2. Additions to the Rhynchotal Fauna of the Ethiopian Region. By W. L. Distant.

[Received January 27, 1881.]

(Plate XXXI.)

The Rhynchota of the Ethiopian Region form a group of insects that has been fairly worked by entomologists, and of which sufficient material exists to warrant the hope that in a few years we may have a moderately complete list of the fauna. The late Prof. Stål attempted, and at the time succeeded in producing a Monograph, 'Hemiptera Africana,' which was complete to date, but now requires much supplemental work. I have for some years had considerable facilities in this direction, and have also lost no opportunity of acquiring African specimens. The following descriptions relate to undescribed species from collections which have come into my possession from various sources since I wrote my "Notes on African Hemiptera Heteroptera," in the 'Entomologist's Monthly Magazine,' vols. xiv. and xv. With the exception of two species from Nyassa and South-eastern Africa, they have all been received from the Calabar district, West Africa.

Hemiptera Heteroptera.

Fam. Pentatomidæ.

Tropicorypha formosa, n. sp.

♀. Above bright green, shining; anterior two thirds of lateral pronotal margins, a small spot on each side of the head at base behind the eyes, ocelli, connexivum, underside of body, and basal halves of femora luteous. Antennæ pitchy, third joint much longer than second (fifth wanting). Head with the central lobe subprominent, lateral lobes rounded and somewhat reflexed at apical angles. Pronotum with the lateral margins straight, reflexed anteriorly. Lateral angles subprominent and subacute. Membrane pitchy, margins and apex paler. Rostrum reaching posterior coxæ, basal joint luteous, remainder pitchy. Tibiæ above strongly sulcate, tarsi pitchy. Ventral spiracles fuscous.

Long. 18 millims., lat. pronot. ang. 10.

Hab. Calabar.

This species is strikingly distinct from any other of the genus, both in size and colour. Bright green with luteous markings appear to be somewhat representative colours in the West-African Pentatomidæ.

Note.—In placing this species in the genus *Tropicorypha*, Mayr, and the following species in the genus *Halyomorpha*, Mayr, I rely more upon the diagnostic characters given by Stål (En. Hem. pt. v. pp. 56 & 57) than on those given in Dr. Mayr's original description (Verh. z.-b. Ges. Wien, xiv., pp. 910 & 911), which,

referring most exhaustively to the type species, are too minute if applied to the whole of the allied species of the genus, failing (especially in *Tropicorypha*) in the structural characters of the antennæ and rostrum.

HALYOMORPHA VERSICOLOR, n. sp. (Plate XXXI. fig. 1, ♀.)

Above pale luteous, irregularly punctured, and shaded with fuscous. Head luteous, with the lateral margins, posterior margins of central lobe (which are angulated and widened to base), and a small curved streak on inner margin of eyes black; obscurely transversely striate; lobes subequal in length. Antennæ, ♂, castaneous, third, fourth and fifth joints with the apices pitchy and subequal in length; ♀, second joint pitchy, third castaneous, pitchy at apex (remainder mutilated). Pronotum with the anterior portion pale levigate; posterior margin of this space very strongly sinuated, basal half clouded with fuscous and strongly punctate; the lateral margins are ampliated and reflexed, with the anterior angles toothed behind the eyes, lateral angles subprominent and obtusely rounded. Scutellum with a small pitchy callosity in each basal angle, strongly punctate, with some obscure pitchy marks at base, lateral margins, and apex. Corium strongly punctate, clouded and mottled with dark fuscous, and with a small levigate space on disk near apex; membrane hyaline, with a short transverse pitchy line near base. Abdomen above red, connexivum ochraceous, with a black line at base and apex of each segment. Underside of body somewhat paler; legs irregularly marked with fuscous or pitchy. Rostrum just passing posterior coxæ, with the apex black.

Long., ♂, 13 millims., lat. pronot. ang. 7.

Long., ♀, 17 millim., lat. pronot. ang. 9.

Hab. Nyassa (*Farler*).

It is probable that the difference in size between the sexes is less than that observed between the only two specimens I possess or have seen. This very distinct species, in the structure of the pronotum, is most allied to *H. reflexa*, Sign.

TYOMA PORRECTA, n. sp. (Plate XXXI. fig. 2.)

