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## A new species of *Tetrasticta* from Laos (Coleoptera: Staphylinidae: Aleocharinae)

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**A b s t r a c t :** *Tetrasticta laotica* nov.sp. from Laos is described, illustrated, and distinguished from its congeners.

**K e y w o r d s :** Coleoptera, Staphylinidae, Aleocharinae, Aleocharini, *Tetrasticta*, Laos, new species.

### Introduction

According to ZHENG & ZHAO (2014), the genus *Tetrasticta* KRAATZ, 1857 of the tribe Aleocharini was previously represented by 14 species. There has been some controversy regarding the status of *Tetrasticta* and *Creochara* CAMERON, 1931. MARUYAMA (2004) and YAMAMOTO & MARUYAMA (2013) state that they represent distinct genera, whereas PACE (2010, 2013a) considers *Creochara* a junior synonym of *Tetrasticta*. It is not the objective of the present paper to clarify this problem. Therefore, the generic concept represented in the latest edition of the Palaearctic Catalogue (SCHÜLKE & SMETANA 2015) is used, which lists *Creochara* as a junior synonym of *Tetrasticta*.

Among recently revised aleocharine material from the collections of the natural history museum in Basel, four specimens of *Tetrasticta* from Laos were found. A study of the relevant literature revealed that they belonged to an undescribed species.

### Material and methods

The material treated in this study is deposited in the following collections:

NHMB ..... Naturhistorisches Museum Basel (M. Geiser, I. Zürcher)

cAss..... author's private collection

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). The photographs of external characters were taken using a photographing device constructed by Arved Lompe (Nienburg) and CombineZ software. A digital camera (Nikon Coolpix 995) was used for the illustrations of the genitalia. The map was created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the labrum to the abdominal apex, the length of the forebody from the anterior margin of the labrum to the posterior

margin of the elytra, head length from the anterior margin of the clypeus (without anteclypeus) to the posterior constriction of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the median lobe to the base of the aedeagal capsule.

## Description

### *Tetrasticta laotica* nov.sp. (Figs 1-4, Map 1)

**Type material:** Holotype ♂: "Lao, Phongsaly prov., 21°41'-2'N 102°06'-8'E, 28.v.-20.vi.2003, Phongsaly env., ~1500 m, Vit Kubáň leg. / Holotypus ♂ *Tetrasticta laotica* sp. n., det. V. Assing 2015" (NHMB). **Paratypes:** 2 ♀♀: same data as holotype (NHMB, cAss); 1 ♀: "Laos-N (Oudomxai), 1-9.v.2002, ~1100 m, 20°45'N 102°09'E, Oudom Xai (17 km NEE), Vit Kubáň leg." (NHMB).

**Etymology:** The specific epithet is an adjective derived from Laos.

**Description:** Body length 4.2-5.0 mm; length of forebody 1.9-2.2 mm. Coloration: forebody blackish; abdomen pale-reddish; legs dark-yellowish to pale-brown; antennae blackish-brown to black with the basal 2-3 antennomeres yellowish-red to reddish-brown; maxillary palpi yellowish.

