

Redescriptions of *Trichodes holtzi* Hintz, 1902 and *T. sexpustulatus* Chevrolat, 1874 based on the types and historical specimens (Coleoptera: Cleridae)

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KOLIBÁČ J. 2010: Redescriptions of the types of *Trichodes holtzi* Hintz, 1902 and *T. sexpustulatus* Chevrolat, 1874 based on the types and historical specimens (Coleoptera: Cleridae). *Acta Musei Moraviae, Scientiae biologicae* (Brno) 95(1): 123–135. – Two male types of *Trichodes holtzi* and one female historical specimen of *Trichodes sexpustulatus* are figured and redescribed. All three specimens are deposited in the Muséum national d’Histoire naturelle in Paris, France. No lectotypes are designated herein.

Keywords. Cleridae, *Trichodes holtzi*, *Trichodes sexpustulatus*, redescription

During my visit of the Muséum national d’Histoire naturelle (Paris), I had an opportunity to study some clerid types. The present communication documents two types and one historical specimen of two *Trichodes* Herbst species and may be helpful for future students of the genus.

Methods

The separated body parts (abdomen, legs) of softened beetle were briefly boiled in a 10% solution of KOH. Male genitalia were dissected in a drop of glycerol. Female genitalia were dissected and observed in clear water, stained with Congo Red beforehand. After examination, all separated body parts, including wings, were mounted in a drop of dimethyl hydantoin formaldehyde on a card and pinned beneath the specimen. Ink drawings were made using a camera lucida and a compound microscope, photographs were taken with a digital camera or through a binocular microscope with the same camera. Helicon Focus 4.21 software was used for the stacking of some images. The tpsDig 2.15 program was used for measurement.

Abbreviations

bc bursa copulatrix	sg spermathecal gland
g gut	sp spermatheca
mex metacoxa	st VII sternite (ventrite) VII
mo median oviduct	ts tibial spur
msb metasternal base	v vagina
pb proctigeral bacculus	vb ventral bacculus
pcs paracoxal suture	vs vaginal sclerite
pg pollen grain	

The abbreviation MNHN stands for the Muséum national d’Histoire naturelle, Paris, France.

***Trichodes holtzi* Hintz, 1902**

(Fig. 1, Pls 1–4)

Dtsch. ent. Z. 1902(1): 230.

Types examined. Specimen 1 (male): “Asia minor / Gülek , Taur.Cilic. / 1897. Holtz”, “type”, “Trichodes / Holtzi / Hintz”, “TYPE”, “Museum Paris / Coll. M. Pic” [last two labels recently pinned by MNHN staff]. Specimen 2 (male): “Asia minor / Gülek, Taur.Cilic. / 1897. Holtz”, “Lysholm”, “Type”, “Holtzi / Hintz”, “ex Musoeco / E. Hintz”, “TYPE”, “Museum Paris / ex Coll. / R. Oberthur” [last two labels recently pinned by MNHN staff].

Redescription. Body lustrously green-blue or blue but three yellow-orange spots on elytra; pubescence of ventral surface and legs light yellow; pubescence of dorsal surface dark; hairs along lateral margin of pronotum with light yellow bases and dark tips.

Head: Frons finely and densely punctured, with long, sparse pubescence between eyes; labrum and clypeus smooth, glabrous, dark brown; ventral surface without sculpture, glabrous, with long hairs along eyes and gula; mandibles, maxillary and labial palpi dark brown to black, only lacinia and galea lightly yellow; pedicellus and scapus dorsally dark brown to black but ventrally yellow-orange, remainder of antennae black except for dark brown apex of terminal antennomere.

Prothorax: Elongate, narrowest at base; glabrous longitudinal line runs along middle of pronotum from its base to *c.* 3/4 of length; pronotum coarsely punctate along this line, sculpture of anterior quarter finer and sparser (similar to that in frons); centre of pronotum with long hairs, pubescence of lateral margins longer and denser; ventral part of prothorax partly hidden beneath projecting, long-pubescent procoxae; intercoxal process narrow, all visible ventral part of prothorax coarsely punctate with long but fine hairs.

Mesothorax: Elytra weakly narrowest at quarter-length, widest in apical quarter; basal yellow-orange spot connected with central band by thin stripe along epipleuron only, central and apical bands not connected; central band relatively narrow, apical band reduced (specimen 1) or fragmented into two spots (specimen 2); elytra beyond apical band without yellow-orange rim; remainder of elytra lustrously green-blue (specimen 2) or blue (specimen 1), the same as all remaining parts of body; elytra densely punctate and pubescent, hairs shorter than those on prothorax; ventral part of mesothorax finely punctured and pubescent.

Metathorax: Metasternum without visible discrimen (discriminal line), glabrous at centre only; both sides at midway with fine punctures and long, yellow pubescence; base of metasternum deeply emarginate but without apodemes projecting beyond outline of paracoxal sutures; upper margin of metacoxae parallel with paracoxal sutures; wings of specimen 2 partly damaged, radial cell large, medial field with four veins, without closed wedge cell.

