

**TAXONOMIC RECORDS ON THE GENUS
DARJILINGIA MALAISE (HYMENOPTERA: SYMPHYTA:
TENTHREDINIDAE: ALLANTINAE)**

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ABSTRACT. - The taxonomy of the genus *Darjilingia* Malaise from India is considered. Eight species are recognised. Described as new are *D. glabra*, *D. smithi*, *D. punctata*, *D. satakhaensis*, *D. flagellaria*, *D. similis* and *D. icar*. A key is provided for all the species dealt herewith.

INTRODUCTION

The genus *Darjilingia* was erected by Malaise (1934). So far this genus is represented only by a single species *D. gribodoi* (Konow, 1896). Malaise (1934) while synonymising *Taxonus gribodoi* Konow, 1896, and *Taxonus pulchripes* Cameron, 1899, also shifted them to a new genus *Darjilingia*.

In the present text eight species are described which include, seven new ones. The holotypes of the new species are presently in the collection of the authors and will be deposited in the Indian Agriculture Research Institute (IARI), Pusa National Collections, New Delhi, India, after this work is published.

Abbreviations - EL: eye length, IATS: inner apical tibial spur, ICD: intercenchri distance, IDMO: interocular distance at the level of median ocellus, ITD: intertegular distance, LID: lower inter-ocular distance, MB: metabasitarsus, OATS: outer apical tibial spur, OCL: oculo-ccipital line, OOL: oculo-ocellar line, POL: postocellar line.

TAXONOMY

Genus *Darjilingia* Malaise, 1934

Darjilingia Malaise, 1934: 468. (Type species: *Taxonus gribodoi* Konow, 1896, by original designation).

Description. - Adult: Antenna nearly as long as the whole body, scape twice as long as wide, pedicel hardly wider than long, flagellum equally thick but distinctly compressed; clypeus slightly convex, very widely and deeply incised with sharp lateral teeth; labrum big and flat, obtusely angulated at apex; inner margins of eyes parallel; malar space hardly shorter than diameter of median ocellus; metabasitarsus subequal in length with following tarsal joints combined; tarsal claw with big, flattened basal lobe and a subapical tooth, which is much longer than apical. In forewings nervellus reaches discoidal cell about basad of middle; and cell with oblique cross vein joining brachium at 60°; hind wings without closed middle cells and anal cell not petiolate.

Distribution. - Borneo, India.

KEY TO THE SPECIES OF GENUS *DARJILINGIA* FROM INDIA

1. Mesopleura entirely black 2
- Mesopleura with at least an irregular whitish yellow spot along the posteroventral margin of mesepiasternum and a broad stripe along posterior margin of mesepimeron 4
2. Clypeus roundly incised upto 1/3 of its medial length with wavy bottom (Figs. 1, 4); antennal segment 3 equal to 4 in length; mesopleura rugose with dense, large, pit-like confluent punctures on and along the convexity 3
- Clypeus subsquarely incised upto 1/2 of its medial length with truncate bottom (Fig. 5); antennal segment 3 distinctly shorter than 4, ratio 3:4; mesopleura smooth, shining and impunctate ..
..... *D. glabra*, new species
3. Malar space of the diameter of median ocellus; 3 apical antennal segments compressed; postocellar area longer than broad, ratio 5:4; head with large and dense punctures on frontal area; mesonotum with dense, minute, irregular punctures; abdomen minutely trans-striated; tip of antennal segment 6 and segments 7-9 entirely whitish yellow; 3rd antennal segment fuscoferruginous
..... *D. punctata*, new species
- Malar space less than the diameter of median ocellus; only 9th antennal segment compressed; postocellar area as long as broad; head, mesonotum and abdomen impunctate; only 9th antennal segment more or less whitish yellow; antennal segments 3-5, 7 and 8 fuscoferruginous
..... *D. satakhaensis*, new species
4. Malar space of the diameter of median ocellus; median fovea with a deep pit in its anterior half and posteriorly not reaching median ocellus; postocellar area broader than long, ratio 3:2; small species: length not more than 5.5 mm *D. smithi*, new species
- Malar space less than the diameter of median ocellus; median fovea with a deep pit in its anterior half and posteriorly reaching median ocellus; postocellar area as long as broad or subquadrate; large species: length more than 7 mm 5
5. Antennal segment 3 distinctly shorter than 4, ratio 4:5; posterior margin of propodeum and abdominal tergum 2 except a medial fuscus spot, fulvous; malar space half the diameter of median ocellus 6
- Antennal segment 3 subequal to 4, ratio 8:9; propodeum entirely black; posterior margin of tergum 2nd whitish yellow; malar spaciae more than half the diameter of median ocellus 7
6. Three apical antennal segments compressed in both sexes; clypeus subsquarely incised up to 1/2 of its medial length with truncate bottom (Fig. 8); labrum with pointed anterior tip (Fig. 8); LID:IDMO:EL = 4:4:3; frontal area at the level of eyes; OOL:POL:OCL = 4:4:7; mesoscutellum with a faint carina on its posterior slope; thorax except mesoscutellum with fine, insignificant, scattered punctures. In male, except terga 1 & 2 abdomen is fulvous
..... *D. gribodoi* (Konow, 1896)
- Five apical antennal segments compressed in female but entire flagellum in male; clypeus roundly incised up to 1/2 of its medial length with wavy bottom (Fig. 6); labrum with rounded anterior

margin (Fig. 6); LID:IDMO:EL = 4:5:4; frontal area below the level of eyes; OOL:POL:OCL = 5:4:6; mesoscutellum without carina; thorax except mesoscutellum impunctate; male similar to female, differ more or less in colour pattern *D. flagellaria*, new species

