ACTA ZOOLOGICA BULGARICA

Acta Zool. Bulg., 73 (3), September 2021: 327-330

Systematics and Phylogenetics
Research Article

Published online 31 August 2021
http://www.acta-zoologica-bulgarica.eu/2021/002532

Description of a New Species of *Ctesias* (*Tiresiomorpha*) Pic, 1954 (Coleoptera: Dermestidae: Megatomini) from the Ivory Coast

***Jiří Háva*[1] *& Keita Matsumoto*[2]**

[1] Forestry and Game Management Research Institute, Strnady 136, CZ-156 00 Praha 5 – Zbraslav, Czech Republic; E-mail: jh.dermestidae@volny.cz; https://orcid.org/0000-0001-8076-9538
[2] Department of Life Sciences, Natural History Museum, London, SW7 5BD, United Kingdom; E-mail: k.matsumoto@nhm.ac.uk; https://orcid.org/0000-0002-0527-7418

Abstract: *Ctesias (Tiresiomorpha) taiensis* sp. n. from the Ivory Coast is described, illustrated and compared with the similar Afrotropical species *C. dakariensis* Herrmann & Háva, 2009 and *C. variegata* Arrow, 1915. The new species differs by the structure of antennae and male genitalia.

Key words: Taxonomy, new species, Dermestidae, *Ctesias* (*Tiresiomorpha*), Afrotropical Region

Introduction

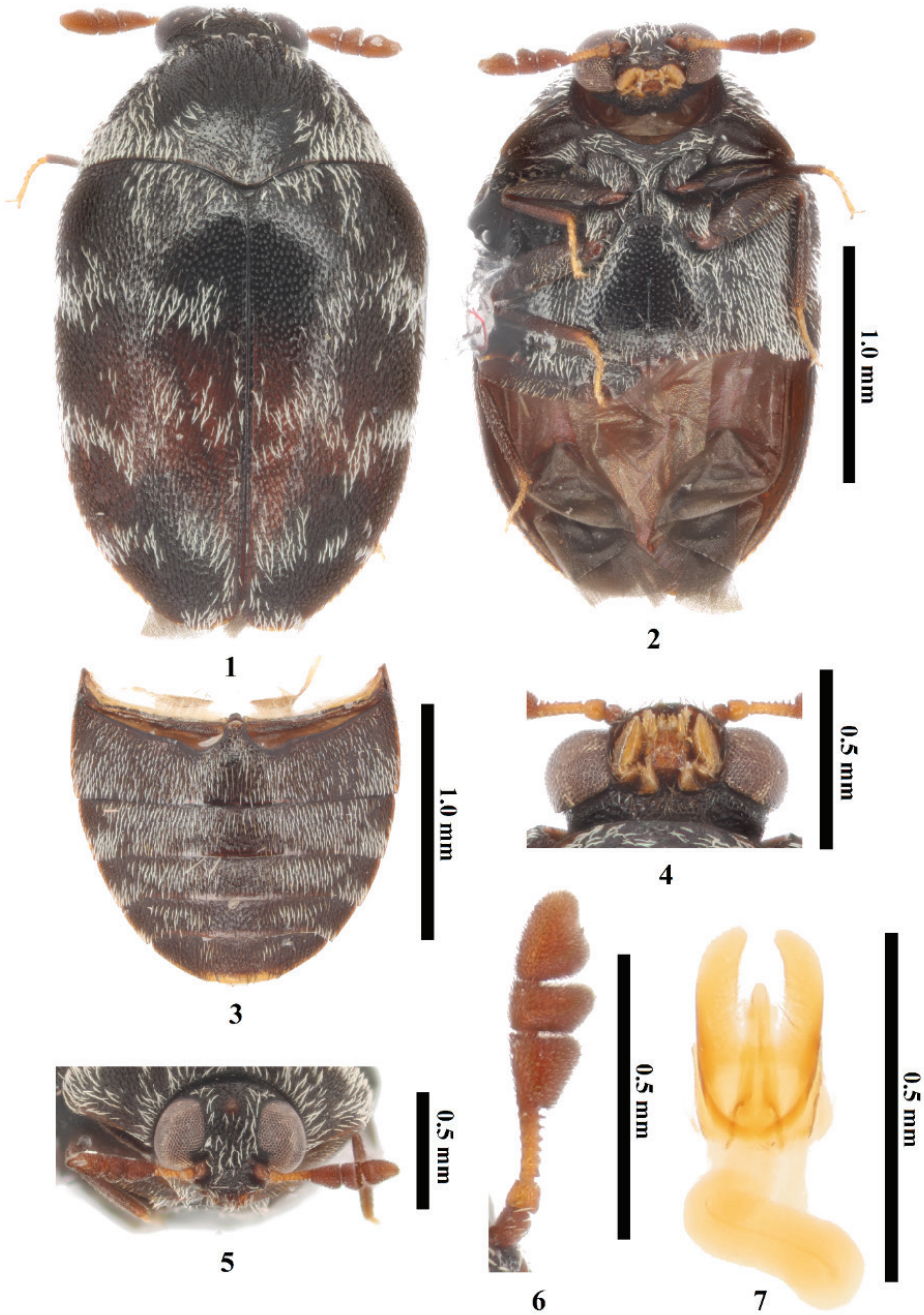
The genus *Ctesias* Stephens, 1830 belongs to the subfamily Megatominae and the subtribe Ctesiina Rees, 1943. It is divided into four subgenera: *Ctesias* s. str., *Decemctesias* Háva, 2004, *Novemctesias* Háva, 2004 and *Tiresiomorpha* Pic, 1954. This genus contains 26 species worldwide (Háva 2015). Two species of the subgenus *Tiresiomorpha* are known from the Afrotropical Region: *C.* (*T.*) *dakariensis* Herrmann & Háva, 2009, described from Senegal, and *C.* (*T.*) *variegata* Arrow, 1915, known from the Democratic Republic of the Congo, Kenya and South Africa.

