On some Reptiles collected by Sig. L. BRICCHETTI ROBECCHI in Somaliland. By G. A. BOULENGER. (Pl. I).

The Italian Geographical Society recently sent out Engineer L. Bricchetti Robecchi on a second expedition to Somaliland. After a stay of some time at Obbia, on the southern coast, Sr. Robecchi undertook to traverse the country right across from Obbia to Berbera, he being the first European traveller to accomplish this difficult journey. It was not his intention to make a regular collection of Reptiles; all he did was to pick up such small specimens as he came across. He may therefore be congratulated on his success, considering that out of the twelve species of which he brought home examples, three prove to be new. The *Rhampholeon*, with which I have much pleasure to connect the name of its discoverer, is a most important addition to a genus of Chameleons of which but two species were previously known. I am indebted to the President of the Italian Geographical Society, the Marquis G. Doria, for the opportunity of working out this very interesting little collection.
1. Pristurus crucifer, Val.

Numerous specimens. Obbia and route from Obbia to Berbera.

The largest measures 35 millim. from snout to vent. The tail is very slightly compressed, not at all keeled. This lizard holds, in fact, an intermediate position between Pristurus and Agamura. The nostril is pierced between two, three, or four nasals; the upper labials vary in number from four to six, and there are four or five lower labials. Some specimens have a light vertebral stripe, others not; the sides are often ornamented with small bright orange or brick-red spots or interrupted lines.

P. crucifer is known from Abyssinia (Valenciennes), Somaliland (Révoil, Robecchi), Assab (Doria) and Aden (Doria).

2. Hemidactylus mabuia, Moc.

A single specimen. Obbia.

3. Lygodactylus picturatus, Peters.

A single specimen, without tail. Route from Obbia to Berbera.

Although a male, the specimen shows no trace of black colour on the throat; it has only six preanal pores. In other respects, it agrees well enough with L. picturatus, of which specimens from Somaliland, received from the Paris Museum, are preserved in the British Museum.

4. Agama robecchii, sp. n. (Pl. I, fig. 1).

A single specimen. Route from Obbia to Berbera.

Head short, thick, very convex. Nostril not tubular, directed upwards, pierced in the posterior part of a slightly swollen nasal just above the canthus rostralis. Upper head-scales convex, smooth; six scales in a transverse series between the nasals, four between the orbits; occipital not enlarged; no spines on
the hinder part of the head, no fringe above the ear; a few conical, erect scales below and behind the ear; ear-opening quite as large as the eye-opening. No gular pouch. Body short, much depressed, covered above with small, irregular, imbricate, keeled scales, largest in the middle, and intermixed with enlarged, strongly keeled or conical ones; limbs with uniform, strongly keeled scales; gular and ventral scales smooth or indistinctly keeled. Limbs moderate; the adpressed hind limb reaches between the ear and the eye; tibia as long as the skull; third and fourth fingers equal; fourth toe slightly longer than third, fifth not extending quite so far as first. Tail cylindrical, slender, nearly as long as head and body. A double row of anal pores. Greyish brown above, with traces of darker, light-edged spots; throat with bluish-grey longitudinal lines.

The single specimen is a male.

<table>
<thead>
<tr>
<th>Total length</th>
<th>129 millim.</th>
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<tbody>
<tr>
<td>Head</td>
<td>19 &quot;</td>
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<tr>
<td>Width of head</td>
<td>18 &quot;</td>
</tr>
<tr>
<td>Body</td>
<td>48 &quot;</td>
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<tr>
<td>Fore limb</td>
<td>40 &quot;</td>
</tr>
<tr>
<td>Hind limb</td>
<td>51 &quot;</td>
</tr>
<tr>
<td>Tail</td>
<td>62 &quot;</td>
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</table>

This new species comes nearest to *A. pallida*, Reuss, from which it differs chiefly in the very slight difference in length between the third and fourth toes, the larger ear-opening and the absence of a fringe of scales above it, and the more strongly keeled dorsal scales.


Three specimens. Route from Obbia to Berbera.

These specimens are young, and agree in colour with *Eremias revoldi* as figured by Vaillant. They have 55 scales across the middle of the body and 12 to 14 femoral pores on each side.

A single specimen. Route from Obbia to Berbera.

