

Two new taxa of subtribe Rhaconotina (Hymenoptera: Braconidae, Doryctinae, Doryctini) from Africa, with a key to subtribe genera

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Abstract – A new genus, *Grangerdoryctes* gen. n. (with type species *Aivalykus niger* Granger), from Madagascar and a new subgenus *Pararhacon* subgen. n. of the genus *Rhaconotus* Ruthe (type species *R. (P.) haeselbarthi* sp. n.) from South Africa are described and illustrated. A discussion of genera without a second radiomedial vein of the fore wing in the tribe Doryctini is presented. The position and content of the subtribe Rhaconotina are discussed and a key for determination of the genera of this subtribe is proposed.

Résumé – Deux nouveaux taxons de la sous-tribu Rhaconotina (Hymenoptera : Braconidae, Doryctinae, Doryctini) de l'Afrique. Le nouveau genre *Grangerdoryctes* gen. n. (espèce type du genre : *Aivalykus niger* Granger) du Madagascar et le nouveau sous-genre de *Pararhacon* subgen. n. du genre *Rhaconotus* Ruthe (espèce type du genre : *R. (P.) haeselbarthi* sp. n.) de l'Afrique du Sud sont décrits et illustrés. La discussion sur les genres de Doryctini privés de la deuxième nervus radiomédiale des ailes antérieures est présentée. La position et la composition générique de la sous-tribu Rhaconotina sont discutées et une clé de détermination les genres de cette sous-tribu est proposée.

The African fauna of the braconid wasps of the subfamily Doryctinae is very diverse and precise. About 35 doryctine genera have been recorded on this continent including such particular endemic ones as *Leptorhaconotus* Granger 1949, *Priosphys* Enderlein 1920, *Schlettereriella* Szépligeti 1904, *Spathioplites* Fischer 1962, *Ivondrovia* Shenefelt et Marsh 1976, *Afrospathius* Belokobylskij et Quicke 2000, *Stephanospathius* Belokobylskij 1992, *Mimodoryctes* Belokobylskij 2001 etc. (Shenefelt & Marsh, 1976; Belokobylskij, 1992, 2001a; Belokobylskij & Quicke, 2000). Granger's (1949) monographic study of the Madagascanian fauna was a significant introduction to the knowledge of the African Doryctinae (as well as all Braconidae). However, knowledge of the mainland fauna of this group is too fragmentary and incomplete.

The genus *Rhaconotus* Ruthe 1854 was distinguished long time within the tribe Rhaconotini (Shenefelt & Marsh, 1976). Studies of the types of numerous *Rhaconotus* species (as well as species of related genera *Ipodoryctes* Granger 1949, *Aptenobracon* Marsh 1965, *Arhaconotus* Belokobylskij 2000, *Mimipodoryctes* Belokobylskij 2000, and *Neorhaconotus* Belokobylskij, Iqbal et Austin 2004) from different regions of the world have led to downgrading this tribe to a subtribe Rhaconotina of the tribe Doryctini (Belokobylskij, 1992, 2000, 2001b). The new genus described below should also be included in this subtribe on account of the following characters: more or less enlarged fifth and sixth metasomal tergites, interstitial parallel vein, postfurcal recurrent vein, and hind femur with dorsal protuberance.

The type species of the new genus, *A. niger* Granger 1949, was originally assigned to the genus *Aivalykus* Nixon 1938 (tribe Ecphylini) (Granger, 1949) and was included in this genus until recently (Shenefelt & Marsh, 1976; Belokobylskij & Chen, 2002). A careful

study of the holotype of this species from Muséum National d'Histoire Naturelle (Paris) showed in this specimen the presence of a nervellus in the hind wing, which is closed small submedial cell, enlarged fifth and sixth metasomal tergites, and the presence of curved and crenulate furrows on the third-fifth tergites. These characters are significantly separating this species from the members of the genus *Aivalykus* as well as from the tribe Ecphylini. As a result, a new genus *Grangerdoryctes* gen. n. is described below for this species, and this new genus, according to the present key to tribes (Belokobylskij, 1992), should be included in the tribe Doryctini s.l.

