## SIX NEW SPECIES OF GALL MIDGES (ITONIDIDAE : DIPTERA) FROM INDIA

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The type specimens are deposited in the collections of the Zoological Survey of India, Calcutta.

I thank Prof. M. S. Mani for guidance and facilities for work.

#### Subfamily. LESTREMIINAE

#### LESTREMIINI Tribe.

#### Genus. Anarete Haliday

1833. Anarete, Haliday, Ent, Mag., 1: 156. 1913. Microcerata, Kieffer, Gen. Ins., 152: 309.

1938. Anarete, Edwards, Proc. R. ent. Soc. London, 7(B) :28.

1951. Anarete, Pritchard, Univ. Calif. Publ. Ent., 8(6):258.

Palpi tri-or quadriarticulate; antenna with 8-10 or 11 segments; second antennal segment greatly enlarged, subglobose;  $R_1$  and  $R_5$  united as though by very short  $R_5$ , fork of vein  $M_{1^-2}$  even, claw simple.

Genotype : Anarete perplexa (Felt)

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Edwards (loc. cit.) considers Microcerata Felt to be identical with this genus.

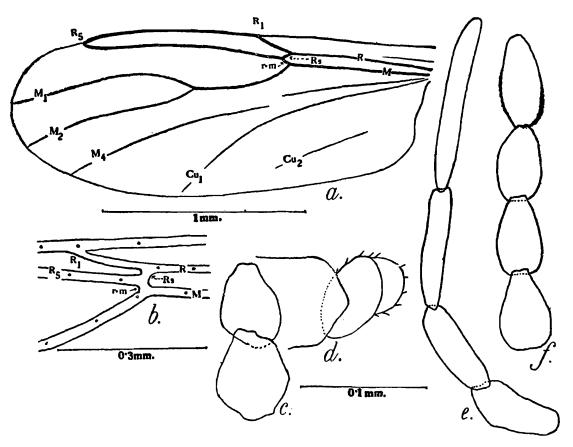
This genus now stands without any Indian species, as Anarete calcuttaensis Nayar and A. (Microcerata) indica (Mani) have been transferred by Pritchard to Conarete Prtichard (loc. cit.).

#### Anarete manii, sp. nov.

Q Length 1.8 mm. Dark brown. Eyes confluent above. Palpi (Textfig. 1, e) quadriarticulate, long, moderately setose, light brown, first segment subcylindrical, very slightly narrowed at base, shortest of all length one and one-fifth the thickness in middle, widest at the apical three-fourths; second segment cylindrical, one and one-third the length of first, thrice its own thickness; third segment one and one-fourth longer than second, length nearly four times its own thickness; fourth segment longest of all, one and a half times as long as third and six times as long as thick. Antenna brownish-yellow, a little over one-fourth the length of the body, segments nine, subcylindrical, very sparsely setose, without basal but with very short apical stems; first two antennal segments invisible in the preparation; third segment (Text-fig. 1,c) widest in middle, length one and two-thirds the maximum thickness; fourth

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segment (Text-fig. 1, c) shorter than third, length nearly one and onefourth the maximum thickness; fifth segment very slightly narrower and shorter than second, length one and one-third the thickness, sixth segment (Text-fig. 1, f) similar to the fifth; seventh segment (Textfig. 1, f) narrower than sixth, length nearly one and a half times the maximum thickness; penultimate segment (Text-fig. 1, f) as long as the eighth but slightly narrower, length a little less than twice the thickness; terminal segment (Text-fig. 1, f) nearly as long as the third, longer than the penultimate, nearly two and a half times its own thickness. Mesonotum dark brown. Scutellum and postscutellum slightly paler. Halteres brownish. Abdomen light brown. Wings (Text-fig. 1, a) hyaline, nearly rectangular, length a little less than twice the width, microtrichia spread rather thickly on the veins,



**TEXT-FIG. 1.** Anarete manii, sp. nov. a. Wing; b. Portion of wing enlarged; e, Third and fourth antennal segments; d. Ovipositor; e. Palpi; f. Terminal four antennal segments.

wing margin interrupted immediately beyond the union of  $R_5$  with costa, rest of the details in (Text-fig 1, a, b). Legs short, brown, sparsely clothed with setae, tarsi quinquiartculate, metatarsus long, nearly as long as the rest of the tarsal segments combined, length two and half times the second tarsal segment. Claw stout, dark blackish-brown, simple, evenly curved. Empodium nearly half the length of the claw. Ovipositor (Text-fig. 1, d) exserted, terminal lobes elongate oval.

