

A new species of the genus *Asiaontsira* Belokobylskij,
Tang et Chen, 2013 (Hymenoptera: Braconidae: Doryctinae)
from Papua New Guinea

Новый вид рода *Asiaontsira* Belokobylskij, Tang et Chen, 2013
(Hymenoptera: Braconidae: Doryctinae) из Папуа-Новой Гвинеи

S.A. Belokobylskij
С.А. Белокобыльский

Zoological Institute of the Russian Academy of Sciences, Universitetskaya Nab. 1, St.-Petersburg 199034 Russia; Museum and Institute of Zoology, Polish Academy of Sciences, Wilcza 64, Warszawa 00-679 Poland. E-mail: doryctes@gmail.com.

Зоологический институт Российской академии наук, Университетская наб. 1, Санкт-Петербург 199034 Россия; Музей и институт зоологии Польской академии наук, ул. Вильча 64, Варшава 00-679 Польша.

Key words: Hymenoptera, Braconidae, Doryctinae, idiobiont parasitoids, new species, description, key.

Ключевые слова: Hymenoptera, Braconidae, Doryctinae, паразитоиды-идиобионты, новый вид, описание, определительная таблица.

Abstract. A new species of the genus *Asiaontsira* Belokobylskij, Tang et Chen, 2013, *A. leleji* sp.n., is described and illustrated from the tropical forests of Papua New Guinea. A key to all known *Asiaontsira* species is provided.

Резюме. Из тропических лесов Папуа-Новой Гвинеи описывается и иллюстрируется новый вид рода *Asiaontsira* Belokobylskij, Tang et Chen, 2013 — *A. leleji* sp.n. Подготовлена таблица для определения всех известных видов рода *Asiaontsira*.

Introduction

The doryctine genus *Asiaontsira* Belokobylskij, Tang et Chen, 2013 (Hymenoptera: Braconidae), with type species *A. cucphuongi* Belokobylskij, Tang et Chen, 2013, was recently described from the subtropical forests of the South-East China and North Vietnam, and currently comprises two species, *A. cucphuongi* and *A. cantonica* Belokobylskij, Tang et Chen, 2013 [Belokobylskij et al., 2013].

Asiaontsira is closely related to the Australasian genus *Ontsirospathius* Belokobylskij, Iqbal et Austin [Belokobylskij et al., 2004], but clearly differs from the latter in having the second tergite with narrow and smooth basal area separated the apical part of tergite by shallow depression or different type of sculpture but without large subtriangular area on whole tergite separated by distinct furrows, and the distinct transverse carina between antennal socket and eye margin [Belokobylskij et al., 2013].

This paper with description of an additional new species of *Asiaontsira* from Papua New Guinea, as well as the name of the new species, is dedicated to the famous Russian hymenopterist Professor Arkadiy Stepanovich Lelej, in honor to his valuable contribution to the study of the World Hymenoptera and for his 70th birthday anniversary.

Material and methods

Specimen of the new species was found in the collection of the Muséum National d'Histoire Naturelle (Paris, France; NMHN). Sampling of material was conducted from 25 October to 11 November 2012 in Wanang (Papua New Guinea) and at eight sites placed in forest stands every 500 m along the north-eastern face of Mt Wilhelm. At each sampling site, four Malaise traps were set up every 100 m following the same contour line; Malaise trap contents were collected every day. Insects placed in zip-lock bags with 90 % ethyl alcohol were sorted at order level at Wanang station before being exported to France under permit number 012297 granted by the Department of Environment and Conservation of Papua New Guinea. The single Doryctinae specimen described here was caught in Malaise trap at 175 m.

The terminology employed for morphological features and measurements follows Belokobylskij and Maetô [2009]. The wing venation nomenclature follows Belokobylskij and Maetô [2009] with van Achterberg's [1993] terminology shown in parentheses. Photographs were taken with a Leica IC 3D digital camera that was mounted on a Leica® MZ16 microscope and using the Leica Application Suite® imaging system (Museum and Institute of Zoology PAN, Warsaw, Poland).

