

國立臺灣海洋大學

海洋環境與生態研究所 專題討論

題目：Seasonal variation of oligotrich ciliate at Jie-Shou Bay

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Abstract

Ciliates are an indispensable and basic part of the marine food chain and belong to the exploration cycle at the bottom of the food web. In this study, we observed the changes in the abundance of two different types of ciliates (loricate ciliate and naked ciliate) in 2020 in Jie-Shou Bay. The abundance of loricate (tintinnid) ciliates reached a high value, 310 cells/L, in autumn followed by another peak in late winter; however, the abundance of naked ciliates reached a high value, 320 cells/L, in summer. In the period of *Noctiluca scintillans* bloom, tintinnid ciliates are easier to be stuck by the tentacle of *N. scintillans* than the naked ciliate, leading to a decline to the abundance of tintinnid ciliates, where the naked ciliates were not grabbed. We assume that a large abundance of *N. scintillans* may affect the appearance of tintinnid ciliates.

Additionally, hydrological conditions may also affect ciliate populations, the T-S diagram showed two water masses, i.e., water mass with salinity lower than 31 from January to April and October to December and the water mass with higher salinity during May to October, it is also possible that the appearance of naked ciliates were caused by the influence of the water mass.