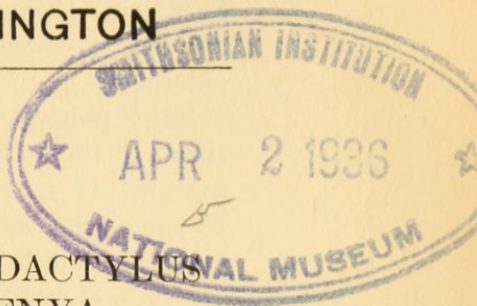


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NEW GECKOS OF THE GENUS *LYGODACTYLUS*  
FROM SOMALILAND, SUDAN, KENYA,  
AND TANGANYIKA.

BY ARTHUR LOVERIDGE.

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Recently, as a fellow of the John Simon Guggenheim Foundation, I was enabled to visit Kibwezi, Kenya Colony, the type locality of *Lygodactylus fischeri scheffleri* Sternfeld (1912, Wiss. Ergeb. der Deut. Zentral-Afrika-Exped. 1907-1908, 4, p. 206), the smallest gecko of the whole genus. Though I failed to procure topotypes, I collected a male in the gallery forest fringing the Voi River eighty miles away. This specimen undoubtedly represents *scheffleri*, hitherto known only from the two types.

The vicissitudes through which the name has passed are many, even including being synonymized with *fischeri* Boulenger, 1890, of Sierra Leone and Cameroon! I might state, however, that its broad, blunt snout immediately shows that it has little close relationship with the narrow, acuminate-snouted *fischeri*.

In endeavouring to straighten out the contradictory tangle of opinions revolving about *scheffleri*, I became involved in a complete revision of the whole genus. The present paper deals with certain undescribed but recognizable forms which have come to my notice during this investigation.

In 1932, Mr. H. W. Parker (Proc. Zool. Soc. London, p. 302), with considerable misgivings, tentatively referred certain geckos from British Somaliland to *scheffleri*, which he made a race of *capensis*, correctly recognizing their affinities with both. I have now to thank him for generously placing this material at my disposal for study.

This material came from two districts, those from one locality agreeing with *ocellatus*, *thomensis* and the *picturatus* group in having an entire mental, those from the other locality agree with *capensis*. *scheffleri* and *fischeri* in having a deeply fissured mental. So closely similar are both series in all other characters, however, that they undoubtedly represent one species, yet so constant have I found these characters of the mental in



some hundreds of *Lygodactyli* examined that I am forced to suggest a racial name for those with a deeply fissured mental. In brief, these Somaliland geckos appear to me to represent one fairly primitive, but divergent, species, in which the two median rows of the subcaudals are transversely enlarged.

Since penning the foregoing paragraphs, I have had the opportunity, through the generosity of Dr. G. Scortecci of the Milan Museum, to examine 17 specimens of this group from Italian Somaliland. Of these 16 agree with the Buran, British Somaliland material, in having a deeply fissured mental. One of two geckos from Bera, I. S., however, agrees with the typical form. It should be noted that Buran is nearer to the border of Italian Somaliland than is Bar Madobe, Nogal Valley, British Somaliland, whence come the typical form for which I propose the name:

***Lygodactylus somalicus somalicus*, sp. nov.**

*Type*.—Museum of Comparative Zoölogy, No. 35,558. An adult ♂ from Bar Madobe, Nogal Valley, 2,300 feet, British Somaliland, collected by Lieut. R. H. R. Taylor, R. A., in 1929–1930.

*Paratypes*.—Two males and four females in the Museum of Comparative Zoölogy (No. 35,559) and British Museum Nos. 295–299), with the same history as the type.

*Diagnosis*.—By having the two median rows of subcaudals transversely enlarged, the new species differs from *capensis* of South and East Africa; by color pattern, size, and having its supranasals separated by 3 granules in 86% (2 granules in only one of the seven types), it differs from *scheffleri* of Kenya Colony, which has the supranasals in contact, also from *conradsi* of Tanganyika Territory in 92% of which the supranasals are separated by a single scale, in 8% they are in contact. The blunt, broad snout of *somalicus* immediately distinguishes it from the long-snouted *fischeri* of West Africa.

