYANOASTER (Lesson)

*Scincus cyanogaster* Lesson, 1830, Zoöl. in Duperrey's Voy. autour du Monde . . . La Coquille, 2, part 1, p. 47: Ualan, or Kusaie, Island of the Caroline Archipelago.

*Leiolepisma cyanogaster* Barbour, 1914, Proc. Biol. Soc. Washington, **27**, p. 204.  
1 (M. C. Z. 9470) Mer, Murray Is., T. S. (H. L. Clark) 1913.

Midbody scale-rows 26; lamellae beneath the fourth toe 71. Total length 261 (S3+178) mm.

#### LEIOLOPISMA MUSTELINA (O'Shaughnessy)

*Mocoo mustelina* O'Shaughnessy, 1874, Ann. Mag. Nat. Hist. (4), **15**, p. 299: Sydney, New South Wales.

1 (M. C. Z. 10239) Bundanoon, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10240) Tarana, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 35449) Hartley Vale, N. S. W. (P. J. Darlington) 1932.

3 (M. C. Z. 35450-2) Mt. Wilson, N. S. W. (P. J. Darlington) 1932.

1 (M. C. Z. 35453) Cascade, N. S. W. (P. J. Darlington) 1932.

1 (M. C. Z. 37162) Blackheath, N. S. W. (P. J. Darlington) 1932.

Tarana, Hartley Vale and Blackheath are in the Blue Mountains. Specimens from Mt. Wilson were taken between 3,000 and 3,800 feet.

Midbody scale-rows 22-24; suture between rostral and frontonasal as broad as the frontal; frontoparietals 2; fourth upper labial below the orbit; limbs pentadactyle; lamellae beneath the fourth toe 14-20. Largest skink, a male, (No. 35450) measures 132 (52+80) mm.

#### LEIOLOPISMA CHALLENGERI (Boulenger)

*Lygosoma challengeri* Boulenger, 1887, Cat. Liz. Brit. Mus., **3**, p. 268: Queensland.

*Mocoo spectabilis* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W., (2), **2**, p. 819: Gympie, Queensland.

2 (M. C. Z. 35455-6) Barrington Tops, N. S. W. (P. J. Darlington) 1932.

1 (M. C. Z. 35457) Millaa Millaa, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35458) Mt. Spurgeon, Q. (P. J. Darlington) 1932.

The Barrington Tops skinks were taken at an altitude of 3,000 feet.

Midbody scale-rows 22-26; suture between rostral and frontonasal as broad as the frontal; frontoparietals 2; fourth upper labial below the orbit; limbs pentadactyle; lamellae beneath the fourth toe 14-20. Largest skink (No. 35455) measures 144 (58+86) mm.

De Vis states that his type possessed 22 midbody scale-rows as is the case with our Mt. Spurgeon specimen. Boulenger's type on the other hand had 26, our skinks from Barrington Tops have 24-26. There is not the slightest doubt that *spectabilis* is a straight synonym of *challengeri*; Longman, however, recognized the former (1918, p. 38).

## LEIOLOPISMA PARAENEUM (Ahl)

*Lygosoma (Leiolepisma) pseudotropis* Werner, 1903, Zoöl. Anz., **26**, p. 247: New South Wales.

*Lygosoma paraeneum* Ahl, 1925, Zoöl. Anz., **65**, p. 20: (*n.n.* for *pseudotropis* Werner, preoccupied in *Leiolopisma*.)

♀ (M. C. Z. 35454) Dorrigo, N. S. W. (W. Heron) 1932.

Midbody scale-rows 26; suture between rostral and frontonasal as broad as the frontal; frontoparietals 2; fourth upper labial below the orbit; limbs pentadactyle; lamellae beneath the fourth toe 20. Length from snout to anus 54 mm., tail in process of regeneration.

Werner's type had 24 midbody scale-rows, otherwise our specimen so closely conforms to his description both in structural characters as well as minute details of coloration that it might well have been the skink he had before him.

This species only differs from *challengeri* in the ear-opening being a trifle smaller than the transparent palpebral disk and in having the parietals bordered posteriorly by two pairs of scales; in all our *challengeri* they are bordered by three pairs of scales. I am inclined to think that *paraeneum* should be regarded as a southern race, or perhaps a lowlands form, of *challengeri*.

## LEIOLOPISMA CUPREA (Gray)

*Ablepharus cupreus* Gray, 1839, Ann. Nat. Hist., **2**, p. 335: no locality.

*Mococa lichenigera* O'Shaughnessy, 1874, Ann. Mag. Nat. Hist., (4), **15**, p. 298:

Lord Howe Island.

18 (M. C. Z. 35459-69) Lord Howe Island, N. S. W. (R. Baxter) 1932.

Midbody scale-rows 36-46; average 42 (only No. 35460 has 36, three skinks only with 46); suture between rostral and frontonasal narrower than the frontal; frontoparietals 2; supraoculars 4; fifth (sixth in No. 35461 only) upper labial below the centre of the orbit (right sides only examined) limbs pentadactyle; lamellae beneath the fourth toe 15-19, average 16.8. Largest skink (No. 35459) measures 163 (83+80) mm.

Boulenger retained *cuprea* as distinct on account of its combination of 3 supraoculars and 36 midbody scale-rows. In other respects it agreed with *lichenigera* of which Boulenger (1887, p. 269) had only two examples, these possessed 42 midbody scale-rows. Presuming that the 3 supraoculars of the type of *cuprea* were abnormal, I suggest uniting *lichenigera* with that species.

This fine series were captured by placing fish oil in a drum sunk level with the surface of the ground. Presumably the skinks were attracted by the insects which, I imagine, would assemble; in attempting to capture them the skinks fell into the drum.

? *LEIOLOPISMA AENEUM* (Girard)

*Cyclodina aenea* Girard, 1857, Proc. Acad. Nat. Sci. Philad., p. 196: New Zealand (Bay of Islands).

2 (M. C. Z. 33212-3) Sherbrook Forest, V. (Harvard Exped.) 1931.

2 (M. C. Z. 33214-5) Donna Buang, V. (P. J. Darlington) 1931.

Midbody scale-rows 26; frontoparietals 2; adpressed limbs fail to meet, pentadactyle; lamellae under the fourth toe 17-19. Largest skink (No. 35212) measures 113 (52+61) mm.

While closely related to *entrecasteauxii*, and probably referred to that species by previous authors dealing with Victorian lizards, our four specimens differ from *entrecasteauxii* in having but one pair of nuchals as well as fewer midbody scale-rows. On the other hand they agree well with the description of *aeneum* as given by Boulenger who, however, only had New Zealand examples. As I have no topotypic material with which to compare these skinks it is with some misgivings that I refer them to *aeneum* which, I believe, has never before been recorded from the Australian mainland. They differ from *paraeneum* in that the length from snout to forearm is contained twice in the distance between fore and hind limbs, as well as in other ways. I should welcome an investigation of this record by some Australian herpetologist in possession of more material than is at my disposal.

*LEIOLOPISMA ENTRECASTEAUXII* Duméril & Bibron

*Lygosoma entrecasteauxii* Duméril & Bibron, 1839, Erpét, Gén., 5, p. 717: Australia.

3 (M. C. Z. 10211-3) Mt. Kosciusko at 3-5000 ft., N.S.W. (Austral. Mus.) 1914.

2 (M. C. Z. 33216-7) Mt. Kosciusko at 6,500 ft., N.S.W. (W. E. Schevill) 1931.

1 (M. C. Z. 33233) Mt. Kosciusko at 3,000 ft., N.S.W. (Harvard Exped.) 1931.

14 (M. C. Z. 33218-32) Mt. Kosciusko at 5,400-6,000 ft., N.S.W. ( " ) 1931.

1 (M. C. Z. 35470) Barrington Tops at 3,000 ft., N.S.W. (P. J. Darlington) 1932.

Midbody scale-rows 28-32, average 29; suture between rostral and frontonasal narrower than the frontal; prefrontals separated; transparent disk in lower eyelid almost as large as the eye; adpressed limbs usually fail to meet, or just meet, pentadactyle; lamellae beneath the fourth toe 17-19. Largest skink (No. 33216) measures 129 (60+69) mm.

## LEIOLOPISMA TRILINEATA (Gray)

*Tiliqua trilineata* Gray, 1839, Ann. Nat. Hist., 2, p. 291: Australia.

5 (M. C. Z. 33238-42) Margaret River, W. A. (Harvard Exped.) 1931.

1 (M. C. Z. 33243) Pemberton, W. A. (W. E. Schevill) 1931.

2 (M. C. Z. 33244-5) Mt. Kosciusko, N. S. W. (Harvard Exped.) 1931.

Midbody scale-rows 24-28; frontoparietal single (in No. 33244 the interparietal is semifused with the frontoparietal also); supraciliaries 5-6 (only No. 33243 with 6); adpressed limbs do not nearly meet, pentadactyle; lamellae beneath the fourth toe 17-20. Largest skink, a female, (No. 33245) measures 15S (71+87) mm.

## LEIOLOPISMA METALLICA (O'Shaughnessy)

*Mocooa metallica* O'Shaughnessy, 1874, Ann. Mag. Nat. Hist., (4), 15, p. 299: Tasmania.

