

**Contribution to the knowledge of *Thorictus* Germar, 1834
from the Middle East (Coleoptera: Dermestidae: Thorictinae)**

Jiří HÁVA^{1,2}

¹Department of Forest Protection and Entomology,
Faculty of Forestry and Wood Sciences,
Czech University of Life Sciences,
Kamýčká 1176, CZ-165 21, Praha 6 - Suchbátka, Czech Republic

²Private Entomological Laboratory and Collection,
Rýznerova 37, CZ - 252 62 Únětice u Prahy, Praha-západ, Czech Republic
e-mail: jh.dermestidae@volny.cz

Taxonomy, faunistics, new species, new synonymy, Coleoptera, Dermestidae, Thorictinae, *Thorictus*, Cyprus, Turkey, Iran

Abstract. Three new species are described, illustrated and compared: *Thorictus orszuliki* sp. nov. from Turkey, *Thorictus yazdensis* sp. nov. and *T. kamil* sp. nov. from Iran. One new synonym is proposed: *Thorictus tuberosus* Reitter, 1881 (= *Thorictus palmi* John, 1964:190 syn. nov.). A new ant host *Aphanogaster subterraneus* (Latreille, 1798) is newly recorded for *Thorictus tuberosus* Reitter, 1881 (Cyprus). New locality from Iran is recorded for *Thorictus petranus* John, 1965 and from Turkey for *Thorictus grandicollis* Germar, 1842.

INTRODUCTION

The myrmecophilous dermestid genus *Thorictus* Germar, 1834 currently includes 165 species and subspecies known from the Palearctic, Oriental and Afrotropical Regions (Löbl 2007, Háva 2015). The present article considers six species collected by Czech entomologists in Cyprus, Turkey and Iran. Three species are new to science.

MATERIAL AND METHODS

The following measurements were made:

- BL body length (measured from the head anterior margin to the apex of the elytra).
- BW body width (measured between two anterolateral humeral calli).
- PL pronotum length (measured from the top of the anterior margin to scutellum).
- PW pronotum width (measured between the two posterior angles of pronotum).

All measurements are given in millimetres. Locality labels are cited in the original version. Remarks of the author are found in brackets [].

Male genitalia were not studied. The differential diagnosis of the aedeagi is often problematical and interspecific variation is currently very poorly defined (John, 1963). The two species groups were stated by John (1963).

The following abbreviations refer to the collection where the examined material is deposited:

- JHAC Private Entomological Laboratory & Collection, Jiří Háva, Prague-west, Czech Republic;

KOPC private collection of Kamil Orszulik, Frýdek-Místek, Czech Republic;
TKPC private collection of Tomáš Kopecký, Jablonné nad Orlicí, Czech Republic;
UZIU Universitets Zoologiska Institut, Uppsala, Sweden.

RESULTS

Genus *Thorictus* Germar, 1834

„*T. orientalis* species group“

Thorictus tuberosus Reitter, 1881

= *Thorictus palmi* John, 1964:190 **syn. nov.**

Type material. Holotype: „Cyprus, Kyrenia, II/III.1960, Th. Palm.“ / „*Thorictus* Germ. Palmi det. H. John“, (UZIU).

Material examined: „Cyprus, Lefkosia pr., Cedar valley, 1130-1380 m, 34°59.531' N 32°41.303' E, 29.iv.2014, T. Kopecký lgt.“, 7 spec., J. Háva det., (5 TKPC, 2 JHAC).

Remarks. The species *T. tuberosus* described by Reitter (1881) from „Cyprus“, species *T. palmi* described by John (1964) from „Cyprus, Kyrenia“. According to study of type and addition material, the two species are identical in morphological characters. The specimen *palmi* differs in extremely large elytral bump but in the series from Lefkosia the presented specimens have large or small bumps. The species *T. palmi* John is a junior synonym of *T. tuberosus* Reitter.

All specimens from Lefkosia, Cedar valley (Fig. 1) were collected on the edge of a dry creek, in the nest of *Aphanogaster subterraneus* (Latreille, 1798) - a new host ant for the species.

Host ants: *Camponotus* sp. and *Monomorium* sp. (Hetschko, 1926, Háva 2015); *Aphanogaster subterraneus* (Latreille, 1798).



Fig. 1. Locality of *Thorictus tuberosus* Reitter, 1881: Cyprus, Lefkosia pr., Cedar valley (photo T. Kopecký).

