

中国隐颚细蜂族分类研究

(膜翅目: 细蜂总科: 细蜂科)

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摘要 本文记述我国隐颚细蜂族 *Cryptoserphini* 的 5 属 9 种, 其中包括 4 个新种, 1 个新记录属〔标有*〕、2 新记录种〔标有*〕。属种名单是: 1. 前沟细蜂属 *Nothoserphus* Brues, 1940: ①无沟前沟细蜂, 新种 *N. asulcatus* sp.nov.; ②浅沟前沟细蜂 *N. debilis* Townes, 1981; ③瓢虫前沟细蜂 *N. epilachnae* Pschorn-Walcher, 1958; ④四脊前沟细蜂, 新种 *N. quadricarinatus* sp.nov.; ⑤珍奇前沟细蜂 *N. mirabilis* Brues, 1940. 2.* 洼缝细蜂属 *Tretoserphus* Townes, 1981; ⑥* 落叶松洼缝细蜂 *T. laricis* (Haliday), 1839. 3. 隐颚细蜂属 *Cryptoserphus* Kieffer, 1907: ⑦* 隐尾隐颚细蜂 *C. aculeator* Haliday, 1839. 4. 蛙颈细蜂属 *Hormoserphus* Townes, 1981; ⑧中华蛙颈细蜂, 新种 *H. chinensis* sp.nov.. 5. 短细蜂属 *Brachyserphus* Hellen, 1941; ⑨福建短细蜂, 新种 *B. fujianensis* sp.nov..

关键词 细蜂科; 隐颚细蜂族; 分类; 新种; 新记录; 中国

中图分类 Q969.54; S433.89

隐颚细蜂族 *Cryptoserphini* 隶于细蜂科 Serphidae 细蜂亚科 Serphinae。现已知 15 属 107 种。本文记述该族我国的 5 属 9 种(未包括仅发现于台湾的种类), 其中 4 新种、1 新记录属、2 新记录种。模式标本除注明者外均保存于浙江农业大学植物保护系生防研究室。现报道如下:

1. 前沟细蜂属 *Nothoserphus* Brues, 1940

(1) 无沟前沟细蜂, 新种 *Nothoserphus asulcatus* sp.nov. (图 1)

雌性: 前翅长 2.3 mm。头部顶端无突起。前胸背板侧面下半部光滑。前胸背板侧面前上方的肿状突起边缘无垂直的脊镶嵌。盾纵沟仅剩前方的一个小凹陷, 明显短于翅基片。小盾片前沟内无纵脊。后胸侧板的前方 0.5 光滑, 光滑区与皱褶区之间有一直脊相隔。产卵管鞘长约为后足胫节长的 0.28 倍。

体黑色, 具光泽。触角柄节、梗节淡褐色, 鞭节淡褐色向末端渐变暗。口须、翅基片淡褐色。足基节黑色, 基节以下淡褐色。翅透明; 翅痣和强脉暗褐色。

雄性: 未明。

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承北京农业大学扬集昆教授送给标本; 福建农学院生物防治研究所赵修复教授和上海昆虫所罗志义副研究员借给标本; 本校程家安、陈学新、马云等老师给予支持和热情帮助, 一并致谢。

寄主: 未明。

标本记录: 正模: ♀, 云南瑞丽, 1981-V-26, 何俊华。

分布: 云南(瑞丽勐休)。

鉴别特征: 本新种与短沟细蜂种团 *Boops* Group 内其它种有以下特征相区别: ①盾纵沟极短, 仅剩前方的一个小凹陷; ②产卵管鞘较短, 长约为后足胫节长的 0.28 倍。

(2) 浅沟前沟细蜂 *Nothoserphus debilis* Townes, 1981

Nothoserphus debilis Townes, 1981. Mem. Ent. Inst., no32, 66.

Nothoserphus debilis Lin, 1987. Taiwan Agri. Res. Inst., Spec. Publ. 22, 56.

寄主: 未明。

标本记录: 共 3 ♀ 1 ♂, 1 ♀ 1 ♂, 广西田林暗家坪, 1982-V-29, 何俊华; 2 ♀, 广西金秀大瑶山(16 km), 1982-VI-15, 何俊华。

分布: 台湾, 广西(田林, 金秀); 尼泊尔。

(3) 瓢虫前沟细蜂 *Nothoserphus epilachnae* Pschorn-Walcher, 1958

Nothoserphus epilachnae Pschorn-Walcher, 1958. Beitr. Z. Ent., 8, 725, 727, 728.

