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## Two new species of the genus *Temnoscheila* WESTWOOD, 1830, from Peru and Brazil (Coleoptera, Cleroidea, Trogossitidae)

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### Abstract

Two new species of the genus *Temnoscheila* WESTWOOD from Peru, *Temnoscheila panguanae* sp. n., and Brazil, *Temnoscheila concinna* sp. n. are described and figured, including a distribution map.

### Introduction

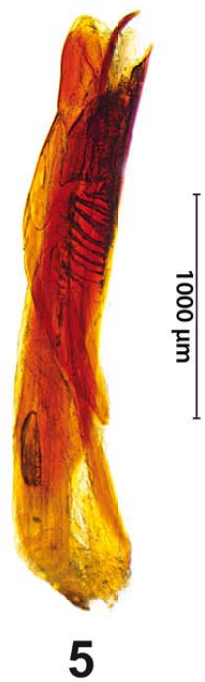
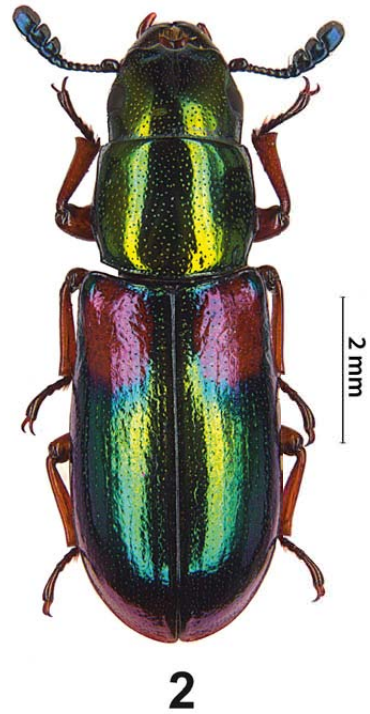
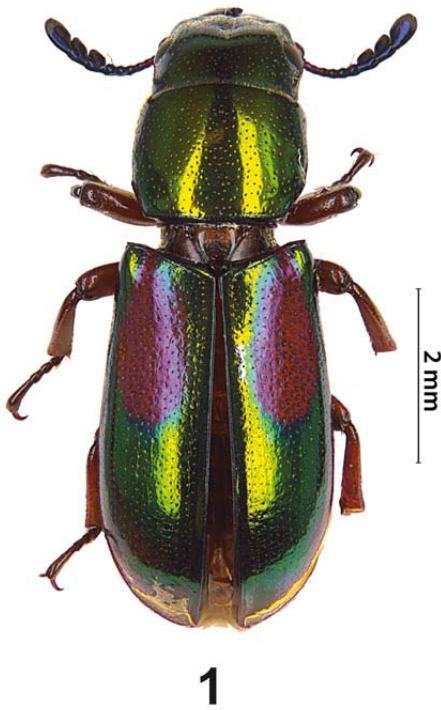
The genus *Temnoscheila* was established by WESTWOOD (1830). EDMUND REITTER (1875) made a “Revision of the genus *Trogosita* OLIVIER (*Temnochila* Westw.)”, describing 52 species, including 34 descriptions of new species. SHARP (1891) documented 43 Central-American species, with 28 new species. From 1889 to 1907, LÉVEILLÉ described 22 new species in several publications, then summarised the hitherto known species and the literature of Temnochilidae in the Coleopterorum Catalogus (LÉVEILLÉ 1910). During the years 1830 to 1920 several descriptions of new species have been published from different authors. The Trogositidae of America, north of Mexico, has been revised by BARRON (1971). KOLIBÁČ (2013) published a 194 pages review of the beetle family Trogossitidae. The genus *Temnoscheila* (107 species) is besides *Tenebroides* (145 species) PILLER et MITTERPACHER the most diverse genus of the cosmopolitan trogossitines (KOLIBÁČ & LESCHEN 2010).

