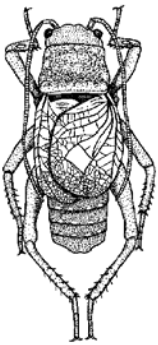

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FIRST RECORD OF THE GENUS *HOLEPYRIS* KIEFFER, 1904 (HYMENOPTERA: BETHYLIDAE, EPYRINAE) FROM SUMATRA, WITH DESCRIPTION OF A NEW SPECIES

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Summary. The genus *Holepyris* Kieffer, 1904 is recorded from the Sumatra Island for the first time. A new species, *Holepyris sumatrensis* **sp. n.**, is described based on the male. The new species can be distinguished from other congeners by follow features: head with occipital corners not projected posteriorly; mesoscuto-scutellar suture elongate and narrow; metanotal trough with distinct and clear sculpture; hind femur 3 times as long as wide in lateral view; tibial spurs of hind leg shorter than half of first tarsomere; second and third tergites coriaceous without small punctures and microreticulate. We also propose the *Holepyris vietnamensis*

species group. This species group contains all species described previously under the genus *Formosiepyris* Terayama, 2004.

Key words: parasitoids, bethylid wasps, *Holepyris*, new record, taxonomy, new species, Oriental region.

В. Сари, Н. Нелли, Хидраяни, Х. Хамид, Р. Сатриа, Х. Ляо. Первое сообщение о находке рода *Holepyris* Kieffer, 1904 (Hymenoptera: Bethylidae, Epyrinae) на Суматре с описанием нового вида // Дальневосточный энтомолог. 2026. N 561. С. 1-7.

Резюме. Род *Holepyris* Kieffer, 1904 впервые зарегистрирован на острове Суматра. По самцу описан новый вид *Holepyris sumatrensis* **sp. n**. Новый вид отличается от других представителей рода по следующим признакам: голова с затылочными углами, не выступающими назад; мезоскуто-скутеллярный шов удлиненный и узкий; метанотальная борозда с отчетливой и четкой скульптурой; заднее бедро в 3 раза длиннее своей ширины; шпоры на задних голенях короче половины первого членика лапки; второй и третий тергиты кожистые, без мелких точек. Выделена группа видов *Holepyris vietnamensis*, которая включает виды, описанные ранее в роде *Formosiepyris* Terayama, 2004.

INTRODUCTION

The Bethylidae family is a group of parasitoids of Lepidoptera and Coleoptera larvae that are widely distributed, with most species found in tropical regions (Azevedo *et al*., 2010; 2018). This family contains three extinct subfamilies and five extant subfamilies (Azevedo *et al*., 2018; Colombo *et al*., 2022; Lepeco & Melo, 2022). One of the larger subfamilies is Epyrinae which contains about 962 species and 13 genera (Colombo *et al*., 2022). This subfamily was revised several times (Azevedo *et al*., 2018; Colombo *et al*., 2020). The revision of the genus *Holepyris* Kieffer, 1904 is published recently and *Formosiepyris* Terayama, 2004 considered as synonym of former taxon (Colombo *et al*., 2022). In the present paper we established *Holepyris vietnamensis* species group. This species group contains all species described previously under the genus *Formosiepyris*. New species of *Holepyris* from Sumatra is described below.

MATERIAL AND METHODS

This paper is based on specimen collected in the corn plantation in West Sumatra (Indonesia) in 2025. Specimen was photographed using a Canon EOS KissX5 digital camera attached to a Nikon SMZ1270 stereomicroscope, erased and cleaned up using the retouching function of Helicon Focus Pro, and the color balance, contrast and sharpness were adjusted using Adobe Photoshop CS6. The parts of the bodies were measured using ImageJ 1.49m (National Institute of mental Health, USA, available at http://imageJ.nih.gov/ij/).

The morphological terminology and abbreviations follows that of Evans (1964), Azevedo (2001), Kawada *et al*., (2015), Tsujii *et al.* (2015), and Lanes *et al*. (2020).The measurements and indices follow Tsujii *et al*. (2015): HL, head length in dorsal view; HW, head width in dorsal view; WF, width of frons in frontal view; LM, of mesosoma in lateral view; LPD, length of propodeal disc in dorsal view; WPD, width of propodeal disc in dorsal view; FWL, forewing length; TL, total body length; EL, eye length; POL, minimum distance between posterior ocelli; DAO, maximum diameter of anterior ocellus; AOL, minimum distance between a posterior ocellus and the anterior (median) ocellus; OOL, minimum distance from a posterior ocellus to nearest eye margin; WOT, distance across and including posterior ocelli.

The holotype of new species has temporarily been deposited in the Laboratory Ecology, Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Negeri Padang which is managed by Rijal Satria (UNPC), but it will be transferred to the Bogor Zoological Museum (MZB), Bogor, Indonesia.