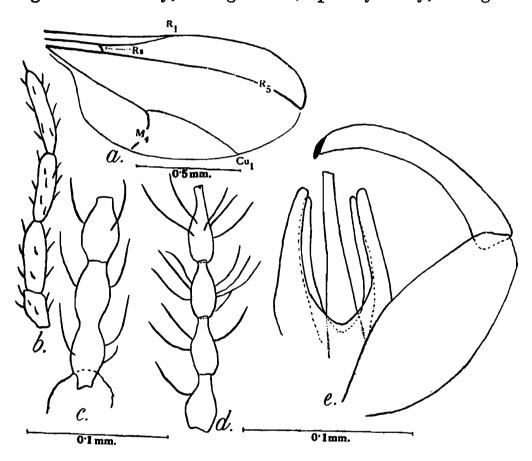
Holotype 1 Q on slide No. 2159/H6. "On wing, Zoology Research Laboratory, St. John's College, Agra, M. S. Mani coll., 27. iii. 1950".

**Paratype** 1 Q on slide in the collections of the author. "On wing Zoology Research Laboratory, St. John's College, Agra, S. N. Rao coll., 27. iii. 1950".

# Subfamily. HETEROPEZINAE

Haplusiella indica, sp. nov.

 $\mathcal{S}$  Length 1.10 mm. Yellowish-brown. Eyes confluent above. Trophi elongate. Palpi (Text-fig. 2, b) quadriarticulate, whitish-brown, long, sparsely hairy, first segment nearly cylindrical, shortest of all, slightly wider subapically, length one and three-fourths the maximum thickness; second segment a little less than twice the length of the first, cylindrical, length four times the thickness, very slightly narrowed at the extremeties; third segment nearly equal to the second, but narrower, length four and a half times the thickness; fourth segment cylindrical, ends bluntly tapering, longest of all, length a little over six times the median thickness. Antenna light brown, a little longer than half the length of the body, 15-segmented, sparsely hairy, elongate-oval



**TEXT-FIG. 2.** Haplusiella indica, sp. nov. a. Wing; b. Palpi; c. Second to fifth antennal segments; d. Twelfth to fifteenth antennal segments; e. Genitalia. with very short apical stems and gradually becoming shorter and slender towards the tip; first two antennal segments invisible in the prepara-Third antennal segment (Text-fig. 2, c) confluent with the fourth tion. length a little over twice the thickness, with a very short basal stem, fourth segment (Text-fig 2, c) similar to the third with a very short apical stem, fifth segment (Text-fig. 2, c) slightly shorter than the fourth, twice as long as thick; sixth segment similar to the segment (Text-fig. 2, d) shorter than the sixth, thirteenth fifth ; length a little over twice the thickness, apical stem slightly longer than that of the basal segments; penultimate segment (Text-fig. 2, d) equal to the eleventh; terminal segment longest of all with an elongatelyoval basal and a teat-like apical portions, length of enlargement a little

over twice the thickness, teat nearly half the length of the enlargement and two and a half times as long as thick. Mesonotum brown. Scutellum and postscutellum lighter. Abdomen whitish yellow. Halteres whitish basally and brownish apically. Wings (Text-fig. 2, a) hyaline, two and one-fourth times as long as broad, with three pale brown, long veins, costa sparsely setose throughout,  $R_1$  uniting with costa a little before the middle,  $R_5$  distinct and making an obtuse angle with  $R_5$ , the latter reaching the wing margin well beyond the apex, slightly curved distally, interrupting the costa at its union;  $M_4$ -m-cu forked. Legs very long, slender, thickly clothed with short setae, metatarsus nearly equal to the fifth tarsal segment, second tarsal segment nearly equal to the following segments combined. Claw pectinate with five teeth. Empodium shorter than claw. Genitalia (Text-fig. 2, c) : basal clasp segment simple, stout, short, twice as long as thick, terminal clasp segment long, slender, length nine times its median thickness, evenly curved, ending in a brown, blunt tooth. Dorsal plate a little longer than the basal clasp segment, broad deeply cleft in the middle almost up to the base, lobes long, narrow; ventral plate narrower and slightly shorter than the dorsal plate, deeply cleft in the middle, almost to the base, style a little longer than the dorsal plate, broader basally than at apex, length nearly seven times the median thickness.

