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RESEARCH ARTICLE

Otiorhynchus (*Tecutinus*) *lefkaoriensis* sp. nov. from Crete, Greece (Coleoptera, Curculionidae, Entiminae)

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Abstract: *Otiorhynchus* (*Tecutinus*) *lefkaoriensis* **sp. nov.** from the Lefka Ori mountains in Chania province of Crete Island is described and illustrated. The new species belongs in the *kindermanni* Stierlin, 1861 species group and represents the first certain discovery of a member of the subgenus *Tecutinus* Reitter, 1912 outside Western Asia.

Key words: *Otiorhynchus*, new species, Crete, Greece, taxonomy.

Introduction

The subgenus *Tecutinus* Reitter, 1912 comprises at present 22 species distributed in Middle East, almost all in Turkey (Magnano & Alonso-Zarazaga 2013), being *O. cribripennis* Hochhuth, 1851 also known from central Caucasus and Armenia, and *O. latifrons* Stierlin, 1890 also known from Syria, the only species of *Tecutinus* occurring outside the boundaries of the present Turkey, in addition to *O. crassicornis* Gyllenhal, 1839, described from "Persia occidentalis" (Gyllenhal 1839), but which according to Ménétriés (1832) almost surely was collected in the present Dagestan, now included in the Russian Federation, and *O. kindermanni* Stierlin, 1861 thus far known only from Lebanon (Braun 2000, and pers. rec.). Another species, *O. escherichi* Reitter, 1898, the type species of the subgenus, was recorded from Greece, Parnassus by Pešić (2003), but almost surely this indication was based either upon wrongly identified specimens of the externally similar *O.* (*Paracryphiphorus*) *wankai* (Reitter, 1909), or upon mislabeled specimens. It is worthy to

remind that *O. escherichi* was described from Eskişehir, northwestern Anatolia (Reitter 1898), and is thus improbable the finding of a flightless weevil in a Greek montane locality so far away from the Turkish known one. Since members of *O.* (*Tecutinus*) are not so easy to confuse with species of other subgenera, it remains to be assessed whether the four specimens seen by Pešić may belong to an undescribed species actually living on Parnassus or to wrongly labeled examples, although we rather think to a mislabeling since this Greek mountain has been actively searched for Coleoptera from the beginning of the past century up to now.

The subgenus *Tecutinus* is well characterised within *Otiorhynchus* Germar, 1822 based on the following traits listed by Reitter (1912a, 1912b), Lona (1943), Braun (1988, 1989), and Benedikt (2000): 1. Head very wide, frons almost twice as wide as dorsum of rostrum between antennae; 2. Rostrum short, about as wide as long, conically narrowed; 3. Eyes small, convex, button-like, surrounded by furrows, laterally protruding; 4. Femora edentate; 5. Anterior tibiae in some species outwards widened; 6. Meta- and sometimes mesotibiae of males often apically excised on inner side; 7. Body black, bare, or with vestiture of unapparent short greyish hairs; 8. Penis wide, parallel-sided, apex truncate, rounded or sharp.

The discovery of a new member of the subgenus *Tecutinus* on Crete is here presented.

Material and methods

Photographs were taken with a 5-megapixel digital camera (Leica DFC 420), the genital organs were photographed in glycerine. Series of images captured through a binocular (Leica MZ16) were processed by Auto-Montage software (Imagic Image Access, Version 8). Body length was measured from the anterior margin of eyes to the apex of elytra. Additional remarks to label data are set in square brackets.

Abbreviations: NMBE – Natural History Museum of the Burgergemeinde Bern; cCG – collection Christoph Germann, Thun (Switzerland).

Results

***Otiorhynchus* (*Tecutinus*) *lefkaoriensis* sp. nov.** (Figs 1-3)
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Type material: Holotype: ♂ "166_12.17 GREECE, Crete Island, Chania, W-Ammoudari, Kastro, N35°17'54" / E24°06'59", 2210 m, 13.4.2012, leg. C. Germann" (NMBE). Paratypes: 1♀ [fragment consisting of elytra without sternites], same data as holotype (NMBE). 1♀ [teneral]: "166_12.11 GREECE, Crete Island, Chania, E-Chora Sfakion, Schlucht, N35°12'22" / E24°07'36", 140 m, 10.4.2012, leg. C. Germann" (cCG).

