

A NEW SPECIES OF *ANTHAXIA* FROM IRAN
(Coleoptera, Buprestidae)

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INTRODUCTION

In the last years Iran has been the object of several intensive collecting trips made by many entomologists, mainly from Czech Republic and Italy. Previously, an excellent job on the otherwise very poorly known Buprestid fauna of that country, had been made by S. Bily, in the article on the results of the Czechoslovak-Iranian Entomological Expeditions to Iran made in the years 1970, 1973 and 1977. Actually, this article is the basis on which our researches were planned. D. Gianasso from Castelnuovo Don Bosco, G. Sama from Cesena, and the authors, lately visited Iran many times, and gathered plenty of Buprestidae, either collecting in the field and by rearing larvae in wood brought from various Iranian localities. The same did Czech entomologists, whose material is partly under study with S. Bily. New species have been described already, and others await to be examined. The description of one of these new species is the object of this paper.

***Anthaxia (Haplanthaxia) parvula* n. sp.**

MATERIAL EXAMINED. Holotype: ♂, Iran, Lorestan, 10 km SW Dorud, 1500 m, 21-23.V.2005, D. Baiocchi leg., ex larva *Pistacia* sp. 21-31.V.2005. Paratypes: Iran, Lorestan, 10 km SW Dorud, 1500 m., 21-23.V.2005, D. Baiocchi leg., ex larva *Pistacia* sp.: 16 ♂♂ and 22 ♀♀ 21.V-14.VI.2005, 1 ♀ 20.V.2006, 1 ♀ VI.2006; Iran, Lorestan, 10 km SW Dorud, 1500 m., 2.V.2006, D. Baiocchi leg., ex larva, from *Pistacia* sp.: 17 ♂♂ and 23 ♀♀ 18-31.V.2006; Iran, Fars, 40 km NW Fasa, Mian Jangal, 29°09'N 53°24'E, 1750 m., 18.IV.2006, D. Baiocchi leg., ex larva, from *Pistacia* sp.: 2 ♂♂ and 5 ♀♀ 16-23.V.2006; Iran, Kerman, NE Jiroft, env. Maskoon, 28°56'N 57°53'E, 1840 m., 24.IV.2006, D. Baiocchi leg., ex larva, from *Pistacia* sp.: 2 ♂♂ and 5 ♀♀ 23.V-1.VI.2006; 1 ♂ and 1 ♀, Iran, Lorestan, env. Jeugir, 32°19'37"N 48°30'40"E, 500 m., 10-11.X.1998, P. Kabàtek leg.; 3 ♂♂ and ♀♀, S Iran, Kerman, 30 km NNE Sabzvaran (Jiroft) 28°49'N 57°52'E,