*Description*.—Upper labials 6–6 (range 6–7, average 6 for 14 counts); lower labials 6–6 (range 5–6, average 6 for 14 counts); nostril placed above the suture between rostral and first upper labial, between the rostral, first labial and 2 nasals (sometimes slightly separated from the postnasal by a narrow rim resulting from an upward prolongation of the first labial); supranasals separated by 3 (except in one specimen which has only 2) granules; mental entire but deeply concave posteriorly to accommodate a large postmental which is followed by 3 smaller ones; preanals 6 (in all three males); two median rows of subcaudals transversely enlarged.

*Coloration*.—In alcohol. ♂ type. Above, ashy brown; a slightly darker area forming a broad, though indistinct, vertebral band which narrows and deepens to form a distinct line upon the tail; a dark streak from the nostril, through the eye to the fore arm, in some specimens more or less continuous along the flanks. Below, pure white, immaculate.

*Measurements*.—The ♂ type measures 50 (25 + 25) mm., a ♀ paratype (M.C.Z. 25,559) 52 (30 + 22) mm., the tail in process of regeneration.

*Range*.—From the type locality in the Nogal Valley southeast to Bera



(Beira), Italian Somaliland, where it meets with the eastern form, which may be called:

***Lygodactylus somalicus annectens*, subsp. nov.**

*Type*.—British Museum, No. 268. An adult ♀ from Buran District, 3,100 feet, British Somaliland, collected by Lieut. R. H. R. Taylor, R. A., in 1929–1930.

*Paratype*.—British Museum, No. 270, of the same sex and history as the type, also seven males and nine females in the Milan Museum (Nos. 268, 270, 1040, 1248–50) from the following localities in Italian Somaliland (from north to south): Bera (Beira); Rocca Littoria; Garoe; Aroe near Obbia; Villa Duca d'Abruzzi near Mogadish; Gelib-Bidi on the Juba River, collected by Dr. G. Scortecchi and Signor U. Fiechter in 1930 and 1931.

*Diagnosis*.—Differs only from the typical form in that the mental is deeply fissured, not forming a large postmental; a character which is constant and diagnostic in all other members of the genus.

*Description*.—Upper labials 7–6 (range 6–9, average 7 for 36 counts); lower labials 6–7 (range 6–9, average 7 for 36 counts); supranasals separated by 1–4 granules (usually 2); mental deeply fissured posteriorly, the fissures not uniting to cut off a large postmental, however.

*Measurements*.—The ♀ type measures 53 (27 + 26) mm., the largest ♂ (which is from Villa Duca d'Abruzzi) measures 61 (29 + 32) mm., several ♀ ♀ (from this locality) are about 56 (30 + 26) mm.

*Remarks*.—It will be noted that there are certain average differences which may not hold when larger series are available, thus the typical form averages 6 upper and 6 lower labials and usually 3 granules between the nasals. The race *annectens* averages 7 upper and 7 lower labials and usually has 2 or 1 granules separating the nasals, only the Garoe gecko has more than 2, having 4 such granules.

*Range*.—From the type locality in the Buran District, on the British-Italian boundary between 10° 5' N. and 10° 50' N., eastwards and southwards throughout Italian Somaliland.

***Lygodactylus picturatus sudanensis*, subsp. nov.**

*Type*.—Museum of Comparative Zoölogy, No. 8,800. An adult ♂ from Abu Zor, Senaar, Anglo-Egyptian Sudan, collected by Dr. Glover M. Allen, 1913.

