

琉球大学学術リポジトリ

New and interesting species of gobies from Singapore

メタデータ	言語: 出版者: 琉球大学21世紀COEプログラム 公開日: 2009-01-07 キーワード (Ja): キーワード (En): 作成者: Jaafar, Zeehan, Lim, Kelvin メールアドレス: 所属:
URL	http://hdl.handle.net/20.500.12000/8737

Is. (GBR), and thus, they are supposed to be widely distributed at least in tropical West Pacific. This may indicate that many unknown species are yet to be described in tropics, and we recognized other three *Diplosoma* that are potentially undescribed species. The three *Diplosoma* species can be distinguishable with the unique pattern of the stigmatal numbers in the branchial sac. For instance, the stigmatal numbers are 6, 7, 6, and 5 from the top row to the bottom in one species. As for the three species, we unfortunately have not obtained the colonies laden embryos that would provide several taxonomical features. On the other hand, some described species should be carefully examined, because there are some arguments about synonyms; *Lissoclinum bistratum* – *L. timorensis*, *Trididemnum cyclops* – *T. paracyclops*, and *Trididemnum clinides* – *T. paraclinides*. There are several color-morph types and size-morph types in *Didemnum molle*, and we found differences in the contents of ultraviolet-absorbing substances, reproductive season, and commensal crustacean fauna between the two color-morph types, suggesting that this species may include one or several cryptic species. A taxonomic survey based on both detailed morphology and the molecular phylogeny of several potential synonyms or morph types from various sites is required to clarify this problem.

Oral -8

New and interesting species of gobies from Singapore

Zeehan Jaafar and Kelvin Lim

*Department of Biological Science, National University of Singapore, 14, Science Drive 4,
Singapore 117543, Republic of Singapore*

The family Gobiidae comprises of some 2000 small teleost fishes commonly known as gobies. A recent faunistic survey of this group carried out in Singapore revealed that there are 149 species with about a quarter of them not recently found or reported from the island. The presentation discusses these dubious records and presents new and interesting finds.

Oral -9

Overview of the genus *Nephroselmis* from the Ryukyu Islands (Chlorophyta, Nephroselmidales)

Shoichiro Suda¹ and Daphne Georgina Faria²

¹Department of Chemistry, Biology and Marine Science, Faculty of Science, and ²Graduate School of Engineering and Science, University of the Ryukyus, Nishihara, Okinawa 903-0213, Japan

Nephroselmis is a green flagellate genus and was established by Stein in 1878 based on a freshwater species, *N. olivacea*. It possesses compressed cells in the right-left axis, two unequal and heterodynamic flagella, and simple to complex scales forming the Golgi body covering the surface of body and flagella. The SSU rDNA tree suggests that the family Nephroselmidaceae, which contains only the type genus *Nephroselmis*, is closely related to the core chlorophytes (Chlorophyceae + Trebouxiophyceae + Ulvophyceae + Chlorodendrales). The genus *Nephroselmis* is therefore a key organism in the evolution of the Chlorophyta *sensu stricto* and the origin of the major part of green algae. Phylogenetic studies on various species of *Nephroselmis* using morphological and molecular characters are therefore important. At present, 12 *Nephroselmis* species have been described but for five out of the 12 species there is very limited information and their existence as valid species is doubtful. Aside from one freshwater species, the remaining six species have been reported from marine environments. *Nephroselmis* swims with the short flagellum beating ahead and a long flagellum trailing behind. Because of its unique swimming behavior, *Nephroselmis* cells can be easily identified and isolated under an inverted microscope in samples, and was collected from various localities of the Ryukyu Islands. Over five years, our laboratory established 122 strains of *Nephroselmis*. Consequently, the strains could be divided into eight