

## Dermestid beetles of the genus *Ctesias* (Coleoptera: Dermestidae) of Iran

Jiří HÁVA

Private Entomological Laboratory and Collection  
Branická 13, CZ-147 00 Praha 4, Czech Republic; e-mail: jh.dermestidae@volny.cz

**Taxonomy, Coleoptera, Dermestidae, *Ctesias*, new species, new combination, Iran, Turkey**

**Abstract.** *Ctesias* (*Decemctesias*) *iranica* sp. n., *C. (D.) similis* sp. n. and *C. (Tiresiomorpha) hajeki* sp. n., all from Iran, are described, illustrated and compared with related species. A new combination *C. (D.) maculifasciata* (Reitter, 1899) comb. n., for the species from Turkey and Syria is proposed and a male specimen of this species is illustrated for the first time.

### INTRODUCTION

Some basic information about dermestid beetles from Iran were published in papers by Dalla Torre (1911), Mroczkowski (1968), Sokolov (1972), Zhantiev (1976), Lafer (1992), Háva & Kalík (1999), Háva (2003, 2004, 2005).

Three expeditions to Iran were undertaken by the Department of Entomology to the National Museum in Prague in 1970, 1973 and 1977, respectively. The basic data about the expeditions, including detailed description of collecting localities (numbered successively), maps and photos can be found in Hoberlandt (1974, 1981, 1983). In to present paper, the material of dermestid beetles of the genus *Ctesias* Stephens, 1830 (Coleoptera: Dermestidae: Megatominae), is discussed. Recently, some Czech entomologists visited Iran, and an interesting material of *Ctesias* Stephens, 1830 has been stepwise accumulated. Although not very large, it contains a few rarely collected species with yet inadequately known distribution.

### MATERIAL AND METHODS

The shades of colours used in the descriptions are classified according to Paclt (1958), integumental structures are named according to Harris (1979). Locality labels of the mentioned material are cited in the original version. Separate labels are indicated by slashes ( \ ). Remarks of the author are found in brackets [ ].

Because the size of beetles or their body parts can be useful in species recognition, following measurements were made:

- a) total length – linear distance from anterior margin of pronotum to apex of elytra.
- b) elytral width – maximum linear transverse distance.

Specimens of the presently described species are provided with a red, printed label with text as follows: „HOLOTYPE [or PARATYPE] *name of taxon* sp. n. Jiří Háva det. 2004”.

Troughout the text, the following abbreviations are used:

|      |   |
|------|---|
| HNHM | Hungarian Natural History Museum, Budapest, Hungary |
| JHAC | author's collection                                 |
| JHPC | collection Jiří Hájek, Prague, Czech Republic       |
| NMPC | National Museum, Prague, Czech Republic             |

## DESCRIPTIONS

The genus *Ctesias* Stephens, 1830 contains 14 species distributed in the Holarctic and Afrotropical regions (Háva 2003, 2004). The new species described below belong to the subgenera *Decemctesias* Háva, 2004 and *Tiresiomorpha* (Pic, 1954). The subgenus *Decemctesias* differs from the subgenus *Tiresiomorpha* by the number of antennomeres; *Decemctesias* - antennae with 10 antennomeres, *Tiresiomorpha* - antennae with 11 antennomeres.

### *Ctesias (Decemctesias) iranica* sp. n.

(Figs 1-3)

**Type material.** Holotype (♂) labelled: „S Iran, Sisakht, Dena, 2500-300 m, 13-14.vi.1973“ \ „Loc. No. 241, Exp. Nat. Mus. Praha“ (NMPC). Paratypes: (6 ♂♂, 8 ♀♀): the same data as holotype (10 NMPC, 4 JHAC).