The holotype of new species is housed in the collection of NMHN.

Taxonomic part

Asiaontsira Belokobylskij, Tang et Chen, 2013

Belokobylskij et al., 2013: 310.

Type species. *A. cucphuongi* Belokobylskij, Tang et Chen, 2013, by original designation.

Asiaontsira leleji sp.n.

Figs 1–14.

Type material. Holotype: female, «Papua New Guinea, Province Madang, Wanang 3 station (–5.22767, 145.0797), 175 m, 11–12.IX.2012, leg. Basset, Plot 3, understorey; Malaise — MAL-WAN03-D05» (NMHN).

Description. Female. Body length 3.0 mm; fore wing length 2.5 mm.

Head width 1.7 times its median length, 1.3 times width of mesoscutum. Head behind eyes (dorsal view) weakly convex-ly narrowed. Transverse diameter of eye 2.5 times longer than temple. Ocellar triangle situated behind middle of head (dorsal view), anterior ocellus situated distinctly behind median level of eyes. Ocelli medium-sized, in triangle with base 1.1 times its sides. POL equal to Od, 0.45 times OOL. Frons laterally with fine carinae. Eye with very weak emargination opposite antennal socket, 1.2 times as high as broad. Malar space 0.35 times height of eye, 0.85 times basal width of mandible. Face along eyes with fine carinae, with shallow and small depressions above clypeus; width of face 0.9 times height of eye and 1.1 times height of face and clypeus combined. Diameter of antennal socket 2.3 times distance between sockets and 1.6 times distance between socket and eye. Hypoclypeal depression width 0.85 times distance from edge of depression to eye, 0.45 times width of face. Head below eyes (front view) distinctly roundly narrowed

Antennae slender, weakly setiform, 32-segmented, 1.4 times longer than body. Scape 1.5 times longer than its maximum width (lateral view). First flagellar segment 4.5 times longer than apical width, as long as second segment. Penultimate segment 3.5 times longer than wide, 0.6 times as long as first flagellar segment, 0.8 times as long as apical segment; the latter pointed apically and with spine.

Mesosoma. Length almost twice maximum height. Pronotum with distinct and sinuate submedian pronotal carina. Mesoscutum 1.25 times as wide as median length. Median lobe of mesoscutum weakly protruding forwards, anteriorly with wide obtuse corner. Notauli coarsely and densely crenulate, partly with rugulosity. Prescutellar depression very finely rugulose to smooth, 0.3 times as long as scutellum. Scutellum with distinct lateral carinae, as long as its basal width. Metanotum with two distinct and convergent lateral carinae fused posteriorly with convex area, without median carinae. Sternaulus distinctly sparsely crenulate, smooth between crenulae, running along anterior 0.6 of lower part of mesopleuron, with narrow and shallow crenulate furrow prolonged behind end of sternaulus.

Wings. Fore wing 3.3 times longer than maximum width. Pterostigma 3.1 times longer than its maximum width. Metacarp (1-R1) 1.4 times longer than pterostigma. Second radial abscissa (3-SR) 3.2 times length of first abscissa (r), 0.6 times as long as almost straight third abscissa (SR1), 1.5 times longer than first radiomedial vein (2-SR). Second radiomedial (submarginal) cell 3.1 times longer than its maximum width, 1.7 times longer than brachial (first subdiscal) cell. First medial abscissa (1-SR+M) weakly sinuate. Mediocubital vein (M+CU1) weakly curved posteriorly. Distance from nervulus (cu-a) to basal vein (1-M) twice nervulus (cu-a) length. Hind wing 5.3 times longer than its maximum width. First abscissa of mediocubital vein (M+CU) 0.8 times length of second abscissa (1-M). Recurrent vein (m-cu) pigmented, weakly curved, weakly antifurcal.

