

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

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INTRODUCTION

During a collecting trip to the Islamic Republic of Iran, made in the year 2007 together with D. Gianasso and G. Magnani, the author had the fortune to collect the only specimen so far known, of a species of *Anthaxia* that turned out to be new to science and one of the most beautiful species of its genus, from the palaeartic region. Here is its description.

***Anthaxia (Anthaxia) patsyae* n. sp.**

**MATERIAL EXAMINED.** Holotype: ♀, Iran, (Fārs), 7 km W Dašt-e-Aržan, 2050 m, 29°38'N 51°54'E, 25.IV.2007, D. Baiocchi leg. Holotype deposited in D. Baiocchi coll. (Rome).

**DESCRIPTION.** Holotype (fig. 2): parallel and rather flat species; body large (length from vertex to elytral apex: 8.25 mm, maximum width: 3.7 mm, ratio: 2.24 times as long as wide), with bright and glossy appearance; head slightly narrower than anterior margin of pronotum; outer shape of eyes not projecting beyond the head outline; inner ocular margin feebly divergent in the lower third and strongly convergent on the vertex; upper lobe of the eye wide, and regularly rounded; vertex brilliant green, very narrow (0.29 times as wide as anterior pronotal margin) and glabrous, with reticulation composed of deep, irregular and oblong cells, horizontally stretched on its rear part, and frontly convergent along an evident, median black line on the anterior part; frons feebly prominent, darkly coloured with green, bluish and purple, and with very light, almost indistinct, median groove; a golden green stripe runs along the inner edge of each eye; frontal punc-

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Fig. 1 – *Anthaxia (Anthaxia) patsyae* n. sp.: locus typicus (Photograph: D. Baiocchi).

tuation formed by deep dimples, which are larger in the middle, and small and irregular along the eyes, with microsculptured bottom and small grains, bearing very long, straight, whitish hair; clypeus weakly prominent, with feebly incurved edge, which is deeply punctuated laterally, and smooth and slightly microreticulate in the middle.

Antennae long (1.43 times as long as middle pronotal length) with slender and well separated articles, black with a plum tinge; first article strongly clubbed, with basal part finely microreticulate, and distal part heavily wrinkled; second segment globularly conical, 0.6 times as long as the basal one; third article conical and somewhat flattened, 1.5 times as long as the second one; antennomeres fourth to tenth triangular and sharply angled; last article rhomboidal; the three basal articles are furnished with long whitish hair.

Pronotum transverse (1.9 times wider than long), sub-octangularly shaped, bright green; maximum width at its posterior third; anterior corners violet, with purple shining; two parallel and indistinct darker bands, not reaching the anterior pronotal edge, are placed in the middle of the pronotal disc; anterior margin deeply hollow and al-

most straight, with barely hinted central lobe; posterior margin slightly narrower than elytral base, with central part feebly bent backward; laterobasal depressions wide and very shallow; anterior half of lateral margins poorly rounded, forming acute frontal corners, and posterior part first smooth and subparallel, then sharply-edged, straight, and strongly restricted to form a wide, largely obtuse, hind angle; pronotal surface (fig. 6) divided into three parts; the two basal thirds of the central discal area, show a double series of transverse wrinkles, diverging from the middle and feebly bent backwards; the remaining frontal third of this central zone is slightly depressed in the middle and composed of confusedly oriented, irregular cells; the lateral sides of pronotum show a deep, polygonal reticulation, smaller and irregular on basal corners, with glossy bottom and small, mostly eccentric, hair-bearing grain; the whole pronotal surface is furnished with very long, sparse, withish hair, which are much denser on lateral sides and particularly on frontal corners.

Scutellum transverse, pentagonally shaped, with lateral sides weakly incurved; surface flat and slightly microreticulate, green with copper shading on its rear part.

