

Pristiphora bohemica sp. nov., a new sawfly species
from the Czech Republic
(Hymenoptera: Symphyta: Tenthredinidae)

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Abstract. *Pristiphora bohemica* sp. nov. is described based on specimens reared from larvae collected on *Spiraea salicifolia* (Rosaceae) in southern Bohemia (Czech Republic). The new species is close to its presumed vicariant species *P. angulata* Lindqvist 1974 from northeastern Europe.

Key words. Hymenoptera, Tenthredinidae, *Pristiphora*, new species, host plant, larva, Czech Republic, Palaearctic Region

Introduction

As a result of continuing investigations of the sawfly fauna of the Czech Republic based on the quantitative collecting methods (Malaise traps, yellow pan traps) as well as rearing of larvae, several interesting new data were obtained concerning the occurrence, distribution and ecology of some little known or rare sawfly species (MACEK 2006, 2008, 2009a,b, 2010, 2012a,b). In this respect especially the rearing of larvae showed to be very efficient. During my collecting trip to the Třeboňsko Protected Landscape Area and Biosphere Reserve in southern Bohemia in 2008, I collected on *Spiraea salicifolia* numerous sawfly larvae of two species unknown to me. Because there have been no records of sawflies associated with *Spiraea* in the Czech Republic, I presumed that they represented at least the first records for Czech fauna, which, at last, proved to be true after emergence of adults. Besides *Dinax ermak* Zhelochovtsev, 1968, a species first recorded in Central Europe (see MACEK 2010), the sample yielded also several adult specimens of an unknown species of *Pristiphora* Latreille, 1810 representing a new species described in this paper.

Material and methods

All adult specimens studied in this paper were reared from the larvae swept from their foodplant *Spiraea salicifolia* from three localities in southern Bohemia. The larvae were

photographed and all pictures saved in a digital image archive maintained by the National Museum, Praha, Czech Republic.

Morphological terminology is based on VIITASAAARI (2002). Codes of the field (in parentheses) follow the faunistic and floristic grid mapping system of central Europe (EHRENDORFER & HAMANN 1965, PRUNER & MÍKA 1996).

Abbreviations: NMPC – coll. National Museum, Praha; OOCL – the distance between a lateral ocellus and the hind margin of the head, OOL – the distance between an eye and a lateral ocellus, POL – the distance between the mesal margin of the two lateral ocelli.

Taxonomy

Pristiphora bohemica sp. nov.

(Figs. 1, 3, 5)

Type locality. Czech Republic, South Bohemia, Třeboň env., Stříbřecký most (bridge) (6955), 434 m a. s. l, 49°1'48"N, 14°51'16"E.