7. Three apical antennal segments compressed; clypeus subsquarely incised (Fig. 3) frontal area below the level of eyes; median fovea with a deep pit in its anterior half and posteriorly only shallowly reaching median ocellus; postocellar area almost as long as broad; OOL:POL:OCL = 1:1:1 *D. similis*, new species
- Four apical antennal segments compressed; clypeus rectangularly incised (Fig. 7); frontal area at the level of eyes; median fovea shallow, moderately deep and clearly reaching median ocellus; postocellar area broader than long, ratio 5:4; OOL:POL:OCL = 6:4:7 ... *D. icar*, new species

Darjilingia glabra, new species

(Figs. 5, 14, 23, 36)

Material examined. - Holotype female, Uttar Pradesh, Mandal, 2300m, 17 Jun.1987.

Paratypes - West Bengal, India - 1 female, 2280 m, Darjeeling, 2 May.1986. Uttar Pradesh, India - 1 female, 2300 m, Mandal, 17 Jun.1987. — Himachal Pradesh, India - 1 female, 2380 m, Kalatop, 11 Jul.1991.

Description. - Female: Average body length, 6.5 mm.

Colour of body black, whitish yellow are: antennal segments 7-9; labrum; clypeus; a triangular spot on supraclypeal area; mandible barring apex; posterodorsal margins of pronotum; tegula; parapterum; posterior and deflexed lateral margins of terga 2-5; tergum 9 more or less; sternites 2-4 entirely and a middle triangular spot on 5th; apical 1/3 of all coxae; metatarsal joints except metabasitarsus. Piceous are: basal 2/3 of all coxae; all trochanters more or less; four front femora excepting extreme apices; metafemur and metabasitarsus more or less; rest of the legs fuscoferruginous. Wings hyaline; costa and basal 1/3 of stigma fulvous; rest of the venation piceous.

Antenna 9 segmented, 3.3X head width; scape twice as long as its apical width; pedicel as long as its apical width; segment 3 shorter than segment 4, ratio 3:4; apical 4 segments slightly compressed; clypeus (Fig. 5) subsquarely incised up to 1/2 of its medial length with truncate bottom and long, pointed, lateral teeth; labrum (Fig. 5) flat with pointed anterior tip, broader than long, ratio 3:2; lower margin of eye below the level of antennal socket; LID:IDMO:EL = 8:14:11; malar space 0.5X diameter of median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area just below the level of eyes; supraantennal tubercles insignificant and confluent with roundly raised frontal ridges; median fovea with a deep pit in its anterior half and posteriorly not reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep, well marked and abruptly ending half way to the hypothetical hind margin of head; postocellar area subconvex, longer than broad ratio 5:4; head narrowing behind eyes; OOL:POL:OCL = 1:1:1 mesoscutellum flat and without carina; appendage not carinate; ICD:ITD = 1:3; tarsal claw (Fig. 23) with a large basal lobe and a subapical tooth longer and broader than apical one; metabasitarsus subequal to following joints combined, ratio 20:21; IATS:MB:OATS = 5:16:14.

Lancet (Fig. 36) having 19 serrulae. Hypopygium as in Fig. 14.

Head, thorax and abdomen, impunctate with smooth, shining and polished surface

excepting the posterior slope of mesoscutellum that bears a few large, shallow punctures.

Male: Unknown.

Population variation: None noted.

Distribution in India. - West Bengal, Uttar Pradesh, Himachal Pradesh.

Taxonomic remarks. - On the basis of the combination of significant characters such as deeply subsquarely incised clypeus with truncate bottom; antennal segment 3 distinctly shorter than 4; smooth, shining, impunctate and entirely black mesopleura, *D. glabra* stands far apart from rest of the species discussed under this genus.

Etymology. - For, head, thorax and abdomen are impunctate with smooth, shining and polished surface, the species name has been taken from that.

***Darjilingia punctata*, new species**

(Figs. 1, 10, 18, 30)

Material examined. - Holotype female, Manipur, Ukhrul-1800m, 23 Sep.1992.

Paratype - female, Manipur, Ukhrul-1800m, 23 Sep.1992.

Description. - Female: Average body length 9 mm.

Colour of body fuscous, whitish yellow are: extreme antennal tip of segment 6 and segments 7-9 entirely; labrum; clypeus; a triangular spot on supraclypeal area; mandible barring apex; mesoscutellum except lateral slopes; spot on metascutellum; deflexed lateral margins of tergum 2; posterior margins of terga 2 and 3; extreme posterior margins of terga 8 and 9; sternite 2-5; all coxae except their extreme bases; all trochanters; apical 1/3 of metabasitarsus and following metatarsal joints entirely. Fuscoferruginous are: scape; pedicel; antennal segment 3; tegula; all femora, tibiae and tarsal joints of front four legs; metatibia except apical 1/5; basal 2/3 of metabasitarsus. Wings hyaline; costa and basal 1/3 of stigma fulvous; rest of the venation piceous.