Elytra 1.75 times as long as wide, with maximum width at humeral height, slightly narrowed till the first third, parallel in the middle, leaving the abdomen segments partially visible laterally, and then tapered with feeble incurvation till the apex, which is separately subrounded; lateral margins broad and well developed only at the base, progressively narrowed till disappearing in the last third of the elytra, where the edge is finely and sharply denticulated till the apex; epipleura well developed and almost reaching the elytral apex; basal transverse grooves very shallow and interrupted by the humeral swellings, which are well developed and diagonally protracted; a prominent callus is placed basally, on each elytra, and shallow depressions are present at the end of the humeral swellings, and before the apex; elytral surface coarsely rough and microsculptured, covered with sparse whitish bristles which are much longer near the scutellum; surface of basal callosities and preapical sutural area, smoother, with sparse and tiny hair-bearing punctures; a median spindle-shaped drawing, similar to the one present in *Anthaxia midas* Kiesenwetter, 1857 remarkably conspicuous on the elytra; the basal part of this drawing, bright green like the pronotum, covers the whole elytral base turning around the humeral swellings, runs shortly and narrow along the su-

ture, and then widens again, in a blunt, sub-sagittate shape, to reach a third of the elytral length; the remaining part of the drawing, and a large patch on each basal callus, are dark blue; the whole central figure is suffusedly contoured with purple tinge, and the outer area of the elytra is bright vermilion.

Ventral side (fig. 3) brilliant green except for the abdomen, which is completely bright magenta red; prosternum roughly coarsed on its central area, more finely wrinkled on the anterior border, and with more reticulate punctuation along its lateral sides; prosternal process densely covered with shallow dimples; proepisternum surface smooth and lustrous, with large, shallow, and widely separated dimples; the rest of the pronotum underside shows a light rugosity, mixed with shallow dimples, which are denser on the central area of metasternum and much smoother on mesepisternum; the whole ventral side is furnished with long whitish hair, denser on the middle; abdominal sternites very brilliant and smooth, with very light and sparse rugosity; the hind angles of second and third visible sternites bear short and sharp thorns (fig. 8), more evident on the segment before the last one; anal sternite (fig. 7) more densely wrinkled along the flat-edged margin, which is smooth and straight proximally, and shortly serrate before the rounded and smooth apex.

Legs black with a plum tinge on upper face, and green on lower side; tibiae of the forelegs feebly incurved at the base and straight distally, with all tarsal segments of the same length; middle legs with straight tibiae and first tarsomere 0.6 times as long as tibial length; second tarsus much shorter than the first one; third and fourth articles of the same length and slightly shorter than the second one; rear legs with straight and slightly flattened tibia; basal tarsus 0.75 times as long tibial length; second segment 0.6 times as long as the first one; third and fourth articles equal and shorter than the second one; all legs furnished with whitish hair, which are much longer on the tibial outer edge and femur underside. Trochanters unarmed. Claws brown and rather slender, slightly enlarged at the base.

Ovipositor. See fig. 9.

SEXUAL DIMORPHISM. Male unknown.