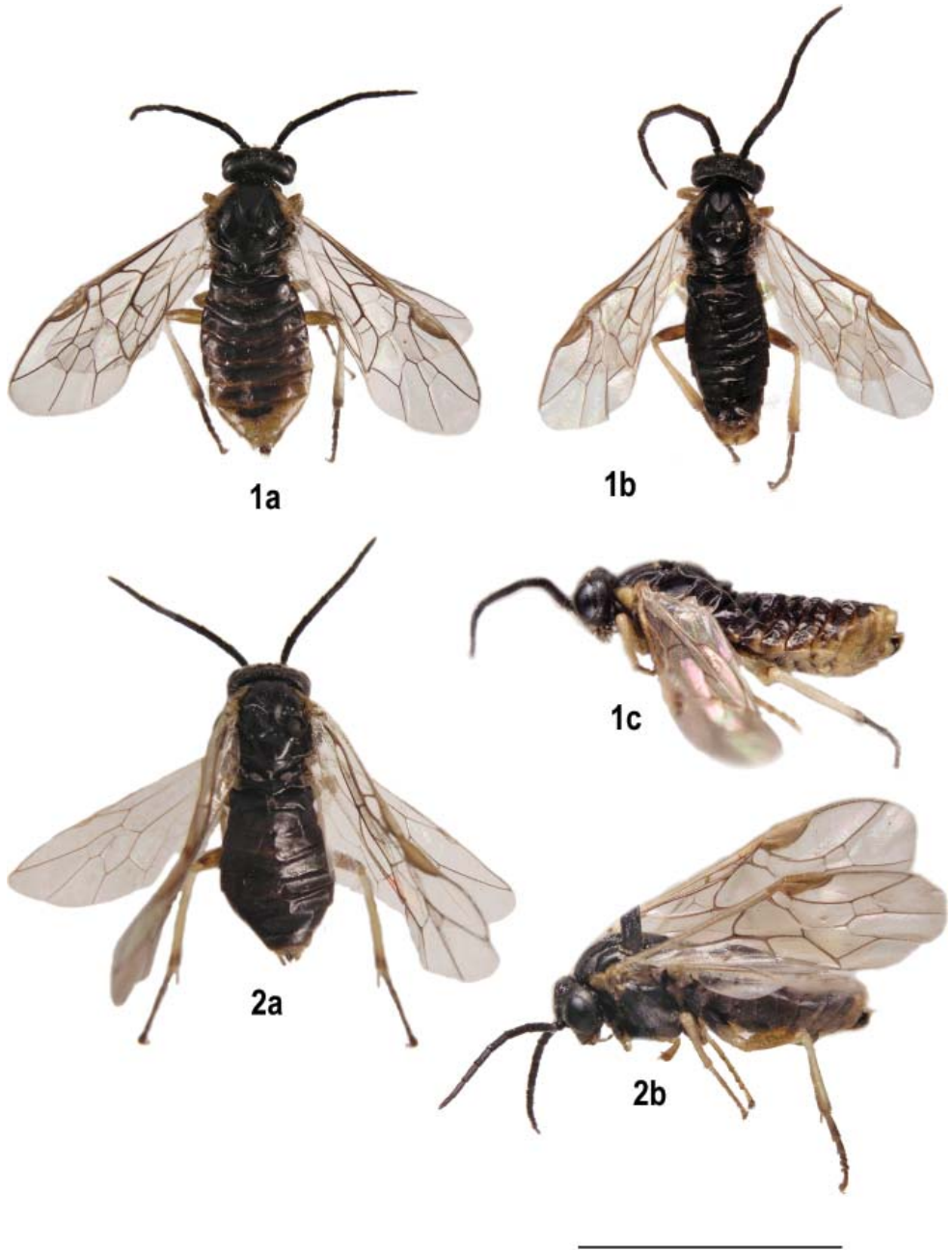
Type material. HOLOTYPE: ♀ (NMPC), 'Czech Republic, Bohemia meridionalis, Třeboň env., Stříbřecký most, 28.v., ex *Spiraea salicifolia*, e.l. 5.iv.09, Macek lgt. 08 [white label, printed] // Holotypus, J. Macek des. [red label] // *Pristiphora bohemica* sp.n., J. Macek det. 2012 [white label, printed]'. PARATYPES: 4 ♂♂ 4 ♀♀ (NMPC), the same data as holotype. All paratypes bear the following printed labels: 'Czech Republic, Bohemia meridionalis, Třeboň env., Stříbřecký most, 28.v., ex *Spiraea salicifolia*, e.l. 5.iv.09, Macek lgt. 08 [white label, printed] // Paratypus, J. Macek des. [red label] // *Pristiphora bohemica* sp.n., J. Macek det. 2012 [white label, printed]'.

Additional material. CZECH REPUBLIC: BOHEMIA mer.: Borkovická blata NR (6753), 9.vi.2010, 8 larvae on *Spiraea salicifolia*; Novořecké močály NR (6955), 31.v.2011, 5 larvae on *Spiraea salicifolia*; all J. Macek lgt. & det. (NMPC).

