New Oriental Sawflies (Hymenoptera: Tenthredinidae)

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HARIS, A.: New Oriental Sawflies. (Hymenoptera: Tenthredinidae)

Abstract: 16 new oriental sawflies are described below: Aneugmenus bruneiensis sp. n., Monostegidia nepalensis sp. n., Ferna chiangmaiensis sp. n., Ferna nauligensis sp. n., Eusunoxoa indiana sp. n., Beleses nigromaculatus sp. n., Hemibeleses nigrominutus sp. n., Neostromboceros albopunctatus sp. n., Eutomostethus tienfangiensis sp. n., Pasteelsia rubrothoracica sp. n., Tenthredo flavobootaniensis sp. n., Tenthredo changbuensis sp. n., Macrophya kathmanduensis sp. n., Macrophya langtangiensis sp. n., Macrophya nigronepalensis sp. n., Pachyprotasis nigrosubtilis sp. n. and Pachyprotasis phulchokiensis sp. n. and compared to Aneugmenus jacobsoni (Enslin, 1912), Monostegidia garhwalensis Saini at Deep, 1992, Ferna bullifrons Malaise, 1961, Eusunoxoa formosana Enslin, 1911, Beleses stigmaticalis (Cameron, 1876), Hemibeleses melanopoda (Cameron, 1902). Neostromboceros punctatus Konow. 1908 Eutomostethus distinctus Wei, 1997, Pasteelsia constricta Malaise, 1964, Tenthredo striaticornis Malaise, 1945, Tenthredo coloripleuris Malaise, 1945, Macrophya histrio Malaise, 1945, Macrophya femorata Marlatt, 1898, Macrophya lucida Rohwer, 1921, Pachyprotasis subtilis Malaise, 1945 and Pachyprotasis sulcifrons Malaise, 1945.

Introduction

KIRBY (1882) was the first author who gave a list on most of the known Oriental sawflies, although he listed only the typical specimens of the British Museum. More than 50 years after, MALAISE (1945) completed a key for the Oriental species of the subfamily Tenthredininae. Later, he published 2 works on the sub-Selandrinae (MALAISE, 1961) Blennocampinae (MALAISE, 1964). In the following years, mainly the Japanese sawflies were studied (numerous papers of I. Togashi, not listed here). In the 90's, Wei, Xiao, Sing, Saini et al. published hundreds of papers from India and China. Altogether, they described approximately 800 new species. Because of the huge number of papers appeared recently, we only refer those which describe the closest relatives of the newly described species only. Most of the species are described from Nepal, 2 species from China and further 1 –1 species from Brunei, Thailand, India and Bootan.

The descriptions of the new species

Aneugmenus bruneiensis sp. n.

Head black, shining, moderately densely punctured with minute punctures and contracted behind the eyes. Occipital carina hardly visible but present. Genae

extremely narrow, linear. Occipital furrows hardly visible, nearly absent. 1st antennal segment brown, the 2nd and 3rd white, 4th-9th dark brownish black. Palpi white. OOL: POL: OCL = 12:11:13. Ratios of the antennal segments: 1^{st} 8 : 2^{nd} 10 : 3^{rd} 21 : 4^{th} 20 : 5^{th} 20 : 6^{th} 13 : 7th 10:8th 8:9th 9. Clypeus subtriangularly excised. The clypeal emargination about 0.33x as deep as the median length of the clypeus. Pubescence on the head white, moderately dense, short and about half as long as the diameter of the front ocellus. Thorax black, cenchri whitish brown. Length of a cencher/distance between cenchri = 7/10. The whole thorax smooth and shining, punctures hardly visible. Pubescence on the thorax white, moderately dense and about as long as the diameter of the front ocellus. Legs white, 1st coxa and the 1st femur in its middle part brown. Claws with subapical tooth, which is smaller than the apical one. Ratios of the hind tarsal segments: 1st (basitarsus) 29: $2^{nd}\ 12:3^{rd}\ 5:4^{th}\ 3:5^{th}\ 8$ (without claws). Length of the hind basitarsus/length of the inner hind tibial spur = 29/9. Wings hyaline, venation and stigma brown. Fore wing with 3 cubital cells. 1st recurrent vein runs to the 1st, the 2nd one to the 2nd cubital cell. The basal vein and the 1st recurrent vein converge. Anal cell without cross vein. The anal cell of the hind wing with short petiole, nervellus perpendicular. Abdomen dark brown, shining with very fine surface sculpture. Ovipositor short, apices of the cerci reach the apex of the ovipositor (Fig. 2). Length: 3.7 mm, length of the fore wing: 3.9

Holotype: female. "Brunei, IX. 1982., N. Stork" The holotype is deposited in The Natural History Museum, London

The new species is closely related to *Aneugmenus jacobsoni* (Enslin, 1912). However, *A. jacobsoni* (Enslin, 1912) has apically dilated, tridentate saw-sheath, pale sternites at least on the basal part of the abdomen, and large fulvous spot in the middle of the abdominal tergites.

Monostegidia nepalensis sp. n.

Head black, including antennae and mouthparts. Vertex and temples shining, densely and finely punctured. Pubescence white, moderately dense and about 0.67x as long as the diameter of the front ocellus. OOL: POL: OCL = 18:10:19. Ratios of the antennal segments: 1st 12:2nd 7:3rd 45:4th:51:5th 42:6th 32:7th 29:8th:28:9th 36. Antenna about as long as the body, length of antenna/length of the body = 95/97.