Holotype 1 3 on slide No. 2160/H6 "At light, Bishop French Hostel St. John's College, Agra, S. N. Rao coll., June 1949"

This species differs from H. pectiniclava Rao<sup>\*</sup> in the yellowish-brown colour of the body and the differences in the palpi and genitalia.

### Subfamily. ITONIDIDINAE.

#### Tribe TRIFILINI

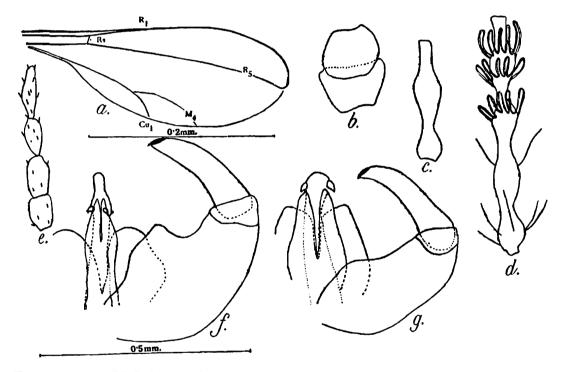
#### Diplodontomyia orientalis Rao

1949. Diplodonto nyia orientalis, Rao, Indian J. Ent., 11(2): 120

This species was described by me from a single  $\Im$  taken at light by Prof. Mani at Hwett Park, Agra in 1947. I reexamined my type slide and amend my original description of the genitalia as in Text-fig. 3, g.

#### Diplodontomyia deepics, sp. nov.

3 Length 1.0 mm. Light yellowish-brown. Eyes confluent above. Palpi (Text-fig. 3, e) quadriarticulate. Yellowish-white, sparsely setose, first segment cylindrical, shortest of all, length one and two thirds the thickness, second segment longer than the first, twice as long as thick, third segment slender than second, fourth segment longest, cylindrical, one and half times as long as the third and thrice as long as thick. Antenna pale yellow, broken, flagellate segments binodose, with two whorls of long pale-yellow, slender setae and three whorls of circumfilae; first antennal segment (Text-fig. 3, b) short, pale yellow, widest at apex, width at apex two and a half times the length, second segment (Text-fig. 3, b) short, pale yellow, globose; third segment (Textfig. 3, d) confluent with the fourth, seven times as long as the first, basal enlargement subglobose, basal stem half the length of the basal enlargement, one and one-third as long as thick, apical enlargement one and one-fourth the basal enlargement and nearly one and half times its maximum width, apical stem half the length of apical enlargement, slightly longer than the basal stem, one and the two-thirds as long as thick. Fourth segment (Text-fig. 3, d) as long as the third, basal enlargement slightly wider than long, subglobose, length of basal stem slightly less than that of the basal enlargement, and one and two-thirds its own thickness, apical enlargement one and two thirds the basal enlargement, one and half times as long as thick, widest at the apical three-fourths, apical stem slightly longer than the basal and twice as long as thick. Fifth segment (Text-fig. 3, c) a little longer than the fourth, but somewhat more slender, basal enlargment nearly globose, basal stem twice as long as thick, as long as the basal enlargement, apical enlargement one and half times the basal enlargement, and also of its



**TEXT-FIG. 3.** Diplodontomyia deepica, sp. nov. a. Wing; b. First two antenna segments; c. Fifth antennal segment; d. Third and fourth antennal segments; Palpi; f. Genitalia; g. Diplodontomyia orientalis Rao-Genitalia.

own thickness, apical stem a little over twice its own thickness and a little longer than the basal stem. Sixth segment similar in all propor-Mesonotum yellowish-brown. tions to the fifth. Scutellum and post-Abdomen light yellow. Halteres pale yellowishscutellum light yellow. white. Wings (Text-fig. 3, a) hyaline, thrice as long as broad, costa interrupted at its union with  $R_5$ , the latter reaching the wing margin at apex, and slightly bent distally.  $R_5$  very distinct,  $M_1$ -m-cu forked, veins obsolete. Legs long, light yellow, sparsely clothed with hairs, metatarsus nearly equal to the fifth tarsal segment, second segment longest of all, but shorter than the rest of the segments combined, third segment half the second. Claw simple, yellowish-brown, bent at right angles, empodium rudimentary. Genitalia (Text-fig. 3, f) basal clasp segment short, stout, length a little less than or twice the thickness, with a small triangular lobe basally; terminal clasp segment stout, shorter than the

basal clasp segment, thickest at base and gradually tapering towards the tip and ending in a blunt tooth, very slightly curved, length four times its thickness in the middle; dorsal plate narrow, broadened subapically, longer than the ventral plate, deeply incised, lobes pointed apically, thickened and fringed with spines on the margins; ventral plate deeply incised in the middle, lobes bluntly rounded apically, apical and ventral margins of lobes thickened with innumerable spines.

