Tiniest fish a chance find

By EDDIE CHUA

KUALA LUMPUR: The world’s tiniest fish which is the size of a mosquito was rediscovered by chance almost a decade after it was preserved and kept at the Raffles Museum in Singapore.

Raffles research officer and curator of the fish museum Dr Tan Heok Hui stumbled upon the freshwater specimen when he checked on the collection in 2003.

Since the specimen measuring 7.9mm was caught in a Sumatra peat swamp in 1995, the tiny fish has never been thoroughly analysed.

“It was thought to be a fish fry. There was no further investigation on the catch after the specimen was preserved and kept at the museum,” he told The Star.

But Dr Tan, who had done extensive research for his thesis on fish found in peat swamps in South-East Asia, re-examined the sample.

“Under the microscope, we learnt that the tiny specimen was not a fry after all. The female specimen was fat and had eggs in its stomach,” he said.

Dr Tan said he was fascinated by the discovery and carried out a study on the fish in early 2003.

The quest to identify the new specimen, *Paedocypris progenetica*, from the swamp took him almost three years.

The Sumatra specimen turned out to be similar to a specimen collected in Sarawak in 1993. It was also identical to those caught in peat swamps in Selangor, Pahang and Pulau Bintan in Indonesia in the early 1990s.

“The fish also has a cousin indigenous to Peninsular Malaysia,” he added.

“But the entire population of the peninsular species, except for Selangor, had become extinct because of development which destroyed their natural habitat – the peat swamps.”

Dr Tan’s research on the new species was submitted to the British journal *Proceedings of the Royal Society B*. The findings of the research, with the help of three Western experts, was published on Wednesday.

“The aim of submitting research and have it published is to share the findings and knowledge of the new specimen with enthusiasts around the world,” Dr Tan said.

The fish, named *Paedocypris progenetica*, can only survive in peat swamps, which are rare and under threat from development. These swamps are a vital habitat for many freshwater fish species.

Dr Tan’s research, published in the *Proceedings of the Royal Society B*, has helped to raise awareness of the importance of preserving these unique habitats.

“Peat swamps are a crucial part of the ecosystem and play a vital role in the balance of the environment,” he said.

The rediscovery of this tiny fish is a testament to the importance of maintaining these habitats, and highlights the need for urgent action to protect these critically endangered species.
the world,” said Dr Tan.

FISH FACTS

- Skinny and transparent, the fish thrives in highly acidic peat swamps, a unique landscape of flooded trees growing in waterlogged, soft peaty soil that is often several metres thick, having a pH value of three.

- A special stereoscopic microscope is needed to accurately measure the fish.

- The Sumatra specimen, measuring only 7.9mm from nose to tail, is not only the world’s smallest fish but also the tiniest vertebrate.

- It is related to the Paedocypris micromegethes, the second smallest freshwater vertebrate measuring 8.8 mm, found in Sarawak.