

Ber. nat.-med. Verein Innsbruck	Band 94	S. 79 - 86	Innsbruck, Dez. 2007
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Sawflies from Nepal and China (Hymenoptera: Symphyta: Tenthredinidae)

by

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Synopsis: 9 sawfly species are reported from Nepal and 1 species is described from China. *Tenthredo janetscheki* nov. spec. and *Tenthredo sanctapetronellae* nov. spec. are described from Nepal and compared to *T. corrugatocephala* SINGH & SAINI, 1987 and *Tenthredo memoriaescalerai* HARIS, 2004. *Siobla schedli* nov. spec. is described from China and compared to *Siobla ferox* (SMITH 1874).

1. Introduction:

Although several sawfly species were reported earlier from the Himalayas, the investigation of the sawfly fauna of Nepal started only in the early eighties by Smith (SMITH 1981) with the description of *Ferna nepalensis* SMITH, 1981. Four years later, ZOMBORI added 5 Tenthredinidae species (ZOMBORI 1985). MUCHE (1986 & 1987) reported 13 species from Nepal including the description of 6 new species and one new genus: *Nepala* MUCHE, 1986. Haris continued the research with the description of 10 new species based on the collection of The Natural History Museum, London (HARIS 2000).

2. Method and material:

The Nepal expedition of Prof. Dr. Heinz Janetschek (JANETSCHEK 1990) was taken in May and June of 1961. The Tenthredinidae material of this expedition contains 16 specimens of 12 species: 11 *Tenthredo* and 1 *Dolerus* species. A new species of genus *Siobla* is added from the collection of the Naturhistorisches Museum, Wien (Vienna). Three species of the genus *Tenthredo* were in such a poor condition that their identification was impossible. For the identification, we consulted the papers of Malaise and the recently published papers on the fauna of India, China, Thailand and Vietnam as well. Due to the very high number of scientific papers (approx. 500) we list only the few most relevant papers discussing the closest relatives of the new species in the Reference part of this paper. The 2 new *Tenthredo* species, namely *Tenthredo janetscheki* nov. spec. and *Tenthredo sanctapetronellae* nov. spec. together with the other species collected by Prof. Janetschek are deposited in the entomological collection of the Innsbruck University. The holotype of *Siobla schedli* spec. nov. from China is deposited in the collection of the Naturhistorisches Museum, Wien. Since condition of the Nepal sawfly material is very fragile: several specimens were broken and glued together. On the other hand, the *Siobla* species of the Nat. Hist. Mus. Wien has historical value: it was collected 90 years ago by Handel and Mazetti: we did not dissected the genitals.

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3. Tenthredinidae from Nepal:

Dolerus stygius FÖRSTER, 1860 (syn. *Dolerus megapterus* CAMERON, 1881): NE. Nepal, Pauqpocha-Talboden, Yak Alvu, 31. 05. 1961, 1 female (New record for Nepal. Although it is a West Palaearctic fauna-element, its presence in Nepal not surprising since the species occurs in Central Russia as well).

Tenthredo inguinalis (KONOW, 1908): NE. Nepal, Khumjung-Namche Bazar, Duch Kosi, 07. 06. 1961, 4 females, 1 male (New record for Nepal).

Tenthredo chlorogaster MALAISE, 1945: NE. Nepal, Khumjung-Namche, Bazar-Dulh Kosi, 07. 06. 1961, 1 male (New record for Nepal).

Tenthredo cretata KONOW, 1898: NE. Nepal, Manga, Deorali-Phaeda Khala, 1500-2700 m, 19. 06. 1961, 2 females (New record for Nepal).

Tenthredo cyanata KONOW, 1898: NE. Nepal, Ringmo-junbesir (solu), 2800-3100 m, 11. 06. 1961, 1 female (New record for Nepal).

Tenthredo simlaensis CAMERON, 1899: NE. Nepal, Those-Jri, 1800-2000 m, 14. 06. 1961, 1 female.

Tenthredo trunca verticina MALAISE, 1945: NE. Nepal, Khumjung-Namche, Bazar-Dulh Kosi, 07. 06. 1961, 1 female (New record for Nepal).

4. Description of new species:

Siobla schedli nov. spec.

