species except by the absence of the two reddish-orange bands on the anterior segments. It also bore stolons, and he considered it a variety of this species.

Allen found the breeding-season from March to June at

Plymouth.

Autolytus lugens, De St. Joseph, from Plymouth (Allen), has a comparatively small head, surmounted by a massive median tentacle, the lateral tentacles being much smaller. Four eyes. The body is small, but typical; the proboscis has only six denticulations. The proventriculus has twenty-six to thirty rows of grey points and occupies segments 8-11.

This is one of several of the Syllids which requires re-investigation, since it may be connected with other known forms. De St. Joseph met with specimens having male buds. Allen observed early stolons in January and February

at Plymouth, and a well-developed one in July.

Six specimens of Procerastea halleziana, Malaquin, were procured amidst Ascidians from a raft moored in Cawsand Bay, Plymouth, in September (Allen). A brief, but excellent, summary of the stolonisation of this form is given by Mr. F. Potts\* along with other types of reproduction in the Syllids. In Procerastea halleziana, as shown by Malaquin, the twelve to fifteen new segments are intercalated in the middle of the stock, and not at the posterior end as usual in the Syllids. Thus there may be in front twenty to twenty-two original segments, fourteen to sixteen of recent formation, and then eighteen to twenty more of the original stock, the middle showing the more advanced development of the foot. The head of the stolon is formed on the fourteenth segment. The parts soon assume the condition of the adult. Dr. Allen has a further communication on this subject lately, an abstract of which appeared in the notice slip of the Royal Society (1921).

XXVIII.—N. w or little-known Tipulidæ (Diptera).—VI. Ethiopian Species. By Charles P. Alexander, Ph.D., F.E.S., Urbana, Illinois, U.S.A.

THE material considered in the present instalment was received for study from the Carnegie Museum in Pittshurg, through the kindness of the Director, Dr. W. J. Holland, and

<sup>\*</sup> Spengel's 'Ergebnisse und Fortschritte Zoologie,' Bd. iii. p. 30.

the Curator, Mr. Hugo Kahl, and from the Staatsmuseum in Vienna, through the kindness of the Custodian of the Diptera, Dr. Hans Zerny. The latter collection was one of the very greatest importance. The location of the types of the new species described herein is designated after each description.

### Dicranomyia mascarensis, sp. n.

General coloration brown; wings greyish hyaline, stigma oval, pale brown; pale brown seams at origin of Rs and along the cord;  $Sc_1$  ending immediately before the origin of Rs; cell 1st  $M_2$  closed; basal deflection of  $Cu_1$  immediately before the fork of M.

Male.—Length about 4.2 mm.; wing 5.2 mm.

Rostrum and palpi dark brown. Antennæ dark brown. Head dark brown, discoloured in the type.

Mesonotum dark brown, any possible pruinosity discoloured in the type. Pleura and sternum dark brown. Halteres rather elongate, brown, the basal portion of the stem obscure yellow, the apices of the knobs a little paler. Legs with the coxæ dark; trochanters obscure yellow; remainder of legs testaccous-brown. Wings greyish subhyaline; stigma oval, pale brown; a brown cloud at the origin of Rs; very indistinct brown seams along the cord and outer end of cell  $1st M_2$ ; veins dark brown. Venation:  $Sc_1$  ending immediately before the origin of Rs,  $Sc_2$  apparently close to the tip of  $Sc_1$ ; Rs gently arcuated; r faint, at the tip of  $R_1$ ; inner end of cell  $R_3$  far proximad of cell  $R_5$ ; cell  $1st M_2$  closed, about as long as vein  $M_{1+2}$  beyond it; basal deflection of  $Cu_1$  a short distance before the fork of M.