Distribution. A species known from Cyprus and „Palestina“ (Háva 2015), new locality data from Cyprus.

***Thorictus petranus* John, 1965**

Material examined: „Iran, Khorasan prov., Kerman env., Deh Bala, [N 30°19'20'', W 57°14'43''], 14.v.2003, [K.] Orszulik lgt.“, 20 spec., J. Háva det., (14 KOPC, 6 JHAC).

Distribution. A species known from Iran, Jordania and Syria (Háva 2015), new locality from Iran.

***Thorictus grandicollis grandicollis* Germar, 1842**

Material examined: „Turkey, Bitlis prov., Van Lake waterside, 10 km E of Tatvan, 16.v.2005, [K.] Orszulik lgt.“,



Fig. 2. Locality of *Thorictus petranus* John, 1965: Iran, Khorasan prov., Kerman env., Deh Bala (photo K. Orszulik).

(JHAC); „Turkey, Hatay prov., Nur Daglari Mts., 800 m, Topboqazi Gec., Belen env., 4.v.2005, [K.] Orszulik lgt.“, (JHAC).

Distribution. Mediterranean species (Háva 2015), new locality from Turkey.

***Thorictus orszuliki* sp. nov.**

(Figs. 3-4)

Type material. Holotype (male): „Turkey, Hatay prov., Nur Daglari Mts., Tülek, Ulucinar env., 5.v.2005, [K.] Orszulik lgt.“, (JHAC). Paratype (1 spec.): the same data as holotype, (JHAC). Specimens of the presently described species are provided with red, printed labels with the text as follows: „HOLOTYPE [or PARATYPE, respectively] *Thorictus orszuliki* sp. nov. Jiří Háva det. 2015”.

Description. Body large, oval, dark brown, covered by short, yellow setae on dorsal surfaces and ventral surfaces. Measurements (mm): BL 2.9 BW 1.7 PL 1.1 PW 1.6. Head finely punctate with very short, yellow, recumbent setae. Labial palpi entirely brown. Antennae

brown, with 11 antennomeres, antennal club compact, with 3 antennomeres, antennomere XI short and broad, with short yellow setae. Lateral eyes on head with very small granules (Fig. 3). Pronotum as finely punctate as head, covered by short, yellow, recumbent setation. Lateral margin of pronotum not finely dentate. Posterior angles without long yellow setae. Ventral posterior pronotal angles without yellow setation. Scutellum small, triangular, without setation. Elytra very finely punctate, covered by short, recumbent, yellow setae; lateral yellow setation erect; with two depressions in anterior half near scutellum. Epipleuron finely punctate, anterior angles with large bump; bump coarsely punctured with yellow setation. Prosternum coarsely punctate. Mesosternum with small, foveolate punctures. Metasternum finely punctate. Setation on margin of thorax (Fig. 4). Visible abdominal ventrites very finely punctate, covered by very short, recumbent, yellow setae. Striation on first visible abdominal sternite very short. Legs dark brown, covered by golden-yellow setae.

Differential diagnosis. The new species belongs to the *T. orientalis* species group according to characters stated by John (1963) and is very similar to *Thoricetus tuberosus* Reitter, 1881 but differs from it by the following characters:

Thoricetus tuberosus Reitter, 1881: lateral eyes on head narrow with small granules; antennomere XI narrow and long; striation on first visible abdominal ventrite long.

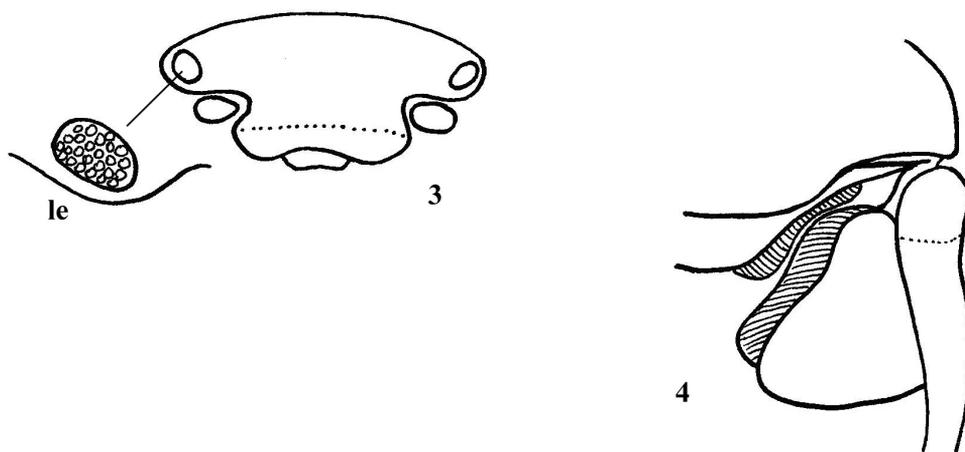
Thoricetus orszuliki sp. nov.: lateral eyes on head broad with large granules; antennomere XI short and broad; striation on first visible abdominal ventrite short; setation on margin of thorax as in Fig. 4.

