

New records of *Provespa barthelemyi* (du Buysson, 1905) from Vietnam

(Hymenoptera, Vespidae)

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Provespa barthelemyi (du Buysson, 1905) is recorded for the first time in several provinces of Vietnam. An overview of the distribution of this species in this country is given.

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Introduction

Provespa Ashmead, 1903 is an Oriental small genus of hornets including three species (Carpenter & Kojima 1997) with nocturnal habits (Archer 2012). *Provespa barthelemyi* (du Buysson, 1905) is the less known one and little information is available on its biology, even if it is probably a forest species with aerial nests on trees and shrubs, up to 2000 m of altitude (Archer 2008). It is the only *Provespa* species restricted to the mainland; indeed it does not occur in the large islands of South East Asia (Archer 2012). Madl (2012) summarized the faunistic knowledge of this wasp, reporting the following countries from which it was known: north east India (Sikkim, West Bengal, Assam, Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Tripura, Mizoram), China (Yunnan, Guangxi), Myanmar, Laos, Cambodia, Vietnam, Thailand, Malaysia (West Malaysia). The record from the Indian state Uttar Pradesh (Das & Gupta 1989) has never been confirmed (Madl 2012). Among localities reported by du Buysson (1905) when he described the species (as *Vespa barthelemyi*) there is “Maria Basti”, that he located in Bhutan; for this reason all the following papers on this species

reported Bhutan in the list of countries in which *P. barthelemyi* occurs (e.g. van der Vecht 1957, Carpenter & Kojima 1997, Archer 2000, 2008, 2012). Actually this locality is situated in West Bengal (India), therefore Madl (2012) deleted Bhutan from the countries distribution list of *P. barthelemyi*. However, Dorji et al. (2017) recorded this species in Trashigang and Tsirang, proving its presence also in Bhutan. The southern distribution limit of the species is in the state of Kedah in Malaysia (van der Vech 1957, Martin 1995), where there is overlap of the distribution areas of all the three species of *Provespa* in the area of Jitra, which represents currently the southern known limit for *P. barthelemyi* and the northern one for *P. anomala* (de Saussure, 1854) and *P. nocturna* van der Vecht, 1935 (Madl 2012).

In Vietnam the known distribution of this wasp is very fragmented, although many works in recent years have increased available information in this country (e.g., Nguyen & Carpenter 2002, Nguyen et al. 2006, Saito & Kojima 2011). Pham & Li (2015) summarized the Vietnamese provinces where *P. barthelemyi* had been recorded, listing Bắc Kạn, Gia Lai, Nghệ An, Phú Thọ, Quảng Nam, Quảng Trị, and Vĩnh Phúc. A further one is Bà Rịa–Vũng



Fig. 1. Male of *Provespa barthelemyi* from Van Ban Nature Reserve (Lào Cai) (photo by S. Bambi).

Tàu, in which a locality (“cap St-Jacques”) reported by du Buysson (1905) when he described the species is placed, as well as another locality (“Baria in Cochinchina”) reported by van der Vecht (1957). In van der Vecht (1957) two males and two workers are reported from “Saigon”, but it is not clear if he was referring to the city (it is the old name of Ho Chi Minh) or the river and it is not possible to assign with certainty the toponym to a specific province.

The present work adds new distributional records of *P. barthelemyi* from several new provinces of Vietnam.

Material and methods

The examined material consists of collected specimens from public or private collections: MZUF=Natural History Museum of the University of Florence, Italy; CFC=F. Cianferoni collection, Florence, Italy.

These specimens were collected in the framework of a research Memorandum of Understanding (see Vu et al. 2014) signed between the Natural History Museum of the University of Florence, Italy, and the Vietnam National Museum of Nature in Hanoi.

For each site, the following information is provided: locality, geographical coordinates, altitude, date, collector, number of specimens and sex, repository. Speci-

mens were identified by the authors. For the identification of the material, keys and information from Archer (2000, 2012) were used.

Material examined

ĐÔNG BẮC (=NORTHEAST). Tuyên Quang: Na Hang Nature Reserve, 150 m a. s. l., at light, 5-7.vi.2013, F. Cianferoni, G. Mazza, L. Bartolozzi, S. Bambi, F. Orbach, V. Sbordoni leg., 1 ♂, CFC, 1 ♂, MZUF. **BẮC KẠN:** Ba Be National Park, 350 m a. s. l., at light, 3-8.vi.2011, L. Bartolozzi, F. Fabiano, S. Bambi, F. Orbach leg., 2 ♂♂, 1 ♀, MZUF; **PHÚ THỌ:** Xuan Son National Park, 500 m a. s. l., at light, 18-20.vi.2012, L. Bartolozzi, F. Fabiano, S. Bambi, F. Orbach leg., 2 ♂♂, 1 ♀, MZUF; **LÀO CAI:** Van Ban Nature Reserve, 1000 m a. s. l., at light, 23-26.v.2011, L. Bartolozzi, F. Fabiano, S. Bambi, F. Orbach leg., 2 ♂♂ (Fig. 1), MZUF; **CAO BẮNG:** Mt. Pin Oac, 1600-2000 m a. s. l., at light, 14-16.vi.2012, L. Bartolozzi, F. Fabiano, S. Bambi, F. Orbach leg., 1 ♂, MZUF. **TÂY NGUYÊN (=CENTRAL HIGHLANDS). Kon Tum:** 20 km N Dak Glei, W border of Ngoc Linh National Park, 15°14'26.04" N 107°44'11.61" E, 900 m a. s. l., 30.v.2014, at light, L. Bartolozzi, A. Bandinelli, G. Chelazzi, S. Bambi, F. Fabiano leg., 1 ♀, MZUF; surroundings Mang Den, 14°37.350' N 108°17.651' E, 1120 m a. s. l., 4-7.v.2016, L. Bartolozzi, S. Bambi, A. Bandinelli, V. Sbordoni leg., 1 ♂, 5 ♀♀, MZUF; ca 30 km from Mang Den, 14°40.320' N 108°15.829' E, 1250 m a. s. l., 4-7.v.2016, L. Bartolozzi, S. Bambi,

