

**TWO SPECIES OF JUMPING SPIDERS (ARANEAE: SALTICIDAE) NEW
FOR THE FAUNA OF VIETNAM**

T. V. Truong¹⁾, D. B. Tran²⁾, D. H. Lam^{3*)}

1) Center for Vocational Education - Continuing Education, Cho Lach District, Ben Tre Province 860000, Vietnam.

2) Can Giuoc High school, Can Giuoc District, Long An Province 850000, Vietnam.

3) Can Tho University, Can Tho City 900000, Vietnam. * Corresponding author. E-mail: lh dang@ctu.edu.vn

Summary. Two species of jumping spiders, *Carrhotus viduus* (C.L. Koch, 1846) and *Myrmarachne melanocephala* Mac Leay, 1839, are recorded from Vietnam (provinces Ben Tre and Long An) for the first time. The short descriptions and illustrations of Vietnamese specimens are also provided.

Key words: Salticidae, *Carrhotus*, *Myrmarachne*, fauna, new records, Southeast Asia.

**Т. В. Труонг, Д. Б. Тран, Д. Х. Лам. Два новых для фауны Вьетнама
вида пауков-скакунов (Araneae: Salticidae) // Дальневосточный энтомолог.
2025. N 534. С. 11-16.**

Резюме. Из Вьетнама (провинции Бенче и Лонг Ан) впервые приводятся два вида пауков-скакунов: *Carrhotus viduus* (C. L. Koch, 1846) и *Myrmarachne melanocephala* Mac Leay, 1839. Также даны краткие иллюстрированные описания вьетнамских экземпляров.

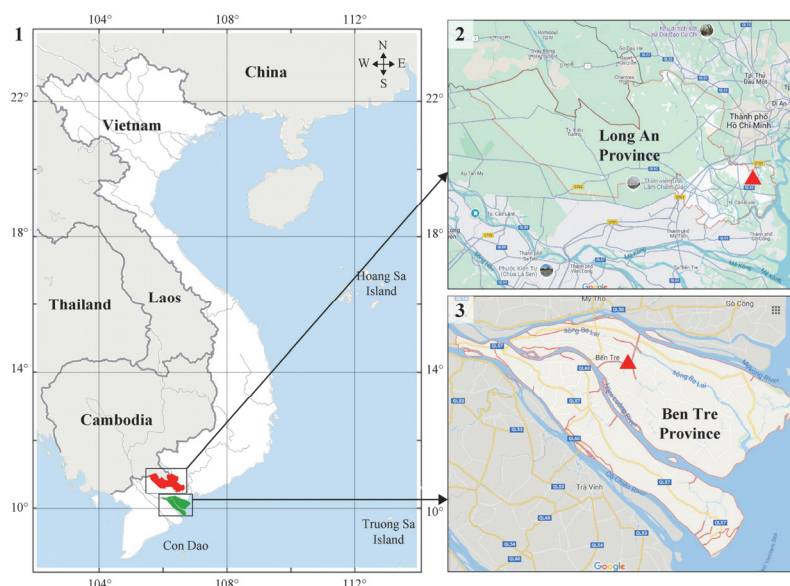
INTRODUCTION

The jumping spider (Salticidae) are characterized by their eight eyes, with notably large anterior median eyes and slightly smaller anterior lateral ones; their legs have two claws, usually with claw tufts; the carapace is square-fronted; the length varies from short to long, and cephalic region high in some genera; the chelicerae have one tooth inner margin, split teeth, or a several teeth (Jocqué & Dippenaar-Schoeman, 2006). Currently, there are 187 salticid species recorded in Vietnam. Two new for the fauna of Vietnam species are found in the provinces Ben Tre and Long An (Figs 1–3).

MATERIAL AND METHODS

Spiders were collected by hand from two sampling sites in Ben Tre and Long An Provinces (Figs 1–3), southern Vietnam. The survey was performed on 3 and 20 March 2025. At each site, the distance between the specimens in the field was less than 10 meters. Specimens were preserved in 70% ethanol and deposited in the Zoological Laboratory, School

of Education, Can Tho University (CTU). Spiders were observed and photographed using a Motic Digital microscope (Model: DM143-FBGG-C) equipped with an attached camera. Their sizes were measured using Motic Image Plus 2.0 software.



