II.—*Some new or rare Reptiles and Amphibians from Southern Ecuador.* By H. W. Parker, B.A.

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The British Museum is already indebted to Professor Carrión for many interesting herpetological novelties from the little-known districts in the vicinity of Loja City. Further small collections from this region, which the author has been privileged to examine, contained two new species and additional specimens of several incompletely known ones. All the material discussed below is in the British Museum or in Professor Carrión's private collection.

1. *Polychrus femoralis,* Werner.

The original description of this species is so brief as to be almost inadequate, and the following re-description, drawn up from a female from Loja, in Prof. Carrión's collection, may be of value.

Snout acuminate; nostril equidistant from the eye and the end of the snout; eye-opening small; upper head-scales small, larger on the snout, smaller on the occiput; supraorbital semicircles separated by a single scale; supra-ocular scales small; labials large, four or five upper, and five or six lower, in front of the centre of the eye; rostral with two clefts above, and mental with a median cleft posteriorly. Gular scales smooth, about as large as the ventrals, forming longitudinal series separated by granules on the gular pouch; no gular denticulation. Scales on the back small,

beneath the limbs. Tail with indefinite, broad, darker cross-bars.

This species is closely allied to *P. acutirostris*, Spix, which it resembles in having the lateral scales enlarged, arranged

guished, however, by the much smaller, smooth or feebly keeled, dorsal scales, the greater number of femoral pores, and its colour.

2. *Leimadophis simonsii* (Boulenger).

Philodryas simonsii, Boulenger, Ann. & Mag. Nat. Hist. (7) vi. p. 185.

Recently Amaral * has placed this species as a synonym of *Chlorosoma* [*Philodryas*] *elegans* (Tschudi), contending that the shorter snout and frontal, originally said to distinguish the two species, were merely individual aberrations in the single known example of *simonsii*. A second example, however, agrees exactly with the type of *simonsii* and also reveals that the colour-pattern is different from that of *elegans*; further, it shows that the species is aglyphous. There is no doubt that the opisthoglyphous genus *Philodryas* † (= *Chlorosoma*) and the aglyphous genus *Leimadophis* are very closely allied, and individual specimens may bridge the gap between them—for example, a specimen of *Leimadophis biserialis*

possession of 1+3 temporals (*vice* 2+3) and in colouring. It is olive above, with a narrow black mid-dorsal stripe, one scale-row wide, and a narrow lateral light stripe on the sixth outer scale-row; the corresponding light stripe on the type (regarded by Boulenger as the ground-colour separating three olive stripes) is broader, occupying the 6th and 7th scale-rows; in both examples this light line is irregularly edged below by black dots. Lower surfaces pale olive; chin, throat, and upper lip yellow.

Length from snout to vent 614 mm.; tail 266 mm.

3. *Atractus carrioni*, Parker.

A further five specimens of this species have been examined, two of which do not differ appreciably from the types. The other three, however, have a minute, almost microscopic, rudiment of a præocular. In one, this rudiment is present on both sides and is in contact with the supraocular, but in the other two it is in contact with the 3rd labial and widely separated from the supraocular; in one of the latter examples the præocular is present only on the right side. The limits of variation in the scale-counts are :—Ventrals 149–159; subcaudals, ♂ (2 specs.), 30–33+1, ♀ (3 specs.), 21–26+1.

4. *Bothrops lojana*, Parker.

Twelve specimens, in addition to the types, have now been examined. The holotype was a male measuring 488 mm. over all, and was originally considered to be probably immature; but the nine additional males which have been examined are not, or are but slightly, larger than the holotype, and two of the three females, the largest of which measures 500 mm., are gravid. These females and two males lack the much enlarged frontal shield originally described, there being five scales between the enlarged supraoculars, the centre one the largest. The pholidosis also shows some slight variation; the number of scale-rows at the mid-body is usually 23, but in a single example there are only 21; ventrals vary from 144–155, and subcaudals from 38–44+1 (♀ ♀, 39–40+1).

5. *Eleutherodactylus carrioni*, sp. n.

Holotype a female (no. 1931.2.12.1 in the British Museum), from Loja, South Ecuador; collected by Prof. Clodoveo Carrión.

Tongue oval, slightly emarginate behind. Vomerine teeth in two small oblique groups behind the level of the choanæ.

Head very broad and depressed, broader than long, its width contained less than $2\frac{1}{4}$ times in the length from snout to vent; snout blunt, once and a half as long as the diameter of the eye; canthus rostralis obtuse; loreal region very oblique, concave; nostril much nearer the tip of the snout than the eye; interorbital space flat, much broader than the upper eyelid; tympanum distinct, $\frac{3}{5}$ the diameter of the eye. Fingers moderate, free, the two inner with very small discs, but the two outer with dilatations more than half the size of the tympanum; first finger longer than the second, which is much shorter than the fourth. Toes with a short, but distinct, rudiment of web and small discs; the fifth a little longer than the third; subarticular tubercles well developed; an elongate oval inner and a very small rounded outer metatarsal tubercle. Tibio-tarsal articulation reaching well beyond the tip of the snout. Skin smooth, above; the flanks slightly shagreened; a supratympanic fold; smooth beneath, the hinder part of the belly and the lower surface of the thighs granular; a ventral discoidal fold.