Antenna 9 segmented, 3.4X head width; scape twice as long as its apical width; pedicel as long as its apical width; segments 3 and 4 equal; apical three segments slightly compressed; clypeus (Fig. 1) roundly incised up to 1/3 of its medial length having wavy anterior margin and blunt lateral teeth; labrum (Fig. 1) flat with rounded anterior margin, broader than long, ratio 3:2; lower margin of eye below the level of antennal socket; LID:IDMO:EL = 4:4:3; malar space 1X diameter of median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area at the level of eyes; supraantennal tubercles quite low and confluent with roundly raised frontal ridges; median fovea ditch-like with quite deep pit in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep, well marked, ex-curved and abruptly ending just before hypothetical hind margin of head; postocellar area convex, longer than broad, ratio 5:4; head narrowing behind eyes; OOL:POL:OCL = 5:4:6; mesoscutellum roundly raised with faint longitudinal carina on its posterior slope; **appendage** not carinate: ICD:ITD = 1:3; tarsal claw (Fig. 18) with a large basal lobe and a

subapical tooth longer and broader than the apical one; metabasitarsus subequal to following joints combined, ratio 12:11; IATS:MB:OATS = 4:12:3.

Lancet (Fig. 30) having 21 serrulae. Hypopygium as in Fig. 10.

Head with large, dense punctures on frontal area, but minutely and sparsely punctured on surrounding area, surface shining; mesonotum with dense, minute, irregular punctures, surface shining; mesoscutellum with large, shallow punctures on its posterior slope; appendage polished; mesopleuron with large, dense, pit-like confluent punctures, surface rugose and dull; propodeum impunctate, polished; abdomen minutely trans-striated, surface subshining and pubescent.

Male: Unknown.

Population variation.- None noted.

Distribution in India. - Manipur

Taxonomic remarks. - *Darjilingia punctata* deserves the status of new species on account of the combination of remarkable characters i.e. roundly incised clypeus with wavy bottom; antennal segments 3 and 4 equal; mesopleura rugose and densely punctured; postocellar area longer than broad and 3 apical antennal segments distinctly compressed.

Etymology. - The species name is due to the presence of dense punctures on head, thorax and cross-striations on abdominal terga.

***Darjilingia satakhaensis*, new species**

(Figs. 4, 13, 22, 32)

Material examined. - Holotype female, Nagaland, Satakha-1500m, 15 May.1993.

Description. - Female: body length, 11 mm.

Colour of body black, whitish yellow area: antennal segment 9 more or less; labrum; clypeus; mandible barring apex; all coxae except their extreme bases; all trochanters; apical 1/3 of metabasitarsus, and the following metatarsal joints entirely. Fulvous to piceous are: scape; pedicel; antennal segments 3-5, 7 and 8; a triangular spot on supraclypeal area; very dim spot on mesoscutellum; deflexed lateral margins of tergum 2; sternites 2 and 3; all femora; tibiae and tarsal joints of front four legs; basal 2/3 of metabasitarsus. Wings hyaline; costa and basal 1/3 of stigma fulvous; rest of the venation piceous.

Antenna 9 segmented, 3.6X head width; scape twice as long as its apical width; pedicel as long as its apical width; segments 3 and 4 equal; segment 9 slightly compressed; clypeus (Fig. 4) roundly incised up to 1/3 of its medial length with long pointed lateral teeth and wavy bottom; labrum (Fig. 4) flat with rounded anterior margin, broader than long, ratio 3:2; lower margin of eye below the level of antennal socket; LID:IDMO:EL = 7:6:8; malar space 0.75X diameter of median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area raised to the level of eyes; supraantennal tubercles moderately raised and confluent with similar frontal ridges; median fovea deep with a very

significant pit in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep, well marked, excurved and abruptly ending just before hypothetical hind margin of head; postocellar area convex, subquadrate; head narrowing behind eyes; OOL:POL:OCL = 2:2:3; mesoscutellum roundly raised with faint longitudinal carina on posterior slope; appendage faintly carinate; ICD:ITD = 1.3; tarsal claw (Fig. 22) with large basal lobe and a subapical tooth longer and broader than apical one; metabasitarsus longer than following joints combined, ratio 8:7; IATS:MB:OATS = 4:14:3.

Lancet (Fig. 32) having 22 serrulae. Hypopygium as in Fig. 13.

Head almost impunctate, surface subshining; mesonotum impunctate, surface shining with general oily lustre; mesoscutellum with large, shallow punctures on its posterior slope arranged in a transverse row; appendage polished; mesopleura with large, dense, pit-like confluent punctures, surface rugose; mesosternum almost impunctate; abdomen impunctate, surface dull.

Male: Unknown.

Distribution in India. - Nagaland.

Taxonomic remarks. - *Darjilingia satakhaensis* is unique and stands far apart from all other species of the genus on account of postocellar area as long as broad; only 9th antennal segment compressed & whitish yellow; head, mesonotum & abdomen impunctate; etc., etc.

Etymology. - The species name has been taken from its type locality.

***Darjilingia smithi*, new species**

(Figs. 2, 11, 20, 26, 34, 38)

Material examined. - Holotype female, West Bengal, Darjeeling-2280m, 7 May.1993.

Paratype - Male, Nagaland, Vizho-Razho-1600m, 11 May.1993

Description. - Female: body length, 5 mm.