Legs. Hind coxa 1.5 times longer than wide (with ventrobasal tooth), 0.8 times as long as propodeum. Hind femur 3.0 times longer than wide. Hind tarsus almost as long as hind

tibia. Second segment of hind tarsus 0.5 times length of basitarsus, 1.4 times as long as fifth segment (without pretarsus).

Metasoma as long as head and mesosoma combined. First tergite distinctly and linearly widened from base to apex. First tergite 1.15 times longer than its apical width; maximum width twice its minimum width. Median length of second tergite 0.5 times its basal width, 1.2 times length of third tergite. Transverse furrow of third tergite smooth. Ovipositor sheath 0.4 times as long as body, 0.8 times as long as metasoma, 1.1 times longer than mesosoma, 0.5 times as long as fore wing.

Sculpture and pubescence. Vertex distinctly and densely transversely striate, smooth or almost smooth narrowly anteriorly, in posterior 0.3 and laterally; frons mostly smooth, finely or very finely rugulose-reticulate in anterior half. Face densely and coarsely curvedly striate, with dense rugulosity between striae, almost smooth medially on narrow area and around clypeus; temple entirely smooth. Mesoscutum coarsely and densely rugulose-reticulate, without granulation, with two distinct and convergent posteriorly carinae along inner margins of notauli on their medioposterior halves. Scutellum finely and sparsely reticulate-punctate. Mesopleuron mostly smooth. Propodeum with areas distinctly delineated by carinae; basolateral areas large, mostly smooth, shortly rugose along carinae; areola rather short, wide, distinctly rugose-striate, 1.3 times longer than wide; dorsal (basal) carina long, 1.3 times longer than areola anterior fork; petiolate area rather long, separated by distinct carinae from areola; propodeum in posterior half rather sparsely and mainly weakly rugose. Hind coxa dorsally with distinct transverse curved striae, smooth laterally. Hind femur entirely smooth. First and second tergites entirely rather sparsely and coarsely striate, without additional rugulosity between striae. Remaining tergites smooth. Vertex with sparse, short and semi-erect setae. glabrous medially. Mesoscutum entirely with dense, short and semi-erect pale setae. Hind tibia dorsally with rather short, dense and semi-erect setae, length of these setae 0.3–0.6 times maximum width of hind tibia.

Colour. Body mainly reddish brown; light reddish brown or yellowish brown: head around eyes and anteriorly, mesosoma in some narrow spots, metasoma behind second tergite and ventrally. Antennae brown, weakly paler basally, scape and pedicel yellowish brown. Palpi pale yellow. Legs mainly brown to light reddish brown; pale yellow: fore and middle coxa, all trochanters and trochantelli, basis of all tibiae; yellow or brownish yellow: fore femur, tibia and tarsus, middle tarsus, basal and apical parts of middle femur and tibia, submedian and apical parts of hind tibia. Ovipositor sheath brown. Fore wing faintly infusate. Pterostigma mainly brown with short basal and apical pale spots.

Male. Unknown.