TAXONOMY

Genus *Holepyris* Kieffer, 1904

Holepyris vietnamensis species group

DIAGNOSIS. Head rounded; mandible with three or four teeth; anterior margin of clypeus rounded or triangular; lateral clypeal lobe not developed; palpal formula 5:3; eye covered with minute setae, large and convex; occipital carina present; antenna with 13 antennomeres; dorsal pronotal area foveolate posteriorly; antero-mesoscutum depressed, with foveolate transverse groove; notaulus and parapsidal signum present, but weak; mesoscuto-scutellar suture with sulcus wide and transverse, usually trabeculate; metapectal-propodeal complex multicarinate; posterolateral corner of propodeal disc with two pairs of small projections; Forewing with 2r-rs&Rs vein always present and long; hypopygium of male without lateral stalk; Male genitalia with basal ring short and Aedeagus with basal portion very wide and abruptly constricted into apical portion (bottle-shaped) (Terayama, 2004; Xu & He, 2005; Azevedo *et al*. 2018).

REMARKS. The *Holepyris vietnamensis* species group is established from all species formerly belongs to the genus *Formosiepyris*. In the supplement article of Colombo *et al*. (2022), they mentioned that *Holepyris agraensis* (Kurian, 1955) from the genus *Formosiepyris*. However, Terayama (2004), Xu & He (2005) and Tsujii *et al*. (2015) not mentioned about this species in their studies. We did not examine the holotype specimen of *H. agraensis*, and therefore we have excluded this species from this species group.

HOST. Host of this species group is still unknown (Terayama, 2004; Xu & He 2005; Azevedo *et al*. 2018).

COMPOSITION. Six species known from China (Xu & He, 2005), Vietnam (Tsujii *et al*., 2015), Thailand, India, and Taiwan (Terayama, 2004), namely *H. marishi* (Terayama, 2004), *H. shiva* (Terayama, 2004), *H. takasago* (Terayama, 2004), *H. rugulosus* (Xu & He, 2005), *H. vietnamensis* (Tsujii *et al*., 2015), and a new species from Sumatra described below.

***Holepyris sumatrensis* sp. n.**

https://zoobank.org/NomenclaturalActs/79A1F583-0F8B-4D13-B9BA-D1C7F4736B2A

Figs 1–2

TYPE MATERIAL. Holotype: male, **Indonesia**: West Sumatra Prov., Padang Pariaman District, Gadur, 0°38'18.3624" S, 100°14'7.4328" E, h=42 m, yellow pan trap, February-May 2025, leg. W. Sari.

DIAGNOSIS. Head in dorsal view 0.9 times as long as wide, with incurve posterior margin; occipital corners of head not projected posteriorly; mesoscuto-scutellar suture elongate, narrow, and slightly posteriad at each side; metanotal trough with distinct and clear sculpture; lateral outlines of propodeum slightly convex in dorsal view; hind femur 3 times as long as wide in lateral view; tibial spurs of hind leg shorter than half of first tarsomere; second and third tergites coriaceous without small punctures and microreticulate.

New species is morphologically most similar to *H. vietnamensis*. However, it is distinguishable from the latter by the following characteristics of male: occipital corners of head not projected posteriorly (projected posteriorly in the latter), mesoscuto-scutellar suture elongate, narrow, and slightly posteriad at each side (short, wide, and straight in the latter), mesoscuto-scutellar suture with 10 longitudinal, metanotal trough with distinct and clear sculpture (not clear in the latter), lateral outlines of propodeum slightly convex in dorsal view (straight in the latter), hind femur 3 times as long as wide in lateral view (5.6 times in the latter), tibial spurs of hind leg shorter than half of first tarsomere (as long as half of first tarsomere in the latter), second and third tergites coriaceous without small punctures and microreticulate (with small sparsely located punctures and smooth interspaces except microreticulated anterior 2/5 in the latter).

DESCRIPTION. **Male.** Body black, except dark brown apical half of mandible and yellowish brown tarsi. Fore wings faintly tinged with brown.

Head. Head in dorsal view 0.9 times as long as wide, with incurve posterior margin; frons and vertex densely and strongly punctated and microreticulate interspaces; maximum diameter of punctures ca. 0.3–0.4 mm. Occipital carina of head not projected posteriorly (Fig. 1A). Mandible with three teeth. Anterior margin of clypeus rounded. The ratio of I–V antennomeres = 15: 10: 12: 12: 12. WF 0.80 times EL. Ocelli forming obtuse triangle; OOL 0.95 times WOT.

Mesosoma (Figs 1C, 1D). Pronotum punctated with microreticulate interspaces; punctures sparser than head; median longitudinal carina very weak. Scutum punctated with microreticulate interspaces. Mesoscuto-scutellar suture with 10 longitudinal carinae. Mesopleuron entirely areolate-rugose. Dorsal face of metapectal-propodeal complex 0.83 times as long as wide, with five distal carinae; surfaces between carinae without longitudinal striae; postero-lateral corner of metapectal-propodeal complex with two pairs of distinct projection; sublateral carina present; lateral face of metapectal-propodeal complex with longitudinal striae and very weak on ventro-lateral area. Hind femur 3 times as long as wide in lateral view (Fig. 2D). Hind legwith

two tibial spurs shorter than half of first tarsomere. Tarsal claws simple. Fore wing with short meta-carpus, 0.4 times as long as pterostigma (Fig. 2A); cubito-anal cross vein of the fore wing convex posteriorly.