Clypeus broadly emarginated. Clypeal emargination about 0.25x as deep as the median length of the clypeus. Head dilated behind the eyes. Postocellar furrows deep. Occipital carina missing. Genae about as long as the diameter of the front ocellus. Thorax orange, mesoscutellum with brown spot. Mesoscutellar appendage, postscutellum, postnotum and mesosternum black. Cenchri brown. Length of a cencher/distance between cenchri = 8/11. Mesonotum, mesoscutellum densely and finely punctured. Mesopleuron and mesoscutellar appendage smooth and shining. Postscutellum moderately roughly punctured, shining. Legs orange, tarsi brown, 3rd tibia brown, 2nd tibia more or less brown. Ratios of the tarsal segments: 1st (basitarsus) 30 : 2nd 11 : 3rd 8 : 4th 5 : 5th (without claws) 8. Claws with subapical tooth which smaller than the apical one (Fig. 5). Wings dark, infuscate. Fore wings with 4 cubital cells. 1st recurrent vein runs to the 2nd, 2nd recurrent vein to the 3rd cubital cell. Anal cell with crossvein. The angle of this vein is about 45°. Hind wing without closed cubital cell but with one closed middle cell. Anal cell petiolate. Abdomen orange, smooth and shining.

Holotype: male. "Nepal: 4300`, Kathmandu, VIII. 81 M. Allen" Paratypes: 2 males, labelled as the holotype, 1 female "Nepal, Kathmandu, 1350 m, VII. 1983, Cd. M. G. Allen".

Population variation: In the lightest specimens only the half of the mesoscutellum black or dark brown.

The new species is closely related to *Monostegidia* garhwalensis Saini et Deep, 1992. *Monostegidia* nepalensis sp. n. differs from *M. garhwalensis* Saini et Deep, 1992 having more or less black or dark brown mesoscutellum, orange propodeum, orange fore tibia and entirely black hind tibia and mostly black or dark brown middle tibia.

Ferna chiangmaiensis sp. n.

Head black; clypeus, labrum, round middle spot between the antennae, genae, narrow inner orbit, mandibles except their apices and palpi white. OOL: POL OCL = 15: 11: 17. Clypeal emargination rounded and about 0.33x as long as its median length. Ratios of the antennal segments from 1st to 9th: = 10:8:28:37 : 32 : 27 : 23 : 21 : 21. Vertex and temples very densely and finely punctured, moderately shining. The pubescence of the head short, dense, dark brown about 0.33x as long as the diameter of the front ocellus. Head dilated behind the eyes and contracted at the temples. Occipital furrows well developed. Malar space 2x longer than the diameter of the front ocellus. Thorax black, tegulae, hind margin of pronotum, and a horizontal band on the mesopleuron white. Cenchri, mesoscutellar appendage and metanotum brown. Mesonotum and scutellum shining, densely and finely punctured. Mesopleuron shining finely granulated. Pubescence on the thorax white, short and sparse, about 1/3x as long as the diameter of the front ocellus.

Length of a cencher/distance between cenchri = 2/3. Legs white, including coxae and trochanters but tarsi brown. Claws with small subapical tooth originated far from the apical one (Fig. 6). Inner hind tibial spur as long as the apical width of tibia. Ratios of the hind tarsal segments: 1st (basitarsus) 43: 2nd 16: 3rd 11: 4th 6: 5th 12 (without claws). Wings hyaline, venation and stigma brown. Fore wing with 4 cubital cells. 1st recurrent vein runs to the 2nd, the 2nd recurrent vein to the 3rd cubital cell. Anal cell with middle cross vein with about 60° angle. Basalis and the 1st recurrent vein parallel. Upper half of 1st abdominal tergite dark brown. The 2nd half of the 1st tergite, the 2nd - 5th tergites light yellowish brown. Apical tergites from the 6th segments black. Sternites white. Ovipositor black. Abdomen shining with very fine granulated microsculpture.

Length: 4.8 mm., length of fore wing: 5.0 mm.

Holotype: female. "Thailand, Chiangmai, 3. IX. 1979., K. Ch. Arensom...

The holotype is deposited in the collection of The Natural History Museum, London.

The yellowish brown band on the abdomen and the reach white coloration on the head differ the new species from *Ferna bullifrons* Malaise, 1961.

Ferna nauligensis sp. n.

Head black; broad inner and outer orbits, clypeus, labrum, mandibles except their apex, palpi, round spot between antennae, genae white. OOL: POL: OCL = 17 : 9 : 12. Ratios of the antennal segments : 1st 12 : 2nd $8:3^{rd}\ 38:4^{th}\ 45:5^{th}\ 39:6^{th}\ 31:7^{th}\ 28:8^{th}\ 26:9^{th}\ 24.$ Clypeal emargination deep, about half as long as its median length. Vertex and temples densely and finely punctured, moderately shining. Pubescence on the head sparse, short, white, about 0.33x as long as the diameter of front ocellus. Head dilated behind eyes and contracted at the temples. Occipital furrows well developed. Malar space 2x as long as the diameter of the front ocellus. Thorax white. Mesonotum, pronotum, metanotum, mesoscutellar appendage, postscutellum, upper third of mesopleuron, katepimeron and metepimeron black. Mesoscutellum black with white oval spot. Mesonotum finely, shallowly, moderately densely punctured, shining. Mesoscutellum and the mesoscutellar appendage finely and densely punctured, shining. Mesopleuron and postscutellum smooth and shining. Pubescence on the thorax moderately dense, white, about 0.67x as long as the diameter of the front ocellus. Length of a cencher/distance between cenchri = 14/15. Legs white, tarsi brownish white in dorsal view. Ratios of the hind tarsal segments: 1st (basitarsus) 43 : 2nd 28 : 3rd 14 : 4th 8 : 5th 15 (without claws). Claws with small inner tooth originated far from the outer tooth. Inner hind tibial spur as long as the apical width of the hind tibia. Wings hyaline, venation brown, basal half of the stigma yellowish brown, apical half brown. Fore wing with 4 cubital cells, 1st recurrent vein originated from the 2nd, 2nd recurrent vein from the

3rd cubital cell. Anal cell with middle cross vein with 60° angle. Basal and 1st recurrent vein parallel. Hind wing with 1 closed middle cell and without closed cubital cell. Abdominal tergites from 1st to 8th brown, 9th tergite white, sternites white, ovipositor white with brown apex. Shining, with minute, coriaceous surface sculpture. Length: 5.7 mm, length of fore wing: 6.3 mm.

