

Two new species of *Anthaxia* from Yemen (Coleoptera: Buprestidae)

Svatopluk BÍLÝ

Department of Entomology, National Museum, Kunratice 1, CZ-148 00 Praha 4, Czech Republic;
e-mail: Svatopluk_Bily@nm.cz

Abstract. Two new species of the genus *Anthaxia* Eschscholtz, 1829 from Yemen are described, illustrated and compared with their relatives: *Anthaxia* (*Haplanthaxia*) *crotonivora* sp. nov. from the Island of Soqatra and *A.* (*Haplanthaxia*) *kabateki* sp. nov. from Central Yemen.

Key words. Taxonomy, new species, Coleoptera, Buprestidae, *Anthaxia*, Yemen

Introduction

In the course of the recent few years, several Czech zoological expeditions have been working in Yemen, specifically on the Island of Soqatra. The most recent expedition resulted in material of the family Buprestidae in which two undescribed species of the genus *Anthaxia* Eschscholtz, 1829 were discovered. The first species (*Anthaxia crotonivora* sp. nov.) is quite distinct from all known species-groups in the subgenus *Haplanthaxia* Reitter, 1911, while the second one (*A. kabateki* sp. nov.) belongs to the *A. armeniaca* Obenberger, 1929 species-group of *Haplanthaxia*. The *A. armeniaca* species-group was defined by RIKHTER (1949) as the subgenus *Cryptocratomerus* Rikhter, 1944 of the genus *Cratomerus* Solier, 1833. After the synonymy of the genera *Anthaxia* and *Cratomerus* and the subgenera *Haplanthaxia* and *Cryptocratomerus* by OBENBERGER (1958), the species originally included into *Cryptocratomerus* are now treated in the subgenus *Haplanthaxia* (BÍLÝ 1997). A number of species originally included by RIKHTER (1949) in *Cryptocratomerus* actually belong to the *A. armeniaca* group (see also BÍLÝ 1983).

The only abbreviation is used in the text: NMPC – National Museum, Prague; type localities are cited verbatim and data on individual labels are separated by double slash '//'.

Taxonomy

Anthaxia (Haplanthaxia) crotonivora sp. nov.

(Figs. 1, 5)

Type locality. Yemen, Soqatra, Qaariah, 12°38'05" N 54°12'39" E, 11 m a.s.l..

Type material. HOLOTYPE: ♀, 'Yemen, Is. Soqatra, Qaariah vill. env., 12°38'05"N 54°12'39"E, 11 m [GPS], leg. P. Kabátek, ex larve // *Croton socotranus* // Yemen – Soqatra 2003 Expedition, Jan Farkač, Petr Kabátek & David Král'. PARATYPES: 3 ♀♀, the same data. All specimens were reared from the host plant during March to May 2005. Holotype and one paratype are deposited in NMPC, two paratypes in the collection of P. Kabátek.