Approximately 40 m high canopy light trap was used at Taï National Park, the Ivory Coast (République de Côte d'Ivoire). This method collected very interesting taxa differing from those sampled using ground-level light traps. Among collected insects, there was a single male specimen of *Ctesias* (*Tiresiomorpha*), which was determined to be a new species. The new species, described in this article, has morphological characters distinguishing it from any other known Afrotropical *Ctesias* (*Tiresiomorpha*).

Materials and Methods

The specimen of the new species was examined by relaxing in warm water and dissecting the abdomen and its inner contents. Genitalia were placed in a drop of dimethyl hydantoin formaldehyde (DMHF) resin and mounted on a card pinned under the specimen. Habitus photographs were taken with a Canon DSLR camera, Laowa 25 mm macro lens. All photographs were processed through focus stacking software, Helicon Focus, and were later edited using GIMP. The beginning and end of label text are indicated using double quotation marks (“”); a double slash (//) separates the data on different labels.

The following acronyms of morphological characters were used: AS – Antennal segment(s) (preceded by number increases from antennal insertion to the tip of the last antennomere), BL – body length (pronotum length and elytral length), EL – elytral length (elytral suture from the scutellum to the posterior end of elytra), EW – maximum elytral width, PL – pronotal length, PW – maximum pronotal width.



Figs. 1-7. *Ctesias* (*Tiresiomorpha*) *taiensis* sp. n., holotype ♂. 1. Dorsal habitus. 2. Ventral habitus. 3. Abdomen. 4. Mouth parts. 5. Head frontal view. 6. Left antennae. 7. Genitalia.

The following acronyms for institutions and collections are mentioned in this study: ANHRT – African Natural History Research Trust, Leominster, UK; BMNH – Natural History Museum, London, UK (formerly British Museum Natural History).

Results

***Ctesias* (*Tiresiomorpha*) *taiensis* sp. n.**

(Figs. 1-7, Table 1)

Type material: Holotype (♂), deposited at BMNH: "IVORY COAST, 174 m, Taï NP, Taï Research Station (SRET), 05°50'00"N, 07°20'32.0"W, 27.III-31.III.2017, Canopy // Light Trap (~40 m above ground), Aristophanous, A., Aristophanous, M., Geiser, M., Moretto, P., leg., BMNH(E) 2017-93 // NHMUK014385240". Additional label on red paper added: "*Ctesias* (*Tiresiomorpha*) *taiensis* sp. nov. Háva & Matsumoto det. 2020, HOLOTYPE ♂".

Etymology: This species is named after the type locality Tai National Park.

Description: Body (Fig. 1) elongate ovate,

Table 1. Male antenna and genitalia of Afrotropical *Ctesias* (*Tiresiomorpha*) spp. (Photos of *C. dakariensis* and *C. variegata* by A. Herrmann).