Holotype female: Head dark yellow. Only apices of mandibles and 2 spots connecting antennae and clypeus dark brown. Area between ocelli black. Antenna entirely yellow. Prothorax black with yellow anterior margin. Anterior lobes of mesonotum black with wide V-shaped hind margin. Lateral mesonotal lobes black with yellow triangular internal spot, confluent with V-shaped margin of middle lobes. Mesoscutellum, mesoscutellar appendage and postscutellum yellow. Upper half of steep, posterior part of lateral mesonotal lobes yellow. Mesoscutellar appendage and postscutellum with black horizontal anterior margin. Dorsal surface of metathorax black including sunken area around mesoscutellum. Ventral and lateral surfaces of thorax black except large yellow spot on upper half of mesopleuron. Cenchri yellow. Fore and middle legs entirely yellow. Hind leg yellow, only hind femur (except its narrow base) and apical half of hind tibia black. Wings yellowish hyaline. Stigma, costa, apical part of subcosta yellow, venation brown. Abdomen black. Triangular membrane of propodeum, second and last abdominal segments, hypopygium, sawsheath and lateral part of 8th abdominal segment yellow (Fig. 1). Head, mesonotum, mesoscutellum, postscutellum and mesopleuron densely, moderately deeply and

roughly punctured, slightly shiny. Mesosternum moderately densely, moderately deeply punctured, shiny. Mesoscutellar appendage smooth and shiny. OOL : POL : OCL = 6 : 3 : 7. Ratio of antennal segments: 11 : 6 : 34 : 21 : 20 : 14 : 12 : 11 : 12. Clypeus gently rounded without emargination. Gena about 2/3x as long as diameter of median ocellus. Head with occipital carina. Postocellar furrows parallel and moderately deep, clearly visible, reaching occipital carina. Mesoscutellum blunt and highly elevated. Number of cubital cells: 4. First recurrent vein meets 2nd, 2nd recurrent vein meets 3rd cubital cells. Distance of origin of cubitus and basalis about as long as intercostal crossvein. Hind wing with 2 closed middle cells. Claw without basal lobe. Subapical tooth of claw longer and stronger than apical. Length: 13.5 mm.

D i a g n o s i s : The new species runs to *Siobla ferox* (SMITH, 1874) in MALAISE 1931 & 1934. Although numerous *Siobla* species has been described in the latest decades by WEI & MUCHE, the new species is quite far from the recently described ones. Differences: in *Siobla ferox* (as it figured in MATSUMURA 1912), the first 3 abdominal segments yellowish brown and most of the head and the entire pro- and mesothorax (except mesoscutellum) dark brown. The new species has only 2nd and last abdominal segments yellow (but not yellowish brown), the head is nearly entirely yellow and the pro-, and mesonotum are richly coloured with yellow.



Fig. 1: *Siobla schedli* nov. spec. (photo: Ábrahám).

Derivatio nominis: The new species is dedicated to Prof. Dr. Wolfgang Schedl.

Material: Holotype: female: China, Hunan, Yün-schan, b. Wukang, 1200 m, jun.-aug. 1918, Handel, Mazetti leg. The holotype is deposited in the collection of Naturhistorisches Museum, Wien.