Colour of body fuscous to black, whitish yellow are: antennal segments 7-9; labrum; clypeus; a triangular spot on supraclypeal area; mandible barring apex; posterodorsal and posterolateral margins of pronotum; tegula; arrow-head mark on posterior part of mesonotal middle lobe; top of mesoscutellum; and irregular spot along the posteroventral margin of mesepisternum; a broad stripe along posterior margin of mesepimeron; a narrow transverse stripe along the posterior margin of propodeum; posterior margins of terga 2-5; posterolateral margin of tergum 8; tergum 9 entirely; sternites 2-5; pro- and meso- coxae except their extreme bases; apical 1/3 of metacoxa; pro- and meso- trochanters; apical 1/5 of metabasitarsus and following tarsal joints of front four legs; trochanter, apical 3/4 of femur and tibia entirely of metaleg. Wings hyaline; costa and basal 1/3 of stigma fulvous; rest of the venation piceous.

Antenna 9 segmented, 3.1X head width; scape twice as long as its apical width; pedicel as long as its apical width; segment 3 shorter than segment 4, ratio 5:6; apical three segments somewhat compressed; clypeus (Fig. 2) rectangularly incised upto 1/2 of its medial length

with long rounded lateral teeth and truncate anterior margin; labrum (Fig. 2) flat with rounded anterior margin, broader than long, ratio 3:2; lower margin of eye below the level of antennal socket; LID:IDMO:EL = 6:5:7; malar space 1X diameter of median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area almost at the level of eyes; supraantennal tubercles low and confluent with roundly raised frontal ridges; median fovea in the form of a pit, slightly above the base of antennae and posteriorly not reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep, well marked and abruptly ending just before the hypothetical hind margin of head; postocellar area convex, broader than long, ratio 3:2; head narrowing behind eyes: OOL:POL:OCL = 3:2:2; mesoscutellum moderately raised without carina; appendage not carinate; ICD:ITD = 1.4; tarsal claw (Fig. 20) with a large basal lobe and a subapical tooth longer and broader than the apical one; metabasitarsus subequal to following joints combined, ratio 12:11; IATS:MB:OATS = 5:12:3.

Lancet (Fig. 34) having 19 serrulae. Hypopygium as in Fig. 11.

Head, thorax and abdomen, impunctate with smooth, shining and polished surface excepting the posterior slope of mesoscutellum that bears a few large, shallow punctures.

Male: Length 5.5 mm. Similar to female except: scape and pedicel entirely black; mesonotal middle lobe entirely black; an irregular spot along the anterodorsal and another oblong spot along the posteroventral margins of mesepisternum fulvous.

Male genitalia: Penis valve (Fig. 26), Gonoforceps (Fig. 38).

Population variation: None noted.

Distribution to India. - West Bengal, Nagaland.

Taxonomic remarks. - *Darjilingia smithi* remains separated from all other species in having small size and certain other distinguishing characters such as malar space of the diameter of median ocellus; median fovea in the form of a deep pit in its anterior half; postocellar area distinctly broader than long, and mesopleura not entirely black.

Etymology. - This species has been named in honour of Dr D.R. Smith of USNM, Washington, an authority on sawfly taxonomy.

***Darjilingia gribodoi* (Konow, 1896)**

(Figs. 8, 9, 17, 25, 29, 37)

Taxonus gribodoi Konow, 1896: 315.

Allomorpha pulchripes Cameron, 1899: 30.

Taxonus pulchripes - Konow, 1905: 109.

Darjilingia gribodoi - Malaise, 1934: 468.

Material examined. - Himachal Pradesh, India - 2 females, 2 males, 2380 m, Kalatop, 8 Aug 1982; 3 females, 3000 m, Shoja, 10 May.1992, — Uttar Pradesh, India - 1 female, 1 male, 2700 m, Hanuman Chatti, 15 Jun.1983; 7 females, 11 males, 2300 m, Mandal, 17 Jun.1987; 1 female, 1 male, 3000 m, Chopta, 26 Jun.1989; 1 male, 2000 m, Ramgarh, 19 Jun.1991; 1 male, 2050 m, Gini, 26 Jun.1991; 4 males, 1800 m, Mastura, 24 Jun.1992; 1 male, 2480 m, Auli, 27 Jun.1992; 2 males, 2290 m, Munsyari, 20 Jun.1983. — West Bengal, India - 2 females, 3 males, 2280 m, Darjeeling, 2 May.1986.

Description. - Female: Average body length, 8 mm.

Colour of body black, whitish yellow are: antennal segments 7-9; labrum; clypeus; a triangular spot on supraclypeal area; mandible barring apex; posterodorsal and posterolateral margins of pronotum; tegula; arrow-head mark on posterior tip of mesonotal middle lobe; top of mesoscutellum; an irregular spot along anterodorsal and another oblong spot along the posteroventral margins of mesepimeron; pro- and meso- coxae except their extreme bases; extreme apex of metabasitarsus and following metatarsal joints entirely. Fulvous are: scape; pedicel; posterior margin of propodeum; tergum 2nd except a medial spot; posterior and deflexed lateral margins of terga 3-5; extreme posterior margin of tergum 6; terga 8 and 9 except deflexed lateral sides; sternites 2-5; a lateral stripe on and apical 1/3 of metacoxa; all trochanters; all femora and tibiae excepting a black dot on extreme apical tip of metatibia; pro- and meso- basitarsi more or less. Wings hyaline; costa and basal 1/3 of stigma fulvous; rest of the venation piceous.