Holotype: female. "Nepal, Gobre, Nauling Lekh, 9500 ft. VI. 1983, tt Col M. G. Allen".

Holotype is deposited in the collection of The Natural History Museum, London.

The new species is closely related to *Ferna bullifrons* Malaise, 1964. The reach white coloration of the head easily differs the new species from its relative.

Eusunoxoa indiana sp. n.

Head black, including antennae. Mandibles, clypeus, labrum, palpi brownish yellow. Vertex, frons and temples shining, moderately densely punctured with small punctures. Postocellar furrows clearly visible. OOL: POL: OCL = 12: 13: 13. Clypeus broadly but slightly emarginated. Clypeus short and wide. Clypeal emargination about 0.2 times as deep as the median length of the clypeus. Ratios of the antennal segments: 1st 11: 2nd 9: 3rd 26: 4th 24: 5th 20: 6th 15 : 7th 15: 8th 14: 9th 16. Head behind the eyes contracted without occipital carina. Genae extremely narrow. Pubescence of the head and thorax white, moderately dense and about 1.0 – 1.2 x as long as the diameter of the front ocellus. Thorax brownish orange, cenchri yellowish white. The whole thorax shining, impunctate. Length of a cenchrus/distance between cenchri = 6/7. Prepectus present. Legs yellow, 1st tarsal segments except basitarsus, apical half of the middle tibia and middle tarsus, hind tibia, tarsus and apical 2/3 of the hind femur brown. Claws with small subapical tooth next to the apical one (Fig. 4), basal lobes missing. Ratios of the hind tarsal segments: 1st (basitarsus) 53: 2nd 12: 3rd 9: 4th 5: 5th 17 (without claws). The hind basitarsus flattened. Length/apical width of the hind basitarsus = 53/13. Inner hind tibial spur simple. Wings slightly infuscated, venation, and stigma dark brown. Fore wing with 4 cubital cells. 1st recurrent vein runs to the 2nd, 2nd recurrent vein to the 3rd cubital cell. Basalis and 1st recurrent vein parallel. Anal cell with median crossvein. Its angle about 35°. Hind wing with no closed middle and cubital cell and with no marginal vein. Anal cell with short petiole. Abdomen brownish orange, 2nd-9th tergites brown, smooth and shining. Length: 5.6 mm, length of fore wing: 4.9 mm.

Holotype: male. "India, Tamil N., Madras, 2. XI. 79, Boucek,... The holotype is deposited in the collection of The Natural History Museum, London.

The new species is closely related to *Eusunoxoa* formosana Enslin, 1911 but E. formosana Enslin, 1911 has dark reddish yellow head, antennae black only

from the 3^{rd} segment and head roughly and deeply punctured.

Beleses nigromaculatus sp. n.

Head yellow, a spot between the ocelli and the vertex black. 1st antennal segment yellow, 2nd - 4th white with dorsal black line, 5th white with black line reaches to the half of its total length, 6th - 9th white, the apex of the 9th segment brown. OOL: POL: OCL = 13: 11 15. Ratios of the antennal segments: 1st 29: 2nd 21: 3rd 73 : 4th 70 : 5th 49 : 6th 28 : 7th 24 : 8th 22 : 9th 26. Clypeus has shape like a trapezoid, without emargination. Pubescence of the head white, moderately dense and about as long as the front ocellus. Head shining, moderately densely and moderately roughly punctured. Thorax yellow, shining, moderately densely and finely punctured. Postnotum between the mesoscutellar appendage and the postscutellum, spot behind the postscutellum, spots near cenchri blackish brown. Pubescence on the thorax white, moderately dense and about 2/3 times as long as the diameter of the front ocellus. Length of a cencher/distance between cenchri: 16/23. Legs yellow. Apex of the middle basitarsus, apical 2/3 of the hind femur, apex of hind tibia, hind tarsus black. Claw with small subapical tooth and large basal lobe. Ratios of the hind tarsal segments. 1st (basitarsus) 64: 2nd 20: 3rd 9: 4th 6: 5th 14 (without claws). Length of the hind basitarsus/length of the inner hind tibial spur = 64/31. Wings yellowish hyaline. Apex of the fore wing behind the base of the stigma infuscate. Venation brownish black, costa, basal half of the stigma, 1st recurrent vein yellow. Fore wing with 4 cubital cells. 1st recurrent vein runs to the 2nd, 2nd recurrent vein to the 3rd cubital cell. Basalis and the 1st recurrent vein parallel. Anal cell with middle cross vein. The angle of the cross vein about 35°. Hind wing with 1 closed middle cell and without closed cubital cell. Abdomen yellow, shining, very finely and moderately densely punctured. 1st - 7th tergites and the basal half of the 8th tergites dark brown Ovipositor black. Length: 11.5 mm, length of the fore wing: 12.0 mm.

Holotype: female. "China, Hainan I., Tien Fong Mts., 13. V. 83 Boucek.

The holotype is deposited in the collection of the Natural History Museum, London.

The new species is closely related to *Beleses stigmaticalis* (Cameron, 1876). However, *Beleses stigmaticalis* (Cameron, 1876) has 6th –9th tergites black, 1st –5th tergites yellow and head without black spot.

Hemibeleses nigromontanus sp. n.

