

## Sawflies from Gansu province, China (Hymenoptera: Symphyta: Tenthredinidae)

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HARIS A. & ROLLER L.: *Sawflies from Gansu province, China (Hymenoptera: Symphyta: Tenthredinidae)*.

**Abstract.** Four new species are described from Gansu province, China: *Taxoblenus longispinosus* spec. nov., *Tenthredo hajeki* spec. nov., *T. sinokrati* spec. nov. and *T. ruzickai* spec. nov. The specific and generic name of *Poppia yunanensis* Haris and Roller, 1999 is proposed to change to *Rocalia sinowei* Haris and Roller, 2007.

**Key words:** Hymenoptera, Tenthredinidae, Taxoblenus, Tenthredo, new species, Gansu, China

### Introduction

Gansu province is located in the northwest of China, home of 27 million people. Most of the population is Han with Hui, Tibetan, Dongxiang, Tu, Manchu, Uyghur, Yugur, Bonan, Mongolian, Salar, and Kazakh minorities. In prehistoric times, numerous Neolithic cultures were settled in this region. The Dadiwan culture flourished in the eastern end of the province from about 6000 BC to 3000 BC. The Mayiajao culture and partly the Quija culture also took root in Gansu between 3100 BC and 1900 BC. The Qin state (founding state of the later Chinese Empire) grew out from the south-eastern part of Gansu. A 2200 year old map of Guixian region was found in this archeologically important area. In imperial times, the Han dynasty extended the Great Wall in the province. Situating along the Silk Road, Gansu was an economically important province, and a cultural transmission path as well. Temples and Buddhist grottoes such as those at the Caves of the Thousand Buddhas contain artistically and historically revealing mural paintings. An early form of paper inscribed with Chinese characters, dating back to 8 BC was discovered at the site of the Western Han garrison. In 1862-77, during the Muslim Rebellion many parts of the province suffered by heavy fighting. In 1920, an earthquake killed around 180,000 people, and another one killed 70,000 in 1932. Its frequent earthquakes have tended to slow the economic progress of the province, until recently when based on its abundant mineral resources it has begun developing into a vital industrial centre.

### Method and material

We discuss the sawflies collected by Dr. Jan Ruzička, Dr. Jan Hájek and Dr. David Král, Czech entomologists during their collecting trip to the province in 2005. The num-

ber of the captured sawflies is quite small, only 5 specimens of 2 genera, namely *Taxoblenus* Wei, 1999 and *Tenthredo* Linné, 1758, and contains 5 species.

The genus *Taxoblenus* was established by Wei and Nie (WEI and NIE 1999) and the species of the genus were studied by Jakovlev, Konow, Nie and Wei (JAKOVLEV 1888; KONOW 1891; WEI and NIE 1999; NIE and WEI 2004). Ten valid species are discussed in this genus.

The Chinese *Tenthredo* species with others from the Oriental region were compiled by Malaise (MALAISE 1945). After Malaise, Wei, Nie, Wen, Deng, Zhong, Xiao, Haris and Roller studied the Chinese *Tenthredo* fauna (HARIS and ROLLER 1998; MALAISE 1945; NIE and WEI 1998, 1999 and 2002; WEI 2002; WEI and NIE 1998 a, b, 2002 a, b, c; WEI WEN and DENG 1999; WEI and ZHONG 2002; WEI, NIE and XIAO 2003; WEI and XIAO 2005). These papers were properly studied and used for the identification of the collected sawflies. 296 *Tenthredo* species and subspecies are known from China till now.

Both authors are authors of the new taxa, i.e., Haris and Roller.

## Results

### *Sawflies from Gansu province, China*

*Tenthredo maculiger* ssp. *rupico* Konow, 1908: 1female, China, Gansu province, Lazikou pass, 3180 m, 34° 13.8' N, 103° 54.0' E, 29. 06. 2005, J. Hájek, D. Král, J. Ruzicka leg. (Colour variation: antennae and mesoscutellar appendage are entirely black, otherwise agrees with the nominal form.)