1 (M. C. Z. 10244) Mt. Wellington, T. (Australian Mus.) 1914.

5 (M. C. Z. 24571-5) Augusta, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 24576) Causeway, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 33236) Darling Range, W. A. (Harvard Exped.) 1931.

1 (M. C. Z. 35476) Millaa Millaa, Q. (P. J. Darlington) 1932.

3 (M. C. Z. 35477-9) Mt. Spurgeon, Q. (P. J. Darlington) 1932.

Causeway and the Darling Range are both near Perth.

Midbody scale-rows 26-28; frontoparietals fused; supraciliaries 5-7 (5 in Western Australia, 6 in Tasmania, 7 in Queensland specimens); adpressed limbs barely meet or just overlap, pentadactyle; lamellae beneath the fourth toe 16-24 (16 in Tasmania, 18-23 in Western Australia, 19-24 in Queensland specimens). Largest skink (No. 10247) measures 59 mm. from snout to anus, tail broken.

*L. metallica* can be readily distinguished from *trilineata* by the adpressed limbs almost meeting or overlapping in the former, they are widely separated in *trilineata*. From the smaller *guichenoti* on the other hand, by the suture between rostral and frontonasal being narrower than the frontal in *metallica*, as broad, or almost as broad, as the frontal in *guichenoti*.

## LEIOLOPISMA GUICHENOTI (Duméril &amp; Bibron)

*Lygosoma guichenoti* Duméril & Bibron, 1839, Erpét. Gén., 5, p. 713: Australia.

?*Mocooa delicata* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W., (2), 2, p. 820:

Warro, central Queensland.

- 1 (M. C. Z. 2153) Australia (A. A. Duméril) 1865.  
 2 (M. C. Z. 2224) Sydney, N. S. W. (W. Keferstein) 1865.  
 1 (M. C. Z. 10251) Fish River, N. S. W. (Australian Mus.) 1914.  
 1 (M. C. Z. 10252) Goulburn, N. S. W. (Australian Mus.) 1914.  
 1 (M. C. Z. 10253) Penrith, N. S. W. (Australian Mus.) 1914.  
 1 (M. C. Z. 10254) Woodford, N. S. W. (Australian Mus.) 1914.  
 2 (M. C. Z. 33234-5) Kurrajong Heights, N. S. W. (W. E. Schevill) 1932.  
 1 (M. C. Z. 35475) Hartley Vale, N. S. W. (P. J. Darlington) 1932.  
 3 (M. C. Z. 35476-8) Blackheath, N. S. W. (P. J. Darlington) 1932.  
 1 (M. C. Z. 35479) Cascade, N. S. W. (P. J. Darlington) 1932.  
 1 (M. C. Z. 35480) Dorrigo, N. S. W. (P. J. Darlington) 1932.

The skinks from Kurrajong Heights, Blue Mountains, were taken at an altitude of 1800 feet. The Fish River at Tarana, Woodford, Hartley Vale, and Blackheath are also all in the Blue Mountains.

Midbody scale-rows 26-30; frontoparietal single; supraciliaries 5-7 (5 in only one Sydney skink); adpressed limbs just meet, pentadactyle; lamellae beneath the fourth toe 17-26. Largest skink (No. 2224) measures 108 (40+68) mm., though there are others with slightly longer snout to anus measurements.

As *guichenoti* has moderately enlarged preanals there would not seem to be any reason for keeping *delicata* De Vis distinct. Though De Vis speaks of direct comparison with *guichenoti* possibly it was one of the very closely related species that he had.

#### LEIOLOPISMA PRETIOSA (O'Shaughnessy)

*Mocoo pretiosa* O'Shaughnessy, 1874, Ann. Mag. Nat. Hist., (4), 15, p. 298: Tasmania.

- 4 (M. C. Z. 10158-60, 10232) Tasmania (Australian Mus.) 1914.

Midbody scale-rows 40-44 (Boulenger's two specimens had 34-38); frontoparietal single; adpressed limbs just overlap, pentadactyle; lamellae under the fourth toe 18-21. Largest skink (No. 10232) measures 130 (63+67) mm.

Kinghorn's distinct, though closely related *L. weeksae* from Mt. Kosciusko and the Blue Mountains, also has 40-44 midbody scale-rows but a pair of frontoparietals and 2 pairs of nuchals. Our *pretiosa* have a single frontoparietal, three of our skinks have 1 pair of nuchals, one has none. In other respects they agree with the *tabulated* (not compared with the whole description) characters of *weeksae* with which Kinghorn contrasts *entrecastcauxii*.

## LEIOLOPISMA OCELLATA (Gray)

*Mocoo ocellatu* Gray, 1844, Zoöl. Erebus & Terror, Rept., p. 8, pl. vii, fig. 3:  
no locality.

1 (M. C. Z. 1085) Hobart, T. (J. W. Robertson) 1862.

1 (M. C. Z. 10231) Tasmania. (Australian Mus.) 1914.

The second specimen was received as *microlepidota* (O'Shaughnessy), a synonym of *pretiosa*; they differ in the number of midbody scale-rows, the type of *microlepidota* having 38.

Midbody scale-rows 52-55; frontoparietal single; adpressed limbs overlap, pentadactyle; lamellae under the fourth toe 21-22. Larger skink (No. 1085) measures 128 (65+63) mm.

## LEIOLOPISMA FUSCA (Duméril &amp; Bibron)

*Heteropus fuscus* Duméril & Bibron, 1839, Erpét. Gén., 5, p. 759: Waigou Island and Rawack.

*Lygosoma fuscum* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, p. 7.

*Leiolepisma fuscum* Barbour, 1914, Proc. Biol. Soc. Washington, 27, p. 204.

5 (M. C. Z. 6480) Cooktown, Q. (E. A. Olive) 1896.

1 (M. C. Z. 6481) Cairns, Q. (A. G. Mayer) 1896.

2 (M. C. Z. 6482) Queensland (A. G. Mayer) 1896.

2 (M. C. Z. 9129-30) Mossman, Q. (J. C. Kershaw) 1913.

9 (M. C. Z. 9457-60, 9464-9) Mer, Murray Is., T. S. (H. L. C.) 1913.

1 (M. C. Z. 9484) Darnley Id., T. S. (H. L. Clark) 1913.

1 (M. C. Z. 9491) Badu or Mulgrave Id., T. S. (H. L. Clark) 1913.

8 (M. C. Z. 37163-9) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 34-36 (but only first ten specimens listed, counted); dorsals strongly or weakly tricarinate; transparent disk in lower eyelid not larger than the ear-opening; frontoparietal single; interparietal 1; digits 4; toes 5.

## LEIOLOPISMA VERTEBRALIS (De Vis)

*Heteropus vertebralis* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W., (2), 2, p. 821: Chinchilla, Darling Downs, Queensland.

2 (M. C. Z. 37170-1) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 36-38; dorsals weakly tricarinate, each keel being broken up into a series of points; frontoparietal single; interparietal 1; adpressed limbs overlap, the toes of the hind limb reaching to the axilla; fingers 4; toes 5; lamellae beneath the fourth toe 29-31. Larger skink (No. 37170) measures 114 (46+68) mm.

## LEIOLOPISMA BICARINATA (Macleay)

*Heteropus bicarinatus* Macleay, 1877, Proc. Linn. Soc. N. S. W., **2**, p. 68: Hall Sound, New Guinea.

*Heteropus albertisii* Peters & Doria, 1878, Ann. Mus. Genova, **13**, p. 362: Yule Island and Mt. Epa, New Guinea.

*Leiolepisma albertisii* Barbour, 1914, Proc. Biol. Soc. Washington, **27**, p. 204.

*Leiolepisma peronii* Barbour (not of Duméril & Bibron), 1914, Proc. Biol. Soc. Washington, **27**, p. 204.

21 (M. C. Z. 9436-56) Mer, Murray Is., T. S. (H. L. Clark) 1913.

1 (M. C. Z. 9489) Kuranda, Q. (H. L. Clark) 1913.

1 (M. C. Z. 9492) Darnley Id., T. S. (H. L. Clark) 1913.

Midbody scale-rows 28-32; dorsals strongly bicarinate; transparent disk in lower eyelid as large as, but not "much larger" than the ear-opening; frontoparietal single; interparietal 1; digits 4; toes 5. Largest skink (No. 9443) measures 130 (44+86) mm.

I follow Zietz (1920) in referring *albertisii* to the synonymy of *bicarinata* though the meagre color description of the latter does not tally well with that shown by the above material.

## LEIOLOPISMA RHOMBOIDALIS (Peters)

*Heteropus rhomboidalis* Peters, 1869, Monatsb. Akad. Wiss. Berlin, p. 446: Port Mackay, Queensland.

1 (M. C. Z. 9132) Mossman, Q. (J. C. Kershaw) 1913.

1 (M. C. Z. 35481) Cucania, Q. (W. Kerns) 1932.

2 (M. C. Z. 35482-3) Lake Barrine, Q. (P. J. Darlington) 1932.

Midbody scale-rows 32-34; dorsals obtusely tricarinate; transparent disk in lower eyelid not larger than the ear-opening; frontoparietal single; no interparietal; adpressed limbs strongly overlapping; digits 4; toes 5; lamellae beneath the fourth toe 22-27. Largest skink (No. 35402) measures 109 (42+67) mm.

