



RANATRA RAFFLESI. Found in Singapore, Bintan and Batam, this species was first discovered here in 1994. It ranges in body length from 11mm to 47mm. In the picture above, it is waiting for a prey to come by. PHOTO: TAN HEOK HUI



LIMNOMETRA INSULARIS. This water bug species belongs to the family Gerridae, which refers to pond skaters, water striders and ocean skaters. They skate effortlessly across the water's surface. PHOTO: TAN HEOK HUI



OCHTERUS. Bugs from the family Ochteridae are mostly black with bluish-grey spots, which makes them appear velvety. They do not live in water, but are found along the margins of standing or running water. PHOTO: CHEONG LOONG FAH

These crawlies are stars of a new book

More than 200 species of water bugs detailed in book launched by natural history museum

Audrey Tan

Water bugs may be neither cuddly nor rare, but they play a vital role in their aquatic habitats.

These commonly overlooked creepy crawlies are now the stars of a new guidebook. Titled *Water Bugs Of Singapore And Peninsular Malaysia*, it was launched on Aug 5 by the National University of Singapore's (NUS) Lee Kong Chian Natural History Museum.

The book has information on the more than 200 species of water

bugs found in the region, and includes data on general biology, diversity and distribution. It also has 755 illustrations to help readers identify the bugs easily.

Co-author Lanna Cheng, 74, a marine biologist, said the 334-page book is the most comprehensive scientific guide on water bugs in the region and updates a 1963 guide written by water bug expert Herbert Fernando and herself for students at the former University of Singapore (now NUS). The old guide, type-written on foolscap paper, was only 33 pages long. It was never formally published, but was the only one available in the region until now.

The new guide sheds light on the ecological functions of these bugs.

Some species of water stick insects and backswimmers, for exam-

ple, feed on mosquito larvae or pupae, and are good pest-control agents. Others, like most species of water striders, live on the water's surface. As they are greatly affected by surface pollution such as oil spills, and can be found only in clean waters, they are good indicators of ecosystem health.

Water bugs can be found in almost every water body on earth, whether marine, freshwater, or man-made. In Singapore, they are present in places such as the Central Catchment Nature Reserve, the mangroves in Sungei Buloh, reservoirs, shores, and the ponds in the Singapore Botanic Gardens.

While the new guidebook is a scientific work, those interested in learning more about water bugs and how to identify them can also refer

to it, said Dr Cheng who is from the United States-based Scripps Institution of Oceanography.

"We avoided dull, scientific writing, wrote it in a way that is easily understandable and standardised the book so each chapter has the same arrangement," she added. "There is also a glossary that explains all the scientific terms."

The other authors are Dr Tran Anh Duc, a 36-year-old Vietnamese who earned his PhD on water insects at NUS, and Mrs Yang Chang Man, 71, custodian of the Zoological Reference Collection, which formed the core of the former Raffles Museum of Biodiversity Research. In April, the museum became the Lee Kong Chian Natural History Museum. The water bugs guide is the first natural history

book published by the museum under its new name. The museum had earlier published a book on its history and an e-book on Hokkien names for animals.

Said Professor Peter Ng, the museum's head: "The book is a consequence of the bloodline of passion and a shared love for a group of animals that is illogical to anyone else."

"It is one that spans the better part of three generations – and the connecting passion is a love for studying water bugs."

audreyt@sph.com.sg

• *Water Bugs Of Singapore And Peninsular Malaysia* (\$22) can be bought at the Lee Kong Chian Natural History Museum shop, Kinokuniya and Select Books.