Fuscous, sparingly but coarsely punctate; head more finely punctate. Antennæ ochraceous, with the second joint longer than the third, subequal with the fourth, fifth slightly the longest, and, excepting base, fuscous. Pronotum somewhat verrucose on anterior portion; lateral angles acutely straightened and produced; apices pitchy, with extreme tips reddish orange; lateral margins of pronotum and head obscurely black; margins of connexivum strongly and obtusely spinous. Body beneath much darker. Legs pale ochraceous; apices of femora, bases and apices of tibiæ pale castaneous. Rostrum ochraceous, reaching posterior coxæ.

Long. 9 millims., lat. pronot. ang. 6.

Hab. Camaroons (*Rutherford*).

Allied to *T. cryptorhyncha*, Germ., the South-African and only other known species of this peculiar and distinct genus, from which

it differs in the direction of the pronotal angles, taking Herrich-Schäffer's figure as typical. This is the West-African representative of the genus, which, so far as we know at present, appears confined to Africa, and to comprise probably but two species.

ASPAVIA GRANDIUSCULA, n. sp. (Plate XXXI. fig. 3.)

Head with the apex of the central lobe somewhat prominent, pale ochraceous, with six longitudinal rows of coarse fuscous punctures. Pronotum with the lateral angles acutely produced, and with the apices slightly directed backwards, pale ochraceous, coarsely covered with dark punctures, the anterior and lateral margins and a transverse fascia across disk between humeral angles pale levigate, the last with a few scattered punctures; apices and fore borders of produced lateral angles black. Scutellum pale ochreous, coarsely and irregularly covered with dark punctures, a large oblong callosity in each basal angle and apex pale levigate. Corium pale ochraceous, disk and inner portion pale castaneous, coarsely and darkly punctate, and with a marginal (excepting base) row of coarse and dense black punctures; basal margin pale levigate. Membrane obscurely fuscous. Underside of body and legs ochraceous, head beneath and sternum sparingly, lateral pronotal angles very densely covered with black punctures. Abdomen with a central longitudinal castaneous fascia gradually narrowing to apex, between which and margin on each side is a black longitudinal fascia densely punctate. Rostrum reaching posterior coxæ, darkly and obscurely streaked, with the apex black. Antennæ with the second and third joints pale ochraceous, subequal in length, but shorter than the fourth and fifth, which are also subequal, but which (excepting base of fourth) are obscurely fuscous.

Long. 10 millims., lat. pronot. ang. 7.

Hab. Camaroons (*Rutherford*).

Allied to *A. brunnea*, Sign.; but, besides the larger size, the pronotal spines are less acute and not directed forwards, the second and third joints of the antennæ are subequal in length, the transverse fascia to the pronotum is also different.

Fam. COREIDÆ.

AURIVILLIANA, n. gen.

Body subdilated. Head subquadrate, cleft between the antenniferous tubercles. Rostrum moderately long. Pronotum with the lateral angles produced, the lateral margins strongly denticulated. Scutellum triangular. Abdomen moderately dilated. Anterior and posterior tibiæ dilated; intermediate tibiæ a little thickened before apex, or slightly subdilated. Apices of femora and inner margin of posterior tibiæ strongly denticulated. Abdominal spiracles transversely rounded, wider than long.

This genus differs from *Petillia*, to which it is closely allied, in the dilated anterior femora and the produced margin of the abdomen; from *Petascelisca* it is distinguished by the transverse abdominal spiracles, and the dilated and denticulated pronotum.

AURIVILLIANA LURIDA, n. sp. (Plate XXXI. figs. 6 ♂, 7 ♀.)

Ochraceous, speckled and streaked with fuscous. Antennæ pilose, black with the apical joint bright luteous in the male, pale luteous with the apex black in the female; first and second joints subequal, or second rather longer than first, third shortest, fourth the same length as second. Pronotum transversely striated with fuscous, lateral margins strongly denticulated, lateral angles produced, with a strong tooth at apex, and moderately denticulated behind. Scutellum narrowly black at base, with a central luteous spot. Corium finely speckled with fuscous, and a larger spot of the same colour on disk. Underside of body and legs concolorous. Rostrum about reaching posterior coxæ; second and fourth joints subequal in length, third shortest.

♂. Beneath with a luteous spot on each side at base of sixth segment; apical segment and anal appendages gibbous.

Long. 20 millims., abdominal expans. 9.

♀. Much broader than ♂; apical segment and anal appendages slightly raised and convex.

Long. 23 millims., abdominal expans. 11.

