

***Spilostethus stehliki* sp.nov. (Hemiptera: Heteroptera: Lygaeidae)  
from Ethiopia**

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DECKERT J. 2013: *Spilostethus stehliki* sp.nov. (Hemiptera: Heteroptera: Lygaeidae) from Ethiopia. In: KMENT P., MALENOVSKÝ I. & KOLIBÁČ J. (eds.): Studies in Hemiptera in honour of Pavel Lauterer and Jaroslav L. Stehlik. *Acta Musei Moraviae, Scientiae biologicae* (Brno) **98(2)**: 391–394. – A new species of the genus *Spilostethus* Stål, 1868 (Hemiptera: Heteroptera: Lygaeidae: Lygaeinae), *Spilostethus stehliki* sp.nov., is described from the Simien Mountains in northern Ethiopia, and compared with *Spilostethus taeniatus* Stål, 1865, the species most similar to it.

**Keywords.** Heteroptera, Pentatomomorpha, Lygaeidae, true bugs, taxonomy, new species, Afrotropical Region

**Introduction**

*Spilostethus* Stål, 1868, is a group of aposematically coloured species, all from the Old World. At present, 24 species are known, including the new species described here (SLATER 1964a, SLATER & O'DONNELL 1995, LINNAVUORI 1978, CARAPEZZA 2002). A total of 17 species are now known from the Afrotropical Region. Three subspecies are described for *S. rivularis* (Germar, 1838) and two for *S. furcula* (Herrich-Schaeffer, 1850); see also LINNAVUORI (1974, 1978).

The species are known for their striking similarities in coloration and mimicry. Nothing has emerged to challenge what SLATER (1964b) said of them half a century ago: “A number of interesting problems of speciation, variation, mimicry, sex recognition, etc., appear to await the careful investigator.” The main sources of information for the African *Spilostethus* are the publications by SLATER (1964a, b) and SLATER & SPERRY (1973), both focused on southern Africa, and by LINNAVUORI (1974, 1978). In this paper one additional species is described from mountains of northern Ethiopia.

**Taxonomy*****Spilostethus stehliki* sp.nov.**

(Figs 1, 2, 5)

**Type material.** Holotype: Male. ETHIOPIA: ‘ÄTHIOPIEN 15 Jan. 1996, Simien Mountains, östl. Debark Sankaber Camp, 13°13' N / 28°02'E, leg. J. Deckert, 3245 m'. Paratypes: 4 females, same locality and date. The type material is deposited in the Museum für Naturkunde, Berlin.

**Description.** *Coloration.* General coloration black and orange-red. Head with Y-shaped black pattern; tylus and vertex black, except for base orange-red dorsally; juga and lateral and ventral parts of antenniferous tubercles orange-red. Antennae, rostrum, and legs unicolourous black, coxae partly paler. Pronotum black with three narrow, longitudinal,

orange-red stripes (one median orange-red stripe, prolonged to basal midway of the black scutellum, and two stripes on lateral margins); corium dark except for orange-red stripe at the side and on the inner part at the level of claval commissure; clavus black, borders of scutellum orange-red, membrane pale grey to white, except for black area adjacent to corium. Pleura of each thoracic segment with orange-red patches, abdominal segments black with orange-red regions.

*Structure.* Head convex, moderately longer than wide, rostrum ends between middle and hind coxae. Pronotum without prominent longitudinal carinae, lateral margin somewhat swollen, peritreme of metathoracic scent gland formed by shallow groove, without auricle. Scutellum with ridge at the middle part, especially at apex. Femora and tibiae of male with small but distinct spines on inner surface. Submacropterous, wings not reaching apex of abdomen, membrane slightly reduced.

*Pilosity.* Body covered with short, semi-erect, silvery hairs.

*Sculpture.* Anterior and posterior area of pronotum with a few black punctures, also some black punctures on first pleura. Shape of male parameres as in Fig. 5.