The genera of the tribe Doryctini s.l. are characterised by the presence of both radiomedial veins and usually constant presence of the second radiomedial cell (except a few genera without the first radiomedial vein – another evolutionary tendency in this tribe). However, genus *Mimodoryctes* Belokobylskij 2001 of this tribe (subtribe Doryctina) with only one (first) radiomedial vein was recently described (Belokobylskij, 2001a) from North Africa. This is exceptional among Doryctini because a well-developed second radiomedial vein is one of the main stable characters of this tribe (Belokobylskij, 1992). The second new genus from Madagascar with only one radiomedial vein described below is already placed in the subtribe Rhaconotina. It is important to underline that in some tribes of the subfamily Doryctinae (e.g., Hecabolini and Spathiini), examples of both presence and absence of the the second radiomedial vein (not only in different genera, but also in species of one genus or in different specimens of one species) have already been recorded. This is a frequent finding especially in hecabolins, and more than half of the tribe's genera have a distally marginate second radiomedial cell, which is absent in the classic hecaboline genera (*Hecabolus* Curtis 1834, *Monolexis* Foerster 1862, *Polystenus* Foerster 1862 etc.) (Belokobylskij, 1992).

Data on the biology of the new genus and subgenus described below are not available. Because these taxa appear to be closely related to *Rhaconotus* Ruthe, they may parasitize larvae of beetles from the families Buprestidae, Curculionidae or Bruchidae (Shenefelt & Marsh, 1976).

The terminology for wing venation follows that defined by Belokobylskij & Tobias (1998). The following abbreviation are used: POL – postocellar line; OOL – ocular-ocellar line; Od – maximum diameter of lateral ocellus; ZSSM – Zoologische Staatssammlung (München, Germany); MNHN – Muséum National d'Histoire Naturelle (Paris, France).

SYSTEMATICS

Grangerdoryctes n. gen.

Type-species: *Aivalykus niger* Granger, 1949.

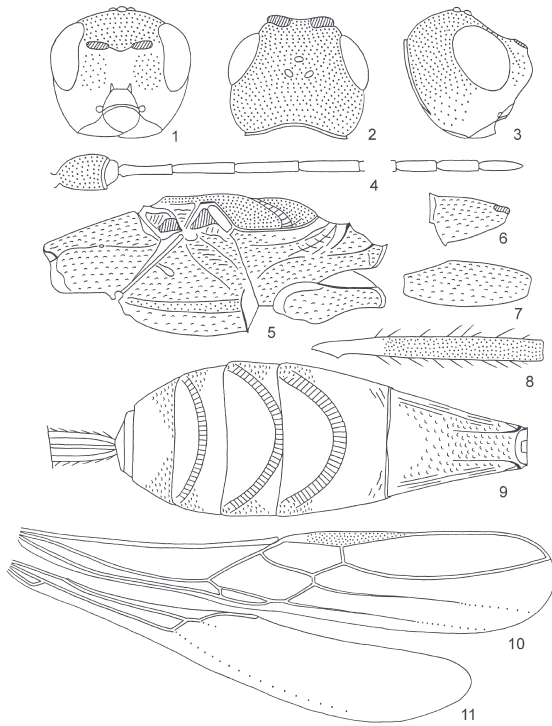
Etymology – from Dr. C. Granger, the author of the type species, and “*Doryctes*”, the name of the doryctine genus. The gender is masculine.

Diagnosis – *Grangerdoryctes* gen. n. is similar to *Rhaconotus* Ruthe and differs from the latter (as well as from all other Rhaconotina genera) in lacking the second radiomedial vein and in having an indistinct parastigma, the first flagellar segment distinctly shorter than second, the third-fifth tergites with strongly curved and distinctly crenulate furrows, and lacking a second suture. The absence of the second radiomedial vein with a closed brachial cell makes the new genus superficially similar to *Mimodoryctes* Belokobylskij but it differs from the latter in the following characters: pterostigma very long and narrow, parastigma indistinct, recurrent vein postfurcal, parallel vein interstitial, mediocubital vein of hind wing very short, no recurrent vein of the hind wing, the first flagellar segment distinctly shorter than the second segment, scapus large, neck of pronotum long, convex dorsally and with a median carina, the tergites third to fifth with strongly curved and distinctly crenulate furrows.

Description – Head subcubical (fig. 2), its width 1.3 times median length (dorsal view). Ocelli small, in triangle with base 1.15 times its sides. Frons flat, without median keel. Eyes glabrous. Occipital carina present, but obliterated below on a long distance. Malar suture absent. Clypeal suture shallow and complete. Hypoclypeal depression rather small and round (fig. 1). Face with 2 shallow submedian elongate-oval depressions above clypeal suture. Palpi rather long; maxillary palpi 6-segmented, labial palpi possibly 4-segmented (glued). Scapus wide and rather long, without apical lobe; length of scapus 1.4 times its maximum width. First flagellar segment 0.8 times as long as second segment (fig. 4).