Etymology. Patronymy, dedicated to my friend and collector of the new species Kamil Orszulik (Czech Republic).

Distribution. Turkey: Hatay province.

Thoricetus yazdensis sp. nov.

(Figs. 6-8)



Figs. 3-4. *Thoricetus orszuliki* sp. nov.: 3- head, anterior view (le - lateral eyes); 4- setation on margin of thorax, ventral view.



Fig. 5. Locality of *Thorictus orszuliki* sp. nov.: Turkey, Hatay prov., Nur Dağları Mts., Tülek, Ulucinar env. (photo K. Orszulik)

Type material. Holotype (male): „Iran, Sir Küh, Yazd env., 7.v.1999, [K.] Orszulik leg.“, (JHAC). Paratype (1 spec.): the same data s holotype, (JHAC); (1 spec.): „Iran c., Yazd env., Mt. Sir Küh, 7.v.1999, L. Klíma lgt.“, (JHAC). Specimens of the presently described species are provided with red, printed labels with the text as follows: „HOLOTYPE [or PARATYPE, respectively] *Thorictus yazdensis* sp. nov. Jiří Háva det. 2015”.

Description. Body small, parallel, castaneous brown, covered by short, yellow setae on dorsal and ventral surfaces. Measurements (mm): BL 1.8 BW 0.9 PL 0.6 PW 0.8. Head finely punctate with very short, yellow, recumbent setae. Labial palpi entirely brown. Antennae brown, with 11 antennomeres, antennal club compact, with 3 antennomeres, terminal antennomere with long yellow setae. Lateral eyes on head with large granules (Fig. 6). Pronotum as finely punctate as head, covered by short, yellow, recumbent setation. Lateral margin of pronotum very finely dentate. Posterior angles with long yellow setae and with one deep depression. Ventral posterior pronotal angles with yellow setation. Scutellum small, triangular, without setation. Elytra very finely punctate, covered by short, recumbent, yellow setae; lateral yellow setation erect; with one depression in anterior half near scutellum. Epipleuron finely punctate, with short recumbent, yellow setation, anterior angles without bump. Prosternum finely punctate. Mesosternum with small, foveolate punctures. Metasternum finely punctate. Setation on margin of thorax as in Fig. 7. Visible abdominal sternites very finely punctate, covered by very short, recumbent, yellow setae. Striation on first visible abdominal sternite very short. Legs brown, covered by long, yellow setae, tibia very broad (Fig. 8).

Differential diagnosis. The new species belongs to the *T. orientalis* species group according to characters stated by John (1963) and very similar to *Thorictus taftianus* Háva, 2008 (Fig.

9-11) and *T. angustus* John, 1964 (Figs. 12-14), but differs from them by the illustrated characters.

Etymology. The species named after the type locality.

Distribution. Iran, Mt. Sir Kūh.

***Thorictus kamil* sp. nov.**

(Figs. 15-17)

Type material. Holotype (male): Iran, Khorasan prov., Amrani, 22 km N Gonabad, 910 m, 20.v.2010, [K.] Orszulik leg.“, (JHAC). Specimen of the presently described species are provided with red, printed label with the text as follows: „HOLOTYPE *Thorictus kamil* sp. nov. Jiří Háva det. 2015”.

