

Studies on the genus *Anthelephila* (Coleoptera: Anthicidae).
12. Review of the species from Yemen,
including Socotra Island

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Abstract. The species of *Anthelephila* Hope, 1833 of Yemen are reviewed. Three species are newly described: *Anthelephila kadleci* sp. nov. and *A. praefecta* sp. nov. from continental Yemen, and *A. pilitarsis* sp. nov. from Socotra Island. A new synonymy, *Anthelephila anceyi rathjensi* (Pic, 1957) = *Formicomus panelii* Hille, 1977, syn. nov., is proposed. New records of eight species of *Anthelephila* from Yemen are given and a key to species is provided.

Key words. Coleoptera, Anthicidae, *Anthelephila*, new species, new synonymy, new records, Yemen, Socotra

Introduction

Anthelephila Hope, 1833 is a large Old World genus comprising about 400 described species. It is most diverse in the tropics of Asia and Africa, however, as evident from the present paper, even arid subtropical parts of the Palaearctic region possess species, and their exploration still produces new discoveries.

The reasons to review the *Anthelephila* species of Yemen were i) the comparatively rich material collected by several Czech entomological expeditions in the past ten years, and ii) the need to comment on some older records by PIC & HAWKINS (1957) and the distributional data provisionally accepted in the recent Palaearctic catalogue (CHANDLER et al. 2008). Based on CHANDLER et al. (2008), the fauna of Yemen comprises twelve species of *Anthelephila*. Some general conclusions resulting from this paper are as follows: there are presently twelve species / subspecies of *Anthelephila* reliably known to occur in Yemen, three of them are newly described herein; occurrence of two other species, *A. arabica* (Pic, 1899) and *A. ionica* (LaFerté-Sénéctère, 1849) that are listed from Yemen by CHANDLER et al. (2008), is dubious and should be confirmed by new findings; all published records of *A. anceyi* (Pic, 1898) and *A. amaena* (LaFerté-Sénéctère, 1849) from Yemen are based on misidentifications; five species of *Anthelephila* are known only from Yemen so far (two of them from Socotra Island and, in contrast, three species display rather wide distributions, including presence in Africa.

Material and methods

Specimens were examined with a Leica MZ 9.5 stereomicroscope; morphological measurements were taken with an ocular graticule. Male genitalia of the type specimens were examined after being cleared in a hot 10% KOH solution and then placed on the same card with the specimens in a water-soluble, dimethyl-hydantoin formaldehyde resin (DMHF). Photographs were taken by a Nikon Coolpix 4500 digital camera attached to a Leica MZ 9.5 trinocular (habitus) or a compound (details) microscope; images of the same specimen at different focal planes were combined with Helicon Focus 5.2 Pro and edited with Adobe Photoshop 9.0.2. software.

The material examined is deposited in the following institutions (given in round brackets):

- BMNH The Natural History Museum, London, United Kingdom;
 MNHN Museum national d'Histoire naturelle, Paris, France;
 NMPC Národní muzeum, Praha, Czech Republic;
 ZKDC collection of Zbyněk Kejval, Domažlice, Czech Republic;

Exact label data are quoted for the type specimens only. Separate labels are indicated by double slashes (//); following abbreviations are used: p – printed, h – handwritten. Species in the results chapter are ordered alphabetically.

A key to *Anthelephila* species of Yemen (including Socotra Island)

- 1 (2) Pronotal disc with rather sharp median longitudinal furrow (Fig. 21).
 *A. paolii* (Krekich-Strassoldo, 1928)
- 2 (3) Pronotal disc lacking any longitudinal furrow.
- 3 (6) Elytra with distinct, narrow, whitish, transverse setose band in basal third (Fig. 17).
- 4 (5) Elytra longitudinally oval, 1.8–1.9 times as long as wide, humeri rounded, moderately indicated (Fig. 17); prongs of male sternite VIII with long projection ventrally near base and conspicuous setation. *A. anceyi rathjensi* (Pic, 1957)
- 5 (4) Elytra rather short, 1.6–1.7 times as long as wide, humeri distinctly angulately protruding; prongs of male sternite VIII simple, scantily setose.
 *A. ionica* (LaFerté-Sénéctère, 1849)
- 6 (7) Elytra rather evenly setose or with wider, vague setose band in basal third (Fig. 18).
- 7 (10) Elytra with metallic blue-green reflection (Figs. 20, 23), rarely reddish and lacking this reflection.
- 8 (9) Head base distinctly differentiated from the neck; pronotum more robust, wide (in relation to head width; Fig. 20), dorsal surface of the head and pronotum unwrinkled; punctuation of elytra rather coarse and setation long and raised; median process of male sternum VII conspicuously long, well sclerotized, transversely wrinkled (file-like) and with numerous long, stiff setae; prongs of male sternite VIII of rather complex structure, with long projections ventro-medially, and conspicuous setation.
 *A. caeruleipennis* (LaFerté-Sénéctère, 1849), *A. arabica* (Pic, 1899)

- 9 (8) Head base somewhat less distinctly differentiated from the neck (Fig. 13); pronotum narrower (in relation to head width; Fig. 12), dorsal surface of the head and pronotum distinctly corrugated; punctation of elytra rather fine and setation comparatively short and less raised; median process of male sternum VII minute and less sclerotized (Fig. 15); prongs of male sternite VIII simple and nearly bare (Fig. 4).
..... *A. praefecta* sp. nov.
- 10 (11) Elytra dark brown to black, sometimes paler in basal third / fourth, if reddish coloured as in Fig. 19, than body very shortly setose.
- 11 (12) Elytra short, rather convex in lateral view; pronotum moderately bulging dorsally shortly before base, its dorsal outline uneven posteriorly in lateral view; male front legs simple. *A. bispilifasciata* (Pic, 1897)
- 12 (13) Elytra elongate, rather flattened in lateral view; pronotum lacking distinct antebasal bulge, its dorsal outline nearly evenly shaped posteriorly in lateral view; male front legs always modified.
- 13 (14) Body black (Fig. 24); head rather widely rounded posteriorly in dorsal view; male terminalia elongate, strongly protruding (Fig. 24), prongs of sternite VIII very long and narrow, simple. *A. walkeri* (Pic, 1895)
- 14 (15) Body at most brown-black, often with paler, reddish brown head, pronotum and basal third / fourth of elytra; head evenly rounded to moderately produced postero-medially in dorsal view; male terminalia slightly protruding as in Fig. 22, prongs of sternite VIII rather short, sometimes with various lobes or projections.
- 15 (18) Dorsal surface of head and / or pronotum largely distinctly longitudinally wrinkled (Fig. 6).
- 16 (17) Head nearly evenly parabolic posteriorly in dorsal view; antennae moderately long and slender, antennomere X 1.7 times and XI 2.6 times as long as wide; elytral punctation distinctly double, fine intermixed punctures numerous and quite distinct; basal metatarsomere in males with short, inconspicuous setae; lateral lobes of tegmen more elongate, narrowed and pointed apically. *A. bejceki* Kejval, 2002
- 17 (16) Head base unevenly shaped, subparallel posteriorly to eyes in dorsal view (Fig. 6); antennae very long and slender, antennomere X 2.8 times and XI 3.6 times as long as wide; elytral punctation nearly simple, fine intermixed punctures inconspicuous; basal metatarsomere in males with conspicuously long tufted setae (Fig. 9); lateral lobes of tegmen less elongate, rounded apically (Fig. 11). *A. pilütarsis* sp. nov.
- 18 (15) Dorsal surface of head and / or pronotum at most with rather fine corrugation.
- 19 (22) Dorsal punctation of head finer and largely indistinct, concealed by corrugation; male abdominal sternum III nearly simple, lacking any distinct paired median protrusions; prongs of male sternite VIII nearly bifurcate (Fig. 3).
- 20 (21) Male profemoral process wide and short, nearly lobe-like shaped (rounded apically), lacking short stiff apical setae; male protibiae with small pointed protuberance distally on inner side, otherwise simple, not impressed on inner side.
..... *A. simoni* (Pic, 1893)
- 21 (20) Male profemoral process long and narrow, flattened and rounded apically, with a dense row of short and stiff black setae on apical margin (Fig. 2); male protibiae slightly