Holotype 1 3 on slide No. 2161/H6. "At light, Bishop French Hostel, S. N. Rao coll., Agra, June 1949"

This species differs from D. orientalis Rao<sup>\*</sup> in the different porportions of the stems and enlargements of the antennal segments, in the differences in the palpal segments, in the rudimentary empodium, in the basal clasp segment having a rather prominent lobe, in the rounded apical margins of the ventral plate, in the subapical arrangement of the teeth on the style and in the yellowish-brown colour of the body.

#### Genus Charidiplosis Tavares

1918. Charidiplosis, Tavares, Broteria, 16:80.

1925. Charidiplosis, Felt, Bull. N. Y. St. Mus., 257:166.

1929. Charidiplosis, Folt, Lingnan Sci. J., 7: 453.

1945. Charidiplosis, Mani, Indian J. Ent., 7:221.

Palpi quardriarticulate. Antenna with 14 segments, flagellate segments all binodose, with three whorls of circumfilae and two whorls of setae, loops of the circumfila all of the same length in a single whorl. Wings hyaline, vein Rs wanting,  $R_5$  reaching the wing margin beyond apex. Legs long, thickly clothed with setae, claw simple, bent at right angles. Basal clasp segment with a triangular lobe, terminal clasp segment shorter than basal clasp segment, slender, dorsal plate broad, deeply notched; ventral plate longer than dorsal plate, style longer than ventral plate.

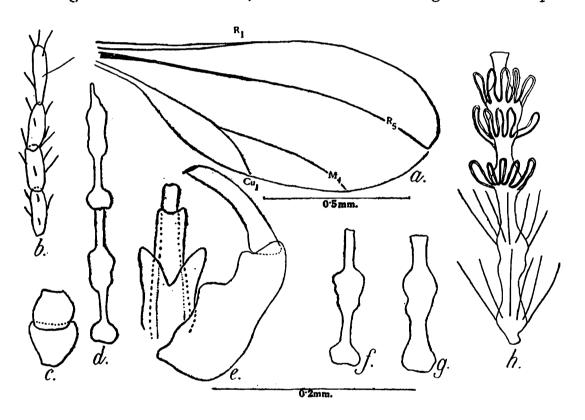
Genotype : *Charidiplosis concinna* Tavares This is the first record of the genus from the Old World.

#### Charidiplosis indica, sp. nov.

3 Length 1.3 mm. Brown. Eyes confluent above. Trophi slightly produced. Palpi (Text-fig. 4, b) quardriarticulate, pale brown, sparsely setose, first segment cylindrical, shortest, length nearly twice the thickness, second segment cylindrical, equal to the first, stouter, less than twice its own thickness, third segment cylindrical, as long as but slightly narrower than the second, length three and one-third the thickness, fourth segment subcylindrical, narrower basally than at apex, longest of all, length four times the median thickness. Antenna brown, nearly one and one-fourth the length of the body, segments 14, flagellate segments all binodose, basal enlargements globose, with one whorl of long setae and a whorl of circumfila, apical enlargements with a slight constriction a little before the middle, with one whorl of setae and two

<sup>\*</sup>Rao, S. N. 1949. Indian J. Ent., 11(2): 120.

whorls of circumfilae, segments gradually becoming narrower towards the apex; first segment (Text-fig. 4, c) brown, wider apically than at base, length four-fifths the width at apex; second segment (Textfig. 4, c) globose, as long as the first; third segment (Text fig. 4, h) confluent with the fourth, with a small stem at the extreme base, basal enlargement globose, basal stem shorter than the basal enlargement, length nearly one and a half times the thickness, apical enlargement longer than the basal, length a little less than twice the thickness; apical stem longer than the basal stem, length twice the thickness; fourth segment (fig. 4, h) as long as the third, basal enlargement globose, basal stem slightly shorter than the basal enlargement, length a tittle less than twice the thickness, apical enlargement less than twice the basal enlargement and a little less than twice its own thickness, apical stem longer than the basal stem, three-fourths the length of the apical