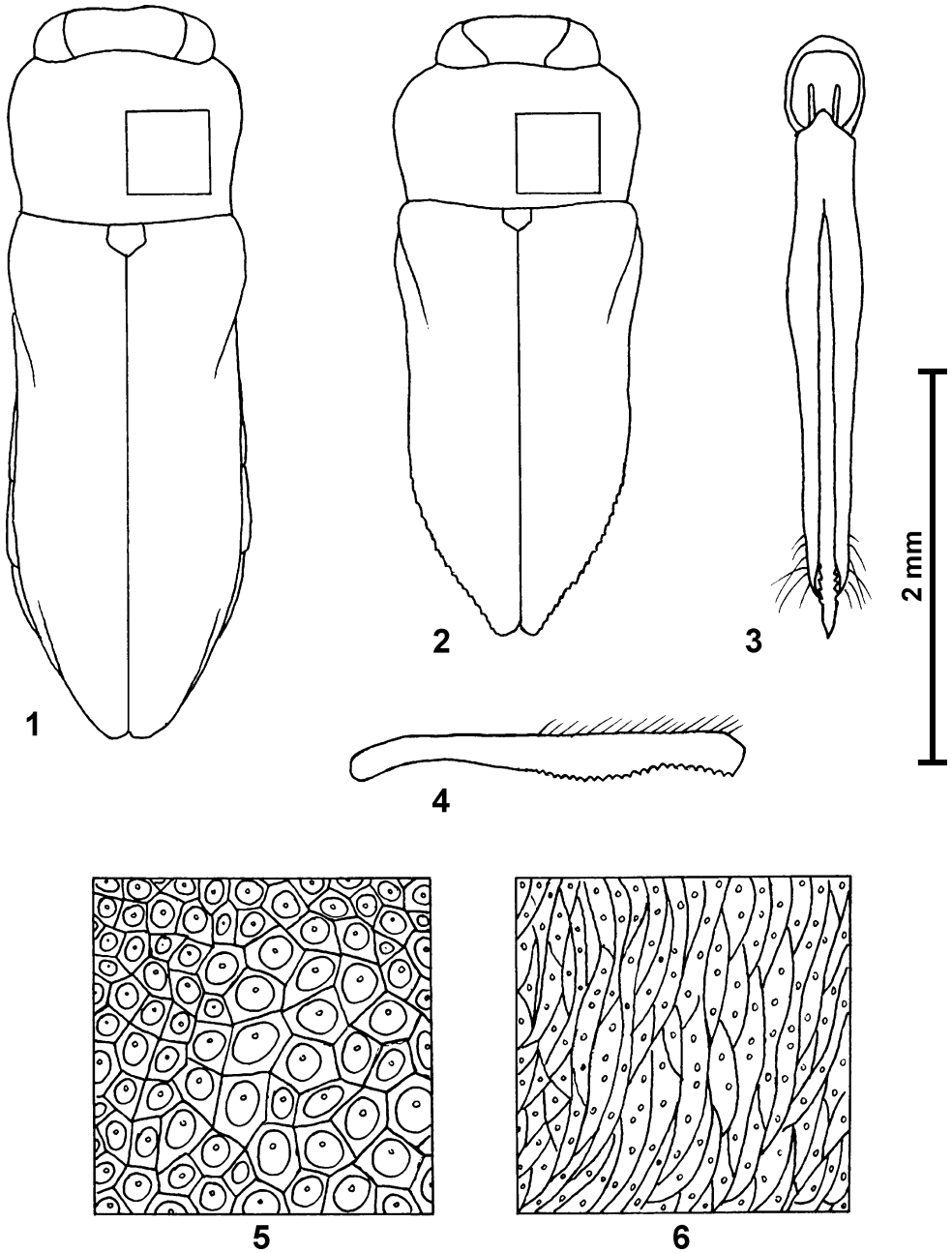
Diagnosis. Small, slender and subcylindrical species (Fig. 1); whole body dark bronze, ventral surface with red lustre; frons and ventral surface with short, sparse, white, recumbent pubescence; proepisternum, metepisternum and lateral portion of abdominal ventrites with indistinct patches of sparse, white tomentum.

Description. Holotype. Head relatively large, partly retracted into pronotum; frons flat with slight medial groove anteriorly, clypeus deeply, regularly incurved; fronto-clypeal suture quite indistinct, vertex very wide, flat, 2.8 times as wide as width of eye; eyes large but not projecting beyond outline of head, their inner margins slightly converging dorsally; sculpture of head consisting of rather large, oval or rounded cells with large, flat central grains; space between cells on upper part of frons wide, lustrous; cells on vertex distinctly smaller, denser and more rounded than those on frons; antennae short, just reaching anterior third of lateral pronotal margins, antennomeres 4-11 triangular, slightly wider than long.

Pronotum convex, distinctly enlarged anteriorly, 1.5 times as wide as long (Fig. 1); latero-basal pronotal depressions very shallow, nearly indistinct, lateral pronotal margins S-shaped, distinctly incurved before posterior angles; anterior margin of pronotum slightly but widely lobed, posterior margin nearly straight; maximum pronotal width at anterior fourth; pronotal sculpture consisting of nearly homogeneous ocellation on disc with polygonal, slightly prolonged cells along lateral margins; cells with very large, flat central grains which usually occupy nearly entire space of cells; space between cells usually wide, lustrous, each central grain bearing distinct micropore near middle (Fig. 5). Scutellum relatively very large, pentagonal, slightly concave, with extremely fine microsculpture.

Elytra subcylindrical, slightly uneven, 2.2 times as long as wide at base; humeral swellings large and well-developed, reaching nearly anterior third of elytral length; basal elytral depression small, well-separated from scutellum; apical part of elytra flat and somewhat elevated dorsally, lateral margins of elytral apex invisible in dorsal view (Fig. 1); elytral apices rounded separately, only indistinctly serrate laterally; disc of elytra with several very shallow, poorly visible, flat depressions; elytral sculpture finely, irregularly punctato-granulate, disc of elytra with much sparser sculpture than basal and lateral parts of elytra; elytral epipleura not reaching elytral apex.

