

Headline	Unveiling the wonders of fireflies		
MediaTitle	Borneo Post (KK)		
Date	16 Jul 2023	Color	Full Color
Section	Home	Circulation	18,290
Page No	20	Readership	54,870
Language	English	ArticleSize	271 cm <sup>2</sup>
Journalist	N/A	AdValue	RM 1,511
Frequency	Daily (EM)	PR Value	RM 4,533



# Unveiling the wonders of fireflies

BIODIVERSITY research plays a vital role in unravelling the mysteries of the natural world and understanding the intricate relationships that shape ecosystems.

In this pursuit, scientists like Dr Wan Faridah Akmal Jusoh from the School of Science at Monash University Malaysia are at the forefront of studying and conserving biodiversity.

Through her groundbreaking research, Wan aims to create an extensive species database, discover new species, and shed light on the evolution of ecosystems.

Wan's research project initially stemmed from her fascination with conservation biology. However, her focus has since shifted toward the integration of biodiversity research and natural history.

By employing fieldwork, molecular and morphological tools, museum collections, and archives analysis, she strives to develop a comprehensive species database.

Her research encompasses a wide range of areas, from identifying new species to unravelling the evolutionary history of ecosystems.

As one of the few firefly taxonomists globally, Wan is deeply committed to promoting proper training and recognition in taxonomic studies, particularly in Southeast Asia.

She firmly believes that although species extinction is irreversible, the loss of taxonomic knowledge can be reversed through concerted efforts.

"By reversing the loss of taxonomic knowledge, scientists can fill critical gaps in our understanding of biodiversity. This knowledge not only contributes to the scientific community's understanding of the natural world but also has practical implications for conservation. Accurate species identification allows for targeted conservation actions, such as habitat protection, species-specific management plans, and appropriate conservation strategies," she said.

Wan harnesses the power of collective knowledge by



**DR WAN FARIDAH AKMAL JUSOH**

engaging individuals from various backgrounds, including taxonomists, evolutionary biologists, conservation practitioners, protected area managers, wildlife enforcement agencies, environmental groups, and natural history historians.

One of her innovative approaches is integrative taxonomy, which combines molecular approaches and morphological features to resolve taxonomic issues and gain deeper insights into the evolutionary history of fireflies.

"The consequences of species loss are staggering, with numerous species vanishing before they can even be identified. Our research makes a profound impact on both local and global communities.

Discovering new species and populations inspires and engages people in biodiversity conservation efforts and contributes to ecological and evolutionary theory," she added.

Her research team's discoveries of new firefly species in Southeast Asia and a new genus, *Nipponoluciola Ballantyne*, Kawashima & Suzuki, for two Japanese fireflies have enhanced taxonomic stability and emphasised the need for stronger conservation measures.

Moreover, their research has shed light on potential cryptic and incipient species, as evidenced by the findings on the famous iconic ecotourism insects, the synchronous flashing *Pteroptyx tener* firefly populations in Malaysia.

These discoveries emphasise the importance of recognising and characterising cryptic species to preserve natural resources effectively.

By revealing that endangered

species may comprise multiple species, each requiring tailored conservation strategies, her work contributes to a more nuanced understanding of biodiversity conservation.

Wan's research partnerships include institutions such as Forest Research Institute Malaysia, Charles Sturt University Australia, Singapore's National Park Board, National University of Singapore, Natural History Museum in London and most recently, Friends of Bukit Kiara in Kuala Lumpur.

She co-chairs the International Union for Conservation of Nature's Firefly Specialist Group with Professor Emerita Sara Lewis from Tuft University in Boston, USA.

These collaborations foster collective progress, enabling researchers and conservation practitioners to work together towards biodiversity conservation.

In conjunction with World Firefly Day, celebrated on the first weekend of July each year, Wan hopes that her research work will inspire the local and global community, highlighting the importance of conserving biodiversity and recognising the hidden wonders of the natural world.

She also hopes that her findings will impact the scientific community and contribute to the ongoing efforts to conserve our planet's rich biodiversity by championing taxonomic studies and conservation efforts.

Monash University Malaysia is proud to announce that it is celebrating its 25th anniversary this year.

As to commemorate this significant milestone, it is inviting prospective students and those interested in joining our prestigious university to register at [bit.ly/46u1NUP](https://bit.ly/46u1NUP) for exclusive information about study options, insights into the vibrant Monash life, and the opportunity to be the first to receive invitations to upcoming events tailored to your interests.

Join them to embark on this exciting journey of knowledge, growth, and excellence at Monash University Malaysia.