- dilated and flattened on inner side at mid-length and with small rounded lobe on their outer side distally. *A. kadleci* sp. nov.
- 22 (19) Dorsal punctation of head coarser, distinct even at corrugated places; male abdominal sternum III with a pair of distinct median protrusions; prongs of male sternite VIII simple, lacking long ventro-lateral projections.
- 23 (24) Basal two metatarsomeres in males with some conspicuously long, bristle-like setae on inner side; median protrusions of male sternum III short; median process of male sternum VII rather large, wide, rounded apically. .. *A. macilenta* (Bonadonna, 1962)
- 24 (23) Basal two metatarsomeres in males distally on inner side normally setose, at most with moderately longer, stiff setae near apex; median protrusions of male sternum III long; median process of male sternum VII minute, narrow and pointed.
..... *A. insperata* Kejval, 2010

Taxonomy

Anthelephila amaena (LaFerté-Sénéctère, 1849)

Remarks. *Anthelephila amaena* is reliably known only from Egypt, Ethiopia, and Sudan (KEJVAL 2000). Both records from Yemen, Al Huseini [near Lahij] (PIC & HAWKINS 1957) and Wadi Zabid (UHMANN 1985), are based on misidentifications, and the relevant specimens belong to *A. anceyi rathjensi* (those from the BMNH are listed below).

Anthelephila anceyi anceyi (Pic, 1898)

Remarks. PIC (1898a) described *Formicomus anceyi* from an unstated number of specimens collected in Ethiopia ("Abyssinie"). In Yemen it was recorded from Dhala and the vicinity of Ta'izz and Sana'a (PIC & HAWKINS 1957); the relevant specimens are listed below under *A. anceyi rathjensi*.

I have not seen either the types or any reliably identified specimens of *Anthelephila anceyi anceyi*. It was probably described based on female specimens, because the original description of Pic lacks discussion of any male characters (modifications of the front legs). Its identity may be difficult to determine considering the existence of several externally similar Afrotropical species, that differ only in the male characters, e.g. *A. albolineata* (Pic, 1893) or *A. niveopilosa* (Fairmaire, 1893).

Anthelephila anceyi rathjensi (Pic, 1957)

(Fig. 17)

Formicomus anceyi var. *rathjensi* Pic, 1957: 440.

Formicomus panelii Hille, 1977: 199, fig. 2, **syn. nov.**

Type material. *Formicomus anceyi* var. *rathjensi*: HOLOTYPE, ♀: 'Type [p; round label with red margin] // DRY FIELDS SOUTH OF CITY [p] // YEMEN San'a, ca.7,9000 ft. Dr.Carl Rathjens. 11.ix.1937. B.M.1938-396. [p; yellow line] // FORMICOMUS sp. near IONICUS Laf. but darker the tooth on anterior femora broader, shorter less curved Hawkins [h; partly illegible] // Formicomus anceyi v. nov rathjensi. [h]' (BMNH).

Additional material examined. YEMEN: 2 ♂♂ 2 ♀♀, Sana'a, 2370 m, 11.ix.1937, C. Rathjens leg. (BMNH); 3 ♂♂, Ta'izz env., field near road to Mocha, 1230 m, 16.xii.1937, H. Scott & E. B. Britton leg. (BMNH); 1 ♀, Dhala,

1440 m, 14.ix.1937, H. Scott & E. B. Britton leg. (BMNH); 1 ♀, 10 km S of At Turbah, 13°10'N 44°07'E, 1610 m, 25.iii.2007, P. Kabátek leg. (ZKDC); 1 ♂, Sh. Ohtman env. (Wadi), v.1985, Materlik leg. (ZKDC); 4 ♀♀, Wādi Zabid, E of Zabid, 14°09'N 43°31'E, 325 m, 22.iii.2007, S. Kadlec leg. (ZKDC, NMPC); 1 ♂, dtto, P. Kabátek leg. (ZKDC); 4 ♀♀, Al Hudaydah gov., Jabal Bura valley forest National Park, at light, 240–350 m, 14°52.4–5'N 43°24.6–25.2'E, 4.xi.2010, P. Hlaváč leg. (ZKDC, NMPC); 2 ♀♀, dtto, J. Bezděk leg. (ZKDC); 1 ♂ 1 ♀, dtto, J. Hájek leg. (NMPC); 1 ♂, 5 ♀♀, 10 km W of Al Mansuriah, 14°43'N 43°12'E, 110 m, 8.iv.2007, P. Kabátek leg. (ZKDC); 1 ♀, Socotra Island, Al Haghier Mts., Scant Mt. env., 12°34.6'N 54°01.5'E, 1450 m, 12.–13.xi.2010, L. Purchart leg. (ZKDC).

Remarks. PIC (1957) described *Formicomus anceyi* var. *rathjensi* from a single female specimen collected near Sana'a in Yemen, differing from the typical *F. anceyi* in the largely reddish colouration and more elongate elytra. It was provisionally raised to subspecific rank by CHANDLER et al. (2004) with respect to the Article 45.6.4 of the Code (ICZN 1999). The identity of *Anthelephila anceyi rathjensi* is augmented herein by the discovery of males; for male characters see description of the herein synonymized *Formicomus panelii* by HILLE (1977). However, its subspecific placement remains questionable (see above).

Anthelephila anceyi rathjensi is clearly variable in body colouration. It is mostly reddish, with the posterior two-thirds of the elytra darker (behind a transverse whitish setose band), rarely nearly unicolourous, dark brown with slight reddish tinge. A male specimen from Sana'a (BMNH), bearing an identification label '*Formicomus anceyi* Pic var.' by Maurice Pic (PIC & HAWKINS 1957), is somewhat aberrant in having a rather widely rounded head base, which is usually evenly semicircular to semi-oval. Similar variability of the head shape was noted previously by HILLE (1953b) for the Afrotropical *A. chappuisi* (Pic, 1939).

HILLE (1977) described *Formicomus panelii* from Lahij, which is a city and governorate located in southernmost Yemen. It was recorded also from Sudan and Saudi Arabia (HILLE 1977, KEJVAL 2000). I have not seen the types, nevertheless the original description, which includes rather detailed figures of the male characters, leaves no doubt about its identity and the newly proposed synonymy.

Anthelephila arabica (Pic, 1899)

Remarks. *Anthelephila arabica* was described by PIC (1899) from Saudi Arabia ('Arabia') and later was never revised nor reliably recorded. The records from Saudi Arabia by UHMANN (1998) belong to misidentified specimens of *A. bispilifasciata* (Pic, 1897), and its occurrence in Yemen (UHMANN 1998, CHANDLER et al. 2008) is dubious, and is probably based on some unpublished data from Uhmans' identifications.

