

**TAXONOMIC NOTES ON THE GENUS *Ectopioglossa* Perkins, 1912  
(Hymenoptera: Vespidae: Eumeninae) FROM VIETNAM, WITH NEW  
RECORDS OF TWO SPECIES AND KEY TO SPECIES**

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**ABSTRACT**

A taxonomic study on the genus *Ectopioglossa* Perkins from Vietnam is presented. Two species, *E. henseni* Gusenleitner, 1990 and *E. taiwana* (Sonan, 1938), are recorded as new to the vespidae fauna of Vietnam. A key to the *Ectopioglossa* species known from Vietnam is also provided based on external morphological characters.

**Keywords:** *Ectopioglossa*, key, new record, potter wasp, taxonomy.

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## INTRODUCTION

The solitary wasp genus *Ectopioglossa* was created by Perkins in 1912. It includes 20 species and 3 subspecies worldwide (Wang et al., 2019), of which 4 species are distributed in the Ethiopian region, 15 species and 2 subspecies in the Oriental region, one subspecies in the Australian region, and one species in both the Oriental and Palearctic regions (Smith, 1857, 1864; Perkins, 1912; van der Vecht, 1937, 1963, 1981; Sonan, 1938; Giordani Soika, 1941, 1944, 1989, 1993, 1996; Gusenleitner, 1990, 1991, 2010; Kim, 2007; Girish Kumar & Sureshan, 2016; Selis, 2018; Wang et al., 2019). In Vietnam, two species of this genus, *E. keiseri* van der Vecht, 1963 and *E. sublaevis* (Smith, 1857) were recorded in the previous studies (Nguyen et al., 2014; Nguyen et al., 2015).

In this study, based on specimens deposited in the Institute of Ecology and Biological Resources (IEBR), Ha Noi, Vietnam, two species of the genus *Ectopioglossa* are recorded from Vietnam for the first time. A key to the *Ectopioglossa* species occurring in Vietnam is also presented.

## MATERIAL AND METHODS

The material examined in the present study is deposited in the collections of the IEBR, Ha Noi, Vietnam.

The adult morphological and colour characters were observed on pinned and dried specimens under a stereoscopic microscope. Measurements of body parts were made using an ocular micrometre attached to a stereoscopic microscope. "Body length" indicates the lengths of the head, mesosoma, and the first two metasomal segments combined. Terminology follows Yamane (1990) and Carpenter & Cumming (1985) for all characters such as the wings, head, mesosoma, and metasoma. Photographic images were made with a Nikon SMZ 800N Digital Stereo Microscope, using Helicon Focus 7 software; photo plates were compiled using Photoshop CS6.

Species with an asterisk mark (\*) are newly recorded for Vietnam. IED-c stands for collectors from the Insect Ecology Department, IEBR.

## TAXONOMIC ACCOUNTS

### Genus *Ectopioglossa* Perkins, 1912

*Ectopioglossa* Perkins, 1912, Ann. Mag. Nat. Hist. (8) 9: 118, genus.

Type species: *Ectopioglossa australensis* Perkins, 1912 (= *Eumenes australensis* Meade-Waldo, 1910 = *Ectopioglossa polita australensis* (Meade Waldo)), by monotypy.

**Diagnosis.** Metasoma petiolate, with transverse carina basally; propodeum with orifice rounded dorsally; midtibia with one spur; propodeal valvula short, round, with dentiform projections above valvula; submarginal carina not projecting; second submarginal cell acute basally; axillary fossa slit-like; tegula with narrow posterior lobe which about equals parategula posteriorly; mesepisternum with epicnemial carina present.

### *Ectopioglossa keiseri* van der Vecht, 1963 (Figs. 1a, 1b)

*Ectopioglossa keiseri* van der Vecht, 1963, Zool. Verh., Leiden 60: 30 (key), 34, female - "Ceylon, Centr. Prov., Kandy" (Basel).