Nothoserphus epilachnae Townes, 1981. Mem. Amer. Ent. Inst., no32, 67

Nothoserphus epilachnae Lin, 1987. Taiwan Agri. Res. Inst. Spec. Publ., 22, 56.

寄主: 酸浆瓢虫 *Epilachna virgintioctopuncta* (Fabricius), 瓜十星瓢虫 *Epilachna admirabilis* Crotch.

标本记录: 共 6 ♀, 3 ♀, 陕西紫阳, 1982-VII-30, 王树芳; 3 ♀, 浙江西天目山, 1984-VI~VII-23-29, 吴晓晶, 朱锡良。

分布: 陕西(紫阳), 浙江(西天目山), 台湾, 云南(昆明), 华南(地点不详); 越南, 爪哇。

(4) 四脊前沟细蜂, 新种 *Nothoserphus quadricarinatus* sp. nov. (图 2)

雌性: 前翅长 4.1 mm。体粗壮。前胸背板侧面下半部几乎光滑。前胸背板侧面近上缘有一脊与上缘平行, 两者被一宽沟相隔。中胸盾片前侧缘(盾纵沟与翅基片之间)有一宽沟, 约由五个浅窝组成。小盾片前沟较宽, 内具四条纵脊, 近中央两条较发达。并胸腹节背表面中央无明显凹痕。合背板基部中纵沟两侧有多条非常短的纵褶。合背板以后背板有非常细小、中等密度的刻点; 其上半部有较大的刻点, 点距约为点径的 2.0 倍。

体黑色。口须褐黄色。触角基部 0.5 褐黄色, 其余向末端渐暗褐色。翅基片黑褐色。足基节黑色, 其余褐黄色。翅半透明; 前翅径室和翅痣后具暗褐色云状斑纹; 翅痣褐色, 强脉黄褐色, 弱脉微着色。

雄性: 未明。

寄主: 未明。

标本记录: 正模: ♀, 云南河口小南溪(200 m), 1956-VI-07, 黄克仁, 上海昆虫所标本号: 34916435 (SIE)。

分布: 云南(河口)。

鉴别特征: 本新种除检索表之特征可以区别外, 看起来与瓢虫前沟细蜂 *N. epilachnae* Rschorn-Walcher, 1958 最为相似, 其区别为: ①前翅长 4.1 mm; ②小盾片前沟较宽, 内具

四条纵脊,近中央两条较发达;③合背板基部中纵沟两侧有多条非常短的纵褶。

注:模式标本保存于中国科学院上海昆虫研究所。

(5)珍奇前沟细蜂 *Nothoserphus mirabilis* Brues, 1940

Nothoserphus mirabilis Brues, 1940. Proc. Amer. Acad. Arts Sci., 73: 263

Nothoserphus mirabilis Townes, 1981. Mem. Amer. Ent. Inst., no32: 68.

Nothoserphus mirabilis 何俊华, 1985. 浙江农业大学学报11: 74.

Nothoserphus mirabilis Lin, 1987, Taiwan Agri. Res. Inst. Spec. Publ. 22: 58.

寄主: 黄斑盘瓢虫 *Lemnia* (*Lemnia*) *saucia* (Mulsant) 幼虫。

标本记录: 共 4 ♀ 4 ♂. 1 ♀ 1 ♂, 浙江遂昌、浙江松阳, 1980, 陈汉林, 寄主为黄斑盘瓢虫; 1 ♂, 湖南南山牧场, 1986-VII-20, 谢明; 1 ♀, 福建沙县, 1981-X-28, 张可池, 寄主为黄斑盘瓢虫; 1 ♀ 1 ♂, 福建来舟, 1981-V-23, 林玉兰; 1 ♂, 贵州贵定, 1979, 周声震; 1 ♀, 贵州惠水, 1986-VI~VII, 储吉明。

分布: 浙江(遂昌、松阳), 湖南(南山牧场), 台湾, 福建(沙县、来舟), 贵州(贵定、惠水); 尼泊尔, 爪哇。

2. 洼缝细蜂属 *Tretoserphus* Townes, 1981 中国新记录属

(6)落叶松洼缝细蜂 *Tretoserphus laricis* (Haliday), 1839 中国新记录(图3)

Tretoserphus laricis Townes, 1981. Mem. Amer. Ent. Inst. no32: 69.

雄性: 国内不知。

寄主: 未明。

标本记录: 1 ♀, 浙江余姚四明山, 1980-IV-29, 杨集昆。

分布: 浙江(四明山); 日本, 英国, 美国(阿拉斯加), 瑞典。

3. 隐颈细蜂属 *Cryptoserphus* Kieffer, 1907

(7)针尾隐颈细蜂, *Cryptoserphus aculeator* Haliday, 1839 中国新记录(图4)

Cryptoserphus aculeator Townes, 1981. Mem. Amer. Ent. Inst., no32: 76.