## LEIOLOPISMA PERONII (Duméril &amp; Bibron)

*Heteropus peronii* Duméril & Bibron, 1839, Erpét. Gén., **5**, p. 760: Ile de France. *Myophila vivax* De Vis, 1884, Proc. Roy. Soc. Queensl., **1**, p. 77: Brisbane, Queensland.

*Heteropus lateralis* De Vis, 1885 (1884), Proc. Roy. Soc. Queensl., **1**, p. 168: Moreton Bay, Queensland.

*Heteropus blackmanni* De Vis, 1885 (1884), Proc. Roy. Soc. Queensl., **1**, p. 168: Port Curtis, Queensland.



*Lygosoma devisii* Boulenger, 1890, Proc. Zoöl. Soc. London, p. 79: (*n.n.* for *lateralis* De Vis as preoccupied in the genus *Lygosoma*.)

7 (M. C. Z. 35484-90) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 28-30; dorsals strongly bicarinate; transparent disk in lower eyelid much larger than the ear-opening; frontoparietal single; interparietal 1; digits 4; toes 5; lamellae beneath the fourth toe 24-28. Largest skink (No. 35484) measures 123 (46+77) mm.

#### LEIOLOPISMA PECTORALIS (De Vis)

*Carlia melanopogon* Gray, 1844, Zoöl. Erebus & Terror, Rept., pl. vii, fig. 1: Port Essington, Northern Territory.

*Heteropus pectoralis* De Vis, 1885, Proc. Roy. Soc. Queensl., 1, p. 169: Warro, Port Curtis, Queensland.

*Heteropus mundus* De Vis, 1885, Proc. Roy. Soc. Queensl., 1, p. 172: Port Curtis, Queensland.

2 (M. C. Z. 31900-1) Port Darwin, N. T. (H. L. Clark) 1929.

23 (M. C. Z. 35491-9) Coen, Q. (P. J. Darlington) 1932.

1 (M. C. Z. 35500) Rutherford, Q. (W. E. Shevill) 1932.

Rutherford is on the Sellheim River, about eighty-five miles southwest of Bowen.

Midbody scale-rows 26-32; dorsals strongly or very faintly tricarinate; transparent disk in the lower eyelid much larger than the ear-opening; frontoparietal single; interparietal 1; digits 4; toes 5; lamellae beneath the fourth toe 21-27. Largest skink (No. 35491) measures 91 (41+50) mm.

*Carlia melanopogon* Gray is preoccupied in the genus *Leiopisma* by *Heteropus* (*Carlia*) *melanopogon* Peters & Doria (1878).

After very careful reflection I have decided that in *pectoralis* and *mundus* we are dealing with a species somewhat similar to the related *fusca* in that it shows wide variation in the degree of keeling of the dorsal scales. It will be noted that the types of both *pectoralis* and *munda* came from Port Curtis. At first I thought that the Coen series represented two species for they were readily split into two groups, 13 of them being strongly keeled (*pectoralis* type) and 10 almost smooth (*munda* type). In coloration, range of scale counts and other characters, the two groups proved indistinguishable so that again we have the two types occurring in the same locality. Again there is *melanopogon*, which is of the smooth type, coming from Port Essington while our two skinks from relatively nearby Port Darwin, are of the strongly keeled type. Seeing that the two occur together over such a wide area it seems to me justifiable to consider that they are not specifically distinct.

## LEIOLOPISMA MACCOOEYI (Ramsay &amp; Ogilby)

*Lygosoma maccooeyi* Ramsay & Ogilby, 1890, Rec. Austral. Mus., **1**, p. 8: Brawlin, near Cootamundra, New South Wales.

Cotype (M. C. Z. 6304) Cootamundra, N. S. W. (Australian Mus.) 1890.

1 (M. C. Z. 10215) Dubbo, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10216) Brawlin, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 32; dorsals smooth; transparent disk in lower eyelid much larger than the ear-opening; frontoparietal single; interparietal 1; digits 4; toes 5; lamellae beneath the fourth toe 21-23. Largest skink (No. 10215) measures 129 (50+79) mm.

## LEIOLOPISMA NOVAEGUINEAE (Meyer)

*Lygosoma (Carlia) Novae Guineae* Meyer, 1875 (1874), Monatsb. Akad. Wiss. Berlin, p. 132: New Guinea.

*Lygosoma laeve* Oudemans, 1894, in Semon's Zoöl. Forsch. in Austral., Jena, **8**, p. 144: Cooktown, Queensland.

*Lygosoma aeratum* Garman, 1901, Bull. Mus. Comp. Zoöl. **39**, p. 7: Cooktown, Queensland.

Holotype (M. C. Z. 6476) Cooktown, Q. (E. A. Olive) 1896.

1 (M. C. Z. 9131) Mossman, Q. (J. C. Kershaw) 1913.

2 (M. C. Z. 37160-1) Coen, Q. (P. J. Darlington) 1932.

Midbody scale-rows 22-26; dorsals smooth; transparent disk as large as, or larger than the exposed ear-opening; frontoparietal single; interparietal 1; adpressed limbs just meet; digits 4; toes 5; lamellae beneath the fourth toe 18 in Garman's type. Largest skink (No. 37160) measures 76 (31+45) mm.

Oudemans' type had 24 midbody scale-rows, Garman's 22. Oudemans states that the palpebral disk is a little smaller than the ear-opening; in Garman's skink the ear is almost obscured by the circle of overlapping lobules. I have compared our three Queensland specimens with a good series from Obi Island in the Moluccas and fail to see any good reason for keeping them distinct though Garman's type differs from the rest in possessing a dark grey vertebral band. Held in certain lights there appears to be an indication of such a band in some of the other specimens.

## RIOPA RUFESCENS (Shaw)

*Lacerta rufescens* Shaw (part), 1802, Gen. Zoöl., **3**, 1, p. 285: "Arabia, Egypt, and the European Islands."

2 (M. C. Z. 4432) Murray Islands, T. S. (E. Gerrard) 1879.

Midbody scale-rows 28. Larger skink measures 284 (137+147) mm.

## OMOLEPIDA BRANCHIALE (Günther)

*Hinulia branchialis* Günther, 1867, Ann. Mag. Nat. Hist. (3), 20, p. 47: Champion Bay, Western Australia.

1 (M. C. Z. 33247) Nannekine, W. A. (Max Micke) 1931.

2 (M. C. Z. 33248-9) Mullewa, W. A. (P. J. Darlington) 1931.

Nannekine is fifteen miles southwest of Canna.

Midbody scale-rows 24-26; supraoculars 3; digits 5; toes 5; they agree well with Boulenger's plate (1887, pl. xxvi, fig. 2). Largest skink (No. 33247) measures 151 (81+70) mm.

## OMOLEPIDA MELANOPS (Stirling &amp; Zietz)

*Lygosoma melanops* Stirling & Zietz, 1893, Trans. Roy. Soc. S. Austral., 16, p. 173, pl. vi, fig. 3: between Everard and Barrow Ranges, Central Australia.

*Lygosoma gastrostigma* Boulenger, 1898, Proc. Zoöl. Soc. London, p. 922, pl. lvii, fig. 2: Nicol Bay at Sherlock River, Western Australia.

*O. melanops* is not a synonym of *branchiale* as listed by Zietz (1920, p. 214) though possibly intended in a subspecific sense following Werner's (1910, p. 479) reference to it as "a variety." Boulenger's type had 26 midbody scale-rows.

The St. Francis Island, South Australia, records listed under *branchiale* by Zietz are doubtless referable to *woodjonesi* Procter (1923, p. 80) differing in the possession of 28 midbody scale-rows.

## OMOLEPIDA CASUARINAE CASUARINAE (Duméril &amp; Bibron)

*Cyclodus casuarinae* Duméril & Bibron, 1839, Erpét. Gén., 5, p. 749: Australia.

*Hemisphaeridion tasmanicum* Lucas & Frost, 1894, Proc. Linn. Soc. N. S. W., (2), 8, p. 227: about Lake St. Clair, Tasmania.

1 (M. C. Z. 10193) Long Bay, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 33250) Daner's Gap, N. S. W. (R. J. Tillyard) 1931.

Daner's Gap is at an altitude of about 5,400 feet on Mt. Kosciusko. The skink from this locality was taken in a nest of *Myrmecia pilosula*.

Midbody scale-rows 22-26, latter number on No. 33250; supraoculars 3; digits 5; toes 5; distance between end of snout and fore limb is contained twice (No. 10193) to two and a half times (No. 33250) in the distance between fore and hind limb. Larger skink (No. 10193) measures 167 (95+72) mm.

## OMOLEPIDA CASUARINAE PETERSI (Sternfeld)

*Lygosoma (Homolepida) petersi* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 81: Hermannsburg Mission, Upper Finke River, Northern Territory.

3 (M. C. Z. 35338-40) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 24-26; supraoculars 3 (Sternfeld counts them as 4 but in reality they do not differ from New South Wales material in this respect; Boulenger treats the last in the row as an upper post-ocular); digits 5; toes 5; distance between end of snout and forelimb is contained two and a third to two and a half times in the distance between fore and hind limb. Largest skink (No. 35338) measures 173 (90+83) mm.