Legs: All femora and tibiae weakly curved at an angle of about 200° or less; all tibiae with two spurs: pro- and mesotibiae with fine spurs, metatibiae with one small spur and one large, curved spur.

Abdomen: Sternites (ventrites) with fine punctures, long pubescence along lateral margins; sternite VII deeply emarginate; sternite VIII elongate; tergite VIII (pygidium) wider, with concave basal (upper) margin; all abdomen green or blue, without yellow or

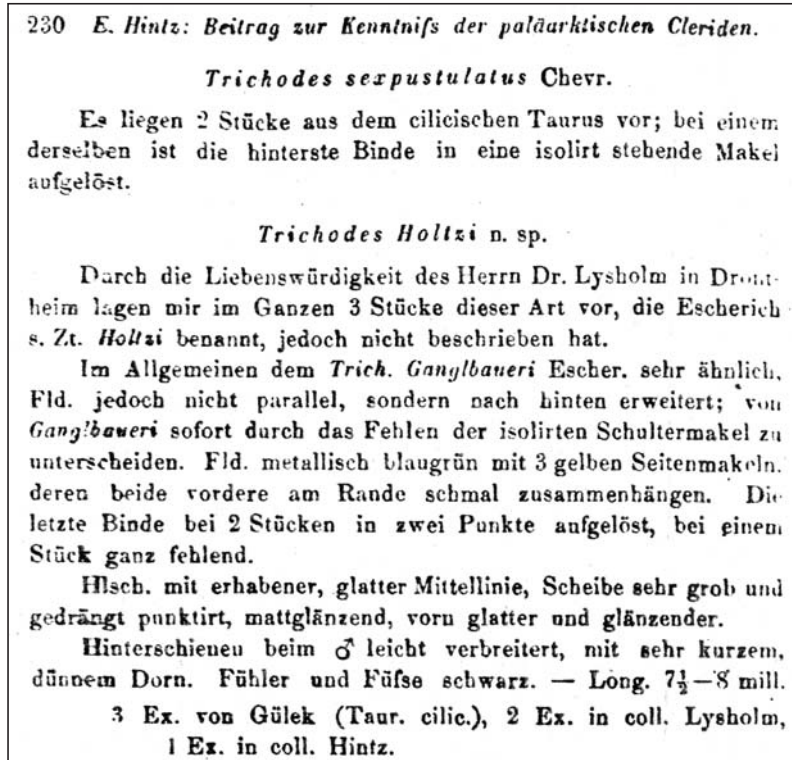


Fig. 1. Facsimile of *Trichodes holtzi* original description by HINTZ (1902).

orange margins, only male copulatory organs yellowish; tegmen with elongate parameres, phallobase without distinct struts; phallus stout, with only minute spines in internal sac.

Body size: 7.3 mm (specimen 1), 7.8 mm (specimen 2). See Pl. 2 for detailed measurements.

Biology. Numerous pollen grains were found in the gut. No insect remnants were observed.

Remarks. HINTZ (1902) originally described the species on the basis of 3 specimens (see facsimile of the original description at Fig. 1). There are two specimens in MNHN: one of Hintz coll. and one of Lysholm coll. The depositary of the second Lysholm specimen is not known to me. Since this communication is not a taxonomical revision, in accord with a recommendation of the zoological community a lectotype is not designated here.

Trichodes sexpustulatus Chevrolat, 1874

(Fig. 2, Pls 5–7)

Rev. Mag. Zool. 3–2: 306.

Type examined. Female: “6-pustulatus / Chevr. / Escher [typus] / Erzerum”, “Kraatz / dedit 1893”, “Champenois / vidit”, “TYPE” [last label recently pinned by MNHN staff].

Redescription. Body lustrously blue but three orange spots on elytra; pubescence of ventral surface and legs whitish, long; pubescence of head and pronotum dark, pubescence of elytra whitish.

Head: Frons densely punctured, with long pubescence between eyes; shallow, curved depression situated between antennal bases; labrum and clypeus smooth, glabrous, dark brown; ventral surface without punctures, with indistinct transverse wrinkles, glabrous, with long hairs; mandibles black, labial palpi dark brown to black, maxillary palpi as well as lacinia and galea yellow-brown; antennomeres 1–4 dorsally black but ventrally orange, remainder of antennae black.

Prothorax: As long as wide in its widest portion, narrowest at base; thin glabrous longitudinal line runs along middle of pronotum from its base to *c.* 4/5 of length; pronotum very coarsely punctate along the line, sculpture of anterior quarter progressively sparser; centre of pronotum with long hairs, pubescence of lateral margins denser; ventral part of prothorax densely and finely punctate (“shagreened”), its pubescence long but sparse; intercoxal process narrow.

Mesothorax: Elytra weakly narrowest at around quarter-length, widest in apical quarter; basal orange spot laterally connected with central band by wide stripe, central and apical orange bands connected by thin stripe along epipleuron; central band wide, not fragmented; elytra beyond apical band without orange rim; remainder of elytra lustrously blue, the same as all remaining parts of body; elytra densely punctate and pubescent, hairs shorter and lighter than those in prothorax; ventral part of mesothorax finely punctured and long-pubescent along apical margin.