**Description.** Male. Body length 3.7 mm, maximum width 2.1 mm; cuticle on pronotum black, elytra brown, ventral surface black; generally large and elongate. Head finely punctate, with short black pubescence. Palpi entirely brown; pubescence on mentum denser. Median ocellus on front present. Antennae brown, with 10 antennomeres, antennal club, with 3 antennomeres, terminal antennomere long, with long tip (Fig. 1). Pronotum finely punctate like head with short black pubescence on the disc and long white-yellow pubescence on lateral parts and posterior angles. Scutellum triangular, finely punctate as pronotum, without short pubescence. Elytra finely punctate; cuticle dark-brown, with three ill-defined brown fasciae, covered by short, white, pubescence; other parts with short, black pubescence. Legs brown, with white very short pubescence. Mesosternum and metasternum with short, white pubescence. Prosternal process finely punctate, narrow, long. Abdominal sternites black, with short, white pubescence. Male genitalia (Fig. 3). Female externally similar to male, differs by the structure of antennae (Fig. 2).

**Variability.** Males body length 3.0-3.7 mm, width 1.9-2.2 mm, females body length 3.2-3.8 mm, width 1.9-2.2 mm.

**Differential diagnosis.** The new species externally similar to *C. syriaca* Ganglbauer, 1904, but differs from it the characters mentioned in the following table.

**Etymology.** The species name is derived from the type locality.

***Ctesias (Decemctesias) similis* sp. n.**

(Figs 4-6)

**Type material.** Holotype (♂) labelled: „E Iran, Deh Bakri, 1700-1750 m, 30.iv-3.v.1973“ \ „Loc. No. 186, Exp. Nat. Mus. Praha“ (NMPC). Paratypes: (3 ♂♂, 1 ♀): the same data as holotype (2 NMPC, 2 JHAC).

**Description.** Male. Body length 3.8 mm, maximum width 2.1 mm; cuticle on pronotum black, elytra brown, ventral surface black; generally large and elongate. Head finely punctate, with short, black pubescence. Palpi entirely brown; pubescence on mentum denser. Median ocellus on front present. Antennae brown, with 10 antennomeres, antennal club with 3 antennomeres, terminal antennomere long, with short tip (Fig. 4). Pronotum finely punctate like head, with short, black pubescence on the disc and long, white-yellow pubescence on lateral parts and posterior angles. Scutellum triangular, finely punctate as pronotum, without short pubescence. Elytra finely punctate; cuticle dark-brown with three ill-defined brown fasciae, covered by short, white pubescence; other parts with short, black pubescence. Legs brown, with white very short pubescence. Mesosternum and metasternum with short, white pubescence. Prosternal process finely punctate, narrow, long. Abdominal sternites black, with short, white pubescence. Male genitalia (Fig. 6). Female externally similar to male, differs by the structure of antennae (Fig. 5).

**Variability.** Male body length 3.6-3.8 mm, width 1.9-2.1 mm, female body length 4.1 mm, width 2.4 mm.

**Differential diagnosis.** The new species is externally very similar to *C. iranica* sp. n., but differs from it by the characters mentioned in the following table.