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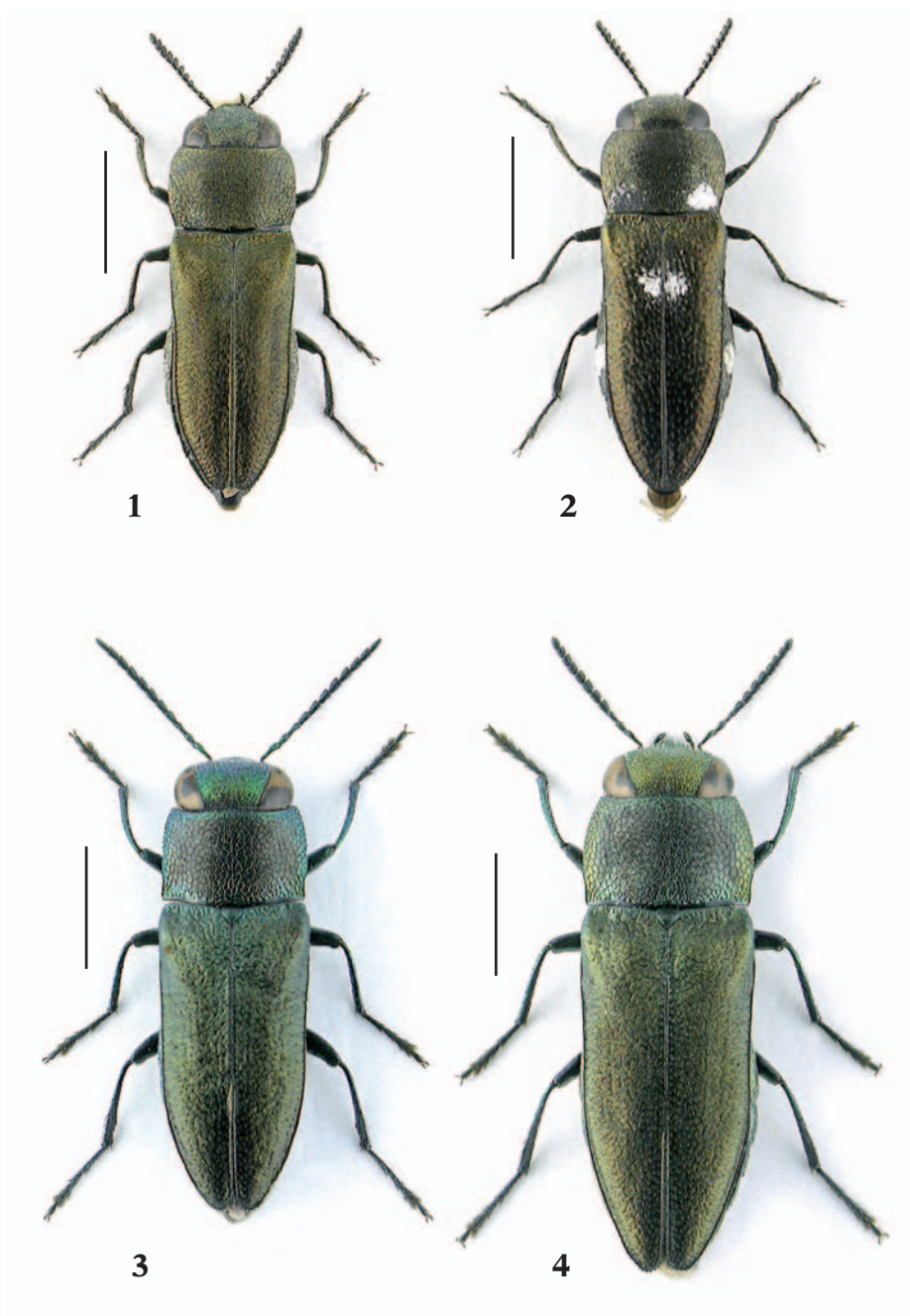
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20.VII.2004, P. Kabàtek leg.; Iran, Lorestan, 5-15 km SW Dorud, 1400 m., 9-10.V.2002, G. Magnani leg., ex larva, from *Pistacia* sp.: 1 ♂ and 1 ♀ 18.VI.2002; Iran, Lorestan, 10 km SW Dorud, 1400 m., 21.V.2005, G. Magnani leg., ex larva, from *Pistacia* sp.: 12 ♂♂ and 16 ♀♀ 25-27.V.2005; 8 ♂♂ and 3 ♀♀ 3.VI.2005; 1♀ 10.VI.2005; 4♀♀ and 1♂ 13.VI.2005; 2♂♂ and 10 ♀♀ 17-30.VI.2005; Iran, Lorestan, 10 km SW Dorud, 1400 m., 21.V.2005, D. Gianasso leg., ex larva, from *Pistacia* sp.: 5 ♂♂ and 4 ♀♀ 27.V-20.VI.2005; Iran, Lorestan, 10 km SW Dorud, 1400 m., 2.V.2006, D. Gianasso leg., ex larva, from *Pistacia* sp.: 10 ♂♂ and 37 ♀♀ 19.V-22.VI.2006; Iran, Fars, Sivand, 1850 m., 14.V.2005, ex larva *Pistacia* sp.: 1 ♂ 3.VI.2005; Iran, Fars, 40 km NW Fasa, Mian Jangal, 29°09'N 53°24'E, 1750 m., 18.IV.2006, D.Gianasso leg., ex larva, from *Pistacia* sp.: 1 ♂ 20.V.2006; Iran, Kerman, NE Jiroft, env. Maskoon, 28°55'N 57°53'E, 1830 m., 24.IV.2006, D. Gianasso leg., ex larva, from *Pistacia* sp.: 1 ♀ 16.VI.2006.

Holotype ♂ deposited in D. Baiocchi coll. (Rome); paratypes in the collections of National Museum of Prague (Czech Republic), Plant Pests and Diseases Research Institute, (Tehran, Iran), Museum of Natural History of Shiraz (Iran), Museum of Zoology of University of Rome "La Sapienza" (Rome), D. Baiocchi (Rome), S. Bily (Prague), D. Gianasso (Castelnuovo Don Bosco, Asti), M. Gigli (Rome), F. Izzillo (Naples), M. Kafka (Prague), V. Kuban (Brno), A. Liberto (Rome), G. Magnani (Cesena), H. Muehle (Munich), M. Niehuis (Albersweiler, Germany), M. Skorpik (Lukov, Czech Rep.)

