



***Indothrix* Krombein, 1957 (Hymenoptera, Chrysididae) newly recorded genus from China, with description of one new species**

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Abstract

The genus *Indothrix* Krombein, 1957 is newly recorded from China. *Indothrix brevicornis* Li & Xu, **sp. nov.** (China: Zhejiang) is described and illustrated. Key to the three world species of the genus is given.

Key words: Amiseginae, *Indothrix*, new species, key, Oriental Region, China

Introduction

The genus *Indothrix* was erected in the subfamily Amiseginae by Krombein (1957) to accommodate the new species, *I. longicornis* Krombein with only one male specimen from southern India. The genus *Indothrix* Krombein resembles *Cladobethylus* Kieffer, 1922 and *Colocar* Krombein, 1957 in elongate antennae, but differs from them by: the fifth to tenth flagellomeres with tubercle beneath and hind coxa without dorsobasal carina. The genus is similar to *Rohweria* Fouts 1925 in wing venation, but can be separated from the latter by: omaulus absent, and hind coxa without dorsobasal carina (Kimsey & Bohart 1991).

At present, two species, *Indothrix longicornis* Krombein, 1957, *I. wijesinhei* Krombein, 1983, are recorded from Oriental Region, southern India and Sri Lanka respectively (Krombein 1957, 1983), whereas no data are known from China. In the course of our survey on the Chinese Chrysididae fauna, one new species of the genus *Indothrix* is discovered and described herein.

Materials and methods

The specimens were examined and described under stereomicroscope Leica MZ125. Photographs were taken with a digital camera CoolSNAP attached to Zeiss stereomicroscope Stemi 2000-CS. Images were processed using Image-Pro Plus software.

Morphological terminology follows Kimsey & Bohart (1991). Abbreviations used in the descriptions as follows: **F1**, **F2**, **F3**, *etc.*, flagellomeres 1, 2, 3, *etc.*; **l/w**, length/width; **MOD**, median ocellus diameter; **MOL**, shortest distance between median ocellus and compound eye; **MS**, malar space, shortest distance between base of mandible and lower margin of compound eye; **OOL**, shortest distance between posterior ocellus and compound eye; **PD**, puncture diameter; **POL**, shortest distance between posterior ocelli; **S**, scape.

The holotype of new species is deposited in the Hymenopteran collection of South China Agricultural University, Guangzhou (SCAU). The holotypes of *Indothrix longicornis* Krombein, 1957 and *I. wijesinhei* Krombein, 1983 which are deposited in the National Museum of Natural History, Smithsonian Institution, Washington DC, U.S.A. were examined for this study.

Genus *Indothrix* Krombein, 1957

Indothrix Krombein 1957: 198; 1983: 31; Kimsey & Bohart 1991: 113.

Type species. *Indothrix longicornis* Krombein, 1957, by original designation.



FIGURE 1. *Indothrix wijesinhei* Krombein, ♂, holotype, habitus, lateral view. (Photos by Dr. Elijah Talamas).