Though Sternfeld proposed *petersi* as a new name for *Lygosoma mülleri* Peters (preoccupied in *Lygosoma*, though not in *Omolepida*, by *Scincus mülleri* Sehlegel), I incline to the idea that he was mistaken in supposing that *mülleri* Peters, which came from South Australia and possessed 24-26 midbody scale-rows, is identical with his Hermannsburg material from the centre of the continent.

*O. c. petersi* may be recognized by the presence of one or more ear lobules and its uniformly brown dorsal coloring. All the other characters cited by Sternfeld break down, or are at most only average characters; even the elongated body appears to be matched by that of our Mt. Kosciusko skink.

## OMOLEPIDA AUSTRALE (Gray)

*Lygosoma australis* Gray, 1839, Ann. Nat. Hist., 2, p. 332: Australia.

2 (M. C. Z. 10209-10) Western Australia (Australian Mus.) 1914.

3 (M. C. Z. 24567-8) Manjimup, W. A. (W. S. Brooks) 1927.

2 (M. C. Z. 24569-70) Augusta, W. A. (W. S. Brooks) 1927.

1 (M. C. Z. 33246) Margaret River, W. A. (Harvard Exped.) 1931.

1 (M. C. Z. 35341) Nr. Denmark, W. A. (W. S. Brooks) 1927.

Midbody scale-rows 20-22, only No. 10209 with 22 but undoubtedly conspecific; digits 5; toes 5; lamellae beneath the fourth toe 18-21. Largest skink (No. 10210) measures 195 (70+125) mm.

The Manjimup specimens, taken on February 4, 1927, are gravid females holding large embryos. Both they and the Augusta skinks were "found beneath logs." (W. S. B.).

## OMOLEPIDA PUNCTULATUM (Peters)

*Lygosoma punctulatum* Peters, 1871, Monatsb. Akad. Wiss. Berlin, p. 646, pl.

—, fig. 5: Port Bowen, Queensland.

*Lygosoma heterodactylum* Günther, 1876, Journ. Mus. Godeffroy, **12**, p. 45:  
Peak Downs, Queensland.

1 (M. C. Z. 5250) “? Australia” (H. A. Ward) 1884.

Midbody scale-rows 20; digits 5; toes 5; lamellae beneath the fourth toe 14. Total length 103 (60+43) mm.

## OMOLEPIDA CRASSICAUDUM (A. Duméril)

*Lygosoma crassicaudum* A. Duméril, 1851, Cat. Méthod. Coll. Rept. Paris,  
p. 172: Australia and Oceania.

1 (M. C. Z. 36944) Australia (H. A. Ward) 1932.

Midbody scale-rows 22. Total length 118 (47+71) mm.

*O. mjobergi* was differentiated on the basis of the broad sutures formed by the frontonasal with the rostral and the frontal (moderately broad in the figure of Duméril's type, “narrow” in Boulenger's re-description in the Catalogue of Lizards (1887, **3**, p. 325)), and by the fewer lamellae beneath the fourth toe, 12–15 instead of 15–18. I have seen the specimen of *mjobergi* from Ravenshoe, northern Queensland with 13 subdigital lamellae referred to by Procter (1923, p. 1073). While these distinctions sound somewhat trivial, actually the two skinks are very distinct, *mjobergi* being very much the larger.

Our specimen shows a moderately broad suture between the rostral and frontonasal but only the narrowest possible point of contact between the frontonasal and the frontal. It has *only* 12 lamellae beneath the fourth toe. Otherwise it agrees with the description of *mjobergi*.

It disagrees with Boulenger's description of *crassicaudum* in that the distance between the end of the snout and the forelimb is contained only  $1\frac{3}{4}$ , instead of  $2-2\frac{1}{2}$  times, in the length between axilla and groin; lamellae beneath fourth toe 12, instead of 15–18.

In this connection attention might be directed to the extraordinary superficial similarity of the longer limbed *Sphenomorphus pardalis* (Macleay) inhabiting the same regions and often mistaken for *Omolepida crassicaudum*.

## HEMERGIS PERONII (Fitzinger)

*Seps peronii* Fitzinger, 1826, Neue Classif. Rept., p. 53: Kangaroo Id., S. A.

*Lygosoma (Hemiergis) quadridigitatum* Werner, 1910, in Michaelsen and Hartmeyer's Fauna Südwest Austral., **2**, p. 480.

- 4 (M. C. Z. 10234-7) Port Lincoln, S. A. (Australian Mus.) 1914.  
 1 (M. C. Z. 10238) Perth, W. A. (Australian Mus.) 1914.  
 2 (M. C. Z. 24578-9) Mt. Melville, W. A. (W. S. Brooks) 1927.  
 42 (M. C. Z. 24611-35) Denmark River, W. A. (W. S. Brooks) 1927.  
 23 (M. C. Z. 24636-60) Manjimup, W. A. (W. S. Brooks) 1927.  
 25 (M. C. Z. 24661-85) Pemberton, W. A. (W. S. Brooks) 1927.  
 1 (M. C. Z. 33169) ?Margaret River, W. A. (Harvard Exped.) 1931.  
 28 (M. C. Z. 33170-97) Pemberton, W. A. (W. E. Schevill) 1931.

Midbody scale-rows 18-21 (only a few from the larger series were counted but all in the smaller); limbs tetradactyle (in this and all other species of the genus every individual's hands and feet were examined in search of *woodfordi* Lucas and Frost, a species which has four fingers and three toes). Largest skink (No. 33169) measures 226 (61+165) mm.

Werner (1910, p. 480) proposed *quadridigitatum* as a new name for *peronii* under the belief that the latter was preoccupied in the genus *Lygosoma* by *peronii* Duméril & Bibron (1839). However, it was the latter which required renaming in *Lygosoma* and this was done by Zietz (1920, p. 212) by giving precedence to De Vis' name *blackmanni* (1885). The name *peronii* is not preoccupied in *Hemiergis*.

#### HEMIERGIS TRIDACTYLUM (Boulenger)

- Lygosoma peronii*, var. *tridactylum* Boulenger, 1915, Ann. Mag. Nat. Hist., (8), 16, p. 65: Yallingup, south Western Australia.  
 60 (M. C. Z. 24586-610) Augusta, W. A. (W. S. Brooks) 1927.  
 8 (M. C. Z. 33159-66) Margaret River, W. A. (Harvard Exped.) 1931.  
 2 (M. C. Z. 33167-8) Wallecliffe, W. A. (Harvard Exped.) 1931.  
 1 (M. C. Z. 35342) Manjimup, W. A. (W. S. Brooks) 1927.

Midbody scale-rows 18-20 (of the Augusta series only a few counted); limbs tridactyle, third toe much longer than the second. Largest skink (No. 24595) measures 149 (60+89) mm.

Parker (1926, p. 205) has given good reasons for treating this skink as a full species, rather than as a race of *peronii*.

#### HEMIERGIS DECRESIENSE (Fitzinger)

- Zygnis decresiensis* Fitzinger, 1826, Neue Classif. Rept., p. 53: Kangaroo Id., S. A.  
 4 (M. C. Z. 33155-8) Mt. Lofty, S. A. (W. M. Wheeler) 1931.

Midbody scale-rows 24-26; limbs tridactyle, second toe only slightly longer than the third. Largest skink (No. 33156) measures 103 (49+54) mm.

## HEMIERGIS QUADRILINEATUM (Duméril &amp; Bibron)

*Chelomeles quadrilineatus* Duméril & Bibron, 1839, *Erpét. Gén.*, **5**, p. 774: Australia.

- 1 (M. C. Z. 10214) 80 mi. s. of Perth, W. A. (Australian Mus.) 1914.
- 2 (M. C. Z. 24580-1) north of Perth, W. A. (W. S. Brooks) 1927.
- 4 (M. C. Z. 24582-5) Balcatta Beach, W. A. (W. S. Brooks) 1927.
- 5 (M. C. Z. 33201-5) Rottneest Island, W. A. (Harvard Exped.) 1931.
- 6 (M. C. Z. 33206-11) King's Park, Perth, W. A. (Harvard Exped.) 1931.

Midbody scale-rows 18-20 (only No. 24582 with 20); limbs didactyle. Largest skink (No. 33208) measures 125 (50+75) mm.

## SIAPHOS MACCOYI Lucas and Frost

*Siaphos maccoyi* Lucas & Frost, 1894, *Proc. Roy. Soc. Victoria* (new series), **6**, p. 85, pl. ii, figs. 2 and 2a: Brandy Creek and fourteen other localities in Victoria.

?*Hemiergis initiale* Werner, 1910, in Michaelsen & Hartmeyer's *Fauna Südwest-Austral.*, **2**, p. 480: Lion Mill and Jarrahdale, south Western Australia.

- 1 (M. C. Z. 10242) Walhalla, V. (Australian Mus.) 1914.
- 3 (M. C. Z. 33198-200) Mill Grove, V. (Harvard Exped.) 1931.
- 2 (M. C. Z. 33270-1) Snowy River, N. S. W. (P. J. Darlington) 1931.
- 1 (M. C. Z. 33272) Mt. Dandenong, V. (W. E. Schevill) 1931.