Metathorax: Metasternum glabrous, with indistinctly visible discrimen (discriminal line), with very fine and sparse punctation and long whitish pubescence; base of metasternum deeply emarginate but without apodemes projecting beyond outline of paracoxal sutures; upper margin of metacoxae and paracoxal sutures divergent; wings – radial cell large, medial field with four veins, without closed wedge cell.

Legs: All tibiae straight, not curved; all femora normally clavate but their inner margins straight; all tibiae with two fine, straight spurs (only female examined).

Abdomen: Sternites (ventrites) with fine punctures, sparse but long pubescence along lateral sides; sternite VII indistinctly emarginate; sternite VIII wide, with long spiculum and large unpigmented area at basal portion; tergite VIII (pygidium) approximately square-shaped, with projecting basal apodemes; ventral side of abdomen green-blue, dorsal (or tergal) side yellow-orange. Ovipositor stout; coxitae short, finely pubescent; vagina with two small dark sclerites at its apex; bursa copulatrix relatively narrow; spermathecal gland extremely long.

Body size: 8.8 mm. See Pl. 5 for detailed measurements.

Biology. Remnant of insect cuticle together with pollen grains observed inside gut.

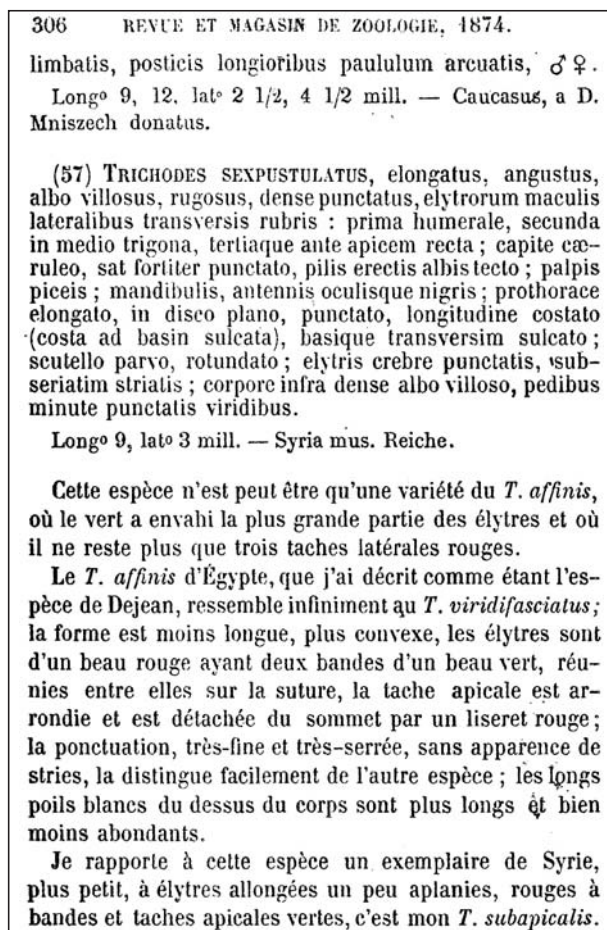


Fig. 2. Facsimile of *Trichodes sexpustulatus* original description by CHEVROLAT (1874).

Remarks. CHEVROLAT (1874) originally described the species on the basis of single specimen (see facsimile of the original description at Fig. 2) from Syria. ESCHERICH (1893) is the first author to mention the species in detail, including its redescription: “*Elongatus, angustus, griseo-villosus, elytrorum maculis lateralibus transversis rubris: prima humerale, secunda in medio trigona, tertiaque ante apicem recta; thorace splendido, profunde foveolatim punctato. Long. 7–12 mm. Patria: Armenien, Mesopotamien. Trichodes sexpustulatus hat habituell viel Aehnlichkeit mit den favarius-Formen, deren dunkle Querbinden auf den Flügeldecken stark verbreitert sind. Doch ist*

er leicht von diesen zu trennen durch die Sculptur des Halsschildes; die Scheibe desselben ist nämlich mit grossen grubenförmigen Punkten unregelmässig besetzt, so dass grössere oder kleinere glänzende Zwischenräume vorhanden sind. Die Form des Thorax ist ähnlich wie bei armeniacus. Die Flügeldecken sind tief und dicht punktiert, die Grundfarbe ziegel-roth, die Zeichnung grünlichblau. Letztere ist so ausgedehnt, dass nur eine kleine Humeralmakel, eine dreieckige (mit der Spitze gegen die Naht gerichtete) Makel in der Mitte, eine eben solche vor der Spitze und ein feiner Randsaum die rothe Grundfarbe zeigen. Die grüne Apicalmakel der beiden Flügeldecken zusammen ist sehr klein und länglich oval. Hinterschenkel des [Weibchen? note JK] sehr wenig verdickt. Die Zeichnung der Flügeldecken ist ziemlich constant, nur kann sich die grüne Farbe noch mehr ausbreiten, so dass auch die mittlere rothe Makel verschwindet. Die Farbe ist ebenfalls beständig und schwankt höchstens zwischen grün und blaugrün. Die Art ist ziemlich selten; ich sah nur 11 Stücke, wovon 7 sich im Wiener Hofmuseum, 2 in coll. Heyden und 2 in coll. Kraatz befinden.“

I assume that the specimen examined is part of the Kraatz collection reported by Escherich. The original Chevrolat type was not found in MNHN.