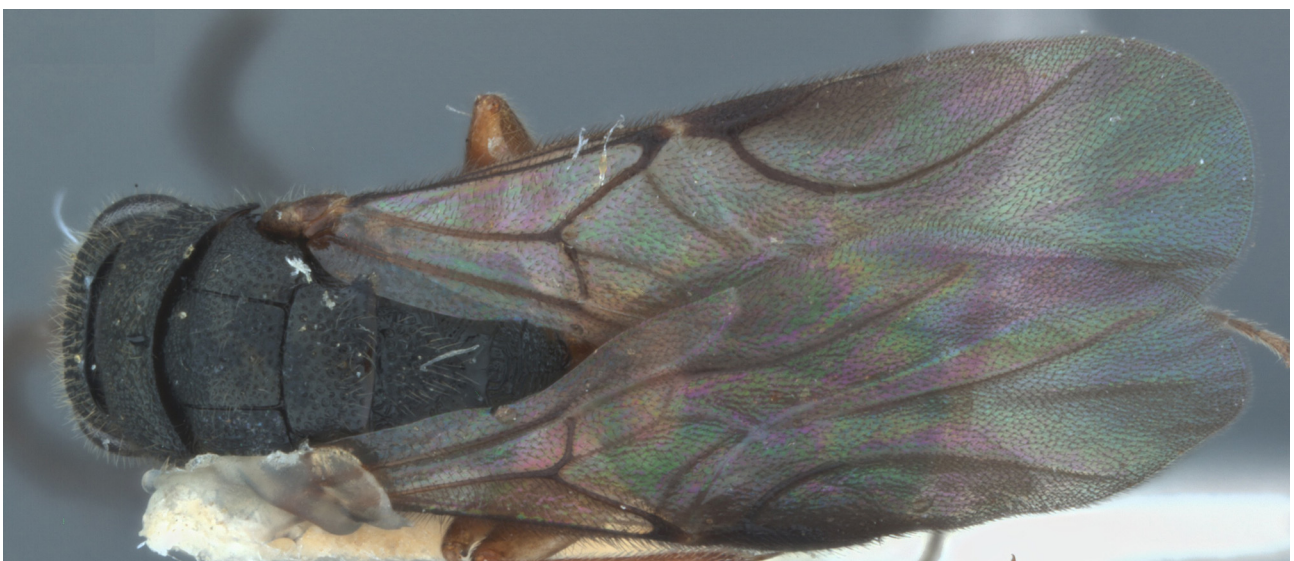


FIGURE 2. *Indothrix wijesinhei* Krombein, ♂, holotype, habitus, dorsal view. (Photos by Dr. Elijah Talamas).



FIGURES 3–4. *Indothrix wijesinhei* Krombein, ♂, holotype. 3. Head, pronotum, and mesoscutum, dorsal view; 4. Head and mesosoma, lateral view. (Photos by Dr. Elijah Talamas).



FIGURE 5. *Indothrix longicornis* Krombein, ♂, holotype, habitus, lateral view. (Photos by Dr. Elijah Talamas).

Diagnosis. *Male.* Head punctate; antenna filiform, 13-segmented (Figs 1, 5, 12); F5–F10 with tubercle beneath (Fig. 11); scapal basin slightly to moderately concave, transversally rugulate and with longitudinal median ridge (Fig. 13); malar space with vertical sulcus (Figs 1, 4, 5, 7, 9); eyes bulging and with dense microtrichiae (Fig. 13); occipital carina well developed; pronotum punctate, moderately convex (Figs 1, 4, 5, 7, 9), with longitudinal median groove posteriorly (Figs 3, 6, 10, 14) and pit before lateral lobe; pronotum and mesoscutum subequal in length, each about twice as long as mesoscutellum; mesoscutum punctate, with notauli and parapsides; notauli complete and slightly diverging anteriorly (Figs 3, 6, 10, 14); parapsides short, weakly impressed; mesoscutellum punctate; mesopleuron without omaulus or scrobal sulcus (Figs 1, 4, 5, 7, 9); metanotum with large median

enclosure (Figs 2, 8, 14); propodeum with short dorsal surface, and abrupt posterior and lateral surfaces; dorsal surface separated from posterior surface by arcuate ridge; fore wing with *R*₁ about as long as stigma (Figs 2, 10); *R*_s slightly curved, about as long as stigma, and continued nearly to wing margin by darkened, curved streak (Figs 2, 10); hind coxa without dorsobasal carina; metasomal terga and sterna punctate. *Female*. Unknown.

Biology. Unknown.

Distribution. Oriental Region: China (new record), India, Sri Lanka (Kimsey & Bohart 1991).



FIGURES 6–8. *Indothrix longicornis* Krombein, ♂, holotype. 6. Head, pronotum, mesoscutum and mesoscutellum, dorsal view; 7. Head and mesosoma, lateral view; 8. Mesosoma and metasoma, dorsal view. (Photos by Dr. Elijah Talamas) .