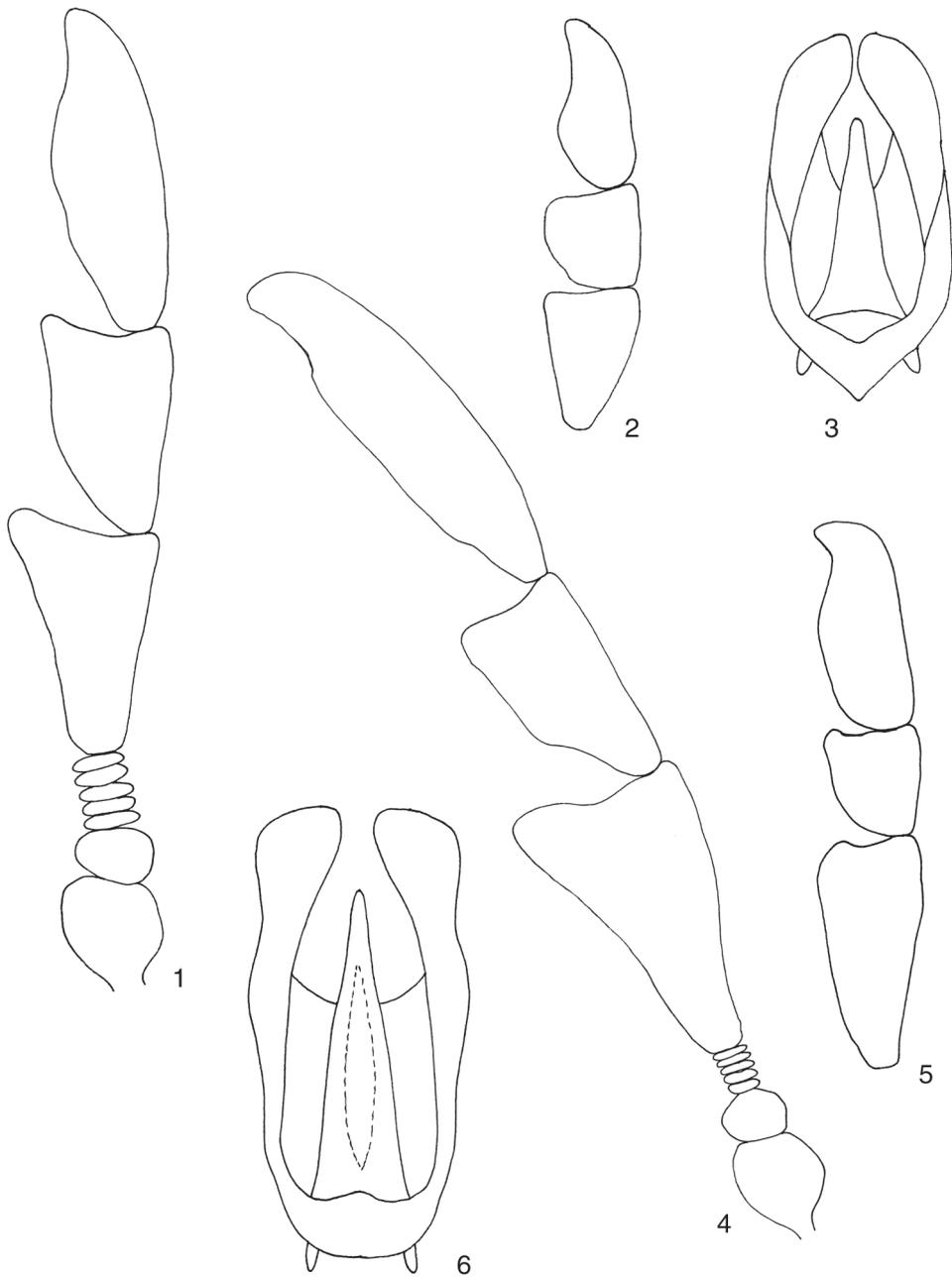
**Etymology.** The Latin adjective simile (= similar).