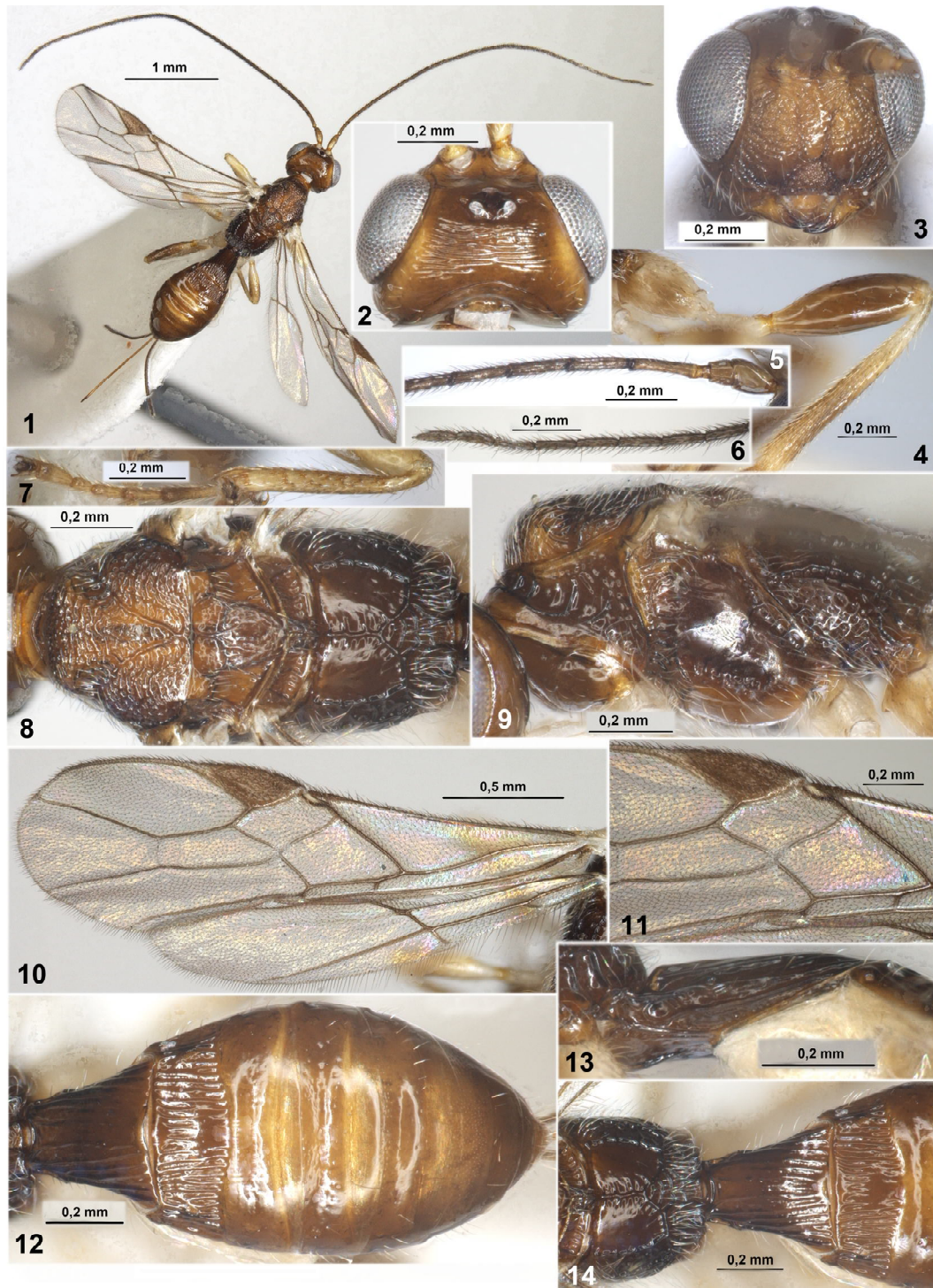
Distribution. Papua New Guinea.

Etymology. This species is named in honour of Professor Arkadiy Stepanovich Lelej.

Comparative diagnosis. This new species is very similar to the Chinese *A. cantonica* Belokobylskij, Tang et Chen [Belokobylskij et al., 2013]. The differences between these species are mentioned in the below key.

KEY TO SPECIES OF THE GENUS *ASIAONTSIRA*

1. Second metasomal tergite with rather long basal area (about 0.3 times as long as tergite medially) separating posteriorly by rather distinct furrow. Third and fourth tergites basally



Figs 1–14. *Asiaontsira leleji* sp.n. (female, holotype): 1 — body, dorsal view; 2 — head, dorsal view; 3 — head, front view; 4 — hind leg (without tarsus); 5 — basal segments of antenna; 6 — apical segments of antenna; 7 — fore tibia and tarsus; 8 — mesosoma, dorsal view; 9 — mesosoma, lateral view; 10 — fore and hind wings; 11 — median part of fore wing; 12 — metasoma, dorsal view; 13 — acrosternite and first metasomal tergite, ventrolateral view; 14 — propodeum, first and second metasomal tergites, dorsal view.