Acknowledgements

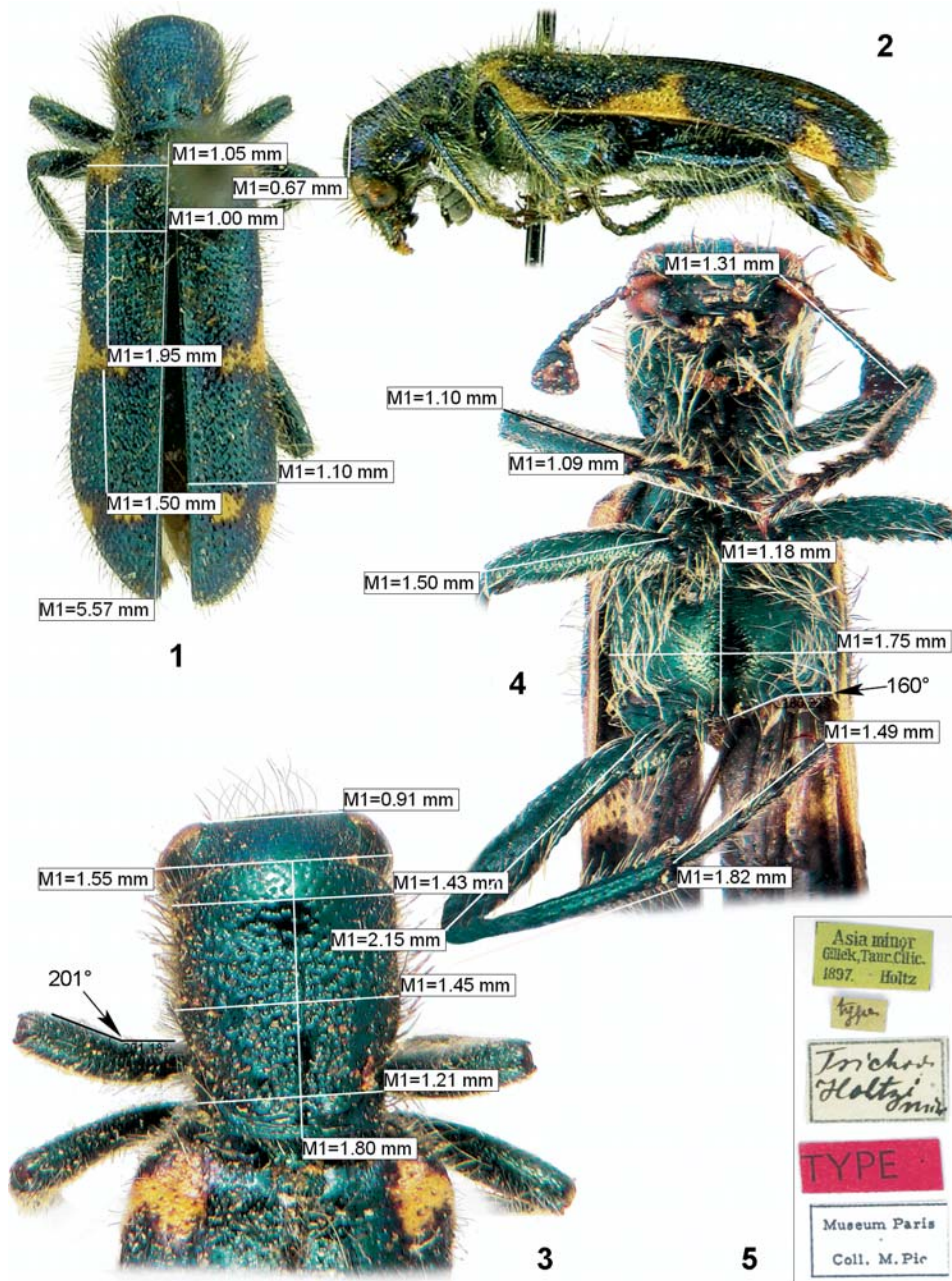
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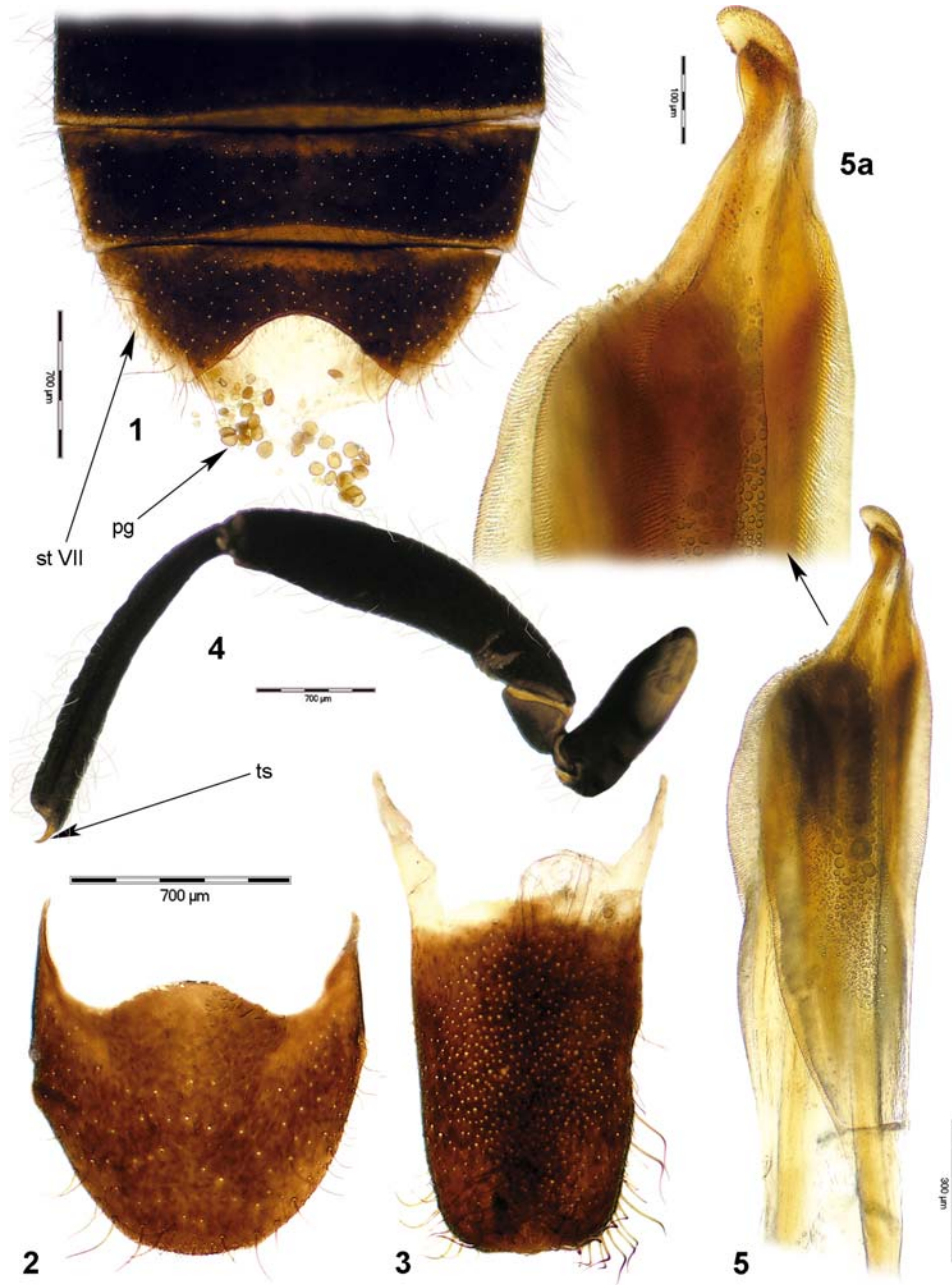
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