Key to species

1. Scapal basin smooth; head and mesosomal dorsum with weak bronzy reflections (Figs 2, 3); F1 0.8 times as long as F2+F3 (Fig. 1); F5–F8 each 4.7 times as long as wide (Fig. 1); posterior margin of metasomal sternum 2 straight. *I. wijesinhei* Krombein
- Scapal basin transversally rugulate (Fig. 13); head and mesosomal dorsum with or without metal reflections 2
2. Head and mesosomal dorsum with weak bronzy reflections (Figs 6, 8); mesoscutellum totally black (Fig. 8); antenna 1.3 times as long as body length (Fig. 5); F1 as long as F2+F3 (Fig. 5); F5–F8 each 3.8 times as long as wide (Fig. 5); posterior margin of metasomal sternum 2 emarginate apicomediaally *I. longicornis* Krombein
- Head and mesosomal dorsum without metal reflections (Figs 10, 14); mesoscutellum blackish-brown posteriorly (Figs 10, 14); antenna 0.8 times as long as body length; F1 0.8 times as long as F2+F3 (Fig. 12); F5–F8 each 1.8 times as long as wide (Figs 11, 12); posterior margin of metasomal sternum 2 straight. *I. brevicornis* Li & Xu, **sp. nov.**

***Indothrix brevicornis* Li & Xu, sp. nov.**

(Figs 9–14)

Material examined. Holotype, ♂, CHINA: Zhejiang, Hangzhou, 17.VI.1981, Kai-ning Rui [SCAU].

Diagnosis. The new species can be separated from the two known species, *Indothrix longicornis* Krombein and *I. wijesinhei* Krombein, by the following characteristics: head and mesosomal dorsum without metal reflections (with weak bronzy reflections in the latter two species (Figs 2, 3, 6, 8)); antenna distinctly shorter than body length (longer than body length in the latter two species (Figs 1, 5)); F5–F8 each 1.8 times as long as wide (3.8–4.7 times in the latter two species (Figs 1, 5)); mesoscutellum blackish-brown posteriorly (totally black in the latter two species (Figs 2, 8)); dorsal surface of propodeum with pair of blunt longitudinal median ridges on anterior half, flanked by two glossy and impunctate areas (without median ridges on anterior half, and flanked by two coarse rugose areas in the latter two species (Figs 2, 8)).

