

**TAXONOMY OF THE GENUS *STRONGYLOGASTER* DAHLBOM
FROM INDIA (HYMENOPTERA: SYMPHYTA:
TENTHREDINIDAE: SELANDRIINAE)**

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ABSTRACT. - The genus *Strongylogaster* Dahlbom is recorded for the first time from India, and two new species are described: *S. indiana* and *S. inpunctata*. A key to *remota*-group of this genus, which they belong to, is provided.

KEY WORDS. - *Strongylogaster* Dahlbom, new species, *S. remota*-group, Hymenoptera, Selandriinae, India.

INTRODUCTION

Dahlbom (1835) erected the genus *Strongylogaster* taking *Tenthredo cingulata* Fabricius (subsequent designation by MacGillivray, 1908) as its type species. Ross (1937) synonymised *Thrinax* Konow, 1885 with this genus. Malaise (1963) in his key to world genera of Selandriinae again treated *Thrinax* Konow as a separate genus, but Smith (1969) following Ross (1937) again synonymised the latter with *Strongylogaster* Dahlbom. Naito & Huang (1988) and Naito (1996) also treated *Thrinax* Konow as a junior synonym of *Strongylogaster* Dahlbom. They described 6 and 1 species respectively of this genus from Oriental region. Prior to their works only 7 species were on record from this region, which were contributed as: one each by Christ (1791), Klug (1814), Stephens (1835), Takeuchi (1928) and Rohwer (1916); and two by Malaise (1961). All these species were described under genus *Thrinax* Konow excepting that described by Stephens under *Strongylogaster* Dahlbom and by Christ under *Tenthredo* Linnaeus. This genus is recorded for the first time from India. The present text includes the detailed description of two new species and a key to *remota*-group of *Strongylogaster* Dahlbom, which the new taxa belong to. The members of this group can be identified as: body length 6-9 mm; clypeus with emargination in front to depth of at most 1/6 its length; frontal area well defined with raised frontal ridges; malar space of distinct length; ovipositor sheath simple, tapering towards apex with broad base, and hairs as long as diameter of median ocellus; tarsal claw with a small subapical tooth; anal cell of hindwing sessile. Only one species of this group, *S. nantouiensis* Naito is known from Oriental region,

which can be separated from the new species on the bases of general colour pattern of body including legs, punctuation of head, relative length of antennal segments 3 and 4, size of malar space, and characteristics shape of median fovea. Now with the addition of two new Indian species, this genus is represented by 16 species from Oriental region.

Type materials of new species are deposited at the Division of Entomology, Pusa National Collection, Indian Agricultural Research Institute, New Delhi, India.

Abbreviations used in the text are: EL = eye length, IATS = inner apical tibial spur, ICD = inter cenchri distance, IDMO = inter ocular distance at level of median ocellus, ITD = inter tegular distance, LID = lower interocular distance, MB = metabasitarsus, OATS = outer apical tibial spur, OCL = ocellooccipital line, OOL = oculooccipital line, POL = postocellar line.

SYSTEMATICS

Strongylogaster Dahlbom

Tenthredo subgenus *Strongylogaster* Dahlbom, 1835: 13; Hartig, 1837: 299.

Strongylogaster O. Costa, 1859: 107; Thomson, 1870: 292; Andre, 1879: 410; Cresson, 1880b:62; Cameron, 1882: 187, 1883:6; Konow, 1887:26; Dalla Torre, 1894:133; MacGillivray, 1894:325; Konow, 1905:96; MacGillivray, 1908:369; Enslin, 1914: 204; MacGillivray, 1916:67; Enderlin, 1920: 355; Yuasa, 1922: 53; Ross, 1937: 67; Takeuchi, 1941: 240; Berland, 1947: 208; Ross, 1951: 22; Zhelokhovtser, 1951: 149; Benson, 1952: 58; Lorenz & Kraus, 1957: 44; Burks, 1958:11, Malaise, 1963: 170; Naito, 1996: 161-170.

Type: *Tenthredo cingulata* Fabricius, designated by MacGillivray, 1908.

Thrinax, Konow, 1885: 22; Dalla Torre, 1894: 139; Konow, 1905: 95; MacGillivray, 1908: 369; Enslin, 1914: 201; MacGillivray, 1916: 67; Rohwer, 1916: 100; Yuasa, 1922: 53; Ross, 1937: 67 (= *Strongylogaster* Dahlbom); Takeuchi, 1941: 234; Berland, 1947: 205; Zhelokhovtsev, 1951: 146; Malaise, 1961: 238, 1963: 170.

Type: *Strongylogaster contigua* Konow, designated by MacGillivray, 1908.

Pseudotaxonus A. Costa, 1894: 157; Enslin, 1914: 205; Ross, 1937:67 (= *Strongylogaster* Dahlbom); Takeuchi, 1941: 234; Berland, 1947: 210; Malaise, 1963: 187.