Antenna 9 segmented, 3.2X head width; scape twice as long as its apical width; pedicel as long as its apical width; segment 3 shorter than 4, ratio 4:5; apical three segments slightly compressed; clypeus (Fig. 8) subsquarely incised upto 1/2 of its medial length with truncate bottom and long pointed lateral teeth; labrum (Fig. 8) flat with pointed anterior tip, broader than long, ratio 3:2; lower margin of eye below the level of antennal socket; LID:IDMO:EL = 4:4:3; malar space 0.5X median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area at the level of eyes; supraantennal tubercles moderate and confluent with roundly raised similar frontal ridges; median fovea with a quite broad and deep pit in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep and abruptly ending just before hypothetical hind margin of head; postocellar area convex, almost as long as broad; head narrowing behind eyes; OOL:POL:OCL = 4:4:7; mesoscutellum roundly raised with faint longitudinal carina on its posterior slope; appendage not carinate; ICD:ITD = 1:3; tarsal claw (Fig. 17) with a large basal lobe and a subapical tooth longer and broader than the apical one; metabasitarsus subequal to following joints combined, ratio 10:9; IATS:MB:OATS = 8:16:5.

Lancet (Fig. 29) having 21 serrulae. Hypopygium as in Fig. 9.

Head impunctate, surface shining; thorax with few, insignificant, scattered punctures, in addition to some large ones on the posterior slope of mesoscutellum; surface shining with general oily lusture; abdomen impunctate, surface subshining.

Male: Average length 7.5 mm. Similar to female except: metabasitarsus entirely fulvous; abdomen except propodeum and tergum 2nd entirely fulvous.

Male genitalia: Penis valve (Fig. 25), Gonoforceps (Fig. 37).

Holotype Depository: Male, IAPL, Eberswalde.

Population variation: Metafemur partially to entirely black; pro- and meso- femora likewise tinged with black.

Distribution in India. - West Bengal, Himachal Pradesh, Uttar Pradesh.

Taxonomic remarks. - The studied specimens run smoothly in Malaise 1963 key and comply well with the original description (Konow, 1896). While synonymizing *Taxonus pulchripes* (Cameron, 1899) with *Taxonus gribodoi*, Malaise in 1934 also erected a new genus *Darjilingia* with the latter being its type species.

***Darjilingia flagellaria*, new species**

(Figs. 6, 15, 19, 28, 31, 40)

Material examined. - Holotype female, Nagaland, Zunheboto-1800m, 18 Sep.1992.

Paratype - Male, Nagaland, Zunheboto-1800 m, 18 Sep.1992.

Description. - Female: body length 8 mm.

Colour of body black, whitish yellow are: antennal segments 7-9; labrum; clypeus; a triangular spot on supraclypeal area; mandible barring apex; posterodorsal and posterolateral margins of pronotum; tegula; arrow-head mark on posterior tip of mesonotal middle lobe; top of mesoscutellum; an irregular spot along the anterodorsal and another oblong spot along the posteroventral margins of mesepisternum; a broad stripe along posterior margin of mesepimeron; pro- and meso-coxae except their extreme bases; extreme apex of metabasitarsus and following metatarsal joints entirely. Fulvous are: scape; pedicel; posterior margins of propodeum; tergum 2nd except a medial spot; posterior and deflexed lateral sides of terga 3-5; extreme posterior margin of tergum 6; terga 8 and 9 except their deflexed lateral sides; sternites 2-5; a lateral stripe and apical 1/3 of metacoxa; all trochanters; all femora and tibiae excepting a black dot on extreme apical tip of metatibia; pro- and meso-basitarsi more or less. Wings hyaline; costa and basal 1/3 of stigma fulvous; rest of venation piceous.

Antenna 9 segmented, 3.5X head width; scape twice as long as its apical width; pedicel as long as its apical width; segment 3 shorter than 4, ratio 4:5; apical 5 segments compressed; clypeus (Fig. 6) roundly incised upto 1/2 of its medial length with wavy bottom and long pointed lateral teeth; labrum (Fig. 6) flat with rounded anterior margin, broader than long, ratio 3:2; lower margin of eye below the antennal socket; LID:IDMD:EL = 4:5:4; malar space 0.5X median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area slightly below the level of eyes; supraantennal tubercles insignificant and confluent with roundly raised frontal ridges; median fovea with a deep pit in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep, well marked, excurved and abruptly ending well before the hypothetical hind margin of head; postocellar area subconvex, as long as broad; head narrowing behind eyes; OOL:POL:OCL = 5:4:6; mesoscutellum roundly raised without carina; appendage not carinate; tarsal claw (Fig.18) with a large basal lobe and a subapical tooth longer and broader than apical one; metabasitarsus longer than the following joints combined, ratio 6:5; IATS:MB:OATS = 4:11:13.

Lancet (Fig. 31) having 23 serrulae. Hypopygium as in Fig. 15.

Head, thorax and abdomen, impunctate with smooth, shining and polished surface excepting the posterior slope of mesoscutelum that bears a few large shallow punctures.

Male: length 6.5 mm. Similar to female excepting: posterolateral margins of pronotum and mesonotal middle lobe entirely black; metascutellum and ridges lateral to it yellowish white; abdominal segments 3 and 4 almost entirely fulvous; abdominal segments 5-8 entirely black; all flagellar segments significantly compressed.

Male genitalia: Penis valve (Fig. 28), Gonoforceps (Fig. 40).

Population variations: None noted.

Distribution in India. - Nagaland.

Taxonomic remarks. - *Darjilingia flagellaria* is unique in having a distinctly compressed flagellum; wavy bottom of the clypeal emargination; rounded anterior margin of labrum and mesoscutellum without any carina. This combination of characters sets aside this species from rest of the new as well as old species of this genus.

Etymology. - This species has been named because of the flagellum distinctly and almost entirely compressed in male.