*Paratypes*.—Four males and three females in the Museum of Comparative Zoölogy and the British Museum as follows: M.C.Z. Nos. 8,799 and 8,801 with the same history as the type; No. 8,796 from El Mesherat, Senaar; No. 8,802 and Brit. Mus. No. 1908–5–19–7 from Roseires, Blue Nile, Senaar, collected by Dr. G. M. Allen and Major S. S. Flower, respectively; Brit. Mus. No. 1927–8–13–16 from Singa, Blue Nile, Senaar, also collected by Major S. S. Flower; Brit. Mus. No. 1907–10–24–4 from between Wau and Chak Chak, Bahr el Ghazel Province, Sudan, collected by Mr. A. L. Butler.



In addition, a female, Milan Museum, No. 1,200, from Cunama, Eritrea, which conforms to the Sudan specimens in all respects but whose scale counts are not included in the following description.

*Diagnosis.*—Differs from all other described races of *picturatus* in the conspicuous black median streak on the throat of the male which is fused with an inner  $\cap$ -shaped marking, uniting, or just failing to unite it with the outer  $\cap$ -shaped marking, and usually fused with a posterior basal patch or blotch which rarely retains any resemblance to the third chevron of *L. p. gutturalis* (Bocage). Throat of female immaculate white.

*Description.*—Upper labials 6–7 (range 6–9, average 7.4 for 16 counts); lower labials 6–6 (range 6–8, average 6.5 for 16 counts); nostril between the first upper labial and 3 (range 2–3) nasals, frequently separated from the lower postnasal by a narrow rim resulting from an upper prolongation of the first labial; supranasals separated by 2 (range 1–3) granules (or by an upward and backward prolongation of the rostral in the Singa gecko); mental entire; postmentals 3 (except in one specimen which has only 2 and another with 4); preanal pores 7 (range 7–8, only one of the 5 males has 8).

*Coloration.*—In alcohol. ♂ type. Above, uniformly pale olive, a burnt sienna (or black) line from nostril through eye to the flank where it terminates behind fore arm by giving off one or two spots; a second, but shorter, line from the commissure of the mouth; a black spot on the middle of the snout; an undulating transverse bar across the forehead connecting the orbits anteriorly; two or three more or less parallel series of short, longitudinal, brown streaks on the occiput, nape and anterior portion of back; the outermost black chevron of the throat extends backwards and upwards to above the base of the fore arm. Below white, the throat with black markings as described in the diagnosis.

*Measurements.*—The ♂ type measures 66 (34 + 32) mm., but is surpassed in body length by 3 mm., in tail length by 4 mm., by two others. The ♀ paratypes measure 36, 34 and 33 mm. from snout to anus, their tails being regenerated or missing.

#### ***Lygodactylus picturatus mombasicus*, subsp. nov.**

*Type.*—Museum of Comparative Zoölogy, No. 30,590. An adult ♂ from Kilindini, Mombasa Island, Kenya Colony, collected by Arthur Loveridge, October 28, 1929. (Cf. coloured figure of type in Bull. Mus. Comp. Zoöl., 1933, 74, pl. i, fig. 2.)

*Paratypes.*—Museum of Comparative Zoölogy series of 34 males and 29 females from Kilindini (12); Frere Town (8); Golbanti (3); Ngatana (30); Witu (4); Lamu Island (2); Manda Island (1); Guaso Nyiro Plains and vicinity (3). All in Kenya Colony.

*Diagnosis.*—Differs from *L. p. picturatus* of Zanzibar Island and Tanganyika in its head and shoulders being white, instead of bright mustard-yellow, typically (*i. e.* along the coast northwards from Mombasa and not in the area of intergrades westwards from Mombasa to Kibwezi) the black markings on head and shoulders are strikingly different.

Differs from *L. p. ukerewensis* of Ukerewe Island and southwestern



Kenya in its more slender habit, unspotted labials which at most have only their buccal edges tipped with brown, absence of a dorso-lateral series of ocelli.

Differs from *L. p. gutturalis* of northwestern Kenya and Portuguese Guinea in the absence of gular chevrons, the throat of the male of *mom-basicus* being normally entirely black.