## Description of the new species

*Taxoblenus longispinosus* **spec. nov.**  
(figs. 1, 2 and 3)

Male. Body black, brownish yellow: labrum, anterior femur (except basal fifth), middle femur (except basal half), anterior and middle tibia, all tarsi and deflexed, confluent sides of tergites 2-4 (Fig. 3). Hind tibia dark brown. Wings slightly infuscate, stigma, costa and venation dark brown. Head very densely, moderately roughly and moderately deeply punctured all over, hardly shiny. OOL : POL : OCL: 19 : 5 : 13. Ratio of antennal segments: 12 : 7 : 53 : 63 : 63 : 48 : 47 : 38 : 36. Antenna very long and filiform, about 15% longer than total length of body. Clypeus very deeply and roundly emarginated. Clypeal emargination about 2/3x as deep as clypeal median length. Head behind eyes narrowed and hind corners of temples rounded. Postoccipital carina slightly visible on hind margin of vertex. Postocellar furrows gently divergent and reaching hind margin of head. Frontal area flat and smooth, without keeled pentagonal area. Supraantennal pits also missing. Gena about as wide as diameter of front ocellus. Mesonotum uniformly punctured with moderately deep, moderately small and moderately dense punctures, shiny. Mesoscutellum and mesoscutellar appendage roughly and densely punctured with deep punctures, hardly shiny. Metascutellum smooth and shiny. Mesopleuron deeply, densely and roughly punctured, matt. Mesoscutellum flat. Cenchri

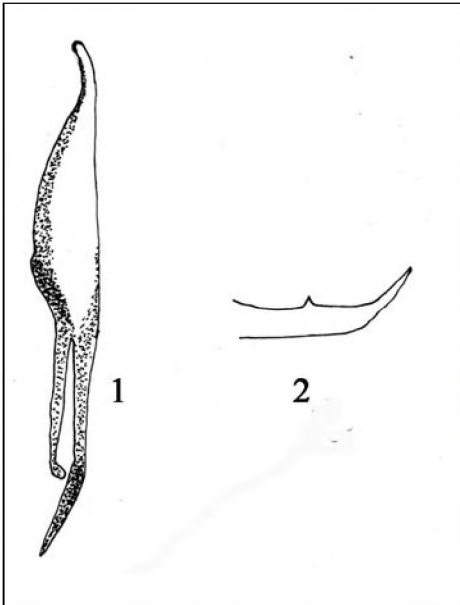


Fig. 1: Penis valve of *Taxoblenus longispinosus* spec. nov.

Fig. 2: Claw of *Taxoblenus longispinosus* spec. nov.

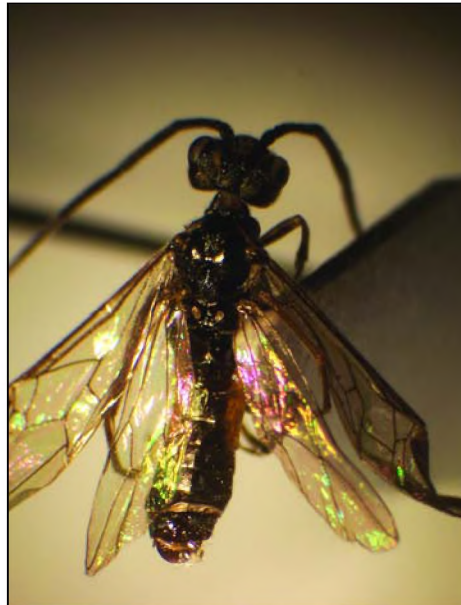


Fig. 3: *Taxoblenus longispinosus* spec. nov. holotype (photo: Haris)



Fig. 4: *Tenthredo hajeki* spec. nov. holotype (photo: Haris)



Fig. 5: *Tenthredo sinokralli* spec. nov. holotype (photo: Haris)



Fig. 6: Head and thorax of *Tenthredo sinokrati* spec. nov. (photo: Haris) (1037)



Fig. 7: *Tenthredo ruzickai* spec. nov. holotype (photo: Haris) (1049)



Fig. 8: Head and thorax of *Tenthredo ruzickai* spec. nov. in lateral view (photo: Haris)

dark brown, hardly oval, rather rounded. Abdominal tergites 1-6 with fine microstriation, moderately shiny. Other tergites with shallow undefined surface sculpture, shiny. Length of inner hind tibial spur : length of hind basitarsus : apical width of hind tibia: 15 : 53 : 13. Penis valve with long basal projection (Fig. 1). Claw without basal lobe but with minute inner tooth removed from apical tooth placed in middle of claw (Fig. 2). Length: 6.7 mm.

