

SVATOPLUK BÍLÝ \*

## NEW SPECIES OF THE GENUS *ANTHAXIA* FROM GABON (Coleoptera: Buprestidae)

**SUMMARY** - Four new species of *Anthaxia* are described and illustrated from Gabon: *Anthaxia* (*Haplantboxia*) *aurohumeralis* sp. n., *A.* (*Hapl.*) *gabonica* sp. n., *A.* (*Hapl.*) *gianfrancoi* sp. n. and *A.* (*Hapl.*) *melanosoma* sp. n. All the described species belonging to the “agriliiform” morphological type of Afrotropical *Anthaxia* are compared with the most related species. A new synonym is proposed: *A. rothkirchi* Obenberger, 1922 = *A. rothkirchi littorea* Obenberger, 1924, syn. n.

**RIASSUNTO** - *Nuove specie del gen. Anthaxia del Gabon (Coleoptera: Buprestidae).*

Sono descritte e raffigurate quattro nuove specie di *Anthaxia* del Gabon: *Anthaxia* (*Haplantboxia*) *aurohumeralis* n. sp., *A.* (*Hapl.*) *gabonica* n. sp., *A.* (*Hapl.*) *gianfrancoi* n. sp. e *A.* (*Hapl.*) *melanosoma* n. sp. Le specie descritte, appartenenti al gruppo morfologico “agriliiforme” dell’Africa tropicale, sono comparate con le specie più affini. È proposta una nuova sinonimia: *A. rothkirchi* Obenberger, 1922 = *A. rothkirchi littorea* Obenberger, 1924, syn. n.

**Key words:** Taxonomy, synonymy, Buprestidae, *Anthaxia*, 4 new species, Afrotropical region.

During the project “Radeau des Cimes - Gabon 1999” dealing with canopy insects in Gabon, four new species of *Anthaxia* (subgen. *Haplantboxia* Reitter, 1911) were collected among other species of Buprestidae. All these species belong to the very special, morphological type of *Anthaxia* which is characterized by agriliiform body-shape and more or less caudiform elytra. This heterogenous morphological group is composed of

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two species-groups: *A. atomaria* species-group containing *A. atomaria* Obenberger, 1922, *A. elegantula* Obenberger, 1924, *A. eulioxa* Obenberger, 1931, *A. limpopoensis* Obenberger, 1928, *A. nigella* Obenberger, 1928, *A. aurohumeralis* sp. n., *A. melanosoma* sp. n., and *A. rothkirchi* species-group containing *A. rothkirchi* Obenberger, 1922, *A. eupoeta* Obenberger, 1928, *A. obliquaepilosa* Obenberger, 1924, *A. gabonica* sp. n. and *A. gianfrancoi* sp. n.

*A. atomaria* species-group is characterized by wedge-shaped body, flat or very slightly convex frons, very narrow vertex, head retracted into prothorax, completely asetose dorsal side, black or black-bronze colouration (except for *A. aurohumeralis*) and by nearly homogeneous, ocellate pronotal sculpture with well-developed central grains.

*A. rothkirchi* species-group is characterized by very prolonged body, more or less convex frons, wide vertex, large head not retracted into prothorax, large eyes which are often projecting beyond outline of head, distinct and often rather long elytral pubescence, metallic colouration, caudiform elytra and by heterogenous pronotal sculpture sometimes forming transverse wrinkles.

Species of both species-groups are very rare in collections and some of them seem to be really inhabitants of forest canopy. Having studied type specimens of all the species mentioned above I also found a new synonym which is treated below (sub *A. rothkirchi*).

Abbreviations used in the text: MSNC - Museo Civico di Storia Naturale, Carmagnola; NMPC - National Museum, Prague.

### ***Anthaxia (Haplanthaxia) rothkirchi* Obenberger, 1922**

*Anthaxia rothkirchi* Obenberger, 1922: 129.

*Anthaxia rothkirchi littorea* Obenberger, 1924: 78-79, syn. n.