Figs 1–3. Collecting sites in Vietnam. 1 – map of Vietnam and component provinces; 2 – Long An Province; 3 – Ben Tre Province; triangle – collecting point.

NEW RECORDS

Family Salticidae Blackwall, 1841

Genus *Carrhotus* Thorell, 1891

REMARKS. The genus *Carrhotus* consists of 37 species, two of them, *C. coronatus* (Simon, 1885) and *C. sannio* (Thorell, 1877), has been recorded from Vietnam (Ono *et al.*, 2012; Metzner, 2025; WSC, 2025).

Carrhotus viduus (C. L. Koch, 1846)

Figs 4–6

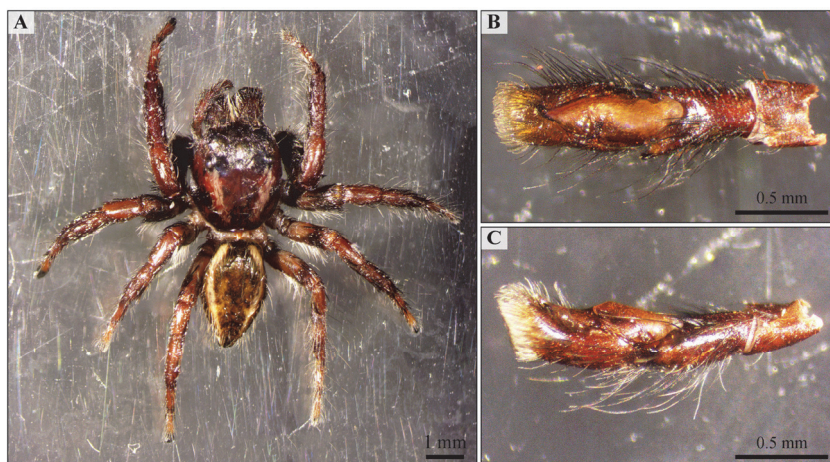
Plexippus viduus Koch, 1846: 104, fig. 1166 (original description).

Carrhotus viduus: Jastrzębski, 1999: 4, figs 8–11.

Plexippus gajbei Karthikeyani et Kannan, 2013: 43, figs 1a–c (original description); synonymized by Caleb (2016a).

MATERIAL EXAMINED. **Vietnam:** Ben Tre Province, Ben Tre City, low shrubs in front of government buildings, 10.229174N, 106.413805E, h=2 m, 3. III 2025, 1♂, coll. Tam Van Truong (CTU-SP.001.01); Long An Province, Can Giuoc District, low shrubs inside the Can Giuoc High School Campus, 10.59817N, 106.65966E, h=2 m, 20.III 2025, 1♂, coll. Dang Bao Tran (CTU-SP.001.02).

DESCRIPTION OF VIETNAMESE SPECIMENS (measurements in mm). *Male*: body length 6.10-7.46, carapace length 3.32-3.62, width 2.58-2.93; abdomen length 2.91-3.54, width 1.99-2.19. Leg measurements: **I** = 7.17-8.88 (2.09-2.45, 1.25-1.59, 1.72-2.28, 1.2-1.61, 0.91-0.95), **II** 5.79-6.76 (1.83-2.10, 1.11-1.26, 1.25-1.45, 0.92-1.11, 0.68-0.84), **III** 6.12-6.82 (1.87-2.10, 1.15-1.2, 1.18-1.45, 1.12-1.22, 0.8-0.85), **IV** 6.32-6.92 (1.86-2.05, 1.09-1.13, 1.20-1.47, 1.21-1.26, 0.96-1.01). Carapace robust and relatively broad, blackish brown in live specimens, sparsely covered with long black setae, and bearing two distinct longitudinal stripes of white setae. Sternum oval, brown; labium and maxillae yellowish brown with paler outer margins. Clypeus brownish; eyes encircled by dense black orbital setae. Chelicerae brown, with curved outer margins and excavated inner margins; cheliceral dentition comprising two promarginal teeth and one retromarginal tooth. Abdomen ovoid, blackish brown, bearing two longitudinal bands of white setae; dorsum entirely covered with sparse whitish setae. Mid-dorsum with four median beige maculae of varying shapes, covered with black scales. Ventral surface greyish, with a broad blackish-brown median field flanked by two wide longitudinal whitish bands. Spinnerets are brown, with a dorsal patch of black setae. Leg I is distinctly robust; femora I-IV are dark brown dorsally; patellae and tibiae are uniformly dark brown; and metatarsi and tarsi of all legs are similarly dark brown (Fig. 4). The palps dark brown, embolus short, thick, and blunt apically. Bulbus with a distinct posterolateral process. The retrolateral tibial apophysis is only slightly bent ventroapically, strongly curved, and claw-like in shape (Figs 5-6).



