ABSTRACT. The Indomalayan spiny orb-weaver Gasteracantha hasselti C.L. Koch, 1837 is recorded from Vietnam for the first time, with notes on new faunistic records of four other Vietnamese Gasteracanthinae. The samples come from across Vietnam and are mainly from the expeditions of the Russia-Vietnam Tropical Centre in 2000–2016.

KEY WORDS: Arachnida, Gasteracanthinae, orb-weaving spiders, faunistics.

Species review

Gasteracantha diadesmia Thorell, 1887

MATERIAL. VIETNAM: 1 juv. (ZMMU), Ba Vi Distr., Son Kim Community, c. 10 km S of Nuoc Son Kim Community, c. 10 km S of Nuoc Phu Son, nr. Ba Vi Resort (21°04′57.9″N, 105°22′54.1″E) [3], 350–400 m a.s.l., 11–26.04.2000, A.V. Abramov; 1 juv. (ZMMU), Cuc Phuong Reserve, 1980ies, Zlotin.

COMMENTS. Known from India to the Philippines [WSC, 2017]; in Vietnam, recorded from Saigon, Luc Nam, Tuyen-Quang, Ha Tinh Province, Ba Vi District and Cuc Phuong Reserve [Simon, 1904, 1909; present data]. Roy et al. [2017] is the most recent publication to illustrate the species.

Gasteracantha hasselti C.L. Koch, 1837

Figs 1–7, Map.

MATERIAL. VIETNAM: 1 juv. (ZMMU), Ba Vi Distr., Son Kim Community, c. 50 km W of Hanoi, Ba Vi Nat. Park, nr. Tanh Linh Vil. (21°05′49.6″N, 105°24′07.3″E) [3], 100 m a.s.l., May 2013, A.V. Abramov; 5 juv. (ZMMU), Ha Tinh Prov., Huong Son Distr., Son Kim Community, c. 10 km S of Nucot Sot Vil. (18°22″N, 105°13″E) [5], 200 m a.s.l., 11–26.04.2000, A.V. Abramov; 1 juv. (ZMMU), Cuc Phuong Reserve, 1980ies, Zlotin.

COMMENTS. Known from India to the Philippines [WSC, 2017]; in Vietnam, recorded from Saigon, Luc Nam, Tuyen-Quang, Ha Tinh Province, Ba Vi District and Cuc Phuong Reserve [Simon, 1904, 1909; present data]. Roy et al. [2017] is the most recent publication to illustrate the species.

New faunistic records of Gasteracantha Sundevall, 1833 and Macracantha Simon, 1864 species (Araneae: Araneidae) from Vietnam

Новые фаунистические находки видов Gasteracantha Sundevall, 1833 и Macracantha Simon, 1864 (Araneae: Araneidae) из Вьетнама

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KEY WORDS: Arachnida, Gasteracanthinae, orb-weaving spiders, faunistics.

Introduction

The genus Gasteracantha Sundevall, 1833 (Araneae: Gasteracanthinae) is currently represented by over 100 species, with a world-wide distribution and the highest diversity in the tropics [WSC, 2017]. This publication, following on from the work of Logunov and Jäger [2015], adds a new species record of Gasteracantha hasselti C.L. Koch, 1837 to the checklist of Vietnamese spiders by Ono et al. [2012]. The new record brings the total number of Gasteracantha species from Vietnam to six: G. diadesmia Thorell, 1887; G. frontata Blackwall, 1864; G. hasselti; G. kuhli C.L. Koch, 1837; G. sarteni Dahl, 1914; and G. theisi Guérin, 1838. Also included in this paper is the faunistic records of Macracantha arcuata (Fabricius, 1793) that belongs to the same subfamily Gasteracanthinae.

The studied material was mainly collected by Alexei V. Abramov (St. Petersburg, Russia) during the 2000–2016 expeditions of the Russia-Vietnam Tropical Centre (Hanoi). The material is housed in the collection of the Zoological Museum of the Moscow State University, Russia (ZMMU; curator K.G. Mikhailov) and at the Manchester Museum, United Kingdom (MMUE; curator D.V. Logunov).

In the following list of species, the numbers in square brackets after the detailed information on each locality correspond to those given on the map.
Map. New collecting localities of the studied Gasteracantha and Macracantha species in Vietnam: G. hasselti (1, 2, 3, 4, 6, 7, 8, 9); G. diadesmia (3, 5); G. kuhl (3); G. sauteri (2, 5); and M. arcuata (6, 7, 8).