DESCRIPTION. Holotype (fig.1): very small (length from vertex to elytral apex: 2.58 mm, width: 1.07 mm) parallel and rather vaulted body, with silky appearance; head and pronotum moss grey with bronze tinge, elytra brighter and more olive-coloured. Head slightly narrower than anterior pronotal margin; eyes with parallel inner margins, slightly projecting beyond outline of head; vertex wide (0.44 times as wide as anterior pronotal margin), hairless and somewhat convex; frons slightly convex with sparse short yellowish hair; punctuation deeper on the lower part of the head, consisting of irregular polygonal cells with microsculptured bottom and eccentric hair-bearing grain; clypeus feebly incurved; antennae on average length (1.07 times as long as pronotal length), black with bronze tinge; first article conical, second segment oblong, slightly shorter than the first one; third article weakly enlarged and as long as the second one; segments fourth to tenth widely subtriangularly expanded; last article elongate.

Pronotum transverse (1.5 times as wide as long) and poorly convex, covered whit very short and sparse transparent hair, more evident on lateral edges; anterior margin slightly bisinuate, the posterior one almost straight; lateral edges feebly arched, sub-parallel in the middle and weakly narrowed before the posterior obtuse angle; maximum width at anterior third; laterobasal depressions very shallow; the whole



Figs 1-4 – *Anthaxia (Haplanthaxia) parvula* n. sp.: Holotype ♂ (1), paratype ♀ (2).
Anthaxia (Haplanthaxia) mundula Kiesenwetter 1857: ♂ (3), ♀ (4). Scale lines = 1 mm
 (Photographs: M. Gigli).

pronotal surface microsculptured, of silky appearance; reticulation on the disc extremely light and hardly visible, slightly deeper on lateral sides, formed by polygonal cells with eccentric grain, more regular near basal angles.

Scutellum triangular, microsculptured.

Elytra more vaulted than pronotum, 2.3 times as long as wide, with shallow basal transversal depressions; maximum width at humeral swellings, narrowing in the first third, sub-parallel in the middle part and then regularly tapering till the apex, which is separately rounded; a shallow central depression is present in the first third and deep longitudinal grooves run along the suture in the apical third; the epipleuras are complete and narrow till the moderately serrate apex where they broaden and connect to the sutural depressions; the surface is microsculptured and covered with short whitish sparse hair.

Ventral side very dark, with bronze lustre; edge of anterior prosternal lobe straight and slightly bordered; the surface is finely microsculptured, with remainings of irregular reticulation on lateral parts, except on the abdominal segments which are feebly microreticulated with only some weak trace of reticulation at the base of the first segment; the whole underside is covered with short and sparse silky hair, longer and more evident on the legs; the apical abdominal sternite (fig.8) is rather sub-rounded with smooth lateral sides and flat, weakly serrate apex, sulcate by a shallow depression in the middle.

Legs darker than the rest of the body, with bronze lustre; protibiae straight, not serrate, as well as the mesotibiae; the metatibiae (fig.10) are flattened, weakly and acutely expanded at their apex, giving the impression of being somewhat incurved; the first tarsomere of the forelegs is as long as the following ones; in central legs the first tarsomere is longer than the others, and in the rear legs the first segment is as long as the third and fourth taken together, while the second article is shorter than the first; claws thin with dark tips; the trochanters are smooth in the forelegs, and bear a more or less developed thorn in the remaining two pairs.

Aedeagus (fig.6) not very lengthened (4.6 times as long as wide); lateral parameres basally dark and sub-parallel, strongly narrowed little beyond middle length, then sharply expanded until the acute tips; an oblong setae-bearing white area is situated upon the posterior half of the expanded apical lobes while the rest is furrowed by light,

convergent wrinkles, except on the tips which are porous; the edge of such expanded area is slightly serrate along its posterior half; central lobe (fig.5) rather wide, parallel and not serrate, cylindrical at the base, flattened in the middle and acutely pointed; the tip is smooth, but the remaining surface of the penis is covered with dark wrinkles.