Description
Holotype male: 7.5 mm, entire paratype female: 9.3 mm. Body black. *Head* very wide, a little narrower than hind margin of pronotum; eyes small, convex, laterally protruding from head outline; rostrum as long as wide, rostral dorsum carinate and punctate-striolate, frons foveate, pterygia almost as wide as width of head including eyes. *Antennae*: Scape long, regularly widening towards tip, first funicular segment twice as long as wide, second twice longer than first, third to seventh globular, club fusiform. *Pronotum* transverse (length/width: 0.7),

anterior margin a little wider than hind one, sides rounded, disc with roundish convex umbilicate tubercles from the apex of which very short dark bristles arise. *Elytra* (length/width: 1.3) widest in the middle, without shoulders and strongly constricted towards base. Striae regularly sulciform, with pronounced punctures from each of which arises a short dark hair, intervals with regularly protruding shining tubercles bearing short, bowed, dark bristles. The microsculpture of surface of elytra makes them dull except the shining apex of tubercles. *Legs* robust, femora unarmed, protibiae not dilated outwards, male hind tibiae not excised at inner side at apex. *Genitalia*: penis subparallel-sided from base up to apical fourth, pointed towards the blunt apex (Figs 2A-B). Internal sac consisting of four twisted sclerites (Fig. 2C). Spiculum ventrale slender, plate broadly rhomboid, apical margin arcuately excised and with dense hairs (Fig. 2D). Spermatheca with long, sharply pointed cornu, short globular nodulus and longer ramus (Fig. 2E). Ovipositor rather simple, with a short strong, subapical bristle and several longer setae (Fig. 2F). *Sexual dimorphism*: The single known male is much smaller than one of the female, whose elytra are much larger and wider (Fig. 1A), being the other female abdomen only a little larger than that of the male. Eyes of male more convex, tibiae more curved, and legs and antennae of female slenderer.