Mill Grove is on Dee Creek near Melbourne. Snowy River, about 3,000 feet, on Mt. Kosciusko. If I am correct in referring Werner's *initiale* to the synonymy of *maccoyi*, it involves a considerable extension of the range westward.

Midbody scale-rows 18-20 (Werner's types were 20-22); limbs pentadactyle; tympanum minute, scarcely discernible in Mill Grove specimens. Largest skink (No. 10242) measures 102 (45+57) mm.

Lönnerberg and Andersson (1913, p. 10) have some notes on variation in this species.

## SIAPHOS GRACILOIDES (Lönnerberg &amp; Andersson)

*Lygosoma graciloides* Lönnerberg & Andersson, 1913, *Svenska. Vetensk.-Akad. Handl. Stockholm*, **52**, No. 3, p. 10: Yandina, at foot of Blackall Range, southern Queensland.

*Lygosoma scharffi* Boulenger, 1915, *Ann. Mag. Nat. Hist.*, (8), **16**, p. 64: One-Tree Hill, Brisbane, Queensland.

This skink with 20 midbody scale-rows, 4 digits and 5 toes, has been twice described. Boulenger had a single example, Lönnerberg, 3.

## SIAPHOS EQUALIS (Gray)

*Seps equalis* Gray, 1825, Ann. Philos., (2), 10, p. 202: no locality stated.

- 1 (M. C. Z. 5248) No locality (No history) N. D.
- 1 (M. C. Z. 6303) Clarence River, N. S. W. (Australian Mus.) 1914.
- 1 (M. C. Z. 10188) Uralla, N. S. W. (Australian Mus.) 1914.
- 1 (M. C. Z. 10189) Hartley Vale, N. S. W. (Australian Mus.) 1914.
- 2 (M. C. Z. 10190-1) Salisbury, N. S. W. (Australian Mus.) 1914.
- 1 (M. C. Z. 27328) Dorrigo, N. S. W. (G. C. Crampton) 1928.
- 2 (M. C. Z. 33268-9) National Park, N. S. W. (P. J. Darlington) 1932.
- 1 (M. C. Z. 35343) Salisbury, N. S. W. (P. J. Darlington) 1932.
- 4 (M. C. Z. 35344-7) Cascade, N. S. W. (P. J. Darlington) 1932.

Midbody scale-rows 18-22; limbs tridactyle, second toe slightly longer than the third; lamellae beneath the median toe 3-6. Largest skink (No. 5248) measures 139+(69+70+) mm. No. 35343 has an entire tail, and measures 130 (48+82) mm.

Numbers 10189-10191 were received as *Hemiergis decresiensis*, a species which they closely resemble. Apart from the scaly lower eyelid, a character which is often somewhat obscured, the two may be distinguished as follows:—

Midbody scale-rows 18-22, average 20; lamellae beneath median toe 3-6. Total length 137 mm. . . . . *equalis*

Midbody scale-rows 24-26, average 24; lamellae beneath median toe 7-9. Total length 103 mm. . . . . *decresiensis*

In both color and markings these two skinks are alike. Undoubtedly *Hemiergis* and *Siaphos* are very closely related and to eliminate errors of redescription it might be advisable to unite them.

## RHODONA MICROTIS (Gray)

*Mocca microtis* Gray, 1845, Cat. Liz. Brit. Mus., p. 83: Swan River, Western Australia.

- 1 (M. C. Z. 24577) Manjimup, W. A. (W. S. Brooks) 1927.
- 1 (M. C. Z. 33267) Pemberton, W. A. (W. E. Schevill) 1931.

Midbody scale-rows 20; frontal as long as frontoparietals and interparietal together; digits 5; toes 5. Larger skink (No. 24577) measures 101 (51+50) mm.

The Manjimup skink, taken beneath a log on February 3, 1927, is gravid.



## RHODONA BOUGAINVILLII (Gray)

*Riopa Bougainvillii* Gray, 1839, Ann. Nat. Hist., 2, p. 332: Australia.

1 (M. C. Z. 10212) Port Lincoln, S. A. (Australian Mus.) 1914.

Midbody scale-rows 20; frontal longer than frontoparietals and interparietal together; digits 5; toes 5; Total length 79 (46+33) mm.

## RHODONA PLANIVENTRALIS DESERTORUM (Sternfeld)

*Lygosoma (Rhodona) planiventrale desertorum* Sternfeld, 1919, Mitt. Senckenb. Naturf. Gesell., 1, p. 82: Hermannsburg Mission, Upper Finke River, Northern Territory.

1 (M. C. Z. 35348) Hermannsburg, N. T. (W. E. Schevill) 1932.

Midbody scale-rows 22; digits 2; toes 3. Total length 134 (77+57) mm.

Sternfeld's type had 20 midbody scale-rows, a character which he claimed differentiated it from the typical form but disproved by our specimen having 22. The race, however, holds good on the basis of its shorter limbs as borne out by this skink. It might be advisable to remeasure the limbs of the type of *planiventralis* in the National Museum, Melbourne. Werner's *macropisthopus* has even shorter limbs than *desertorum*.

Many other species of this genus have been described in recent years. Those not represented in this collection, are:

	Digits	Toes	Scales
<i>R. tetradactyla</i> Lucas & Frost, 1875, Tempe Downs, N. T.	4	4	20
<i>R. terdigitata</i> (Parker), 1926, Flinders Id., S. A.	3	3	20
<i>R. planiventralis</i> Lucas & Frost, 1902, W. Australia.	2	3	22
<i>R. macropisthopus</i> (Werner), 1903, Queensland.	2	3	20
<i>R. walkeri</i> (Boulenger), 1891, Roebuck Bay, W. A.	2	2	20
<i>R. picturata</i> (Fry), 1914, Boulder, W. A.	Bud	2	18-20
<i>R. wilkinsi</i> (Parker), 1926, Torrens Creek, Q.	0	2	18-20

## RHODONA GERRARDII Gray

*Rhodona punctata* var. *gerrardii* Gray, 1864, Proc. Zoöl. Soc. London, p. 296: Swan River, Western Australia.

1 (M. C. Z. 24471) Yalgoo, W. A. (R. C. Richardson) 1926.

2 (M. C. Z. 33253-4) Dalgaranger Stn., W. A. (G. E. Nicholls) 1931.

4 (M. C. Z. 33255-8) Mullewa, W. A. (Harvard Exped.) 1931.

Dalgaranger is 50 miles N.E. of Yalgoo.

Midbody scale-rows 20; digits 1; toes 2. Largest skink (No. 33255) measures 161 (82+79) mm.

Mullewa skinks were taken beneath stones in September.

#### RHODONA PUNCTATOVITTATA Günther

*Rhodona punctatovittata* Günther, 1867, Ann. Mag. Nat. Hist., (3), 20, p. 47: Queensland.

1 (M. C. Z. 10207) Curlewis, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10208) Narramine, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 18; digits 1; toes 2. Larger skink (No. 10208) measures 155 (88+67) mm.

#### RHODONA NICHOLLSI Loveridge

*Rhodona nichollsi* Loveridge, 1933, Occ. Pap. Boston Soc. Nat. Hist., 8, p. 97: Dalganger Station, 50 miles N.E. of Yalgoo, Western Australia.

Holotype (M. C. Z. 33252) Dalganger Stn., W. A. (G. E. Nicholls) 1931.

Midbody scale-rows 22; forelimb a bud, half as long as an adjacent scale; hind limb didactyle. Total length 127 (63+64) mm.

#### RHODONA MIOPUS (Günther)

*Soridia miopus* Günther, 1867, Ann. Mag. Nat. Hist., (3), 20, p. 49: Champion Bay, Western Australia.

3 (M. C. Z. 33259-61) Geraldton, W. A. (Harvard Exped.) 1931.

These specimens are topotypic. It will be noted that *lineata* also occurs at Geraldton.

Midbody scale-rows 20; forelimb a bud; toes 1 but Number 33259 undoubtedly shows a rudimentary stump of a second toe. Largest skink (No. 33259) measures 149 (88+61) mm.

#### RHODONA BIPES Fischer

*Rhodona bipes* Fischer, 1882, Arch. für Naturg, 48, p. 292, pl. xvi, figs. 10-15: Nicol Bay, Western Australia.

1 (M. C. Z. 32251) Wiluna, W. A. (Harvard Exped.) 1931.

1 (M. C. Z. 35349) Hermannsburg, N. T. (W. E. Schevill) 1932.

1 (M. C. Z. 35350) Anningie, N. T. (W. E. Schevill) 1932.

Anningie is about 30 miles W. of Teatree Well.

Midbody scale-rows 18 (Wiluna) to 20; forelimb absent; toes 2; frontoparietals and interparietal fused into a single shield. Largest skink (No. 35349) measures 99 (61+38) mm., but tail regenerated.

Lönnberg & Andersson (1913, p. 11) record 12 examples from Broome and the St. George Range in the interior of Kimberly district.

## RHODONA LINEATA (Gray)

*Soridia lineata* Gray, 1839, Ann. Nat. Hist., 2, p. 336: Australasia.