Figs 4-6: Adult male of *Carrhotus viduus*. 4 – habitus dorsal view; 5 – ventral view of right palp; 6 – retrolateral view of right palp. (Photo by Lam Hai Dang).

HABITAT. The specimens were collected from dense low shrubs.

REMARKS. The specimens from Vietnam exhibit similar characteristics, consistent with those of this species reported from other locations (Kumar *et al.*, 2021).

DISTRIBUTION. Iran, India, Nepal, China (WSC, 2025), Vietnam (new record).

Genus *Myrmarachne* Mac Leay, 1839

REMARKS. Currently, this genus has 191 valid species of which 12 ones recorded from Vietnam (Žabka, 1985; Pham *et al.*, 2007; Ono *et al.*, 2012; Logunov, 2021; Truong *et al.*, 2024; Metzner, 2025; WSC, 2025).

***Myrmarachne melanocephala* (Mac Leay, 1839)**

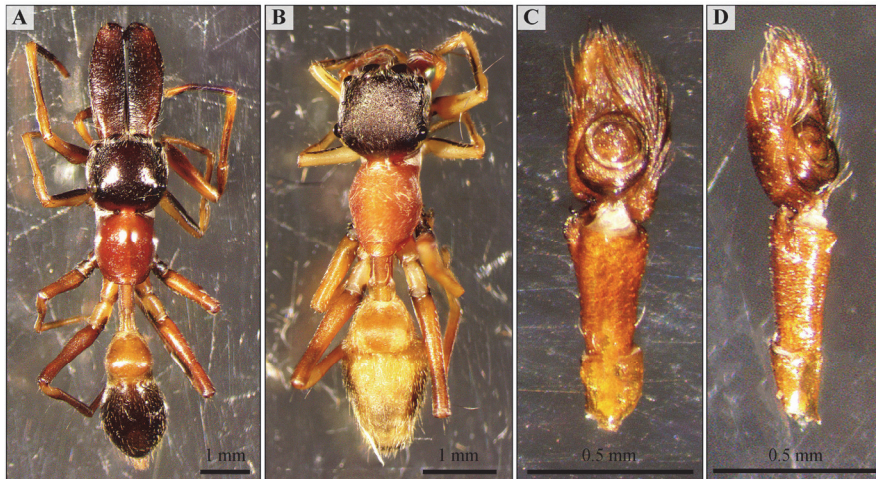
Figs 7–10

Myrmarachne melanocephala MacLeay, 1839: 11 (original description); Benjamin, 2025: 2625, figs 17A–D, 18A–D, 19A–D; Caleb, 2016b: 410, figs 20–30.

Myrmarachne calcuttaensis Biswas, 1984: 126, figs 17–19 (original description); synonymized by Caleb & Joseph (2025).

MATERIAL EXAMINED. **Vietnam:** Ben Tre Province, Ben Tre City, low shrubs in front of government buildings, 10.229174N, 106.413805E, h=2 m, 3. III 2025, 1♂, coll. Tam Van Truong (CTU-SP.002.01); Long An Province, Can Giuoc District, low shrubs inside the Can Giuoc High School Campus, 10.59817N, 106.65966E, h=2 m, 20.III 2025, 1♀, coll. Dang Bao Tran (CTU-SP.001.02).