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

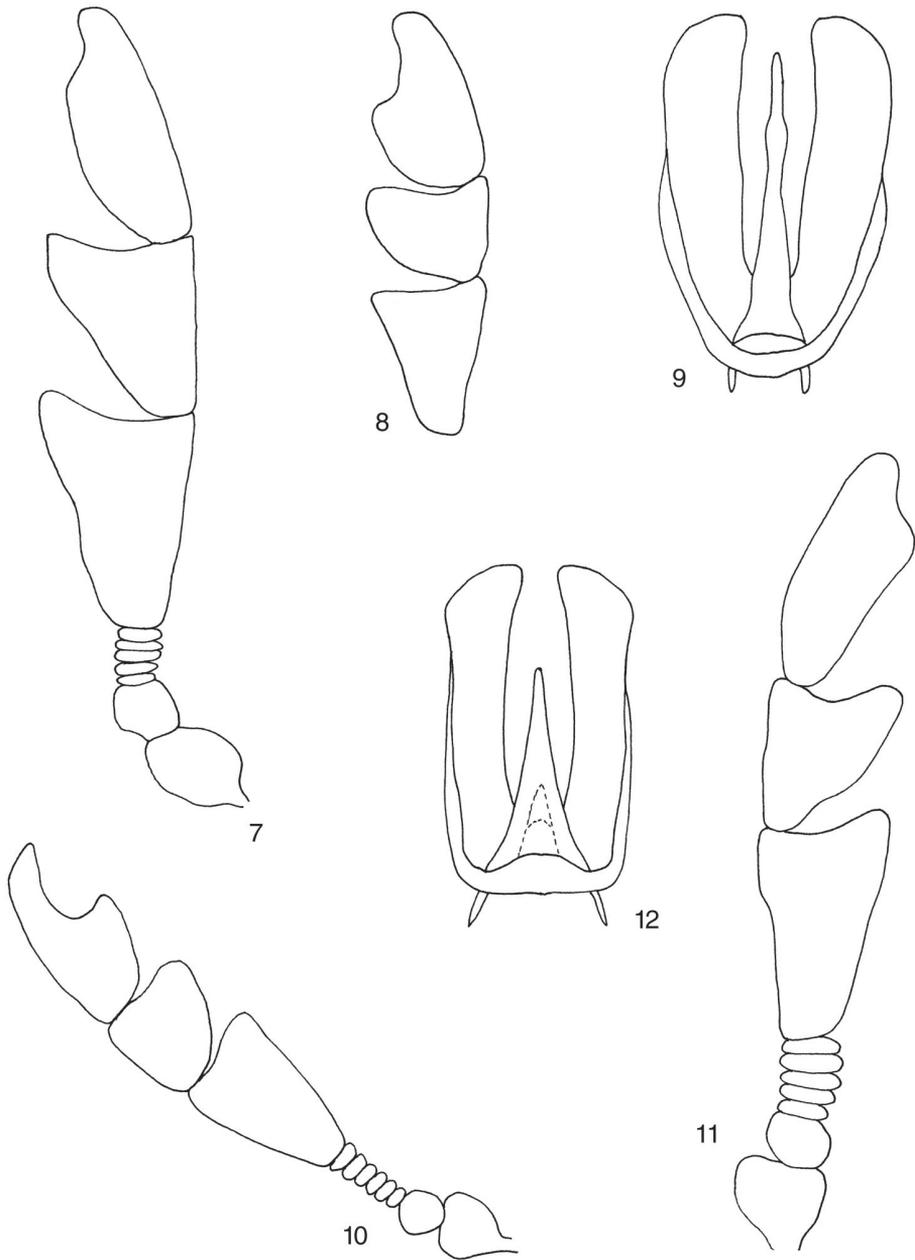
(Fig. 10)

**Type material.** Holotype (♀) labelled: „Iran, 21-22.iv.2000, Fars Prov., Zagros Mts., 4 km S Dasht-E-Arzhan, (29°34'N, 51°56'E), 2000 m“ \ „Iran 2000 Czech Biological Expedition, J. Hájek & M. Mikát leg.“. (NMPC). Paratypes: (3 ♀♀): the same data as holotype (2 JHAC, 1 JHPC).

**Description.** Female. Body length 4.1 mm, maximum width 2.2 mm; cuticle on pronotum black, elytra dark-brown, ventral surface black; generally large and elongate. Head finely punctate, with short, black pubescence. Palpi entirely brown; pubescence on mentum denser. Median ocellus on front present. Antennae brown, with 11 antennomeres, antennal club with 3 antennomeres, terminal antennomere long, with short tip (Fig. 10). Pronotum finely punctate like head, with short, black pubescence on the disc and long, white-yellow pubescence on lateral parts and posterior angles. Scutellum triangular, finely punctate as pronotum, without short pubescence. Elytra finely



Figs 1-3. *Ctesias (D.) iranica* sp. n.: 1- antenna of male; 2- antennal club of female; 3- aedeagus. 4-6. *Ctesias (D.) similis* sp. n. : 4- antenna of male; 5- antennal club of female; 6- aedeagus.



Figs 7-12. *Ctesias (D.) syriaca* Ganglbauer: 7- antenna of male; 8- antennal club of female; 9- aedeagus; *C. (T.) hajeki* sp. n.: 10- antenna of female; *C. (D.) maculifasciata* (Reitter, 1899): 11- antenna of male; 12- aedeagus. (all figures without setation).

punctate; cuticle dark-brown, with three ill-defined brown fasciae, covered by intermixed short, white and yellow pubescence; other parts with short, black pubescence. Legs brown, with white, very short pubescence. Mesosternum and metasternum with short, white pubescence. Prosternal process finely punctate, narrow, short. Abdominal sternites black, with short, white pubescence. Male unknown.