Type: *Tenthredo filicis* Klug, monotypic.

Polystichophagus Ashmead, 1898: 310; Konow, 1905: 96 (= *Strongylogaster* Dahlbom); Enslin, 1914: 205 (= *Pseudotaxonus* A. Costa).

Type: *Tenthredo filicis* Klug, Original designation.

Protaxonus Rohwer, 1910: 49; Malaise, 1933: 56; Ross, 1937: 67 (= *Strongylogaster* Dahlbom).

Type: *Protaxonus typicus* Rohwer, monotypic.

Diagnosis. - Antenna filiform; pedicel disc-like, wider than long or even longer, segments 3 and 4 subequal, segments beyond 3 gradually decreasing in length. Postgenal carina present, clypeus shallowly to deeply incised, malar space narrower or wider than diameter of median ocellus. Epicnemium present as narrow raised shoulder, separated from mesepisternum by furrow. Tarsal claw simple or with subapical tooth, basal lobe absent. Forewing with anal crossvein present or absent. Hindwing with anellan cell sessile or with short petiole.

Distribution. - Holarctic and Oriental regions.

Remarks. - The genus *Strongylogaster* Dahlbom is distributed throughout the world. With the addition of two new species, this genus is recorded from India for the first time and is now represented by 16 species from Oriental region and 42 species all over the world. The diagnostic characters are taken following Smith (1969) and Naito (1996). This genus is characterised by the absence of basal lobe of tarsal claw. Though the placement of the species under 7 different groups by Naito (1996) is of worth mentioning here yet the key to the species-groups fail at very instance to recognise the placement of male specimens. Therefore, to keep the male members on correct track a key couplet preceeding the key to the species-group of this genus given by Naito (1996) can be added which follows:

- A. Clypeus with emargination infront to depth of at most 1/6 its length 1
 - Clypeus with emargination infront to depth of at least 1/5 its length 4

KEY TO SPECIES OF REMOTA-GROUP OF *STRONGYLOGASTER* DAHLBOM

1. Hind femur entirely whitish yellow, ovöpositor sheath broadly rounded at apex in dorsal view 2
 - At least basal half of hind femur black, ovöpositor sheath pointed at apex in dorsal view 3
2. Abdomen mostly orange with yellow band on posterior margins of each segement, postocellar area broader than long as 2:1, postocellar furrow distinct, wings entirely hyaline *S. remota* Rohwer, 1912
 - Abdomen black with posterior margins of tergites 2-7 whitish, postocellar area broader than long as 3:2, postocellar furrow shallow, wings hyaline with subinfumated apices *S. indiana*, new species
3. Apical 1/3 of metatibia black, malar space of the diameter of median ocellus, body length above 7 mm 4
 - Apical 2/3 of metatibia black, malar space less than the diameter of median ocellus, body length at most 6 mm *S. polita* Cresson, 1880a
4. Metafemur with apical 1/3 yellowish, tegula yellow, scape and pedicel as 8:5, antennal segment 3 insignificantly longer than 4, malar space 1/3 diameter of median ocellus, head minutely punctate *S. nantouensis* Naito, 1990
 - Metafemur except extreme base black, tegula black, scape and pedicel equal, antennal segments 3 and 4 as 3:2, malar space 1/2 diameter of median ocellus, head impunctate *S. impunctata*, new species

Strongylogaster indiana, new species

(Figs. 1-5)

Material examined. - Holotype: female, Himachal Pradesh, Kalatop, 2400 m, coll. V. Vasu, 2 Aug. 1992.

Paratype: 1 female with same data as holotype.

Female. - Colour: Body black, whitish yellow are: labrum, clypeus except base; broad dorsal and narrow posterolateral margin of pronotum, tegula, parapterum; extreme posterior margins of tergites 2-7 and sternites 2-5; proleg except inner aspect of tibia and entire tarsi, hind four legs except apical 3 tarsal joints. Wings hyaline with subinfumated apices, venation including costa, subcosta and stigma fuscous.