Head entirely black including antennae and mouthparts. Temples and vertex shining with fine coriaceous sculpture. Pubescence on the head white, dense, short, about 0.67x as long as the diameter of the front ocellus. OOL: POL:OCL = 11:11:12. Clypeal emargination rounded and about 0.25x as deep as its median length. Ratios of the antennal joints: 1st 10: 2nd 9: 3^{rd} 31 : 4^{th} 30 : 5^{th} 26 : 6^{th} 16 : 7^{th} 11 : 8^{th} 10 : 9^{th} 14. Head contracted behind the eyes. Malar space extremely narrow. Thorax brownish black, cenchri white. Mesonotum and mesoscutellum shining, moderately densely and moderately deeply punctured. Postscutellum smooth and shining. Mesopleuron shining with sporadic punctures. Length of a cencher/distance between cenchri = 8/9. Legs yellow, first coxae and the base of the 2nd and 3rd coxae, hind tarsi brown. Claws tridentate. Ratios of the hind tarsal segments: 1st (basitarsus) 39 : 2nd 16 : 3rd 10 : 4th 5 : 5th 8 (without claws). Wings hyaline, venation dark brown. Fore wings with 4 cubital cells. 1st recurrent vein runs to the 2nd, 2nd recurrent vein runs to the 3rd cubital cell. Basalis and the 1st recurrent vein parallel. Anal cell with 40° cross vein. Hind wing without closed cubital and middle cell, no marginal vein. Abdomen dark brown, shining with fine coriaceous sculpture. Length: 5.1 mm. Length of fore wing: 4.8 mm.

Holotype: male "Nepal, Ghanpokhara, 5,500 – 7,000 ft., 2. V. 1954, J. Quinlan."

Paratype: male, labelled as the holotype.

The holotype and the paratype are deposited in The Natural History Museum, London.

The new species is similar to Hemibeleses melanopoda (Cameron, 1902). The pale legs of the new species differ it from its closest relative.

Neostromboceros albopunctatus sp. n.

Head black, contracted behind the eyes, densely and roughly punctured, moderately shining. Clypeus and labrum white. OOL: POL: OCL = 4:7:9. Ratios of the antennal segments: 1st 16: 2nd 14: 3rd 41: 4th 39 : 5th 36: 6th 25: 7th 23: 8th 20: 9th 20. Cllypeus slightly and widely emarginated. The clypeal emargination about 0.25 times as deep as the median length of the clypeus. Pubescence on the head and on the thorax white, dense and about as long as the diameter of the front ocellus. Occipital carina missing. Genae extremely narrow, linear. Thorax black, pronotum and propleuron with white hind margin, mesopleuron with short white margin on its upper edge. Prepectus and cenchri white. Mesonotum, mesoscutellum shining, densely, uniformly and moderately deeply punctured. Postscutellum smooth and shining. Mesopleuron densely, uniformly punctured, nearly matt. Length of a cencher/distance between cenchri = 9/14. Coxae black, trochanters white, femora black, inner side of the apical part of the 1st femur white. Tibiae white with black apices and black longitudinal strips. Tarsi black, basitarsi with whitish brown spot. Claws with small inner tooth (Fig. 7). Ratios of the hind tarsal segments: 1st (basitarsus) 50: 2nd 18: 3rd 9: 4th 6: 5th 19 (without claws). Length of the hind basitarsus/length of the inner hind tibial spur = 25/12. Wings slightly infuscated. Fore wing with 4 cubital cells. 1st recurrent vein runs to the 2nd cubital cell. 2nd recurrent vein interstitial with the 2nd cubital crossvein. Anal cell without cross vein. Hind wing with 1 closed middle and 1 closed cubital cell. Abdomen black, shining. Abdominal tergites with white hind margin, 7th – 9th tergites with median longitudinal white line. Ovipositor with short, black hairs. Length: 6.7 mm, length of the fore wing: 6.1 mm. Males are similar to the females, but their abdomens entirely black. Sawsheath in Fig. 3. Length of the males: 6.5 – 7.1 mm, length of their fore wings: 5.9 – 6.6 mm.

Holotype: female: "Nepal, Kathmandu, B. Embassy, 1390 m, Sec. Vegetation, VI. 83, Lt. Col. M. Allen"

Paratypes: males. 1 male labelled as the holotype, 4 males: "Nepal: 4300`, Kathmandu, VIII. 81., M. Allen", 1 male: "Nepal: Kathmandu, 1400 m, IX. 1983, Lt. Col. M. G. Allen".

Holotype and paratypes are deposited in the collection of The Natural History Museum, London.

One paratype is deposited in the collection of the Somogy County Museum, Kaposvar.

The new species is closely related to *Neostromboceros punctatus* Konow, 1908. However, *N. punctatus* Konow, 1908 has black clypeus, only the $1^{\rm st}$ tergite has white hind margin and the males have $2^{\rm nd}$ - $4^{\rm th}$ tergites fulvous.

Eutomostethus tienfangiensis sp. n.

Head, including antennae entirely black, shining, minutely and sporadically punctured. Occipital carina missing, genae about 0.5x as long as the diameter of the front ocellus. Head contracted behind the eyes. Clypeus slightly but widely emarginated. The clypeal emargination about 0.2x as deep as the median length of the clypeus. OOL: POL: OCL = 3:2:3. Ratios of the antennal segments: 1st 7: 2nd 5: 3rd 20: 4th 14: 5th 13: 6th 12: 7th 9: 8th 9: 9th 11. Thorax black. Pronotum, propleuron, tegulae, mesonotum, mesoscutellum, upper half of the mesopleuron red. Cenchri whitish brown. Length of a cencher/distance between cenchri = 18/5. Thorax entirely smooth and shining. Hairs on the head and the thorax black, dense and about as long as the diameter of the front ocellus. Legs black, inner side of the fore femur and tibia brownish. Ratios of the hind tarsal segments: 1st (basitarsus) 24: 2nd 9: 3rd 7: 4th 4 : 5th 9 (without claws). Claw with small subapical tooth erected far from the apical one. Wings infuscated, venation black, and stigma black with wide brown margin. Abdomen black, smooth and shining. Ovipositor long and acute (Fig. 1). Length: 7.5 mm. Length of the fore wing: 7.1 mm.

Holotype: female. "China, Hainan I., Tien Fong Mts., 13. V. 83, Boucek".

The holotype is deposited in the collection of The Natural History Museum, London.

The new species is closely related to *Eutomostethus distinctus* Wei, 1997, however, the new species has mid or hind tibiae black, fore tibia brownish but never white, and only the upper half of its mesopleuron is red.