*Measurements* (mm). Male (holotype). Body length 7.0; head: width (including eyes) 1.5; interocular width 1.0; length of antennomeres: 1 – 0.5, 2 – 1.0, 3 – 0.7, 4 – 1.1; pronotum: length at centre 1.5, width across humeral edges 2.2; scutellum: length 0.8, width 1.1; corium: length 1.7.

Females (n=4). Body length 6.9 (6.7–7.4); head: width (including eyes) 1.5; interocular width 1.0; length of antennomeres: 1 – 0.4 (0.39–0.42), 2 – 0.98 (0.93–1.0), 3 – 0.7 (0.6–0.75), 4 – 1.02 (1.0–1.05); pronotum: length at centre 1.35 (1.1–1.42), width across humeral edges 2.2 (2.0–2.36); scutellum: length 0.89 (0.86–0.92), width 1.2 (1.0–1.27); corium: length 1.8 (1.6–2.0).

**Differential diagnosis.** *Spilostethus stehliki* sp.nov. differs from other species of *Spilostethus* in its slightly reduced wings in combination with the colour pattern, smaller size (of about 7 mm), and the shape of parameres.

**Etymology.** The species is dedicated to Jaroslav L. Stehlík for the occasion of his 90th birthday.

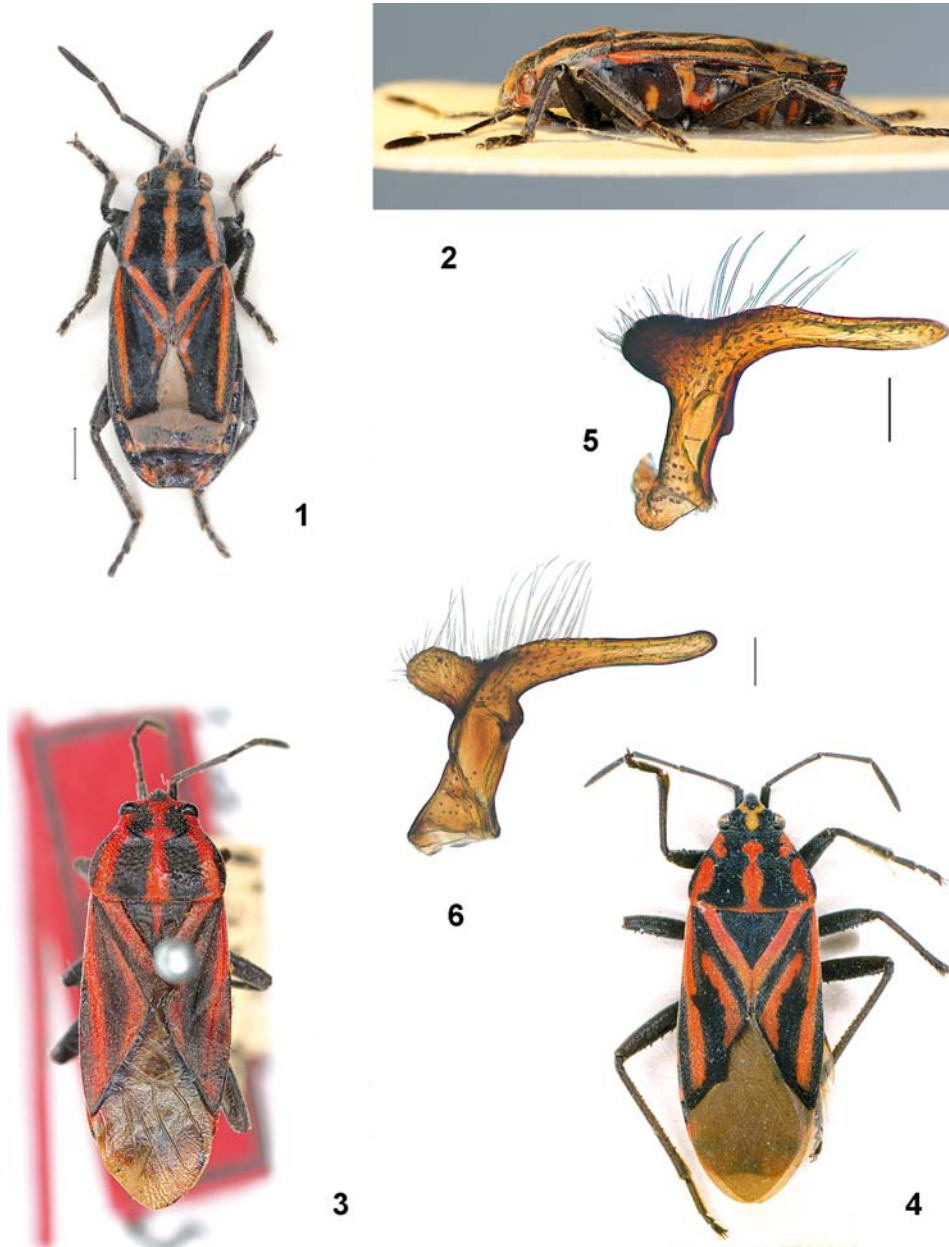
**Biology.** The species was collected on the ground in a dry meadow and was found together with two other lygaeine bugs, *Gondarius inexpectatus* Štys, 1972 and *Spilostethus amaenus* (Bolívar, 1897).