COMMENTS. Known from India, China to Moluc-

The images provided here (Figs 1–7) are to assist in the species identification. The material studied agrees with the original descriptions provided by C.L. Koch [1837, :] and Thorell [1859, :] and is also supported by the most recent publications illustrating this species [Yin et al., 2012; Sen et al., 2015].

Ono et al. [2012: 19] listed a record of Gasteracantha theisi from Vietnam, and it was stated that the species was only “recorded by Hogg (1922)” and that it was previously identified as Plectana praetextata Walkenaer, 1841. The name ‘praetextata’ is currently synonymised with G. theisi by Thorell [1881]. However, in his 1859 publication Doleschall listed a ‘Plect-

The species G. hasselti and G. theisi are distinct from each other and it is only the identification of the specimens that provide the Vietnamese record for G. theisi that are being questioned.

Gasteracantha kuhl C.L. Koch, 1837

Map.

MATERIAL. VIETNAM: 2 ø, 1 juv. (ZMMU), Ba Vi Dis-

COMMENTS. Known from India, China to Moluc-

Figs 1–7. General appearance and copulatory organs of Gasteracantha hasselti C.L. Koch, 1837 from Vietnam: ø from Xuan Son National Park in Phu Tho Province (ZMMU) (1–3) and ø from Kon Chu Rang Nature Reserve in Gia Lai Province (MMUE, G7579.9) (4–7): 1, 4 — body, dorsal view; 2, 5 — ditto, ventral view; 3 — spermathecae, dorsal view; 6 — male palp, prolateral view; 7 — ditto, retrolateral view. Scale bars: (1, 2, 4, 5) 1 mm, (3, 6, 7) 0.25 mm.

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Giang Province, Ba Vi District and Cuc Phuong Reserve [Simon, 1886, 1909; Pham Dinh et al., 2007; present data]. Roy et al. [2017] is the most recent publication to illustrate the species.

Gasteracantha sauteri Dahl, 1914

**Material. Vietnam:** 1 ♀ (ZMMU), Phu Tho Prov., Thanh Son Dist., Xuan Son Nat. Park (21°08′11″N, 104°56′11″E) [2], 300–400 m a.s.l., July 2014, A.V. Abramov; 1 ♀ juv. (ZMMU), Ha Tinh Prov., Huong Son Dist., Son Kim Community, c. 10 km S of Nuoc Sot Vil. (18°22′30″N, 105°13′E) [5], 200 m a.s.l., 11–26.04.2000, A.V. Abramov.

**Comments.** Known from China and Taiwan [WSC, 2017]; in Vietnam, recorded from Ha Giang Province, Phu Tho Province and Ha Tinh Province [Pham Dinh et al., 2007; present data]. Song et al. [1999] is the most recent publication to illustrate the species.

Macracantha arculata (Fabricius, 1793)

**Material. Vietnam:** 1 ♀ juv. (MMUE, G7579.6), Kom Tum Prov., Kon Pong District, c. 14 km N of Kon Pong Town (14°43′20″N, 108°18′58″E) [6], 1030 m a.s.l., 3–12.06.2016, A.V. Abramov; 1 ♀, 1 ♀ juv. (MMUE, G7579.7–8), Gia Lai Prov., c. 40 km N of K' Bang Town, Kon Chu Rang Nature Reserve (14°30′19″N, 108°32′28″E) [7], 1020 m a.s.l., 24.05–2.06.2016, A.V. Abramov; 1 ♀ juv. (MMUE, G7579.5), Gia Lai Prov., Mang Yang Dist., c. 42 km NE of Pleiku, W part of Kon Ka Kinh National Park (14°12′12″N, 108°18′54″E) [8], 900 m a.s.l., 10–21.05.2016, A.V. Abramov.

**Comments.** Known from India, China to Borneo [WSC, 2017]; in Vietnam, recorded from Phu Tho Province, Gia Lai Province and Kom Tum Province [Logunov, Jäger, 2015; present data]. Song et al. [1999] is the most recent publication to illustrate the species.

**Acknowledgements.** I would like to thank Dmitri Logunov (MMUE) and Darren Mann (OUMNH) for assistance with the publication, Kirill Mikhailov (ZMMU) for sorting out and giving access to the Gasteracanthinae material from his museum, and Katherine Child (OUMNH) for assistance with the photography and mapping.

**References**


**Responsible editor D.V. Logunov**