*Description*.—Upper labials 7–7 (range 7–10, average 8.0 for 118 counts); lower labials 7–7 (range 6–9, average 6.8 for 118 counts); nostril between the first upper labial and 3 (rarely 2) nasals, frequently separated from the lower postnasal by a narrow rim resulting from an upward prolongation of the first labial; supranasals separated by 2 (range 1–2 in the ratio of 35 to 25) granules; mental entire; postmentals 3 (except in two specimens which have only 2); preanal pores 10 (range 7–11, average 8.8 for 34 males).

*Coloration*.—In alcohol. ♂ type. Above, faintly bluish-white on head, a broad black band from nostril narrowing to eye, broadening behind eye and continuing to shoulder, a finer line on edge of lips extends from angle of mouth to, and along, fore arm; an M-like mark between eyes, another resembling two fused blotches on occiput (commonly fused to form a gridiron-like pattern), a third mark on nape with down-pointing prolongations which unite with the lateral band first mentioned; another pair of blotches, slightly fused anteriorly, on back; two series of dusky blotches along either side of the vertebral line of the dorsum (at Ngatana and Kibwezi fused to form conspicuous black and well-defined dorsolateral bands) which is olivaceous grey; tail bluish-grey. Below, white, throat (which is normally entirely black in males) with a black chevron-shaped band following the outline of the jaws and extending backwards, as a pair of lines, almost to the axilla, this outer chevron-shaped mark fused anteriorly with an inner chevron-shaped mark. In females these chevrons are wholly absent or may be faintly represented.

*Measurements*.—The ♂ type measures 80 (39 + 41) mm., and is only surpassed by one other with a tail a millimetre longer. The largest ♀ ♀ (M.C.Z. 18537, 18539) measure 67 (37 + 30) mm.

***Lygodactylus picturatus ukerewensis*, subsp. nov.**

*Type*.—Museum of Comparative Zoölogy, No. 30,542. An adult ♂ from Ukerewe Island, Lake Victoria, Tanganyika Territory, collected by Arthur Loveridge, June 10, 1930.

*Paratypes*. Museum of Comparative Zoölogy series of 34 males and 14 females with same data as type, but collected June 10–12, 1930, also a pair (♂, ♀) from Loita Plains, southern Masai Reserve, Kenya Colony, at 7,000 feet, collected by C. P. Curtis in 1923.

*Diagnosis*.—No yellow coloring; snout black, crown of head white heavily marked with black, frequently a cruciform marking in prefrontal region, at least a longitudinal streak; a prominent series of dorsolateral ocelli. Below, males with black throats, the black prolonged posteriorly to level of forearms as lines or vermiculations, sometimes a light  $\cap$ -shaped patch separating the black chin patch from a black posterior area.

*Description*.—Upper labials 7–7 (range 6–9, average 6.99 for 104 counts);



lower labials 6-6 (range 5-7, average 6.15 for 104 counts); nostril between the first upper labial and 3 (rarely 2) nasals, frequently separated from the lower postnasal by a narrow rim resulting from an upward prolongation of the first labial; supranasal separated by 2 (range 1-3 in the ratio of 15-34-2) granules; mental entire; postmentals 3 (except in two specimens, one of which has 2, the other 4); preanal pores 7 (ranges 6-9, average 7.5 for 34 males).

*Coloration.*—In alcohol. ♂ type. Above, grey, a transverse white band across the head from in front of ear, through eye, across prefrontal region, rest of head mottled and marbled with black; a dorsolateral line of black-edged ocelli; three rows of interrupted, but conspicuous black stripes on side of head and neck, one from the gular patch continuing on to fore arm. Throat black, posteriorly with four indentations of white from the breast; rest of undersurface white except for a dusky line along the underside of tail.

*Measurements.*—The ♂ type measures 90 (42 + 48) mm., the largest ♀ paratype (M. C. Z. 30544) measures 74 (37 + 37) mm.



Loveridge, Arthur. 1935. "New geckos of the genus *Lygodactylus* from Somaliland, Sudan, Kenya, and Tanganyika." *Proceedings of the Biological Society of Washington* 48, 195–200.

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