Hab. Natal, Delagoa Bay.

PETASCELISCA, n. gen.

Body oblong. Head subquadrate, and not emarginate between the antenniferous tubercles. Rostrum not reaching intermediate coxæ. Scutellum triangular, obtusely elevated at base. Apical margin of the corium sinuated. Posterior coxæ widely separated; intervening space double that between intermediate coxæ; anterior coxæ placed somewhat closely together. Anterior and intermediate femora obtusely noduled, and furnished beneath with two spines near apex; posterior femora much thickened, dilated, flattened, sinuated, and spined beneath. Anterior tibiæ moderately dilated on both sides; posterior tibiæ much more strongly so, above sinuated and prominently rounded about midway, whence to apex they are suddenly narrowed; beneath as above, but exhibiting a strong tooth in place of, and a little before, the rounded elevation above. Intermediate tibiæ simple. Abdominal margins much produced, strongly sinuated and angulated towards apex. Antennæ with the first three joints incrassated towards apex, fourth cylindrical. Abdominal spiracles rounded.

This genus comes naturally between *Petillia* and *Petascelis*. From the first it is separated by the rounded and not widely transverse abdominal spiracles, and from the second by the non-dilatation of the intermediate tibiæ. From both, also, *Petascelisca* is distinguished by the non-emargination between the antenniferous tubercles of the head.

PETASCELISCA VELUTINA, n. sp. (Plate XXXI. figs. 8 & 8 *a*, *b*, ♂, 9 ♀.)

Above rich chocolate-brown, sparingly clothed with bright yellow

pubescence. Antennæ pilose; first three joints dark brown, of which the basal is thickly clothed with yellow pubescence; fourth joint pale brown, with apical third luteous, and extreme tip and base pitchy; first joint much longer than second, third shortest, first and fourth subequal. Head thickly pubescent at base. Pronotum with a pale central longitudinal pubescent line, on each side of which are two dark fasciæ, which, commencing at base, are slightly curved, and extend upwards through two thirds the pronotal length, when they are deflexed and again directed inwardly, both meeting on the central line, at about three-fourths the length from base; on outer side of these fasciæ at base are two others of the same colour, waved and directed inwardly, but little more than half the length of the central. Scutellum with the apex luteous. Corium with a large rounded dark spot on disk. Membrane cupreous; basal third and transverse waved central fascia dark chocolate-brown. Connexivum pitchy, with four bright luteous spots on each side. Underside and legs somewhat thickly pubescent. Abdomen above red, with the apex pitchy.

♂. Posterior femora very thickly incrassated; margins of abdomen strongly produced and angulated; third abdominal segment beneath occupied by a large raised tubercle, rounded behind, the margins of which are strongly granulate.

Long. 26–27 millims., lat. 8.

♀. Posterior femora much less strongly incrassated; margins of abdomen somewhat less produced and angulated; second and third abdominal segments beneath prominently gibbous.

Long. 25–27 millims., lat. 8.

Hab. Isubu, Calabar.

PETASCELISCA FOLIACEIPES, n. sp. (Plate XXXI. figs. 10, 10 *a*, *b*, ♂, 11 ♀.)

Pitchy-brown, sparingly clothed with fine yellow pubescence. Antennæ pilose, first joint longer than second, third shortest, fourth and first subequal. Pronotum with the lateral margins denticulated; the lateral angles flattened and moderately produced. Abdomen above red; third, fourth, and fifth segments broadly pitchy; connexivum black, with a spot near base of sixth segment obscure luteous. Tibiæ strongly dilated; posterior tibiæ strongly sinuated and toothed internally.

♂. Posterior femora thickly incrassated; second abdominal segment beneath gibbous and provided with a small narrow deeply sinuated tubercle; a small raised triangular tubercle on apex of sixth abdominal segment. Abdomen beneath concolorous.

Long. 29 millims., lat. pronot. ang. 11.

♀. Posterior femora much less incrassated; abdomen beneath unarmed; disks of sternum and first four segments dull luteous.

Long. 29 millims., lat. pronot. ang. 11.

Hab. Mongo-ma-Lobah, Calabar district.

Closely allied to *P. laminipes*, Fairm., but differs in the much more dilated and rounded anterior tibiæ, in the rounded dilatation of the in-

termediate tibiæ, which is not posteriorly truncated as in *P. laminipes*, and also in the dilatation of the posterior tibiæ, which is outwardly rounded and not sinuated near the apex. The colour is also darker, and the abdominal margin much more widely produced.