Abdomen dark brown, the basal sternites paler. Male hypopygium with the pleurites very short and stout, the proximal face near the apex with three cylindrical fleshy lobes that are tipped with long bristles, one of these lobes slender, arcuate, the others shorter and stouter; proximal side of pleurite extended caudad into a fleshy arm that is setigerous on proximal face. Ventral pleural appendage much larger than pleurite, pale, subcircular in outline, the proximal margin extending proximad into a fleshy lobe with two spines on the caudal margin near mid-length of the lobe. Dorsal hook conspicuous, almost straight, the distal third gently curved, the tip suddenly narrowed to an acute point.

Hab. Mascarene Islands.

Holotype, J, Reunion (Sikora).

Type in the collection of the Vienna Museum.

## Gonomyia (Leiponeura) mascarena, sp. n.

General coloration brown, the pleura plumbeons, striped longitudinally with pale yellow; posterior femora yellow with two brown subterminal rings; wings clouded with pale brown and whitish subhyaline; small brown spots and seams along the cord;  $Sc_1$  ending opposite the origin of Rs; cell  $1st\ M_2$  closed; abdomen dark brown, the caudal margin of the segments conspicuously white.

Female.—Length about 5 mm.; wing 4.8 mm.

Rostrum and palpi dark brown. Antennæ brown, the second scapal segment obscure yellow apically. Head pale whitish, the vertex darker medially.

Pronotum white. Mesonotal præscutum light brown with three confluent darker brown stripes; scutum brown, the proximal margin of each lobe obscure yellow; scutellum obscure yellowish, darker basally; postnotum yellow, darker posteriorly. Pleura plumbeous; a conspicuous pale yellow longitudinal stripe extending from behind the fore coxæ to the base of the abdomen; dorsal-pleural membrane light brown. Halteres whitish, the knobs slightly darkened. Legs with the coxe and trochanters vellowish; only one hind leg remains, femora obscure vellow with a broad brown subterminal ring with a narrow and less distinct brown ring before this at about three-fourths the length of the segment, the yellow ring enclosed, narrow; tibiæ and metatarsi yellow, the tips narrowly infuscated; remainder of the tarsi dark brown. Wings with a faint brownish tinge, variegated with whitish subhyaline and brown; stigma oval, grey; small brown spots beneath arculus; at tip of Sc, and origin of Rs; along cord and outer end of cell 1st  $M_2$  and at tip of  $R_{2+3}$ ; costal margin of wing indistinctly whitish subhyaline, this including cells C, Sc, and  $R_1$ ; vague subhvaline areas at the wing-tip, in cell 1st M2, and at the end of vein 1st A; veins dark brown. Venation:  $Sc_1$  ending opposite origin of Rs,  $Sc_2$  close to tip of Sc1; Rs long, angulated and spurred at origin, only a little shorter than  $R_{2+3}$ ; basal deflection of  $R_{4+5}$  a little longer than r-m; cell 1st  $M_2$  closed; m longer than the

deflection of  $M_3$ ; basal deflection of  $Cu_1$  before the fork of

M a distance about equal to m.

Abdominal segments dark brown, the caudal margins conspicuously ringed with white; genital segment and ovipositor horn-coloured.

Hab. Mascarene Islands.

Holotype,  $\circ$ , Reunion (Sikora).

Type in the collection of the Vienna Museum.

Trentepohlia (Mongoma) metatarsatra, Alexander.

1920. Trentepohlia metatarsatra, Alex. Ann. & Mag. Nat. Hist. ser. 9, vol. vi. pp. 41, 42.

The unique type of *T. metatarsatra* was in poor condition when described. A male is at hand, which is here characterised as allotypic. The specimen differs from the description of the unique type in the following regards:—

Head obscure yellow, slightly greyish pruinose adjoining the inner margin of the eyes. The white tibial bases are broad and pass insensibly into the brown tibial ring. Wings with r close to the fork of  $R_{2+3}$ . Abdomen uniformly pale brownish yellow, including the hypopygium.

Male.—Length 8-8.2 mm.; wing 8.4 mm.

Allotype and two additional males from Bukoba-Usumbura, between Lakes Victoria and Tanganyika, 1910 (Grauer).