Mesosoma weakly depressed (fig. 5). Neck of promesosoma long, convex dorsally (lateral view). Pronotal keel high, situated submedially on pronotum. Propleural posterior lobe distinct and rather wide. Mesonotum weakly gently-roundly raised above pronotum (fig. 5). Median lobe of mesonotum without anterolateral corners. Notauli deep, wide, complete, finely granulate with crenulation. Prescutellar depression long, deep and sculptured, with high median carina. Scuto-scutellar suture rather distinct. Scutellum weakly convex, without lateral carinae, its length 1.15 times maximum width. Metanotum with very short and pointed median tooth. Subalar depression rather deep and narrow. Mesopleural pit deep and long. Sternauli deep, narrow, long, straight, finely coriaceous. Prepectal carina distinct. Postpectal carina absent. Metapleural flange short, narrow, rounded apically. Propodeum without marginate areas; lateral tubercles and propodeal bridge absent. Propodeal spiracles small. Metapleural suture present and distinct.

Pterostigma of fore wing (fig. 10) very narrow; radial vein arising almost from middle of pterostigma. Parastigma indistinct. Radial cell not shortened. Second radiomedial vein absent;



Figures 1-11
Grangerdoryctes niger (Granger). – 1, head, frontal view. – 2, head, dorsal view. – 3, head, lateral view. – 4, basal and apical segments of antenna. – 5, mesosoma, lateral view. – 6, hind coxa. – 7, hind femur. – 8, hind tibia. – 9, metasoma, dorsal view. – 10, fore wing. – 11, hind wing.

first vein distinctly sclerotized. Recurrent vein postfurcal. Mediocubital vein distinctly curved to anal vein in posterior half. Nervulus distinctly postfurcal. Discoidal cell petiolate. Parallel vein interstitial. Brachial cell distally closed distinctly before recurrent vein. Transverse anal veins absent. Hind wing (fig. 11) with 3 hamuli. Nervellus present. Submedial cell present and small. First abscissa of mediocubital vein 0.35 times second abscissa. Recurrent vein absent. Medial cell narrow, 0.4 times as long as hind wing. Radial vein arising from basal vein closely to costal vein. Radial cell indistinctly marginated, without additional transverse vein. First abscissa of costal vein about half of second abscissa.

Legs. Fore and middle tibiae with sparse large spines arranged almost in one row. Hind coxa medium-sized, with distinct basoventral tooth (fig. 6). All femora with distinct dorsal protuberances. Hind femur 2.8 times as long as wide (fig. 7). Hind tibia with 2 spine on outer distal margin and with short area of rather dense white setae on inner distal edge. Hind tibial spurs rather short and sparsely setose; inner spur about 0.3 times as long as hind basitarsus. Basitarsus of hind tarsus 0.6 times as long as second-fifth segments combined.

First metasomal tergite not petiolate, wide (fig. 9). Acrosternite about 0.2 times as long as first tergite, its apical margin situated distinctly before spiracles. Dorsople of first tergite

very small; basolateral lobes absent. Spiracular tubercles indistinct, spiracles situated in basal third of tergite; dorsal carinae present in basal half of tergite. Second suture absent. Third and fourth tergites with rather narrow, distinctly crenulate, and strongly curved furrows (fig. 9); similar but more shallow and less curved furrow present on fifth tergite. Second-fifth tergites with separate laterotergites. Hypopygium small, widely rounded posteriorly. Ovipositor shorter than metasoma.

Distribution – Madagascar.