**Variability.** Females body length 4.0-4.1 mm, width 2.2-2.4 mm.

**Differential diagnosis.** The new species externally is very similar to *C. syriaca* Ganglbauer, 1904, but differs from it by the eleven-segmented antennae and bicolourous pubescence on fasciae of elytra.

**Bionomy.** Bionomy unknown, but all specimens collected on flowers at altitude 2000 m. (J. Hájek pers. comm.).

**Etymology.** Patronymic, dedicated to the collector of the new species Jiří Hájek (NMPC).

Table 1. Table of morphology differences of mentioned species.

|                               | <i>C. (D.) iranica</i> sp. n.       | <i>C. (D.) similis</i> sp. n.      | <i>C. (D.) maculifasciata</i> (Reitter, 1899) comb. n. | <i>C. (D.) syriaca</i> Ganglbauer, 1904  | <i>C. (T.) hajeki</i> sp. n.        |
|-------------------------------|-------------------------------------|------------------------------------|--|--|-------------------------------------|
| Antennae with antennomeres    | 10                                  | 10                                 | 10   | 10                                       | 11                                  |
| Male antennal club            | Terminal antennomere With short tip | Terminal antennomere with long tip | Terminal antennomere with long tip                     | Terminal antennomere with very short tip |                                     |
| Female antennal club          | Terminal antennomere with short tip | Terminal antennomere with long tip | Terminal antennomere with long tip                     | Terminal antennomere with very short tip | Terminal antennomere with short tip |
| Pubescence on elytral fasciae | White                               | White                              | White  | White                                    | White and yellow                    |
| Prosternal process            | Narrow, long                        | Narrow, long                       | Broad, short   | Broad, short                             | Long, short                         |
| Aedeagus                      | Fig. 3                              | Fig. 6                             | Fig. 12  | Fig. 9                                   |                                     |
| Distribution                  | S Iran                              | E Iran                             | Syria, Turkey  | Turkey, Syria, Israel                    | C Iran                              |

#### NOMENCLATORIAL CHANGE

#### *Ctesias (Decemctesias) maculifasciata* (Reitter, 1899) comb. n. (Figs 11-12)

*Trogoderma maculifasciatum* Reitter, 1899: 283.

*Trogoderma syriacum*: Dalla Torre, 1911: 70 (as new name for *T. maculifasciatum*).

*Ctesias syriaca*: Háva, 2000: 118 (distribution).

**Type material.** Holotype *Trogoderma maculifasciatum* (female): „Akbes“ [handwritten] \ „Tr. maculifasciatum m. 1899“ [handwritten] \ „coll. Reitter“. Holotype deposited in (HNHM).

**Other studied material.** „Turkey SO, Hasankeyf, 4.vi.1998, 1 ♀, M. Snížek lgt., J. Háva det. 2000 as *C. syriaca*, (JHAC); „Turkey vil. Icel, (Mersin) Göktepe Dagi, Aslanli env., 10-22.vi.1998, 1 ♂ [J.] Bezděk lgt.“, (JHAC).

**Description of male.** Body length 3.1 mm, maximum width 2.0 mm; cuticle on pronotum black, elytra brown and black, ventral surface black; generally large and elongate. Head finely punctate with short, black pubescence. Palpi entirely brown; pubescence on mentum denser. Median ocellus on front present. Antennae brown, with 10 antennomeres, antennal club with 3 antennomeres, terminal antennomere long, with long tip (Fig. 11). Pronotum finely punctate like head, with short, black pubescence on the disc and long, white pubescence on lateral parts and posterior angles. Scutellum triangular, finely punctate as pronotum, without short pubescence. Elytra finely punctate; cuticle black, with three ill-defined brown fasciae, covered with short, white pubescence; other parts with short, black pubescence. Legs: femora black, tibiae brown, with white, very short pubescence. Mesosternum and metasternum with short, white pubescence. Prosternal process finely punctate, broad, short. Abdominal sternites black, with short, white pubescence. Male genitalia (Fig. 12).

**Differential diagnosis.** *C. (D.) maculifasciata* (Reitter, 1899) is similar to *C. (D.) syriaca* Ganglbauer, 1904, but differs from it by the characters mentioned in the Table. 1.

