

## Description of four new *Temnoscheila* species from South America (Coleoptera, Cleroidea, Trogossitidae)

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### Abstract

Four new species of the genus *Temnoscheila* WESTWOOD, *Temnoscheila rufocoerulea* sp. n., *T. chanchomayoensis* sp. n., *T. leveilloides* sp. n., and *T. viridinitens* sp. n., from Brazil and Peru, are described and pictured.

### Introduction

The genus *Temnoscheila* has been established by WESTWOOD (1830), based on the divided labium. In a series of subsequent publications of REITTER (1875), SHARP (1891) and LEVEILLE (1910), the main part of the 109 *Temnoscheila* species, known today, has been described. BARRON (1971) revised the Trogossitidae of North America, including the description of two new *Temnoscheila* species. After the description of two new *Temnoscheila* species from Peru and Brazil (WACHTEL & GERSTMEIER 2018), another four new species were discovered by the first author in the collections of the Museum für Naturkunde, Berlin, and Museum für Tierkunde Dresden, Germany and his private collection that are described in the present paper.

### Material & Methods

The descriptions of the new species are based on morphological examination. Measurements were taken under a stereomicroscope using an ocular micrometer. Total body length is the distance between the anterior clypeal margin to the apex of the elytra.

#### Abbreviations:

|      |  |
|------|--|
| FWCM | Franz WACHTEL Collection, München, Germany   |
| MFNB | Museum für Naturkunde, Berlin, Germany       |
| MTD  | Museum für Tierkunde, Dresden, Germany       |
| ZSM  | Zoologische Staatssammlung, München, Germany |

#### *Temnoscheila rufocoerulea* WACHTEL, sp. n. Fig. 1

Material. Holotype: ♀, Brasilia, Prov. S. Paulo; Campinas. leg. Alwine BRAATZ.V. The holotype is deposited in the Museum für Naturkunde, Berlin, Germany (MFNB).

#### Description

Body length 12.1 mm; body shape elongate, parallel. Head including mouthparts and pronotum red, with a slight green metallic gleam, elytra dark blue, legs light-brown, tarsomeres darker.

Head with distinct irregular punctuation and a fine microsculpture; mandibles red, the tips of the apical dens darker; frons with very short, longitudinal groove, reaching clypeus; eyes transverse; first antennomere red, the others dark brown. Ventral side red, with a slight green metallic gleam; terminal labial palpomere regular, subcylindrical.

Pronotum almost square, anterior part parallel, dorsal third constricted posteriorly, anterior angles slightly protruding, lateral margin fine, in the middle not visible from above. Posterior angles obtuse, punctuation and microsculpture like that of the head. Ventral side red, with a conspicuous green metallic gleam, punctuation distinct, but diffuse, paracoxal suture very distinct, prosternal process triangularly dilated distally, not margined.

Elytra dark blue, posteriorly slightly extended, punctuation in regular rows, intervals with a single row of very small punctures; the whole surface with a membranously reticulated structure of fine microsculpture, elytral base margined, apex near suture with a longitudinal impression. Ventral side dark brown, with a metallic gleam, with scant punctuation, laterally more dense and coarse, each puncture with a tiny seta, terminal abdominal ventrite without impression, posteriorly finely margined.

## Etymology

The specific epithet, *rufocoerulea*, is a combined Latin adjective and refers to the red-blue coloration.

## Differential diagnosis

The new species belongs to REITTER's "Abteilung" II, (1875), group C, with the prosternum not margined. The color and the fine margination of the pronotum, with scarcely protruding anterior angles, make the new species distinctive from all other species.

## *Temnoscheila chanchomayoensis* WACHTEL sp. n. Figs 2, 5 – 7

Material. Holotype: ♂, Dr. BÄSSLER, Chanchomayo, Nr. 12307; deposited in MTD. [Chanchomayo = Peru]

## Description

Body length 14.2 mm; body shape elongated, oval, flat, head and pronotum dull dark brown with copper metallic gleam, elytra black, shiny.

Head with a distinct punctuation, apically finer; frons with longitudinal groove. Ventral side dark brown with irregular punctuation, mentum shiny with a distinct hairy point in the middle, submentum dull with a fine microsculptur.

Pronotum flattened, wider than long, anteriorly scant, posteriorly constricted and curved, laterally distinctly marginated, anterior angles pointed, apically with a short margin, posterior angles rectangular; punctuation more subtle than that of the posterior margin of head, with microsculptur and a coppery metallic gleam. Ventral side black-brown, shiny; distinctly punctated; prosternal process conical, between the coxae with a scant depression, posterior end dull.