寄主: 据记载为各种蕈蚊幼虫。

标本记录: 共 3 ♂ 8 ♀. 1 ♂ 6 ♀, 福建黄岗山, 1985-VII~VIII-14, 刘明晖(FAC), 郑耿采(FAC), 陈新金(FAC), 汤玉清(FAC); 1 ♀, 福建福州鼓山(380m), 1953-IV-3, 赵修复(FAC); 1 ♂, 福建龙渡, 1979-VI-29, 黄居昌(FAC); 1 ♂, 贵州独山, 1980-VI-27, 周声震; 1 ♀, 贵州贵定, 1979, 周声震。

分布: 福建(福州、黄岗山、龙渡), 贵州(独山、贵定); 尼泊尔, 菲律宾, 爪哇, 匈牙利, 英国, 爱尔兰, 意大利, 西班牙, 西德, 瑞典。

注: (FAC)的标本存福建农学院生物防治研究所。

4. 蛙颈细蜂属 *Hormoserphus* Townes, 1981

(8)中华蛙颈细蜂, 新种 *Hormoserphus chinensis* sp. nov. (图5)

雄性: 前翅长 3.7 mm. 唇基端缘中央为单脊状边, 两侧为双脊状边。后胸侧板在后下方 0.8 具网状皱褶, 仅前上角约 0.2 有一小的光滑区; 皱褶区与光滑区之间分界线不规则。并胸腹节皱纹明显呈网状, 背表面基部有两个光滑区, 两者之间以中纵脊相隔; 光滑区后面和侧面有一脊包围; 并胸腹节后背斜面两侧各具一条斜向横脊。后足胫节长距长, 达后足基

跗节端部的 0.3 倍。

体黑色。口须暗褐色。翅基片黑褐色。触角梗节暗褐色；柄节和鞭节黑褐色。足基节、转节、前中足腿节、后足腿节至跗节基部黑褐色。前中足胫节和跗节、后足跗节末端暗褐色。翅面呈微弱的暗褐色，强脉和翅痣暗褐色，弱脉呈微弱的褐色。

雌性：不明。

寄主：未明。

标本记录：正模：♂，四川峨嵋山，1980-VII-12，何俊华。

分布：四川（峨嵋山）。

鉴别特征：本新种与 *H. segregatus* Townes, 1981 十分相近，其区别为：后胸侧板在后下方 0.8 具网状皱褶，仅前上角约 0.2 有一小的光滑区；皱褶区与光滑区之间分界线不规则。

5. 短细蜂属 *Brachyserphus* Hellen, 1941

(9) 福建短细蜂，新种 *Brachyserphus fujianensis* sp. nov. (图 6)

雌性：前翅长约 2.3 mm。触角第 2 鞭节长约为宽的 2.0 倍。前胸背板侧面前上方的瘤状突起之后光滑或几乎光滑，有时具一些发自瘤状突上缘的伸向后方的微弱皱褶。前胸背板洼槽光滑。后胸侧板下端 0.25 具凹痕，具刻皱和毛，其上缘无一弱脊或皱褶与上方光滑区相区分。并胸腹节刻纹较弱，背面光滑区上约具 20 根毛或更多。产卵管鞘长约为后足胫节的 0.59 倍，末端下弯，渐向端部变细，其下缘的毛长约为产卵管鞘宽的 0.25 倍。

体黑色。触角梗节和第 1 鞭节基部红褐色，其余均略带黑色。翅基片暗褐色。基节暗褐色，基节以下足褐黄色，但后足跗节略呈暗褐色。

雄性：未明。

寄主：未明。

标本记录：正模：♀，福建黄冈山，1985-VII-14，黄东宏 (FAC)。副模：♀，福建黄冈山，1985-VII-12，汤玉清 (FAC)。

分布：福建（黄冈山）。

鉴别特征：本新种与 *B. parvulus* Nees, 1837 极相近，但本新种有以下特征可与其相区别：①后胸侧板下部 0.25 有凹痕，具稀疏的刻皱，其上缘无一弱脊或皱褶与上方光滑区相区分；②产卵管鞘长约为后足胫节的 0.59 倍；③前胸背板侧面前上方的瘤状突之后微皱。

注：模式标本保存于福建农学院生物防治研究所。

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NEW SPECIES AND NEW RECORDS OF CRYPTOSERPHINI FROM CHINA (HYMENOPTERA, SERPHOIDEA, SERPHIDAE)