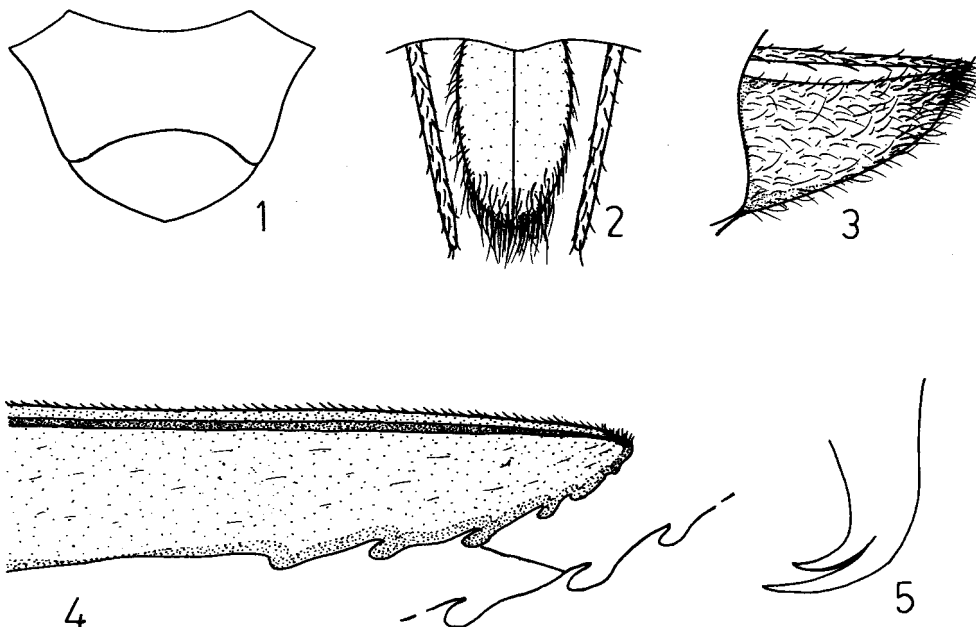
Structure: Average length 7.5 mm. Antenna tapering towards apex, 1.7 x head width, flagellum not compressed; scape and pedicel almost equal, and each 1.5 x its apical width, segments 3 and 4 as 8:7. Clypeus (Fig. 1) roundly incised up to 1/6 of its length, labrum (Fig. 1) broader than long as 3:2 with roundly pointed anterior margin, malar space 0.75 x diameter of median ocellus and 0.5 x pedicel length; supraantennal pit single, shallow and crescent-shaped. LID:IDMO:EL = 1:1.2:0.9; POL:OCL:OOL = 1:1.3:1.1. Frontal area at level of eyes, median fovea canaliculate with uneven surface and clearly reaching median ocellus; postocellar furrow shallow, inter- and circumocellar furrows distinct; lateral furrows sunken, diverging posteriorly and ending well before hypothetical hind margin of head; postocellar area convex, broader than long as 3:2, head narrowing behind eyes. ICD:ITD = 1:7, mesoscutellum subconvex, appendage ecarinate. Tarsal claw (Fig.5) with subapical tooth shorter than apical one and the distance between two tips shorter than length of subapical tooth, metabasitarsus longer than following 3 joints combined as 3:2, IATS:MB:OATS = 1:2.5:0.9. Cerci projecting beyond hind margin of ovipositor sheath, the latter subtriangularly bilobed in dorsal view (Fig. 2) and narrowly rounded in lateral view (Fig. 3). Lancet (Fig. 4) having 6 serrulae. Forewing with first cubital crossvein obliterate, and without anal crossvein. Hindwing with anal cell sessile.

Sculpture: Head with shallow, inconspicuous punctation, more distinct and dense on frontal area. Thorax impunctate except posterior border of mesoscutellum that bears a row of deep, distinct punctation. Abdomen faintly microstriated.

Pubescence: Silvery, 0.5 x scape length.

Male. - Yet to be discovered.

Individual variations. - Both specimens are alike.



Figs. 1-5. *Strongylogaster indiana* : 1. Clypeus & labrum, 2. Ovipositor sheath (dorsal view), 3. Ovipositor sheath (lateral view), 4. Lancet, 5. Tarsal claw.

Distribution. - India: Himachal Pradesh.

Discussion. - This species is closely related to *S. formosana* (Rohwer) from which it can be distinguished as: clypeus with basal half black (entirely yellow in *formosana*), coxae yellow (black in *formosana*), body with silvery pubescence (glabrous in *formosana*), postocellar furrow shallow (deep in *formosana*), lateral furrows distinct (punctiform in *formosana*), and parapterum yellow (black in *formosana*).

Etymology. - The species is named after the country in which the type locality is situated.