Ventral surface densely, nearly regularly ocellate, central grains small but distinct; prosternal cells prolonged, abdominal cells less distinct, somewhat tile-shaped. Anal ventrite regularly, narrowly rounded with indistinct lateral serration. Legs slender and relatively long, all tibiae straight, unmodified; claws long, slender, slightly enlarged at base.



Figs. 1-6. 1 – *Anthaxia crotonivora* sp. nov., holotype, female, 4.7 mm. 2 – *A. kabateki* sp. nov., holotype, male, 5.8 mm. 3 – *A. kabateki* sp. nov., holotype, aedeagus. 4 – *A. kabateki* sp. nov., holotype, male metatibia. 5 – *A. crotonivora* sp. nov., pronotal sculpture. 6 – *A. kabateki* sp. nov., pronotal sculpture.

Male unknown.

Length: 4.6-4.8 mm (holotype 4.7 mm); width: 1.5-1.6 mm (holotype 1.6 mm).

Variability: No variability was observed within the type series.

Differential diagnosis. By its body-shape, *A. crotonivora* sp. nov. resembles some African species of the subgenus *Haplanthaxia* (e.g. *A. magnifrons* Abeille, 1907, *A. oneli* Obenberger, 1931, *A. sculptipennis* Obenberger, 1924). However, it cannot be affiliated to any known species-group due to the very special pronotal sculpture (rather unique in *Anthaxia*), the extremely short antennae and the specifically modified elytral apex. Unfortunately the male is unknown and thus the structure of the aedeagus cannot be evaluated. The discovery of this species supports the theory of high endemism of the Soqotra's insect fauna since all *Anthaxia* species described so far from this island are endemic (*A. angulinota* Bílý, 1984 and *A. socotrensis* Bílý, 1984).

Etymology. The species name is derived from the Latin name of the host plant (*Croton*) and Latin verb 'vorō' (to devour).

Bionomy. All type specimens were reared from the twigs of *Croton socotranus* Balf. F., 1884 (Euphorbiaceae).

Anthaxia (Haplanthaxia) kabateki sp. nov.

(Figs. 2, 3, 4, 6)

Type locality. Central Yemen, Al Mahwid, Wadi Sari, 15°25'56"N 43°28'58"E, 840 m a.s.l.

Type material. HOLOTYPE: ♂, 'C Yemen, Al Mahwid, Wadi Sari, 18.xi.2003, 15°25'56"N 43°28'58"E, 840 m [GPS], leg. Petr Kabátek. // Yemen – Soqotra 2003 Expedition: Jan Farkač, Petr Kabátek, David Král'. PARATYPES: 1 ♂, S YEMEN, Lawdar, NE Adan, 13°53'N 45°48'E, 1145 m a.s.l., 22.x.2005, leg. Petr Kabátek; 1 ♀, SW YEMEN, Wadi MAytam, 12 km SE Ibb, 13°53'N 44°18'E, 1595 m a.s.l., 27.x.2005, leg. Petr Kabátek. Holotype deposited in NMPC, paratypes in coll. P. Kabátek.

Diagnosis. Medium-sized, wedge-shaped, bronze species with slight silky lustre (Fig. 2); frons red-bronze, lateral and posterior margins of pronotum with slight reddish lustre, antennae and tarsi black; dorsal side not setose, frons with extremely short, nearly indistinct white pubescence, ventral surface with short, sparse, recumbent white pubescence; proepisternum, metepisternum and lateral portion of abdominal ventrites with indistinct patches of white tomentum.

Description. Holotype. Head relatively small, frons indistinctly concave, nearly flat; vertex flat, narrow, as wide as eye; eyes large, reniform, not projecting beyond outline of head, their inner margins slightly S-shaped, converging towards vertex; anterior margin of clypeus widely, nearly triangularly incurved, clypeofrontal suture missing; sculpture of head consisting of rounded cells with indistinct central grains; cells on central part of frons large, space between them wide, flat, lustrous, cells on vertex and postclypeal part of head very small, dense, consisting of fine, rugose sculpture; antennae moderately long, reaching midlength of lateral pronotal margins, antennomeres 4-10 triangular to rhomboid, slightly wider than long, ultimate segment axe-shaped.