Anthelephila arabica is undoubtedly very close to *A. caeruleipennis* (LaFerté-Sénéctère, 1849) and *A. viridipennis* (Krekich-Strassoldo, 1931), as suggested by the overall similarity of their male characters. Its specific rank is, in my opinion questionable, as well as that of *A. viridipennis*, however, this problem is beyond the scope of the present paper. Based on label data, the single type (male) of *A. arabica* deposited in Pic's collection in the MNHN originates from Hejaz, which is a region situated along the Red Sea coast in Saudi Arabia. Externally it is conspicuous in having reddish coloured elytra that lack bluish or greenish metallic reflections (otherwise shared by all members of this small species-group, present in all specimens I have seen; Fig. 20). As for male characters, it differs from *A. caeruleipennis*

only in the detailed morphology of the prongs of male sternite VIII, especially in their rather wide ventral process with conspicuously long apical setation. The unusual reddish colouration of the elytra is rather an aberration than a species character; cf. comments on variation (colour regression) in *A. tuberculifer* (Pic, 1897) and *A. chappuisi* by HILLE (1953a,b), and *A. bispilifasciata* (below).

Anthelephila bejceki Kejval, 2002

Material examined. YEMEN: 4 ♂♂ 1 ♀, Socotra, Noged plain, Wadi Ireeh, 12°23'11" E 53°59'47"[GPS], 95 m, 6.–7.xii.2003, D. Král leg. (ZKDC); 2 ♂♂ 1 ♀, Socotra, Dixam plateau, Sirhin area, 12°31'08" E 53°59'09"[GPS], 812 m, 1.–2.xii.2003, J. Farkač leg. (ZKDC); 1 ♂, Socotra, Noged plain, Qaareh (waterfall), 12°20'10" N 53°37'56" E 37 m [GPS], 5.–6.xii.2003, J. Farkač leg. (ZKDC); 2 ♂♂ 3 ♀♀, Socotra, Dixam plateau, Wadi Esgego, 12°28'09" N 54°00'36" E 300 m [GPS], 2.–3.xii.2003, P. Kabátek leg. (ZKDC); 1 ♂, Socotra, Qualentiah env., slopes 5 km SE from Quayson, 12°39.691' N 53°26.658' E, 4.–5.vi.2010, V. Hula & J. Niedobová leg. (ZKDC); 1 ♀, Socotra, Dgisfu valley, 12°28.444' N 54°08.596' E, 2.vi.2010, V. Hula & J. Niedobová leg. (ZKDC); 56 ♂♂ 32 ♀♀, Socotra, Dixam plateau, Firmihin, *Dracaena* forest, 490 m, 12°28.6' N 54°01.1' E, 15.–16.xi.2010, J. Bezděk leg. (ZKDC); 17 ♂♂ 14 ♀♀, same data, except: J. Hájek leg. (NMPC); 5 ♂♂ 4 ♀♀, same data, except: P. Hlaváč leg. (NMPC).

Remarks. This species was described from Socotra Island (Wadi Faar) (KEJVAL 2002) and is known only from this island so far. The above listed large series of specimens from Firmihin was collected from flowering bushes of *Ochradenus* sp. (Resedaceae) (J. Hájek & J. Batelka, pers. comm.).

Anthelephila bispilifasciata bispilifasciata (Pic, 1897)

(Figs. 18, 19)

Material examined. YEMEN: 1 ♂, Al Hudaydah gov., 20 km SE of Hudaydah, 50 m, oasis with *Acacia* sp., 14°43'N 49°09'E, 12.iv.1997, Brechtel, Wurst & Ehmann leg. (ZKDC); 1 ♀, Jabal Bura, 25 km SE of Bajil, 14°53'N 43°27'E, 1000 m, 13.iv.1997, Brechtel, Wurst & Ehmann leg. (ZKDC); 2 ♀♀, 20 km W of Lawdar, 13°53'N 45°48'E, 1101 m, 26.–27.iii.2007, P. Kabátek leg. (ZKDC); 1 ♀, Wadi Daw'an, NW of Al Mukalla, 15°00'N 48°26'E, 946 m, 3.iv.2007, S. Kadlec leg. (ZKDC); 1 ♀, Jabal Aş Şalw, 24 km NWW of Turbah, 13°19'N 44°07'E, 1863 m, 25.x.2005, S. Kadlec leg. (ZKDC); 1 ♀, N of Lahij, 13°10'N 44°49'E, 258 m, 23.x.2005, P. Kabátek leg. (ZKDC); 1 ♀, Wadi Surdud (Sari'), W of Sana'a', 15°15'N 43°30'E, 627 m, 2.xi.2005, P. Kabátek leg. (ZKDC); 1 ♀, 20 km W of Lawdar, 13°53'N 45°48'E, 1101 m, at light, 26.–27.iii.2007, M. Rejzek leg., 2 ♂♂ (ZKDC); 2 ♀♀, Sana'a gov., Bab Bahel (river valley and pool), 15°07.0'N 43°40.9'E, 1195 m, 4.xi.2010, P. Hlaváč leg. (NMPC).

Remarks. PIC (1897, 1898b) described both *Formicomus bispilifasciatus* and *F. bispilifasciatus* var. *obscuripennis* from Obock in Djibouti, and later recorded *F. bispilifasciatus* from Yemen (PIC & HAWKINS 1957). The variety was rather provisionally raised to subspecific rank by CHANDLER et al. (2004), with respect to the Article 45.6.4 of the Code (ICZN 1999). I have not examined either the types of both subspecies or any specimens from Djibouti. The above listed specimens were found to be identical with the three Yemeni specimens (1 ♂, 2 ♀♀ from Ahwar) identified by R. F. Heberdey and deposited in the BMNH (PIC & HAWKINS 1957), and also the specimens from Saudi Arabia, identified by G. Uhmman (UHMANN 1998), and Oman (Dhofar province, ZKDC).

Anthelephila bispilifasciata does not seem to be closely related to any of the presently known Palaearctic species. Its males are difficult to recognize owing to minimal sexual

dimorphism (simple front legs, slightly modified sternum VII). The specimens from the Arabian Peninsula are mostly dark coloured, with an indication of wide, transverse whitish setose bands on the elytra together with scattered, distinctly longer erect setae (Fig. 18). Remarkably, some of the specimens differ conspicuously in having the elytra contrastingly pale reddish, with rather even, short setation (Fig. 19). Both forms may occur at the same localities, and do not differ in male characters. Similar colour aberration is probably found in the type of *A. arabica* (see above).

Anthelephila caeruleipennis (LaFerté-Sénéctère, 1849)

(Fig. 20)

Material examined. **YEMEN:** 1 ♂, 'Sh. Othman env. (Wa di)' v.1985, Materlik leg. (ZKDC); 1 ♂, 20 ♀♀, Wadi as-Sudd, 10 km W of Ma'rib, 15°24'N 45°16'E, 1117 m, 8.x.2005, P. Kabátek leg. (ZKDC); 1 ♂, dtto, J. Halada leg. (ZKDC); 11 ♀♀, dtto, M. Rejzek leg. (BMNH); 1 ♂ 1 ♀, Wadi Daw'an, NW of Al Mukalla, 15°09'N 48°26'E, 946 m, 20.x.2005, P. Kabátek leg. (ZKDC); 3 ♀♀, dtto, M. Rejzek leg. (BMNH); 1 ♀, Lawdar, NE of Adan, 13°53'N 45°48'E, 1145 m, 22.x.2005, M. Rejzek leg. (BMNH); 3 ♀♀, 20 km W of Lawdar, 13°53'N 45°48'E, 1101 m, 26.–27.iii.2007, P. Kabátek leg. (ZKDC); 4 ♂♂ 14 ♀♀, dtto, M. Rejzek leg. (ZKDC); 2 ♀♀, 50 km NE of Aden, 7 km NNW Zinjibar, Wadi Bana, 13°09'69"N 45°19'46"E, 50 m, A. Bischof, J. Bittermann, M. Fibiger, H. Hacker, H. Peks & H-P. Schreier leg. (ZKDC); 2 ♀♀, SE of Sunak Saywun, 15°41'N 48°52'E, 10.x.2005, J. Halada leg. (ZKDC).

