

PROBLEM STATEMENT

- The high abundance and diversity of insects in Malaysia pose unique and significant challenges to the management of insect specimen collections.

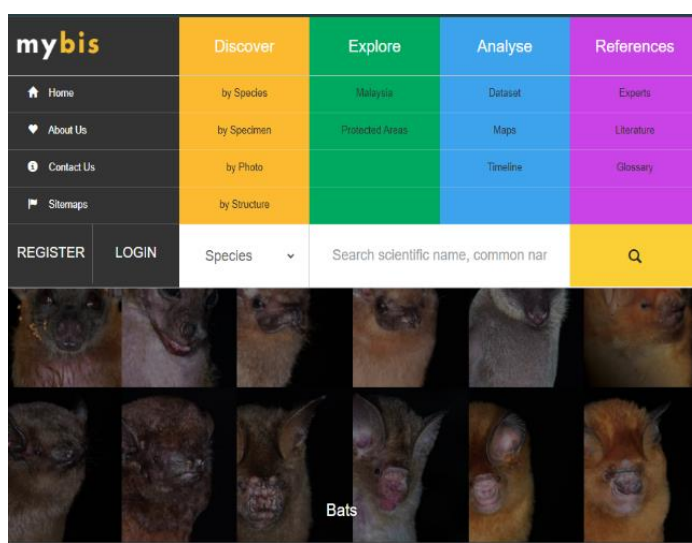
INTRODUCTION

- Insects greatly outnumber other major life groups in terms of diversity and population, but an assessment of the degree to which the biodiversity and taxonomy of insects have been researched in Malaysia indicates that significant gaps stills exist (1).
- the importance of collecting diverse insect specimens is crucial to ensure knowledge about the nation's biodiversity wealth is conserved and preserved
- The high abundance and diversity of insects create opportunities for the discovery of valuable new species, which are invaluable national assets.
- They perform a vital and functional roles in ensuring the delivery of numerous ecosystem services that are essential for human life in areas such as agriculture, tourism, natural resource utilization (2)
- Understanding the significance of protecting this vital national asset, implementing a systematic management system for insect reference becomes paramount. Thus, MARDI has established the Insect Museum since the 1970s specifically to house insect collections related to agriculture. This museum is valuable for research and development (R&D) projects crucial to the country's agricultural industry

METHODOLOGY



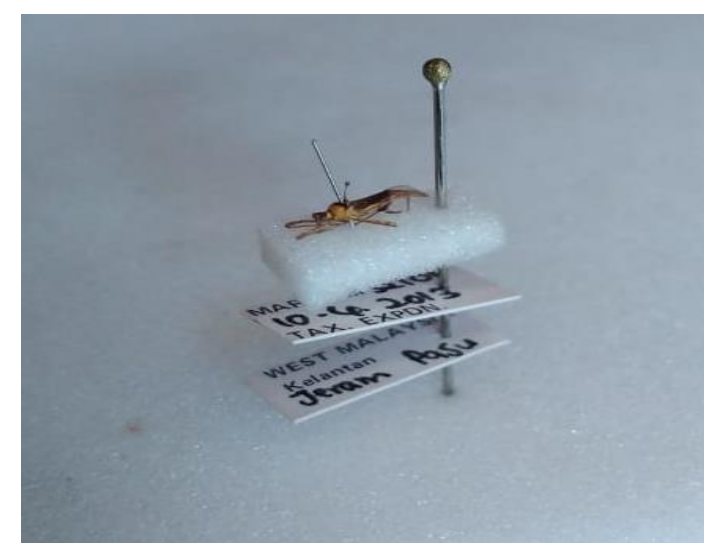
Sampling activity at Laman Padi (MAEPS), cabbage plot (Cameron Highlands), et cetera.



Record in the register book & online database and store the specimen in the insect collection room



Sort the insects and dispose any impurities

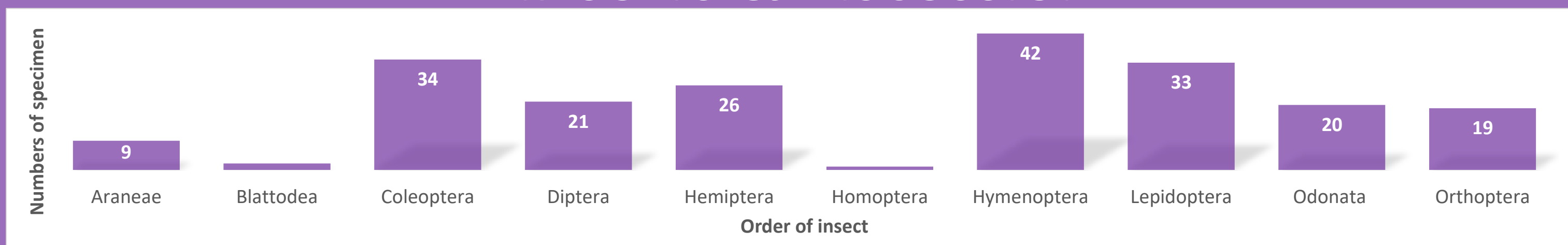


Pin, label & dry the specimens by using oven at 60°C for one hour daily.



Identification process by using a microscope

RESULTS & DISCUSSION



- The data indicates a diverse collection of insect orders, with Hymenoptera (42) being the most abundant, followed by Coleoptera (34) and Lepidoptera (33). The high presence of Hymenoptera, which includes bees, wasps, and ants, suggests significant activity in the sampled area. The flower strip, with its variety of flowering plants, likely supports this diversity by providing essential resources and habitats, particularly benefiting pollinators and biocontrol agents among the Hymenoptera.
- Additionally, Hemiptera (26), Diptera (21), and Odonata (20) show moderate levels of representation, indicating the presence of various true bugs, flies, and dragonflies/damselflies, respectively. Orthoptera (19) follows closely, indicating a notable presence of grasshoppers, crickets, and related insects. Araneae (9) and Blattodea (2) demonstrate lower numbers, suggesting fewer specimens of spiders and cockroaches were collected.

CONCLUSIONS

- In conclusion, this distribution highlights the richness and diversity of insect life in the sampled area. However, it also suggests potential variations in abundance and ecological significance among different insect orders, warranting further investigation into the local ecosystem dynamics and conservation priorities.

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