*Lygosoma praepeditum* Boulenger, 1887, Cat. Liz. Brit. Mus., 3, p. 337: *n.n.* for *lineata* preoccupied in genus *Lygosoma*.

1 (M. C. Z. 33262) Geraldton, W. A. (P. J. Darlington) 1931.

4 (M. C. Z. 33263-6) West Wallaby Id., W. A. (W. E. Schevill) 1931.

Midbody scale-rows 16; forelimb absent; toes 1; frontoparietals and interparietal fused into a single shield. Largest skink (No. 33265) measures 56 mm. from snout to anus, the tail is in process of regeneration.

It would appear that even if this skink is referred to the genus *Lygosoma*, the name *capensis* A. Smith should be employed rather than *praepeditum* proposed by Boulenger.

## LYGOSOMA DARLINGTONI Loveridge

*Lygosoma darlingtoni* Loveridge, 1933, Occ. Pap. Boston Soc. Nat. Hist., 8, p. 98: Millaa Millaa, Queensland.

Holotype (Queensland Museum) Millaa Millaa, Q. (P. J. Darlington) 1932.

Midbody scale-rows 22; limbs short, pentadactyle; lamellae beneath the fourth toe, 14. Total length 190 (75+115) mm.

## LYGOSOMA RETICULATUM (Günther)

*Chelomeles reticulatus* Günther, 1873, Ann. Mag. Nat. Hist., (4), p. 146: Clarence River, New South Wales.

1 (M. C. Z. 10256) Palmers Island, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 24; limbs tridactyle. Length from snout to anus 147 mm., tail in process of regeneration.

## LYGOSOMA VERREAUXII (A. Duméril)

*Anomalopus verreauxii* A. Duméril, 1851, Cat. Méthod. Coll. Rept. Paris, p. 185: Tasmania.

*S(iaphus) simplex* Cope, 1864, Proc. Acad. Nat. Sci. Philad., p. 229: Australia.

2 (M. C. Z. 10263-4) Gayndah, Q. (Australian Mus.) 1914.

1 (M. C. Z. 10543) S. Queensland (Queensland Mus.) 1914.

Midbody scale-rows 20; forelimb tridactyle, except on the right side of No. 10263 where it is obvious that the digits have been worn down; hind limb undivided. Largest skink (No. 10263) measures 211 (77+134) mm.

## LYGOSOMA LENTIGINOSUS (De Vis)

*Anomalopus lentiginosus* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W., (2), 2, p. 823: Brisbane, Queensland.

*Lygosoma verreauxii* var. *biunguiculata* Oudemans, 1894, in Semon's Zoöl. Forsch. in Austral., Jena, 8, p. 144: Burnett River, Queensland.

*Lygosoma bancrofti* Longman, 1916, Mem. Queensl. Mus., 5, p. 49: Upper Dawson River, Queensland.

1 (M. C. Z. 10228) Tamworth, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 10229) Moree, N. S. W. (Australian Mus.) 1914.

Midbody scale-rows 20-23 (Tamworth); forelimb didactyle; hind limb undivided. Larger skink (No. 10228) measures 228 (110+118) mm.

Received from the Australian Museum as *L. truncatum* (Peters), these skinks differ from Boulenger's (1887, p. 343) description (which was based on Peters' original as Boulenger had no specimens) in the following points:

Frontal forming a suture with the first two supraoculars (*not* first suprasciliary and first supraocular); clearly 4 (not 3) supraoculars; a pair of temporals and 5 or 6 scarcely differentiated scales border the parietals posteriorly (not a pair of temporals and a pair of nuchals); forelimb didactyle (not undivided). On this last character alone one might have postulated that Peters' type from Moreton Bay, Queensland had one claw worn off but for the fact that Longman (1916, p. 49) has recorded a second specimen from Moreton Island.

In this same paper, Longman describes *L. bancrofti* from a single skink but rejecting its synonymy with *lentiginosus* because Boulenger had synonymized the latter with *verreauxii* and because *lentiginosus* agreed with *verreauxii* in the possession of a white nuchal collar. It should be noted, however, that what De Vis states, is "a trace of a pale band across the occiput conspicuous in the young." As *lentiginosus* appears to be a further stage of degeneration from *verreauxii*, it is quite probable that the young would exhibit traces of the occipital band of the ancestral form though they might lose them when adult.

## LYGOSOMA FRONTALIS (De Vis)

*Ophioscincus frontalis* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2), 2, p. 823: Geraldton (since renamed Innisfail), Queensland.

1 (M. C. Z. 35448) Yungaburra, Q. (W. J. Davis) 1932.

Yungaburra is near Atherton. We are deeply indebted to Mr. W. J. Davis for this welcome gift to the Harvard Expedition.

Midbody scale-rows 31 (30 in the type); no limbs. Length from snout to anus 77 mm., tail truncated.

*L. frontalis* was synonymized with *L. ophioscincus* Boulenger; itself a synonym of *australis* (Peters) when *Lygosoma* is used in the present restricted sense. *L. ophioscincus* was proposed by Boulenger as a new name for *australis* in *Lygosoma*, preoccupied by *Sphenomorphus australis* (Gray), 1838, which Boulenger calls *Lygosoma lesueurii* Duméril & Bibron, 1839.

Peters does not state how many midbody scale-rows his *australis* had, but Boulenger possessed a topotype from the same source as Peters' type and gives it as 22. The coloration is also different from that of *frontalis*. Our specimen agrees with the latter both in number of scale-rows and in coloration.

#### ABLEPHARUS BOUTONII VIRGATUS Garman

*Ablepharus virgatus* Garmans, 1901, Bull. Mus. Comp. Zoöl., **39**, p. 10: Cooktown, Queensland.

*Cryptoblepharus boutonii peronii* Barbour, 1914, Proc. Biol. Soc. Washington, **27**, p. 204.

1 (M. C. Z. 4114) Island in Torres Straits (E. Gerrard) 1877.

Holotype (M. C. Z. 6485) Cooktown, Q. (E. A. Olive) 1896.

8 (M. C. Z. 9475-83) Mer, Murray Is., T. S. (H. L. Clark) 1913.

1 (M. C. Z. 9490) Darnley Island, T. S. (H. L. Clark) 1913.

1 (M. C. Z. 9496) Prince of Wales Id., T. S. (H. L. Clark) 1913.

Midbody scale-rows 20-26, average 22.5. Largest skink (No. 9480) measures 92 (38+54) mm., the holotype (No. 6485) measures 77 (40+37) mm.

This series agrees closely with the diagnosis given in Mertens' (1931, p. 113) most excellent revision of the races of *A. boutonii*; the only exception is the Darnley Island skink with 26 scale-rows, the average remains 22, as stated by Mertens.

#### ABLEPHARUS BOUTONII METALLICUS Boulenger

*Ablepharus boutonii* var. *metallicus* Boulenger, 1887, Cat. Liz. Brit. Mus., **3**, p. 347: North Australia.

*Ablepharus eximius* Garman (part; not of Girard), 1901, Bull. Mus. Comp. Zoöl., **39**, p. 10.

*Ablepharus boutoni australis* Sternfeld, 1918, Abhand. Senckenb. Naturf. Gesell., **36**, p. 424: Hermannsburg Mission, Upper Finke River, Northern Territory.

1 (M. C. Z. 6483) Nr. Cooktown, Q. (A. G. Mayer) 1896.

1 (M. C. Z. 31899) Nr. Emery Point, N. T. (H. L. Clark) 1929.

1 (M. C. Z. 33125) Geraldton, W. A. (P. J. Darlington) 1931.

1 (M. C. Z. 35317) Forest Creek, Q. (W. E. Schevill) 1932.

Emery Point is near Darwin; Forest Creek is near Iffley which is 115 miles south of Normanton, Queensland.

Midbody scale-rows 22-28. Largest skink (No. 35317) measures 99 (46+53) mm.

Number 6483 is the specimen referred by Garman to *eximius* together with true Fijian *eximius* brought back by the Barrier Reef Expedition. If it truly came from "near Cooktown" then it is a topotype of Garman's race *virgatus*. However, that is a very well defined race with which No. 6483 does not agree and it does conform to *metallicus*. It might be remembered that it was not catalogued until four years after its receipt and then as "*A. peronii* Cocteau." I prefer to suggest the possibility of an error as to its locality data.

One might have expected the Geraldton skink to have conformed to the Western Australian *plagiocephalus* but it appears indistinguishable from the other *metallicus*. Of this race Mertens had only the two cotypes of *australis* Sternfeld from Hermannsburg. These had a midbody scale-row count of 22-24, the Geraldton specimen has 28.

#### ABLEPHARUS BOUTONII PLAGIOCEPHALUS (Cocteau)

*Scincus plagiocephalus* Cocteau, 1836, Études Scinc. Cryptoblep. de Péron, (p. 7), pl. : Tasmania and Baie des Chiens Marins, Australia.

*Tiliqua Buchananii* Gray, 1839, Ann. Nat. Hist., **2**, p. 291: Australia.

*Ablepharus boutoni punctatus* Sternfeld, 1918, Abhand. Senckenb. Naturf. Gesell., **36**, p. 424: Western Australia.

1 (M. C. Z. 33124) Gorge, Hornsby, N. S. W. (Harvard Exped.) 1931.