Рис. 1–14. *Asiaontsira leleji* sp.n. (самка, голотип): 1 — тело, вид сверху; 2 — голова, вид сверху; 3 — голова, вид спереди; 4 — задняя нога (без лапки); 5 — базальные членики усика; 6 — апикальные членики усика; 7 — передние голень и лапка; 8 — мезосома, вид сверху; 9 — мезосома, вид сбоку; 10 — переднее и заднее крылья; 11 — средняя часть переднего крыла; 12 — метасома, вид сверху; 13 — акростернит и первый тергит метасомы, вид снизу и сбоку; 14 — пропodeум, первый и второй тергиты метасомы, вид сверху.

- distinctly sculptured for rather long distance. — First metasomal tergite short and wide, 1.1 times longer than apical width. Body length 3.1 mm. — Vietnam (Ninh Binh Prov.) *A. cucphuongi* Belokobylskij, Tang et Chen
- Second metasomal tergite with short basal area (about 0.25 times as long as tergite medially) separating posteriorly by striation only (Fig. 14). Third and fourth tergites basally very finely sculptured for short distance or entirely smooth (Fig. 12) 2
2. Ocelli arranged in triangle with base 1.3 times its sides. First metasomal tergite narrow, 1.35–1.40 times longer than apically wide. Transverse furrow of third tergite sparsely rugulose. Ovipositor sheath 1.3 times longer than metasoma, 0.8–0.9 times as long as fore wing. Mesoscutum with distinct granulation between rugulosity. Fourth and fifth metasomal tergites basally finely and sparsely rugose-punctate. Body length 2.6–2.8 mm. — China (Guangdong Prov.), Vietnam (Ninh Binh Prov.) *A. cantonica* Belokobylskij, Tang et Chen
- Ocelli arranged in triangle with base 1.1 times its sides (Fig. 2). First metasomal tergite wide, 1.15 times longer than apically wide (Fig. 14). Transverse furrow of third tergite smooth (Fig. 12). Ovipositor sheath 0.8 times as long as metasoma, 0.5 times as long as fore wing (Fig. 1). Mesoscutum smooth (without granulation) between rugosity (Fig. 8). Metasoma behind second tergite entirely smooth (Fig. 12). Body length 3.0 mm. — Papua New Guinea (Madang Prov.) *A. leleji* **sp.n.**

Acknowledgements

I am sincerely thankful to Dr Claire Villemant (MNHN, Paris, France) for the given material and her valuable help, to Dr Alejandro Zaldivar-Riverón (Mexico) and Dr Andrey I. Khalaim (St Petersburg, Russia) for the constructive comments of the manuscript. This work was partly supported by the Russian Foundation for Basic Research (project No. 16–04–00197) and the Russian State Research Project No. 01201351189.

References

- Achterberg C. van. 1993. Illustrated key to the subfamilies of the Braconidae (Hymenoptera: Ichneumonoidea) // Zoologische Verhandlungen Leiden. Vol. 283. P. 1–189.
- Belokobylskij S.A., Iqbal M., Austin A.D. 2004. Systematics, distribution and diversity of the Australasian doryctine wasps (Hymenoptera, Braconidae, Doryctinae) // Records of the South Australian Museum. Monograph Series. Vol. 8. P. 1–150.
- Belokobylskij S.A., Maetô K. 2009. Doryctinae (Hymenoptera, Braconidae) of Japan. (Fauna Mundi. Vol. 1). Warszawa: Warszawska Drukarnia Naukowa. 806 p.
- Belokobylskij S.A., Tang P., Chen X. 2013. *Asiaontsira* gen. nov., a new tropical genus of the subfamily Doryctinae (Hymenoptera: Braconidae) from Vietnam and South-East China // Entomological Science. Vol. 16. P. 309–315.

Поступила в редакцию 29.03.2016