*Ectopioglossa keiseri nigra* Giordani Soika, 1993, Boll. Mus. Civ. Stor. Nat. Venezia 42: 159, female - "Vietnam: Hoa Binh" (Venezia) [junior primary homonym of *Ectopioglossa samariensis nigra* van der Vecht, 1963]. - Nguyen et al., 2014, Entomol. Am. 120 (1): 7, 10, 14 (syn. of *E. keiseri* van der Vecht).

This species was recorded from Hoa Binh, Son La, Vinh Phuc and Gia Lai provinces in the previous study (Nguyen et al., 2014). It is newly collected in Ha Giang, Lao Cai, Tuyen Quang, Thanh Hoa, Ha Tinh, Thua Thien Hue and Soc Trang provinces in this study. This species is supposed to occur throughout the country.

**Material examined.** VIETNAM: **Ha Giang:** 1 female, 5 males, Tung Ba, Vi Xuyen, 24.vi.2013, Nguyen Van Tuan; **Lao Cai:** 1 female, Y Ty, Bat Xat, 22°36'06.3"N - 103°37'32.8"E, alt. 2174 m, 7.v.2019, Nguyen Quang Cuong; **Tuyen Quang:** 3 females, road to Ban Bung, Na Hang NR, Na Hang, 22°16'59.5"N - 105°26'01"E, alt. 369 m, 11.vi.2015, Nguyen Thi Thuong et al.; **Thanh Hoa:** 1 female, Pu Hu NR, Quan Hoa, 20°33'56"N - 104°58'39.7"E, alt. 255 m, 14.vi.2016, Tran Thi Ngat et al.; **Ha Tinh:** 1 female, Thi Loi, Son Tay, Huong Son, 19.v.2004, Nguyen Thi Phuong Lien; 1 female, Vu Quang NP, 10.xii.2020, Tran Thi Ngat & Nguyen Quang Cuong; **Thua Thien Hue:** 1 female, Bach Ma NP, 29.iii.2021, Nguyen Quang Cuong et al.; **Soc Trang:** 1 female, My Phuoc, My Tu, 9°33'54.2"N - 105°44'54.5"E, 05.iv.2018, Dang Thi Hoa.

**Distribution.** India: Meghalaya; Sri Lanka; Laos; Vietnam.



Figure 1. *Ectopioglossa keiseri*, female.  
a. Head, frontal view. b. Habitus.  
Scale bar: 1 mm

*Ectopioglossa henseni* Gusenleitner, 1990 (\*) (Figs. 2 a, 2b)

*Ectopioglossa henseni* Gusenleitner, 1990, Linz. Biol. Beitr. 22 (2): 572, female - "Thailand, 20 km W Phatthalung, 50 m" (Leiden).



Figure 2. *Ectopioglossa henseni*, female.  
a. Head, frontal view. b. Habitus.  
Scale bar: 1 mm

**Diagnosis.** This species can be separated from other species of the genus by the combination of the characters as follow: Female clypeus in frontal view almost as wide as long, apical emargination deep, its width about as wide as the distance between the antennae, its surface with uniform punctures, interspaces larger than puncture diameters and shiny; pronotum with different-sized punctures, the punctures slightly coarser than that on mesoscutum; lateral side of propodeum with clear striae and punctures on upper part; tergum 1 with much coarser punctures than that on the thorax, interspaces with micropunctures; terga 1–3 with apical margin lamellate and clearly bent upward at the distal edge, but on tergum 2 only three-fourth and on tergum 3 only two-third of the tergum width in the middle; the hairs on terga

3–6 less than or only occasionally longer than the height of the lamella of tergum 3; terga 2–4 black with white spots.

This species is recorded from Vietnam for the first time.

**Material examined.** VIETNAM: **Ha Giang:** 1 female, Lac Nong, Bac Me, 22°46'24.8"N - 105°10'22.9"E, alt. 412 m, 12.vii.2012, Nguyen Quang Cuong et al.; **Bac Giang:** 1 female, Dong Bay, An Lac, Son Dong, 21°20'42.8"N - 106°56'31.1"E, 12.vii.2012, Junichi Kojima, Hari Nugroho & IED-c.