Allotype in the collection of the Vienna Museum.

# Lecteria tanganicæ, sp. n.

General coloration reddish fulvous, the præscutal stripes inconspicuous; head bluish plumbeous; legs obscure vellow, the tips of the femora, tibiæ, and metatarsi narrowly infuscated; wings vellow, the origin of Rs, the cord, and the tip of  $R_2$  rather narrowly seamed with brown; abdomen brownish fulvous, including the hypopygium.

Male.—Length 21-22 mm.; wing 18-19 mm.; abdomen

alone 16.5-17.5 mm.

Rostrum and palpi dark brown. Antennæ with the scapal segments obscure brownish yellow; flagellum light brownish yellow. Head bluish plumbeous, paler behind.

Pronotum dark brown medially. Mesonotum deep reddish fulvous, the lateral præscutal stripes indicated, brown;

the median præscutal stripe is indicated only as a narrow line near the anterior margin of the sclerite; remainder of the mesonotum obscure fulvous, slightly pruinose, the scutal lobes darkened. Pleura brown, sparsely pruinose. Halteres light brown, the knobs dark brown. Legs with the coxe and trochanters light brown; femora yellow, the tips abruptly and conspicuously black; tibiæ and metatarsi yellowish brown, the tips passing into dark brown: remainder of the tarsi dark brown. Wings with a strong vellowish tinge, cells C and Sc more saturated vellow; conspicuous brown clouds at the origin of Rs, fork of  $R_{2+3}$ ; paler clouds and seams at fork of Rs, along the cord, and at the tip of  $R_2$ ; wing-tip faintly darkened; wing-veins faintly seamed with darker; veins brown. Venation: Rs about one-third longer than the deflection of  $R_{4+5}$ ; cell 1st  $M_2$ subrectangular in outline; petiole of cell  $M_1$  about as long as the cell;  $Cu_2$  shorter than or subequal to the deflection of  $Cu_1$ .

Abdomen brownish fulvous, including the hypopygium; sternites obscure yellow.

Hab. Ex-German East Africa.

Holotype, &, north-west of Lake Tanganyika, 1910 (Grauer).

Paratopotypes. 5 & &.

Type in the collection of the Vienna Museum.

## Lecteria vasta, sp. n.

Size very large; length of female about 40 mm.; mesonotal præscutum yellowish anteriorly, the præscutal stripes indicated behind; wings brownish yellow with conspicuous darker brown clouds and washes; fusion of  $M_3$  and  $Cu_4$  extensive; abdominal tergites fulvous-yellow, trilineate with brown.

Female.—Length 40 mm.; wing 28 mm.; abdomen alone 33 mm. Fore leg: femur 16 mm.; tibia 19 mm.; tarsus 15.8 mm. Hind leg: femur 20.5 mm.; tibia 20.5 mm.; tarsus 10.5 mm.

Rostrum short, dark brown. Antennæ with the basal segment dark brown, sparsely dusted with greyish-yellow pollen; basal segments of flagellum brownish, fading into yellow, the terminal segments dark brown; flagellum with conspicuous verticils. Vertex obscure brownish yellow with a conspicuous, capillary, dark brown median line, darkest on

the anterior part of vertex behind the antennal bases, subtended by a pale mark adjoining the inner margin of eyes; genæ dark brown.