1 (M. C. Z. 35318) Herveys Range, N. S. W. (W. E. Schevill) 1932.

Midbody scale-rows 22-24. Larger skink (No. 33124) measures 81 (35+46) mm.

I follow Mertens (1931, p. 116) in using this name and in the synonymy given above. While the Herveys Range specimen conforms to the color description given by Mertens, the other is almost uniformly black above, except for the pair of very sharply defined, white, dorso-lateral lines originating in the supraocular region.

## ABLEPHARUS LINEOCELLATUS LINEOCELLATUS Duméril &amp; Bibron

*Ablepharus lineo-ocellatus* Duméril & Bibron, 1839, *Erpét. Gén.*, 5, p. 817: Australia.

- 1 (M. C. Z. 24548) Augusta, W. A. (W. S. Brooks) 1927.
- 2 (M. C. Z. 33131-2, 33237) Perth, W. A. (Harvard Exped.) 1931.
- 3 (M. C. Z. 33133-5) Rottnest Id., W. A. (Harvard Exped.) 1931.
- 6 (M. C. Z. 33137-42) West Wallaby Id., W. A. (Harvard Exped.) 1931.
- 8 (M. C. Z. 33143-50) Walleliffe, W. A. (Harvard Exped.) 1931.
- 1 (M. C. Z. 33151) Bridgetown, W. A. (Harvard Exped.) 1931.
- 1 (M. C. Z. 35337) Hermannsburg, N. T. (W. E. Schevill) 1932.

Walleliffe is near Margaret River.

Midbody scale-rows 24-30 (only No. 33137 with 30), average 26; supranasals absent in all except Nos. 33131 and 33134; No. 24548 has an incomplete groove on the right side above the nostril. Largest skink (No. 33139) measures 125 (46+79) mm.

The typical form may be distinguished from the eastern race by its *usually* lacking supranasals and a lower *average* number of midbody scale-rows.

## ABLEPHARUS LINEOCELLATUS ANOMALUS (Gray)

*Morethia anomalus* Gray, 1844, *Zoöl. Erebus & Terror, Rept.*, p. 4, pl. v, fig. 1: Western Australia.

- 1 (M. C. Z. 5253) No locality (H. A. Ward) 1884.
- 2 (M. C. Z. 5784) "S. W. Australia?" (Peabody Mus.) N. D.
- 1 (M. C. Z. 10245) Boggabri, N. S. W. (Australian Mus.) 1914.
- 1 (M. C. Z. 10246) Dubbo, N. S. W. (Australian Mus.) 1914.
- 2 (M. C. Z. 10247-8) Moloch, N. S. W. (Australian Mus.) 1914.
- 2 (M. C. Z. 10249-50) Bathurst, N. S. W. (Australian Mus.) 1914.
- 1 (M. C. Z. 35319) Mt. Coolon, Q. (W. E. Schevill) 1932.

The locality Moloch, clearly entered in our register, may possibly be Molong?

Midbody scale-rows 28-30, average 28.6; supranasals present in all. Largest skink (No. 5784) measures 55 mm. from snout to anus, tail missing.

It is unfortunate that the type of *anomalus* happened to be one of the rare Western individuals with supranasals present; I am restricting its use here to the eastern skinks which are characterized by the almost invariable presence of supranasals and a higher average number of midbody scale-rows.

Number 5784 (2 examples) were registered as "*Morethia anomalus* Gray" with "? S. W. Australia" for locality. Later "Types of *Panaspis*

*aeneus* Cope" was added. *Panaspis aeneus*, however, had 24 midbody scale-rows, frontoparietals and interparietal distinct, and was identified by Boulenger as a southwest African species. At the time of its description Cope was uncertain whether the type came from southwest Australia or southwest Africa. Our two specimens have little in common with the description of *aeneus*.

#### ABLEPHARUS TAENIOPLEURUS Peters

*Ablepharus (Morethia) taeniopleurus* Peters, 1874, Monatsb. Akad. Wiss. Berlin, p. 375: Port Bowen, Queensland.

*Ablepharus lineo-ocellatus* var. *ruficaudus* Lucas & Frost, 1895, Proc. Roy. Soc. Victoria, 7, p. 269: Reedy Hole, Northern Territory.

1 (M. C. Z. 35320) Pelican Bore, Queensland (W. E. Schevill) 1932.

2 (M. C. Z. 35321-2) Coen, Cape York, Q. (P. J. Darlington) 1932.

Pelican Bore is on Charlotte Plains near Hughenden.

Midbody scale-rows 26-28. Largest skink (No. 35321) measures 112 (40+72) mm.

*A. ruficaudus* appears to have been differentiated from *lineoocellatus* by just those characters which separate the latter from *taeniopleurus*. Our fresh material possess red tails and agree well with the excellent colored plate of the type of *ruficaudus* given by Lucas & Frost (1896, pl. x, fig. 3) in the report on the Horn Expedition.

#### ABLEPHARUS GREYII (Gray)

*Menetia greyii* Gray, 1844, Zoöl. Erebus & Terror, Rept., pl. v, fig. 4: Western Australia.

2 (M. C. Z. 10296, 11802) Warren, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 33127) Caron, W. A. (Harvard Exped.) 1931.

2 (M. C. Z. 33128-9) Meekatharra, W. A. (Harvard Exped.) 1931.

1 (M. C. Z. 33130) Geraldton, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 22-24; frontoparietal single; interparietal distinct; digits 4; toes 5. Largest skink (No. 33128) measures 79 (31+48).

#### ABLEPHARUS BURNETTI Oudemans

*Ablepharus burnetti* Oudemans, 1894, in Semon's Zoöl. Forsch. in Austral., Jena, 8, p. 145: Burnett River, Queensland.

*Ablepharus heteropus* Garman, 1901, Bull. Mus. Comp. Zoöl., 39, p. 9: Great Barrier Reef, Queensland.

Holotype (M. C. Z. 6486) Great Barrier Reef, Q. (Barrier Reef Exped.) 1896.

Midbody scale-rows 24; frontoparietal single; interparietal distinct digits 4; toes 5. Total length 57 (26+31) mm.



## ABLEPHARUS TIMIDUS De Vis

*Ablepharus timidus* De Vis, 1888 (1887), Proc. Linn. Soc. N. S. W. (2), 2, p. 824: Charleville, Queensland.

*Ablepharus rhodonoïdes* Lucas & Frost, 1896, Proc. Linn. Soc. N. S. W., 21, p. 281: Mildura, Victoria.

2 (M. C. Z. 10217-8) Moloch, N. S. W. (Australian Mus.) 1914.

1 (M. C. Z. 33152) Lake Violet, W. A. (W. E. Schevill) 1931.

2 (M. C. Z. 33153-4) Mullewa, W. A. (Harvard Exped.) 1931.

Midbody scale-rows 20; digits 3; toes 3. Largest skink (No. 10217) measures 86 (46+40) mm.

## ABLEPHARUS ELEGANS (Gray)

*Miculia elegans* Gray, 1844, Zoöl. Erebus & Terror, Rept., pl. v, fig. 3: Western Australia.

1 (M. C. Z. 33126) West Wallaby Id., W. A. (W. E. Schevill) 1931.

1 (M. C. Z. 33136) Rottnest Island, W. A. (P. J. Darlington) 1931.

Midbody scale-rows 16; rostral well separated from the frontonasal; digits 4; toes 4. Larger Skink (No. 33126) measures 84 (38+46) mm.

## ABLEPHARUS DISTINGUENDUS Werner

*Ablepharus distinguendus* Werner, 1910, in Michaelsen & Hartmeyer's Fauna Südwest-Austral., 2, p. 490: Obelisk Hill, Fremantle, Western Australia.

1 (M. C. Z. 24547) Geraldton, W. A. (J. Clark) 1927.

Midbody scale-rows 20; rostral in contact with the frontonasal; digits 4; toes 4. Total length 84 (37+47) mm.

Werner has separated *distinguendus* from *elegans* on the basis of its possessing 18 midbody scale-rows and the posteriorly angular rostral being in contact with the frontonasal; also color. On geographical grounds one would have expected the West Wallaby and Rottnest Island forms to have conformed rather to the Fremantle species than to *elegans*.

## TROPIDOPHORUS QUEENSLANDIAE De Vis

*Tropidophorus queenslandiae* De Vis, 1890, Proc. Linn. Soc. N. S. W., (2), 4, p. 1034: Herberton and Bellenden Ker, Queensland.

2 (M. C. Z. 10289-90) Mt. Bartle Frere, Q. (Australian Mus.) 1914.

2 (M. C. Z. 35323-4) Mt. Spurgeon, Q. (P. J. Darlington) 1932.

2 (M. C. Z. 35325-6) Lake Barrine, Q. (P. J. Darlington) 1932.

12 (M. C. Z. 35327-36) Millaa Millaa, Q. (P. J. Darlington) 1932.

Midbody scale-rows 34-38, average 35.5; frontoparietals 2; a pair of enormously enlarged preanals; upper head shields strongly rugose; dorsals and ventrals strongly keeled. Largest skink (No. 35323) measures 176 (86+90) mm.