Elytra black, shiny, slightly oval, widest short behind the middle, with distinct rows of punctures, lateral margin very distinct until the end of elytra. Ventral side black-brown, abdominal ventrites and epipleurae brighter; ventrites with a very fine punctuation, dull; ultimate and penultimate ventrites vertically tapered towards posterior end.

## Etymology

Latin adjective *chanchomayoensis* given according to its distribution.

## Differential diagnosis

This new species also belongs to REITTER's Abteilung II (1875), group A, with a conical prosternal process. The flattened, *tenebrioides*-like shape and the unique coloration distinguishes *T. chanchomayoensis* from all other *Temnoscheila* species.

The type specimen (leg. Arthur BAESSLER [1857-1907]) is damaged; the antennae, the right proleg and the tarsi of the left proleg are missing.

## *Temnoscheila leveilloides* WACHTEL sp. n. Figs. 3, 8 – 10

Material. Holotype: ♂, Brasilien, Santa Caterina, 1.1.1990; leg. RAUTENSTRAUCH. Deposited in ZSM.

Paratypes: 2 ♂♂, 1 ♀, same data as holotype, 1 ♀, Brasilien, S.C. Rio Vermelho 12.65. Deposited in FWCM.

## Description

**Holotype:** Body length 10.3 mm, body shape elongate-oval, head and pronotum with cupreous metallic gleam; elytra dark, with green gleam, basal fourth lightened brownish. Legs, palpi and antennae light-brown.

Head cupreous, dull, with irregular punctuation inside the fine microsculpture; frons with longitudinal groove, not reaching clypeus; eyes transverse, anteriorly slightly emarginate; antennae light-brown. Ventral side dark-brown, shiny, palpomeres light-brown.

Pronotum cupreous, shiny, slightly more sparsely punctured than head, longer than wide, anteriorly and posteriorly constricted, anterior angles acutely protruding, posteriorly rounded, with a very small rectangular angle; lateral margin fine and with an even greenish metallic gleam. Ventral side dark brown, prosternum laterally conspicuously punctate, middle and prosternal process finely punctate; prosternal process broad, not margined; mesosternum strongly and densely punctured; metasternum light brown, almost smooth; legs and tarsi light brown; protibiae dilated inwards and curved to the tip; middle and hind tibiae straight, dilated distally.

Elytra slightly oval, finely punctate in rows, basally and laterally finely punctate, shoulders distinct. Dark, basal third lightened brownish, with metallic gleam, which is laterally and at apex conspicuously green. Ventral side light brown. Ultimate abdominal ventrite about half the length of the penultimate, densely punctured with larger and smaller punctures

**Paratypes:** Body shape and colour like the holotype; the coloration of the surface in all specimens varies from green to brownish.

Ultimate abdominal ventrite of female about the same length of the penultimate ventrite, without dorsal impression, diffusely and not deeply punctate, punctures of same size.

### **Etymology**

Similar to the species *T. leveillae* SHARP, 1894.

### **Differential diagnosis**

Regarding the body shape, this new species resembles *T. leveillae*, SHARP 1891, (group A of SHARP) but it is missing the protibial tooth, the coloration is different and *T. leveilloides* is conspicuously larger.

### ***Temnoscheila viridinitens* WACHTEL sp. n.** Figs 4, 11 – 13

Material. Holotype: ♂, Peru centr., Iquitos env., 10.-26.VII.2016, lgt. J. KADLEC. Deposited in ZSM.

### **Description**

Body small, length 6.9 mm, body shape narrowed conical towards anterior part; surface green metallic.

Head with irregular punctuation; maxillary palpi and mandibles dark brown; frons with a weak longitudinal groove; eyes small, not protruding; antennomeres black, with a blue metallic gleam. Ventral side brown, laterally green metallic; submentum with a hairy point in the middle.

Pronotum wider than long, laterally rounded, anterior angles not protruding, margined, posterior angles obtuse; punctuation similar to that of the head. Ventral side dark brown, with dense and distinct punctuation; prosternal process broad, triangularly dilated distally, not margined.

Elytra smooth, shiny, punctuation in single rows, humeral callosity distinct. Ventral side red-brown; mesosternum with dense and distinct punctuation, metasternum and abdomen with very fine (and spacious) punctuation.

Legs red-brown, protibiae and mesotibiae and all tarsi black; protibiae strongly dilated distally, meso- and metatibiae only slightly dilated.

### **Etymology**

The specific epithet, *viridinitens*, is a combined Latin adjective and refers to the green, glossy coloration.