Greyish above, with dark, faintly light-edged, markings; a transverse bar connecting the upper eyelids; a stripe along the canthus rostralis, continued beneath the supratympanic fold; a discontinuous irregular dorso-lateral stripe from above the tympanum to the groin, with irregular vertical branches and vermiculations on the flanks; mid-dorsal area with two irregular chevron-shaped markings anteriorly and some irregular vermiculations behind. Upper lip with indistinct dark vertical bars. Limbs with irregular narrow transverse bars; hinder side of thighs black, with white spots and vermiculations; lower surfaces of metatarsus and foot black. White beneath, dusted with grey on the throat; a short transverse darker marking near the angles of the mouth.

Length from snout to vent 67 mm.; head (from tip of snout to posterior border of ear) 29 mm.; width of head 31 mm.

The three paratypes (two in the British Museum and one in Prof. Carrión's collection), all from the type-locality, do not differ appreciably from the holotype; the colour-pattern is constant, but the intensity of the dark markings is variable and there may be some pink spots scattered on the back and limbs.

This species is allied to the *conspicillatus* group of species in the degree of webbing of the toes and the greater development of the discs of the two outer fingers; it is

distinguished by its much broader flatter head, longer hind limbs, and size from its nearest relative, *E. lymani*, Barbour & Noble.

6. *Gastrotheca marsupiata lojana*, subsp. n.

Holotype an adult female (with empty pouch) from Loja, S. Ecuador, collected by Prof. Clodoveo Carrión. British Museum no. 1930.10.12.6.

Head broader than long; snout short, rounded, once and a half as long as the eye; canthus rostralis angular; loreal region oblique and slightly concave; nostril distinctly nearer the tip of the snout than the eye; interorbital space concave, nearly twice as broad as the upper eyelid; typanum distinct, a little more than half the diameter of the eye. Fingers long, with a rudiment of web, fleshy lateral fringes, and well-developed discs; first a little shorter than the second. Toes two-thirds webbed, with slightly smaller discs than the fingers; subarticular tubercles strongly developed; an elongate-oval inner, but no distinct outer, metatarsal tubercle. Tibio-tarsal articulation reaching the nostril. Skin very finely granular above; coarsely so on the flanks and beneath; a moderately distinct dorso-lateral fold.

Bluish grey above, with a pair of dark curved longitudinal stripes on the back, from the opening of the brood-sac to the nape, where they unite and continue forwards as a subtriangular marking connecting the upper eyelids; dorso-lateral fold with a number of white dots; flanks white-spotted; a distinct white stripe from beneath the eye to the fore limb; indefinite white stripes along the outer margins of the forearm and metatarsus, and another above the vent. Lower surfaces white, dotted and spotted with black. Limbs obscurely cross-barred.

Length from snout to vent 57 mm. The fourteen paratypes, all from the type-locality, show little variation in morphological characters, but the colour varies considerably. There may be no trace of a colour-pattern, except the white stripe beneath the ear, but more frequently there is at least some trace of the dorso-lateral series of white spots and usually the flanks are distinctly darker than the dorsum. If any markings are present on the back they conform to the typical pattern—that is to say, the two curved stripes unite on the nape or scapular region and there is a single blotch connecting the upper eyelids; rarely the stripes are broken up into spots. The belly may be heavily mottled with black.

An ovigerous female measures 68 mm. from snout to vent and an adult male 59 mm. One juvenile, measuring 21 mm., still has a rudiment of the larval tail.

This race is in many ways intermediate between *G. marsupiata* (Dum. & Bibr.) and *G. monticola*, Barbour & Noble. Comparison with paratypes of the latter reveals little morphological difference; the two are similar in size, leg-length, and webbing of the toes, all characters in which they differ from *G. marsupiata*. But the colour-pattern of the present form resembles rather that of the last-named species (differing only in the union of the dark dorsal stripes), and it seems probable that both *lojana* and *monticola* are southern races of it.

III.—*Notes on the Oriental Species of the Genus* Chrysomyia. By Daphne Aubertin, M.Sc., F.L.S.

The genus *Microcalliphora* was erected by Townsend (Proc. U.S. Nat. Mus. xlix. p. 618, 1916) for the Australian species *Lucilia varipes**, Macq., a typical *Chrysomyia*, except for its minute size. The main distinction which Townsend draws between the genera *Microcalliphora* and *Chrysomyia* is that, in the former, the vibrissæ are inserted at the level of the upper margin of the epistome, while in the latter they are inserted considerably above this level. In *C. megacephala*, F., the vibrissæ are well above the oral margin, but an examination of other species of the genus shows that this is not a constant character, and it cannot therefore be used as a criterion for the separation of the two genera; I am inclined to think that *Microcalliphora*, Tns., on account of the comparatively small size of the species which are referred to this group, may be regarded as a subgenus of *Chrysomyia*. Aldrich (Proc. U.S. Nat. Mus. lxvi. p. 20, 1925) has described a second Australian species, *M. flavifrons*, and I have before me from Ceylon specimens of yet another species, which I propose to describe under the name *nigripes*. It may be distinguished from those already known by the fact that the legs are entirely black.

Chrysomyia (*Microcalliphora*) *nigripes*, sp. n.

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