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In this paper, a preliminary taxonomical study of Cryptoserphini from China was carried out by the authors. As result of our studies, there are totally 9 species, among which four are new to science and two new to China. These species belong respectively to five genera, of which one genus is previously unknown in China. All the type specimens and newly recorded specimens are deposited in the Laboratory of Biological Control, Zhejiang Agricultural University, Hangzhou. These species, which donot include the species only found in Taiwan, are summarized as follows:

1. *Nothoserphus* Brues, 1940:

(1) *Nothoserphus asulcatus*, sp. nov. (Fig.1)

Female; Front wing 2.3mm long. Top of head without projections. Lower half of side of pronotum smooth. Upper front swelling of side pronotum without a vertical carina. Notauli represented by a anterolateral pit, distinctively shorter than tegula. Prescutellar groove without longitudinal ridges. Upper front 0.5 of metapleurum smooth, the division between sculptured and smooth part of metapleurum a straight ridge. Ovipositor sheath about 0.28 as long as hind tibia.

Black. Scape and pedicel brownish. Flagellum brownish, darkening toward apex to brown. Palpi, tegula brownish. Coxae black. Legs beyond coxae pale brown. Wing hyaline, stigma and strong veins dark brown.

Holotype: ♀, Ruili (24.0N, 97.8E), Yunnan Province, V-26, 1981, He Junhua.

This species is distinguished from all other known species of the *Boops* Group by: (1)Notauli extremely short, as an anterolateral pit, (2)Ovipositor sheath about 0.28 as long as hind tibia.

(2) *Nothoserphus debilis* Townes, 1981

Specimens: 1♀1♂, Tianlin (24.3N, 106.2E), Guangxi, V-29, 1982, He Junhua; 2♀, Jinxiu (24.1N, 110.1E), Guangxi, VI-15, 1982, He Junhua.

(3) *Nothoserphus epilachnae* Pschorn-Walcher, 1958

Specimens: 3 ♀, Ziyang (32.5N, 108.5E), Shaanxi Prov, VIII-30, 1982, Wang Shufang; 3 ♀, MT. W. Tianmu (30.4N, 119.5E), VI-23-29, 1984, Zhu Xiliang et Wu Xiaojing.

(4) *Nothoserphus quadricarinatus*, sp. nov. (Fig. 2)

Female: Front wing about 4.1mm long. Body stout. Lower half of side of pronotum mostly smooth. Upper edge of pronotum paralleled by a carina that is separated from the upper edge by a broad groove. Anterolateral margin of mesoscutum (between notaulus and tegula) with a broad groove that contains about 5 shallow foveate. Prescutellar groove with two pairs of longitudinal carinae, but the carinae near midline stronger than the rest. Median part of propodeum not distinctively impressed. Base of syntergite with a long median groove and many very short wrinkles on each side of the median groove. Tergites following the syntergite with very small, moderately close punctures and in its upper half also with large punctures that are separated by about 2.0 their diameter.

Black. Palpi fulvous. Antenna fulvous on basal half, then darkening toward apex. Tegula fuscous. Coxae black. Legs beyond coxae fulvous. Wings subhyaline, the wing with an infusate cloud behind stigma and radial cell. Stigma brown, strong veins yellowish fulvous, weak veins with a faint tinge of brown.

Holotype: ♀, Hekou, 200M (22.4N, 103.9E), Yunnan Province, VI-7, 1956, Huang Keren, NO: 34916435 (SIE).

This species is similar to *N. epilachnae* Pschorn-Walcher, 1958, but differs in the front wing about 4.1mm long, the prescutellar groove with two pairs of longitudinal carinae, the carinae near midline stronger than the rest; the each side of median groove on base of syntergite with many very short longitudinal wrinkles.

Note. Holotype specimen will be kept in the Shanghai Institute of Entomology, Academia Sinica.

(5) *Nothoserphus mirabilis* Brues, 1940

Specimens: 1 ♀ 1 ♂, Suichang (28.6N, 119.2E) & Songyang (28.4N, 119.4E), Zhejiang Prov., 1980, Chen Hanlin; 1 ♂, Hunan Prov. VII-20, 1986, Xie Ming; 1 ♀, Sha Xian (26.4N, 117.7E), Fujian Prov., X-28, 1981, Zhang Kechi; 1 ♀ 1 ♂, Laizhou (26.6N, 117.9E), Fujian Prov. V-23, 1981, Lin Yulan; 1 ♂, Guiding (26.5N, 107.2E), Guizhou Prov. 1979, Zhou Shengzheng; 1 ♀, Huishui (26.1N, 106.6E), VI-VII, 1986, Chu Jieming.