Fam. Pyrrhocoridæ.

Roscius circumdatus, n. sp. (Plate XXXI. fig. 4.)

Black, apical portion of head, eyes, anterior, lateral, and posterior margins of pronotum, and basal margin of corium ochraceous or testaceous, and two transverse fasciæ of the same colour on corium, the first commencing at end of ochraceous basal margin and extending nearly to claval apex, the second extending transversely across near apex, and narrowly continued along inner margin to near claval apex, the two fasciæ thus almost enclosing a sublunate space. Body beneath black, posterior margins of prosternum, mesosternum, and metasternum, and three large spots on each side at coxæ luteous or creamy-white; abdomen with the first three segments and apical margins of the fourth, fifth, and sixth segments more or less luteous or testaceous. Legs black, trochanters reddish. Rostrum reaching fourth abdominal segment. Antennæ black; first, second, and fourth joints subequal in length, third shortest.

Long. 19 millims.

Hab. Isubu, Calabar.

This species is allied to *R. quadriplagiatus*, Schaum, but differs in the much more obscure and less deeply incised transverse incision to the pronotum; the body is also broader, of a different colour beneath, and with the marking of the corium distinct.

This would appear to be the *R. quadriplagiatus*, var. ?, Walk. (Cat. Het. v. p. 173. 3), from Congo. Walker, it is allowed by all who follow him, had no reticence in describing species; and the only reason for his not doing so in the present case appears to be, that, at the time of his writing, he had not seen Schaum's species, which is likewise confined to East Africa.

Dysdercus antennatus, n. sp. (Plate XXXI. fig. 5.)

Head sanguineous. Antennæ black, apical joint with basal half creamy-white, base of first joint spotted with sanguineous; first joint a little longer than the second, third shortest. Pronotum pale luteous, anterior portion black, posterior with a transverse central black fascia, lateral margin sanguineous, anterior margin pale luteous. Scutellum black. Corium ochraceous, thickly, finely, and darkly punctate, with a broad black claval fascia, and outer margin creamy white. Membrane black, with the basal angle obscure ochraceous, and the apical margins creamy white.

Head beneath sanguineous; sternum black, anterior margin of prosternum, posterior margins of prosternum, mesosternum, and metasternum, and a large spot near coxæ levigate creamy white, lateral margins of prosternum sanguineous. Abdomen creamy white; with the transverse margins of the first four segments and the whole

of the fifth black, the last with a narrow pale posterior margin; sixth segment and anal appendage sanguineous. Legs black. Rostrum about reaching posterior margin of second abdominal segment, black, with the apex somewhat paler.

Long. 12 millims.

Hab. Calabar.

Allied to *D. superstitiosus*, but differs in the colour of the antennæ, absence of black fascia to corium, &c.

EXPLANATION OF PLATE XXXI.

Fig. 1. *Halyomorpha versicolor* ♀, p. 271.
2. *Tyoma porrecta*, p. 271.
3. *Aspavia grandiuscula*, p. 272.
4. *Roscius circumdatus*, p. 275.
5. *Dysdercus antennatus*, p. 275.
6. *Aurivilliana lurida* ♂, p. 273.
7. —— —— ♀, p. 273.
8, 8*a*, *b*. *Petascelisca velutina* ♂, p. 273.
9. —— —— ♀, p. 273.
10, 10*a*, *b*. *Petascelisca foliaceipes* ♂, p. 274.
11. —— ——, ♀, p. 274.