***Tenthredo janetscheki* nov. spec.**

Holotype female: Head black. Clypeus, gena, labrum, palpi, mandibles (except brown apices), small supraclypeal spot, lower hind orbits up to middle of the eyes yellowish white. Antenna entirely black. Thorax black, yellowish white: thoracic sternites, wide hind and lateral pronotal margin, tegula, elongated frontal spot on anterior part of mesopleuron, wide longitudinal band on posterior margin of mesopleuron, hind margin of katepimeron, narrow hind margin of metepimeron, metepisternum, lateral corners of mesoscutellar appendage and trapezoid spot behind metascutellum (Fig. 2). Coxae yellowish white with dorsal longitudinal black strip not reaching apex. Trochanters yellowish white. Femora yellowish white with wide black dorsal longitudinal strip. Anterior tibia yellowish white with longitudinal black strip outside. Middle and hind tibiae black, middle tibia with small apical yellowish white triangle. Tarsi black. Abdominal tergites black. Yellowish white: slightly broadened hind margin on middle of first (propodeum), second and third tergites. Small irregular triangular-like spot on middle of anterior margins of tergites 2, 3 and 4. Tergite nine (except lateral black spot) and tergite ten yellowish white. Abdominal sternites yellowish white but with wide reddish brown basal band on last 2 abdominal sternites. Ovipositor black except 2 yellowish white and elongated small basal spots. Wings hyaline, costa and venation dark brown. Stigma reddish brown with dark brown upper margin. Head strongly contracted behind eyes, densely, minutely punctured all over, shiny. Clypeus roundly emarginated, clypeal emargination about 1/3x as deep as clypeal median length. OOL : POL : OCL = 11 : 8 : 10. Hind margin of head with hardly visible occipital carina. Ratio of antennal segments: 10 : 7 : 27 : 30 : 23 : 17 : 14 : 12 : 11. Antenna long and slender. Mesonotal lobes densely granulated, moderately shiny. Mesopleuron granulated, hardly shiny. Mesosternum flat without thorns. Mesopleuron elevated but not acute. Mesoscutellum bluntly elevated. Abdominal tergites and posterior half of propodeum with fine microstriation, shiny. Anterior half of propodeum smooth and shiny. Ovipositor narrow and elongated. Length of inner hind tibial spur : length of hind basitarsus : apical width of hind tibia: 7 : 15 : 4. Tarsi long and slender. Subapical tooth of claw slightly wider and shorter than apical. Length: 7.5 mm.

Diagnosis: The new species is related to *T. corrugatocephala* SINGH & SAINI, 1987. The main differences: *T. corrugatocephala* SINGH & SAINI has black mesopleuron, pale spot on extreme tip of supraantennal tubercle, anterior slop of mesoscutellum and ridges lateral to meso- and metascutelli are pale. Antenna is stout, ratio of 3rd and 4th antennal segments as 3:2. The head is strongly wrinkled. The new species has mesopleuron longitudinally striped, the parts mentioned above are black. Antenna is long and slender, ratio of 3rd and 4th antennal segments as 9 : 10. The head is densely punctured.

Derivatio nominis: The new species is dedicated to Prof. Dr. Heinz Janetschek.

Material: Holotype: female: NE. Nepal, Basislager bei Paugpocha, ca. 4000 m, 31. 05. 1961. The holotype is deposited in the insect collection of Innsbruck University.



Fig. 2: *Tenthredo janetscheki* nov. spec. (photo: Ábrahám).

***Tenthredo sanctapetronellae* nov. spec.**

Holotype female: Head light yellow. Black: Frontal spot from base of antennae till hind margin of head involving vertex (but not touching eyes). Wide inner margin of eyes, most of temples and supraclypeal area remain yellow (Fig. 4). Narrow rusty yellow line placed on black vertex parallel with postoccipital carina. Posterior part of head behind postoccipital carina black. Wide black band connecting upper hind margin of eyes with black posterior part of head leaving temples and narrow hind carina yellow (Fig. 3). Antenna black but apical 3 segments and apex of 6th segment white. Apex of mandible light brownish yellow. Pronotum black with wide yellow hind margin, corner and lateral oval spot. Tegula yellow. Mesonotum black except rusty brown middle band and yellow triangular corner of anterior lobes. Metanotum black, mesoscutellum, mesoscutellar appendage and postscutellum yellow. Mesopleuron black with large rounded yellow spot in middle. Mesosternum rusty brown. Metepisternum yellow. Remaining parts of thorax