Pronotum conspicuously enlarged anteriorly, cordiform, strongly convex, 1.7 times as wide as long; lateral margins regularly rounded in anterior half, nearly straight posteriorly, not incurved before posterior angles (Fig. 2); both anterior and posterior pronotal margins slightly bisinuous; maximum pronotal width at anterior fourth; laterobasal pronotal depressions wide but very shallow; pronotal sculpture consisting of very prolonged cells, space between them forming conspicuous, prolonged keels (Fig. 6); each cell usually with several large grains; only narrow, middle part of pronotum with small, polygonal cells having small but distinct central grains. Scutellum rather small, pentagonal, flat, microsculptured.

Elytra conspicuously wedge-shaped, nearly triangular, 1.8 times as long as wide at humeri (Fig. 2); humeral swellings well-developed, basal elytral depression wide, deep, almost reaching scutellum; lateral margins of elytra conspicuously lobed just behind humeri forming robust subhumeral lobe; apical portion of elytral margin finely serrate, each elytron separately rounded; elytral epipleura very wide with sharp external carina but not reaching elytral apex; elytra with two shallow, transverse depressions: first at anterior third of elytra, second at apical third of elytral length; sculpture of elytra very fine, homogeneous, consisting of basal microsculpture and small, sparse, simple punctures.

Ventral surface with fine ocellate sculpture which is finer on abdomen than remainder of ventral surface. Apex of anal ventrite obtusely truncate, lateral margins sharply but finely serrate; lateral sides of ventrite bear two rows of lustrous wrinkles, parallel to lateral margins. Legs relatively long, slender, mesotibiae slightly bent, inner margin densely serrate, metatibiae (Fig. 4) widely, deeply incurved before apex, inner margin densely serrate; claws slender, slightly enlarged at base.

Aedeagus (Fig. 3) very long and slender, parameres only slightly swollen at basal third, medial lobe roughly serrate laterally.

Female differs from male only by straight metatibiae.

Length: 4.0-5.8 mm (holotype 5.8 mm); width: 1.5-2.3 mm (holotype 2.3 mm).

Differential diagnosis. *Anthaxia kabateki* sp. nov. belongs to the *A. armeniaca* species-group as defined by RIKHTER (1949) (subgenus *Cryptocratomerus*) and BÍLÝ (1983). From all species of the group, it differs by the strongly wedge-shaped body, the conspicuously enlarged pronotum, the narrow vertex, the extremely slender aedeagus and the quite characteristic pronotal sculpture which forms long, sharp wrinkles along the lateral pronotal margins. Two sympatric taxa of the *A. armeniaca* species-group (*A. adenensis* Bílý, 1973 and *A. kneuckeri zabranski* Bílý, 1995) differ from *A. kabateki* sp. nov. by the subparallel body, the not anteriorly-enlarged pronotum, the nearly regular ocellate sculpture of the pronotum and the different structure of the aedeagus.

Etymology. The species is named after the collector, my friend Petr Kabátek from Prague.

Bionomy. The type specimens were collected by beating foliage of *Acacia* sp. (Mimosaceae).

Acknowledgements

I am very obliged to all members of the expedition for the possibility to study their material, namely to Petr Kabátek (Prague) who collected and reared all specimens of the new species described above, and to Charles L. Bellamy (Sacramento, U.S.A.) for the linguistic revi-

sion of the text. This study was partly enabled by financial support of the Ministry of Culture of the Czech Republic, project MK 00002327201.

References

- BÍLÝ S. 1983: Results of the Czechoslovak-Iranian entomological expedition to Iran. Coleoptera, Buprestidae. *Acta Entomologica Musei Nationalis Pragae* **41**: 29-92.
- BÍLÝ S. 1997: World catalogue of the genus *Anthaxia* Eschscholtz, 1829 (Coleoptera, Buprestidae). *Folia Heyrovskyana, Supplementum* **2**: 1-190.
- OBENBERGER J. 1958: Buprestides, trouvés par l'expédition chino-soviétique 1955 en Chine méridionale (Col., Buprestidae). *Časopis Československé Společnosti Entomologické* **55**: 223-243.
- RIKHTEA A. A. 1949: *Fauna SSSR. Nasekomye zhestkokrylye. Zlatki (Buprestidae)*. Tom XIII, Vypusk 2, Chast' 2. Moskva – Leningrad, Izdatel'stvo Akademii Nauk SSSR, 255 pp (in Russian, English abstract).