TWO REMARKABLE EAST INDIAN GALL MIDGES.

by

E. P. FELT

(State Entomologist of New York).

The two species characterized below are referred to new genera, since they present unusual structural characteristics. The Asphondylid is remarkable for this group on account of the strongly curved, minutely denticulate claws, while the other presents unique characters so far as is known to the writer in the nearly identical antennal structure of both sexes, it being that of a typical male Diplosid.

Asphoxenomyia n. g.

The characteristic Asphondylia antennae, the exserted ovipositor, the uniarticulate palpi and the presumably normal or very slightly reduced 13th and 14th antennal segments of the female would place this remarkable insect in the genus Stephomyia TAV., were it not for the strongly angulate, minutely denticulate claws, the rudimentary pulvilli and the marked differences in the structure of the ovipositor.

Type *A. smilacis* n. sp.

Asphoxenomyia smilacis n. sp.

The midges were labelled: *Smilax modesta* DC., Mt. Gedeh, Tjibodas, altitude 1600 meters, January 14, 1926, gall 104, [1]) D. v. L., and were received under date of March 16, 1926 from Dr. W. DOCTERS VAN LEEUWEN of the Botanic Gardens, Buitenzorg, Java.

Male. Length 3 mm. Antennae probably $\frac{3}{4}$ the length of the body, sparsely haired, pale brown, presumably 14 segments, the 5th with a length 3 times its diameter and with numerous irregular anastomosing circumfila suggestive of the male Schizomyia KIEFF., terminal segment missing, palpus consisting of one short, broadly oval, thickly haired lobe; entire thorax pale yellowish-orange, the scutellum and postscutellum lighter, the former setose apically, abdomen pale yellowish, wings rather thickly scaled, subhyaline, the third vein uniting with the margin at the apex; halteres yellowish basally, fuscous apically, coxae pale yellowish, with tufts of long black hairs apically; femora, tibiae and tarsi dark straw, claws long, curved basally at almost a right angle, the inner margin finely denticulate, the pulvilli rudimentary. Genitalia, basal clasp segment short, stout, broadly rounded externally, terminal clasp segment short, unidentate apically, dorsal plate deeply and triangularly emarginate, the lobes narrowly ovo-quadrate and sparsely setose. Other structures indistinct in the preparation.

[1]) DOCTERS VAN LEEUWEN-REIJNVAAN. The zoocecidia of the Netherlands East Indies. Batavia, 1926. p. 85, fig. 60.

Female. Length 3.5 mm. Antennae extending to the third abdominal segment, sparsely haired, pale yellowish, presumably 14 segments, the fifth with a length 2½ times its diameter and the normal type of *Asphondylia circumfila*, the 12th segment not reduced, the 13th and 14th probably not reduced or but slightly reduced; entire thorax pale yellowish-orange, scutellum with long fuscous setae apically, abdomen mostly dark orange, rather thickly clothed with fuscous hairs, wings thickly scaled, subhyaline; halteres yellowish basally, fuscous apically, coxae yellowish with long black hairs, legs dark straw or fuscous, abdomen truncate apically, ventrally with roundly triangular setose lobes, with a length about 1/2 greater than the major width; the ovipositor short, subconical, with a length about twice the major diameter and a distinct constriction near the distal fourth. Other characters as in the male.

Type Cecid. A3449, N. Y. State Museum.

Gynodiplosis n. g.

The antennal characters clearly place this insect in the Trifila of the Itonidinariae, the unidentate claws and the uniarticulate palpi locate the genus with Allodiplosis KIEF. & JORG. and Frauenfeldiella RÜBS. in our „Key to Genera" published in N. Y. State Museum Bulletin 257, 1925. The lack of a well developed cross vein nearly parallel with costa and the circumfila, presenting normal characteristics for the group, prevent the reference of this genus to either of the above named. This form is most remarkable in that the female antennae are nearly indistinguishable from those of the male, both as to the form of the segments and the development and arrangement of the circumfila. The antennal characters are somewhat suggestive of Caryomyia FELT, though the prolongation and constriction of the flagellate segments is much greater and the circumfila are decidedly longer. These structures are also suggestive of Hormomyia H. Lw., though the unidentate claws prevent the reference of this genus to any of those named above.

Type G. humata.

Gynodiplosis humata n. sp.

The specimens described below were labelled: *Humata alpina* MOORE, Mt. Gedeh, Tjibodas, altitude 1500 meters, January 13, 1926, gall 14, [1]) D. v. L. and were received from Dr. W. DOCTERS VAN LEEUWEN, Botanic Gardens, Buitenzorg, Java under date of March 16, 1926.

Male. Length 3 mm. Antennae extending nearly to the tip of the abdomen, rather thickly haired, fuscous yellowish, 14 segments, the 5th having the basal portion of the stem with a length twice its diameter, the distal part with a length ½ greater than its diameter, the basal enlargement subglobose, with a thick subbasal whorl of long stout setae and a subapical whorl of circumfila, the loops with a length greater than the diameter of the segment, the distal enlargement pyriform, with a rather thick subapical whorl of long stout setae and subbasal and subapical circumfila, the loops about as long as those of the basal enlargement; terminal segment having the basal portion of the stem with a length ½ greater than its diameter, the basal enlargement broadly oval, the distal enlargement produced, somewhat constricted near the middle and expanding slightly to a broadly rounded apex, well developed circumfila being borne on the basal portion of this enlargement and apically; palpi consisting of one moderately long, quadrate, thickly setose segment; mesonotum and scutellum yellowish-

[1]) DOCTERS VAN LEEUWEN-REIJNVAAN. loc. cit. p. 52, fig. 8.

brown, the latter fuscous apically, postscutellum lighter, abdomen pale yellowish, rather sparsely clothed with fuscous hairs, wings thickly scaled, subhyaline, halteres whitish transparent; coxae and femora mostly pale straw, tibiae darker, tarsi mostly fuscous, claws long stout, strongly curved, unidentate, the pulvilli as long as the claws. Genitalia, basal clasp segment moderately long, stout, terminal clasp segment long, rather stout, strongly curved; dorsal plate deeply and triangularly emarginate, the lobes broad, broadly rounded apically, ventral plate moderately long, broad, apparently broadly rounded apically.

Female. Length 4 mm. Antennae extending to the third abdominal segment, thickly haired, fuscous yellowish, 14 segments, flagellate binodose, with whorls of setae and three circumfila practically identical with the male, the basal stem with a length $\frac{3}{4}$ its diameter and the distal portion with a length $\frac{1}{4}$ greater than its diameter; terminal segment, basal portion broadly ovate, the stem with a length $\frac{1}{2}$ its diameter, the distal enlargement subcylindrical, with a length over twice its diameter and long, thick, circumfilar loops subbasally and apically; palpi consisting of one moderately long, subquadrate, thickly setose segment; mesonotum fuscous yellowish, scutellum pale yellowish, thickly clothed apically with long fuscous hairs, postscutellum fuscous yellowish, abdomen pale yellowish, rather thickly clothed with fuscous and tawny hairs, wings thickly scaled, subhyaline, costa pale yellowish basally; halteres pale yellowish; coxae, femora and tibiae pale orange, the anterior and middle tarsi fuscous, the posterior tarsi pale yellowish, abdomen obtuse apically, the ovipositor short, the terminal lobes broadly oval, setose and attached to a subquadrate base.

Type Cecid. A3448, N. Y. State Museum.