black. Anterior coxa brown. All coxal apices and trochanters yellow. Anterior femur brown. Anterior tibia yellow, apical third brown. Anterior tarsus brown. Middle and hind femora black. Middle and hind tibiae yellow but apical half of hind and apical third of middle tibiae black. Middle tarsus brown, hind tarsus yellow with black ring on each segment. Wings hyaline, costa and stigma yellow, venation brown. Abdominal tergites black. Light yellow: small subtriangular spot on base of propodeum in middle, wide hind margins of tergites 2-4, (these margins widened in middle of tergites than narrowed laterally and on deflexed sides of tergites triangularly widened again), large triangular spot in middle of hind margin of tergite 5, small subtriangular spot on tergite 6 and small triangular spot on deflexed sides of tergites 5-7. Tergite 9 yellow with black lateral spots on deflexed sides and rusty spot in middle. Sternites light yellow. Sawsheath black with basal rusty spot. Head very densely and moderately roughly punctured with middle size punctures, moderately shiny. Head with postoccipital carina. Clypeus roundly emarginated. Clypeal emargination about 1/3x as deep as clypeal median length. OOL : POL : OCL: 23 : 6 : 14. Ratio of antennal segments: 15 : 10 : 38 : 30 : 26 : 23 : 14 : 15 : 16. Mesonotum densely and finely granulated, matt. Mesoscutellum and mesoscutellar appendage densely and moderately deeply punctured, slightly shiny. Postscutellum smooth and shiny. Upper half of mesopleuron very finely punctured, shiny. Lower half of mesopleuron moderately densely punctured with moderately deep, small punctures, shiny. In middle of mesopleuron few large punctures may occur (on left side of holotype). Mesosternum densely, shallowly and finely punctured, shiny. Mesoscutellum bluntly, pyramidally elevated. Mesopleuron strongly and bluntly elevated. Mesosternum without thorn. Abdominal tergites including propodeum with very fine and shallow coriaceous surface sculpture, shiny. Length of hind basitarsus : length of inner hind tibial spur : apical width of hind tibia: 57 : 24 : 14. Length of sawsheath : length of hind femur: 65 : 103. Subapical tooth of claw shorter than apical. Length: 12.0 mm.

Diagnosis: The new species is closely related to *Tenthredo memoriaescalerai* HARIS, 2004. In *T. memoriaescalerai*, the rusty brown spots are very extended: head behind the eyes, most of the thorax, abdominal apex and abdominal sternites are rusty brown (HARIS 2004). In the new species, the rusty spots are few and small: one is placed on the anterior lobes of mesonotum, a small one on the last tergite, one on the base of the sawsheath and the entire mesosternum is rusty brown either. The subapical tooth of the claw is longer in *T. memoriaescalerai* but shorter in *T. sanctapetronellae* nov. spec. Mesopleuron shiny in the new species but weakly shiny in *T. memoriaescalaerai*.

Derivatio nominis: The specific name refers to the date of capture: 31st of May is the commemoration day of St. Petronella.

Material: Holotype: female: NE. Nepal, Basielago ki, Paugpocha, 4000 m, 31. 05. 1961. The holotype is deposited in the insect collection of Innsbruck University.

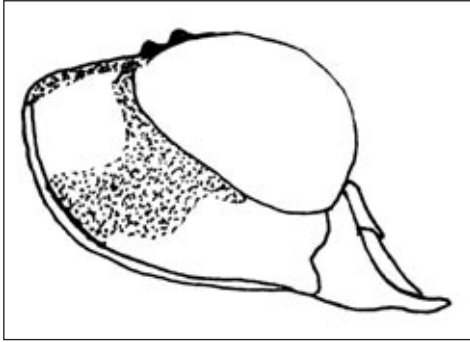


Fig. 3: Head of *Tenthredo sanctapetronellae* nov. spec. in lateral view.

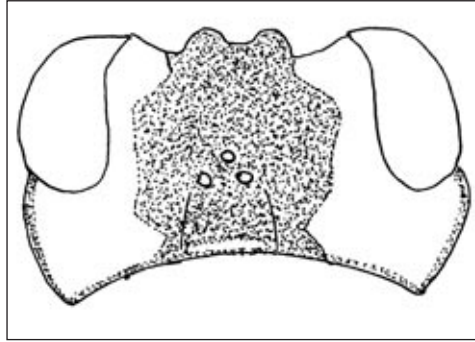


Fig. 4: Head of *Tenthredo sanctapetronellae* nov. spec. in dorsal view.

5. Summary:

Eight Tenthredinidae species reported from Nepal. *Dolerus stygius* FÖRSTER, 1860; *Tenthredo inguinalis* (KONOW, 1908); *T. chlorogaster* MALAISE, 1945; *T. cretata* KONOW, 1898; *T. cyanata* KONOW, 1898, and *T. trunca verticina* MALAISE, 1945 are new records for Nepal. Two new *Tenthredo* species are described from Nepal: *Tenthredo janetscheki* nov. spec. and *T. sanctapetronellae* nov. spec. *Siobla schedli* nov. spec. is described from China.

Acknowledgement:

Author expresses his grateful thank to Prof. Dr. Wolfgang Schedl for his kind support of this project. Special thank to Dr. Levente Ábrahám for the photos taken.

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