Description. Body small, parallel, castaneous brown, covered by short, yellow setae on dorsal and ventral surfaces. Measurements (mm): BL 1.9 BW 0.9 PL 0.6 PW 0.8. Head finely punctate with very short, yellow, recumbent setae. Labial palpi entirely brown. Antennae brown, with 11 antennomeres, antennal club compact, with 3 antennomeres, terminal antennomere with long yellow setae. Lateral eyes on head with large granules (Fig. 15). Pronotum as finely punctate as head, covered by short, yellow, recumbent setation. Lateral margin of pronotum very finely dentate. Posterior angles with long yellow setae and with one thin depression. Ventral posterior pronotal angles with yellow setation. Scutellum small, triangular, without setation. Elytra very finely punctate, covered by short, recumbent, yellow setae; lateral yellow setation erect; with one depression in anterior half near scutellum. Epipleuron finely punctate, with short recumbent, yellow setation, anterior angles without bump. Prosternum finely punctate. Mesosternum with small, foveolate punctures. Metasternum finely punctate. Setation on margin of thorax as in Fig. 16. Visible abdominal sternites very finely punctate, covered by very short, recumbent, yellow setae. Striation on first visible abdominal sternite very short. Legs brown, covered by long, yellow setae, tibia short and very broad (Fig. 17).

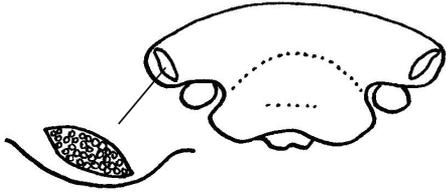
Differential diagnosis. The new species belongs to the *T. orientalis* species group according to characters stated by John (1963) and is very similar to *Thorictus yazdensis* sp. nov. (Figs. 6-8), *T. taftanus* Háva, 2008 (Figs. 9-11) and *T. angustus* John, 1964 (Figs. 12-14), but differs from them by the illustrated characters.

Etymology. Patronymy, dedicated to my friend and collector of the new species Kamil Orszulik (Czech Republic).

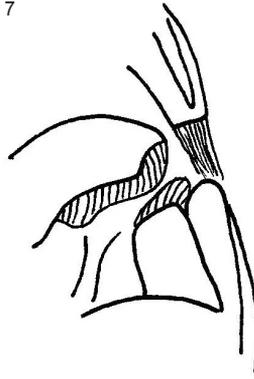
Distribution. Iran: Khorasan prov.

Figs. 6-17. *Thorictus yazdensis* sp. nov.: 6- head, anterior view; 7- setation on margin of thorax, ventral view; 8- posterior tibia; *T. taftanus* Háva, 2008: 9- head, anterior view; 10- setation on margin of thorax, ventral view; 11- posterior tibia; *T. angustus* John, 1964: 12- head, anterior view; 13- setation on margin of thorax, ventral view; 14- posterior tibia; *T. kamil* sp. nov.: 15- head, anterior view; 16- setation on margin of thorax, ventral view; 17- posterior tibia, (le - lateral eyes, h - hypomeron, e - epipleuron)