Pasteelsia rubrothoracica sp. n.

Head entirely black including antennae. Temple and vertex shining, densely and finely punctured with minute punctures. Head parallel behind the eyes with clear deep occipital furrows. OOL: POL OCL = 16:17 : 16. Clypeus with slight rounded emargination about 0.13x as deep as its median length. Ratio of the antennal segments from 1st to 9th 13:8:35:34:33:28: 25 : 23 : 26. Head with short, dense black pubescence about 0.33x as long as the diameter of the front ocellus. Thorax black; mesonotum, scutellum, tegulae, pronotum, propleuron and mesopleuron red. Cenchri white. Length of one cencher/distance between cenchri = 19/11. Mesonotum, pronotum, scutellum and postscutellum shining, densely, finely, uniformly and shallowly punctured. Mesopleuron and mesosternum smooth and shining. Pubescence on the thorax short, sparse, white and half as long as the diameter of the front ocellus. Prepectus clearly defined. 1st coxae brown, 2nd and 3rd coxae whitish, all trochanters white, all femora brown with white coloration on their basal 1/5 parts. Tibiae whitish, 3rd tibia brown on its basal 1/3 part. Claws bidentate. Subapical claws much larger than the apical one (Fig. 8). Claws without basal lobes. Wings slightly infuscated, stigma and venation dark brown. Fore wing with 4 cubital cells. 1st recurrent vein runs to the 2nd, 2nd recurrent vein to the 3rd cubital cell. Basal and the 1st recurrent vein converging. Hind wing with 1 middle and 1 cubital cell. Abdomen black, shining with fine irregular surface sculpture. Length: 7.0 mm, length of fore wing: 5.8 mm.

Holotype: male, "Hong Kong IV. 13. 30. On Camphor leaves H. K. Univ.,.. Holotype is deposited in the collection of The Natural History Museum, London.

The new species is closely related to *Pasteelsia* constricta Malaise, 1964. Its black legs and mesopleuron and the relatively small size (only 5.0 mm.) differ *P. constricta* Malaise, 1964 from the new species.

Tenthredo flavobootaniensis sp. n.

Head dark yellow with black spot around ocelli, which reaches the hind margin of vertex. Vertex and temples shining, finely granulated. Head slightly dilated behind the eyes. Malar space about as long as the diameter of the front ocellus. No occipital carina. OOL: POL: OCL = 24:8:32. Clypeus roundly emarginated. The emargination about 0.33x as deep as its median length. Pubescence on the head white, dense, very short and about 0.2x as long as the diameter of the front ocellus. 1st - 5th antennal segments dark yellow with brownish black strip. The other segments black. Ratios of the antennal segments: 1st 11: 2nd 8: 3rd 33: 4th 32 : 5th 30 : 6th 21 : 7th 20 : 8th 19 : 9th missing. Pronotum brownish black with dark yellow hind margin. Propleuron dark yellow with brownish black margin. Fore lobes of mesonotum black with wide hind dark yellow margin. Lateral lobes of mesonotum black with 2 yellow triangular spots next to the hind margins of the fore lobes. Mesoscutellum, mesoscutellar appendage and postscutellum dark yellow. Postnotum and mesosternum black. Mesopleuron, metepimeron and metepisternum dark yellow with brownish black margin Cenchri yellowish brown. Length of a cencher/distance between cenchri = 6/11. Mesonotum very finely and densely granulated, matt. Mesoscutellum, mesoscutellar appendage postscutellum finely granulated, moderately shining. Mesopleuron finely granulated, shining. Mesosternum without thorn. Mesoscutellum rounded, not pyramidal. Pubescence on the thorax white, short, dense about 0.33x as long as the diameter of the front ocellus. Legs dark yellow. Basal half of the 2nd and basal 2/3rd of the 3rd coxae brownish black.

Claws bidentate. The subapical tooth as long as the apical one but stronger. Length of hind basitarsus/length of inner hind tibial spur = 37 : 22. Ratios of the hind tarsal segments: 1^{st} (basitarsus) 37 : 2^{nd} 20 : 3^{rd} 13 : 4^{th} 8 : 5^{th} 13 (without claws). Wings yellowish hyaline. Apical third of fore wing from the base of the stigma slightly but clearly infuscated. Abdomen dark yellow. 1^{st} and 2^{nd} tergites with black basal margin. 7^{th} and 8^{th} tergites black. Sternites brownish yellow. Ovipositor black. Length : 14.5 mm. Length of fore wing: 15.0 mm.

The female is agrees with the male.

Holotype: male: "British Bootan, Padong, L. Durel, 1918". Paratyüpe: female, labelled as the holotype. The holotype and the paratype are deposited in The Natural history Museum, London.

The new species is closely related to *Tenthredo striaticornis* Malaise, 1945. The entirely black mesonotum, the yellow hind margin and black middle part of the mesonotal middle lobes, the yellow triangular spot on the inner edge of the mesonotal lateral lobes, the yellow tegulae and mostly yellow propodeum differ the new species from *T, striaticornis* Malaise, 1945.

Tenthredo changbuensis sp. n.

