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南海低纬地区 15kaBP 以来高分辨率孢粉记录及植被、 气候演变

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摘要 本文依据南海低纬地区SA09-090孔高分辨率的孢粉记录, 从下至上划分了4个孢粉组合带, 从孢粉成分的变化, 重建了15kaBP以来的植被和气候变化历史。研究结果发现: 15. 0—12. 5kaBP期间研究区花粉主要来自当地出露的陆架, 揭示出出露的陆架植被类型是以热带低山雨林和低地雨林为主。海滨地区生长着茂盛的红树林, 当时气温比现在低一些, 但无明显变干现象。12—10kaBP期间植被中低山雨林花粉增多, 红树植物花粉减少, 这说明此时海平面上升, 气温也回升, 花粉源区变远。全新世时(10kaBP至今), 花粉主要来源于加里曼丹岛和周围岛屿, 植被以低山雨林和海滨红树植物为主, 但花粉浓度大幅降低, 这种花粉浓度降低说明海平面继续上升, 研究区距离花粉源区越来越远。全新世中期时为热、湿的气候环境, 后期与现今相近。

关键词: 南海 低纬地区 孢粉 植被 气候

Abstract: Based on the high resolution pollen record at the Core SA09-090, which was in the low latitude of the South China Sea, four pollen zones are distinguished in an ascending order. According to the pollen composition in each zone, the vegetation evolution and climate change since 15kaBP is reconstructed. The research shows that at the stage of 15.0 - 12.5kaBP, the pollen in the research area mainly came from the continental shelf when it was above the sea level. This indicates that the vegetation on the continental shelf that was above the sea level was mainly tropical low-mountain rainforest and lowland rainforest. Many mangroves lived in the coastal area. The temperature was a little lower than today's, but there was no clear evidence of aridity. At the stage of 12 - 10kaBP, the amount of pollen from lowland rainforest increased, and the amount of pollen from the mangroves decreased. This indicates that the sea level rose in that period, and the temperature rose, too. The pollen source became far away. At the Holocene (10kaBP to now), the pollen mainly came from Borneo and the islands around it. The concentration of the pollen decreased significantly. That suggests that the sea level kept rising, the study area is even far away from the pollen resource. It was hot and wet in the middle of the Holocene, and remained so in the late period of the Holocene.

Keywords: South China Sea, low latitude area, sporopollen, vegetation, climate

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