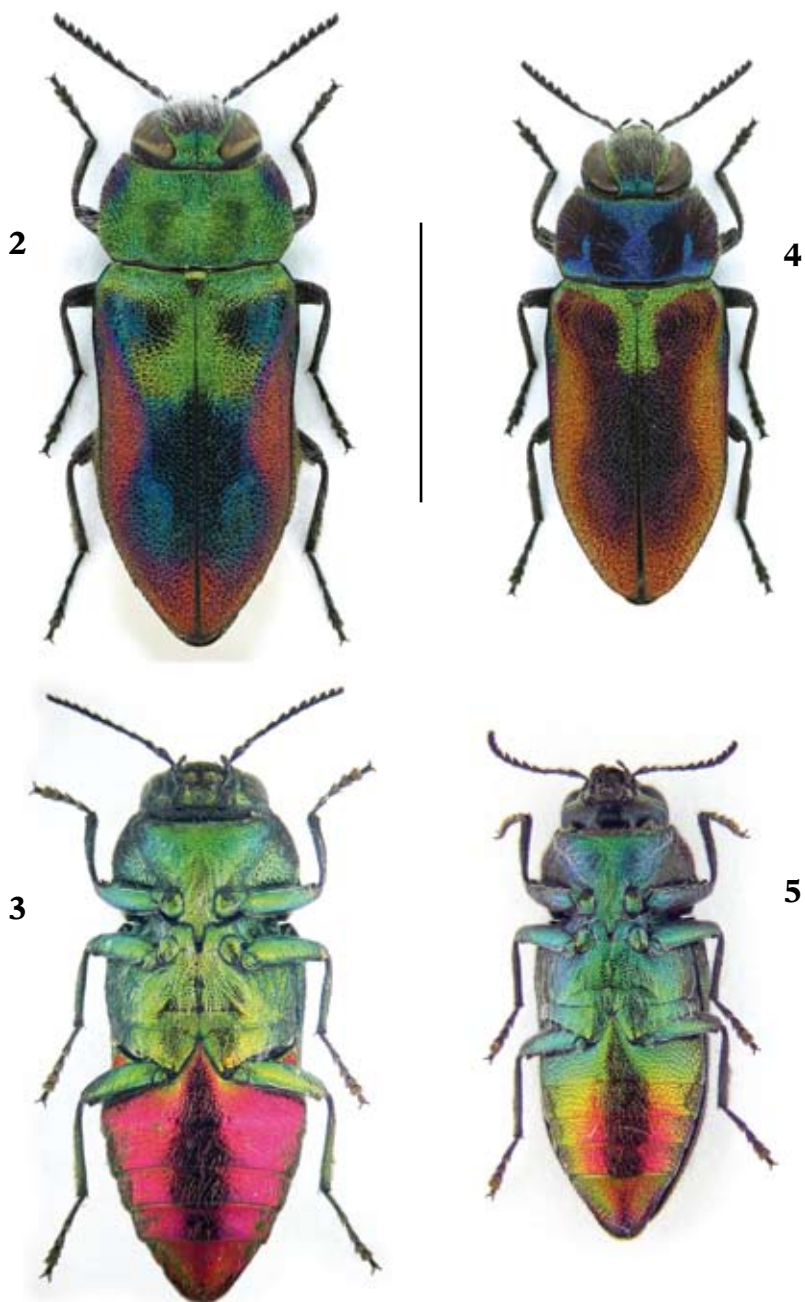
BIOLOGY AND DISTRIBUTION. The only specimen so far known of *Anthaxia patsyae* was collected by the author in southern Iran, in the

western neighbourhoods of Dašt-e-Aržan village, a locality situated in the upper Qara Agag valley, in the southern offshoots of the Zagros mountain range. The area (fig. 1) is characterized by a very dry, rocky ambient, with sparse arboreal covering, predominantly formed by *Quercus* sp., together with other genres such as *Acer*, *Prunus*, *Crataegus*, *Fraxinus*, and other lesser essences. It is presumable that, like *Anthaxia midas* does, the larva of this new taxon develops in the wood of *Acer* species. Further interesting species of the same genus, present in the same locality, are: *Anthaxia shirazensis* Obenberger, 1940 and *Anthaxia naviauxi* Bílý, 1995 collected in coloured pitfall traps and reared from *Acer* sp., *Anthaxia anatolica* ssp. *catei* Novak, 1994, *Anthaxia salicis* ssp. *persica* Thery, 1925, *Anthaxia jenisi* Bílý, 2006, the very rare *Anthaxia morgani* Thery, 1925, also collected in coloured traps and reared from *Fraxinus* sp. together with *Anthaxia bicolor* Faldermann, 1836, and a further new species that will soon be described.