Examination of the type specimens of *A. rothkirchi* as well as *A. rothkirchi littorea* (HTs in NMPC) I found *A. rothkirchi littorea* Obenberger, 1924 (described from Camerun) to be conspecific with *A. rothkirchi* Obenberger, 1922 (described from Golden Coast) and a junior synonym. I have failed to find any significant difference between holotypes of both subspecies.

### ***Anthaxia (Haplanthaxia) melanosoma* sp. n.**

(Figs. 1, 5, 9)

Small, completely black (male) or blue-black (female), lustrous, asetose and wedge-shaped species (fig. 1).

Head small, retracted into prothorax, frons flat; clypeus widely incurved anteriorly, vertex flat, 1.1 times as wide as width of eye; eyes large but not projecting beyond outline of head, their inner margins slightly S-shaped; sculpture of head consisting of oval and polygonal cells with small and sharp central grains which are nearly indistinct on vertex; antennae short, hardly reaching midlength of lateral pronotal margins; first segment prolonged, pear-shaped, second segment oval, slightly longer than wide, third segment very small, triangular, hardly longer than wide; antennomeres 4 - 10 wider than long, triangular to trapezoidal, last antennal segment ovoid.

Pronotum 1.7 times as wide as long, rather convex with shallow but wide laterobasal depressions and two small and shallow depressions on the disc; both anterior and posterior pronotal margins nearly straight, their medial lobes indistinct; lateral pronotal margins widely arched, nearly angulate, the widest part of pronotum at its anterior third; pronotal sculpture consisting of nearly homogeneous polygonal cells with small but sharp central grains (fig. 9) on lustrous background. Scutellum small, subcordiform and convex, as long as wide, finely microsculptured.

Elytra conspicuously wedge-shaped, 2.1 times as long as wide at humeral part, humeral swellings weakly developed; only elytral apex with extremely fine lateral serration, each elytron widely and separately rounded apically; basal transverse depression deep but short, not reaching scutellum; elytral epipleura wide, nearly reaching elytral apex; sculpture of elytra consisting of very fine, transverse or horse-shoe-shaped wrinkles and extremely fine punctures.

Ventral side lustrous, pro- and metasternum with fine, ocellate sculpture with well-developed central grains; abdominal sternites with very indistinct and prolonged ocellate sculpture, central grains nearly invisible. Last abdominal sternite obtusely rounded apically with somewhat elevate, smooth lateral margin in both sexes. Prosternal process slightly concave (male) or flat (female) and somewhat enlarged behind anterior coxae. Legs relatively long, mesotibiae of male triangularly enlarged at apex, metatibiae flattened at apical half; basal and distal tarsomeres of metatarsus equal in length. Claws thin, almost straight in basal half, only slightly enlarged at base.

Aedeagus (fig. 5) spindle-shaped, median lobe pointed apically, parameres only moderately widened at their posterior third.

Length: 3.7 mm (holotype), 4.3 mm (allotype); width: 1.3 mm (holotype), 1.4 mm (allotype).

Holotype (male): Gabon, La Makande, 30.V.1999, ex larva, Curletti leg. (MSNC).

Allotype (female): Rep. Centralafric., La Maboke, 4.XII.1969, P. Teocchi rec.; Elevage: larve dans *Triplochiton scleroxylon* K. Schum. (NMPC).

Sexual dimorphism. Female differs from male by larger size, more rounded lateral pronotal margins, flat prosternal process, simple metatibiae and by lacking of small depressions on pronotal disc.

Name derivation. The specific name is derived from Greek words melanos (black) and soma (body) indicating completely black colouration of the holotype.

Differential diagnosis. Belonging to the *A. atomaria* species-group, *A. melanosoma* sp. n. is very similar to *A. elegantula* Obenberger described from Angola. It differs from it by the shape of the pronotum which is widest in the middle part in *A. elegantula*, finer pronotal sculpture with well-developed central grains (rougher sculpture with indistinct central grains in *A. elegantula*) and also by fine sculpture of the anal sternite which is much rougher sculptured than previous sternites in *A. elegantula*. Laterobasal pronotal depressions in *A. elegantula* are large and wide, connected to each other by a fine, transverse depression while these in *A. melanosoma* sp. n. are shallow and isolated. *A. melanosoma* sp. n. differs from other species of the *A. atomaria* species-group by its more prolonged body, distinctly caudiform elytra and by absence of the short, lateral keel at posterior pronotal angles which is developed in other species of the group.