DESCRIPTION OF VIETNAMESE SPECIMENS (measurements in mm). *Male:* Total body length 6.41, carapace length 3.14, width 1.74; abdomen length 2.66, width 1.36. Leg measurements: **I** 5.7 (1.77, 0.78, 1.65, 0.96, 0.54), **II** 4.31 (1.38, 0.65, 1.09, 0.75, 0.44), **III** 4.55 (1.47, 0.53, 1.01, 1.09, 0.45), **IV** 6.34 (2.10, 0.69, 1.48, 1.56, 0.51). Cephalic region dark brown, slightly elevated above the thoracic region; surface finely rugulose and covered with fine grey setae. Thoracic region reddish, distinctly separated from the cephalic part by a prominent transverse furrow, gradually sloping posteriorly. Chelicerae shorter than the carapace, light brown, rugulose, and dorsally flattened; cheliceral dentition consisting of 10 promarginal and 10 retromarginal teeth. Fangs gradually tapering, slender, bearing a distinct apophysis. Abdomen elongate, with a dorsal scutum and a marked constriction; anterior portion reddish brown, posterior portion dark brown, uniformly covered with fine setae (Fig. 7). The palps with rounded tegulum bearing a C-shaped seminal reservoir positioned at approximately 2 to 3 o'clock; embolus forming two coils. Retrolateral tibial apophysis twisted, strongly curved, S-shaped, with a well-developed flange (Figs 9–10).



Figs 7–10. Adult male (7, 9–10) and female (8) *Myrmarachne melanocephala*. 7 – dorsal view of male; 8 – dorsal view of female; 9 – ventral view of right palp; 10 – retrolateral view of right palp. (Photo by Lam Hai Dang).

Female: Body length 5.35, carapace length 2.67, width 1.21; abdomen length 2.08, width 1.19. Leg measurements: **I** 3.14 (1.02, 0.4, 0.8, 0.52, 0.4), **II** 3.2 (1.06, 0.52, 0.81, 0.42, 0.39), **III** 4.45 (0.92, 1.12, 1.27, 0.75, 0.39), **IV** 5.59 (1.82, 0.61, 1.41, 1.32, 0.43). The chelicerae bear 7 teeth on the prolateral margin and 8 teeth on the retrolateral margin. Legs I and II are light yellowish, except for coxa I, which is brownish. Legs III and IV are brownish, with a white trochanter IV and patella IV. Thin, dark brown stripes are present along the lateral margins of the first two pairs of legs. The abdomen is elongated, lacking a scutum, with fine white hairs along the lateral sides near the weak constriction. Faint white transverse markings are visible on the dorsum (Fig. 8). The epigyne possess large, oval copulatory openings. The copulatory ducts coil in an ∞ -shaped pattern before connecting to the spermathecae. Additionally, two small lateral pockets are observed just above the epigastric furrow.

HABITAT. The specimens were collected from dense low shrubs.

REMARKS. Overall, the female individual is lighter in color than the male.

DISTRIBUTION. From Pakistan to Indonesia (WSC, 2025), Vietnam (new record).

CONCLUSION

Thus, including the results of this study, Vietnam has now officially recorded three jumping spider species of the genus *Carrhotus* (*C. coronatus*, *C. sannio*, and *C. viduus*), and thirteen jumping spider species of the genus *Myrmarachne*, namely *M. angusta* Thorell, 1877 (as *M. annamita* Zabka, 1985), *M. cornuta* Badcock, 1917, *M. elongata* Szombathy, 1915, *M. formosicola* Strand, 1910, *M. fredwanlessi* Logunov, 2021 (as *M. legon* Zabka, 1985), *M. gisti* Fox, 1937, *M. kiboschensis* Lessert, 1925, *M. legon* Wanless, 1978 (non *M. legon* Zabka, 1985), *M. lugubris* (Kulczynski, 1895), *M. melanocephala*, *M. pumilio* (Karsch, 1880) (= *M. hanoi* and *M. topali* Zabka, 1985), *M. singularis* Logunov, 2021, and *M. thaii* Zabka, 1985. This contributes to expanding the database on the diversity of jumping spiders in Vietnam as well as in Southeast Asia. As of 2025, the World Spider Catalog (WSC) has not updated Vietnam as part of the distribution range for three of these species: *M. formosicola*, *M. kiboschensis*, and *M. lugubris*, even though *M. kiboschensis* and *M. lugubris* were the valid species described by Zabka (1985) based on specimens collected from Vietnam. This situation requires the database to be updated as soon as possible.