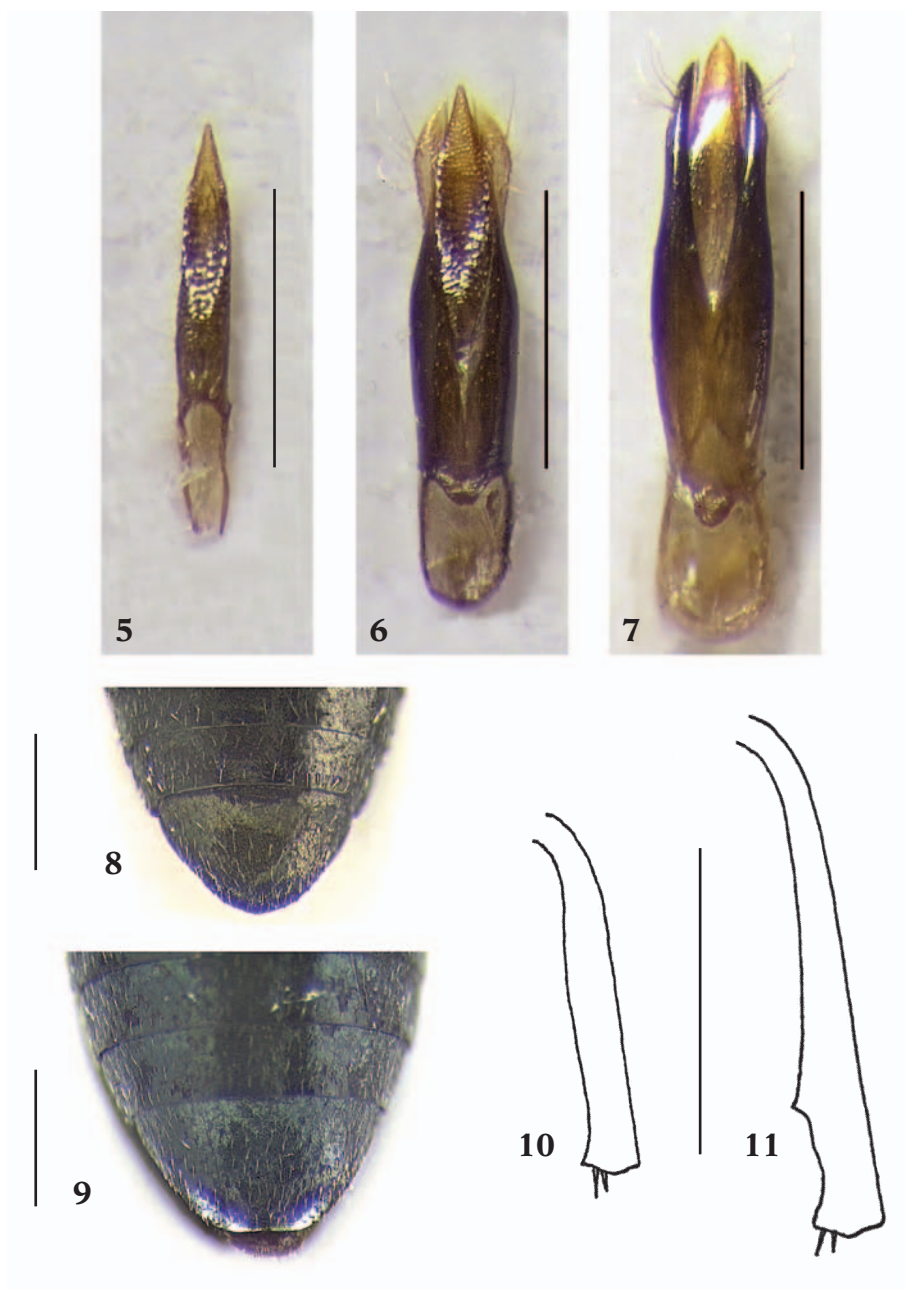
SEXUAL DIMORPHISM. The female (fig. 2) differs from the male by the last antennomere which is less oblong or either rounded, the smoother apex of metatibiae and by the last abdominal sternite which is truncate while in the male it is sub-rounded. Sexual dichroism absent. Many male specimens have a rather bright greenish frons.

VARIABILITY. The species is rather variable in size (♂ dimensions: length 2.2-3.25 mm, width 0.79-1.19 mm; ♀ size: length 2.46-3.57 mm, width 0.87-1.26 mm); in some specimens the head is as wide as anterior pronotal margin and in few others the maximum width of pronotum is situated in the middle; in central and rear legs, trochanteres are sometimes smooth with no evidence of spine; occasionally the first tarsus of front and rear legs is little longer than usual. Freshly emerged specimens, in both sexes, have the basal pronotal depressions furnished with a white ephemeral pruinose, as well as a couple of round white spots placed in the central elytral depression (fig. 2), close to the suture; this white pruinose is also present on mesosternum, pleuron and part of the visible lateral sides of first and second sternites.