2. *Tretoserphus* Townes, 1981, New Record:

(6) *Tretoserphus laricis* (Haliday), 1839, New Recosd (Fig.3)

Specimens: 1♀, Mt. Siminshan (29.8N, 121.2E), Zhejiang Province, IV-29, 1980, Yang Jikun.

3. *Cryptoserphus* Kieffer 1907:

(7) *Cryptoserphus aculeator* Haliday, 1839, New Record (Fig. 4)

Specimens: 1♂6♀, Huanggangshan (27.8N, 117.7E), Fujian Province, VII~VIII-14, 1985, Liu Minghui, Zheng Gengcai, Tang Yuqing; 1♀, Gushan 380M, Fuzhou (26.0N, 119.3E), Fujian Province, IV-3, 1953, Chao Xiufu; 1♂, Longdu, Fujian Province, XI-29, 1979, Huang Juchang; 1♂, Dushan (25.8N, 107.5E), Guizhou, VI-27, 1980, Zhou Shengzheng; 1♀, Guiding (26.5N, 107.2E), Guizhou, 1979, Zhou Shengzheng.

4. *Hormoserphus* Townes, 1981:

(8) *Hormoserphus chinensis*, sp. nov. (Fig. 5)

Male: Front wing 3.7mm long. Apical margin of clypeus mostly single, double at sides. Lower hind 0.8 of metapleurum reticulate-rugose, only upper front corner of metapleurum smoother, the division between sculptured and smooth part of metapleurum an irregular line. Propodeum strongly reticulate, the basal part of its upper surface comparing a pair of smooth surfaces separated by a median carina, behind the smooth surfaces with a carina rounded, on each side of the slope of propodeum with a slant ridge. Longer spur of hind tibia reaching to apical 0.3 of basitarsus.

Black. Palpi dark brown. Tegula blackish brown. Pedicel dark brown. Scape and flagellar segments blackish brown. Coxae, trochanters, front and middle femora, hind femur to base of tarsus blackish brown. Front and middle tibiae and tarsi, apical part of hind tarsus dark brown. Wing weakly dark brown, strong veins and stigma dark brown, weak veins with a faint tinge of brown.

Holotype: ♂, Omei mountain, Sichuan Province, VIII-12, 1980, He Junhua.

The new species is allied to *Hormoserphus segregatus* Townes, 1981, differs in following features: (1) Lower hind 0.8 of metapleurum reticulate-rugose, the division between sculptured and smooth part of metapleurum an irregular line; (2) Upper front corner of metapleurum with smoother area which is about 0.2 of metapleurum.

5. *Brachyserphus* Hellen, 1941:

(9) *Brachyserphus fujianensis*, sp. nov. (Fig.6)

Female: Front wing about 2.3mm long. Second flagellar segment about

2.0 as long as wide. Side of pronotum behind the dorsolateral turbercle almost smooth, sometimes with weak wrinkles extending backward from upper edge of the turbercle. Scrobe of pronotum smooth. Lower 0.25 of metapleurum impressed, sculptured, and hairy, the upper edge of impressed area not bordered by a weak ridge or wrinkle. Propodeal sculptures weaker. Dorsal pair of smooth areas on propodeum each with about 20 or more hairs. Ovipositor sheath about 0.59 as long as hind tibia, its apex decurved and tapered to a point, the hairs on its lower edge about 0.25 as long as depth of ovipositor sheath.

Black. Pedicel and base of first flagellar segment ferruginous, the rest of antenna blackish. Tegula dark brown. Coxae dark brown. Legs beyond coxae fulvous, except hind tarsus weak dark brown.

Holotype: ♀, Mt. Huanggang (27.8N, 117.7E), Fujian Province, VII-14, 1985, Huang Donghong. Paratype: ♀, Mt. Huanggang (27.8N, 117.7E), Fujian Province, VII-12, 1985, Tang Yuqing.

This species resembles to *Brachyserphus parvulus* Nees, 1834, and is distinguished from the latter by the following characters: (1) Lower 0.25 of metapleurum impressed and sculptured, the upper edge of ~~impressed~~ area without a weak ridge or wrinkle; (2) Ovipositor sheath about 0.59 as long as hind tibia; (3) Side of pronotum behind its dorsolateral turbercle with weak wrinkles.

Note: Holotype specimen kept in Fujian Agricultural College.

Key words: Serphidae; Cryptoserphini, classification; new species; new record, China