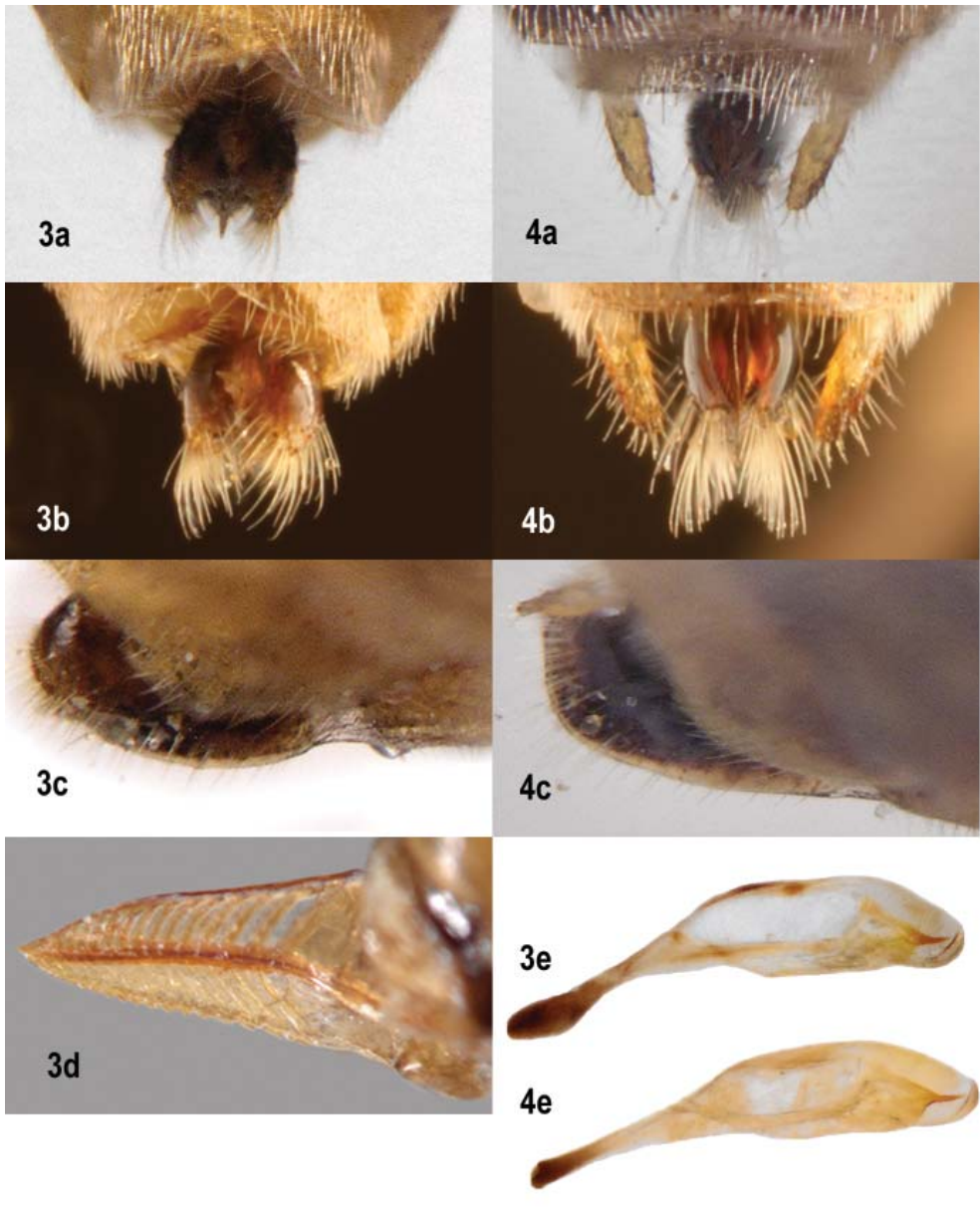
Description. Female (Figs. 1a, 1c). Length: 5.5–6.5 mm. *Colouration.* Head including antennae black, mandibles and labrum yellow. Thorax black, pronotum yellow except for an infuscation in ventral corner. Abdomen black, terga 2–7 with small yellow lateral spots on posterior margin, tergum 8 yellow with black medial spot, terga 9+10 yellow, all sterna yellow; cerci yellow, ovipositor sheath brown. All legs yellow, besides black metatarsi. Wings translucent, costa, subcosta and pterostigma yellow, the remaining veins brown.

Head shiny with fine, dense punctures, with short, dense, pale pubescence; in dorsal view transverse with temples parallel and rounded posteriorly; postocellar area strongly convex, twice as wide as long, lateral postocellar furrows short, slightly depressed, divergent; OOL : POL : OOCL = 1 : 1.1 : 0.7; frontal area flat; frontal pit deep, narrowly elliptical; clypeus flat, shiny, with straight anterior margin; malar space slightly longer than diameter of anterior ocellus; antenna a little longer than head and thorax combined; relative lengths of flagellomeres 3–9 are about 1 : 1.14 : 1.19 : 1 : 0.98 : 0.88 : 0.77.