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

(Figs. 2, 6, 11)

Very small and slender, distinctly “agriliiform” species (fig. 2); frons bright golden green, vertex black with green lustre; pronotum black with green lustre, its lateral sides, posterior angles and very narrow stripe along anterior margin golden green; elytra black-green or black with green lustre, narrow basal part with golden green reflections; abdomen black with golden green tinge along lateral sides of sternites, rest of ventral side black with green lustre; femora, tibiae, metacoxae and metepimers golden green; head and pronotum asetose; elytra with indistinct and sparse white pubescence, ventral side with somewhat longer but very sparse pubescence.

Head large and wide, as wide as pronotum at its midlength; anterior margin of clypeus narrowly but deeply incurved, frons regularly convex; vertex convex with indistinct medial line, 2.1 times as wide as width of eye; eyes large, widely reniform, distinctly projecting beyond outline of head; sculpture of head consisting of dense polygonal and oval cells with rugose microsculpture and indistinct central grains; antennae short, rather com-

pact, hardly reaching midlength of lateral pronotal margins; first antennal segment pear-shaped, second segment almost spherical, third segment triangular, as wide as long; antennomeres 4 - 10 short, triangular to trapezoidal, 1.5 times as wide as long, last segment elliptical.

Pronotum transverse, 1.8 times as wide as long, rather flat; laterobasal pronotal depressions shallow but large, reaching anterior half of pronotum; posterior pronotal margin nearly straight, anterior margin with large and wide medial lobe; lateral pronotal margins angulately rounded, distinctly incurved before posterior angles; pronotal sculpture rather indistinct and rugose, consisting of feeble, transverse wrinkles and rugose, basal microsculpture (fig. 11); sculpture in laterobasal depressions and along lateral margins with more distinct ocellation, similar to that on vertex. Scutellum nearly triangular, flat and microsculptured.

Elytra slender, moderately convex and slightly caudiform, 2.6 - 2.7 times as long as wide at humeral part; apex of elytra finely but distinctly serrate, each elytron separately rounded apically; elytral epipleura very narrow, not reaching elytral apex; both humeral swellings and basal, transverse depressions almost indistinct; elytral sculpture very fine, nearly tile-shaped on posterior two thirds and grainy on basal elytral third.

Abdomen smooth and lustrous without distinct sculpture, only anal segment with prolonged, indistinct ocellation; rest of ventral side with very fine and sparse ocellation with indistinct central grains on somewhat microsculptured background. Prosternal process flat, slightly enlarged behind procoxae. Anal sternite transversely cut apically, without lateral serration. Legs rather short and very slender, tibiae not modified. Claws very thin, hook-shaped.

Aedeagus (fig. 6) with conspicuously swollen medial part of parameres whilst the apical parts of parameres are very slender; median lobe obtusely pointed apically.

Length: 3.5 mm (holotype), 3.3 mm (paratype); width: 1.1 mm (holotype), 1.0 mm (paratype).

Holotype (male): Gabon, La Makande, Forêt des Abeilles, 0.40S 11.54E, 18.-31.I.1999, G. Curletti leg.; color trap; canopy (MSNC).

Paratype (male): the same data (NMPC).

Female and bionomy unknown.

Name derivation. This species is named after the country of its origin (Gabon).

Differential diagnosis. *A. gabonica* sp. n. somewhat resembles small males of *A. eupoeta* Obenberger described from Uganda but except for its body-size it differs by lustrous but darker colouration (male of *A. eupoeta*

is completely blue-green with silky lustre), dark disc of pronotum, large eyes strongly projecting beyond outline of head, convex frons and much wider vertex. Also pronotal sculpture is very different being roughly ocellate and aedeagus being subparallel in *A. eupoeta*. Elytral apex is more caudiform in *A. gabonica* sp. n. than that in *A. eupoeta*. Apart from size, shape and colouration, *A. gabonica* differs from other species of the *A. rothkirchi* species-group by short elytral pubescence which is rather long and very distinct in other species of the group.

