

# 琉球大学学術リポジトリ

## Updating records of zooxanthellate scleractinian corals in Singapore

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morphological analysis, knowledge of biogeographic information and judicious checking of historical literature to maximise its full value to the scientific community as well as in practical situations. In our case, analyses of COI sequences and morphology of the marine swimming crab *Portunus pelagicus* showed that it is in fact a complex of at least four species. However, while unique Molecular Operational Taxonomic Units (MOTUs) may be morphologically indistinguishable, we also have what would be considered as a single MOTU comprise of two species with pronounced morphological differences between them. Using a complement of various methods, we have clarified the systematics of this commercially important group of species group. In the process, we have maintained nomenclatural stability as far as possible yet assign pre-existing names to each rediscovered species.

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### **A new cavernicolous freshwater crabs from Samar, Island, Philippines**

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A new cavernicolous freshwater crab of the genus *Sundathelphusa* is described from Langun-Gobingob cave in Samar, Island, Philippines. The new species has greatly reduced eyes, absence of body pigmentation and noticeably elongated ambulatory legs typical to cave obligate crabs. The new species is clearly distinct from all known cavernicolous *Sundathelphusa* by its spiny pereopods. The cave is located in one of the archipelago's largest karst formation (about 2970 hectares) situated in the Western Samar province. Specimens of the new species were collected from two separate locations of the cave system. One is in the very big chamber of the cave, about the size a football field stadium, approximately 100 meters from the opening. Here, the new species was collected from the water trapped in mud holes caused by footsteps along the bank of small subterranean stream. Others were collected from the shallow pools of subterranean river located in another chamber approximately 150 meters from the outside which could only be accessed through a small hole. The two chambers were separated by a huge limestone wall and are both in complete darkness.

Poster -5

### **Updating records of zooxanthellate scleractinian corals in Singapore**

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Singapore's hard coral species records have not been updated in the last 12 years. We present an inventory of zooxanthellate scleractinian species through field surveys at eight reef sites, and consolidation of past work, RMBR reference collection and recent publications. Species assessment surveys and recent literature revealed a total of 165 species, 30 of which are new records, increasing the number of species ever found in Singapore from 189 to 258. Raffles Lighthouse registered the largest number of species and represents the most undisturbed reefs of the sites studied. Taking into account reef area, the number of species in Singapore is comparable to reefs in neighbouring countries. Only 64.0% of total species recorded have been found in recent years, but this study is not exhaustive in terms of sampling effort and site coverage. As 11.6% of all species have been newly recorded in the last three years, and only 52.0% of species with distribution ranges encompassing Singapore have been found, a larger inventory can be expected with more rigorous assessments.