Pronotum prominent, brown, the scutellum sparsely pruinose. Mesonotal præscutum buffy yellow, clearer anteriorly, and here bisected by a capillary dark brown line: three brown stripes, the median one broadly divided and indicated only posteriorly, the anterior half replaced by yellow; lateral stripes broad; pseudosutural foveæ conspicuous, bicolorous; scutum brown, the centres of the lobes darker brown; an indistinct, capillary, brown median line on the scutellum and postnotum. Pleura brownish testaceous, the dorsal margin of the pleurites narrowly darkened; area surrounding base of halteres pruinose. Halteres brown, the knobs dark brown, base of the stem vellow. Legs with the coxe and trochanters relatively small, reddish brown; femora obscure yellow, becoming clearer vellow before the conspicuous dark brown tips; tibiæ obscure yellow, the tips narrowly and indistinctly darkened; tarsi obscure yellow; legs hairy; metatarsi unarmed at base; hind tarsi short. Wings brownish yellow, the costal and subcostal cells light vellowish brown; conspicuous and extensive brown clouds and washes on the wing-disk; washes in the bases of cells R and M and on the basal half of cell R3; large and conspicuous dark brown clouds at the origin of Rs, at  $Sc_2$ , and at r; paler but extensive clouds along the cord, at the end of vein  $R_2$ , along the longitudinal veins, and as a conspicuous blotch beyond midlength of vein 1st A in cell 1st A. Venation: Fusion of  $Cu_1$  and  $M_3$  extensive, longer than the outer deflection of  $M_3$  alone. The right wing of the type has an irregular cross-nervure extending across the base of cell  $M_3$  from vein  $M_3$  to  $Cu_1$ .

Abdominal tergites bright fulvous-yellow, the tergites narrowly trilineate with dark brown; lateral stripes also including dorsal margins of sternites; sternites obscure yellow with an interrupted, paler brown, median stripe.

Hab. Cameroun.

Holotype,  $\circ$ , Lolodorf, February 27, 1914 (A. I. Good). Carnegie Museum, Accession No. 5264.

Type in the collection of the Carnegie Museum.

Lecteria vasta is the largest member of the tribe Eriopterini as yet made known. In the other species of the africana group in which both sexes are known (africana, Alexander, atricauda, Alexander, pluriguttata, Alexander) the two sexes are approximately equal in size. By analogy, the dimensions of the male of L. vasta should be approximately those given for the type-female.

### Conosia malagasya, sp. n.

General coloration fulvous-buff, the abdomen more yellowish; wings light yellow, the longitudinal veins with series of conspicuous brownish-yellow spots; r and the basal deflection of  $Cu_1$  short and straight.

Male.—Length 17 mm.; wing 13.5 mm.

Rostrum fulvous; palpi dark brown. Antennæ with the basal segment brown; second segment and the fusion-segment of the flagellum dark brown; remainder of the antennæ brownish yellow. Vertex dull grey with a capillary, dark brown, median line; genæ and occiput fulvousbuff.

General coloration of thorax fulvous-buff, the præscutal interspaces with brown setigerous punctures. Pleura brownish yellow. Halteres brownish yellow. Legs brownish yellow throughout. Wings light yellow, the costal cross-veins seamed with darker yellow; conspicuous brownish-yellow washes at the origin of  $R_s$ , along the cord, and vein  $R_2$ ; series of brownish-yellow dots along the longitudinal veins; a brown cloud near mid-length of costa and at the tip of vein  $2nd\ A$ ; veins yellow, the areas traversed by the brownish-yellow spots slightly darker. Venation: a series of cross-veins and spurs in the costal cell;  $Sc_2$  far from the tip of  $Sc_1$ ; r short, subtransverse; r-m immediately proximad of m; vein  $2nd\ A$  slightly angulated at tip; basal deflection of  $Cu_1$  short and straight.

Abdomen obscure yellow.

Hab. Madagascar.

Holotype, 3, collected by Sikora.

Type in the collection of the Vienna Museum.

Compared with the smaller *C. irrorata* (Wiedemann), the present insect is notable by its large size and yellowish coloration, especially of the wings. The spots along the longitudinal veins are relatively larger and fewer in number.

# PSEUDOLIMNOPHILA, Alexander.

Calolimnophila, subgen. nov.

Similar to Pseudolimnophila, Alexander, s. s., differing in

the possession of a supernumerary cross-vein in cell  $R_2$ . The case is entirely analogous to the subgenus Dicrano-phragma, Osten-Sacken, in the genus Limnophila, Macquart.

