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Carpelimus (*Trogophloeus*) *parisimplex* (Coleoptera: Staphylinidae: Oxytelinae), a new species from Thailand and Vietnam

Carpelimus (*Trogophloeus*) *parisimplex* (Coleoptera: Staphylinidae: Oxytelinae), новый вид из Таиланда и Вьетнама

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Staphylinidae, Oxytelinae, *Carpelimus*, новый вид, Восточная биогеографическая область, Таиланд, Вьетнам.

ABSTRACT: *Carpelimus* (*Trogophloeus*) *parisimplex*, **sp.n.**, a new species of rove beetle from Thailand and Vietnam is described and illustrated. The new species belongs to the simplex species group, which previously included 8 species. Four species are from Tropical Africa and four species from the Oriental Biogeographic Region. The new species is most similar to *C. simplex*, which has long been considered to be widespread in the Oriental Region, but this is incorrect. *Carpelimus* (*Trogophloeus*) *parisimplex*, **sp.n.** differs from *C. simplex* only in the structure of the aedeagus and, to some extent, in its distribution; so far, it is known only from Thailand and Vietnam, where *C. simplex* is unknown. Finding of another unknown species from the "*simplex*" species group in Thailand and Vietnam is of particular interest.

РЕЗЮМЕ: Из Таиланда и Вьетнама описан и проиллюстрирован новый вид *Carpelimus* (*Trogophloeus*) *parisimplex*, **sp.n.** Новый вид относится к группе "*simplex*", к которой ранее мы относили 8 видов. Четыре вида из Тропической Африки и четыре вида из Восточной биогеографической области. Новый вид наиболее сходен с *C. simplex*, который долгое время считался широко распространенным в Восточной области, что оказалось неверным. Новый вид отличается от *C. simplex* только строением эдеагуса и, в какой-то мере, распространением, пока он известен только из Таиланда и Вьетнама, откуда *C. simplex* не известен. Нахождение в Таиланде и Вьетнаме еще одного неизвестного для науки вида из группы "*simplex*" представляет определенный интерес.

Introduction

The article continues the author's series of works on the fauna of the genus *Carpelimus* Leach, 1819 of the Oriental Region and New Guinea [Gildenkov, 2015, 2018a, b, 2019a–f, 2020a–c, 2021a, b, 2022, 2023a, b, 2024a, b]. The new species belongs to the "*simplex*" species group, which we previously [Gildenkov, 2015, 2021a] included 8 species. Four species (2 of which have one subspecies each) are known from Tropical Africa: *Carpelimus* (*Trogophloeus*) *globicollis globicollis* (Eppelsheim, 1885); *Carpelimus* (*Trogophloeus*) *globicollis grandicollis* Gildenkov, 2013; *Carpelimus* (*Trogophloeus*) *malgaceus* (Fauvel, 1904); *Carpelimus* (*Trogophloeus*) *collarti* (Cameron, 1935); *Carpelimus* (*Trogophloeus*) *lisfranci lisfranci* (Bernhauer, 1938); *Carpelimus* (*Trogophloeus*) *lisfranci seydeli* (Cameron, 1952). Four species are from the Oriental Biogeographic Region: *Carpelimus* (*Trogophloeus*) *simplex* (Motschulsky, 1857); *Carpelimus* (*Trogophloeus*) *saigonensis* (Cameron, 1940), *Carpelimus* (*Trogophloeus*) *pseudosimplex* Gildenkov, 2013 and *Carpelimus* (*Trogophloeus*) *rotundicollis* Gildenkov, 2021. The new species is most similar to *C. simplex*, which was long considered widespread in the Oriental Region, which is incorrect [Gildenkov, 2015]. Currently, *C. simplex* is known [Gildenkov, 2015, 2021b] only from India, Myanmar and Cambodia, and is quite rare everywhere. The new species differs from *C. simplex* only in the structure of the aedeagus and, to some extent, in its distribution; so far, it is known only from Thailand and Vietnam, where *C. simplex* is unknown.

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This paper is based on the specimens deposited in the following collections: cDM — private collection of D.J. Mann (Oxford, United Kingdom); cMG — private collection of M. Yu. Gildenkov (Smolensk, Russia); MMBC — Moravian Museum in Brno (Czech Republic); ZMUM — Zoological Museum, Moscow Lomonosov State University (Moscow, Russian). This study used standard method for the taxonomic study of insects. Preparations were made usinge the MBS-10 binocular microscope. The preparations of genitalia were processed in 10% KOH and then fixed in Euparal. In the description and diagnoses giving the length to width ratio for the head, pronotum, and elytra, the following standard units were used: 7 standard units = 0.1 mm; thus, 1 standard unit constitutes about 0.0143 mm. Photographs were taken using a Canon EOS 5D Mark III camera and a Canon MP-E 65 mm lens with Extended Focus Technology.

Carpelimus (*Trogophloeus*) *parisimplex* Gildenkov**, sp.n.**
Figs 1, 3–4.

