

FRIM on mission to classify 15,000 flora species

KUALA LUMPUR: Malaysia is steadily advancing in documenting its rich floral diversity, having classified 25 per cent of an estimated 15,000 plant species under the Flora of Peninsular Malaysia project.

This initiative by the Forest Research Institute Malaysia (FRIM) aims to detail the distribution, ecology, uses and extinction status of each species to ensure their protection and preservation.

Eight researchers from FRIM, working alongside local and international scientists, are spearheading the monumental project, which began in 1993.

To date, the team has collected over 300,000 plant samples, meticulously stored at FRIM's facility, where their taxonomies are being documented.

PRESERVING KNOWLEDGE FOR PUBLIC

Floral Biodiversity Programme head Dr Sam Yen Yen said many of their findings are accessible to the public.

These include the Flora of Pen-



Biodiversity is intricately linked to the environment. Our forests, the most diverse ecosystems, are also the most efficient carbon sequencers.

DR SAM YEN YEN
Floral Biodiversity
Programme head

insular Malaysia and Tree Flora of Sabah and Sarawak, available in both print and online.

However, FRIM's full database is not entirely open-access, as certain species with commercial value or those at risk of extinction require safeguarding.

"This precaution ensures these species are not exploited by individuals with vested interests," she told the *New Straits Times*.

Nevertheless, researchers, naturalists and the general public can access most of the information by visiting FRIM's library.

METICULOUS PROCESS

The documentation process begins with venturing into the forest to collect plant samples, said Sam.

"We then identify and label them on herbarium sheets," she said.

The team prioritises specimens with flowers or fruits, as these are key morphological traits for distinguishing species.

"Vegetative features like leaves and twigs are often too similar to differentiate," she added.

The identification process often involves referencing botanical texts or consulting taxonomic experts.

Labels on the herbarium sheets are equally vital, containing crucial information such as collection location, date, flowering seasons and traditional medicinal uses.

"This information also aids in reforestation and revegetation efforts," she said.

"Knowing the flowering or fruiting seasons allows us to collect viable material, grow them in nurseries and eventually reintroduce them into the wild."

To protect their work, duplicates of samples are sent to other herbaria to reduce the risk of data loss from disasters such as fires.

She said her colleagues are now mapping Important Plant Areas and Key Biodiversity Areas to identify regions crucial for conserving larger plant groups.

"By focusing on these areas, we can prioritise conservation efforts and protect not just individual species but entire ecosystems," she said.

CRITICAL TASK

The greatest stumbling block, said Sam, is a lack of manpower.

"We need more attention on biodiversity, especially as its importance grows in the face of climate change.

"Biodiversity is intricately linked to the environment. Our forests, the most diverse ecosystems, are also the most efficient carbon sequencers."

Universiti Putra Malaysia Department of Forest Science and Biodiversity lecturer, Associate Professor Dr Mohd Nazre Saleh, said the lack of a proper plant inventory was concerning, as it put species at risk.

"When development occurs, developers may be unaware of endangered plants in the area. While Environmental Impact Assessment (EIA) reports require flora sampling, there's no way to verify if it's done correctly in the field.

"Moreover, even when specific species are identified, there's no legal obligation to protect or relocate them," he added.

By Iylia Marsya Iskandar