Type of the subgenus.—Pseudolimnophila (Calolimnophila)

rex, Alexander (Uganda).

### Pseudolimnophila (Calolimnophila) princeps, sp. n.

General coloration yellowish brown; first flagellar segment pale; mesonotum with a capillary, dark brown, median line; wings brown, spotted and clouded with darker, the costal margin alternately yellow and brown; abdominal sternites bicolorous.

Male. - Length about 9 mm.; wing 10.5 mm.

Rostrum and palpi brown. Antennæ with the first segment pale, sparsely silvery-pruinose; second segment brown; first flagellar segment conspicuously light yellow; remaining flagellar segments dark brown with a conspicuous white pubescence. Head brown with a greyish-yellow

pollen; vertex very strongly narrowed behind.

Pronotum brownish yellow, dark brown medially. Mesonotal præscutum vellowish brown with a capillary brown median line; lateral margins of præscutum broadly paler brown, enclosing a circular yellow spot immediately behind the pseudosutural foveæ; extreme anterior margin of præscutum narrowly darkened; scutum light yellowish brown, the median area and each lobe indistinctly lined with brown; a brownish-black spot on the lateral margin of the præscutum above the wing-root; scutellum and postnotum light yellowish brown with an indistinct brown median line. Pleura yellowish testaceous, the dorsal pleurites largely suffused with brown. Halteres short, dark brown, the base of the stem paler. Legs with the coxæ pale, testaceous, the extreme bases darkened; remainder of legs pale brownish yellow. Wings with a strong brownish tinge, spotted and clouded with still darker brown, these areas distributed as follows: At origin of Rs, tip of Sc, above the fork of  $R_{2+3}$ , tip of  $R_1$ , at the supernumerary cross-vein in cell  $R_2$ , tip of  $R_2$ , along the cord and outer end of cell 1st  $M_2$ ; more diffuse clouds at ends of the longitudinal veins; a series of about five small spots behind vein Cu; the anterior region of the wing in the radial cells is variegated with yellow, these spots lying between the brown spots, the most conspicuous beyond  $Sc_1$  and  $R_1$ ; veins dark brown. Venation: A supernumerary cross-vein in cell  $R_2$  at about two-thirds the length of vein  $R_2$ ; petiole of cell  $M_1$  about twice m; basal deflection of  $Cu_1$  beyond the fork of M.

Abdomen dark brown, the caudal margin of the tergites very indistinctly paler; sternites dark brown, a little more than the caudal half of each segment pale brownish testaceous.

Hab. Cameroun.

Holotype, &, Lolodorf, January 28, 1919 (J. A. Reis). Carnegie Museum, Accession No. 6305.

Type in the collection of the Carnegie Museum.

Pseudolimnophila (Pseudolimnophila) fulvipennis, sp. n.

General coloration dark brown; mesonotal præscutum with conspicuous erect setæ; halteres light yellow; legs dark brown, the femoral bases conspicuously yellow; wings strongly fulvous; abdominal tergites light brown, narrowly trilineate with darker brown, sternites obscure yellow.

Female. - Length 10.5 mm.; wing 10.4 mm.

Rostrum and palpi dark brown. Antennæ with the scapal segments dark brown; basal flagellar segments yellow basally, becoming darker apically; remaining flagellar segments light brown, darker towards the end of the organ. Head grey, the vertex darker medially.

Pronotum dark grey, pruinose. Mesonotal præscutum dark brownish grey, the median area brown; entire surface of præscutum with conspicuous erect setæ; remainder of mesonotum dark brown; scutellum with conspicuous erect setæ; postnotum naked. Pleura dark brown, sparsely pruinose. Halteres light yellow. Legs with the coxæ dark brown, sparsely pruinose; trochanters light yellow; remainder of legs dark brown, the femoral bases broadly and conspicuously yellow. Wings with a strong fulvous tinge, more saturated, and becoming almost brown in the cells distad of the cord; stigma elongate-oval, brown; veins brown. Venation: Sc1 ending immediately before the fork of Rs, Sc2 at tip of Sc1; Rs elongate, strongly arcuated at origin;  $R_{2+3}$  a little less than one-half  $R_{3}$ , rather strongly arcuated; r near tip of  $R_1$ ; petiole of cell M<sub>1</sub> a little longer than the basal deflection of Cu<sub>1</sub>, the latter at between two-thirds and three-fourths the length of cell