*Holotype*: male: China, Gansu province, Lazikou pass, 3180 m, 34° 13.8' N, 103° 54.0' E, 29. 06. 2005, J. Hájek, D. Král, J. Ruzicka leg. The holotype is deposited in the hymenoptera collection of the Hungarian Natural History Museum.

The acute and narrowed apex of penis valve (Fig. 1) differs the new species from *Taxoblenus longispinosus* Wei and Nie, 1999 that has penis valve widely truncate at apex.

*Tenthredo hajeki* **spec. nov.**  
(fig. 4)

Female. Head black but clypeus, labrum mandibles dark brown. Basal 4 antennal segments black, 5th antennal segment white with black base, 6-8th antennal segments white. Segment 9 and ventral part of segment 8 black. Thorax black. Narrow hind pronotal margin and cenchri whitish. Tegula dark brown. Legs black, tarsi dark brown. Abdomen black; tergites 3-5, lateral deflexed sides of tergite 6 and sternites 3-7 dark reddish brown (Fig. 4). Sawsheath black. Wings hyaline, stigma brown, its lower half dark brown, costa yellow, venation dark brown. Head very densely, moderately roughly punctured all over, hardly shiny. Clypeus densely but not uniformly punctured, shiny. OOL : POL : OCL: 19 : 7 : 14. Ratios of antennal segments: 14 : 11 : 34 : 25 : 24 : 19 : 15 : 13 : 13. Head roundly narrowed behind eyes. Postoccipital carina strong and well visible on posterior margin of head. Gena about as long as half of diameter of front ocellus. Clypeus roundly emarginated. Clypeal emargination about 1/3x as deep as clypeal median length. Mesonotum finely and densely granulated, matt. Mesoscutellum very densely punctured with moderately large, deep punctures, slightly shiny. Mesoscutellar appendage and metascutellum not uniformly (with larger and smaller area between punctures) punctured with larger and smaller punctures, moderately shiny. Mesopleuron extremely finely and shallowly granulated, slightly shiny. Upper and lower margins of mesopleuron with moderately deep and moderately dense punctures. Mesoscutellum hardly elevated, blunt. Middle part of mesopleuron bluntly elevated. Mesosternum without thorn. Propodeum with fine and shallow undefined surface sculpture, moderately shiny. Other tergites with microstriation, moderately shiny. Length of inner hind tibial spur : length of hind basitarsus : apical width of hind tibia: 24 : 53 : 14. Subapical tooth of claw about 3/4x as long as apical. Length: 12.0 mm.

*Holotype*: female: China, Gansu province, Xiahe (= Labrang) env., 35° 11.5' N, 102° 30.6' E, 2490 m (GPS), 19-22. 06. 2005, J. Hájek, D. Král, J. Ruzicka leg. The holotype is deposited in the hymenoptera collection of the Hungarian Natural History Museum.

The new species has no close relatives in the Oriental region. Somehow resembles to the European *Tenthredo balteata* (Klug, 1817). However *Tenthredo balteata* has head with bronze shine, dominantly red legs and white malar space and mouthparts. The new species is dedicated to Dr. Jan Hájek.

*Tenthredo sinokrali* **spec. nov.**  
(fig. 5 and 6)

Female. Head including mouthparts dark yellow with large blackish frontal spot (Fig. 6). Inner orbits and malar space whitish yellow. Antenna black, apical 4 joints and partly joint 5 white. Thorax dark yellow. Black: narrow base of pronotum, lobes of mesonotum (except yellow V-shaped posterior margin of mesonotal anterior lobes), metanotum, band between mesopleuron and mesosternum. Whitish yellow: scutelli and mesoscutellar appendage, hind margin of pronotum, V-shaped hind margin of anterior mesonotal lobes (Fig. 6). Mesopleuron light yellow. Legs dark yellow except apical black elongated spot on hind femur. Wings hyaline, costa and stigma yellow, venation brown. Abdomen dark yellow. Tergites 1-7 with black basal band (Fig. 5). Posterior half of propodeum whitish yellow. Ratios of antennal segments: 10 : 7 : 24 : 19 : 15 : 12 : 10 : 9 : 10. Antenna hardly longer than head and thorax combined, including propodeum. OOL : POL : OCL: 13 : 5 : 10. Head very densely, uniformly and moderately deeply punctured, slightly shiny. Head with slightly developed but clearly visible postoccipital carina. Head rounded behind eyes and contracted at corners of temples. Clypeus roundly emarginated. Clypeal emargination nearly half as deep as clypeal median length. Malar space as long as diameter of front ocellus. Mesoscutellum and mesopleuron bluntly elevated. Mesosternum without thorns. Mesonotal lobes densely granulated matt. Mesoscutellum, mesoscutellar appendage and metascutellum densely, moderately deeply punctured, moderately shiny. Mesopleuron matt with sporadic large punctures on upper side. Subapical tooth of claw hardly shorter than apical. Length: 14 mm.