Species	Male antenna	Male genitalia
Ctesias (*Tiresiomorpha*) *dakariensis* Herrmann & Háva, 2009		
Ctesias (*Tiresiomorpha*) *taiensis* sp. n.		
Ctesias (*Tiresiomorpha*) *variegata* Arrow, 1915		

slightly arched. BL: 2.43 mm, EL: 1.72 mm, EW: 1.34 mm, PL: 0.67 mm, PW: 1.30 mm.

Head (Fig. 5) as wide as long, between eyes and antennae coarsely punctate, sparsely covered with procumbent long, black and white setae. Mentum with short light brown setae, clypeus slightly extended (Fig. 4). Palpi light brown (Fig. 4). Ocellus present on front (Fig. 5). Antennae (Fig. 6) 11-segmented; AS1 and AS9 to AS11 reddish brown; AS2 to AS8 light brown; AS1 and AS2 square; AS3 to AS8 short and constant width with increasing protrusion anteriorly; AS9 trapezial, apical end longer than base, protrusion anteriorly; AS10 trapezial, apical end longer than base, protrusion anteriorly, approximately half the width of AS9; AS11 subtriangular, wider than AS9, anterior end slightly concave, posterior end convex, all angles rounded.

Pronotum (Fig. 1) black, twice as wide as long, strongly narrowed anteriorly, broadest at posterior end, fine and sparsely punctate with the same pubescence as the head. Anterior angles acute, but slightly rounded, not visible from above; posterior angles

acute, pointed; middle of base convexly extended, rounded. Lateral antennal fossa present on the underside of the pronotum.

Scutellum (Fig. 1) small, triangular, with a no visible setae; puncture hardly visible.

Elytra (Fig. 1) coarsely punctate, as dense as on the head. Cuticle reddish brown to dark brown; four white horizontal fasciae extending from lateral end to suture, aligning on ¼, ½ and ¾ from anterior end and on apical end; one horizontal fascia extending from the suture to the middle on anterior end, sparsely covered with the same kind of hairs as head and pronotum.

Punctation, pubescens and colour of the underside (mesosternum, metasternum and abdominal sternites) quite similar to the dorsal surface (Figs. 2 and 3).

Legs (Fig. 2) light brown, sparsely covered with small, brown and slightly erect hairs. Hind tarsi about as long as hind tibia. All tibiae with two distinct small spines apically.

Male genitalia as in Fig. 7.

Female. Unknown.

Discussion

Differential diagnosis: According to the characters given by Háva (2004), the new species belongs to the subgenus *Tiresiomorpha* Pic, 1954. This subgenus includes six previously known species, which are distributed in the Palaearctic and Afrotropical Regions (Arrow 1915, Háva 2015, Herrmann & Háva 2009). The new species *Ctesias taiensis* sp. n. differs from the other two Afrotropical species *C. dakariensis* Herrmann & Háva, 2009 and *C. variegata* Arrow, 1915 by the structure of the antennae and the male genitalia (Table 1).

Acknowledgements: The sampling and study of material from the Ivory Coast was made possible thanks to the support of the ANHRT (Leominster, UK) and Richard E. L. Smith. Scientific research in the Ivory Coast was authorised by the Ministère de l'Enseignement Supérieur et de la Recherche Scientifique. The Office Ivoirien des Parcs et Réserves (OIPR) is thanked for authorising access and sampling of specimens in Taï National Park under permit no. 101/MINSEDD/OIPR/DG/DT, and exportation of specimens under permit no. 217/MINSEDD/OIPR/DG/DT. We would like to express thanks to Max Barclay (BMNH) and anonymous reviewers for comments on the manuscript. The paper was supported by the Ministry of Agriculture of the Czech Republic, institutional support MZE-RO0118.

References

Arrow G. J. 1915. Notes on the coleopterous family Dermestidae, and descriptions of some new forms in the British Museum. Annals and Magazine of Natural History (8) 15: 425–451.

Háva J. 2004. World keys to the genera and subgenera of Dermestidae (Coleoptera), with descriptions, nomenclature and distributional records. Acta Musei Nationalis Pragae, Series B, Natural History 60: 149–164.

Háva J. 2015. World Catalogue of Insects. Volume 13. Dermestidae (Coleoptera). Leiden/Boston: Brill, xxvi + 419 p.

Herrmann A. & Háva J. 2009. *Ctesias* (*Tiresiomorpha*) *dakariensis* n. sp. (Coleoptera: Dermestidae) from the Republic of Senegal. Stuttgarter Beiträge zur Naturkunde, Serie A, Neue Series 2: 237–239.

Received: 25.02.2021
Accepted: 03.04.2021