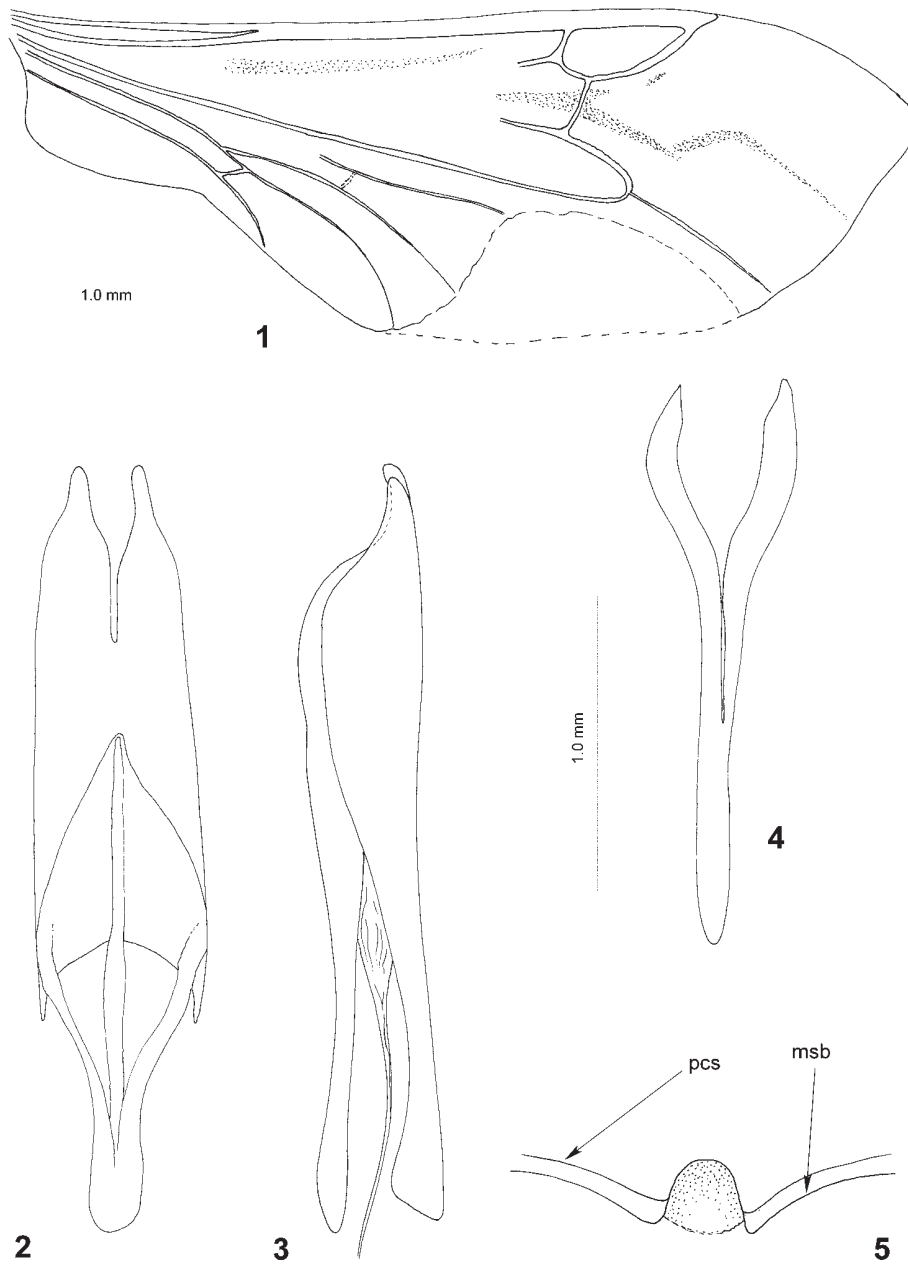
Pl. 1. *Trichodes holtzi* Hintz, specimen 2: 1 – dorsal habitus, 2 – lateral habitus, 3 – label sequence (from above), 4 – pronotum and head, detail.