Head black. Narrow inner orbit up to the top of the eyes, outer orbit up to half of the eyes, spots around the antennal grooves white. Head behind the outer orbit, clypeus, labrum, mandibles, genae brown. Vertex and temples finely and densely punctured without interspaces, moderately shining. Pubescence on the head white, short and dense. Hairs about half as long as the diameter of the front ocellus. OOL: POL: OCL = 19:6 : 9. Clypeus broadly emarginated. The emargination about 0.33x as deep as its median length. Head with sharp occipital carina, slightly dilated behind the eyes and contracted at the temples. Genae 1.5x as long as the median length of front ocellus. 1st - 3rd antennal joints black. The 3rd with white apex. 4th - 9th antennal joints white with longitudinal black strip. Ratios of the antennal joints: 1st 10: 2nd 9: 3rd 27: 4th 16: 5th 15: 6th 10: 7th 9: 8th 8: 9th 7. Mesonotum, metanotum, mesoscutellum, mesoscutellar appendage and postscutellum

black. Pronotum black with white hind margin. Propleuron black with brown spot. Mesopleuron, katepimeron, metepimeron, metepisternum, mesosternum and metasternum brown. Cenchri white. Length of a cencher/distance between cenchri = 5/7. All part of the thorax very finely granulated, matt. Pubescence on the thorax white, dense and about half as long as the diameter of the front ocellus. Mesosternum without thorn. Mesoscutellum rounded, not pyramidal. Legs brown. Fore femora marked with black longitudinal strip on their basal half. 2nd and 3rd femora with longitudinal black strip alongside. Basal 1/5 of the 2nd and 3rd tibiae marked with black. Ratios of the tarsal segments: 1st (basitarsus) 39 : 2nd 19 : 3rd 15 : 4th 9 : 5th 17 (without claws). Length of the hind basitarsus/length of the inner hind tibial spur = 39/21. Claws bifid, subapical tooth stronger than the apical one. Wings hyaline, venation brown, stigma and costa yellowish brown. Abdomen brown, 1st, 5th and 6th tergites black. Sternites and ovipositor brown. Abdomen shining with fine, dense microsculpture. Length: 8.8 mm. Length of the fore wing: 8.8 mm.

Holotype: female. "Nepal or Tibet, Changbu Khola, 14500 ft., 13. VI. 1949. O. Polonin, B.M. 1949-637".

The holotype is deposited in The Natural History Museum, London.

Its closest relative is *Tenthredo coloripleuris* Malaise, 1945, however the legs of the new species is marked with black line from the coxae till the last segments of the tarsi and its mesopleuron and mesosternum is never surrounded by yellow margin.

Macrophya kathmanduensis sp. n.

Head black. Outer orbits up to 4/5 of the eyes, inner orbits up to the half of the eyes, genae, 2 strips connecting the postocellar furrows with the margin of the eyes, mandibles, except their apices and palpi white. Clypeus white with horizontal black spot in the middle, labrum white with basal black spot. OOL: POL: OCL = 14: 6: 9. Clypeus widely and rectangularly emarginated. The clypeal emargination about 0.33x as deep as the median length of the clypeus. Ratios of the antennal joints: 1^{st} 9 : 2^{nd} 7 : 3^{rd} 42 : 4^{th} 45 : 5^{th} 35 : 6^{th} 21 : 7th 17 8th 16: 9th 15. Vertex and temples densely granulated, moderately shining. Head contracted behind the eyes. Occipital carina well developed. Pubescence of the head white, dense and about half as long as the diameter of the front ocellus. Thorax black. A spot on the propleuron, small spot on the mesopleuron next to the propleuron, spot on the metepisternum white. Cenchri brown. Length of a cencher/distance between cenchri = 7/13. Mesonotum, pronotum, propleuron, mesoscutellum finely and densely punctured, matt. Mesopleuron densely and moderately finely punctured, slightly shining. Fore coxae, trochanters, femora, tibiae, first 2 segments of the fore tarsi white in ventral and black in dorsal view. 3rd-5th segments white, claws brown. Middle coxae, trochanters, tibiae coloured like

the fore ones. Middle femora black with white ventral strip. Hind coxae black. Hind trochanters white with small black spots. Hind femora black with white basal longitudinal strips. Hind tibiae black. The first 2 segments of the hind tarsi black, the 3rd-5th segments white. Claws brown. Ratios of the hind tarsal segments: 1st (basitarsus) 58: 2nd 24: 3rd 15: 4th 6: 5th 17. Length of the hind basitarsus/ length of the inner hind tibial spur: 58/34. Claws bifid, subapical tooth stronger than the apical one. Wings hyaline, stigma, venation mainly black. Anal cell of the forewing widely contracted. Abdomen black, lateral spots on tergites 2 -7, lower margins of tergites 5 - 9, marginal spots of the abdominal sternites white. Ovipositor black. Abdomen shining with fine transverse microsculpture. Length: 8.5 mm. Length of the forewing: 7.8 mm.

Holotype: female. "Nepal: Kathmandu, 1500 m, III. 1983, Lt. Col. M. G. Allen.

The holotype is deposited in the collection of The Natural History Museum, London.

The new species is similar to *Macrophya histrio* Malaise, 1945 but the new species has no yellowish white markings on the mesonotum, mesoscutellum, postscutellum and the mesopleuron without white zigzag band.

Macrophya langtangiensis sp. n.

Head black, lower inner orbits, up to the L' of the eyes, genae white, lower outer orbits up to the first quarter of the eyes, spots on the mandibles whitish brown. Labrum brown with brownish white spot. Head densely and moderately roughly punctured, matt.. OOL : POL : OCL = 14 : 6.5 : 9. Ratios of the antennal segments: 1st 11 : 2nd 6 : 3rd 34 : 4th 32 : 5th 29 : 6th 22 : 7th 17: 8th 16: 9th 15. Head contracted behind the eyes. Occipital carina sharp. Clypeus roundly excised. Its emargination about 0.33x as deep as the median length of the clypeus. Pubescence on the head white and about half as long as the diameter of the front ocellus. Thorax entirely black, only cenchri brown. Length of a cencher/distance between cenchri = 4/7. Pronotum, mesonotum, mesoscutellum densely and moderately roughly punctured, matt. Pubescence on the thorax white, moderately dense, 0.67 – 1.0x as long as the diameter of the front ocellus. Coxae black. trochanters white, femora, tibiae and tarsi red. Hind basitarsus brown, apical 1/5 of hind tibia black. Hind calcars red but their apices black. Length of the hind basitarsus/length of the inner hind tibial spur = 59/35. Claws bifid, subapical tooth shorter and stronger than the apical one. Wings hyaline, venation and stigma black. Anal cell of the forewing widely contracted. Abdomen black, 2nd - 4th tergites with small lateral spots. 9th tergite with red spot. Abdomen with dense, fine transverse sculpture. Length 8.6 mm, length of the fore wing 8.4 mm.