**Key to the World genera
of the subtribe *Rhaconotina***

1. Apterous or brachypterous forms 2
- Macropterous forms 3
2. Scutellum weakly protruding. Constriction between propodeum and metathorax indistinct or weak. First metasomal tergite weakly and rather uniformly convex. Almost all world, except South America
. *Rhaconotus* Ruthe
- Scutellum strongly protruding. Constriction between propodeum and metathorax distinct and deep. First metasomal tergite very strongly convex in posterior one-third. Nearctic Region *Aptenobracon* Marsh
3. First and second metasomal tergites of female immovably fused 4
- First and second metasomal tergites of female movably connected 5
4. Parallel vein of fore wing interstitial. First and second tergites of male immovably fused. Vertex smooth or densely granulate, without striation. Oriental and Australian Regions *Arhaconotus* Belokobylskij
- Parallel vein of fore wing not interstitial, arising from anterior third of distal margin of brachial cell. First and second tergites of male movably connected. Vertex striate or rugose, sometimes with granulation between rugae. Oriental Region *Mimipodoryctes* Belokobylskij
5. Second radiomedial vein absent. Parastigma indistinct. Third-fifth metasomal tergites with strongly curved and distinctly crenulate furrows. Second suture absent. Afrotropical Region *Grangerdoryctes* gen. n.
- Second radiomedial vein present. Parastigma distinct. Third-fifth metasomal tergites without curved furrows. Second suture present and deep 6
6. Submedial cell of hind wing large; first abscissa of mediocubital vein 0.85-1.0 times as long as second abscissa. Propodeum with distinctly marginate basolateral areas and areola. Fourth-sixth tergites smooth entirely or almost entirely. Australian Region
. *Neorhaconotus* Belokobylskij, Iqbal et Austin
- Submedial cell of hind wing small; first abscissa of mediocubital vein 0.3-0.7 times as long as second abscissa. Propodeum without marginate areas or only with marginate basolateral areas. Fourth-sixth tergites at least basally distinctly sculptured 7
7. Parallel vein not interstitial, arising from distal margin of brachial cell. Metasoma always with 6 visible meta-

somal tergites. Second tergite usually with basal area Afrotropical, Oriental and Australian Regions

- *Ipodoryctes* Granger
 – Parallel vein interstitial, arising from cubital vein. Metasoma with 5 or 6 visible metasomal tergites. Second tergite usually without basal area. Almost all world, except South America *Rhaconotus* Ruthe

***Grangerdoryctes niger* (Granger), n. comb.**
 (figs 1-11)

Aivalykus niger Granger, 1949: 145; Shenefelt & Marsh, 1976: 1353; Belokobylskij & Chen, 2002: 77.

Studied material – 1 ♀ (holotype), “Madagascar, Bekily, reg sud de l’ile”, “Museum Paris, X.-38, A. Seyrig”, “25”, “Type”, “Holotypus *Aivalykus niger* Granger 1949” (NHMN).

Description – Female. Body length 2.3 mm; fore wing length 2.1 mm. Head behind eyes (dorsal view) roundly narrowed; transverse diameter of eye 1.1 times as long as temple (dorsal view). POL 1.5 times Od, 0.4 times OOL; Od 0.3 times OOL. Eye 1.2 times as high as broad. Malar space 0.6 times as high as eye, almost equal to basal width of mandible. Face width 1.3 times eye height and 1.3 times height of face and clypeus combined. Clypeus with short flange along lower margin. Hypoclypeal depression oval, its width equal to distance from depression to eye, 0.5 times width of face. Tentorial pits small. Head strongly and roundly narrowed below eyes (frontal view).

Antenna slender, filiform, 25-segmented, 1.4 times as long as body. Scapus rather long and thick, about 1.5 times as long as wide, 3.3 times as long as pedicel. First flagellar segment straight, about 5.0 times as long as apical width, 0.8 times as long as second segment. Penultimate segment 4.0 times as long as wide, 0.9 times as long as apical segment; the latter rounded apically.

Mesosoma. Length 2.4 times its height. Subalar depression rather deep, narrow, densely coriaceous. Metapleural flange short, rather wide, rounded apically. Propodeum straight, distinctly narrowed toward apex.

Wing. Length of fore wing 5.0 times its maximum width. Pterostigma 9.3 times as long as wide, almost as long as metacarpus. Length of first abscissa of radial vein equal to maximum width of pterostigma. Radial vein arising from middle of pterostigma. Second radial abscissa uniformly curved. First radio-medial vein 2.3 times as long as first radial abscissa, 0.16 times as long as second abscissa, 0.9 times as long as recurrent vein, 3.5 times as long as second abscissa of medial vein. First medial abscissa curved basally, straight for the most part. Discoidal cell 2.3 times as long as wide. Brachial cell narrowed distally. Distance from basal vein to nervulus 1.5 times nervulus length. Hind wing 6.0 times as long as wide.

Legs. Middle tibia with 3 spines on outer side. Hind tarsus 0.9 times as long as hind tibia. Second tarsal segment 0.5 times as long as basitarsus, 1.15 times as long as fifth segment (without pretarsus).