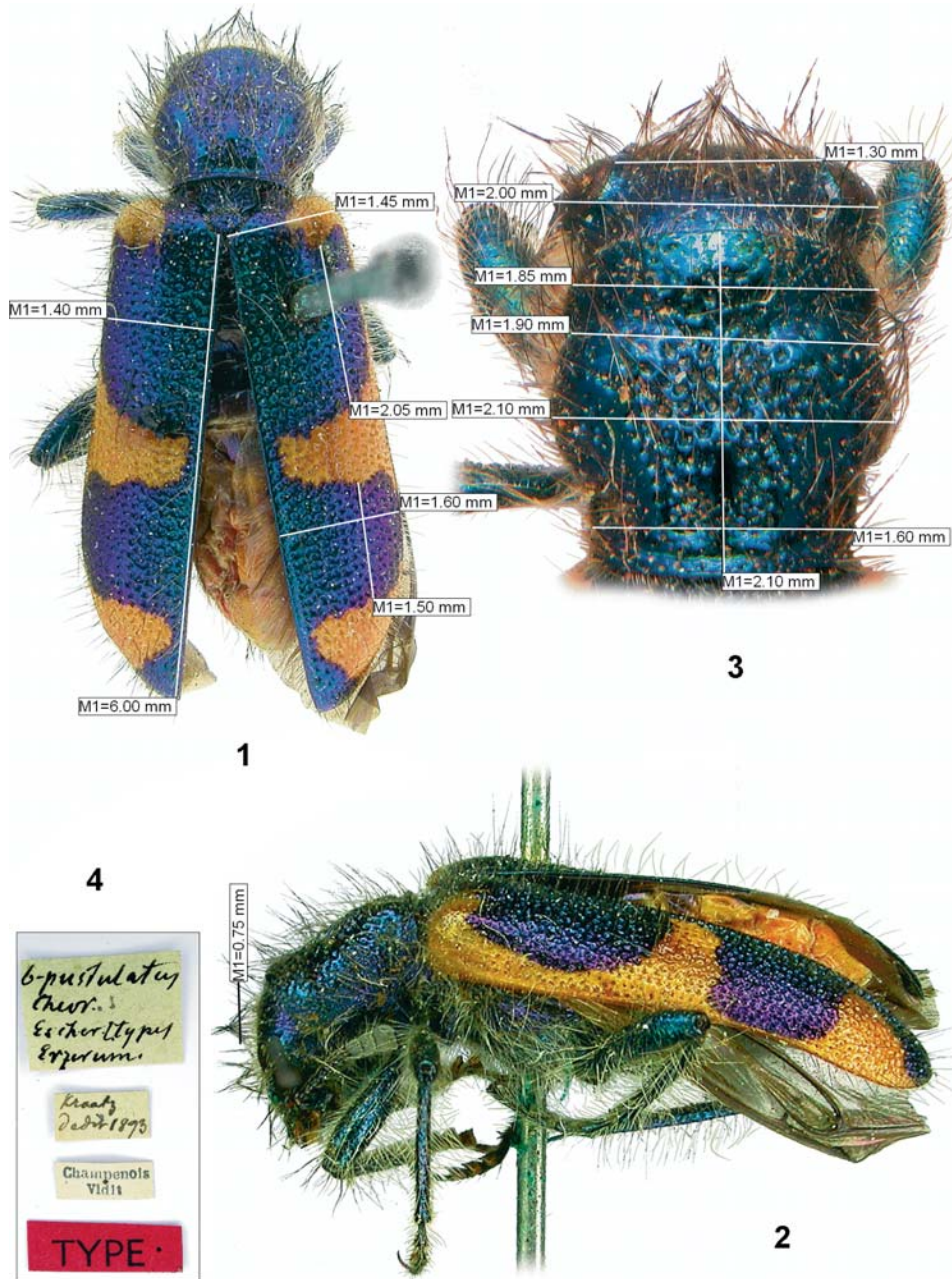
Pl. 2. *Trichodes holtzi* Hintz, specimen 1 with measurement: 1 – dorsal habitus, 2 – lateral habitus, 3 – pronotum and head, detail, 4 – head and thorax ventrally, 5 – label sequence (from above).



