

New Record of *Talthybia depressa* (Araneae: Araneidae) from the Philippines

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This paper reports the first country record of *Talthybia depressa* Thorell, 1898 based on a female specimen collected from Marilog District, Davao City, Mindanao, Philippines.

Keywords: Arachnida, montane forest, new country record, orb weaver, Philippines, spider inventory

Talthybia depressa was originally described from a single immature male holotype from Myanmar and the first mature female specimen was recently recorded in Yunnan, China (Thorell 1898; Han *et al.* 2009). This paper reports the first country record for *T. depressa*. The species was collected in a forest reserved in Barangay Baganihan, Marilog District, Davao City, Philippines (07°27'13.74"N, 125°15'1.12"E) (1240 masl). Marilog District is one of the priority areas on biodiversity conservation by the conservation international. It has a total land area of 63,800.22 ha in which 11,102 ha (17.4%) are forest patches (Figure 1).

The area is characterized as a secondary montane forest. Common species of plants were observed such as vines, ferns such as *Nephrolepis falcata* (Cav.) C. Chr. and *N. biserrata* (Sw.) Schott. (Lomariopsidaceae), *Angiopteris palmiformis* (Cav.) C. Chr. (Marattiaceae), *Asplenium* spp. (Aspleniaceae), aroids such as *Aglaonema* cf. *densinervium* Engl., *Alocasia heterophylla* (C. Presl) Merr., *Arisaema polyphyllum* Blanco, ginger, introduced species such as *Crotalaria* spp., *Tridax procumbens* L., *Mimosa pudica* L., *Chromolaena odorata* L., *Lantana camara* L., trees such as *Dillenia megalantha* Merr.

(Dilleniaceae), *Lithocarpus* spp. (Fagaceae), *Ficus* spp. (Moraceae), *Astrocalyx calycina* (Melastomataceae), and common shrubs like *Melastoma malabathricum* L. (Melastomataceae).

The Marilog Forest Reserve is also known due to its unique flora and fauna. Recent discoveries in the area include a new family record of a parasitic plant *Mitrastemon yamamotoi* (Amoroso *et al.* 2018) and a new record of ginger *Plagiostachys albiflora* (Acma *et al.* 2019). New species and new locality records of pygmy grasshopper – *Arulenus miae* and *Spartolus pugionatus*, respectively – were also documented in the same locality (Skejo and Caballero 2016; Mohagan *et al.* 2020), which reflects that the Marilog District is home of endemic and rare species.

Entry protocol and permits. Prior informed consent is obtained from the local government unit of Marilog District, Davao City, Southern Mindanao, Philippines. Necessary permits such as approved gratuitous permit (GP) were then obtained from the Department of Environment and Natural Resources Region 11 in compliance with Republic Act No. 9147 for the collection of the specimen.