Remarks. A common and rather widely distributed species. In Yemen recorded from Mukeiras, Al Huseini, and Lahij (PIC & HAWKINS 1957, HILLE 1977).

Anthelephila insperata Kejval, 2010

Material examined. **YEMEN:** 1 ♂, 20 km S of Ta'izz, 13°30'N 43°57'E, 1200 m, 24.x.2005, J. Halada leg. (ZKDC).

Remarks. A species recently described from Oman (KEJVAL 2010), and herein recorded from Yemen for the first time. The male specimen examined is moderately aberrant in having a distinctly shorter median projection of the paired prongs of sternite VIII.

Anthelephila ionica (LaFerté-Sénéctère, 1849)

Remarks. Species distributed and relatively common in the Eastern Mediterranean, ranging southwards as far as Egypt, Saudi Arabia and Yemen (CHANDLER et al. 2008). I am not aware of any published records, except for those from Saudi Arabia by UHMANN (1998), and I have not seen any specimens from these three countries. Uhmman's record from Hakimah (UHMANN 1998), which is located not far from border with Yemen, may belong to the externally similar *A. anceyi rathjensi*, and needs verification.

Anthelephila kadleci sp. nov.

(Figs. 1–5)

Type locality. Yemen, Kawr Sayban mt., NW of Al Mukalla, 14°37'N 49°03'E, 575 m.

Type material. HOLOTYPE: ♂, 'S YEMEN, Kawr Saybān mt. NW of Al Mukallā, 575 m, 14°37'N 49°03'E, 29.III.2007, S. Kadlec leg. [p]' (NMPC). PARATYPES: 1 ♂, 2 ♀♀, same data as holotype (ZKDC, 1 ♀ NMPC); 2 ♀♀, 'S YEMEN Kawr Saybān mt. NW Al Mukallā 575 m N14°37' / E49°03' (light) 29.III.2007 M. Rejzek [11] [p]' (ZKDC).

Description. Male (holotype). Body length 3.6 mm. Head and pronotum dark brown, at places with reddish tinge; elytra dark brown with reddish base and vaguely indicated paired reddish posthumeral spot; legs brown, palpi brownish, antennae reddish in basal third, gradually darkening, with 3–4 apical antennomeres brownish.

Body form as in Fig. 1. Head 1.4 times as long as wide, unevenly rounded posteriorly, somewhat produced postero-medially (posterior arch parabolic in dorsal view); tempora distinctly narrowing posteriad, their posterior angles absent; base clearly differentiated from short neck. Eyes conspicuously large, rather moderately convex. Dorsal surface glossy, corrugated in anterior half, with distinct longitudinal wrinkles along median margins of eyes, finely but distinctly punctate in posterior third (punctures otherwise somewhat obscured at corrugated places). Setation pale, subdecumbent, with a few slightly longer and rather inconspicuous erect setae. Antennae moderately enlarged in terminal third; antennomere X 1.7 times and antennomere XI 2.1 times as long as wide.

Pronotum 1.5 times as long as wide, narrower than head across eyes, nearly evenly rounded anteriorly, strongly narrowed posteriorly and moderately impressed postero-laterally in dorsal view; pronotal disc evenly shaped, its outline more or less convex in lateral view. Surface glossy, largely smooth, rugose to transversely corrugated postero-dorsally shortly before base, postero-lateral impressions shortly and finely wrinkled; dorsal median punctuation similar to that on head. Setation as that on head.

Meso- and metaventricle simple.

Elytra elongate, twice as long as wide, conjointly rounded apically; humeri moderately protruding, rather rounded; postscutellar impression at most slightly indicated. Surface glossy, finely but distinctly punctate; basal half with punctures simple, evenly spaced, about as coarse but sparser than those on head. Setation pale, generally moderately longer than that on head, subdecumbent, with few, inconspicuous erect setae.

Metathoracic wings fully developed.

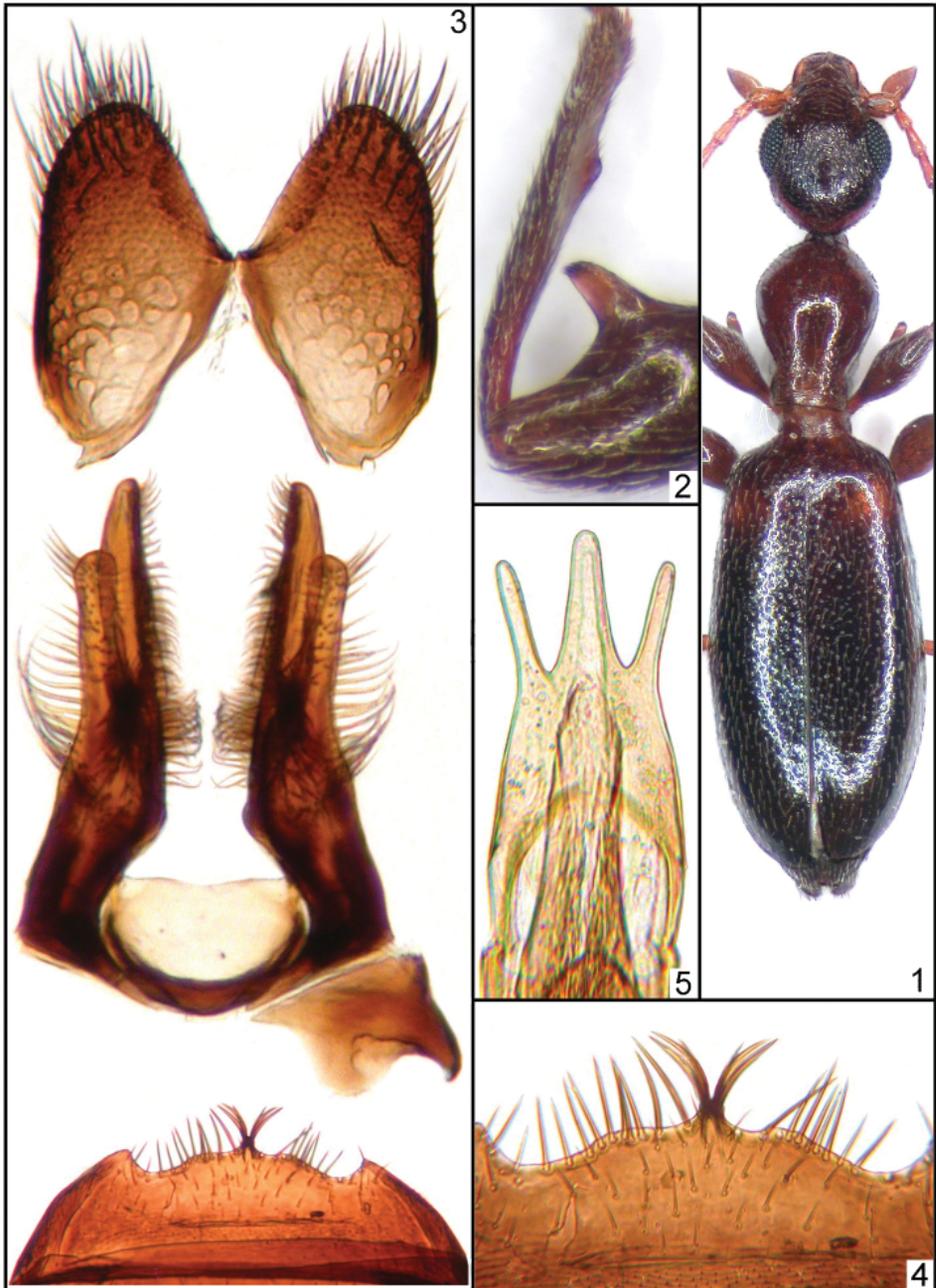
Fore legs modified (Fig. 2); profemora with long and narrow process, flattened and rounded apically, with a dense row of short and stiff black setae on apical margin; protibiae slightly dilated and flattened on inner side at mid-length and with small rounded lobe on their outer side distally; penultimate tarsomere widened / flattened distally, with terminal tarsomere articulated dorsally in all tarsi. Setation normally developed.