Abdominal tergites light brown, narrowly trilineate with darker brown; sternites obscure yellow. Genital segment obscure yellow dorsally, dark brown ventrally; valves of the ovipositor horn-coloured.

Hab. Madagascar.

Holotype, ?, collected by Sikora.

Type in the collection of the Vienna Museum.

Pseudolimnophila (Pseudolimnophila) recens, sp. n.

General coloration light brown, postnotum and thoracic pleura sparsely pruinose; wings nearly hyaline, stigma scarcely apparent; r at tip of  $R_1$  and near mid-length of  $R_2$ .

Male.—Length about 5 mm.; wing 7.2 mm.

Rostrum and palpi light brown. Antennæ short, brown, the basal scapal segment darker; first flagellar segment brightened at extreme base. Head light brown, more greyish adjoining the inner margin of eyes; head not strongly narrowed behind.

Mesonotal præscutum with three light brown, confluent stripes; humeral region and lateral margins broadly paler; pseudosutural foveæ small, oval, pale reddish; scutum and postnotum light grey pruinose; scutellum obscure yellow. Pleura light yellowish brown, sparsely grey pruinose. Halteres pale, the knobs slightly infuscated. Legs with the coxæ and trochanters pale whitish yellow; femora light brown; tibiæ brown, the tips rather broadly dark brown; tarsi brown. Wings nearly hyaline; stigma scarcely apparent; veins pale brown. Venation:  $Sc_1$  ending opposite the fork of Rs,  $Sc_2$  longer than  $Sc_1$  and near its tip; Rs angulated and more or less spurred at origin;  $R_{2+3}$ approximately one-half of Rs, not conspicuously arcuated, about twice the basal deflection of  $Cu_1$ ; r at extreme tip of  $R_1$  (which is subatrophied beyond it) and just before midlength of  $R_2$ ; petiole of cell  $M_1$  a little shorter than  $R_{2+3}$ ; m shorter than the deflection of  $M_3$ ; inner end of cell 1st  $M_2$  rather conspicuously arcuated; basal deflection of  $Cu_1$  near two-fifths the length of cell 1st  $M_2$ .

Abdomen light brown; a brownish-black subterminal ring; hypopygium obscure yellow. Male hypopygium with the pleural appendage broad-based, pale, the apex a short, recurved, black hook.

Hab. Madagascar.

Holotype, 3, collected by Sikora.

Type in the collection of the Vienna Museum.

## Limnophila sikorai, sp. n.

Mesonotum testaceous-yellow, thoracic pleura infuscated; halteres yellow; wings with a greyish-yellow tinge, spotted

with light brown, this pattern including a series of spots at the ends of the longitudinal veins around the wing-margin; Rs long, in alignment with  $R_{2+3}$ ; r far from tip of  $R_1$ ; cell  $M_1$  about as long as its petiole; basal deflection of  $Cu_1$  at from one-fourth to one-fifth the length of cell 1st  $M_2$ .

Female.—Length 6.8 mm.; wing 7.1 mm.

Rostrum and palpi brown. Antennæ short, brown, the flagellar segments with a dense white pubescence. Head

brown, sparsely grey pruinose.

