3-year census of marine life on Semakau

‘Garbage of Eden’ findings to be put online for free use

IT MAY be a wasteland but the Semakau Landfill is teeming with life.

Just how much life and what kind? Researchers have started a three-year census of marine species – including coral, crustaceans and fish – living near Singapore's first artificial landfill to find out.

Project Semakau, a project spearheaded by the National University of Singapore's Raffles Museum of Biodiversity Research, could also be the first steps towards making the landfill a marine conservation park.

Scientists plan to publish their findings in an online database as a free resource for nature enthusiasts and researchers alike.

Senior Parliamentary Secretary (Environment and Water Resources) Amy Khor launched the project yesterday at Pulau Semakau, which is about 8km south of Singapore.

The project will serve as a baseline for monitoring the island's rich biodiversity, which will help establish the ecological value of Semakau, said Dr Khor.

Another aim of the project is public education.

More than 200 volunteers will be recruited and trained by the museum to help conduct tours of the shores during low tide for schools and the public.

The volunteers will also help researchers document and record species of plants and animals on the island.

By getting schools and members of the public involved, the organisers are hoping for a “multiplier effect”, with more people spreading the message of conservation, said Professor Leo Tan, who helped conceptualise the project.

“Semakau highlights Singapore's ability to strike a delicate balance between the needs of an urban city and nature conservation,” said Prof Tan, who is also the director of special projects for NUS.

Created in 1999 by merging Pulau Semakau with the neighbouring Pulau Saking, the island has become a showcase for eco-friendly urban waste management.

International magazine New Scientist called Semakau the “garbage of Eden” in an article about the island last year.

Site visits for members of the public and foreign dignitaries are conducted regularly.

Despite being a landfill, Semakau has several well-defined habitats, including mangrove swamps, forests and coral beds, said Prof Tan.

“None of these has suffered severely from being sited next to a landfill,” he added.

The funding of $600,000 for outreach, research and conservation activities will be provided by London-based HSBC Bank.

The project has the support of the National Environment Agency, which is also looking into using the island as a testbed for clean energy technologies.

And with possibly several unique species of flora and fauna to be found on the island, a database could give policymakers concrete reasons to declare the island a marine park, said Prof Tan.

“It's a vision we all can part of,” he said.

For more information about the project, visit projectsemakau.raflesmuseum.net

From landfill to species gold mine

Singapore's first artificial landfill is hardly a wasteland. A three-year research project will document and record the plant and animal species found in the intertidal shores on Pulau Semakau. Scientists hope this will turn the island into a marine conservation park.

Mangrove trees act as a barometer for pollution. If their leaves turn yellow, scientists will know that toxins from the landfill have leaked into the environment, and take steps to contain the contamination.

Species flatworms can be found in the waters off the Semakau coast. When it glides in the water, the worm twirls its purple fringe like a flamenco dancer.

When the tide goes down, corals of all shapes and sizes emerge. Visitors can see beauties like the star coral, and soft coral.

Nudibranchs, or sea slugs, like this one can be found in Singapore's coral beds, including the Semakau coast.

SOURCE: RALFFLES MUSEUM OF BIODIVERSITY RESEARCH

PHOTO: ST FILE PHOTOS AND CHEN SENG KIN