



HOME, B6

## CREATURES YOU'VE NEVER SEEN BEFORE

Close to 200 people are carefully dredging the seabed and sifting through sand and coral as they conduct the largest audit so far of marine life around Singapore's northern islands and coasts. The expedition, which was officially

launched yesterday, is part of the five-year Comprehensive Marine Biodiversity Survey. The Republic plays host to a third of the world's hard coral species, and other creatures are still being discovered.

ST PHOTO: NG SOR LUAN

# Creatures of the sea, great and small

200 scientists and volunteers taking part in biggest marine life audit, dredging the seas and examining waterways

By GRACE CHUA

BENEATH the scorching noon sun and pelting rain, a small army of scientists and volunteers have been scouring Singapore's northern shores.

Whether they are examining the Chek Jawa mudflats or trawling the sea off Changi by boat, their lives have revolved around tide tables, boat landings and the persistent smell of fish.

The researchers are taking part in Singapore's largest marine biodiversity expedition to date. Close to 200 people - including 20 scientists from abroad - are involved in the audit of marine life around the Republic's northern islands and coasts.

The Northern expedition, which started on Oct 15, is led by the National University of Singapore (NUS) and National Parks Board, and is part of the five-year Comprehensive Marine Biodiversity Survey.

About \$1.5 million in funding has been obtained for the survey from corporate sponsors and the Government, but at least another \$1.5 million needs to be raised, said the board's deputy chief executive, Dr Leong Chee Chiew, at the expedition's official launch at Pulau Ubin yesterday.

Senior Minister of State for National Development Tan Chuan-Jin, who was at the launch, said the survey will allow government planners to assess and prioritise the areas to conserve.

Mr Tan, who is also Acting Manpower Minister, said in a Facebook post last night: "Much as we would like to, we will not be able to conserve all areas with biodiversity as some of these areas will be needed for development."

A typical day for those taking part in the expedition goes as follows: A pair of young scientists from the United States might lug metres of net out to catch thumb-nail-sized ponyfish that give off their own light.

A National University of Singapore shrimp researcher might sift through bits of shell and coral as though panning for gold. And an Australian fish expert might net gobies in tide pools.

The highlight of the expedition is a series of seabed trawls and dredges, for example, between Pulau Ubin and Punggol. Dredges are preferable to diving in Singapore's murky waters.

Scientists and crew on the university's 12m-long boat, the Galaxea, winch a beam trawl - a net with a beam to keep it open - 18m down to the seabed. When it comes up 15 minutes later, it is full of spider crabs, soft corals



An assortment of sea creatures dredged up from the seabed near Coney Island off Punggol. The creatures, originally covered in mud, have been given a rinse and are awaiting an initial phase of sorting out on the dredging vessel. The creatures are caught by lowering a beam trawl - a net with a beam to keep it open - 18m to the seabed. ST PHOTOS: NG SOR LUAN

and even a small electric stingray.

Mishaps can happen. NUS biologist Peter Ng sprains his hand as he stumbles backwards while trying to shake a crab out of a tree. But he is richly rewarded: The crab lives only on nipah palms, and this is the first time it has been spotted in Singapore.

Specimens are lugged back to Outward Bound School on Pulau Ubin, where student volunteers in a large shed pore over trays of tiny shells, looking for movement and sorting out the creatures.

Dr Kathe Jensen, of the University of Copenhagen Zoological Museum, is excited over a minuscule sea snail that looks like a leaf. It has been seen in Australia before, but not here.

Said Professor Ng: "The myth of Singapore is that because we are so urbanised, everything has changed, and there's not much around." But Singapore plays host



to a third of the world's hard coral species, and other creatures are still being discovered. Some may be tiny and not "sexy", he said. "But at the end of the day, these are all fellow Singaporeans." [caiwj@sph.com.sg](mailto:caiwj@sph.com.sg)  
Additional reporting by Melody Zaccheus

Download a QR code reader on your smartphone and scan this code for more pictures



Scientists study specimens brought in from the field trips and dredging (above, left) in a temporary laboratory at the Outward Bound School on Pulau Ubin, while (above, right) Dr Joelle Lai and Dr Arthur Anker of NUS pan for shrimp, which Dr Anker studies, at Chek Jawa's seagrass beds.

Creatures like this crab may not be "sexy", says NUS biologist Peter Ng, but they are "all fellow Singaporeans". The myth of Singapore, he says, is that everything has changed with urbanisation. But discoveries are still being made, and the survey will help the Republic decide what to conserve and how to develop industry with minimal harm to marine life here.



These ponyfish give off their own light. The Northern expedition is led by the National University of Singapore and National Parks Board, and is part of the five-year Comprehensive Marine Biodiversity Survey.