*Holotype*: female: China, Gansu province, Lazikou pass, 3180 m, 34° 13.8' N, 103° 54.0' E, 29. 06. 2005, J. Hájek, D. Král, J. Ruzicka leg. The holotype is deposited in the hymenoptera collection of the Hungarian Natural History Museum.

The new species has no close relatives. In the key of Malaise (MALAISE 1945), it runs to *Tenthredo pseudoferruginea* Malaise, 1945 and *Tenthredo seriemaculata* Malaise, 1945. *T. pseudoferruginea* has brownish-red abdomen with black propodeum and *Tenthredo seriemaculata* has black abdomen with faint purplish tinge above with triangular pale spot on each tergite. Etymology: sino means Chinese and krali refers to Dr. David Kral to whom the new species is dedicated.

*Tenthredo ruzickai* **spec. nov.**  
(fig. 7 and 8)

Female. Body greenish-straw (green in life) with extensive black coloration covering nearly the total dorsal surface (Fig. 7 and 8). Black: large spot on head including temples, vertex and posterior part, reaching inner margins of eyes down to antennae (but with small drop-shaped pale spot at upper margins of eyes inside), whole antenna, large spot laterally behind eyes (but hind orbit remains pale), meso and metanotum (but mesoscutellum and mesoscutellar appendage remain pale), middle spot of metascutellum, abdominal tergites (except pale last tergite) and small apical spot on sawsheath. Legs greenish-straw, black: tarsi and longitudinal strip of tibiae. Wings hyaline, stigma and costa yellowish brown, venation blackish brown. Ratios of antennal segments: 7 : 4 : 13 : 9 : 8 : 6 : 5 : 5 : 4. Antenna short, somehow incrassate. OOL : POL : OCL: 16 : 5 : 10. Inner margins of eyes convergent. Clypeus roundly emarginated. Clypeal emargination about 1/3x as deep as clypeal median length. Head with dense, moderately large

and moderately deep, rough punctures, slightly shiny. Head contracted behind eyes. Occipital carina present. Mesonotum very densely punctured with small punctures, hardly shiny. Mesoscutellum and mesoscutellar appendage moderately densely punctured with moderately deep punctures, shiny. Metascutellum sparsely punctured, shiny. Mesopleuron opaque, with shallow dense punctures. Mesoscutellum and mesopleuron bluntly raised. Mesosternum without thorn. First abdominal tergite smooth and shiny. Other tergites with fine microstriation, shiny. Subapical tooth of claw slightly shorter than apical. Length of inner hind tibial spur : length of hind basitarsus : apical width of hind tibia: 13 : 34 : 9. Length: 8.6 mm.

*Holotype*: female: China, Gansu province, Xiahe (= Labrang) env., 35° 11.5' N, 102° 30.6' E, 2490 m (GPS), 19-22. 06. 2005, J. Hájek, D. Král, J. Ruzička leg. The holotype is deposited in the hymenoptera collection of the Hungarian Natural History Museum.

The new species is related to *Tenthredo sublimis* Konow, 1908. *Tenthredo sublimis* has black mesoscutellum with pale spot in the middle and the mesoscutellar appendage is also black but laterally pale, mesopleuron with black longitudinal band, underside of antenna is pale. The new species has entirely green mesoscutellum, mesoscutellar appendage and mesopleuron and its antenna is entirely black. The new species is dedicated to Dr. Jan Růžička.

The species is also related to a new species submitted by Wei and Niu to *Acta Zootaxonomica Sinica* in 2007. The differences are: mesoscutellum entirely pale, small, pale drop-shaped spot is placed on upper inner margin of eyes and apex of the ovipositor, that is slightly longer than hind basitarsus, black.

#### ***Proposed change of specific and generic name:***

The authors propose to change the name of *Poppia yunanensis* Haris and Roller, 1999 to *Rocalia sinowei* Haris and Roller, 2007 because of the changed position of the species and the old specific name has already preoccupied in *Rocalia*.

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