Holotype: female. "Nepal: Langtang Kruage, 1150 ft., 9. V. 1949, O. Polunin, B.M. 1949-637,

The holotype is deposited in the collection of The Natural History Museum, London.

The new species is similar to *Macrophya femorata* Marlatt, 1898, but the clypeus of the new species entirely black, genae and lower inner orbit are white and all legs are red.

Macrophya nigronepalensis sp. n.

Head black, densely and finely punctured, and slightly shining. Lower 2/3 of the clypeus, labrum, and mandibles, genae, lower 1/3 of the outer orbit, lower half of the inner orbit. Pubescence of the head white, short and about 0.33x as long as the diameter of the front ocellus. Head slightly dilated behind the eyes than contracted at the temples. Genae about as long as the diameter of the front ocellus. Clypeus roundly emarginated. The depth of the emargination about 0.33x as long as the median length of the clypeus. OOL: POL: OCL = 23: 10: 12. Ratios of the antennal segments: 1st $15: 2^{nd} \ 9: 3^{rd} \ 31: 4^{th} \ 17: 5^{th} \ 16: 6^{th} \ 14: 7^{th} \ 13: 8^{th} \ 10$: 9th 12. Thorax black, cenchri yellowish white. Length of a cencher/distance between cenchri = 7/10. Pubescence of the head dense, white and about half as long as the diameter of the front ocellus. Legs mainly black, apex of fore femur below, a longitudinal line on the fore tibia, inner apex of mid tibia and ventral side of the mid tarsus white: fore tarsus brownish white. Ratios of the tarsal segments: 1st (basitarsus) 30: 2nd 15: 3rd 10: 4th 8: 5th 13 (without claws). Length of hind basitarsus/length of the inner hind tibial spur = 15/8. Wings hyaline, stigma and venation brownish black. Anal cell with crossvein. Abdomen black, lateral side of 2^{nd} – 4^{th} segments white. Ovipositor short, not reaches over the abdomen. Abdominal tergites with fine, transverse microsculpture. Length: 7.1 mm, length of the fore wing: 7.1 mm.

Holotype: female. "Nepal: Langtang Valey, 11 500 ft, 4. VIII. 1949, O. Polonin, B. M. 1949-637.

Paratypes: 1 male, labelled as the holotype., 1 female: "Nepal: Langtang, 10200 ft, 11. VIII. 1949, O. Polonin, B. M. 1949-637".

The holotype and the paratypes are deposited in The collection of the Natural History Museum, London.

The male are similar to the females.

Female (paratype): length: 6.4 mm, length of the fore wing: 6.6.mm.

Male (paratype): length: 5.5 mm, length of the fore wing: 6.1 mm.

Differencialdiagnosis: The new species similar to Macrophya lucida Rohwer, 1921. However, M. lucida Rohwer, 1921 has 2 yellowish spots on the clypeus, further yellowish spots on each inner superior orbit. It's narrow pronotal margin, the ones of the tegulae and the apical margin of the 4th tergite yellow. Larger species, length: 9.0 mm.

Pachyprotasis nigrosubtilis sp. n.

Head mainly white; occipital area reaching down to the antennal sockets, vertex and upper orbits black. Antenna black above and white below. Pubescence on the head white, moderately dense and about half as long as the length of the diameter of the front ocellus. Occipital carina sharp, genae about 2x longer than the diameter of the front ocellus. Head very densely and finely granulated, shining. OOL: POL: OCL = 22:7: 11. Ratios of the antennal segments: 1st 19: 2nd 8: 3rd $59:4^{th}\ 69:5^{th}\ 62:6^{th}\ 50:7^{th}\ 44:8^{th}\ 42:9^{th}\ 37.$ Clypeus widely emarginated . The clypeal emargination about 0.33x as deep as the median length of the clypeus. Thorax mainly white. Fore lobes of mesonotum black with white hind margin, lateral lobes of mesonotum black with white inner Mesoscutellum black with large median white spot. Postnotum and pronotum entirely black Mesopleuron with 2 longitudinal black band. Cenchri brownish white. Katepimeron with black spot. The remaining parts of the thorax entirely white. Mesonotum and mesoscutellum densely granulated, slightly shining. Mesoscutellar appendage and postscutellum smooth and shining. Mesopleuron finely, densely and uniformly punctured, moderately shining. Length of a cencher/distance between cenchri = 11/17. Pubescence like on the head. 1st and 2nd legs from the coxae till the trochanters white with longitudinal black strip alongside. Hind coxa, tibia, basal half of the hind femur white with black strip, apical half of hind femur, hind tibia and tarsus red, although apical 1/3 of hind tibia and the apical half of the last hind tarsal segment black. Ratios of the hind tarsal segments: 1st (basitarsus) 49: 2nd 19: 3rd 15: 4th 6: 5th 13 (without claws). Length of the hind basitarsus/length of the hind inner tibial spur = 49/26. Claws bifid, teeth subequal. Wings hyaline, venation and stigma dark brown. Abdomen black above and white below. 1st - 4th tergites with median triangular white spots at their hind margins. Abdomen with fine transverse sculpture. Length: 7.0 mm., length of the fore wing: 6.8 mm.

Holotype: male. "Nepal: Langtang Village, 11 500 ft, 7. VI. 1949, O. Polonin, B.M. 1949-637."

The holotype is deposited in the collection of the Natural History Museum, London.

Differencialdiagnosis: The new species is closely related to *Pachyprotasis subtilis* Malaise, 1945, however *P. subtilis* Malaise, 1945 has black abdominal sternites and tergites without triangular white spots.

Pachyprotasis phulchokiensis sp. n.