Thorax. Median mesoscutal lobe with dense shallow puncture, interspaces feebly alutaceous; median mesoscutellar groove depressed anteriorly, raising to slight carina posteriorly; lateral mesoscutal lobes covered with sparse and shallow punctures with smooth and shining interspaces; mesoscutellum slightly convex, shining, with fine sparse punctures; mesopleuron smooth, with very sparse, fine punctures; mesoscutellar appendage with strong, deep punctures; metascutellum smooth, shiny; legs with metatarsus shorter than metatibia, metabasitarsus



Figs. 1–2. Habitus. 1 – *Pristiphora bohemica* sp. nov.: a – female (dorsal view); b – male (dorsal view); c – female (lateral view); 2 – *P. angulata* Lindqvist, 1974, female: a – dorsal view; b – lateral view. Scale: 5 mm.



Figs. 3–4. Female and male genitalia. 3 – *Pristiphora bohémica* sp. nov.; 4 – *P. angulata* Lindqvist, 1974. a, b – ovipositor sheath in dorsal view (on white and black background, respectively); c – ovipositor sheath (lateral view), d – extracted ovipositor (lateral view); e – penis valva. Scale: 1 mm.



Fig. 5. *Pristiphora bohémica* sp. nov., larva: a – lateroventral view; b – dorsolateral view. Scale: 5 mm.

slightly shorter than three following tarsomeres combined; inner tibial spur of metatibia a little shorter than half of the metabasitarsus, claws with small inner tooth.

Abdomen cylindrical with apex rounded posteriorly, terga finely alutaceous, sterna shiny with denser punctation on posterior halves; hypopygium deeply emarginate laterally of median process; sawsheath shorter than metatibia, in lateral view with rounded apex (Fig. 3c); in dorsal view widened posteriorly with emarginate dorsoapical scopa (Figs 3a, 3b); cerci short, not reaching beyond the apex of sawsheath; lancet of ovipositor narrow, tapering toward apex with oblique sutures without ctenidia (Fig. 3d).

Male (Fig. 1b). Body length 4.5–5.0 mm; in colour and morphology similar to female except for the following colour pattern: femora in part infuscate, abdomen nearly completely black except the yellow last sternite. Penis valvae as in Fig. 3e.

Larva (Fig. 5). Body length 4.0–5.0 mm. Ground colour green, head yellow green; dark transparent dorsal vessel with flanking white bands of fat body. Cuticle smooth; thoracic segments with two rows of tiny black warts bearing short setae; abdominal segments with six annulets, the second annulet with 3–4 bristles, the fourth annulet with 4 bristles; the first and second postspiracular lobe with three small black warts with short setae; subspiracular and surpedal lobes with four small black warts with short setae.

Variability. In adult females the yellow pattern on the abdominal tergites varies to some extent from largely yellow to predominantly black.

Differential diagnosis. *Pristiphora bohémica* sp. nov. is morphologically similar to *P. angulata* Lindqvist, 1974 (Figs. 2, 4), differing from it in the ovipositor sheath rounded in profile and dorsoapical scopa emarginate in dorsal view, and largely yellow abdominal sterna. In *P. angulata* the ovipositor sheaths are subtruncate in profile and tapered posteriorly in dorsal view, the abdominal sterna being mostly black. The males of both species are morphologically identical and distinguished only by the genitalia. For comparison the following material of *P. angulata* was examined: Russia, St. Peterburg distr., Voronya gora Mt., 14.v.1984, 2 ♂♂ 1 ♀ ex *Spiraea chamaedryfolia*, A. G. Zinovjev lgt. & det. (NMPC).

Etymology. The species name refers to the area of origin, Bohemia, the western historical land of the Czech Republic.

Bionomics. The larvae were swept from *Spiraea salicifolia* (Rosaceae) in riverine marshy meadows together with the larvae of the sawfly *Dinax ermak* and the butterfly *Neptis coenobita* (Scopoli, 1763) (Lepidoptera: Nymphalidae) from the end of May to the beginning of June 2008. Full grown larvae form a firm cocoon in the soil debris in which they hibernate as prepupae. They pupate in the next spring. All adults (5 females, 4 males) emerged on April 5, 2009.

Distribution. Czech Republic: southern Bohemia. Based on the findings of larvae in 2009–2011, the distribution range of *P. bohemica* sp. nov. in the Czech Republic corresponds with the native distribution pattern of *Spiraea salicifolia* in southern Bohemia (KOBILÍZEK 1992). Supposedly this is a vicariant species to its relative *P. angulata*, so far known only from Scandinavia, Estonia and Russia (LINDQVIST 1974, TAEGER & BLANK 2011).

Acknowledgments

The paper was published with financial support of the grant of the Ministry of Culture (grant DF12P01OVV021).

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