

## Relationship between pollen distribution and marine environment in Northern South China Sea

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Then pollen records from the tropical West Pacific indicate that the tropical vegetation is much sensitive to the environment and climate change. But, for the marine pollen record, the source area and distribution of pollen grains is the key information for data analysis. Through the high density sample collection in the northern South China Sea, the distribution of the pollen grains show that, much high concentration is mainly along the coast line within 30 km away from the land, especially the estuary area. Then, with the distance between the land and the deposition point increasing, the value of the pollen drops sharply. Among that, the content of the *pinus* and spores is much high when the deposition points is 40-100 km range and 80-110 km range offshores, respectively. That indicates the very different transport path and ability among the pollen groups. Combined the topography and the grains size analysis result, it present that the pollen grains deposit in the terrain slope break and the less hydrodynamic areas when they are transported by the sea current.

Keywords: pollen distribution, marine environment, northern South China Sea