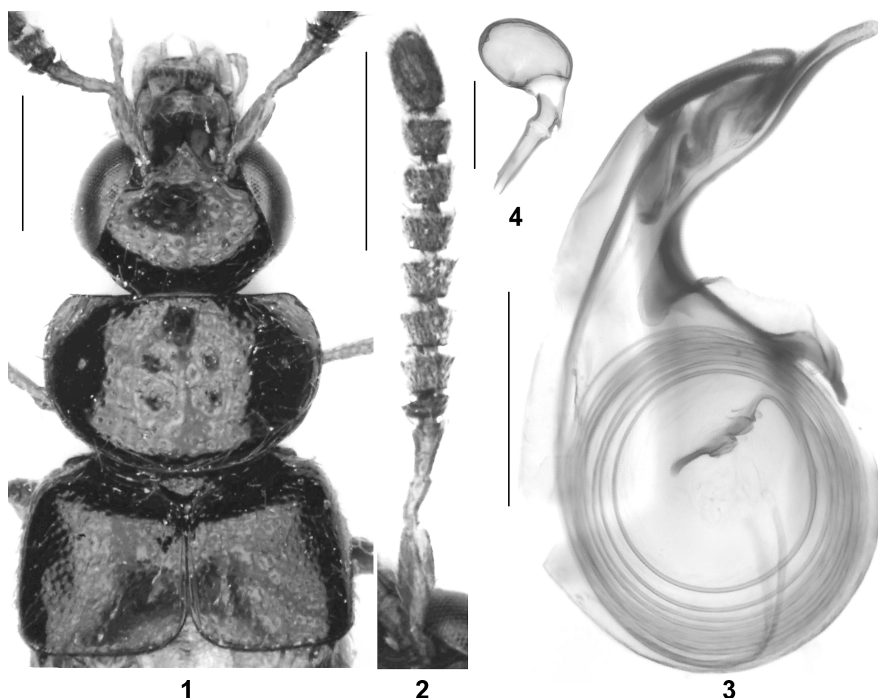
Head (Fig. 1) without sexual dimorphism, 1.20-1.25 times as broad as long; punctuation moderately dense and rather fine; interstices without distinct microsculpture. Eyes very large and bulging, approximately four times as long as distance from posterior margin of eye to posterior margin of head in dorsal view. Antenna (Fig. 2) 1.5-1.6 mm long; antennomere IV strongly transverse, asymmetrically disc-shaped, and approximately three times as broad as long; antennomere V much longer than IV; antennomeres V-X of sub-equal width and approximately 1.5 times as broad as long; XI barely as long as the combined length of IX and X.

Pronotum (Fig. 1) strongly transverse, approximately 1.5 times as broad as long and 1.20-1.24 times as broad as head; lateral and posterior margins forming a semi-circle, posterior angles obsolete; disc with four coarse punctures forming a square in the middle, with a coarse lateral puncture on either side, and with additional finer punctuation similar to that of head; interstices without microsculpture; lateral margins with five long and erect setae.

Elytra (Fig. 1) 0.7-0.8 times as long as pronotum, distinctly gaping posteriorly; punctuation fine and dense; interstices without distinct microsculpture. Hind wings present. Metatarsomere I slightly longer than the combined length of II and III.

Abdomen slightly narrower than elytra; tergites III-IV with, tergite V without shallow and narrow anterior impressions; punctuation moderately fine and moderately dense; interstices without microsculpture; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII convex.

♂: median lobe of aedeagus (Fig. 3) 0.63 mm long; ventral process weakly sinuate and apically acute; internal sac with long flagellum forming approximately seven coils basally.



**Figs 1-4:** *Tetrasticta laotica* nov.sp.: forebody (1); antenna (2); median lobe of aedeagus (3); spermatheca (4). Scale bars: 1-2: 0.5 mm; 3: 0.2 mm; 4: 0.1 mm.

♀: spermatheca (Fig. 4) 0.2 mm long, with oval distal portion and with short and straight proximal portion.