**Distribution.** The species is known from only its type locality in northern Ethiopia, the Simien Mountains, at an altitude of over 3000 m.

### Discussion

SLATER (1964b) mentioned that *Spilostethus taeniatus* Stål, 1865, is “most closely related to *S. trilineatus* (Fabricius, 1794) from which species it may however be readily distinguished by the length of the median red pronotal stripe that attains the anterior margin of the pronotum [...]”. LINNAVUORI (1974) discussed and keyed the red-coloured species of the African *rivularis* species-group of *Spilostethus* with the species *S. rivularis* (Germar, 1838), *S. taeniatus* (Stål, 1865), *S. trilineatus* (Fabricius, 1794), and *S. crudelis*

*Spilostethus stehliki* sp.nov.



**Figs 1–6.** *Spilostethus* spp. 1, 2, 5 – *S. stehliki* sp.nov., holotype: 1 – dorsal view; 2 – lateral view; 5 – paramere. 3, 6 – *S. taeniatus* (Stål, 1865): 3 – holotype (Naturhistoriska riksmuseet, Stockholm), dorsal view; 6 – specimen from Mozambique: Delagoa Bay (Naturhistorisches Museum Wien), paramere. 4 – *S. rivularis epimetheus* Linnavuori, 1974, holotype (American Museum of Natural History, New York), dorsal view. Scale bars: 1 mm (1–4), 0.1 mm (5, 6).

(Fabricius, 1781). He keyed *Spilostethus taeniatus* (but did not illustrate it) as follows: “Pronotum with a percurrent narrow red median stripe. Scutellum also with a red midline”, giving the distribution as South Africa, Sudan, and Ethiopia. Further, LINNAVUORI (1978) mentioned *S. taeniatus* for South Sudan. The species appears to be widely distributed in southern and tropical Africa; however, identification based on colour patterns alone has to be further validated.

*Spilostethus stehliki* sp.nov. from the Simien Mountains has generally a similar colour pattern to that found in the *S. rivularis* species-group. Comparison with the type material of *S. taeniatus* (Fig. 3), held in the Naturhistoriska riksmuseet in Stockholm, and with redescrptions by SLATER (1964) makes it clear that *S. taeniatus* and other similar known species are quite different from *Spilostethus stehliki* sp.nov.

At first sight *Spilostethus stehliki* sp.nov. resembles *S. taeniatus*, but in *S. stehliki* the dark coloration on the pronotum, corium and ventral parts is predominant and the black corial stripes reach the membrane. In *S. taeniatus* the orange-red areas of the body are about equal to the black parts (Fig. 3). The newly-described species also differs in the shape of the parameres (Figs 5–6) and size (7–9 mm). Other species of the *S. rivularis* species group are *S. rivularis* (with subspecies *rivularis epimethaeus* Linnavouri, 1974, see Fig. 4), *S. lemniscatus* (Stål, 1855) and *S. trilineatus*, but all of them have parameres sufficiently distinctive for clear discrimination.

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