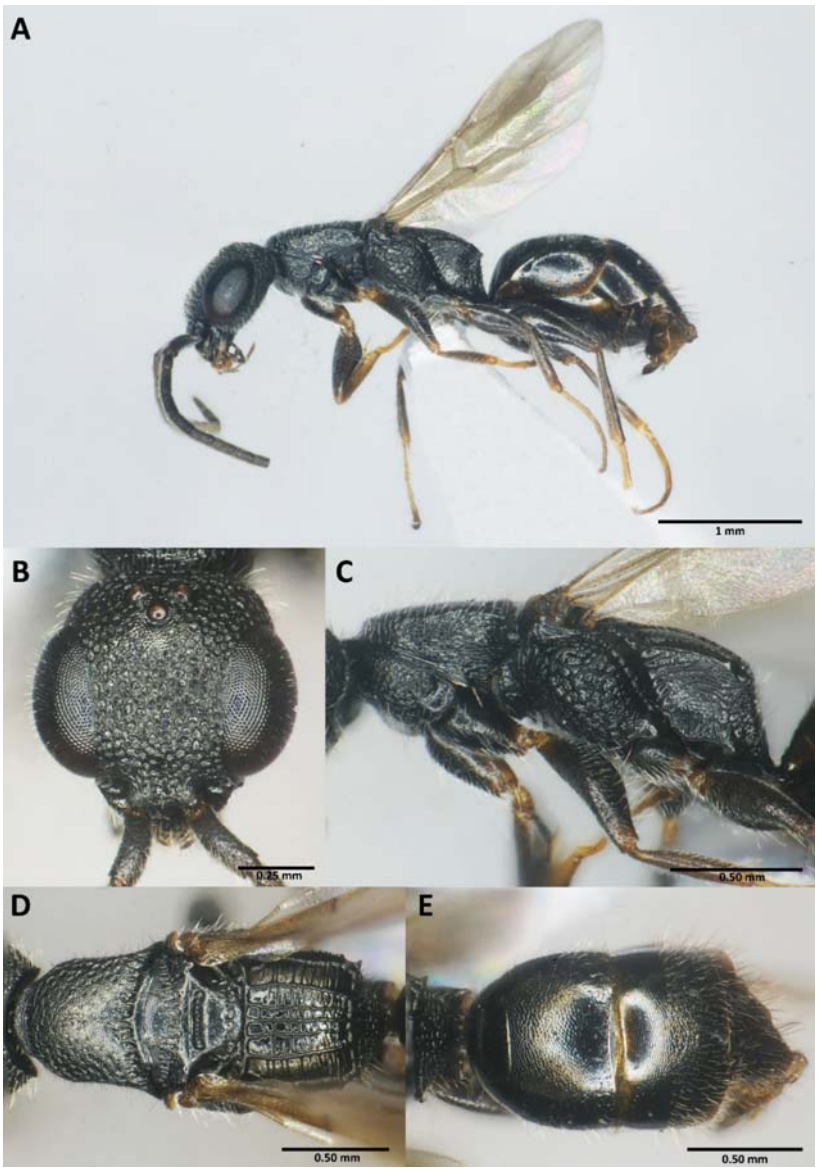

Fig. 1. *Holepyris sumatrensis* **sp. n.**, male (individual code: sp88): A – habitus in lateral view; B – head in full-face view; C – mesosoma in lateral view; D – mesosoma in dorsal view; E – gaster in dorsal view.

Metasoma. First tergite 0.3 times as long as wide, smooth; second tergite 0.5 times as long as wide; second and third tergites coriaceous without small punctures and microreticulates (Fig. 1E). The morphology of genitalia as seen in Figs. 2E and 2F.

Fig. 2. *Holepyris sumatrensis* **sp. n.**, male (individual code: sp88): A – fore wing; B – antenna; C – hind wing; D – hind femur; E – genitalia in lateral view; F – genitalia in dorsal view.

MEASUREMENTS. HL 0.85 mm; HW 0.88 mm; WF 0.42 mm; LM 1.71 mm; LPD; 0.55 mm; WPD, 0.66 mm; FWL 2.17 mm; TL 4.15 mm. EL 0.52 mm; POL 0.10 mm; DAO 0.07 mm; AOL 0.06 mm; OOL 0.20 mm; WOT 0.21 mm; malar space 0.15 mm; hind wing 1.55 mm.

Female. Unknown.

HOSTS. Unknown.

DISTRIBUTION. Indonesia: Sumatra Island (West Sumatra Province).

ETYMOLOGY. The specific epithet is a name of the type locality.

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