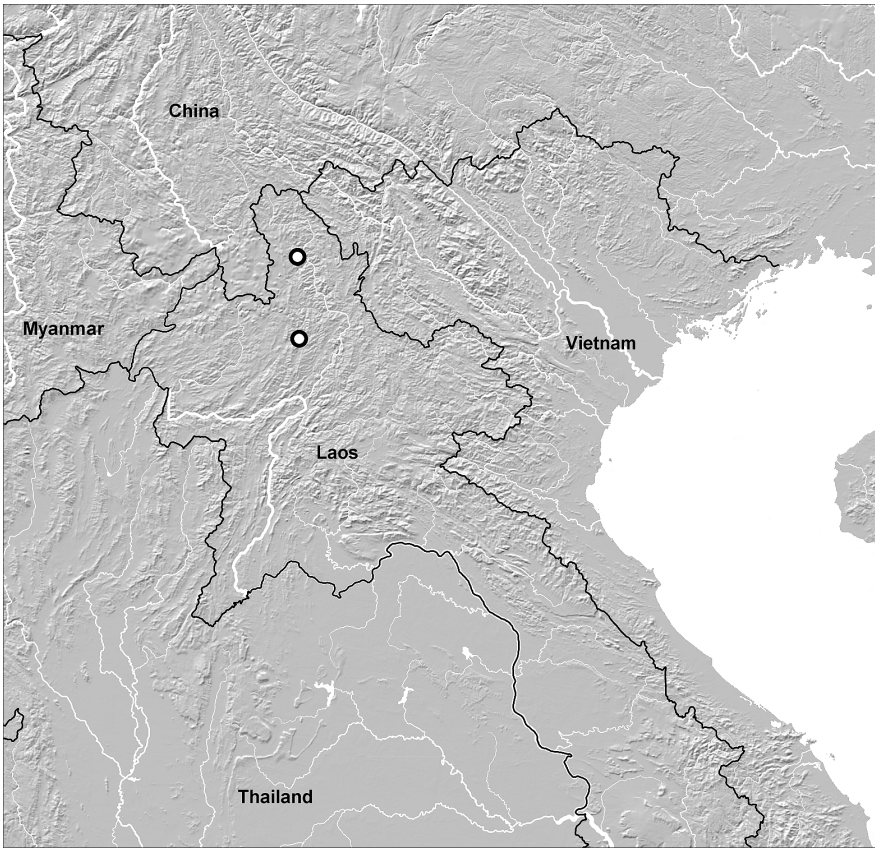
**Comparative notes:** The new species differs from other geographically close *Tetrasticta* species by the shape of the median lobe of the aedeagus and additionally as follows:

from the similarly coloured *T. thailandensis* PACE, 2000 (Thailand; male unknown) by the distinct punctation of the head and pronotum (indistinct or absent in *T. thailandensis*), as well as the shape of the spermatheca (proximal portion of the capsule distinctly dilated apically);

from *T. brevipennis* (BERNHAEUER, 1903) (widespread in the Oriental and East Palaearctic regions) by the absence of distinct dimorphisms of the head and segment VIII, the absence of microsculpture on the head and pronotum, the presence of four coarse macropunctures in the middle of the pronotum, the completely reddish abdomen (*T. brevipennis*: at least segments V-VIII blackish), and numerous other characters;

from *T. laeta* MARUYAMA & SUGAYA, 2002 (Japan, Taiwan) by uniformly black elytra and a reddish abdomen (*T. laeta*: elytra yellow with black postero-lateral portions; abdomen blackish-brown);

from *T. bicolor* (CAMERON, 1943) (Malaysia) by uniformly blackish elytra (*T. bicolor*: elytra mainly yellow) and the reddish abdomen (*T. bicolor*: abdomen blackish-brown);



**Map 1:** Distribution of *Tetrasticta laotica* nov.sp.

from *T. bryanti* (CAMERON, 1943) by the uniformly reddish abdomen (*T. bryanti*: abdominal segments IV-VIII blackish-brown);

from *T. elegans* CAMERON, 1939 (Java) by much darker coloration of the forebody alone (*T. elegans*: head and pronotum yellowish-red);

from *T. javana* CAMERON, 1939 (Java) by the uniformly black pronotum and elytra, and by the pale-reddish abdomen (*T. javana*: pronotum red; humeral angles of elytra yellowish-red; abdominal segments V-VIII blackish);

from *T. kinabaluensis* PACE, 2008 (Borneo) by much stouter antennae, a completely reddish abdomen (*T. kinabaluensis*: segments IV-VII brown), and a pronotum of different shape);

from *T. caputcyrneum* PACE, 2013 (Malaysia) by the reddish abdomen and the absence of microsculpture on the whole body;

from *T. gnatha* YAMAMOTO & MARUYAMA, 2013 (Malaysia) by the blackish antennomere IV (reddish in *T. gnatha*) and the uniformly reddish abdomen (tergites V-VII infuscate in *T. gnatha*);

from *T. bobbii* ZHENG & ZHAO, 2014 (China: Yunnan) by larger and more bulging eyes, a blackish antennomere IV (reddish in *T. bobbii*), the uniformly blackish pronotum and elytra, a uniformly reddish abdomen (tergites V-VII at least partly infuscate in *T. bobbii*), the presence of six coarse macropunctures on the pronotum (absent in *T. bobbii*), and the shape of the spermatheca.