BIOLOGY AND DISTRIBUTION. Almost all of the examined specimens were reared from small branches of *Pistacia* sp. collected in the Iranian provinces of Loristan, Fars and Kerman, and most of them emerged in May. The species is, for the time being, endemic to Iran.

DERIVATIO NOMINIS. Because of its size, we decide to name this new taxon *parvula* that in latin means "small". As a matter of fact it is one of the smallest known *Anthaxia*.

COMPARATIVE NOTES. Because of the peculiar punctuation, its outstanding extremely light pronotal reticulation, and other morphological features, it is not possible to include *A. parvula* in any "species-group"; actually, it is similar in appearance to a female of *A. mundula* (fig.4) but the distributional area of the latter is Eastern-



Figs 5-11 – *Anthaxia (Haplanthaxia) parvula* n. sp.: penis (5), aedeagus (6), last abdominal sternite (8), right male metatibia (10). *Anthaxia (Haplanthaxia) mundula* Kiesenwetter 1857: aedeagus (7), last abdominal sternite (9), right male metatibia (11). Scale lines = 0.5 mm (Photographs: A. Liberto; drawings: D. Baiocchi).

Mediterranean while the new species is endemic to Iran. The two species can be distinguished by the following characters:

<i>Anthaxia parvula</i> n. sp.	<i>Anthaxia mundula</i> Kiesenwetter 1857
head slightly narrower than anterior pronotal margin with long sparse yellowish hairs; inner margin of eye straight; cells of frontal reticulation with micro-sculptured bottom; average length antennae (1.1 times as long as pronotal length) with transverse sub-triangular articles; second article slightly shorter than the first one; third article as long as the second one	head slightly wider than anterior pronotal margin with very short sparse whitish hairs; inner margin of eye S-shaped; cells of frontal reticulation with smoother glossy bottom; antennae very long (1.7 times as long as pronotal length) with lengthened trapezoidal articles; second article much shorter than the first one; third article slightly longer than the second
pronotum with extremely light reticulation on the disc, slightly deeper on lateral sides; posterior angles obtuse	deeper reticulation present on the whole pronotal surface; posterior angles right
mesotibiae simple; metatibie (fig.10) not serrate, slightly and acutely enlarged at the apical inner margin	inner margin of mesotibiae feebly serrate on distal third; metatibiae (fig. 11) with small tooth at apical fourth on inner margin
last abdominal sternite (fig. 8) sub-rounded in the male, truncate in the female, with small central depression	last abdominal sternite (fig. 9) truncate in both sexes, with wider central depression
aedeagus (fig. 6) flat, parallel, strongly narrowed after middle length; anterior half of parameres expanded before the tip; setae-bearing area on the upper part of expansions; central lobe (fig. 5) very acutely pointed, medially wrinkled and not serrate	aedeagus (fig. 7) arched, parallel, slightly enlarged before middle length; anterior half of parameres slender; setae-bearing area located laterally; central lobe smooth, not wrinkled and less acutely pointed, medially weakly serrate

ACKNOWLEDGEMENTS. We are grateful to our friends S. Bily, D. Gianasso and M. Skorpić for allowing us to study their material, and to M. Gigli and A. Liberto for technical assistance in preparation of photographs.

SUMMARY

Anthaxia (Haplanthaxia) parvula n. sp. from Iran is herein described and illustrated. It is compared to its most similar species, *Anthaxia (Haplanthaxia) mundula* Kiesenwetter 1857. Its peculiar pronotal punctuation, and other morphological features, suggest not to include this new species in any “species-group” so far established.

RIASSUNTO

Una nuova specie di Anthaxia dell'Iran (Coleoptera, Buprestidae).

Si descrive ed illustra *Anthaxia (Haplanthaxia) parvula* n. sp. dell' Iran, che viene comparata alla sua congenere più simile, *Anthaxia (Haplanthaxia) mundula* Kiesenwetter 1857. Per la inusuale punteggiatura del pronoto, ed altre caratteristiche morfologiche, non è possibile inserire questa nuova specie in nessun gruppo di specie finora conosciuto.

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