***Darjilingia similis*, new species**

(Figs. 3, 12, 21, 27, 33, 39)

Material examined. - Holotype female, West Bengal, Darjeeling-2280 m, 11 Sep.1993.

Paratype - Male, West Bengal, Darjeeling-2280 m, 11 Sep.1993.

Description. - Female: body length, 11 mm.

Colour of body black, whitish yellow are: antennal segments 7-9; labrum; clypeus; a triangular spot on supraclypeal area; mandible barring apex; posterodorsal and posterolateral margins of pronotum; tegula; arrow-head mark on posterior tip of mesonotal middle lobe; top of mesoscutellum; an irregular spot along the anterodorsal and another oblong spot along the posteroventral margins of mesepisternum; a broad stripe along posterior margin of mesepisternum; posterior margins of terga 2-5, 8 and 9 entirely; sternites 2-7; all trochanters; pro- and meso-coxae except their extreme bases; apical 1/5 of metacoxa; apical 1/8 of metabasitarsus and the following metatarsal joints entirely. Fulvous to piceous are: scape; pedicel; 3rd antennal joint more or less; all femora, tibia and tarsal joints of front four legs; apical 1/2 of femur and entire tibia of metaleg. Wings hyaline; costa and basal 1/2 of stigma fulvous; rest of venation piceous.

Antenna 9 segmented, 3.2X head width; scape twice as long as its apical width; pedicel as long as its apical width; segments 3 subequal to 4, ratio 8:9; apical three segments slightly compressed; clypeus (Fig. 3) subsquarely incised with truncate bottom and long pointed lateral teeth; labrum (Fig. 3) flat with pointed anterior margin, broader than long, ratio 3:2; lower margin of eye below the level of antennal socket; LID:IDMO:EL = 8:9:6; malar space 0.75X diameter of median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area below the level of eyes; supraantennal tubercles moderate and confluent with similarly roundly raised frontal ridges; median fovea with a deep broad pit in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep, well marked and abruptly

ending just before the hypothetical hind margin of head; postocellar area subconvex, almost as long as broad; head narrowing behind eyes; OOL:POL:OCL = 1:1:1; mesoscutellum roundly raised without carina; appendage not carinate, ICD:ITD = 1:3; tarsal claw (Fig. 21) with a large basal lobe and a subapical tooth larger and broader than apical one; metabasitarsus longer than following joints combined, ratio 8:7; IATS:MB:OATS = 4:9:3.

Lancet (Fig. 33) having 21 serrulae. Hypopygium as in Fig. 12.

Head and thorax smooth, shining and impunctate excepting the posterior slope of mesoscutellum that bears a transverse row of large significant punctures; abdomen impunctate, surface subshining.

Male: length 7 mm, Similar to female.

Male genitalia: Penis valve (Fig. 27), Gonoforceps (Fig. 39).

Population variation: None noted.

Distribution in India. - West Bengal.

Taxonomic remarks. - A combination of characters such as 3 apical antennal segments compressed; frontal area below the level of eyes; median fovea with a deep pit in its anterior half and posteriorly only shallowly reaching median ocellus; postocellar area as long as broad and OOL:POL:OCL = 1:1:1; sets aside *D. similis* from all other species.

Etymology. - This species has been named after in finding no difference between males and females.

***Darjilingia icar*, new species**

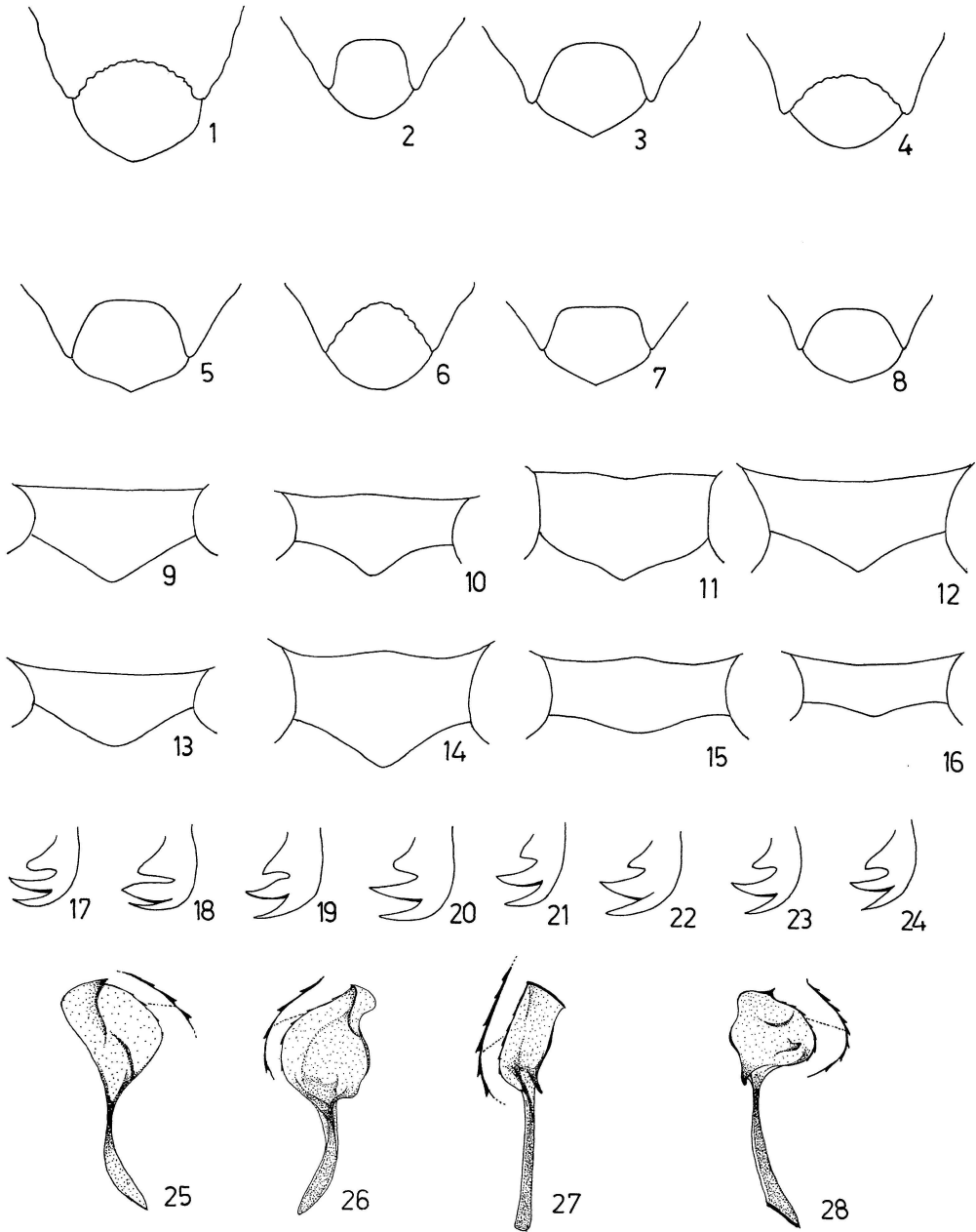
(Figs. 7, 16, 24, 35)