During an expedition in autumn 2014, ERICH DILLER (ZSM) collected a remarkable specimen of *Temnoscheila* in a malaise trap at the ACP-Station (Área de Conservación Privada) of Panguana, Peru, which turned out to be a new species. A further specimen, collected by HÜDEPOHL 1981 (ZSM), was found in the Bavarian State Collection, Munich (ZSM) by the senior author. Another new species was discovered also by the senior author in the collections of the Natural History Museum, London (BMNH). Both new species are described in the present paper.

### Material and Methods

The descriptions of the new species are based on morphological examination, including preparations of the male aedeagus. For this purpose the specimen was heated in distilled water and the aedeagus removed with fine forceps through small incisions made along the sides of the terminal abdominal segments. The aedeagus was cleaned of soft tissue in 10% KOH, cleared in 70% ethanol and submerged in glycerine, and then stored in a genital vial pinned below the specimen. Measurements were taken under a stereomicroscope using an ocular micrometer. Total body length is the distance measured from the apical clypeal margin to the elytral apices. Elytral length was measured alongside the elytral suture and pronotal length was taken from the dorsal middle line. Pronotal and elytral width were measured at the broadest extreme. The material is deposited in the following institutional collections:

BMNH	British Museum of Natural History, London, England
UNMSM	Museo de Historia Natural Universidad Nacional Mayor de San Marcos, Lima Peru
ZSM	Bavarian State Collection of Zoology, Munich, Germany



**Fig. 1:** *Temnoscheila panguanae* sp. n., ♂ (holotype). **Fig. 2:** *Temnoscheila panguanae* sp. n., ♀ (paratype).  
**Figs. 3-5:** *Temnoscheila panguanae* sp. n., ♂ (holotype), 3 lower surface, 4 Aedeagus ventral, 5 Aedeagus lateral.

## Taxonomy

### *Temnoscheila panguanae* WACHTEL, sp. n. (Figs. 1–5, 8)

Material. Holotype: ♂, South America, Peru, Dept. Huanuco, Yuyapichis, ACP Panguana, 26.9.-12.10.2014, Malaisefalle. 9°37'S, 74° 56'W, leg. E. Diller. Collecting and export permit: 2014 No.007-2014-SERFOR-DGGSPFFS No.0001757-SERFOR. Deposited in UNMSM. – Paratype: ♀, South America, Brazil, Sao Tiago, leg. Hüdelpohl, VII.1981, 12.35 S, 56.20 W. Deposited in ZSM.

Description of the holotype (♂):

Body length 8.5 mm; body shape compact, elongate.

Head. Metallic green, smooth, glossy, diffusely punctate, with very fine micro-punctuation, frons with longitudinal groove, flattened at bottom, reaching clypeus; antennae black, with steel-bluish gleam, club conspicuous, distinct from funicle; under side green, metallic, with coarse punctuation; mouthparts black, palpi brown; mentum in the middle with a small tubercle, with a tuft of setae.

Thorax. Pronotum slightly broader than long (width to length ratio 1 : 0.9), narrower than elytral base, slightly constricted anteriorly and towards base; punctuation diffuse, with very fine micro-punctuation, anterior angles not protruding, not margined, posterior angles obtuse, not distinct; under side green, metallic, with coarse punctuation; prosternal process distally not margined, flattened, coarsely punctate; under side of mesothorax and metathorax brown, shining, without metallic gleam, punctuation fine.

Abdomen brown, shining, without metallic gleam, with large and small punctuation, punctures with a tiny seta, ultimate ventrite less and finer punctate, margined, ventrites feebly bulging.

Elytra. Elytral ground color metallic green, shining, with a large, circular to longitudinally ovate bluish-crimson macula at each elytral base between the humeri and suture, maculae with a fine blue border; width to length ratio 1 : 1.67.

Legs brown, tibiae distally dilated, tarsi darker. Aedeagus (Figs. 4–5).

Description of the paratype (♀):

Body length 9.5 mm. Like holotype, without sex-specific tuft of setae on mentum, punctuation of abdomen coarse, without small punctuation.