6



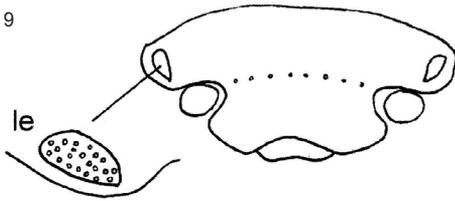
7



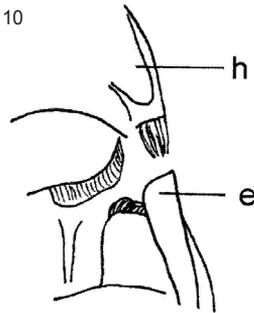
8



9



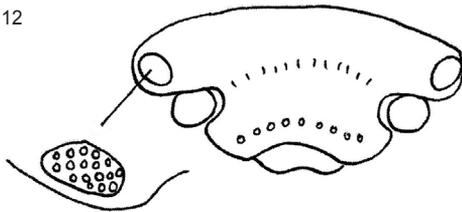
10



11



12



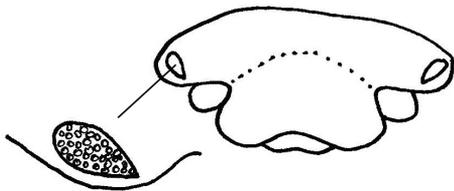
13



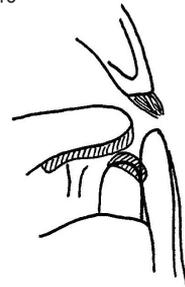
14



15



16



17

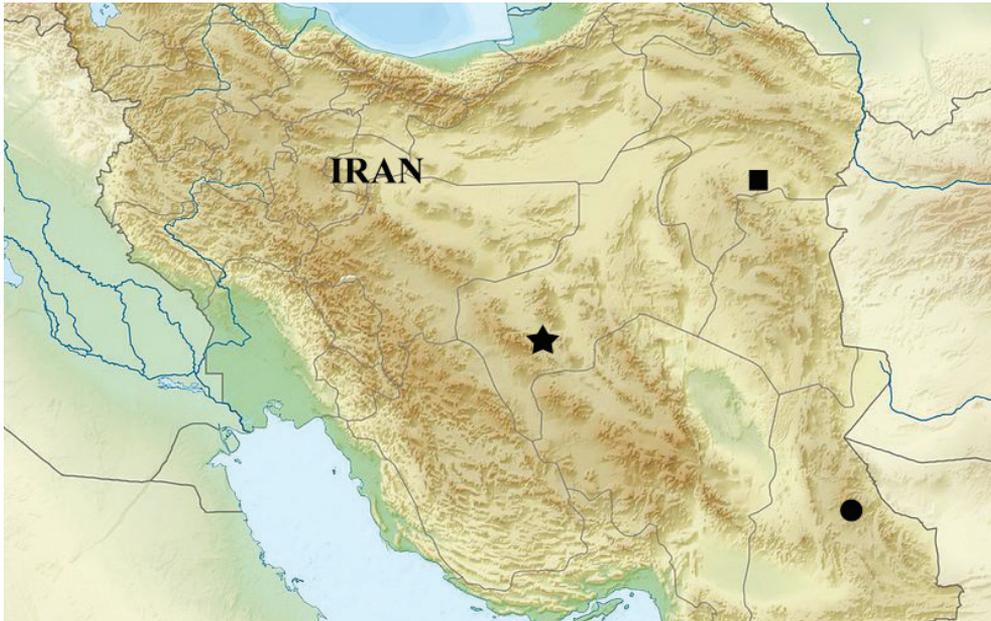




Fig. 18. Locality of *Thorictus yazdensis* sp. nov.: Turkey Iran, Mt. Sir Küh, Yazd env. (photo K. Orszulik)



Fig. 19. Locality of *Thorictus kamil* sp. nov.: Iran, Khorasan prov., Amrani (photo K. Orszulik).



Map. 1. Distributional map of species: *Thorictus yazdensis* sp. nov. (black star), *Thorictus taftanus* Háva, 2008 (black dot) and *Thorictus kamil* sp. nov. (black square).

ACKNOWLEDGEMENTS. I would like to thank my friends Tomáš Kopecký and Kamil Orszulik (both Czech Republic) for submitting the material for this study, and also to anonymous reviewers for a critical reading of this paper. This research was supported by the Internal Grant Agency (B0118/004), Faculty of Forestry and Wood Sciences, Czech University of Life Sciences (Prague).

REFERENCES

- HÁVA J. 2008: *Thorictus taftanus* sp. nov. from Iran (Coleoptera: Dermestidae). *Acta Musei Moraviae, Scientiae biologicae* (Brno) 93: 43-46.
- HÁVA J. 2015: *World Catalogue of Insects. Volume 13. Dermestidae (Coleoptera)*. Leiden/Boston: Brill, xxvi + 419 pp.
- HETSCHKO A. 1926: Coleopterorum Catalogus. Pars 83 - Thorictidae, Catopochrotidae, Monoedidae, Synteliidae, Cossyphodidae. In: JUNK W. & SCHENKLING S. (eds.): *Coleopterorum Catalogus*. Berlin: W. Junk, 15 pp.
- JOHN H. 1963: Revision der Gattung *Thorictus* Germar (Thorictidae, Clavicornia Col.). Eine Bestandaufnahme, Kritik und Neubeschreibungen. *Entomologische Abhandlungen und Berichte aus dem Staatlichen Museum für Tierkunde in Dresden* 28: 177-255.
- JOHN H. 1964: Zwei neue Spezies von *Thorictus* Germ. (Thorictidae Col.). *Entomologisk Tidskrift* 85: 190-192.
- LÖBL I. 2007: subfamily Thorictinae pp. 302-306. In: LÖBL I. & SMETANA A. (eds.): *Catalogue of Palaearctic Coleoptera. Volume 4. Elateroidea - Derodontoidea - Bostrichoidea - Lymexyloidea - Cleroidea - Cucujoidea*. Stenstrup: Apollo Books, 935 pp.
- REITTER E. 1881: Bestimmungs-Tabellen der europäischen Coleopteren. IV. Cistelidae, Georyssidae und Thorictidae. *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien* 31: 67-96, pl. II.

Received: 10.5.2015

Accepted: 30.6.2015