**TEXT-FIG. 4.** Charidiplosis indica, sp. nov. a. Wing; b. Palpi; c. First two antennal segments; d. Terminal two antennal segments; e. Genitalia; f. Eleventh antennal segment; g. Fifth antennal segment; h. Third and fourth antennal segments.

enlargement and two and two-thirds its own thicnkess; fifth segment(Textfig. 4, g) slightly shorter than the fourth, basal enlargement wider than long, subglobose, length of basal stem two and one-third the thickness, apical enlargement one and a half times the length of the basal enlargement, and also of its own thickness, apical stem as long as the apical enlargement, thrice as long as thick; seventh segment very slightly shorter than the fifth, basal enlargement wider than long, length five times the thickness, length of basal stem two and one-third the thickness, apical enlargement one and a half times as long as thick, apical stem as long as the apical enlargement, thrice as long as thick; penultimate segment (Text-fig. 4, d) slightly shorter than the terminal segment, basal enlargement wider than long, basal stem three and a half times as

long as thick, apical enlargement a little less than twice the length of the basal enlargement, and also of its own thickness, apical stem as long as the apical enlargement, six times as long as thick; terminal segment (Text-fig. 4, d) slightly longer than the penultimate segment, basal enlargement wider than long, length nearly two-thirds the thickness, basal stem long, four times as long as thick, apical enlargement more than twice the basal enlargement, a little less than thrice its own thickness, apical stem wider at base, length nearly three and a half times the thickness. Mesonotum brown. Scutellum and postscutellum lighter. Abdomen vellow. Halteres pale vellow. Wings (Text-fig. 4, a) hyaline, a little over twice as long as broad, with three long veins, costa sparsely setose,  $R_1$  uniting with costa about the basal onethird,  $R_5$  reaching the wing margin well beyond the apex,  $R_5$  wanting  $M_{4}$ -m-cu forked, the fork faint. Legs long, yellowish-brown, thickly clothed with setae, metatarsus slightly shorter than the fifth tarsal segment, second segment longest of all, shorter than the following segments combined. Claw brown, slender, bent at right angles. Empodium short-Genitalia (Text-fig. 4, e) yellowish, basal clasp segment er than claw. with an inner triangular lobe, three and a half times as long as broad, terminal clasp segment short, slender, evenly curved and tapering in a blunt tooth at apex, length seven times the thickness in the middle. Dorsal plate broad, broadly and deeply incised in the middle, fringed with small setae; ventral plate narrower, nearly one and a half times the dorsal plate, very shallowly incised at apex; sytle longer than the ventral plate, nearly seven times as long as thick.

Holotype 1 3 on slide No. 2158/H6. "At light, Zoology Research Laboratory, St. John's College, Agra, S. N. Rao coll.,  $31 \times 1950$ .".

### Genus Macrodiplosis Kieffer

1877.	Diplosis (Partim), Fr. Löw, Verh. Zoolbot. Ges. Wien., 27: 14.
	Cecidomyia (partim), Liebel, Zeitscher. f. Naturwiss., 59: 563.
1895.	Macrodiplosis, Kieffer, Bull. Soc. Ent., France, 64: 194.
191 <b>3</b> .	Macrodiplosis, Kieffer, Gen. Ins., 152: 222.
1925.	Macrodiplosis, Felt, Bull. N. Y. St. Mus., 257: 165.
1929.	Macrodiplosis, Felt, Lingnan Sci. J., 7: 425.
1945.	Macrodiplosis, Mani, Indian J. Ent., 7: 221.

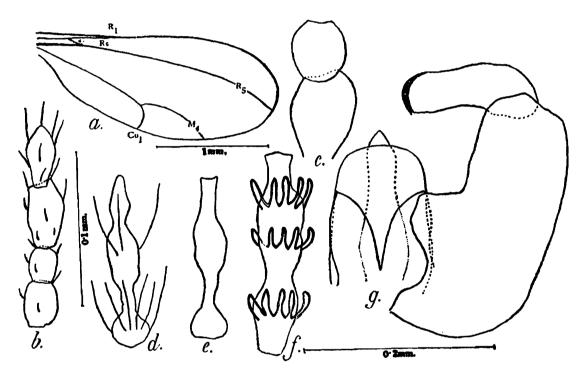
Palpi quadriarticulate. Eyes confluent. Flagellar segments in  $\mathcal{F}$  with a basal subglobose and an apical elongate enlargements. Vein  $R_5$ curved and reaching the wing margin at apex. Claw simple, slightly curved, longer than empodium. Basal clasp segment slightly swollen basally with an internal lobe. Terminal clasp segment large. Lobes of the dorsal plate subtriangular. Ovipositor elongately exserted.