REFERENCES

- Benjamin, S.P. 2015. Model mimics: antlike jumping spiders of the genus *Myrmarachne* from Sri Lanka. *Journal of Natural History*, 49(43–44): 2609–2666. DOI: 10.1080/00222933.2015.1034209
- Biswas, B. 1984. Description of six new species of spiders of the families Clubionidae, Gnaphosidae and Salticidae from India. *Bulletin of the Zoological Survey of India*, 6: 119–127.
- Caleb, J. 2016a. New data on the jumping spiders (Araneae: Salticidae) from India. *Arthropoda Selecta*, 25(1): 271–277. DOI: 10.15298/arthscl.25.3.06
- Caleb, J.T. 2016b. Taxonomic notes on some ant-mimicking jumping spiders (Araneae: Salticidae) from India. *Arthropoda Selecta*, 25(4): 403–420. DOI: 10.15298/arthscl.25.4.09
- Caleb, J.T. & Joseph, M. 2025. On the synonymy of *Myrmarachne calcuttaensis* Biswas, 1984 (Araneae: Salticidae). *Far Eastern Entomologist*, 521: 21–24. DOI: 10.25221/fee.521.3

- Jastrzębski, P. 1999. Salticidae from the Himalaya: The genus *Carrhotus* Thorell 1891 (Araneae, Salticidae). *Senckenbergiana Biologica*, 79: 1–10. DOI: 10.15298/arthscl.25.4.09
- Jocqué, R. & Dippenaar-Schoeman, A.S. 2006. *Spider families of the world*. Royal Museum for Central Africa, Tervuren. 336 pp.
- Karthikeyani, R. & Kannan, S. 2013. A new *Plexippus* spider from the Western Ghats, Kumbakarai Falls, Theni District, Tamil Nadu, South India (Arachnida: Araneae: Salticidae). *Indian Society of Arachnology*, 2(2): 42–46.
- Koch, C.L. 1846. *Die Arachniden*. Nürnberg, Dreizehnter Band. 234 pp.
- Kumar, R., Sharma, M. & Sharma, A.K. 2021. New record of *Myrmarachne melanocephala* MacLeay, 1839 (Araneae: Salticidae) from Jharkhand, India and biogeographical implications of the co-occurrence of its ant model *Tetraponera rufonigra* Jerdon, 1851. *Journal of Threatened Taxa*, 13(12): 19753–19761. DOI: 10.11609/jott.7500.13.12.19753-19761
- Logunov, D.V. 2021. Jumping spiders (Araneae: Salticidae) of the Na Hang Nature Reserve, Tuyen Quang Province, Vietnam. *Arachnology*, 18(9): 1021–1055.
- Macleay, W.S. 1839. I. On some new forms of Arachnida. *Journal of Natural History*, 2(7): 1–14. DOI: 10.13156/arac.2021.18.9.1021
- Maddison, W.P. 2015. A phylogenetic classification of jumping spiders (Araneae: Salticidae). *Journal of Arachnology*, 43(3): 231–292. DOI: 10.1636/arac-43-03-231-292
- Metzner, H. 2025. *Worldwide database of jumping spiders (Arachnida, Araneae, Salticidae)*. Available from: <https://www.jumping-spiders.com> (accessed 10 May 2025).
- Ono, H., Thinh, T.H. & Sac, P. 2012. Spiders (Arachnida, Araneae) recorded from Vietnam, 1837–2011. *Memoirs of the National Museum of Nature and Science Tokyo*, 48: 1–37.
- Pham, S.D. 2007. A preliminary note on spider fauna of Vietnam (Arachnida: Araneae). *Acta Arachnol. Sinica*, 16: 121–128.
- Proszynski, J. 1976. Studium systematyczno-zoogeograficzne and rodzina Salticidae (Aranei) Regionow Palearktycznego i Nearktycznego. *Wyzsza Szkola Pedagogiczna Siedlcach*, 6: 1–260.
- Truong, T.V., Nguyen, N.H., Truong, A.V. & Hill, D.E. 2024. First record of *Myrmarachne cornuta* (Balogh 1918) (Araneae: Salticidae: Astioida: Myrmarachnini) in Vietnam. *Peckhamia*, 322(1): 1–4.
- World Spider Catalog, 2025. *World Spider Catalog. Version 26*. Available from: <http://wsc.nmbe.ch> (accessed 10 May 2025).
- Žabka, M. 1985. Systematic and zoogeographic study on the family Salticidae (Araneae) from Viet-Nam. *Annales zoologici*, 39: 197–248.