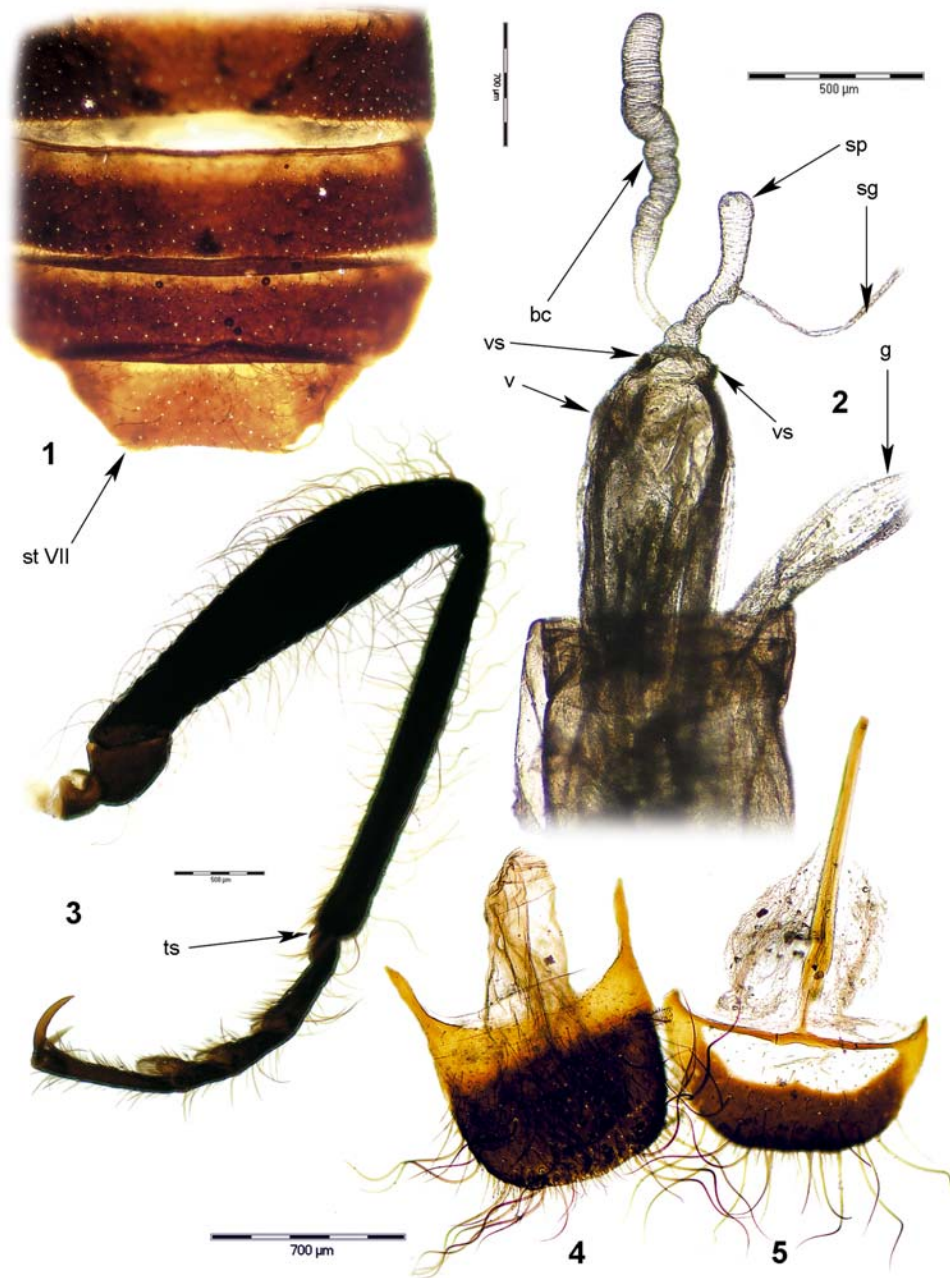
Pl. 3. *Trichodes holtzi* Hintz, specimen 1: 1 – abdominal sternites (ventrites) V–VII, 2 – sternite VIII, 3 – tergite VIII (pygidium), 4 – hind leg from coxa to tibia, 5 – phallus ventrally (5a – detail of apex).