Head mainly black. White: clypeus, labrum, mandibles, genae, wide outer orbit up to 2/3 of the eyes, inner lower orbit, supraclypeal area and 1 –1 elongated spots on the temples. The remaining parts of the head black. Sculpture of the head finely granulated, slightly shining with white and very sparse pubescence

about 0.33 - 0.5 times as long as the diameter of the front ocellus. Occipital carina well developed. Genae about as long as the diameter of the front ocellus. Head contracted behind the eyes. OOL: POL: OCL = 11:7 : 9. Ratios of the antennal segments: 1st 15: 2nd 6: 3rd 48: 4th 60: 5th 52: 6th 39: 7th 37: 8th 33: 9th 35. Clypeus widely emarginated, the depth of the emargination about 0.3x as deep as the median length. Thorax mainly white. Pronotum, mesonotum, metanotum, metascutellum, 2 longitudinal strips on the mesopleuron, middle part of the propleuron, margins of the tegulae, basal part of the mesoscutellum and a spot on the metepiemron black. Thorax densely and finely punctured, mainly matt, mesopleuron moderately shining. Pubescence on the thorax white, short, moderately dense and about 0.33x as long as the median length of the clypeus. Length of a cencher/distance between cenchri = 9/13. Wings hyaline, venation and stigma dark brown. Coxae and trochanters white, femora white with longitudinal black line, fore and middle tibiae and

tarsi black with ventral white line, hind tibia and tarsus entirely black. Ratios of the hind tarsal segments: 1^{st} (basitarsus) $39:2^{nd}$ $15:3^{rd}$ $11:4^{th}$ $4:5^{th}$ 10 (without claws). Length of the hind basitarsus/length of the hind tibial spur = 39/26. Claws slender and bifid (Fig. 9). Abdomen black above and white below with fine transverse sculpture, shining. Length: 5.3 mm. Length of the fore wing: 4.8 mm.

Holotype: male. "Nepal: Phulchoki, Montane & Oak Forest, 2760 m, VIII. 1983, Lt Col M. G. Allen. The holotype is deposited in the collection of The Natural History Museum, London.

The new species is closely related to *Pachyprotasis sulcifrons* Malaise, 1945. However, *P. sulcifrons* Malaise, 1945 has mesopleuron smooth and impunctate, long and large subapical tooth, much longer than the apical one, white strip on the mesoscutellum and a horizontal band on the mesopleuron.

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Új orientális levéldarazsak (Hymenoptera: Tenthredinidae)

HARIS ATTILA

16 új levéldarázsfaj leírását közöljük az Orientális faunaterületről. Ezek a következők: Aneugmenus bruneiensis sp. n., Monostegidia nepalensis sp. n., Ferna chiangmaiensis sp. n., Ferna nauligensis sp. n., Ferna nauligensis sp. n., Eusunoxoa indiana sp. n., Beleses nigromaculatus sp. n., Hemibeleses nigrominutus sp. n., Neostromboceros albopunctatus sp. n., Eutomostethus tienfangiensis sp. n., Pasteelsia rubrothoracica sp. n., Tenthredo flavobootaniensis sp. n., Tenthredo changbuensis sp. n., Macrophya kathmanduensis sp. n., Macrophya langtangiensis sp. n., Macrophya nigronepalensis sp. n., Pachyprotasis nigrosubtilis sp. n. és Pachyprotasis phulchokiensis sp. n. Az újonan leírt levéldarazsakat a

következő fajokkal vetettük össze: Aneugmenus jacobsoni (Enslin, 1912), Monostegidia garhwalensis Saini at Deep, 1992, Ferna bullifrons Malaise, 1961, Eusunoxoa formosana Enslin, 1911, Beleses stigmaticalis (Cameron, 1876), Hemibeleses melanopoda (Cameron, 1902), Neostromboceros punctatus Konow, 1908, Eutomostethus distinctus Wei, 1997, Pasteelsia constricta Malaise, 1964, Tenthredo striaticornis Malaise, 1945, Tenthredo coloripleuris Malaise, 1945, Macrophya histrio Malaise, 1945, Macrophya femorata Marlatt, 1898, Macrophya lucida Rohwer, 1921, Pachyprotasis subtilis Malaise, 1945 és Pachyprotasis sulcifrons Malaise, 1945.

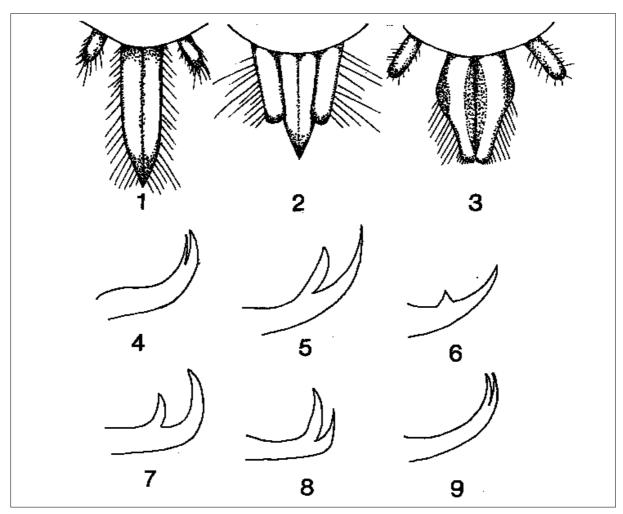


Fig. 1: Sawsheath of Eutomostethus tienfangiensis sp. n.

Fig. 2: Sawsheath of Aneugmenus bruneiensis sp. n.

Fig. 3: Sawsheath of Neostromboceros albopunctatus sp. n.

Fig. 4: Hind claw of Eusunoxoa indiana sp. n.

Fig. 5: Hind claw of Monostegidia nepalensis sp. n.

Fig. 6: Hind claw of Ferna chiangmaiensis sp. n.

Fig. 7: Hind claw of Neostromboceros albopunctatus sp. n.

Fig. 8 : Hind claw of Pasteelsia rubrothoracica sp. n.

Fig. 9: Hind claw of Pachyprotasis phulchokiensis sp. n..