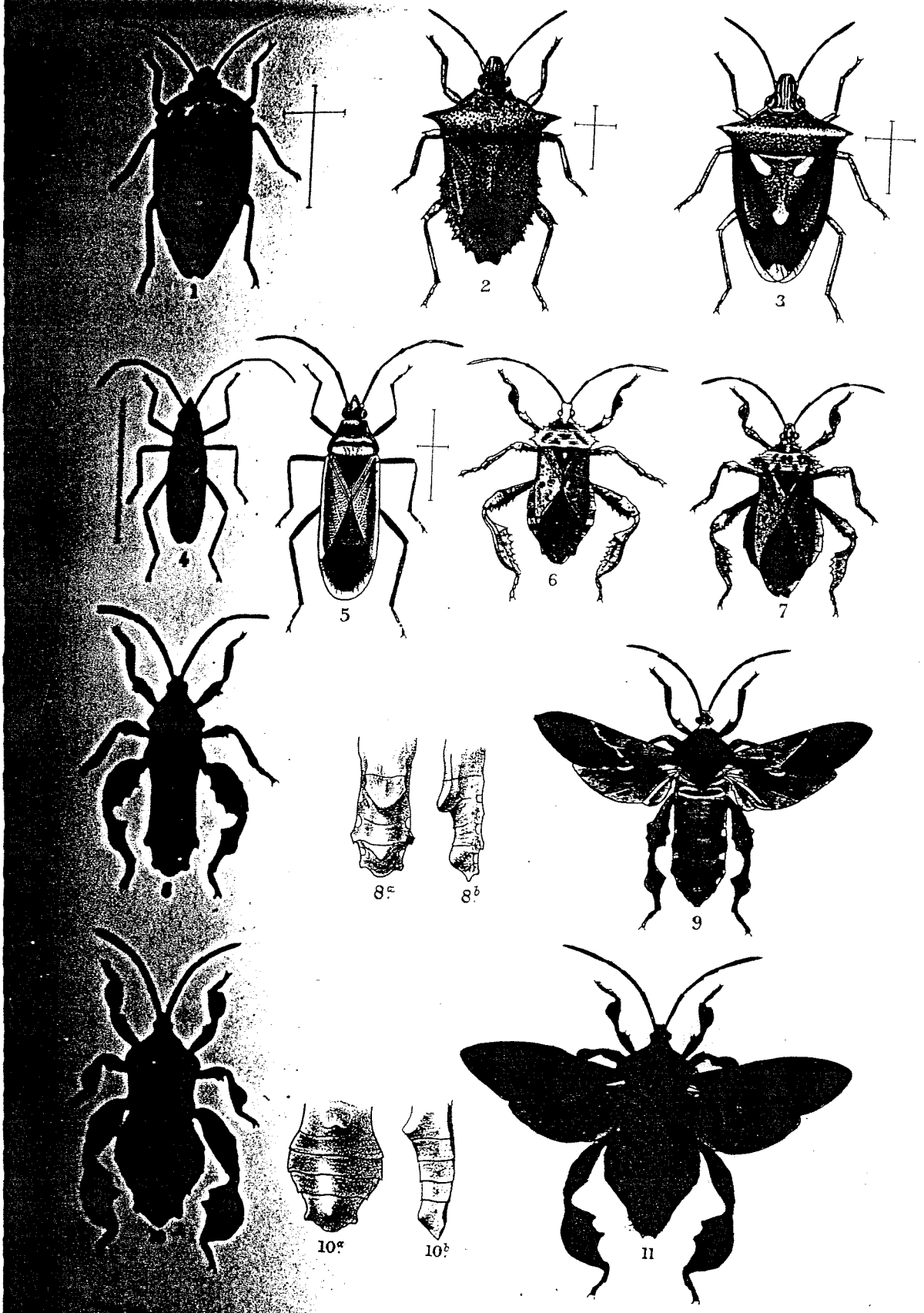
3. On a Collection of Shells from Lakes Tanganyika and Nyassa and other Localities in East Africa. By Edgar A. Smith.

[Received January 28, 1881.]

(Plates XXXII.–XXXIV.)

The collection of shells about to be described has been derived from three sources. Part of it was collected by the Rev. Edward Coode Hore; of Ujiji, and presented to the British Museum by his brother John Coode Hore, to whose liberality that institution owes the possession of the valuable collection which I had the pleasure of reporting upon in these 'Proceedings' last year. The second set, partly collected by Mr. Hore and in part by Dr. John Kirk of Zanzibar, was kindly consigned to the Museum by the latter. The third, and by far the largest, series was collected by Mr. Joseph Thomson, who has recently returned from an exploring expedition in Central Africa despatched by the Royal Geographical Society, whose council has placed the specimens in the national collection.

Among the species from Tanganyika are seventeen new to its fauna, of which eleven are undescribed. To three of these attaches the greatest interest; for they have all the appearance of being modified marine types. And such in all probability is the case; for Mr. Thomson informs me that in his opinion, judging from the geology of the neighbourhood, Tanganyika at some remote epoch has been an inland sea, the saltness of whose waters has almost entirely vanished, leaving only a peculiar taste which can scarcely be described as



NEW AFRICAN RHYNCHOTA.

Hanhart imp.