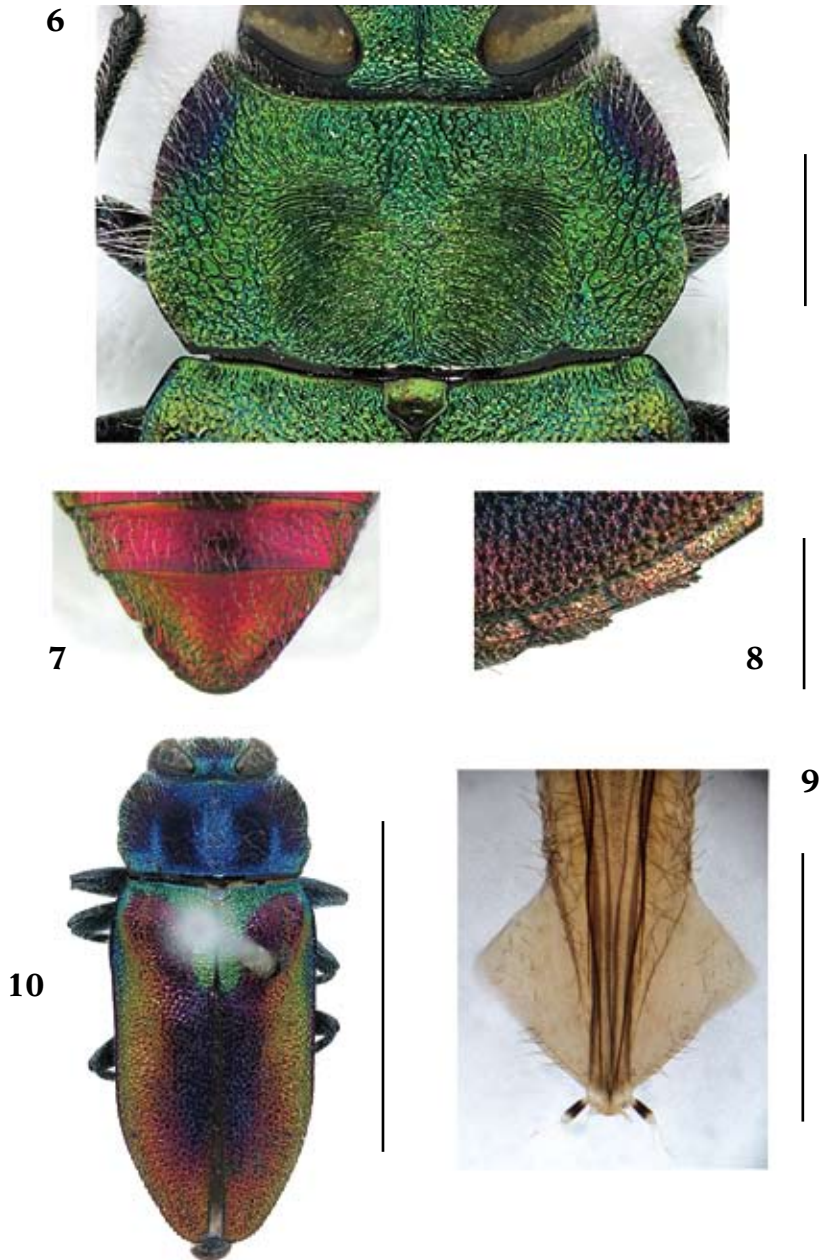
DERIVATIO NOMINIS. This new species is dedicated to my beloved wife Patsy de Lourdes.

COMPARATIVE NOTES. Due to its distinctive pronotal sculpture, and to its overall color pattern, this new species is easily recognized as belonging to the *Anthaxia salicis* species-complex, and in particular to the *Anthaxia midas* subgroup, in which *Anthaxia patsyae* n.sp. represents, so far, the eastern vicariant of *Anthaxia midas*. The holotype of *Anthaxia midas* (fig. 10) is a male, and in order to make comparison of material belonging to same sex, first it was examined and compared with specimens of *A. midas midas* from south-eastern Italy (Curlletti 1994), and then a female (fig. 4) from such area was selected and compared with *Anthaxia patsyae* n. sp. The two species are well differentiated by the following characters:

<i>Anthaxia (Anthaxia) patsyae</i> n. sp.	<i>Anthaxia (Anthaxia) midas</i> Kiesenwetter, 1857
Large size (length: mm 8.24); body slightly flattened	Smaller size (length: mm 6.88); body strongly flattened
Eyes not prominent; upper lobe of eye more widely rounded; vertex 0.29 times as wide as anterior margin of pronotum;	Eyes prominent; upper lobe of eye more acutely rounded; vertex slightly narrower (0.27 times as wide as anterior margin of pronotum);



Figs 2-5 – *Anthaxia* (*Anthaxia*) *patsyae* n. sp.: holotype ♀ (2), ventral side (3). *Anthaxia* (*Anthaxia*) *midas* Kiesenwetter, 1857: Italy, Foggia, Gargano, Monte Sacro, e.l. *Acer* sp. 30.III.2000 G. Sama leg. (4), ventral side (5). Scale line: 5 mm (Photographs: M. Gigli).