Head much depressed; snout long, narrow, and acutely pointed. Nasals slightly swollen, lower divided, the nostril pierced between four shields; upper head-shields strongly striated; frontonasal longer than broad, separated from the rostral; two praefrontals; frontal strongly grooved; three large supraoculars, anterior smallest and not bordered with granules, the two others bordered with granules except anteriorly; interparietal small, separated from the very small occipital by another small shield; an elongate shield on the outer border of the parietals; temporal scales granular, obtusely keeled; no auricular denticulation; lower eyelid scaly; subocular not reaching the lip, wedged in between the sixth and seventh upper labials; the two first labials in contact with the nasals; the two anterior pairs of chin-shields in contact. Collar curved, perfectly free, with seven plates. Dorsal scales rhomboidal, juxtaposed or subimbricate, keeled, 68 across the middle of the body. Six straight longitudinal series of large, broad ventral plates; 25 straight transverse series. A large median preanal. The hind limb reaches the nostril; toes strongly compressed; foot as long as the distance between the arm and the end of the snout; one series of large and one of small subtibial plates; upper surface of arm with enlarged pluricarinate scales; upper cranial scales much larger than dorsals, imbricate, and strongly keeled. 21 or 22 femoral pores on each side. Tail about twice and a half as long as head and body; upper caudal scales strongly keeled, basal subcaudals smooth. The adult specimens, recently described by Mocquard (Mém. Cent. Soc. Philom. 1888, p. 115, pl. XI. fig. 1) are stated to be uniform rufous grey. The young specimen from which the above characters are taken, and which agrees with Peters's description, resembles strikingly the young of *Acanthodactylus boskianus*: six reddish white lines along the body, separated by broader black intervals along each of which runs
a series of small round whitish spots; head reddish brown above; limbs with a black network enclosing large round reddish white spots; tail striped with black at the base, uniform coralline red in its posterior half; lower parts uniform white.

Total length . . . . . . 155 millim.
Head . . . . . . . . 10 »
Width of head . . . . 5 »
From end of snout to fore limb . 14 »
  »  »  »  »  »  »  »  » vent . 45 »
Fore limb . . . . . . 15 »
Hind limb . . . . . . 30 »
Tail . . . . . . . . 110 »

When I examined the Lizards in the Berlin Museum in 1886, I regarded the type specimen of Peters’s *Eremias breneri* as the young of Blanford’s *Acanthodactylus mucronatus*. Now that adult specimens with striated head-shields have been described, under the name of *Eremias edwardsii*, by Mocquard, there can be no doubt that I was mistaken and I gladly avail myself of this opportunity for correcting my error and setting right the synonymy of the two species which I had confounded: —

**Eremias breneri.**

*Eremias breneri*, Peters, 1869.

*Eremias edwardsii*, Mocquard, 1888.

Somaliland.

**Eremias mucronata.**

*Acanthodactylus mucronatus*, Blanford, 1870.

*Pseudemias lineolata*, Boettger, 1883.

*Boulengeria mucronata*, Latarte, 1885.

*Eremias breneri*, Boulenger, 1887.

Somaliland, Abyssinia, Assab, Mount Sinai.

These two species agree very closely in the proportions and in the scaling; *E. mucronata* may however be distinguished from *E. breneri* by the smooth upper head-shields, and the less distinctly keeled dorsal scales. The number of femoral pores varies from 15 to 20 in *E. mucronata*, from 20 to 24 in *E. breneri*. 
7. *Eremias erythrosticta*, sp. n. (Pl. I, fig. 2).