#### Genotype: Macrodiplosis dryobia (Fr. Löw)

This genus is being recorded here for the first time from India. I describe below a new species from two 33 taken on wing at Dehra Dun.

#### Macrodiplosis visvanathi, sp. nov.

 $\mathcal{J}$  Length 2.1 mm. Dark brown. Eyes confluent above. Palpi (Text-fig. 5, b) quadriarticulate, short, very finely setose and very aparsely hairy, yellowish-brown, first segment cylindrical, length one and two-fifths the thickness, second segment cylindrical, shorter than the first, one and a half times as long as thick; third segment subcylindrical, thickest at the middle, one and a half times as long as the second and a little less than twice its own thickness: terminal segment longest, twice as long as thick, thickest in the middle. Antenna nearly equal to the length of the body, brown, segments 14, flagellate segments all binodose, with two whorls of long setae, one on the basal enlargement and the second on the apical enlargement, with three whorls of short circumfilae, first antennal segment (Textfig. 5, c) brown, wider apically than at base, length four times the maximum width; second segment (Text-fig. 5, c) globose, brown; third segment (Text-fig. 5, f) not confluent with the fourth, one and a half times the length of the first and second segments combined, basal enlargement cylindrical, thickest in the middle, ends, tapering, length nearly one and a half times the median thickness, basal stem very short, wider than long, nearly one-fourth the length of the basal enlargement, length a little less than half the thickness apical enlargement as long as the basal, but slightly slender, very slightly wider at apcial three-fourths length nearly one and a half maximum thickness, apical stem longer than the basal times the the length of the apical enlargement, one and stem, two-fifths two-fifths as long as thick; fourth segment (Text-fig. 5, e) slightly shorter than the third, basal enlargement globose, basal stem three-fifths the length of the basal enlargement, one and one-fifth as long as thick, apical enlargement nearly equal to the basal enlargement and basal stem combined, length a little over one and a half times its thickness in the middle, very slightly wider at the apical three-fourths, apical stem one and a half times longer than the basal stem, a little over half the length of the basal enlargement, and a little less than twice as long as thick; fifth segment very slightly longer than the fourth, basal enlargement globose, basal stem four-fifths the basal enlargement, and one and two-fifths as long as thick, apical enlargement twice the length of the basal stem, and one and two-fifths as long as thick, apical stem two and one-fourth times as long as thick; seventh segment as long as the fifth, basal enlargement globose, basal stem a little less than the basal enlargement, length a little less than thrice the thickness, apical enlargement one and a half times the length of the basal enlargement, length one and two-thirds the thickness, apical stem two-thirds the length of the apical enlargement and two and a half times its own thickness; eleventh segment slightly shorter than the seventh, basal enlargement wider than long, length of basal stem a little less than thrice the thickness; twelfth segment very slightly shorter than the eleventh, basal enlargement sub-globose, length a little greater than the thickness, basal stem nearly twice as long as thick, apical enlargement a little less than twice the basal enlargement and nearly twice its own thickness, apical stem two and one-fourth the thickness; penultimate segment as long as the twelfth, basal enlargement globose, length of basal stem two and two-thirds the thickness, apical enlargement nearly cne and a half times the length of the basal enlargement and a little less than twice its own thickness, apical stem longer than the basal stem, length a little over two and a half times the thickness; terminal segment slightly longer than the penultimate (Text-fig. 5, d), basal enlargement wider than long, length of basal stem a little over twice the thickness, apical enlargement twice the basal enlargement, twice its own thickness, length of apical stem two and a half times its own thickness. Mesonotum dark brown, scutellum and postscutellum lighter. Abdomen brown. Halteres brown. Wings (Text-fig. 5, a) hyaline, length two and one-third the width, with three long brown veins, costa sparsely setose,  $R_1$  joining the costa at its basal third,  $R_5$ slightly curved distally, reaching the wing margin well beyond the apex, Rs wanting,  $M_4$ -m-cu forked. Legs long, brown, metatarsus three-fourths the length of the fifth tarsal segment, second tarsal