***Anthaxia* (*Haplanthaxia*) *gianfrancoi* sp. n.**  
(Figs. 3, 7, 10)

Small, slender and “agriliform” species (fig. 3); frons bright golden green, lateral pronotal margins (including laterobasal depressions) golden green; elytra, legs and antennae brownish-golden green, vertex and large pronotal spot reaching from anterior to posterior margin black with fine greenish lustre; ventral side black with slight green lustre, laterosternites dark golden green; dorsal side completely aetose, ventral side with extremely fine and sparse white pubescence.

Head relatively large, frons flat, vertex indistinctly convex being 1.4 times as wide as width of eye; eyes large but not projecting beyond outline of head; clypeus only feebly incurved anteriorly; sculpture of head consisting of small, polygonal cells with small central grains; antennae short, reaching midlength of lateral pronotal margins; first antennal segment prolonged, pear-shaped, second segment very small, nearly spherical, third segment triangular, slightly longer than wide; antennomeres 4-10 triangular to trapezoidal, about as long as wide; last antennal segment elliptical.

Pronotum flattened, 1.6 times as wide as long with wide nearly triangular laterobasal depressions; anterior pronotal margin widely lobate medially, posterior margin almost straight; lateral margins of pronotum regularly arched, the widest part of pronotum at anterior third; disc of pronotum with indistinct, transverse medial depression; sculpture of pronotum consisting of fine, polygonal cells with sharp central grains on lateral parts of pronotum; central grains on pronotal disc often broken into several very fine granules. Scutellum nearly triangular, flat and microsculptured.

Elytra 2.5 times as long as wide, subparallel in anterior half and regularly tapering posteriad in apical half; humeral swellings indistinct, basal transverse depression very small and shallow, nearly missing; each elytron rounded separately and very finely, nearly indistinctly serrate apically; elytral epipleura narrow, not reaching elytral apex; sculpture of elytra very fi-

ne, nearly tile-shaped, somewhat denser on basal half of elytra.

Ventral side lustrous, prosternum, metasternum and first abdominal segment with fine ocellate sculpture with small central grains, rest of abdomen with very fine, horse-shoe-shaped sculpture. Anal sternite regularly rounded and indistinctly serrate apically with somewhat elevated posterior margin in both sexes. Prosternal process flat, roughly punctured and very finely margined, widened behind anterior coxae. Legs relatively long and very slender, male tibiae not modified. Claws simple, hook-shaped and enlarged in basal half.

Aedeagus (fig. 7) subcylindrical, median lobe obtusely pointed apically; parameres slightly swollen at basal third, nearly straight in apical half and distinctly lobate preapically. Length: 4.5 mm (holotype), 5.0 mm (allotype); width: 1.3 mm (holotype), 1.5 mm (allotype).

Holotype (male): Gabon, La Makande, Forêt des Abeilles, 0.40S 11.54E, 18.-31.I.1999, G. Curletti leg. (MSNC).

Allotype (female): Congo Belge, A. Collart (NMPC).

Sexual dimorphism. Female differs from male by much darker colouration (black head, black-bronze pronotum and elytra with golden-bronze tinge in laterobasal pronotal depressions and at the base of elytra) and by somewhat wider vertex (1.5 times as wide as width of eye).

Name derivation. This species is named after the collector, Gianfranco Curletti (MSNC).

Differential diagnosis. *A. gianfrancoi* sp. n. differs from other African "agriliiform" *Anthaxia* by flat frons, nearly cordiform pronotum (its widest part at anterior third) and indistinct elytral pubescence as well as by the form of the aedeagus (fig. 7) which is rather unique in this morphological group. It could be also included into the *A. rothkirchi* species-group but it differs from all the species of the group by its aetose elytra, flat frons and eyes not projecting beyond the outline of the head, standing a little aside of the other "agriliiform" african *Anthaxia*.