Abdominal characters as in Figs. 3, 4; sternum III with pair of very slight, setose protuberances (or coarser punctures) shortly before posterior margin; tergum VII simple, evenly rounded posteriorly; paired prongs of sternite VIII bifurcate in apical half; apical portion of tegmen 0.4 times as long as basal piece, trilobed apically (Fig. 5).

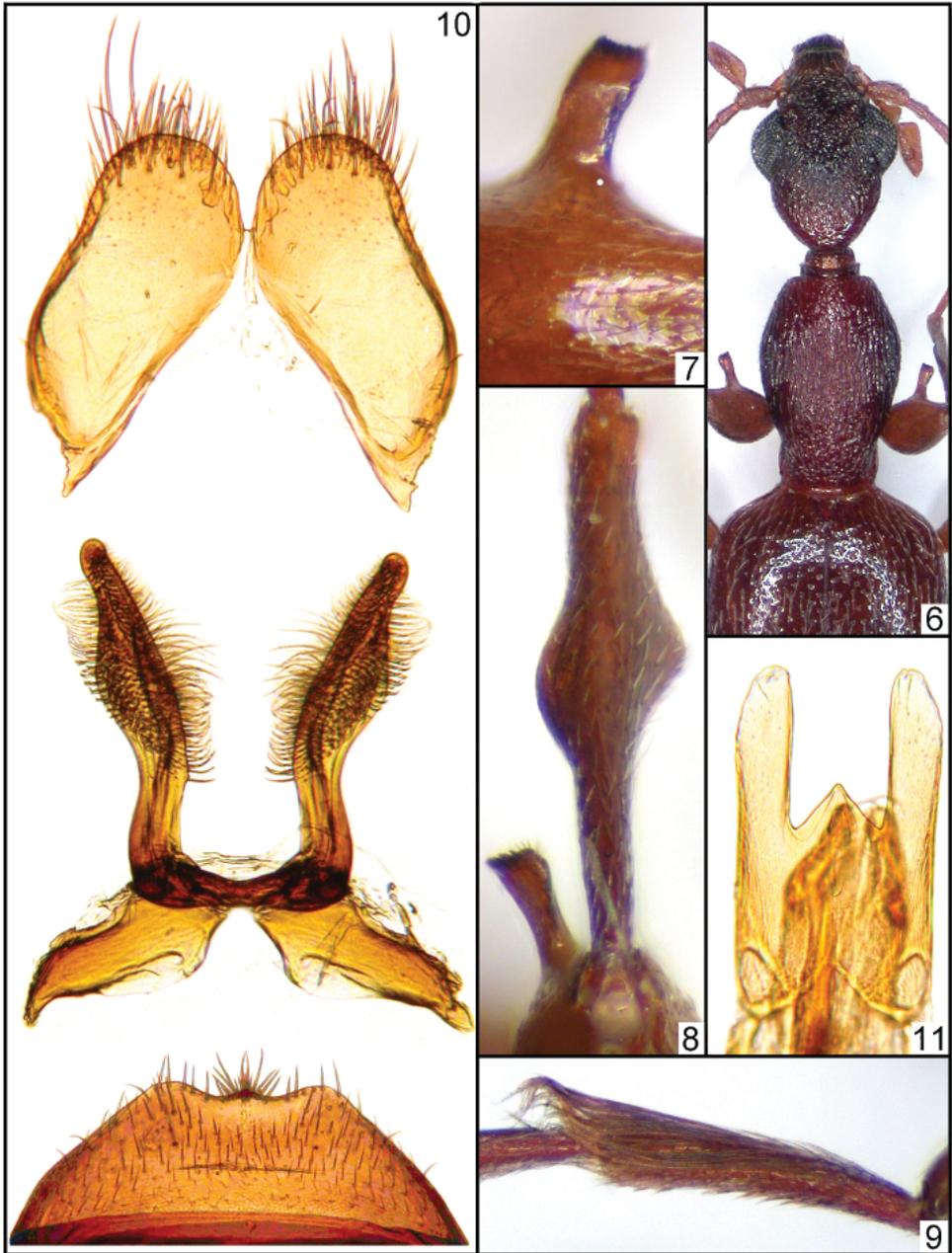
Female. For most external characters identical with male, except for simple front legs and sternum VII.

Variation. Body length (♂♀) 3.6–4.8 mm.

Differential diagnosis. *Anthelephila kadleci* sp. nov. undoubtedly belongs to the *A. angustiformis* species-group (KEJVAL 2002). It appears to be very close to *A. simoni* (Pic, 1893), as suggested by the similarity of some male abdominal characters (nearly simple abdominal sternum III, similar morphology of sternum VIII and bifurcate prongs of sternite VIII), however, it differs clearly in the characters of the front legs, that are modified in *A. simoni* as follows: profemoral



Figs. 1–5. *Anthelephila kadleci* sp. nov. (holotype): 1 – habitus; 2 – profemur and tibia; 3 – sternum VII (bottom), sternite VIII (middle) and tergite VIII (top); 4 – sternum VII, detail of median process; 5 – apical portion of aedeagus.



Figs. 6–11. *Anthelephila pilitarsis* sp. nov. (holotype): 6 – habitus (part); 7 – profemoral process; 8 – protibia; 9 – basal metatarsomere; 10 – sternum VII (bottom), sternite VIII (middle) and tergite VIII (top); 11 – apical portion of aedeagus.

process wide and short, tooth-shaped, lacking short stiff apical setae; protibiae with small pointed protuberance distally on inner side, otherwise simple, not impressed on inner side.

Etymology. Named in honour of the late Czech entomologist Stanislav Kadlec, specialist in Cerambycidae of the western Palaearctic Region and one of the collectors of this species.

Distribution. Yemen.