TEXT-FIG. 5. *Macrodiplosis visvanathi*, sp. nov. a. Wing; b. Palpi; c. First two antennal segments; d. Terminal antennal segments; e. Fourth antennal segment; f. Third antennal segment; g. Genitalia.

segment longest of all, shorter than the following segments combined. Claw simple, well developed, dark brown, curved at the distal third, empodium equal to claw. Genitalia (Text-fig. 5, g) brown, very sparsely hairy, basal clasp segment swollen basally with a small triangular lobe, length two and two-fifths the median thickness, terminal clasp segment short, stout, slightly narrowed distally, thrice as long as thick, ending in a dark brown blunt tooth; dorsal plate broad, short, deeply notched in the middle, lobes narrowed, tips of lobes pointed; ventral, plate broad, long, longer than the dorsal plate, laterally and subapically emarginate, with short stiff setae, style a little longer than the ventral plate, nearly five times as long as the median thickness, slightly wider at base than at apex.

Holotype 1 3 on slide No. 2157/H6. "At light, Officers' Guest House Indian Forest Research Institute, Dhera Dun, M. Visvanath coll., 7. vii 1950". **Paratype 1**  $\mathcal{J}$  on slide in the author's personal collection.

#### Genus Microplecus Kieffer

Microplecus, Kieffer, Bull. Soc. Hist. Nat. Metz., 28: 107. 1913.

1913.

Microplecus, Kieffer, Gen. Ins., 152: 190. Microplecus, Felt, Bull. N. Y. St. Mus., 257: 170. Microplecus, Felt, Lingnan Sci. J., 7: 456. Microplecus, Mani., Indian J. Ent., 7: 225. 1925.

1929.

1945.

Palpi (not counting the palpiger) with three short segments. Flagellate segments unequally binodose, basal enlargements globose, with one whorl of circumfila and setae, the circumfila not reaching one-fourth the setae, terminal enlargements oval, with two whorls of circumfila and setae, the circumfila not reaching one-fourth the setae; third and fourth antennal segments connate, the third without stem, slightly longer than  $R_5$  slightly curved, reaching the margin at apex. Claw small, the fourth. simple, empodium very short. Basal clasp segment with a chitinous, spinous, medium process in the middle. Terminal clasp segment very slender, gradually reduced, curved, rarely sparsely covered with short setae, dorsal plate bilobed, the lobes rounded, ventral plate longer, gradually widened apically and broadly rounded, style very long, cylindrical and truncate, the tip chitinised, crenulated ventrally and uniformly curved dorsally.

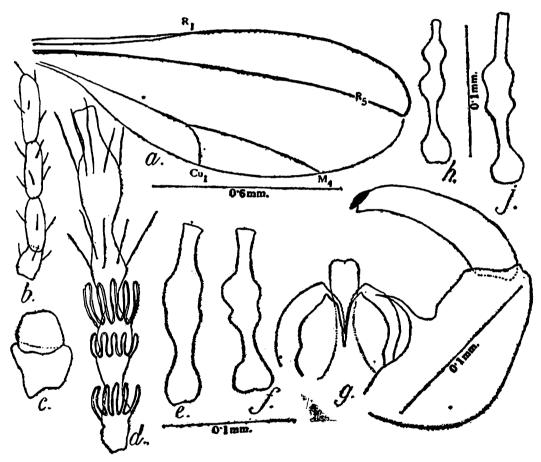
Genotype: Microplecus brevipalpi Kieffer

This monotypic genus so far known only from East Africa is being recorded here for the first time from India.

### Microplecus longipalpi, sp. nov.

Brown. Eyes confluent above. Palpi (Text-♂ Length 1.3 mm. palpiger, quadriarticulate, brown, fig. 6, b) counting the pale first segment subcylindrical, shortest. sparsely haired verv slightly narrowed at apex, length one and one-fourth the thickness, second segment cylindrical, little less than twice the first, thrice its own thickness, third segment as long as the second, but slightly narrow, thrice as long as thick, fourth segment longest of all, slightly broader apically than at base, one third longer than the third segment and four times as long as thick. Antenna pale brown, longer than body, with 14 segments, flagellate segments binodose, with three whorls of circumfilae, two whorls of setae, the setae long, circumfila as long as or a little longer than the diameter of the enlargements, basal enlargements globose, apical enlargements cylindrical, but with a slight constriction in the middle suggesting the close union of two small, similar segments, this condition more pronounced in the terminal segments where the segments are almost trinodose (Text-fig 6, h, j). First antennal segment (Text-fig. 6, c) pale brown, widest at apex, length one and one-rourth the width at apex; second segment (Text-fig. 6, c) pale brown, subglobose, length three fourths the width; third segment (Text-fig. 6, d) confluent with the fourth, basal enlargement subglobose, length a little over the median thickness, basal stem a little less than half the length of the hasal enlargement and one-third its own thickness,