Numerous specimens. Route from Obbia to Berbera.
Head much depressed; snout long, narrow, and acutely pointed. Nasals more or less swollen, sometimes quite as much as in *E. guttulata*, the nostril pierced between four shields; upper head-shields perfectly smooth; frontonasal longer than broad, separated from the rostral; two præfrontals; frontal strongly grooved; three large supracoculars, anterior smallest and in contact with the præfrontal, loreal, and anterior supraciliary, but usually separated from the second supracocular by a series of granules; a series of granules surrounds the second and third supracoculars, which are in contact with each other; interparietal and occipital small, separated from each other by one, two, or three small shields; an elongate shield or series of shields on the outer border of the parietals; temporal scales granular, obtusely keeled; no auricular denticulation; lower eyelid scaly; subocular not reaching the lip, above the sixth and seventh or seventh and eighth labials; the two or three first labials in contact with the nasals; the two or three anterior pairs of chin-shields in contact. Collar curved, perfectly free, with six to nine plates. Dorsal scales granular, round or hexagonal, juxtaposed, keeled, 53 to 60 across the middle of the body. Eight straight longitudinal series of ventral plates, the six principal broader than long, the outer narrower but nevertheless very well developed; 24 to 27 straight transverse series. Præanal region usually covered with several irregular shields disposed in pairs; an enlarged median præanal shield, as in *E. brevire* and *E. macronata*, is very seldom present. The hind limb reaches the eye, or halfway between the latter and the nostril; foot as long as the distance between the arm and the end of the snout; one series of large and one of small subtibial plates; a series of large smooth shields on the upper surface of the arm; upper crural scales much larger than dorsals, imbricate, feebly keeled. 15 to 20 femoral pores on each side (usually 17 to 19). Tail
more than twice as long as head and body; upper caudal scales very feebly keeled, subcaudals smooth. Adult sandy grey or buff above, with brick-red or black and red dots; tail uniform or spotted with bluish grey and black; young with five grey longitudinal streaks which may be broken up by round whitish spots; lower parts uniform white.

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<tr>
<td>Total length</td>
<td>182 millim.</td>
<td>145 millim.</td>
</tr>
<tr>
<td>Head</td>
<td>15 »</td>
<td>13 »</td>
</tr>
<tr>
<td>Width of head</td>
<td>9 »</td>
<td>7 »</td>
</tr>
<tr>
<td>From end of snout to fore limb</td>
<td>21 »</td>
<td>18 »</td>
</tr>
<tr>
<td></td>
<td>» » » » vent</td>
<td>52 »</td>
</tr>
<tr>
<td>Fore limb</td>
<td>20 »</td>
<td>18 »</td>
</tr>
<tr>
<td>Hind limb</td>
<td>41 »</td>
<td>38 »</td>
</tr>
<tr>
<td>Tail</td>
<td>130 »</td>
<td>98 »</td>
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</table>

This new species is very closely allied to *E. brenneri* and *E. mucronata*. It differs from both in the greater development of the ventral plates of the outer row, the smaller number of scales across the middle of the body (53 to 60 instead of 65 to 78), the feebly keeled caudal scales and the usually irregular preanal shields. It differs also from *E. brenneri* in the perfectly smooth upper head-shields, the smooth brachial shields, and the fewer femoral pores; and from *E. mucronata* in the more distinctly keeled dorsal and the more feebly keeled cranial scales and the constant wide separation of the subocular from the edge of the mouth; to say nothing of the coloration. The three species which I have compared may be recognised by means of the following key:

**Nostril between four shields; ventrals in straight series.**

- Head shields striated; femoral pores 20-24
  - 1. *brenneri.* Scales across body 65-75; ventrals in 6 or 8 rows, the shields of the outer row, if present, very narrow; upper caudals scales strongly keeled.

- Head shields smooth; femoral pores 15-23
  - 2. *mucronata.* Scales across body (3-60); ventrals in 8 rows; upper caudal scales feebly keeled.

- 3. *erythrosticta.*

Numerous specimens. Obbia, and route from Obbia to Berbera.

The anterior loreal is not always in contact with the first labial. The three bluish-grey dorsal stripes and the black spots or cross-bands between them usually disappear in the adult, some of which are nevertheless very handsome owing to three large deep black spots on each side of the neck, relieved by smaller white spots between and below them; the top of the head may be speckled with black and the chin and throat may bear scattered deep black spots. The largest specimen measures 77 millim. from snout to vent.


Five specimens. Route from Obbia to Berbera.

These specimens belong to the typical form; four have 28 scales round the body, the fifth has only 26, thus filling up the gap, so far as the number of scales is concerned, between the typical form and the *var. ragazii* (Bouleng. Ann. & Mag. N. H. [6] V. 1890, p. 444), as may be seen from the following table:

1. *var. ragazii* (Assab) . . . . . . . . 24 scales
2. *forma typica* (Sahara and N. E. Africa) . . 26-30  *
3. *var. tiligu睿* (N. Africa East of Morocco) . . 28-34  *
4. *var. vittatus* (Tangier) . . . . . . . . 30-34  *
5. *var. polytypis* (Plain of Morocco) . . . . 34-40  *

The interest of such a series of forms, overlapping each other, so to speak, and agreeing in their succession so closely with the chain of districts inhabited by them, is very great, and affords one of the best examples I know of derivation of forms.
10. **Rhampholeon robecchii**, sp. n. (Pl. 1. fig. 3).

