



Long term study of monsoon effect on the distribution of *Calanus sinicus* in the waters of Taiwan, western North Pacific Ocean

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Calanus sinicus (Copepoda: Calanoida) has a key role in the dynamics of marine food web and also on fish recruitment in the west Pacific Ocean, particularly in the Yellow Sea, the East China Sea and the coastal waters of Japan. The spatial distribution of this copepod can be traced further south such as north and west of Taiwan, Hong Kong, Hi-Nan Island and Vietnam. To understand the mechanism of how this key species distributes spatially and temporally, two long-term monitoring programs of the planktonic copepods have been conducted since 1998. The spatio-temporal distribution pattern of this copepod in the studied areas showed a clear relationship between the intrusions of cold-water mass of the China Coastal Currents (CCC) during the northeast monsoons into north and west Taiwan thus transporting this copepod further south with high concentrations. *Calanus sinicus* can be considered a biological tracer of CCC during NE monsoon originating from the Yellow Sea and the East China Sea to the north and west of Taiwan and further south up to Hong Kong, Hi-Nan and Vietnam.

Keywords: Monsoon, China coastal Current, *Calanus sinicus*, indicator species