Etymology. Latin adjective *panguanae* refers to the type locality Panguana, Peru.

### *Temnoscheila concinna* WACHTEL, sp. n. (Figs. 6–8)

Material. Holotype: ♀, South America, Brazil, Para, leg. Pascoe. Deposited in BMNH.

Description of the holotype (based on a single female):

Body length approximately 8.0 mm; body shape compact, elongate.

Head. Green-golden metallic, glossy, diffusely punctate, with a very fine, wrinkled structure; eye emargination scarcely visible; frons with longitudinal groove, flattened at bottom, reaching clypeus; antennomere 1 with green-metallic gleam, antennomeres 2–6 brown, antennomeres 7+8 turning into black-blue, antennomeres 9–11 conspicuously clubbed, black, becoming larger from antennomere 9 to 11, with steel-bluish gleam; under side black-brown, with green-metallic gleam, strongly punctate; maxillary palpi red brown, apically constricted; mentum narrow, without tubercle.

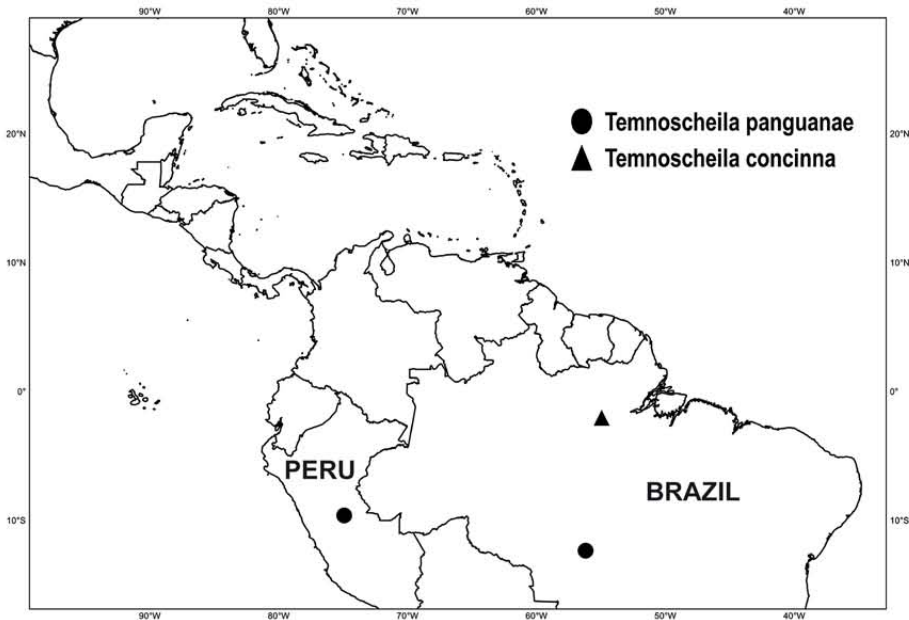
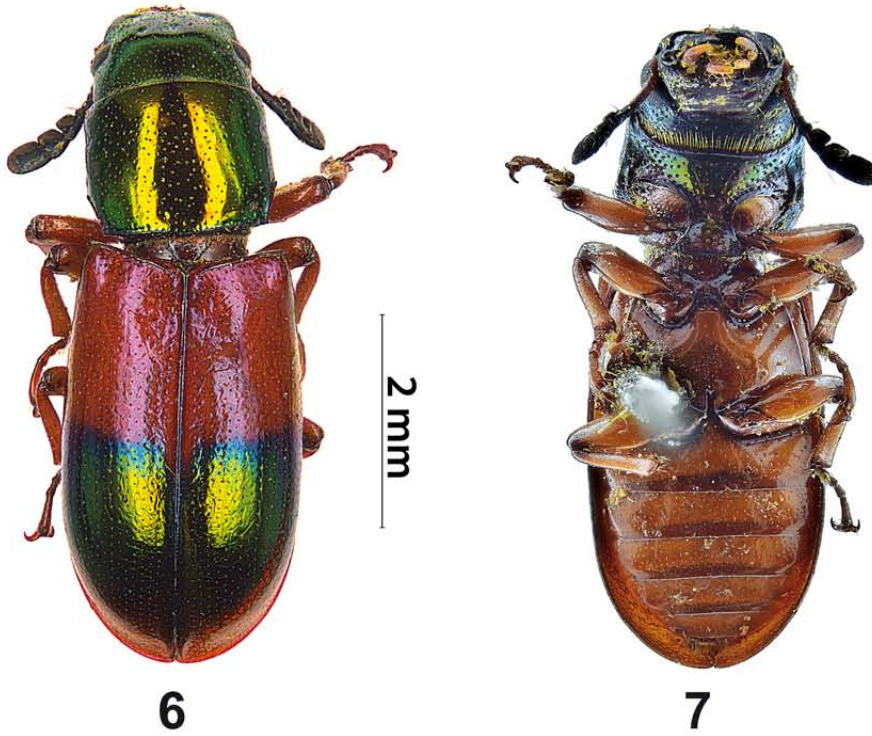
Thorax. Pronotum green-golden metallic, glossy, broader than long (width to length ratio 1 : 0.79), anterior part subparallel, second third slightly curved, constricted; punctuation diffuse (like head); anterior angles not protruding, posterior angles obtuse, pronotal base conspicuously margined, with a blue gleam; under side black-brown, with green-metallic gleam, strongly punctate; prosternal process green-metallic, not distally margined, scattered with large punctures, each with a small white seta in the middle; procoxal margin is covered with a row of punctures; under side of mesothorax and metathorax brown, without metallic gleam, with fine punctuation.

