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4 Mandai research projects awarded $600,000 funding

Teams will study area's environmental conditions, effects of eco-tourism plans

Lee Qing Ping

Four local environmental research projects have been awarded a total of $600,000 to study conditions in the Mandai precinct.

Some of the projects will also help identify ways to address the impact of developments to turn the area into an eco-tourism hub.

The grants were announced yesterday and will be disbursed by Mandai Park Development (MPD), the body overseeing the precinct's development.

It envisions the area becoming an integrated nature and wildlife district that will include a new rainforest park in addition to the Singapore Zoo, Night Safari, River Safari and Bird Park, which will be moved over from Jurong.

"Having been allocated this land for development, our aim is to strive for a better outcome than before," said Dr Lee Hui Mien, MPD's vice-president of sustainable solutions.

"The additional research will allow us to proactively identify knowledge gaps and delve deeper into specific issues which may be unique to the Mandai district.

"New data could also add to the scientific advancement of our local biodiversity knowledge."

Researchers working on the latest projects say that the data will be crucial in monitoring changes to the ecosystem and highlighting risks.

One of the research projects awarded a grant was the Mandai Insect Survey, a two-year project that is studying the rich insect diversity in the secondary forests of the Mandai precinct.

It is led by Dr Hwang Wei Song and Dr Ang Yuchen, curators of the entomological collections at the Lee Kong Chian Natural History Museum. Both are lecturers at the National University of Singapore.

Dr Hwang noted that "80 to 90 per cent of Singapore's biodiversity is made up of insects alone".

"We've lost most of the big vertebrate groups in Singapore. But the forest patches we have left are still very rich; we are still finding new species."

Dr Ang added: "Without insects, the forests would die. The bigger mammals who used to support all the ecosystem functions here are all gone; it's primarily the insects that are keeping our forests alive. And yet we're still attacking them with fumigation and pollution.

"How did they survive? How have they adapted? We need to understand what is still around, and how to conserve them."

While the team acknowledges that the Mandai development will definitely impact the surrounding forest and insect life, they are not concerned for the insects' survival.

"These are secondary forests, which means that they've already endured human interference and still survived," said Dr Hwang.

"Our data thus serves as a baseline to help (Mandai) have a measure of how much restoration work is required to, say, bring back 80 per cent of biodiversity."

Funds have also been allocated to a study on the use of black soldier flies to manage carnivorous waste to build a closed loop waste management system for the new parks.

A project that studies how Singapore's hot climate will affect visitors' reception of the educational environmental messages in the Mandai parks also received funding, as did research to improve movements in the Mandai district for the Sunda colugo, a type of flying lemur common in the area.

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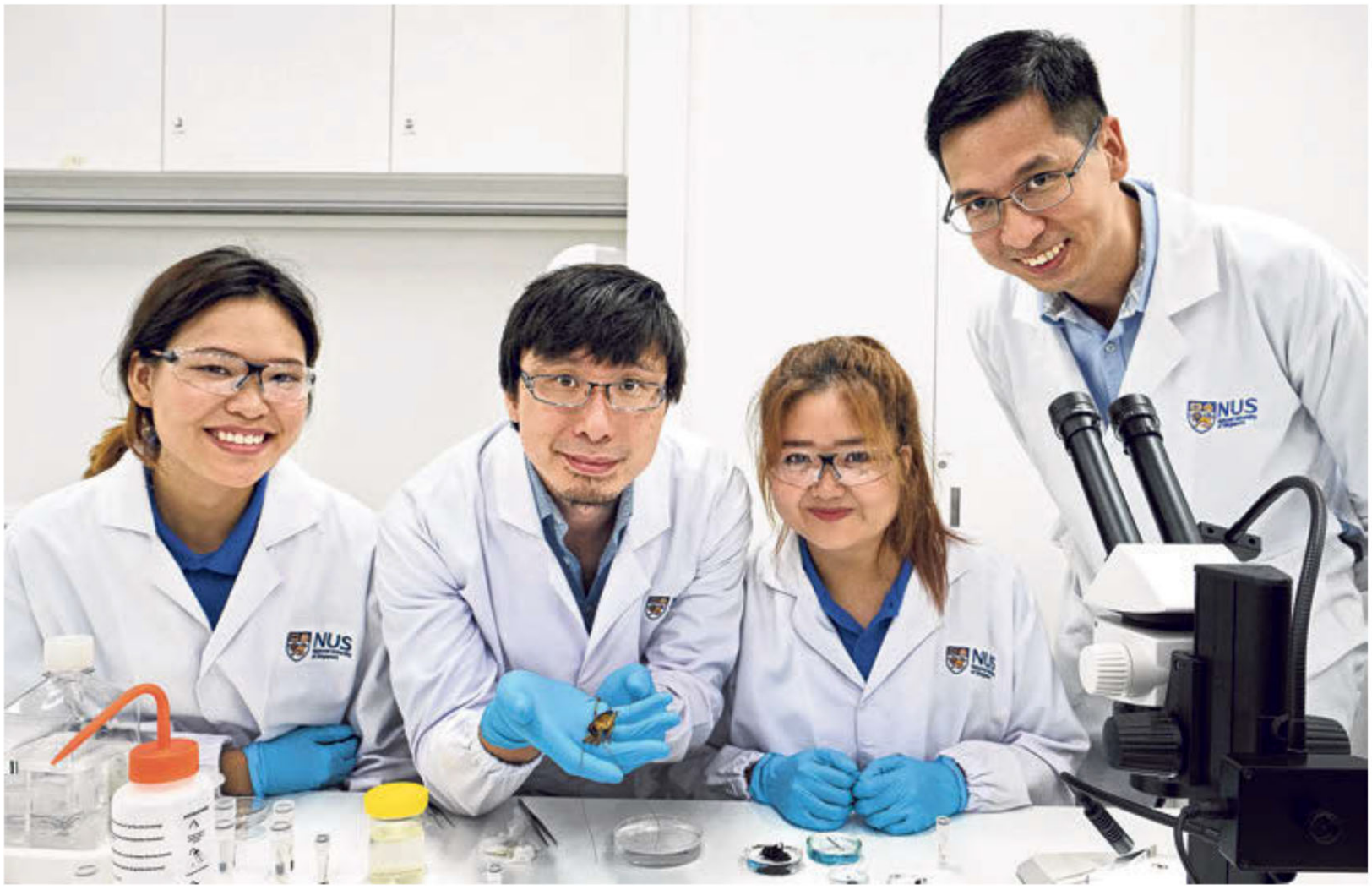

Members of the Mandai Insect Survey (from left): Ms Nikki Chin, Dr Ang Yuchen, Ms Joycelyn Tan and Dr Hwang Wei Song. Dr Ang is holding a katydid, a relative of the grasshopper. PHOTO: LIANHE ZAOBAO