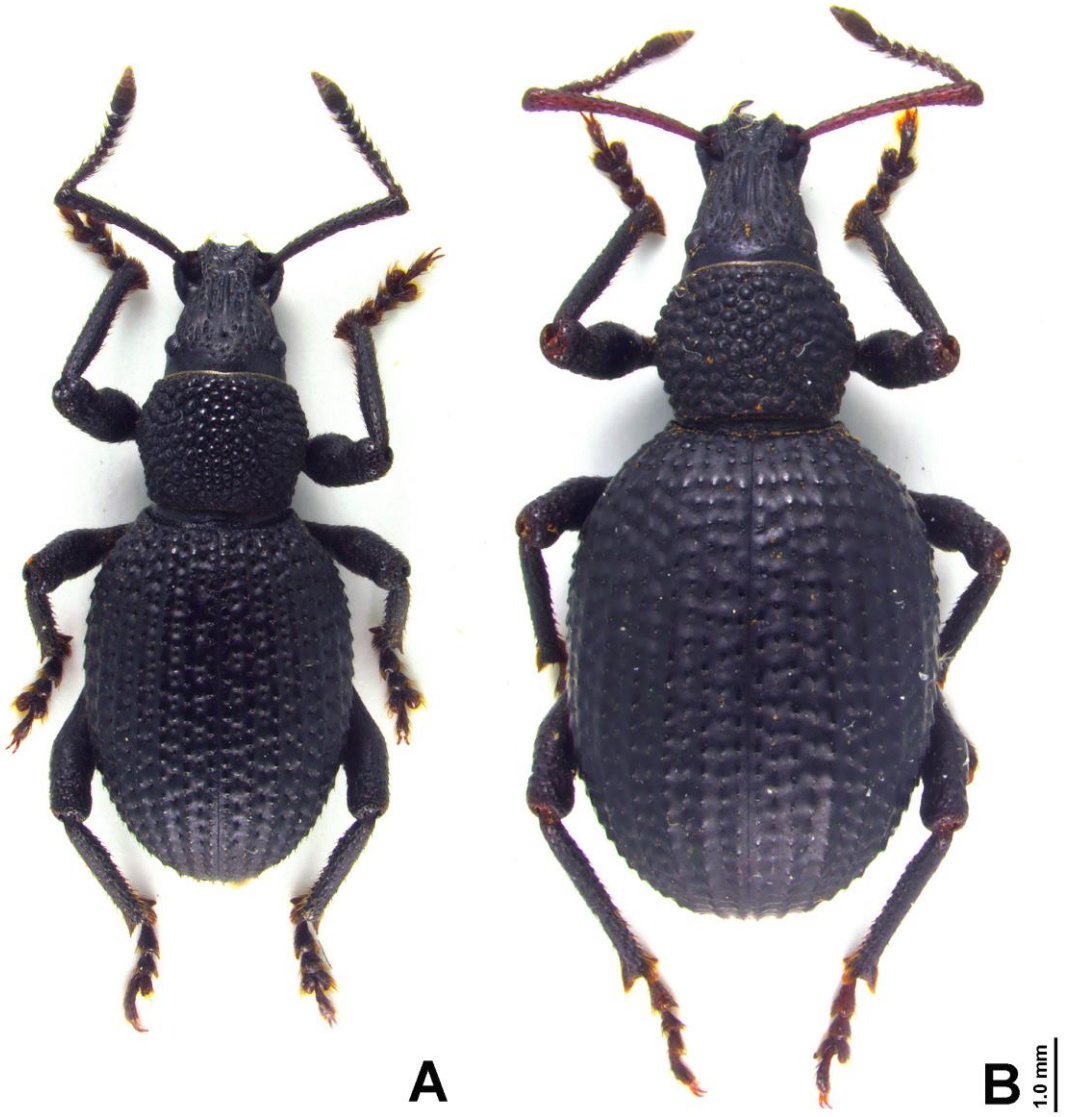

Figure 1. Habitus of *Otiorhynchus* (*Tecutinus*) *lefkaoriensis* sp. nov. **A,** holotype male; **B,** paratype female.

Figure 2. Genital organs of *Otiorhynchus* (*Tecutinus*) *lefkaoriensis* sp. nov. **A,** penis, dorsal; **B,** same, lateral; **C,** transfer apparatus; **D,** spiculum ventrale; **E,** spermatheca; **F,** ovipositor.

Etymology: The new species is named after the Lefka Ori [White Mountains] in Chania region of Crete, where it has been discovered.

Collecting circumstances: Two specimens were collected at high altitude (2210 m a.s.l.) under stones (limestone) with cushion plants growing aside (Fig. 3). The third specimen was collected at low altitude in the Chora Sfakion gorge together with the entimine *Achradidius creticus* Kiesenwetter, 1864 while beating *Sarcopoterium spinosum* (L.) Spach. (Rosaceae) along the rocky sides of the gorge.

Figure 3. Habitat of *Otiorhynchus* (*Tecutinus*) *lefkaoriensis* sp. nov. on Lefka Ori (2210 m a.s.l.) on Crete Island.

Differential diagnosis: Based on pointed apex of the penis, tuberculate pronotum, and body without fine grey hairs, *O. lefkaoriensis* sp. nov. belongs in the *kindermanni* species group as defined by Braun (1988), group including at present *O. kindermanni* Stierlin, 1861 from Lebanon (details in Braun 2000) and *O. catonii* Lona, 1943 from southwestern Anatolia. It differs however from both by the much shorter pointed apex of the aedeagus (prolonged in both above mentioned species), inner sides of male metatibiae not excised apically, strongly convex and well defined roundish tubercles on pronotum, and strongly sculptured elytra (somewhat similar to those of *O. cribripennis* Hochhuth, 1851 and *O. ikisderensis* Smreczyński, 1970).

Discussion

As already mentioned in the introduction, the discovery of *O. lefkaoriensis* sp. nov. on Crete is a surprise, as the species is of rather large size and easily recognizable as a member of *O.* (*Tecutinus*), but despite of this and of the intensive searching during recent years in the island of Crete remained undiscovered up to now. A similar case is that of *O.* (*Podonebistus*) *trichopterus* Białooki, another unmistakable and rather common quite large species living in the same Lefka Ori area along the main road connecting the northwestern coast of Crete with the southwestern one, only very recently described (Białooki 2015).

Despite the long-lasting separation of Crete from the Greek mainland dating back to about 10 Million years, the discovery of another typical Western Asian element on Crete is explainable from a biogeographical perspective because a land bridge enabled long-lasting exchanges between the Anatolian mainland and Crete (Creutzburg 1966). Moreover, *O. catonii*, one of the morphologically more similar species, is to be found near the ancient Cretan-Anatolian land bridge in the southwestern part of Anatolia.

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