




Conservation news

Promoting conservation of fireflies in Kuala Lumpur's urban park through experiential learning

Kuala Lumpur is a megacity beaming in streetlights, but few are aware of nature's light show—the fireflies. Bukit Kiara, an urban park in the heart of Kuala Lumpur, is home to eight species of fireflies. Among them is an unidentified species of the enigmatic genus *Lamprigera*, of which the females are large and wingless but the winged males have a crepuscular courtship period. The larvae are noteworthy for their green glow. However, with highway and housing developments bordering Bukit Kiara, fireflies in the area are potentially at risk from the increasing impact of human activities.

During March–May 2023, six students of Monash University Malaysia's School of Science, in collaboration with Friends of Bukit Kiara—a non-profit organization working on long-term conservation of the park—conducted undergraduate research projects on the fireflies of Bukit Kiara. The projects received support from the Department of National Landscape, the park administrator of the area. The goal of the projects was to understand how firefly distribution and abundance can change in response to biotic and abiotic factors, such as the effects of artificial light at night, microhabitat types and plant species composition. We also designed a study to verify the accuracy of the firefly larval measurement data that volunteers have collected through the Friends of Bukit Kiara's citizen science flagship programme, Magical Mysteries at Bukit Kiara.

After the 3 months of experiential learning, students who had never worked in limited light conditions or handled nocturnal insects could identify firefly species from their flashing patterns. After all projects concluded in late May, we co-organized a guided firefly walk for the public to celebrate World Firefly Day on 1 July 2023. About 60 participants aged 5 years and above took part, guided by 20 Citizen Science Ambassadors, which included Monash University Malaysia students who received training to conduct the firefly survey. Following the walk, we hosted a public webinar on 5 July featuring three talks, including one student project on the impact of light pollution on fireflies. We plan to continue this experiential learning with future students and volunteers and to collaborate with other organizations to improve firefly conservation in Malaysia.

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Highlighting the importance of IUCN Species Survival Commission Specialist Groups at the International Mammalogical Congress

The International Mammalogical Congress, held every 4 years, took place during 14–20 July 2023 in Anchorage, Alaska, USA, as a joint meeting with the American Society of Mammalogists (ASM). This event was a valuable opportunity for the IUCN Species Survival Commission Small Mammal Specialist Group (small-mammals.org) to share knowledge, expand membership and raise the profile of small mammal research, with four of the group's leaders hosting workshops and a symposium, and presenting several papers. These workshops—Assessing the Taxonomic and Geographic Shortfalls in IUCN Red List Assessments: Guidelines for ASM Researchers (TL, RK and NU), and Mammal Species of the World Next: Workshop for Extended Taxonomic Data Curation (NU and colleagues)—were well-attended and generated new interest in membership of the Small Mammal Specialist Group. Author ST also co-hosted a symposium with Small Mammal Specialist Group member Alexis Mychajliw that focused on the special issues associated with the extinction risk and assessments of island species, including small mammals, in *The Death and Life of Island Mammals: Extinction, Change and Resilience From Past to Future*. Individually, we presented eight research talks, covering a range of topics related to small mammals, such as Shade Cocoa Agroforests as Refuge Zones for Mammals (TL), Saving Island Mammal Biodiversity: Looking to the Future (RK), Holocene–Modern Mammal Extinctions in Hainan, China (ST), and Mammal Taxonomy Over the Ages: Analysis of Species Distributions and Updating the Mammal Diversity Database (NU).

The Mammal Diversity Database (mammaldiversity.org) has been adopted as the Small Mammal Specialist Group's official taxonomic reference, to ensure consistent taxonomy when carrying out small mammal Red List assessments. The significance of the decision to use the Mammal Diversity Database was recognized at the Congress, but the Small Mammal Specialist Group also stressed the need for new data (e.g. on distributions) as key for updating assessments. The Congress provided an opportunity to recruit Red List assessors who are experts on certain taxa and to emphasize the relevance of