Metasoma. Length of first tergite 1.3 times its apical width; apical width 2.5 times basal width. Length of second and third

tergites combined equal to basal width of second tergite, 0.7 times their maximum width. Fifth tergite almost as long as fourth tergite. Ovipositor sheath 0.7 times as long as metasoma, 0.9 times as long as mesosoma, 0.4 times as long as fore wing.

Sculpture and pubescence. Head densely granulate; face finely coriaceous in upper half and almost smooth in below half; temple finely coriaceous below. Mesoscutum and scutellum densely granulate, mesoscutum in posterior half with two partly fused carinae. Mesopleura and metapleura densely coriaceous. Propodeum densely coriaceous, finely coriaceous posteriorly, rugulose along posterior and lateral margins, without areas, with distinct short basal carina. Hind coxa and femur coriaceous, hind tibia granulate. First tergite densely coriaceous, almost smooth posteriorly. Remaining tergites smooth for the most part, coriaceous laterally. Vertex with short and sparse setae marginally. Mesoscutum with short, semi-erect, and sparse setae along notauli and marginally. Hind tibia with short, semi-erect, and sparse setae on dorsal side; length of these setae 0.4-0.5 times as long as maximum width of hind tibia.

Colour. Body dark reddish brown, head slightly paler. Antenna reddish brown basally, darkened towards apex. Palpi pale yellow. Legs reddish yellow, hind coxa reddish brown in basal half. Ovipositor sheath black. Fore wing faintly infusate. Pterostigma brown, yellow in basal 1/3.

Male – Unknown.

GENUS *Rhaconotus* Ruthe, 1854

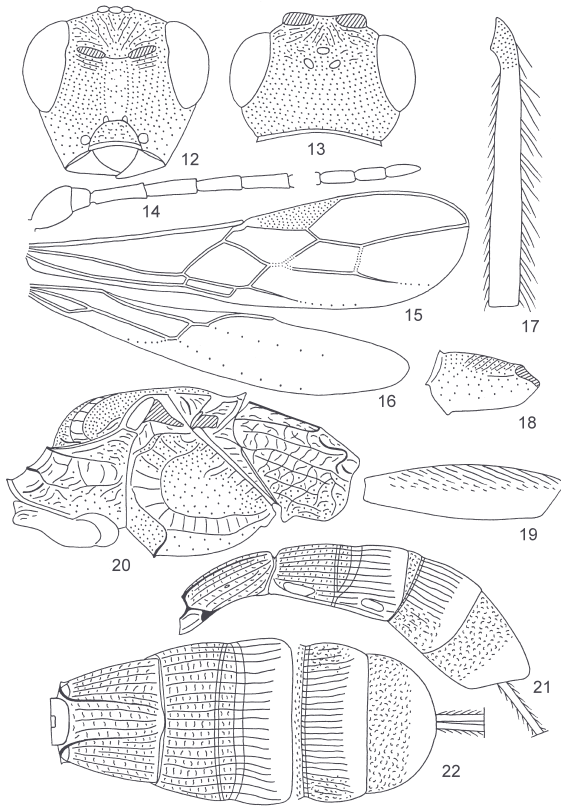
The genus *Rhaconotus* Ruthe 1854 is one of the largest genera in the subfamily Doryctinae. About 100 species of this genus have been described from the Palaearctic, Nearctic, Oriental, Afrotropical and North Neotropical zoogeographical regions (Shenefelt & Marsh, 1976; Belokobylskij, 2001b; Marsh, 2002; Belokobylskij & Chen, 2004). More than 30 species of the genus *Rhaconotus* have been recorded in Africa (Shenefelt & Marsh, 1976). While the status of most Oriental species of *Rhaconotus* is more or less understood, the Afrotropical species of this genus need to be revised. A new subgenus *Pararhacon* subgen. n. of this genus described below is characterized by such peculiar diagnostic features as a distinctly antefurcal recurrent vein of fore wing, pale apical antennal segments, and a propodeum with distinct lateral tubercles.

SUBGENUS *Pararhacon* subgen. n.

Type-species: *Rhaconotus (Pararhacon) haeselbarthi* sp. n.

Etymology – from Greece “para” (near) and part of the generic name “*Rhaconotus*”.

Diagnosis – The new subgenus differs from all the species of *Rhaconotus* in having the recurrent vein of fore wing distinctly antefurcal, the apical antennal segments pale, and the lateral tubercles of propodeum distinct.