### **Differential diagnosis**

The new species is related to *T. concinna* and *T. panguanae* (WACHTEL & GERSTMEIER 2018) but differs mainly by the coloration, the shape of the pronotum and the regular rows of punctures on the elytra.

### **Acknowledgements**

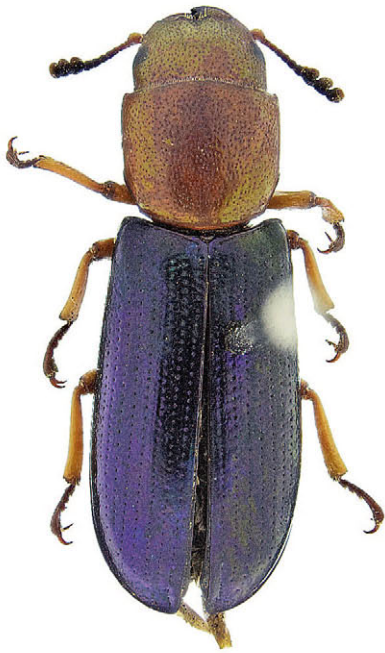
We thank Dr. J. FRISCH und B. JÄGER (both MFNB), Olaf JÄGER (MTD) for the loan of the specimen, David HAUTH and Marianne MÜLLER for their help with the photographs.

### **Zusammenfassung**

Vier neue Arten der Gattung *Temnoscheila* WESTWOOD, *T. rufocoerulea* sp. n., *T. chanchomayoensis* sp. n., *T. leveilloides* sp. n. und *T. viridinitens* sp. n. werden beschrieben und abgebildet, ihre Stellung im System der Gattung wird aufgezeigt.

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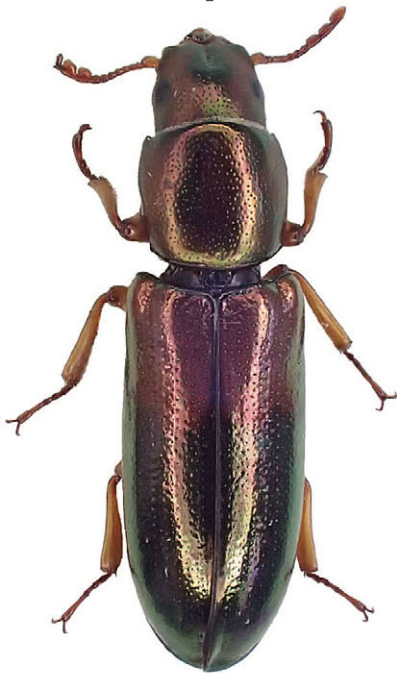
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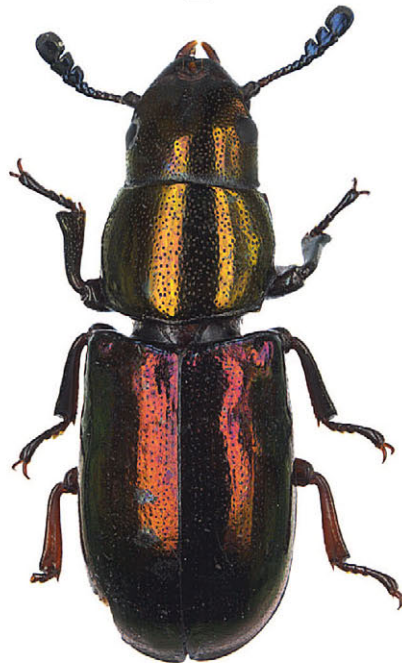
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**Fig. 1:** *Temnoscheila rufocoerulea* WACHTEL, sp. n., **Fig. 2:** *Temnoscheila chanchomayoensis* WACHTEL, sp. n.  
**Fig. 3:** *Temnoscheila leveilloides* WACHTEL, sp. n., **Fig. 4:** *Temnoscheila viridinitens* WACHTEL, sp. n.



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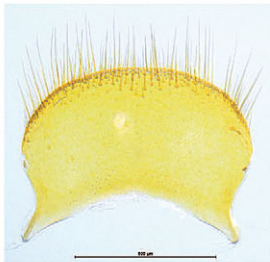
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**Figs 5–7:**  
*Temnoscheila chanchomayoensis*  
WACHTEL, sp. n., 5: Pygidium,  
6: Spicular fork, 7: Aedeagus.

**Figs 8–10:**  
*Temnoscheila leveilloides*  
WACHTEL, sp. n., 8: Pygidium,  
9: Spicular fork, 10: Aedeagus.

**Figs 11–13:**  
*Temnoscheila viridinitens*  
WACHTEL, sp. n., 11: Pygidium,  
12: Spicular fork, 13: Aedeagus.

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