**Remarks.** Study of the type material of *T. maculifasciatum* Reitter, 1899 deposited in HNHM newly classified this species into the genus *Ctesias* Stephens, 1830, subgenus *Decemctesias* Háva, 2004. Only females of the species have still been known (Reitter 1899, Háva 2000). Male of this species is described and illustrated for the first time here.

**Distribution.** Species known from Turkey and Syria.

ACKNOWLEDGEMENTS. I wish to express my thanks to Dr. Miloslav Rakovič (Department of Biophysics, Charles University, Prague, Czech Republic), for valuable comments and for reading the manuscript and to Mgr. Jiří Hájek (NMPC) and Dr. Ottó Merkl (HNHM) for providing interesting material for me.

## REFERENCES

- DALLA TORRE K. W. 1911: *Coleopterorum Catalogus. Pars 33 - Dermestidae*. In: JUNK W. & SCHENKLING S. (eds.): *Coleopterorum Catalogus*. Berlin: W. Junk, 96 pp.
- HARRIS R. A. 1979: The glossary of surface sculpturing. *Occasional Papers in Entomology* 28: 1-31.
- HÁVA J. & KALÍK V. 1999: The dermestid beetles (Coleoptera: Dermestidae) of Iran. Part 1: genus *Dermestes*. *Acta Societatis Zoologicae Bohemiae* 63: 443-450.
- HÁVA J. 2000: *Turicornis kopecky* gen. n., sp. n. (Coleoptera: Dermestidae: Megatominae) from Turkey. *Folia Heyrovskyana* 8: 115-118.
- HÁVA J. 2003: World Catalogue of the Dermestidae (Coleoptera). *Studie a Zprávy Okresního Muzea Praha- východ*, Supplementum 1: 1-196.
- 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* 3-4: 149-164.
- HÁVA J. 2005: Dermestidae World (Coleoptera). – World Wide Web electronic publication. <http://www.dermestidae.wz.cz>.

- HOBERLANDT L. 1974: Results of the Czechoslovak-Iranian entomological expedition to Iran 1970. No. 1: Introduction. *Acta Entomologica Musei Naturalis Pragae*, Supplementum 6: 9-20.
- HOBERLANDT L. 1981: Results of the Czechoslovak-Iranian entomological expeditions to Iran. Introduction to the Second expedition 1973. *Acta Entomologica Musei Naturalis Pragae* 40: 5-32.
- HOBERLANDT L. 1983: Results of the Czechoslovak-Iranian entomological expeditions to Iran. Introduction to the Third expedition 1977. *Acta Entomologica Musei Naturalis Pragae* 41: 5-24.
- MROCKOWSKI M. 1968: Distribution of the Dermestidae (Coleoptera) of the world with a catalogue of all known species. *Annales Zoologici* 26: 15-191.
- PACLT J. 1958: *Farbenbestimmung in der Biologie*. Jena: Gustav Fischer Verlag, 76 pp.
- REITTER E. 1881: Bestimmungs-Tabellen der europäischen Coleopteren. III Heft. I. Auflage. Enthaltend die Familien: Scaphidiidae, Lathridiidae und Dermestidae. *Verhandlungen der k. und k. Zoologisch-Botanischen Gesellschaft in Wien* 30: 41-94.
- REITTER E. 1899: Abbildungen und Beschreibungen neuer oder wenig gekannter Coleopteren aus der palaearctischen Fauna. *Wiener Entomologische Zeitung* 18: 282-287.
- SOKOLOV E. A. 1972: Materialy k faune i ekologii kozheedov (Coleoptera, Dermestidae) Kazakhstana. [Contribution to fauna and ecology of dermestids beetles (Coleoptera, Dermestidae) from Kazakhstan.] *Trudy Kazakhskogo Nauchno-Issledovatel'skogo Instituta* 11: 115-137 (in Russian).
- ZHANTIEV R. D. 1976: *Zhuki – Kozheedy fauny SSSR*. [*The skin eaters family Dermestidae of the fauna of the USSR*]. Moscow: Izdatel'stvo Moskovskogo Universiteta, 180 pp. (in Russian)