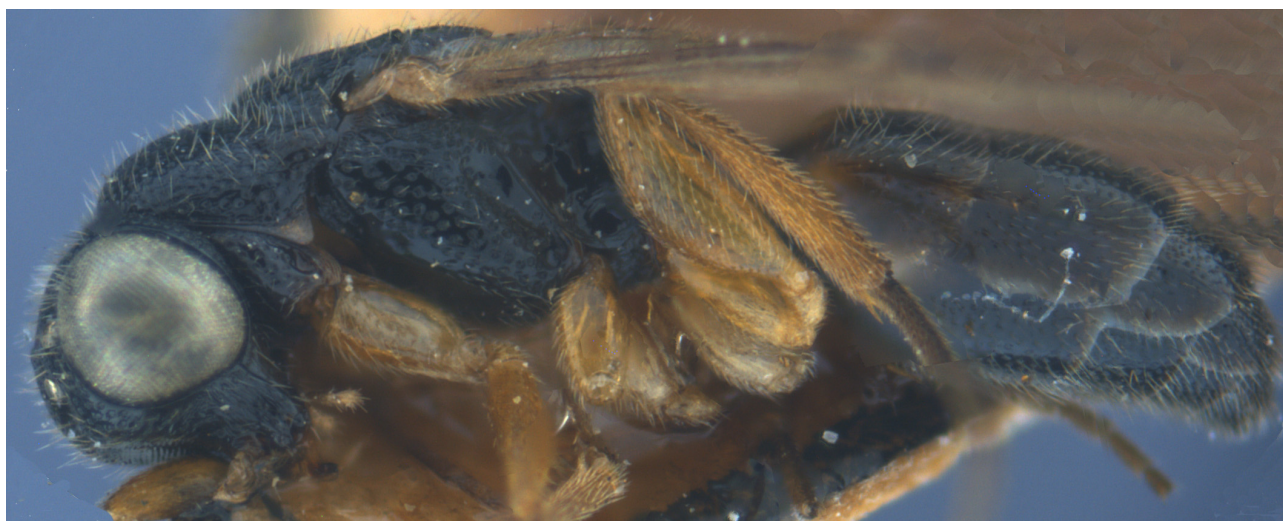
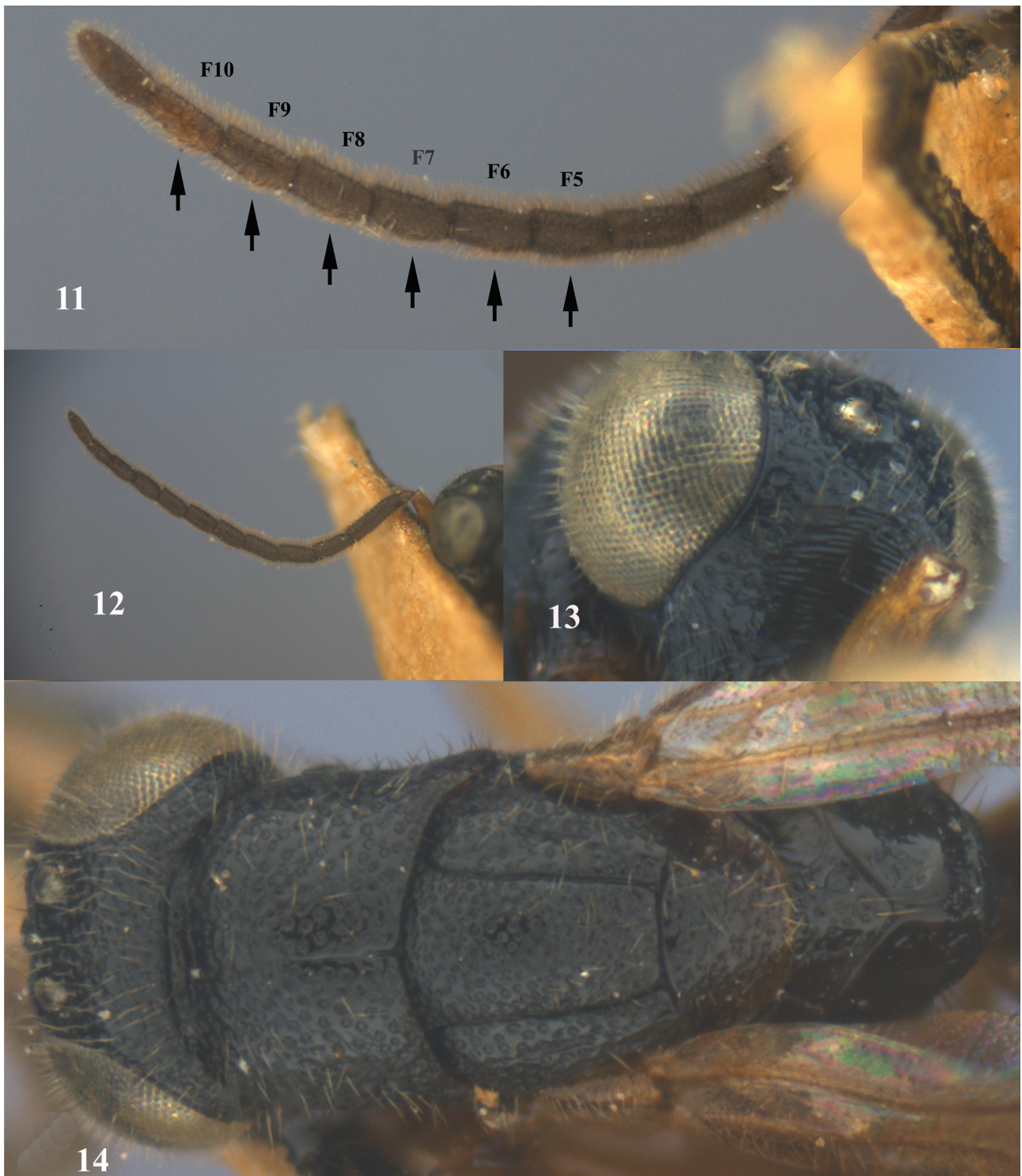


FIGURE 9. *Indothrix brevicornis* sp. nov., ♂, holotype, habitus, lateral view.