Anthelephila macilenta (Bonadona, 1962)

Material examined. YEMEN: 1 ♀, Wadi Daw'an, NW of Al Mukalla, 15°09'N 48°26'E, 946 m, 20.x.2003, P. Kabátek leg. (ZKDC); 1 ♀, dtto, at light, 3.iv.2007, M. Rejzek leg. (ZKDC); 2 ♂♂, 2 ♀♀, dtto, S. Kadlec leg. (ZKDC); 1 ♂ 1 ♀, Jabal Bura', NEE of Al Hudaydah, 14°52'N 43°24'E, 600 m, 30.x.–1.xi.2007, S. Kadlec leg. (ZKDC); 2 ♀♀, 20 km W of Lawdar, 13°53'N 45°48'E, 1101 m, 26.–27.iii.2007, S. Kadlec leg. (ZKDC); 2 ♀♀, dtto, P. Kabátek leg. (ZKDC); 2 ♂♂ 5 ♀♀, dtto, M. Rejzek leg. (ZKDC, NMPC); 1 ♀, NW of Al Mukalla, Kawr Sayban mt., 14°37'N 49°03'E, at light, 575 m, 29.iii.2007, M. Rejzek leg. (ZKDC); 1 ♂, 20 km NW of Dhawran, 14°40'N 44°13'E, 1794 m, 29.x.2005, S. Kadlec leg. (ZKDC); 1 ♀, 30 km NW At Turbah, 13°15'N 44°01'E, 1300 m, S. Kadlec leg. (ZKDC); 1 ♀, Jabal al Fatk, Hawf NE Al Ghaydah, 16°40'N 53°05'E, 729 m, 12.–13.x.2005, P. Kabátek leg. (ZKDC); 4 ♂♂ 5 ♀♀, dtto, 16°39'N 53°04'E, 477 m, 31.iii.2007, P. Kabátek leg. (ZKDC, NMPC); 1 ♂, dtto, at light, 1.iv.2007, M. Rejzek leg. (ZKDC); 1 ♂, Wadi Surdud (Sari'), W of San'a', 15°15'N 43°30'E, 627 m, 2.xi.2005, P. Kabátek leg. (ZKDC); 1 ♂, Hawf NE of Albhaydah, 16°40'N 53°05'E, 200–730 m, 14.x.2005, J. Halada leg. (ZKDC).

Remarks. A rather widespread and common species ranging from Senegal, via Ethiopia as far as Saudi Arabia and Oman (KEJVAL 2002). It is recorded here from Yemen for the first time. Male characters of the specimens from Oman and Saudi Arabia are figured by KEJVAL (2002).

Anthelephila paolii (Krekich-Strassoldo, 1928)

(Fig. 21)

Remarks. Species described by KREKICH-STRASSOLDO (1928) from the southern part of the Somali Republic ('Somalia Italiana'). In Yemen recorded from Wadi Dareija [SW of Dhala], Usaifira [N of Ta'izz], and from the vicinity of Ta'izz and Sana'a (PIC & HAWKINS 1957).

Anthelephila paolii belongs to a small, almost exclusively Afrotropical group of species characterized by the presence of a conspicuous, longitudinal median sulcus on the pronotal disc (Fig. 21). Having examined the relevant Yemeni specimens from the BMNH, I can agree with remark made by J. Balfour-Browne in PIC & HAWKINS (1957) on identification. However, based on the African specimens of my collection, it seems that the figures of the male characters by KREKICH-STRASSOLDO (1928) are rather sketchy, and / or there is variation in the detailed morphology of male sternite VIII.

Anthelephila pilitarsis sp. nov.

(Figs. 6–11, 22)

Type locality. Yemen, Socotra, Noked plain, Qaareh, 12°20'10" N 53°37'56" E.

Type material. HOLOTYPE: ♂, 'Yemen, Soqotra Is.; 5.–6.xii.2003 Noked plain: QAAREH (waterfall) N 12°20'10" E 53°37'56" 37 m [GPS]; Jan Farkač lgt. [p] // YEMEN - SOQOTRA 2003 Expedition; Jan Farkač, Petr Kabátek & David Král [p] (NMPC).

Description. Male (holotype). Body length 6.2 mm. Body dark reddish brown, antennae and legs somewhat paler (Fig. 22).

Head 1.4 times as long as wide, unevenly rounded posteriorly; tempora subparallel close to eyes and then narrowing posteriorly, the posterior angles absent; base clearly differentiated from short neck. Eyes rather large and convex. Dorsal surface only moderately glossy, largely distinctly longitudinally corrugated except for basal area; punctuation obscured by corrugation. Setation pale, rather short, subdecumbent, with few inconspicuous erect setae. Antennae long and slender, slightly enlarged in terminal third; antennomere X 2.8 times and antennomere XI 3.6 times as long as wide.

Pronotum 1.6 times as long as wide, at most slightly narrower than head across eyes, somewhat unevenly rounded anteriorly (angled near collar) and moderately impressed posterolaterally in dorsal view; pronotal disc evenly shaped, its outline more or less convex in lateral view. Surface moderately glossy, largely distinctly corrugated, except of small unwrinkled area laterally near procoxal cavities; dorsal punctuation obscured by longitudinal corrugation. Setation similar to that on head.

Meso- and metaventricle simple.

Elytra elongate, 2.1 times as long as wide, conjointly rounded apically; humeri protruding; postbasal impression indistinct. Surface glossy, distinctly punctate; basal half with punctuation inconspicuously double, coarse punctures simple, evenly spaced, intermixed fine punctures nearly indistinct. Setation pale, generally moderately longer than that on head, subdecumbent, with few short and inconspicuous erect setae.

Metathoracic wings fully developed.

Fore legs modified (Figs. 7, 8); profemora with moderately long and narrow process, flattened, rounded to subtruncate apically, with dense row of short and stiff black setae on apical margin; protibiae moderately dilated on inner side at mid-length and more distinctly lobed on their outer side distally; penultimate tarsomere widened / flattened distally, with terminal tarsomere articulated dorsally in all tarsi. Basal metatarsomere with conspicuously long and somewhat tufted setation (Fig. 9).