Pl. 4. *Trichodes holtzi* Hintz, specimen 1: 1 – wing, 2 – tegmen dorsal, 3 – phallus dorsolateral, 4 – spicular fork, 5 – middle part of metasternal base.

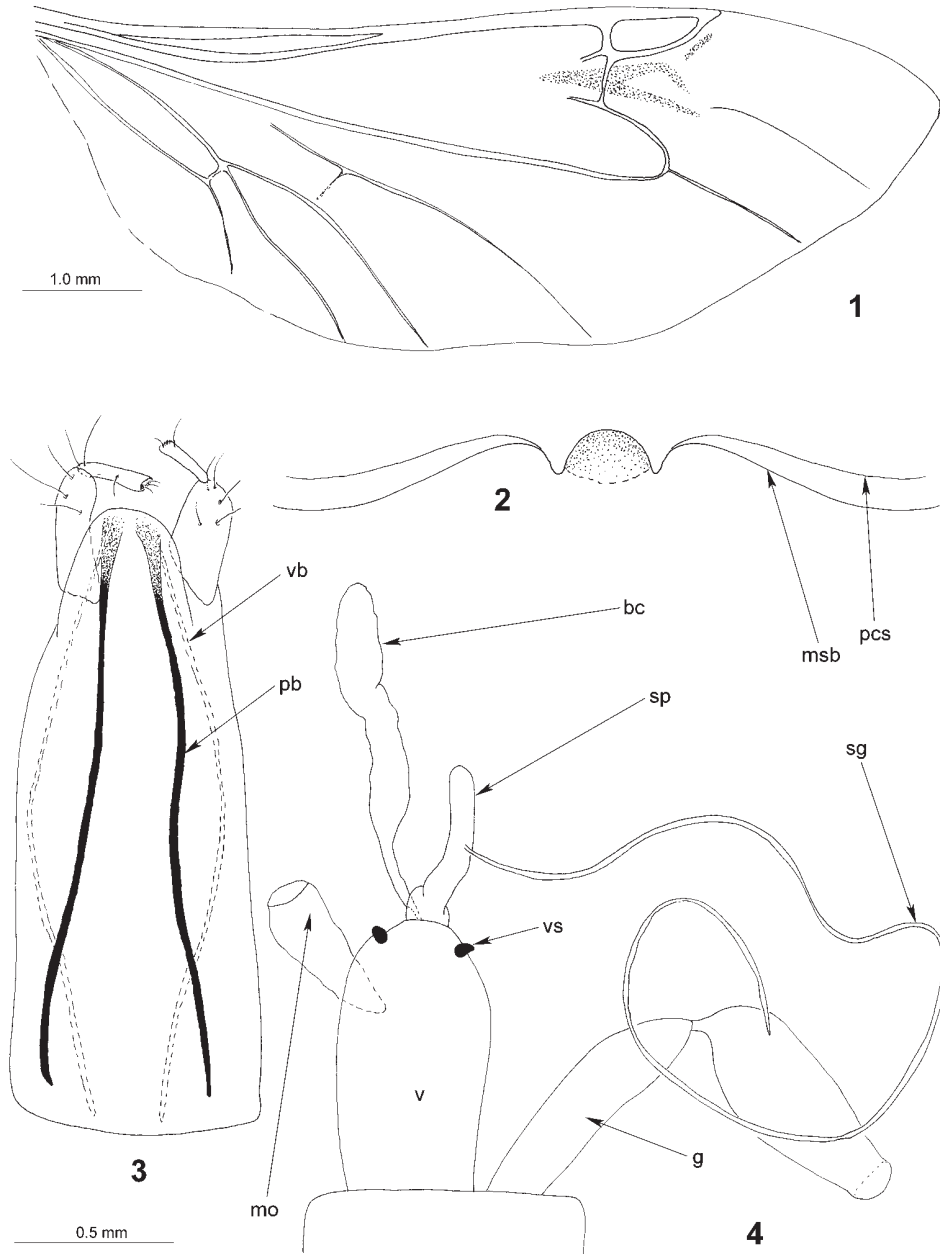


Pl. 5. *Trichodes sexpustulatus* Chevrolat: 1 – dorsal habitus with measurement, 2 – lateral habitus with measurement, 3 – pronotum and head, detail with measurement, 4 – label sequence (from above).



Pl. 6. *Trichodes sexpustulatus* Chevrolat: 1 – abdominal sternites (ventrites) IV–VII, 2 – female internal copulatory organs, 3 – hind leg without coxa, 4 – tergite VIII (pygidium), 5 – sternite VIII.

Trichodes holtzi and *T. sexpustulatus* (Coleoptera: Cleridae)



Pl. 7. *Trichodes sexpustulatus* Chevrolat: 1 – wing, 2 – middle part of metasternal base, 3 – ovipositor dorsal, 4 – female internal copulatory organs.