FIGURE 10. *Indothrix brevicornis* sp. nov., ♂, holotype, habitus, dorsal view.



FIGURES 11–14. *Indothrix brevicornis* sp. nov., ♂, holotype. 11. Antenna, lateral view, arrows show tubercles; 12. Antenna, dorsal view; 13. Head, frontal view; 14. Head and mesosoma, dorsal view.

Description. Holotype. *Male.* Body length 3.4 mm; fore wing length 2.9 mm; MOL=1.5 MOD; OOL=0.5 MOD; POL=1.5 MOD; MS=2.5 MOD; relative length of S:F1:F2:F3=1.1:1.7:1.1:1.1.

Head. Head with setulae; head width 1.2 times distance from clypeal apex to posterior ocelli; head (except scapal basin) punctate; punctures interspaced by 0.3–1.0 PD; scapal basin moderately concave, transversally rugulate and with longitudinal median ridge (Fig. 13); eye not encircled by carina, strongly bulging with dense microtrichiae (Fig. 13); clypeus smooth, with apical margin not thickened; mandible with two teeth; MS less than half of eye height; ocellar triangle obtuse isosceles; flagellum with dense, erect setulae; flagellar setulae about half

as long as width of flagellar segment (Figs 11, 12); F5–F10 with tubercle beneath (Fig. 11); F1 3.4 times as long as wide; F2, F3 each 2.2 times as long as wide; F11 2.8 times as long as wide.

Mesosoma. Mesosoma with setulae; pronotum, mesoscutum, mesoscutellum and metanotum punctate; punctures similar to those on head and interspaced by 0.3–1.0 PD; pronotum moderately convex, with longitudinal median groove on posterior two-third (Fig. 14); notauli complete, slightly diverging anteriorly (Fig. 14); parapsides short, weakly impressed; mesopleuron punctate, punctures interspaced by 0.3–1.0 PD, with small smooth area posteriorly (Fig. 9); metanotum medially 0.8 times as long as mesoscutellum, with V-shaped enclosure area 0.8 times as long as basal width, flanked by two oblongs with irregular rugulae (Fig. 14); metapleuron depressed, mostly glossy and impunctate; dorsal surface of propodeum with pair of blunt longitudinal median ridges on anterior half, flanked by two glossy and impunctate areas, and with several short longitudinal ridges on posterior half (Fig. 14); hind femur l/w= 3.9:1.

Metasoma. Metasoma with setulae; metasomal terga and sterna punctate; punctures on first two metasomal terga and sterna smaller and sparser than those on head and mesosoma, and interspaced by 1.0–2.0 PD; punctures on third and fourth metasomal terga and sterna with closer punctures on anterior half, interspaced by 0.5–1.0 PD, and scattered punctures apically, interspaced by 1.0–1.5 PD; second sternum with posterior margin straight.

Color. Body without metallic reflection (Figs 9, 10); head black; antenna blackish-brown, with scape and pedicel brown; mandible yellowish-brown, with apex dark reddish-brown; mesosoma black except mesoscutellum blackish-brown posteriorly; coxae and trochanters yellowish-brown; femora, tibiae and fore tarsi brown; mid and hind tarsi blackish-brown; wings slightly infumated, stigma and veins brown; metasoma black except first tergum brown.

Female. Unknown.

Biology. Unknown.

Distribution. China (Zhejiang).

Etymology. The specific name “*brevicornis*” refers to the short antenna of the new species.

Acknowledgements

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