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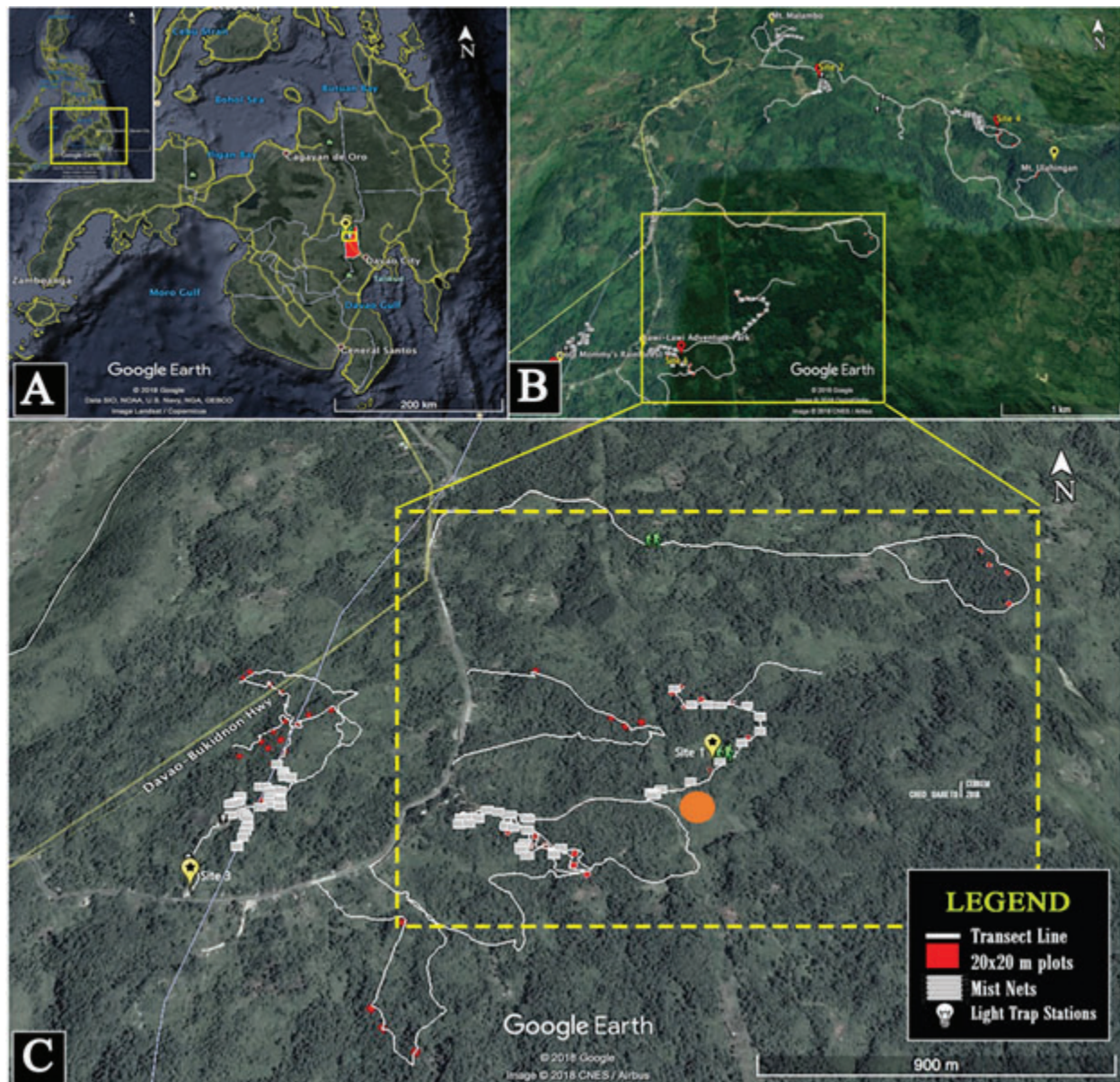


Figure 1. A) Map of Mindanao, Philippines showing the B) Marilog District, the location of the study site, and C) the transect where the species observed and collected (orange circle; 07°27'13.74"N, 125°15'1.12"E; 1,240 masl).

Talhythya depressa was collected along the established 2 km-transect through opportunistic sampling in Barangay Baganihan, Marilog Forest Reserve, Marilog District, Davao City, Philippines. Specimen was then collected through handpicking and killed in a jar with cotton balls moist with ethyl acetate. The specimens were then examined and documented under a stereomicroscope. Images were gathered and treated using a licensed version of Photoshop CS. Measurements and descriptions were taken according to Han *et al.* (2009). All measurements were in mm.

Leg measurements are shown as total length (femur, patella + tibia, metatarsus, and tarsus). The specimen examined in the study is deposited in Central Mindanao University, University Museum, Zoological Section.

Talhythya depressa Thorell, 1898

Talhythya depressa Thorell, 1898: 377 (Dj).

Talhythya depressa Han, Zhu, and Levi, 2009: 59, f. 17, 19, 21–28 (Df).

Material examined. PHILIPPINES, MINDANAO ISLAND, DAVAO CITY, Marilog District, Barangay Baganihan, Sitio Calinan, Marilog Forest Reserve; 07°27'13.74"N, 125°15'1.12"E; Collector: A.B. Mohagan, E.P. Leño, M.G. Melencion, R.R. Patano Jr., A.L. Hongco, K.S. Dargantes, F.P. Coritico, and V.B. Amoroso, June 2018; one mature female.

Diagnosis. *Talithybia depressa* Thorell, 1898 is morphologically easy to recognize by its subequal length and width of the carapace, having a truncated anterior cephalic region with a tubercle pointed in lateral angle plus three anterior, two middle, and four posterior tubercles on the ventral part of the abdomen. Epigynal scape is developed, wide and flat, and spoon-shaped or ovate posteriorly (Figure 2). Behavior-wise, the species rest on branches with its head perpendicular to the length of the branch.

Distribution. China, Yunnan (Han *et al.* 2009), Myanmar (Thorell 1898), and the Philippines (a new country record).