According to Gusenleitner (1990), *Ectopioglossa henseni* is very similar to *E. keiseri* but can be differentiated from the latter by the combination of the following characters: female clypeus as long as wide (longer than wide in *E. keiseri*), lateral side of propodeum with clear striae and punctures on upper part (with weaker striae, with interspaces punctate in *E. keiseri*), punctures on pronotum slightly coarser than that on mesoscutum (much coarser than that on mesoscutum in *E. keiseri*), the hairs on terga 4 and 5 less than the height of the lamella of tergum 3 (significantly longer than the height of the lamella of tergum 3 in *E. keiseri*), terga 2–4 black with white spots (entirely black in *E. keiseri*), valvulae brownish translucent (reddish in *E. keiseri*).

The coloration of the specimen from Vietnam agrees with the description made by Gusenleitner (1990) except the clypeus black, with three white spots (Fig. 1) (the clypeus white, with margins black, a central spot black which is connected to the dark basal margin in the description by Gusenleitner (1990)).

**Distribution.** Thailand;? Indonesia: Kalimantan; Vietnam (new record).

*Ectopioglossa sublaevis* (Smith, 1857) (Figs. 3a, 3b, 3c)

*Eumenes sublaevis* Smith, 1857, Cat. Hym. Br. Mus. 5: 23, female - "Borneo (Sarawak)" (London, type no. 18.197).

*Pareumenes sublaevis*; Bequaert, 1928, Ann. Mag. Nat. Hist. (10) 2: 171 (note on type).



Figure 3. *Ectopioglossa sublaevis*. a. Female head, frontal view. b. Male head, frontal view. c. Female habitus. Scale bar: 1 mm

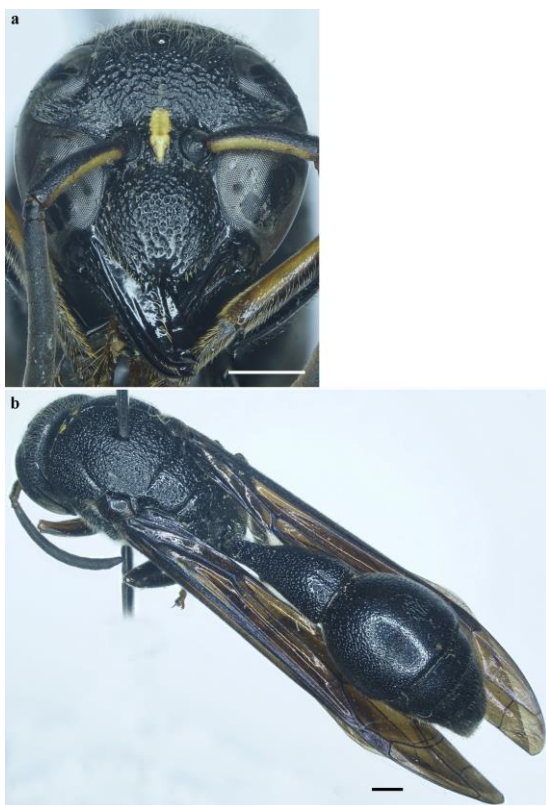
*Ectopioglossa sublaevis* van der Vecht, 1963, Zool. Verh., Leiden 60: 30 (Sumatra; Borneo; Java; Palawan).

This species was recorded from Kien Giang province in the previous study (Nguyen et al., 2014), and is newly recorded from Tuyen Quang, and Gia Lai provinces in this study.