Figs 6-10 – *Anthaxia (Anthaxia) patsyae* n. sp.: pronotum (6), last abdominal sternite (7), lateral abdominal thorns (8), ovipositor (9). *Anthaxia (Anthaxia) midas* Kiesenwetter, 1857: holotype (Zoologisches Staatssammlung, Munich, Germany) (10). Scale lines: 0,5 mm (for figs. 6-9); 5 mm (for fig. 10). (Photographs: M. Gigli).

frons feebly prominent; frontal punctuation deep, with very small central grain; clypeus feebly prominent and weakly engraved, with anterior edge centrally smoother; antennal segments sharply triangular	frons widely depressed; frontal reticulation more regular and shallow, with large central grain; clypeus more prominent and more deeply engraved, with thoroughly punctured edge; antennal segments more rounded
Anterior pronotal margin almost straight; central transverse wrinkles slightly bent downwards; lateral pronotal reticulation deeper	Anterior pronotal margin more bisinuate; central transverse wrinkles strongly bent downward; lateral pronotal reticulation more shallow
Elytra more vaulted and slightly sinuate, leaving the abdominal segments partially visible; lateral margins not complete and narrow; basal green patch covering the whole elytral base, part of the humeral swellings, and widely running along the suture till reaching a third of elytral length; humeral swellings strongly developed	Elytra more parallel, completely hiding the abdomen; lateral margins longer and broader, especially in the basal fourth.; basal green patch considerably smaller, covering just the elytral base and shortly running along the elytral suture; humeral swellings slightly weaker
Scutellum weakly microreticulate	Sculpture of scutellum more evident
Underside of abdomen completely magenta red; thorns on sternites well developed and quite visible	Underside of abdomen with first sternite green and the remaining segments golden red; thorns on sternites less evident
Forelegs with basal part of tibiae weakly bent; all tarsal segments of the same length; central legs with basal tarsus 0.6 times as long as tibial length; second segment much shorter than the first one; third and fourth articles equal and slightly shorter than the second one; rear legs with basal tarsus 0.75 times as long as the tibia; second segment 0.6 times as long as the first one; third and fourth articles equal and slightly shorter than the second one	Forelegs with straight tibiae and basal tarsus longer than the second one; second and third article equally long; fourth segment as long as the first one; central legs with basal tarsal segment 0.33 times as long as the tibia; all the remaining articles equal and shorter than the first one; rear legs with basal tarsus 0.45 times as long as the tibia; second segment much shorter than the first one; third and fourth articles equal and slightly shorter than the second one

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#### SUMMARY

*Anthaxia (Anthaxia) patsyae* n. sp. from south-western Iran is herein described and illustrated. It is compared with its most similar species, *Anthaxia (Anthaxia) mi-das* Kiesenwetter, 1857. The unmistakable pattern of its pronotal sculpture, together



with other morphological features, suggest to include this new species in the *Anthaxia* (*Anthaxia*) *salicis* (Fabricius, 1776) "species-group".

#### RIASSUNTO

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

Si descrive e illustra *Anthaxia* (*Anthaxia*) *patsyae* n. sp. dell'Iran meridionale, che viene comparata alla specie congenere più affine, *Anthaxia* (*Anthaxia*) *midas* Kiesenwetter, 1857. L'inconfondibile scultura del pronoto, insieme ad altre caratteristiche morfologiche, permettono di inserire questa nuova entità nel gruppo di specie di *Anthaxia* (*Anthaxia*) *salicis* (Fabricius, 1776).

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