In recent years this interesting rain-forest form has been recorded from Atherton by Lönnberg & Andersson (1915, p. 4) and from Ravenshoe by Procter (1923, p. 1073). The smaller nuchal scalation marks it off as very distinct from its Papuan allies.

## BIBLIOGRAPHY

## BARBOUR, T.

1914. "On Some Australasian Reptiles." Proc. Biol. Soc. Washington, **27**, pp. 201-206.

## BOULENGER, G. A.

- 1885-1887. "Catalogue of the Lizards in the British Museum." London. Vols. **1-3**.  
 1889. "Catalogue of the Chelonians, Rhynchocephalians, and Crocodiles in the British Museum." London.  
 1893-1896. "Catalogue of the Snakes in the British Museum." London. Vols. **1-3**.

## FRY, D. B.

1913. "On the status of *Chelonia depressa* Garman." Rec. Austral. Mus., **10**, pp. 159-185, pls. xix-xxii, and text-figs.  
 1914. "On a Collection of Reptiles and Batrachians from Western Australia." Rec. W. Austral. Mus., Perth, **1**, pp. 174-210, pls. xxvii-xxviii.  
 1915. "Herpetological Notes." Proc. Roy. Soc. Queensl., Brisbane, **27**, pp. 60-95, pls. i-iv.

## GARMAN, S.

1901. "Reptiles and Batrachians from Australia." Bull. Mus. Comp. Zool., **39**, pp. 1-14.

## GLAUERT, L.

1923. "Contributions to the Fauna of Western Australia." Journ. Roy. Soc. West. Austral., Perth, **9**, pp. 57-60.  
 1928. "The Vertebrate Fauna of Western Australia." Journ. Roy. Soc. West. Austral., Perth, **14**, pp. 61-77.  
 1929. "Contributions to the Fauna of Rottneest Island." Journ. Roy. Soc. West Austral., Perth, **15**, pp. 43-45.

## KINGHORN, J. R.

1920. "Studies in Australian Reptiles No. 1." Rec. Austral. Mus., Sydney, **13**, pp. 110-117, figs. i-vii, pl. xx.
1921. "Studies in Australian Reptiles. No. 2". Rec. Austral. Mus., Sydney, **13**, pp. 143-154, figs. i-ix.
1926. "A brief review of the family Pygopodidae." Rec. Austral. Mus., Sydney, **15**, pp. 40-64, figs. i-xix.
1926. "Note on *Pseudelaps minutus* Fry." Rec. Austral. Mus., Sydney, **15**, p. 65.
1929. "The Snakes of Australia." Sydney, pp. 1-200, 137 colored figs.
1929. "Herpetological Notes. No. 1." Rec. Austral. Mus., Sydney, **17**, pp. 76-84.
1931. "Herpetological Notes. No. 2". Rec. Austral. Mus., Sydney, **18**, pp. 85-91.
1932. "Herpetological Notes. No. 4." Rec. Austral. Mus., Sydney, **18**, pp. 355-363.

## LONGMAN, H. A.

1912. "Herpetological Notes." Mem. Queensl. Mus., Brisbane, **1**, pp. 23-25.
1915. "Reptiles from Queensland and the Northern Territory." Mem. Queensl. Mus., Brisbane, **3**, pp. 30-34, pls. xiv-xv.
1916. "Snakes and lizards from Queensland and the Northern Territory." Mem. Queensl. Mus., Brisbane, **5**, pp. 46-51, pl. vi.
1918. "Notes on some Queensland and Papuan Reptiles." Mem. Queensl. Mus., Brisbane, **6**, pp. 37-44, pls. xi-xv.
1925. "*Crocodylus johnsoni* Krefft." Mem. Queensl. Mus., Brisbane, **8**, pp. 95-102, pls. xxiii-xxiv.

## LÖNNBERG, E., AND ANDERSSON, L. G.

1913. "Reptiles." (Results of Dr. E. Mjöberg's Swedish scientific expedition to Australia 1910-1913) Svenska. Vetensk.-Akad. Handl., Stockholm, **52**, No. 3, pp. 1-17.
1915. "Reptiles collected in Northern Queensland." (Results of Dr. E. Mjöberg's Swedish scientific expedition to Australia 1910-1913) Svenska. Ventensk.-Akad. Handl., Stockholm, **52**, No. 7, pp. 1-9.

## LOVERIDGE, A.

1932. "New Lizards of the genera *Nephrurus* and *Amphibolurus* from Western Australia." Proc. New England Zoöl. Club, **13**, pp. 31-34.
1933. "New agamid Lizards of the genera *Amphibolurus* and *Physignathus* from Australia." Proc. New England Zoöl. Club, **13** pp. 69-72.
1933. "New scincid Lizards of the genera *Sphenomorphus*, *Rhodona* and *Lygosoma* from Australia." Occ. Pap. Boston Soc. Nat. Hist., **8**, pp. 95-100.

1933. "Reports on the Scientific Results of an Expedition to the South-western Highlands of Tanganyika Territory, VII, Herpetology." Bull. Mus. Comp. Zool. **74**, 7, pp. 195-416, 3 plates.
- LUCAS, A. H. S., AND FROST, C.  
1896. "On the Reptiles of the Horn Expedition." Rep. Horn Exped., **2**, pp. 112-151, pls. viii-xii.
- LUCAS, A. H. S., AND LE SOUEF, W. H. D.  
1909. "The Animals of Australia." Sydney. Many pls. and text figs.
- MERTENS, ROBERT  
1931. "Ablepharus boutonii (Desjardin) und seine geographische Variation." Zoöl. Jahrb., **61**, pp. 63-210, pls. ii-iv, and text-figs.
- PARKER, H. W.  
1926. "New Reptiles and a New Frog from Queensland." Ann. Mag. Nat. Hist. (9), **17**, pp. 665-670, figs. i-iii.
- PROCTER, J. B.  
1923. "On New and Rare Reptiles and Batrachians from the Australian Region." Proc. Zoöl. Soc. London, pp. 1069-1077, figs. 3-4.
- ROOIJ, N. DE  
1915. "The Reptiles of the Indo-Australian Archipelago, **1**, Lacertilia, Chelonia, Emydosauria." Leiden, pp. 384, text-figs.  
1917. "The Reptiles of the Indo-Australian Archipelago, **2**, Ophidia." Leiden, pp. 334, text-figs.
- SEBA, ALBERTUS  
1735. "Rer. Nat. Thesaurus," **2**, Amsterdam, pp. 154, pls. i-cxiv.
- SIEBENROCK, F.  
1909. "Synopsis der rezenten Schildkröten." Zoöl. Jahrb., Suppl. **10**, pp. 427-618.
- SMITH, MALCOLM  
1926. "Monograph of the Sea Snakes." London, pp. 130, pls. i-ii.  
1927. "Contributions to the herpetology of the Indo-Australian region." Proc. Zool. Soc. London, pp. 199-225, pls. i-ii, and text-figs.
- STERNFELD, R.  
1919. "Neue Schlangen und Eidechsen aus Zentralaustralien." Mitt. Senckenb. Ges., Frankfurt a Main, **1**, pp. 76-82.  
1925. "Beiträge zur Herpetologie Inner-Australiens." Abhan. Senckenb. Frankfurt a Main, **38**, pp. 221-251.
- STULL, O. G.  
1932. "Five new subspecies of the family Boidae." Occ. Pap. Boston Soc. Nat. Hist." **8**, pp. 25-30, pls. 1-2.

## THOMSON, D. F.

1930. "Observations on the venom of . . . *Pseudechis australis* (Gray): 1, Synonymy." Austral. Journ. Exper. Biol. & Med. Sci., **7**, pp. 125-133, text-figs.

## WAITE, E. R.

1915. "Scientific Notes on an Expedition into the Northwestern Regions of South Australia. Ophidia." Trans. Roy. Soc. S. Austral., Adelaide, **39**, pp. 737-739.
1917. "Results of the South Australian Museum Exped. to Strzelecki and Cooper Creeks, Sept. and Oct., 1916. Mammalia and Ophidia." Trans. Roy. Soc. S. Austral., Adelaide, **41**, pp. 430-440.

## WAITE, E. R., AND LONGMAN, H. A.

1920. "Descriptions of Little-known Australian Snakes." Rec. S. Austral. Mus., **1**, pp. 173-180, pl. xxvii, text-figs.

## WERNER, F.

1909. "Reptilia exkl. Geckonidae und Scincidae" in Michaelsen, W. und Hartmeyer, R. (1914), Die Fauna Südwest-Australiens. Jena (G. Fischer), **4**, pp. 251-278, 2 plates.
1910. "Reptilia (Geckonidae und Scincidae)" in Michaelsen, W. und Hartmeyer, R. (1914), Die Fauna Südwest-Australiens, Jena (G. Fischer), **4**, pp. 451-493.

## ZIETZ, F. R.

1914. "Scientific Notes on an Expedition into the Interior of Australia. Lacertilia." Trans. Roy. Soc. S. Austral., Adelaide, **38**, pp. 440-444.
1915. "Scientific Notes on an Expedition into the Northwestern Regions of South Australia. Lacertilia." Trans. Roy. Soc. S. Austral., Adelaide, **39**, pp. 766-769.
1920. "Catalogue of Australian Lizards." Rec. S. Austral. Mus., **1**, pp. 181-228.