Abdomen red brown, glossy, with loose, fine, punctuation, punctures with a small seta; ventrites (female) simple.

Elytra slightly dilated posteriorly, basal half red brown, with a narrow blue transverse fascia, separating the posterior green-golden part, this narrow blue fascia lines the suture towards apex; elytral disc alutaceous (membranously reticulated); striae without ribs.

Legs red brown, protibiae distally dilated, tarsi scarcely darker.

Etymology. From the latin adjective *concinna*, meaning harmonic, delicate.



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**Figs. 6-7:** *Temnoscheila concinna* sp. n., ♀ (holotype), 6 dorsal view, 7 lower surface.  
**Fig. 8:** Distribution map of *Temnoscheila panguanae* and *Temnoscheila concinna*.

### Systematic placement

The genus *Temnoscheila* can be divided (after REITTER 1875) into two large groups:

- 1) prosternal process distally margined,
- 2) prosternal process not distally margined.

The two new species, with non-protruding pronotal, anterior angles and a fine side margin, belong to the second group. The new species differ distinctly from all other *Temnoscheila* species by their compact body shape and the elytral coloration. The steel-bluish antennae can be found in several other species, e.g. *T. chiriquensis* SHARP, 1891, *T. grouvellei* LÉVEILLÉ, 1889, *T. mirabilis* REITTER, 1875, and *T. miranda* SHARP, 1891.

### Acknowledgements

We thank Erich DILLER (ZSM) for collecting the new species, *Temnoscheila panguanae* sp. n., Max BARCLAY and Beulah GARNER (BMNH) for the loan of *Temnoscheila concinna* sp. n., and Marianne MÜLLER, the co-authors wife for processing the photos. Michael GEISER (BMNH) made the visit of the senior author in London very comfortable, thank you. Our special thanks goes to Justin S. BARTLETT (Brisbane, Australia) for reviewing the manuscript.

### Zusammenfassung

Zwei neue Arten der Gattung *Temnoscheila* WESTWOOD aus Peru, *Temnoscheila panguanae* sp. n. und Brasilien, *Temnoscheila concinna* sp. n. werden beschrieben und abgebildet. Eine Verbreitungskarte ist beigelegt.

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