Material examined. - Holotype female, West Bengal, Darjeeling- 2280 m, 2 May.1986.

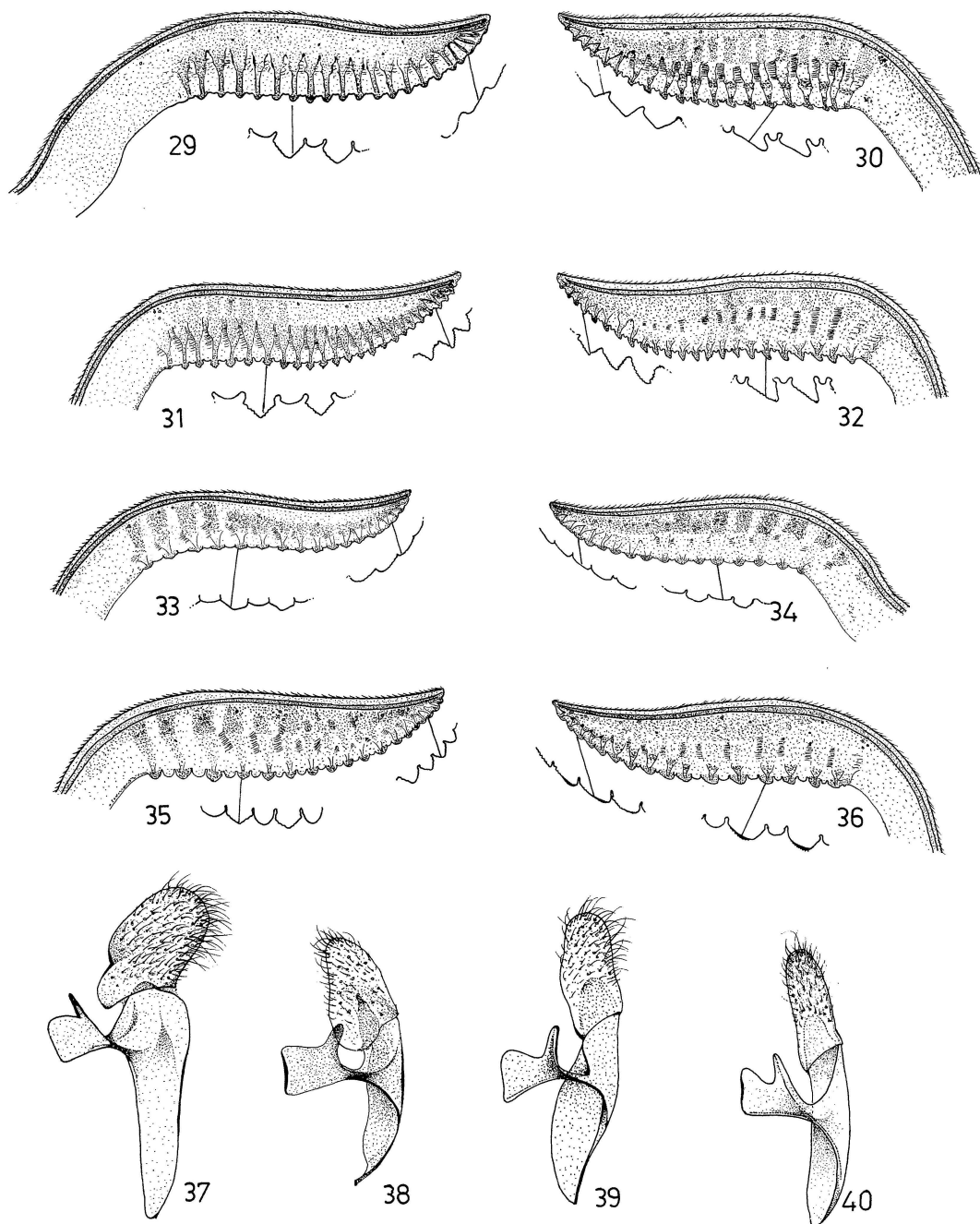
Paratype - female, Uttar Pradesh, Kala Muni Top - 2700 m, 21 Jun.1993.