For illustrations of *T. brevipennis*, *T. bicolor*, *T. bryanti*, *T. laeta*, *T. thailandensis*, *T. kinabaluensis*, *T. caputcyrneum*, *T. gnatha*, and *T. bobbii* see MARUYAMA (2004), MARUYAMA & SUGAYA (2002), PACE (2000, 2008, 2013b), YAMAMOTO & MARUYAMA (2013), and ZHENG & ZHAO (2014).

**Distribution and natural history:** This species is currently known from two localities in Phongsaly and Oudom Xai provinces, North Laos (Map 1). The type specimens were collected at altitudes of approximately 1100 and 1500 m.

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I am grateful to Isabelle Zürcher-Pfander and Michael Geiser for their assistance during a visit to the NHMB and for arranging a loan of the material treated in the present paper. Benedikt Feldmann (Münster) proof-read the manuscript.

### Zusammenfassung

*Tetrasticta laotica* nov.sp. aus Nord-Laos wird beschrieben, abgebildet und von anderen Arten der Gattung unterschieden.

### References

- MARUYAMA M. (2004): Redescription of the genus *Creochara* (Coleoptera: Staphylinidae: Aleocharinae: Aleocharini) and its systematic position. — The Canadian Entomologist **136**: 621-637.
- MARUYAMA M. & H. SUGAYA (2002): A new species of *Tetrasticta* (Coleoptera, Staphylinidae, Aleocharinae) from Japan and Taiwan. — Japanese Journal of Systematic Entomology **8** (1): 17-21.
- PACE R. (2000): Aleocharinae della Thailandia (Coleoptera, Staphylinidae). — Bollettino del Museo Regionale di Scienze Naturali, Torino **17** (1): 39-86.
- PACE R. (2008): Le specie di Thamiaraeini, Oxypodini, Hoplandriini e Aleocharini del Borneo (Coleoptera, Staphylinidae). — Revue Suisse de Zoologie **115** (1): 157-183.
- PACE R. (2010): Aleocharinae della regione orientale al Museo di Genova (Coleoptera, Staphylinidae). — Annali del Museo Civico di Storia Naturale "G. Doria" **102**: 295-335.
- PACE R. (2013a): Biodiversità della Aleocharinae della Cina: Hoplandriini, Aleocharini e Sinanarchusini (Coleoptera, Staphylinidae). — Contributions to Entomology **63** (1): 5-24.
- PACE R. (2013b): New distributional data, new species and three new genera of Aleocharinae from Malaysia, Vietnam and Taiwan (Coleoptera: Staphylinidae). — Tropical Zoology **26** (1): 33-63.
- SCHÜLKE M. & A. SMETANA (2015): Staphylinidae, pp. 304-1134. — In: LÖBL I. & D. LÖBL (eds), Catalogue of Palaearctic Coleoptera. Volume 2. Hydrophiloidea – Staphylinoidea. Revised and updated edition. Leiden: Brill: xxvi + 1702 pp.

- YAMAMOTO S. & M. MARUYAMA (2013): A peculiar new species of the genus *Tetrasticta* KRAATZ (Coleoptera, Staphylinidae, Aleocharinae) from Peninsular Malaysia. — *ZooKeys* **336**: 39-46.
- ZHENG D.-L. & M.-J. ZHAO (2014): A new species of genus [sic] *Tetrasticta* KRAATZ (Coleoptera, Staphylinidae, Aleocharinae) from Xishuangbanna, Southwest China. — *ZooKeys* **404**: 113-116.

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