A. Bandinelli, V. Sbordoni leg., 1 ♂, 2 ♀♀, MZUF; **Lâm Đồng**: Headquarter area, Nam Cat Tien National Park, 120 m a.s.l., at light, 11–15.vi.2015, L. Bartolozzi, S. Bambi, G. Chelazzi, F. Fabiano, E. Orbach, V. Sbordoni leg., 1 ♂, 18 ♀♀, MZUF; surr. Giang Ly Ranger Station, Bidoup Nuiba National Park, 1420–1460 m a.s.l., at light, 16–21.vi.2015, L. Bartolozzi, S. Bambi, G. Chelazzi, F. Fabiano, E. Orbach, V. Sbordoni leg., 1 ♂, MZUF; road up from Giang Ly Ranger Station, Bidoup Nuiba National Park, 1600 m, at light, 16–21.vi.2015, L. Bartolozzi, S. Bambi, G. Chelazzi, F. Fabiano, E. Orbach, V. Sbordoni leg., 2 ♂♂, MZUF. **ĐÔNG BẮNG SÔNG HỒNG (=RED RIVER DELTA)**. **Vĩnh Phúc**: Tam Dao National Park, 950 m a.s.l., 5–12.vi.2010, L. Bartolozzi & S. Bambi leg., 5 ♂♂, MZUF. **BẮC TRUNG BỘ (=NORTH CENTRAL COAST)**. **Hà Tĩnh**: Vu Quang Nature Reserve, 50 m a.s.l., at light, 21.vi.2014, L. Bartolozzi, A. Bandinelli, G. Chelazzi, S. Bambi, F. Fabiano leg., 1 ♂, MZUF.

Discussion

Records of *Provespa barthelemyi* in Vietnam are scarce. Although these few records are distributed in distant places and therefore it is probable a large diffusion of this species in the country, so far the occurrence of this wasp was known only from eight provinces (see du Buysson 1905, van der Vecht 1957, Pham & Li 2015) of the 63 ones of Vietnam. With the present work, the following six provinces are added as new: Tuyên Quang, Lào Cai, Cao Bằng, Kon Tum, Lâm Đồng, and Hà Tĩnh. The currently known distribution of *P. barthelemyi* is summarized in Fig. 2.

Further research is certainly needed to better define the distribution of this relatively uninvestigated hornet in Vietnam.

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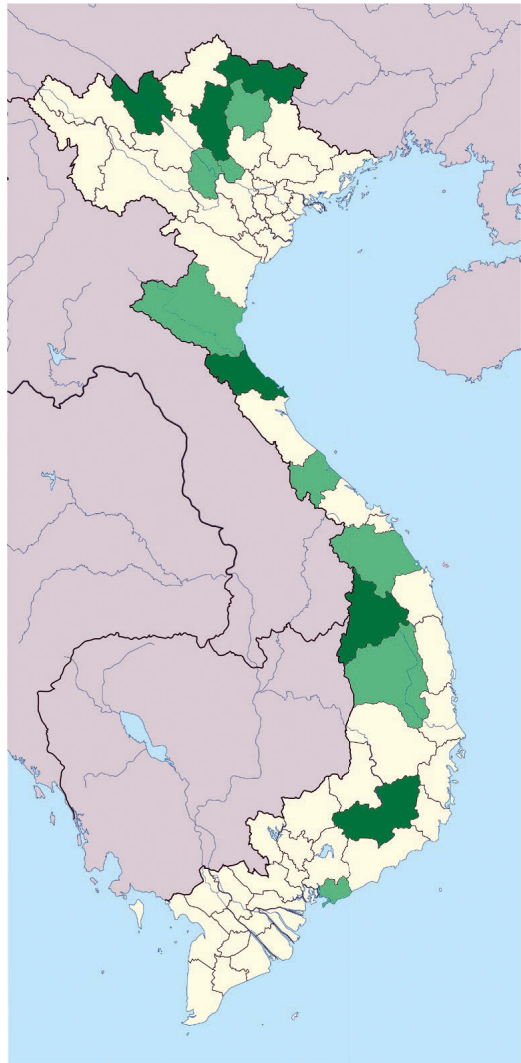


Fig. 2. Map of the known Vietnamese provinces of occurrence of *Provespa barthelemyi*. In light green the provinces already known from literature, in dark green the provinces added with the present work. Base map: CC-BY-3.0 (adapted) Luru Ly; Uwe Dederig.

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