***Strongylogaster inpunctata*, new species**

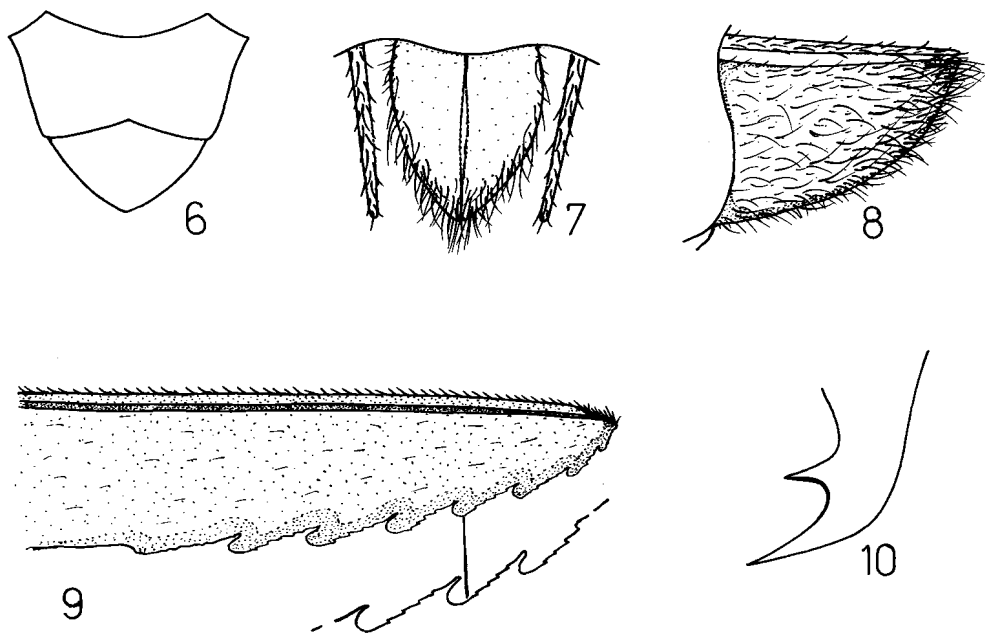
(Figs. 6-10)

Material. - Holotype: female, Himachal Pradesh, Kalatop, 2400 m, coll. M. S. Saini, 27 Jul. 1982.

Paratype: 1 female with same data as holotype.

Female. - Colour: Body black, whitish are: broad dorsal and narrow lateral margins of pronotum, parapterum; extreme narrow posterior margins of propodeum and tergites 2-7, broad posteromedial triangular spots on tergites 8-9; all trochanters and adjoining parts of coxae and femora except infuscated spot on ventral aspect, basal 2/3 of outer aspect of front four tibiae, basal 2/3 except basal 1/3 of inner aspect of metatibia, inner aspects of all basitarsi more or less. Wings hyaline, venation including costa, subcosta and stigma fuscous.

Structure: Average length 7.5 mm. Antenna tapering towards apex, 1.8 x head width, flagellum not compressed; scape and pedicel equal, each 1.5 x its apical width, segments 3 and 4 as



Figs. 6-10. *Strongylogaster inpunctata*: 6. Clypeus & labrum, 7. Ovipositor sheath (dorsal view), 8. Ovipositor sheath (lateral view), 9. Lancet, 10. Tarsal claw.

3:2. Clypeus (Fig. 6) triangularly incised up to 1/8 of its length, labrum (Fig. 6) subtriangular and broader than long as 4:3, malar space 0.5 x diameter of median ocellus and 0.3 x pedicel length; supraantennal pit single, deep, rounded. LID:IDMO:EL = 1:1.2:0.9; POL:OCL:OOL = 1:1.7:1.3. Frontal area at level of eyes, medium fovea in form of deep, large, subtriangular pit above supraclypeal area; postocellar furrow absent, interocellar furrow shallow, circumocellar furrow distinct; lateral furrows distinct, excurved (bulging), abruptly ending just before hypothetical hind margin of head; postocellar area convex, broader than long as 4:3, head narrowing behind eyes. ICD:ITD = 1:4, mesoscutellum subconvex, appendage ecarinate. Tarsal claw (Fig. 10) with subapical tooth shorter than apical one and the distance between two tips greater than length of subapical tooth, metabasitarsus longer than following 3 joints combined as 3:2, IATS:MB:OATS = 1:2.8:0.9. Cerci reaching hind margin of ovipositor sheath, the latter roundly bilobed in dorsal view (Fig. 7) and broadly rounded in lateral view (Fig. 8). Lancet (Fig. 9) having 8 serrulae. Forewing with first cubital crossvein absent and without anal crossvein. Hindwing with anellian cell sessile.

Sculpture: Head impunctate and with few, fine ridges on frontal area. Thorax impunctate except mesoscutellum that bears minute, shallow punctuation on its posterior border, appendage impunctate. Abdomen almost impunctate.

Pubescence: Silvery, 0.4 x scape length.

Male. - Yet to be discovered.

Individual variations. - Both specimens are alike.

Distribution. - India: Himachal Pradesh.

Discussion. - On the basis of broad key characters, however, this species allies with *S. biramana* Malaise and *S. sinobirmana* Malaise, but remains distinctly far apart from these species as: trochanters yellow (black in both), malar space 0.3 x pedicel length (1 x in both) scape and pedicel equal (2:1 in both), and head impunctate (distinctly punctate in both).

Etymology. - The species is named after the almost impunctate body.

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