MATERIAL. Holotype, ♂ "NW THAILAND Chom Thong 24.–27.iv.1991 Jan Horák leg." (MMBC). Paratypes: 1♂, 1♀, 3 ex. "NW THAILAND Chom Thong 24.–27.iv.1991 Jan Horák leg." (MMBC; 1♂, 1♀, 1 ex. — cMG); 4♂♂ "VIETNAM: Ben Cat Dist. Binh Duon, 11°13′29′′N 106°35′53′′E. 20 m alt | 19.viii.2005 | coll. D.J. Mann" "OUMNH-2006-075 stream nr paddy field. @ blue light." (2♂♂ — cDM; 1♂ — cMG; 1♂ — ZMUM).

DESCRIPTION (holotype). Length 1.7 mm. Colouration brown. Head and abdomen dark brown; pronotum, elytra and apices of antennae reddish-brown, significantly lighter than the head and abdomen; legs and base of antennae yellowish-brown. Beetles from Vietnam slightly darker, without clear red tint. Integument slightly shining, body with short, light-coloured hairs.

Figs 1–2. *Carpelimus* spp.: 1 — *Carpelimus* (*Trogophloeus*) *parisimplex*, **sp.n.**, holotype, male, dorsal view; 2 — *Carpelimus* (*Trogophloeus*) *pseudosimplex* Gildenkov, 2013, paratype, male, dorsal view. Scale bar: 1 mm.
Рис. 1–2. *Carpelimus* spp.: 1 — *Carpelimus* (*Trogophloeus*) *parisimplex*, **sp.n.**, голотип, самец, сверху; 2 — *Carpelimus* (*Trogophloeus*) *pseudosimplex* Gildenkov, 2013, паратип, самец, сверху. Масштаб 1 мм.

Figs 3–4. Aedeagus of *Carpelimus* (*Trogophloeus*) *parisimplex*, **sp.n.**: 3 — ventral view (holotype); 4 — lateral view (paratype). Scale bar: 0.25 mm.
Рис. 3–4. Эдеагус *Carpelimus* (*Trogophloeus*) *parisimplex*, **sp.n.**: 3 — снизу (голотип); 4 — сбоку (паратип). Масштаб 0,25 мм.

Head transverse, with wide base, ratio of its length (from posterior margin of head to anterior margin of clypeus) to maximum width about 16:24. Neck constriction prominent. Eyes large and convex; temples slightly developed, head widest across eyes (Fig. 1). Head surface with very delicate shagreening. Antennae quite long. 1-3 and 5 antennal segments elongate; 4 and 6-7 approximately as long as wide; 8-10 transverse; 11 elongate, cone-shaped. 9-11 segments more massive than others, forming a loose club (Fig. 1).

Pronotum widest about 2/3 its length from base, then narrowed. Lateral margins smoothly rounded from base (Fig 1). Ratio of pronotum length to its maximum width about 22:26. Surface of pronotum delicate shagreened as that on head. Base of pronotal disc with two small flat depressions (Fig. 1).

Length of elytra related to their combined width approximately as 31:34. Elytra covered with delicate, fine and dense punctation. Diameter of the punctures approximately 2 times less than diameter of eye facet. Distances between punctures rather smaller than their diameter, interspaces smooth, quite shiny (Fig. 1).

Abdomen delicately shagreened.

Aedeagus of characteristic structure (Figs 3, 4).

Female. Sexual dimorphism absent, female morphologically similar to male. Spermatheca of characteristic structure for all species of the "*simplex*" species group [Gildenkov, 2015: 388: fig. 22].

COMPARATIVE REMARKS. The new species belongs to the "*simplex*" species group. In the Oriental Biogeographic Region, specimens of the new species from Thailand with a red tint of the pronotum and elytra (Fig. 1), are most similar in size and colouration to *C. simplex*, from which they are clearly distinguished only by the structure of the aedeagus (Figs 3, 5). The darker coloured specimens of the new species from Vietnam have a noticeable similarity to *C. pseudosimplex* (Fig. 2). They differ in smaller size, less voluminous pronotum and the structure of the aedeagus (Figs 3, 6).

DISTRIBUTION. Tailand, Vietnam.

ETYMOLOGY. The new species is named due to its great similarity to *Carpelimus* (*Trogophloeus*) *simplex* (Motschulsky, 1857).

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Figs 5–6. Aedeagus ventral view of *Carpelimus* spp.: 5 — *Carpelimus* (*Trogophloeus*) *simplex* (Motschulsky, 1857) (Myanmar); 6 — *Carpelimus* (*Trogophloeus*) *pseudosimplex* Gildenkov, 2013 (paratype). Scale bar: 0.25 mm.
Рис. 5–6. Эдеагус снизу *Carpelimus* spp.: 5 — *Carpelimus* (*Trogophloeus*) *simplex* (Motschulsky, 1857) (Мьянма); 6 — *Carpelimus* (*Trogophloeus*) *pseudosimplex* Gildenkov, 2013 (паратип). Масштаб 0,25 мм.

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