

SHORT COMMUNICATION

New Records of the Spider Fauna from Sarawak, Malaysia

(Catatan Baru Fauna Laba-Laba dari Sarawak, Malaysia)

Dzulhelmi Muhammad Nasir^{*1}, Wong Chun Xing², Nur-Syahirah Mamat³, Yong Min Pui⁴, & Badiozaman Sulaiman⁵

¹Institute of Biological Sciences, Faculty of Science, Universiti Malaya, 50603 Kuala Lumpur, MALAYSIA

²School of Social Sciences, Faculty of Humanities, Arts and Heritage, Universiti Malaysia Sabah, Jalan UMS, 88400 Kota Kinabalu, Sabah, MALAYSIA

³School of Environmental and Natural Resource Sciences, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, MALAYSIA

⁴Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, MALAYSIA

⁵Department of Zoology, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, MALAYSIA

*E-mail: dzul_3my@yahoo.com

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Spiders are one of the most diverse orders worldwide and rank seventh in total species diversity among all other group of organisms (Cardoso & Morano 2010). They are highly adaptable, widespread in almost all terrestrial ecosystems, and constitute one of the most important components of global biodiversity (McDonald 2007; Archana 2011). These predators are good indicators for environmental changes in the ecosystems, potential biological invasion, biological pest control and act as natural prey and predators (Greenstone & Sunderland 1999). Till date, there are more than 40,000 recognized spider species from 100 families (Foelix 2011; Platnick 2014). Spiders represents between 5-10% among the canopy arthropods (Floren & Reinhold 2005), and represent about 4.5% of living creatures (Grinang 2004). Unfortunately, compared to the spider diversity documentation in temperate region, very little attention had been given to the tropical region including Malaysia which is known as mega diverse country.

Sarawak, the largest state in Malaysia is located in Borneo, the third largest island in the world. Located on one of the richest treasure houses, immense with a variety of wild animal and plants, Sarawak accommodate several protected areas such as Mulu National Park and Lambir Hills National Park, that are known as one of the 'biodiversity hotspots' (Hazebroek & Abang-Morshidi 2000). The first checklist on Sarawak spiders recorded at least 307 morpho-species, with 194 recognized spider spe-

cies including 46 newly recorded species for Sarawak (Koh *et al.* 2013). However, other species such as *Gasteracantha arcuata*, *G. hasselti* and *Phrynarachne ceylonica* which had also been recorded (Grinang 2004) were not listed. Recently, several newly described species such as *Jerzego corticicola* (Maddison & Piascik 2014), *Heteropoda parva* (Jager 2014), *Aposphragisma brunomanseri*, *A. confluens*, *A. kollerii*, *A. retifer*, *A. rimba* (Thoma *et al.* 2014), *Tisaniba bijibijan*, *T. dik*, *T. kubah*, *T. mulu*, *T. selan*, *T. selasi* (Zhang & Maddison 2014) and *Opadometa kuchingensis* and *O. sarawakensis* (Dzulhelmi *et al.* 2015) shown the impression that Sarawak provides a high species richness. Some collected specimens for identification are still pending due to the lack of taxonomist in this country. Some species such as *Friula wallacii* which was discovered dated back in 1896 was never found again in Sarawak or elsewhere (Koh *et al.* 2013). Compared to the number of spider fauna recorded in peninsular Malaysia (Norma-Rashid & Li 2009; Dzulhelmi *et al.* 2014a), and Sabah state (Dzulhelmi *et al.* 2014b), the spider fauna in this large state is still poorly investigated, with very limited published references. This present study aims to document the spider species that had not previously been recorded for Sarawak.

Spider specimens were collected between April 2014 and October 2014 by hand-picking and stored in 75% ethanol during fieldtrips in selected localities at Kuching division in Sarawak. Genitalia were dis-