**Material examined.** VIETNAM: **Tuyen Quang:** 1 female, Khau Man, Mu Cang Chai, 21°51'40"N - 104°02'42"E, 12.ix.2017, Nguyen Thi Phuong Lien; **Kon Tum:** Dak Uy, Dak Mar, Dak Ha, 1 male, 14°33'04.6"N - 107°55'08"E, alt. 630 m, 5.xi.2019, Nguyen Quang Cuong et al.; **Gia Lai:** 1 female, Kon Chu Rang NR, Son Lang, KBang, 28.iv.2016, Nguyen Thi Phuong Lien, Tran Thi Ngat; 1 female, Kon Chu Rang NR, Son Lang, KBang, 26.ii.2021, Nguyen Quang Cuong et al.

**Distribution.** Malaysia: Sarawak; Indonesia: Sumatra, Java, Kalimantan; Philippines; Vietnam.

*Ectopioglossa taiwana* (Sonan, 1938) (\*) (Figs. 4 a, b)



Figures 4. *Ectopioglossa taiwana*, female.  
a. Head, frontal view. b. Habitus.  
Scale bar: 1 mm

*Pareumenes taiwanus* Sonan, 1938, Arb. Morph. Taxon. Entomol. Berl. 5: 69, female, fig. 3- "Sozan near Taihoku, Formosa" (Dept. of Agric., Taihoku, Formosa).

*Ectopioglossa taiwana*; van der Vecht, 1981, Proc. K. Ned. Akad. Wet., Ser. C, 84: 443, 456.

**Diagnosis.** This species can be separated from other species of the genus by the

following combination of the characters: Body with coarse punctures; clypeus in lateral view convex, with apical margin deeply emarginate; frons only feebly raised between the antennae; vertex broad, with a small median fovea; ocellus placed far from the hind margin of vertex; propodeum with lateral surface obliquely striate, posterior concavity apically with some transverse striae and basally with few oblique striae which converge towards basal fovea on each side of median carina, emargination of posterolateral edge narrow and shallow, bluntly pointed apically; tergum 2 with apical lamella bent upward, the lamella not reaching lateral margin.

This species is recorded from Vietnam for the first time.

**Material examined.** VIETNAM: **Cao Bang:** 1 female, Phia Oac-Phia Den NP, Thanh Cong, Nguyen Binh, 22°32.5'N - 105°53'E, alt. 1000 m, 8.viii.2012, Nguyen Thi Phuong Lien et al.; **Vinh Phuc:** 1 female, Tam Dao NP, alt. 900–1200 m, 30.vii-3.viii.2012, Tran Thieu Du; **Bac Giang:** 1 female, Khe Ro NR, Son Dong, 17.v.2013, Tran Dinh Duong.

The specimens from Vietnam are nearly entirely black; yellow parts are a spot between the antennae, the under surface of the scape, and two small spots at the anterior margin of the pronotum. Legs almost black, with the inner surface of the fore femora and tibiae reddish brown.

**Distribution.** Taiwan; Vietnam (new record).

**A key to the Vietnamese species of the genus *Ectopioglossa***

(Based on the key to species of the genus *Ectopioglossa* in van der Vecht (1963))

The characters are applicable to both sexes unless the sex is specified.

1. Apical margin of third metasomal tergum raised.....2
- Apical margin of third metasomal tergum normal, not raised.....3

2. Female clypeus about as long as wide; punctures on pronotum slightly coarser than on mesoscutum; lateral side of propodeum with strong striae, with some punctures in upper part.....*henseni* Gusenleitner, 1990  
 Female clypeus longer than wide; punctures on pronotum slightly coarser than on mesoscutum; lateral side of propodeum with weaker striae, with interspaces sparsely punctate.....*keiseri* van der Vecht, 1963
3. Body with very coarse punctures. Excavation of propodeum with some short slightly oblique ridges which converge towards basal fovea, and some short transverse ridges near apical margin. Body almost black.....*taiwana* (Sonan, 1938)  
 Body with weak punctures except metasomal petiole with strong punctures. Excavation of propodeum on each side of median carina with a few sublongitudinal ridges which converge towards basal fovea. Body with extensive yellow marks.....*sublaevis* (Smith, 1857)

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