### ***Anthaxia (Haplanthaxia) aurohumeralis* sp. n.**

(Figs. 4, 8, 12)

Very small, wedge-shaped, metallic coloured species; dorsal side completely aetose, ventral side with extremely fine and sparse, white pubescence; male: head, antennae and pronotum black with slight blue-green tinge, posterior pronotal angles blue-green, elytra dark golden-orange with wide, longitudinal, black stripe along the suture reaching nearly elytral apex, ventral side black with blue lustre, legs black; female: head and pro-

notum blue-green, lateral pronotal margins with slight golden lustre, elytra golden green with bright golden-orange humeral stripe reaching nearly midlength of elytra, ventral side golden green with blue tinge, legs and antennae dark golden green.

Head large and wide and deeply retracted into prothorax (fig. 4); frons slightly convex with very shallow, indistinct depression in anterior half, clypeus nearly straight anteriorly; vertex much narrower than width of eye, covered by pronotum; eyes large, reniform, their inner margins nearly parallel-sided, converging only in their upper part; antennae short, hardly reaching midlength of lateral pronotal margins; first antennal segment prolonged, pear-shaped, second segment elliptical, third segment indistinctly triangular, only slightly longer than wide, being the shortest antennal segment; antennomeres 4-10 widely triangular, slightly wider than long; last antennal segment ovoid.

Pronotum rather convex, 1.6 times as wide as long with very shallow laterobasal depressions and with small, indistinct discal depression; anterior pronotal margin slightly lobate, posterior margin feebly bisinuous; lateral pronotal margins regularly arched, the widest part of pronotum at its midlength; pronotal sculpture consisting of homogeneous, well-developed polygonal cells with rounded central grains (fig. 12).

Elytra distinctly wedge-shaped (fig. 4), 2.1-2.2 times as long as wide at humeral part with separately and somewhat angulately rounded apices; humeral swellings small and indistinct, transverse basal depression wide and deep but not reaching scutellum; elytral apex slightly caudiform and very feebly serrate; elytral epipleura wide but not reaching elytral apex; elytral sculpture very finely tile-shaped, grainy to wrinkled on basal part; lateral elytral margin separating epipleura sharp, nearly keel-shaped.

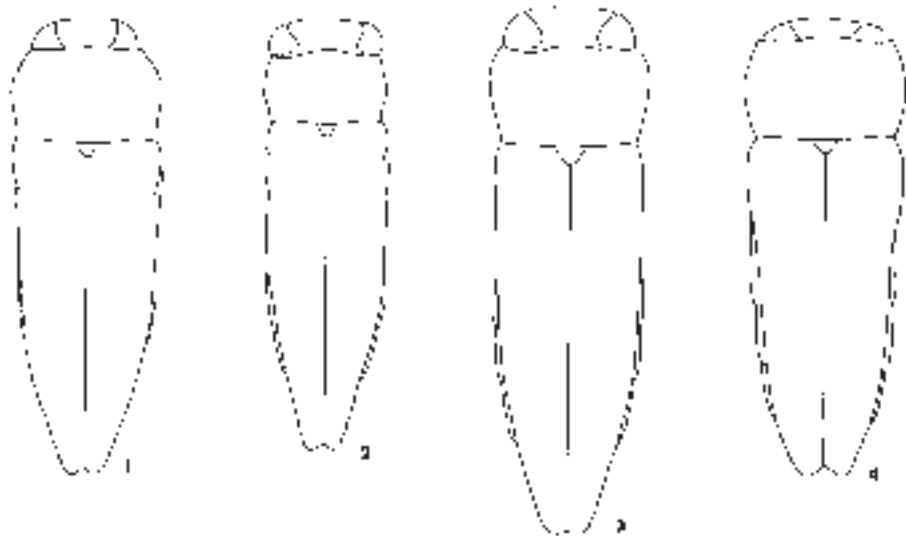
Ventral side lustrous with ocellate sculpture, three posterior sternites with very indistinct ocellation. Anal sternite obtusely cut in both sexes without distinct lateral serration. Prosternal process flat, finely margined, subparallel and not enlarged behind anterior coxae. Legs relatively long and slender, metatibiae flattened and slightly enlarged distally in both sexes. Claws slender and hook-shaped, slightly enlarged at base.