Figures 12-22

Rhaconotus (Pararhacon) haeselbarthi subgen. et sp. n. – 12, head, frontal view. – 13, head, dorsal view. – 14, basal and apical segments of antenna. – 15, fore wing. – 16, hind wing. – 17, hind tibia. – 18, hind coxa. – 19, hind femur. – 20, mesosoma, lateral view. – 21, metasoma, lateral view. – 22, metasoma, dorsal view.

Description – Ocelli arranged in triangle with base 1.2 times its sides (fig. 13). Face above clypeus with 2 distinct short depressions. Clypeus convex. Malar suture absent (fig. 12). Occipital carina wide, as wide as hypostomal flange. First flagellar segment almost as long as second segment (fig. 14). Antennae contrasting yellow apically. Pronotal keel high and coarse (fig. 20). Prepectal carina ventrally without lobes. Postpectal carina absent. Notauli complete, wide, and crenulate. Propodeum with indistinctly marginate basolateral areas, with distinct wide obtuse lateral tubercles. Wings (figs 15, 16) weakly shortened. Radial vein arising behind middle of pterostigma. Recurrent vein strongly antefurcal. Brachial cell closed distally distinctly before recurrent vein. Parallel vein interstitial. In hind wing, first mediocubital abscissa 0.7 times as long as second abscissa. Hind coxa with distinct basoventral tooth (fig. 18). Hind femur with very low dorsal protuberance (fig. 19). Hind basitarsus

0.75 times as long as second-fifth segments combined. Metasoma with 5 visible tergites (figs 21, 22). First tergite strongly constricted basally. Second tergite with very shallow and narrow transverse depression in posterior 0.25, which is separated by narrow transverse apical area. Fourth tergite with deep subbasal transverse furrow. Fifth tergite enlarged, weakly rounded posteriorly, longer than fourth tergite.

***Rhaconotus (Pararhacon) haeselbarthi* sp. n.**
(figs 12-22)

Type material – **Holotype**: ♀, South Africa, “Mariepskop, Pilgrim’s Rest distr., Tvl., 14.iv.1964, E. Haeselbarth” (ZSSM).

Description – **Female**. Body length 3.3 mm; fore wing length 2.0 mm. Head width 1.5 times its median length. Head behind eyes (dorsal view) distinctly and weakly-roundly narrowed. Transverse diameter of eye 2.2 times as long as temple (dorsal view). Ocelli medium size; POL 1.25 times Od, 0.5 times OOL. Eye with sparse and short setae, very weakly emarginated opposite antennal sockets, 1.2 times as high as broad. Malar space height 0.6 times height of eye, 1.25 times basal width of mandible. Face with weak and rather wide median vertical convex area in lower half. Face width 1.2 times height of eye and 1.1 times height of face and clypeus combined. Upper margin of clypeus situated distinctly lower than lower level of eyes. Hypoclypeal depression round, its width 0.6 times distance from edge of depression to eye, 0.4 times width of face. Clypeus with distinct ventral flange. Occipital carina fuse ventrally with hypostomal carina upper base of mandible. Vertex weakly convex. Head below eyes distinctly and almost linearly narrowed (frontal view). Maxillary palpi almost as long as height of head.

Antenna weakly thickened, filiform, 25-segmented, 0.9 times as long as body. Length of scapus 1.6 times its maximum width. First flagellar segment 3.3 times as long as its apical width. Penultimate segment 2.3 times as long as wide, 0.6 times as long as first segment, 0.85 times as long as apical segment; the latter pointed apically.

Mesosoma. Length 1.9 times its height. Pronotum anteriorly distinctly convex (dorsal view), almost straight dorsally (lateral view). Distances from pronotal carina to anterior and posterior margins of pronotum subequal. Mesoscutum highly and roundly raised above pronotum. Notauli rather deep, sparsely and coarsely crenulate. Median lobe of mesoscutum without anterolateral shoulder and median furrow. Prescutellar depression deep, rather long, distinctly and linearly directed posterolaterally, with coarse median carina, sparsely rugulose, 0.45 times as long as weakly convex scutellum. Sternauli rather deep, rather wide, densely crenulate, weakly curved, running along entire lower part of mesopleura. Subalar depression deep, rather narrow, coarsely crenulate. Metanotum with tooth directed almost vertically. Metapleural lobe long, rather wide, rounded apically, with very dense numerous white setae. Pleural suture distinctly and sparsely crenulate.