A single (male) specimen. Wuorandi, near Obbia.

Related to *R. kersteni* Peters, and likewise with a remarkably small head and uniformly spinose palms and soles; but limbs much more slender, tail longer, and supraciliary appendages more developed. Head covered with small granules and enlarged conical bony tubercles, of which two stand above each canthus rostralis; parietal ridge rather indistinct; a tubercular ridge intersecting the temple; supraciliary edge strongly projecting and bearing a large scaly dermal lobe directed outwards and forwards, the length of which equals two thirds the diameter of the orbit; chin with five spine-like dermal tubercles, the first in the middle, the others in two pairs directed outwards. Body and tail granular, with numerous, irregularly scattered, conical or sub-conical larger tubercles; no crests. Colour partly yellowish-grey, partly blackish, without any well-defined markings.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
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<tbody>
<tr>
<td>Total length</td>
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</tr>
<tr>
<td>Head</td>
<td>11 mm</td>
</tr>
<tr>
<td>Width of head</td>
<td>5 mm</td>
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<tr>
<td>Body</td>
<td>36 mm</td>
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<tr>
<td>Fore limb</td>
<td>21 mm</td>
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<td>Hind limb</td>
<td>20 mm</td>
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<tr>
<td>Tibia</td>
<td>9 mm</td>
</tr>
<tr>
<td>Tail</td>
<td>40 mm</td>
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</tbody>
</table>

11. **Boodon lineatus**, D. & B.

A single specimen. Route from Obbia to Berbera.

Two preoculars. Scales in 29 rows. Ventralys 192; subcaudals 70 pairs. Uniform brown, with two light lines along each side of the head.

I regard *B. biproocularis*, Gthr., as a synonym of this species, in which the number of rows of scales varies from 25 to 31.
The subcaudals are sometimes partly single, as in some true Lycodonts, and I have therefore no hesitation in uniting the genera Boodon and Holuropholis, as I have united Lycodon and Cercaspis. The distinction of the species of Boodon has always been a matter of difficulty. The result of the revision I have recently undertaken is that nine species deserve to be recognized; I have prepared the following synopsis for their identification:

1. Subcaudals in two rows (Boodon, D. & B.).
   A. Præocular not extending to upper surface of head.
      1. Scales in 21 or 23 rows; rostral about once and a half as broad as deep.
         a. Frontal as long as parietals.
            1. B. tenniscatus, D. & B. — Abyssinia.
            b. Frontal shorter than parietals.
               2. Scales in 23 or 25 rows; rostral nearly twice as broad as deep.
      3. B. infernalis, Gthr. — East and South Africa.
   B. Præocular extending to upper surface of head and often in contact with the frontal.
      1. Scales in 23 rows.
         a. Subcaudals 47-61.
         b. Subcaudals 72.
      2. Scales in 25 to 31 rows.
         a. Two pairs of chin-shields in contact with each other.
            x. Parietal shields longer than the distance between the frontal and the end of the snout.
REPTILES FROM SOMALILAND

3. Parietal shields as long as the distance between the frontal and the end of the snout.

   b. Only one pair of chin-shields meeting on the median line.

II. Subcaudals single (*Heteropholis*, A. Dum.).


Two specimens. Route from Obbia to Berbera.
Nine upper labials, fifth and sixth or fourth, fifth, and sixth entering the eye. Scales in 15 rows. Ventral 142, 142; subcaudals 106, 113.

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EXPLANATION OF PLATE I.

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*Fig. 1. Agama robecchii.*
* 2. *Eremias erythrosticta.*
* 2a. *" " " , upper view of head, × 2.
* 2b. *" " " " , side view of head, × 2.
* 2c. *" " " " , anal region, × 2.
* 3a. *" " " " , front view of head, × 2.
L’Agama rebecchii. 2. Eremias erythrosticta.
3. Rhampholeon rebecchii.