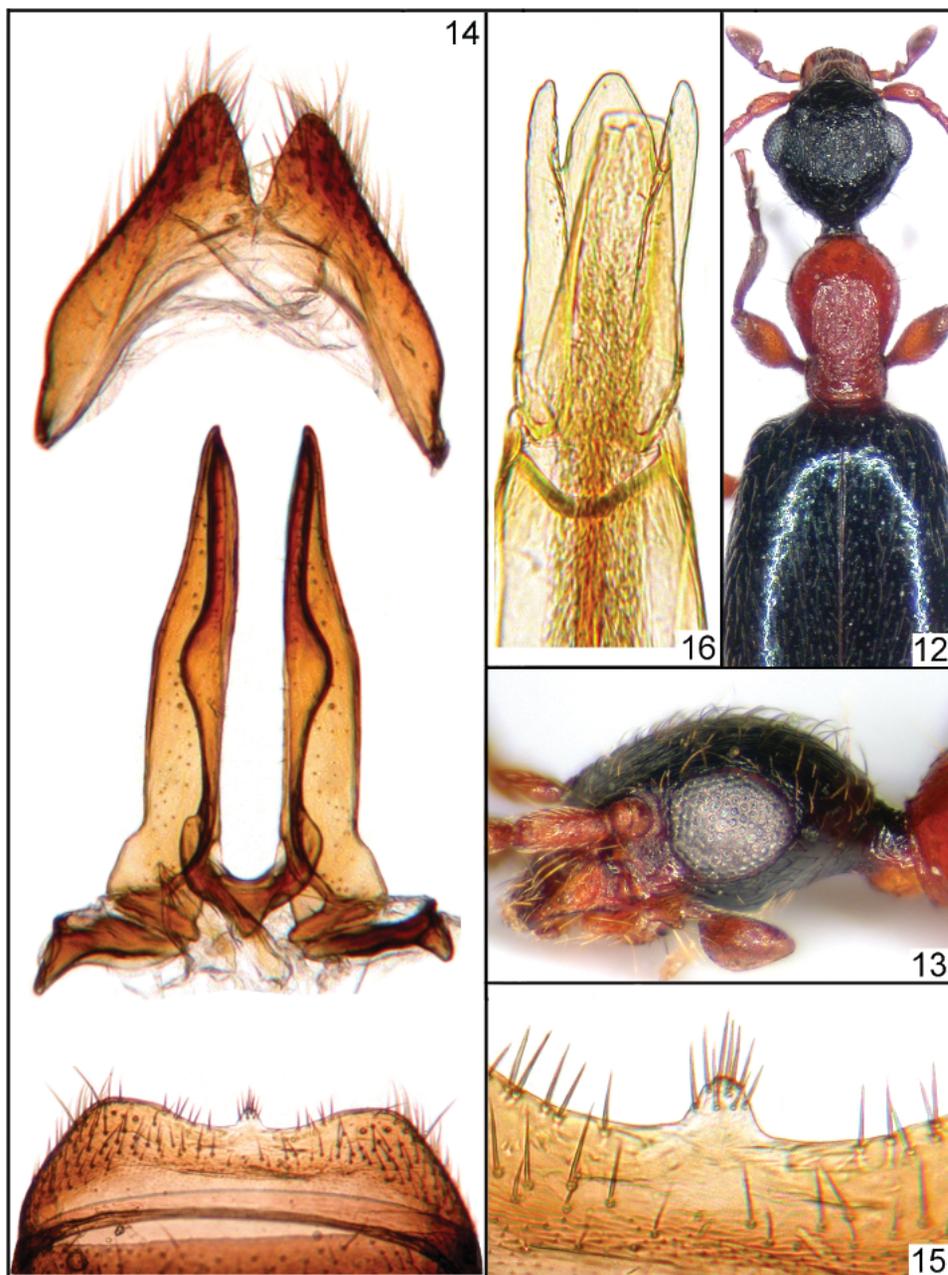
Abdominal characters as in Fig. 10; sternum III with pair of small protuberances shortly before posterior margin; paired prongs of sternite VIII strongly arcuate in basal half in lateral view; apical portion of tegmen 0.4 times as long as basal piece, trilobed apically (Fig. 11).

Female. Unknown.

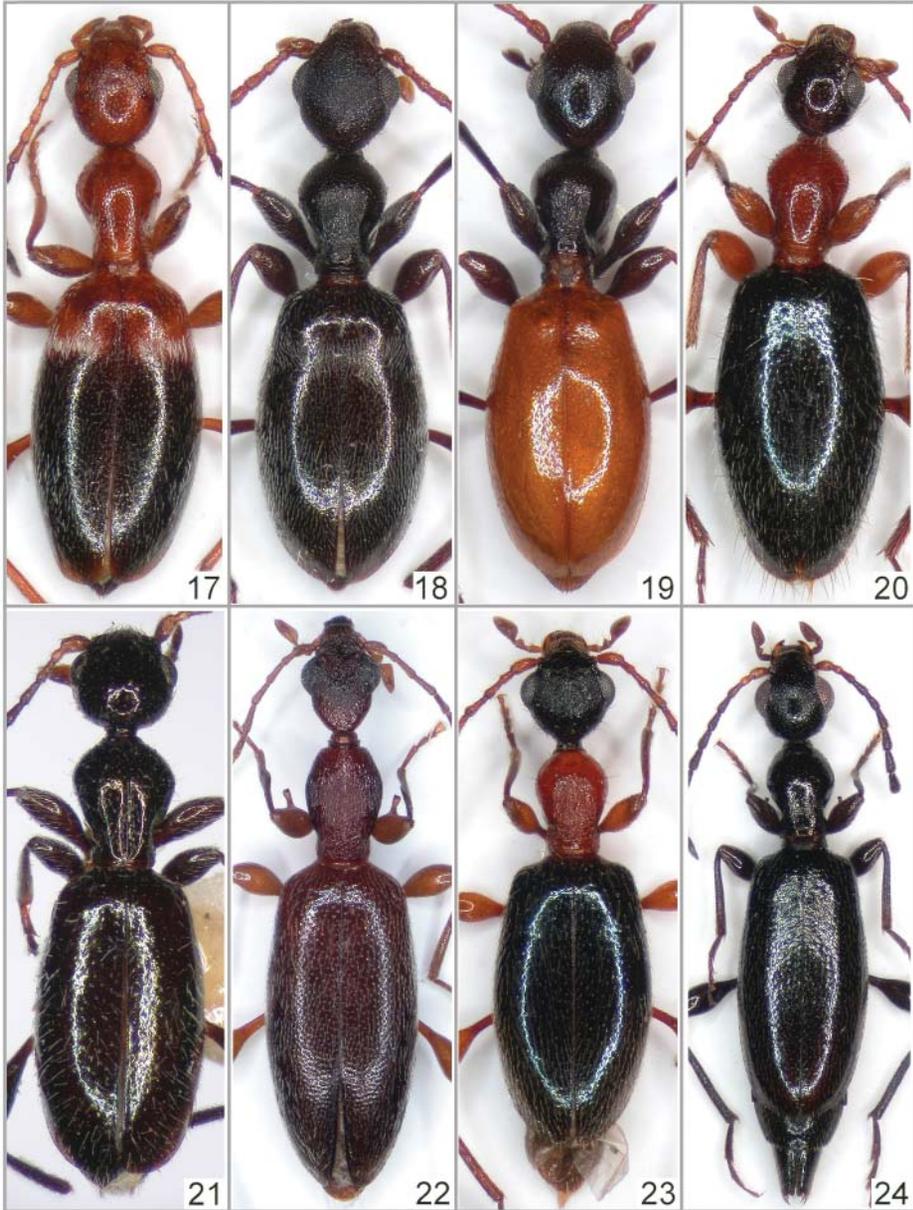
Differential diagnosis. *Anthelephila pilitarsis* sp. nov. is undoubtedly very close to *A. bejceki* Kejval, 2002 from Socotra, belonging to the *A. angustiformis* species-group (KEJVAL 2002), as suggested by similarity of the male characters. Externally it can be distinguished from the latter species by posteriorly narrower head with subparallel tempora (basal arch nearly evenly parabolic in *A. bejceki*), more distinct corrugation of the head and longer, more slender antennae (antennomere X 1.7 times and XI 2.6 times as long as wide in *A. bejceki*), by the indistinctly double punctuation of the elytra (fine intermixed punctures numerous and quite distinct in *A. bejceki*), and the conspicuously long, tufted setation of the basal metatarsomeres. In addition, it differs in details of the morphology of male sternite VIII and the tegmen of the aedeagus (lateral lobes more elongate, narrowed and pointed apically in *A. bejceki*).

Etymology. Composed of the Latin words *pilis* (hairs) and *tarsus*; referring to the conspicuously long, tufted setation of the basal metatarsomere in the male holotype.

Distribution. Yemen (Socotra).



Figs. 12–16. *Anthelephila praefecta* sp. nov. (paratype): 12 – habitus (part); 13 – head in lateral view; 14 – sternum VII (bottom), sternite VIII (middle) and tergite VIII (top); 15 – sternum VII, detail of median process; 16 – apical portion of aedeagus.