Wings. Length of fore wing 4.0 times its maximum width, reaching apex of fourth tergite. Radial cell not shortened.

Metacarpus 1.3 times as long as pterostigma. Radial vein arising from basal 0.6 of pterostigma. First radial abscissa forming very obtuse corner with second abscissa. Second radial abscissa almost 3.0 times as long as first abscissa, 0.4 times as long as the straight third abscissa, 1.15 times as long as first radiomedial vein. Second radiomedial cell not widened distally, 2.7 times as long as wide, 1.6 times as long as narrow brachial cell. First medial abscissa very weakly S-shape. Recurrent vein about twice as long as second abscissa of medial vein. Mediocubital vein not curved to anal vein in distal half. Distance from nervulus to basal vein almost equal to nervulus length. Brachial cell rather sharply and almost linearly closed distinctly before recurrent vein; posterior bulla present; posterior abscissa of longitudinal anal vein (behind brachial vein) indistinct. Hind wing 5.3 times as long as wide. First costal abscissa 0.8 times as long as second abscissa. Recurrent vein present, unsclerotized, distinctly curved, strongly oblique toward base of wing, weakly antefurcal.

Legs. Hind femur 3.8 times as long as maximum width. Hind tarsus almost as long as hind tibia. Hind tibia apically with 2 small spines on outer margin. Second tarsal segment 0.4 times as long as basitarsus, 2.4 times as long as fourth segment, 1.1 times as long as fifth segment (without pretarsus).

Metasoma almost as long as head and mesosoma combined. Maximum width of first tergite almost 3.0 times its basal width; its length 0.9 times apical width. Median length of second tergite about half its basal width, 1.3 times length of third tergite. Second suture deep, rather wide, uniformly curved. Fifth tergite 1.4 times as long as fourth tergite, 1.7 times as long as third tergite. Ovipositor sheath 0.55 times as long as metasoma, 1.9 times as long as first tergite, 0.8 times as long as mesosoma, 0.45 times as long as fore wing.

Sculpture and pubescence. Vertex entirely densely granulate; frons rugose-striate, but granulate with fine striation posteriorly. Face densely and distinctly granulate, finely granulate medially, finely punctulate-coriaceous below; temple densely and rather finely granulate, almost smooth on narrow stripe along eye. Mesoscutum entirely densely and distinctly granulate, with 2 almost parallel striae in medioposterior half. Scutellum densely and distinctly granulate. Mesopleura densely granulate-rugose in upper 0.3, very finely coriaceous medially, smooth below ster-

nauli. Metapleura entirely coarsely rugose-reticulate. Propodeum coarsely and densely rugose-reticulate entirely, with additional granulation in basal half; with undulate median carina in basal half. Hind coxa densely granulate with distinct striation in posterior half dorsally, coriaceous-punctulate or only punctulate laterally. Hind femur finely striate in dorsal half, almost smooth in ventral half. First tergite with distinct, complete and almost parallel dorsal carinae. First and second tergites entirely, third in basal 0.7, and fourth in basal half coarsely striate, first and second tergites additionally with dense and fine reticulation between striae; third and fourth tergites smooth apically. Fifth tergites finely and densely reticulate-coriaceous in basal half, smooth in apical half. Second-fourth tergites laterally entirely densely striate with dense reticulation between striae. Vertex with rather long sparse semi-erect setae directed forward, rather widely bare near ocelli. Mesoscutum with rather dense long semi-erect white setae widely arranged along notauli and marginally. Hind tibia with long, rather dense, semi-erect white setae dorsally; length of these setae 1.0-1.3 times maximum width of hind tibia.

Colour. Head black, with narrow light reddish brown stripe around eye, face and malar space reddish brown. Mesosoma black, promesosoma anteriorly and ventrally light reddish brown or reddish brown. Metasoma black with reddish submedian stripes on third and fourth tergites, fifth tergite in apical half yellowish brown. Antenna yellow basally, light reddish brown in basal half, reddish brown in apical half, 6 apical segments yellow. Palpi pale yellow. Legs yellow, hind tibia darkened basally, fifth tarsal segments infusate. Ovipositor sheath brown, black apically. Fore wing faintly infusate. Pterostigma brown, paler apically.

Male – Unknown.

Etymology – Named after Dr. E. Haeselbarth, a well-known Germany hymenopterist and collector of the holotype.

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