Description. - Female: Average body length 7.5 mm.

Colour of body black, whitish yellow are: antennal segment 7-9; labrum; clypeus; a triangular spot on supraclypeal area; mandible barring apex; posterodorsal and posterolateral margins of pronotum; tegula; an arrow-head mark on posterior tip of mesonotal middle lobe; top of mesoscutellum; parapterum; a broad spot on anterodorsal and another oblong spot on posteroventral margins of mesepisternum; a broad stripe along posterior margin of mesepimeron; posterior and deflexed lateral margins of terga 2 and 3; broad posterior margins of terga 8 and 9; sternites 2-4; all coxae except their extreme bases and all trochanters of front four legs; extreme apex and longitudinal stripe on anterior side of metacoxa and adjacent part of metafemur; metatrochanter more or less. Fuscoferruginous are: scape; pedicel; extreme posterior margins of terga 4 and 5; all femora, tibiae and tarsi of front four legs; metafemur except basal 1/4; metatibia except extreme apex; extreme apex of metabasitarsus and following tarsal joints entirely. Wings hyaline; costa and basal 1/3 of stigma fulvous; rest of venation piceous.



Figs. 1-28. 1, clypeus and labrum of *D. punctata*; 2, clypeus and labrum of *D. smithi*; 3, clypeus and labrum of *D. similis*; 4, clypeus and labrum of *D. satakhaensis*; 5, clypeus and labrum of *D. glabra*; 6, clypeus and labrum of *D. flagellaria*; 7, clypeus and labrum of *D. icar*; 8, clypeus and labrum of *D. gribodoi*; 9, hypopygium of *D. gribodoi*; 10, hypopygium of *D. punctata*; 11, hypopygium of *D. smithi*; 12, hypopygium of *D. similis*; 13, hypopygium of *D. satakhaensis*; 14, hypopygium of *D. glabra*; 15, hypopygium of *D. flagellaria*; 16, hypopygium of *D. icar*; 17, claw of *D. gribodoi*; 18, claw of *D. punctata*; 19, claw of *D. flagellaria*; 20, claw of *D. smithi*; 21, claw of *D. similis*; 22, claw of *D. satakhaensis*; 23, claw of *D. glabra*; 24, claw of *D. icar*; 25, penis valve of *D. gribodoi*; 26, penis valve of *D. smithi*; 27, penis valve of *D. similis*; 28, penis valve of *D. flagellaria*.



Figs. 29-40. 29, lancet of *D. gribodoi*; 30, lancet of *D. punctata*; 31, lancet of *D. flagellaria*; 32, lancet of *D. satakhaensis*; 33, lancet of *D. similis*; 34, lancet of *D. smithi*; 35, lancet of *D. icar*; 36, lancet of *D. glabra*; 37, gonoforceps of *D. gribodoi*; 38, gonoforceps of *D. smithi*; 39, gonoforceps of *D. similis*; 40, gonoforceps of *D. flagellaria*.

Antenna 9 segmented, 3.2X head width; scape twice as long as its apical width; pedicel as long as its apical width; antennal segment 3 and 4 subequal, ratio 8:9; apical four segments slightly compressed; clypeus (Fig. 7) rectangularly incised upto 1/2 of its medial length with truncate bottom and long pointed lateral teeth; labrum (Fig. 7) flat with pointed anterior tip, broader than long; ratio 3:2; lower margin of eye below the level of antennal socket; LID:IDMO:EL = 4:5:3; malar space 0.75X diameter of median ocellus; postgenal carina present; supraclypeal and supraantennal pits well marked; frontal area at the level of eyes; supraantennal tubercles distinct and confluent with roundly raised frontal ridges; median fovea shallow, moderately deep, ditch-like and clearly reaching median ocellus; post-, inter- and circum- ocellar furrows sharp and distinct; lateral furrows deep, well marked, excurved and abruptly ending just before the hypothetical hind margin of head; postocellar area convex, broader than long, ratio 5:4; head narrowing behind eyes; OOL:POL:OCL = 6:4:7; mesoscutellum roundly raised with a faint longitudinal carina on its posterior slope; appendage not carinate; ICD:ITD = 1.3; tarsal claw (Fig. 24) with a large basal lobe and a subapical tooth longer and broader than apical one; metabasitarsus subequal to following joints combined, ratio 10:9; IATS:MB:OATS = 8:16:5.

Lancet (Fig. 35) having 21 serrulae. Hypopygium as in Fig. 24.

Head, thorax and abdomen impunctate with smooth and polished surface except the posterior slope of mesoscutellum that bears a few large, shallow punctures.

Male: Unknown.

Population variation: None noted.

Distribution in India. - West Bengal, Uttar Pradesh.

Taxonomic remarks. - *Darjilingia icar* deserves the status of new species and stands far apart from all other species of this genus on account of a ditch-like median fovea clearly reaching median ocellus; 4 apical antennal segments compressed; frontal area above the level of eyes and OOL:POL:OCL = 6:4:7.

Etymology. - The species name is derived from the acronym of the funding agency, ICAR, and it is used as a noun in apposition.

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