Figs. 17–24. *Anthelephila* spp., body in dorsal view. 17 – *A. anceyi rathjensi* (Pic, 1957), female, Wadi Zabid; 18 – *A. bispilifasciata bispilifasciata* (Pic, 1897), female, Turbah; 19 – same species, male, Lawdar; 20 – *A. caeruleipennis* (LaFerté-Sénéctère, 1849), male, Lawdar; 21 – *A. paolii* (Krekich-Strassoldo, 1928), male, Sana'a; 22 – *A. pilitarsis* sp. nov., holotype; 23 – *A. praefecta* sp. nov., paratype, female, Jabal Bura; 24 – *A. walkeri* (Pic, 1895), male, Al Mukalla.

***Anthelephila praepecta* sp. nov.**

(Figs. 12–16, 23)

Type locality. Yemen, Al Hudaydah governorate, Jabal Bura valley forest National Park, 240–350 m, 14°52.4–5'N 43°24.6–25.2'E.

Type material. HOLOTYPE: ♀, 'YEMEN, AL HUDAYDAH gov., Jabal Bura valley forest NP (stream valley; at light), 240-350 m 14°52.4-5'N 43°24.6-25.2'E Jirí Hájek leg. 4.xi.2010 [p]' (NMPC). PARATYPES: 1 ♀, 'YEMEN, AL Hudaydah gov., Jabal Bura valley forest NP (stream vall., at light), 240-350 m, 14°52.4-5'N 43°24.6-25.2'E, 4.xi.2010, P. Hlaváč leg. [p]' (ZKDC); 1 ♂ [lacking head and pronotum, including front legs], same data, except: J. Bezděk leg. (ZKDC); 1 ♀, 'W Yemen, 20 km NW of Dhawran, 1794 m, 14°40'N 44°13'E, 29.X.2005, S. Kadlec leg. [p]' (ZKDC); 1 ♀, 'W YEMEN Jabal Bura' 557 m NEE Al Hudaydah N14°53' / E43°26' (light) 9.-21.III.2007 M. Rejzek [3] [p]' (NMPC); 1 ♀, 'W YEMEN, Jabal Sabir, S of Taizz, 13°31'N 44°33'E, 2977 m, 23.iii.2007, S. Kadlec leg. [p]' (ZKDC); 1 ♀, 'S YEMEN, Lawdar NE Adan, N13°53' E45°48'E, 1145 m, 22.X.2005, lgt. M. Rejzek BMNH {E} 2006-6 [p]' (BMNH).

Description. Female (holotype). Body length 4.7 mm. Head black; pronotum reddish; elytra black with bluish reflection (Fig. 23); legs, antennae and palpi reddish to reddish brown.

Head 1.2 times as long as wide, nearly evenly rounded posteriorly, slightly angled postero-medially in dorsal view; tempora strongly narrowing posteriad, the posterior angles absent; base somewhat indistinctly differentiated from short neck (Fig. 13). Eyes medium-sized, convex. Dorsal surface only moderately glossy, largely corrugated, including some distinct longitudinal wrinkles; punctation obscured by corrugation. Setation pale, decumbent, rather long and raised in posterior half, with scattered, longer erect setae. Antennae long, moderately enlarged in terminal third; antennomere X 1.8 times and antennomere XI 2.5 times as long as wide.

Pronotum 1.5 times as long as wide, distinctly narrower than head across eyes, evenly rounded anteriorly and rather moderately, shallowly impressed postero-laterally in dorsal view; pronotal disc evenly shaped, its outline more or less convex in lateral view. Surface glossy, largely smooth, distinctly, mostly longitudinally corrugated on disc, postero-lateral impressions shortly wrinkled; punctation fine and sparse, obscured by corrugation dorsally. Setation similar to that on head.

Meso- and metaventrite simple.

Elytra 1.8 times as long as wide, conjointly rounded apically; humeri distinctly protruding; postbasal impression absent. Surface glossy, finely punctate; basal half with punctures simple, evenly spaced. Setation pale, mostly subdecumbent, moderately longer and more raised in basal third, with scattered short erect setae.

Metathoracic wings fully developed.

Penultimate tarsomere widened / flattened distally, with terminal tarsomere articulated dorsally in all tarsi. Setation of legs normally developed.

Male (paratype). Abdominal characters as in Figs. 14, 15; tergum VII simple, evenly rounded posteriorly; paired prongs of sternite VIII simple; apical portion of tegmen 0.6 times as long as basal piece, trilobed apically (Fig. 16).

Variation. Body length (♀♀) 4.4–4.7 mm.

Differential diagnosis. *Anthelephila praepecta* sp. nov. is a rather conspicuous species, which does not seem to be close to any of its Palaearctic congeners. It resembles *A. caeruleipennis* in its body form and colouration (cf. Figs. 23 versus 20), but displays quite dissimilar

morphology of male abdominal sternum VII and sternite VIII. Externally, it differs from the latter species in the head base being somewhat less distinctly differentiated from the neck, narrower pronotum (in relation to head width), by the corrugated dorsal surface of the head and pronotum, and finer punctation and short, less raised setation of the elytra.

Etymology. From Latin *praefectus* (governor); referring to the administrative subdivision of Yemen into governorates. Noun in apposition.

Distribution. Yemen.

Anthelephila simoni (Pic, 1893)

Material examined. YEMEN: 1 ♀, Ghayl Ba Wazir, NE of Al Mukalla, 14°49'N 49°25'E, 126 m, 18.x.2005, P. Kabátek leg. (ZKDC); 5 ♂♂ 6 ♀♀, Wadi Zabid, E of Zabid, 14°09'N 43°31'E, 325 m, 22.iii.2007, S. Kadlec leg. (ZKDC, NMPC); 1 ♂ 1 ♀, dtto, P. Kabátek leg. (ZKDC); 1 ♂, 1 ♀, Al Hudaydah gov., Jabal Bura valley forest National Park, stream valley, at light, 240–350 m, 14°52.4–5'N 43°24.6–25.2'E, 4.xi.2010, J. Bezděk leg. (ZKDC); 1 ♀, dtto, P. Hlaváč leg. (ZKDC); 1 ♂ 1 ♀, Jabal Bura', NEE Al Hudaydah, 14°53'N 43°26'E, 557 m, at light, 9.–21.iii.2007, M. Rejzek leg. (ZKDC); 1 ♀, 30 km NW of At Turbah, 13°15'N 44°01'E, 1300 m, Acacia forest on slope, at light, 25.iii.2007, M. Rejzek leg. (ZKDC).

Remarks. A species described from Yemen ('Aden'), and reliably known only from this country. For its redescription see KEJVAL (2002).

Anthelephila walkeri (Pic, 1895)

(Fig. 24)

Material examined. YEMEN: 1 ♂ 1 ♀, Kawr Sayban mt., NW of Al Mukalla, 14°37'N 49°03'E, at light, 29.iii.2007, M. Rejzek leg. (ZKDC); 1 ♂ 3 ♀♀, dtto, 575 m, S. Kadlec leg. (ZKDC, NMPC); 1 ♂, Jabal Bura, NEE Al Hudaydah, 14°53'N 43°26'E, 557 m, 21.iii.2007, S. Kadlec leg. (ZKDC); 1 ♂ 1 ♀, Lahij gov., Wadi Am Rijja, W of Lahij Al Huthah by road, 13°01'57" N 44°33'30" [GPS], 297 m, 25.–26.x.2007, A. Reiter leg. (ZKDC).

Remarks. Species described from Aden and Perim in Yemen, and known so far only from this country and Saudi Arabia (KEJVAL 2002). It was redescribed by KEJVAL (2002), including designation of a lectotype for the specimen collected on the island of Perim.

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