Pronotum brownish testaceous. Mesonotum light testaceous-vellow, unmarked. Pleura infuscated, contrasting with the pale mesonotum. Halteres yellow. Legs yellowish. Wings with a greyish-yellow tinge; stigma brown; wing-membrane spotted with light brown, distributed as follows: Conspicuous brown clouds around the wing-margin at the ends of the longitudinal veins; seams along the cord and outer end of cell 1st  $M_2$ , origin of Rs, fork of  $M_{1+2}$ ; pale washes in the bases of cells R to 2nd A and in the anal cells opposite the origin of Rs; cells C and Sc light yellow; veins brown, those in the costal region paler. Venation:  $Sc_1$  ending shortly before the fork of Rs,  $Sc_2$  at its tip; Rs long, gently arcuated at origin, in alignment with  $R_{2+3}$ ;  $R_{2+3}$  shorter than the basal deflection of  $Cu_1$ ; r very faint, removed from the tip of  $R_1$  to a distance a little longer than the basal deflection of  $Cu_1$  and on  $R_2$  about its own length beyond the fork of Rs; inner ends of cells  $R_3$ ,  $R_5$ , and 1st $M_2$  about in alignment; cell 1st  $M_2$  elongate-rectangular, slightly widened distally; petiole of cell  $M_1$  approximately as long as cell; basal deflection of  $Cu_1$  at about one-fourth to one-fifth the length of cell 1st  $M_2$ .

Abdomen dark brown, the basal sternites a little paler. Ovipositor with the valves very long and straight, horn-

coloured.

Hab. Madagascar.

Holotype, 9, Fort Dauphin (Sikora).

Type in the collection of the Vienna Museum.

This interesting crane-fly is dedicated to the collector, who has discovered many interesting species of these flies in Madagascar and the Mascarene Islands. The fly should probably be referred to the genus *Pilaria*, Sintenis, rather than to *Limnophila*, and the discovery of a male specimen would presumably confirm this reference.

## Eriocera evanescens, sp. n.

General coloration brownish black; antennæ short in both sexes; wings with a strong brown tinge, most intense along the costal region; Sc long, cell 1st  $M_2$  relatively small, tending to be open by the atrophy of m; cell  $M_1$  lacking.

Male.—Length 12 mm.; wing 11 mm. Female.—Length 20 mm.; wing 15 mm.

Rostrum and palpi brownish black. Antennæ short in both sexes, black. Head brownish black, paler adjoining

the inner margin of the eyes.

Thorax brownish black, sparsely dusted with brown. Halteres and legs brownish black. Wings with a strong brown tinge, the costal region more saturated, this intense coloration including the costal and subcostal cells and the radial region to the wing-apex; veins dark brown. Venation: Sc very long,  $Sc_1$  ending approximately opposite r,  $Sc_2$  some distance from the tip of  $Sc_1$ , the latter alone being about equal to the deflection of  $R_{4+5}$ ; Rs elongate, arcuated at origin; cell 1st  $M_2$  open or closed, m tending to be evanescent; veins beyond cell 1st  $M_2$  very long and parallel; cell  $M_1$  lacking; basal deflection of  $Cu_1$  beyond the fork of M;  $Cu_2$  and the basal deflection of  $Cu_1$  subequal.

Abdomen black with a brown pollen. Abdomen of female relatively elongate; valves of ovipositor elongate, acicular, black, the apices of tergal valves horn-coloured.

Hab. Cameroun.

Holotype, 3, Metet, 200 miles inland, east of Batanga, June 20, 1918 (A. I. Good).

Allotopotype, ?, in ccpula with type. Carnegie Museum, Accession No. 6317. Type in the collection of the Carnegie Museum.

# XXIX.—On the Calacanth Fish. By D. M. S. WATSON, University College, London.

For some years I have been interested in Coelacanth fish, because, although commonly included with the Osteolepids, they differ from those forms in many respects, and have in s me ways marked resemblances to the Teleosts. I therefore investigated the structure of *Macropoma* in specimens partly of my own, partly lent me by Mr. G. E. Dibley, F.G.S. Whilst I was actually writing this paper I received from Dr. E. A. Stensio a copy of his great work on the 'Triassic Fishes from Spitzbergen' (Vienna, Adolf Holzhausen, 1921),