Measurements. Total length: 19.1, cephalothorax: 8.8 long and 8.3 wide, abdomen: 10.3 long and 15.5 wide; leg formula: 1243; leg measurements: I 31.1 (10.3 + 11.1 + 7.4 + 2.3), II 31 (10.1 + 11.9 + 6.9 + 2.1), III 21.8 (7.9 + 6.9 + 4.4 + 2.6), IV 29.1 (9.1 + 10.3 + 7.9 + 1.8). Abdomen: 15.5 wide, Epigynum: 2.0 long.

Remarks. The species was found on its web at 09:00 PM PHT on the shrub *Piper aduncum* L. or locally known as “buyo-buyo” (Figure 3.3). Upon collection, the web was destroyed and the species ran towards the nearest branch and position itself perpendicularly to the length of the branch of the plant. Legs were positioned at the side of the cephalothorax exposing the eyes and the carapace, forming a wide and flat resting position as if trying to wrap around the branch (Figure 3.1).

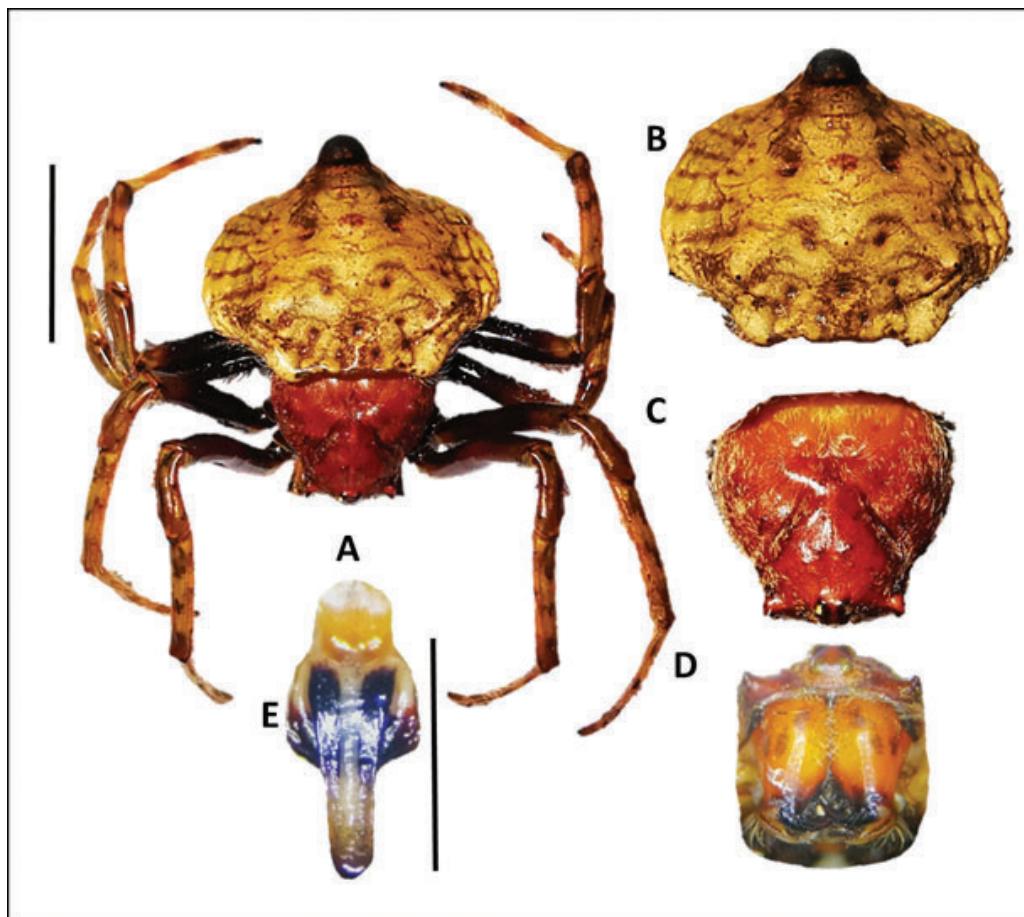


Figure 2. *Talithybia depressa* Thorell, 1898: (A) whole specimen, (B) cephalothorax, (C) carapace, (D) chelicera, and (E) epigyne. Scale bars (A) 10 mm and (F) 3 mm.



Figure 3. *Talthybia depressa* Thorell, 1898 (1 – dorsolateral view; 2 – dorsal view) collected on the branch of *Piper aduncum* L. or locally known as “buyo-buyo” (3), an invasive plant species in Marilog District, Davao City, Philippines.

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