Aedeagus (fig. 8) with obtusely pointed median lobe; parameres swollen and well-sclerotized in basal half, subparallel and weakly sclerotized in distal half.

Length: 3.8 mm (holotype), 4.2 (allotype); width: 1.3 mm (holotype), 1.4 mm (allotype).

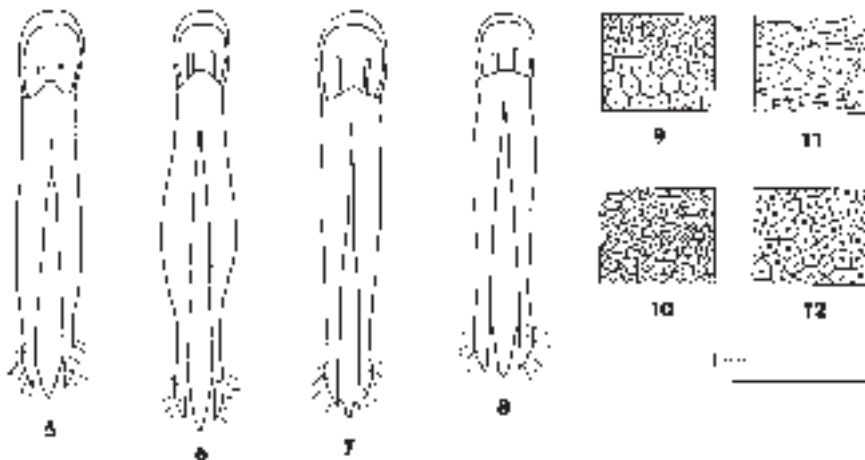
Holotype (male): Gabon, Estu. Tchimbélé, 7.II.1987, A. Pauli réc., *Harungana madagascariensis* (NSMC).





Figs. 1-4 - Body-shape of *Anthaxia* spp. n.

1. *Anthaxia (Haplantboxia) melanosoma* sp. n., holotype, 3.7 mm; 2. *A. (Hapl.) gabonica* sp. n., holotype, 3.5 mm; 3. *A. (Hapl.) gianfrancoi* sp. n., holotype, 4.5 mm; 4. *A. (Hapl.) aurohumeralis* sp. n., holotype, 3.8 mm.



Figs. 5-8 - Aedeagus of *Anthaxia* spp. n.

5. *Anthaxia (Haplantboxia) melanosoma* sp. n., holotype; 6. *A. (Hapl.) gabonica* sp. n.; 7. *A. (Hapl.) gianfrancoi* sp. n.; 8. *A. (Hapl.) aurohumeralis* sp. n.

Figs. 9-12 - Pronotal sculpture of *Anthaxia* spp. n.

9. *Anthaxia (Hapl.) melanosoma* sp. n.; 10. *A. (Hapl.) gianfrancoi* sp. n.; 11. *A. (Hapl.) gabonica* sp. n.; 12. *A. (Hapl.) aurohumeralis* sp. n.

Allotype (female): Cours du Congo, entre Léopoldville et Stanleyville, L. Burgeon, 1918 (NMPC).

Sexual dimorphism. Female differs from male by more bright colouration (see above), more robust body and less distinct laterobasal pronotal depressions.

Name derivation. The specific name is derived from Latin substantives *auratus* (golden) and *humerus* (shoulder).

Diferential diagnosis. *A. aurohumeralis* sp. n. resembles by its colouration (although a member of a different species-group) males of *A. praececellens* Kerremans, 1909. It belongs to the *A. atomaria* species-group differing from other species of the group by its metallic colouration and relatively short and stout body.

#### ACKNOWLEDGEMENTS

I am very obliged to my friend, Gianfranco Curletti (MSNC), for the possibility to study the material collected during the project “Radeau des Cimes - Gabon 1999”.

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