apical enlargement a little longer than the basal, and one and two-thirds as long as thick, apical, stem slightly longer than the basal, half the length of the apical enlargement, and one and two-thirds its own thickness; fourth segment as long as the third, basal enlargement slightly shorter and narrower than that of the third segment, length one and three-fourths the thickness, basal stem half the length of the basal enlargement, and one and one-third the thickness, apical enlargement longer than the basal, length one and two-thirds the thickness, apical stem three-fifths the length of the apical enlargement and twice its own thickness; fifth segment (Text-fig. 6, e) very slightly shorter than the fourth, basal enlargement globose, length of basal stem one and twothirds the thickness, apical enlargement longer than the basal, length



**TEXT-FIG. 6.** Microplecus longipalpi, sp. nov. a. Wing; b. Palpi; c. First two antennal segments; d. Third and fourth antennal segments; e. Fifth antennal segment; f. Ninth antennal segment; g. Genitalia; h. Terminal antennal segment; j. Penultimate antennal segment.

one and a half times its thickness, apical stem shorter than the apical enlargement, length a little less than thrice its thickness; sixth segment similar in all proportions to the third; eleventh segment slighly longer than the seventh, the stems and enlargements narrower, basal enlargement subglobose, slightly wider than long, basal stem longer than the basal enlaregment, length thrice its own thickness, apical stem nearly equal to the apical enlargement, four times as long as thick; penultimate segment (Text-fig. 6, j) longer than the eleventh segment, basal enlargement globose, basal stem long and narrow, length nearly five times the thickness, apical enlargement constricted in the middle, length twice the thickness; apical stem long and narrow, length four times the thickness; terminal segment (Text-fig. 6, h) shorter than the

penultimate, basal enlargement globose, basal stem long and narrow, length nearly five times the thickness, apical enlargement constricted in the middle, presenting the trinodose condition, length thickness, apical stem short, four times two and a half times the Mesonotum brown. Scutellum and post scutellum as long as thick. lighter. Halteres thickly setose, pale yellow. Abdomen brownish Wings (Text-fig. 6, a) hyaline, two and three-fifths as long vellow. as wide, with three long veins, without vein Rs, costa interrupted at its union with  $R_5$ , the latter reaching the wing margin beyond apex,  $M_4$ -Legs long, pale brown, thickly clothed with setae, metatar*m-cu* forked. sus a little over half the fifth tarsal segment, second tarsal segment longest, equal to the following segments combined, third segment nearly half the second, fourth segment two-thirds the third, terminal segment three-fifths the fourth. Claw dark brown, slender, simple, bent at right angles. Empodium half the claw. Genitalia (Text-fig. 6,g) brown, basal clasp segment broad, nearly twice as long as thick, broader at base than at apex, with a slightly curved prominent median spine internally; terminal clasp segment nearly equal to the basal clasp segment, slender, thickest at base, gradually narrowed, slightly curved and ending in a blunt tooth at apex. length five and a half times the thickness in the middle; dorsal plate dark reddish-brown, very slightly shorter and narrower than the ventral plate, incised in the middle, lobes heavily sclerotized, pointed at apex in to a blunt spine; ventral plate pale brown, broad, broadly and deeply incised in the middle, very slightly longer than the dorsal plate, lobes bluntly angulated at the internal apicies and fringed internally; style pale brown, longer than the ventral plate, broad at base and spatulate at tip, thinnest in the middle, length nine times the median thickness.

Holotype 1 3 on slide No. 2156/H6. "At light, Bishop French Hostel, St. John's College, Agra, S. N. Rao coll., September, 1949".

Paratypes 2 33 on slides in the collections of the school of Entomology.

This species differs from the only other known species in the following:  $R_5$  joining the wing margin beyond the apex of wing, the circumfila fully half the length of the setae, third and fourth antennal segments equal, ventral plate lobed and nearly equal to the dorsal plate and not widened apically, lobes of dorsal plate not rounded apically, but ending in blunt sclerotized spine-like points and the tip of the style not chitinized.