

**MEIOFAUNAL ASSEMBLAGES AND SEDIMENT CHARACTERISTICS OF SANDY BEACHES ON THE WEST COAST OF THAILAND AFTER THE 2004 TSUNAMI EVENT**

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**ABSTRACT:** Beach meiofauna and sediments were studied from four locations (at low tide, mean sea level and high tide positions) on the west coast of Thailand (on Phuket and Kho Khao Island) to assess their status after the 26th December 2004 tsunami. The sampling took place approximately 50 days after the event. The selected beaches differ in the degree of exposure to the open sea, distance from river mouths, anthropogenic impact and in degree of erosion due to the tsunami waves. As a result of the tsunami the studied beaches on Phuket Island were slightly altered and those on Kho Khao Island were almost completely eroded. However, all of them are currently subjected to intensive natural beach accretion. The beaches are mainly composed of very poor to moderately sorted medium and coarse sands. A total of eleven major meiofaunal taxa, including copepod nauplii were recorded in the investigated samples. The most common were nematodes, harpacticoids, turbellarians and polychaetes. The meiofaunal densities recorded in the present study are in the range of  $0.1\text{--}8.35 \times 10^3$  individuals per  $10\text{ cm}^2$ . Their maximum abundances were observed in the sediments of a small beach on the southern shore of Patong Bay, while the lowest values were recorded in sediments of the main beach at Patong. It appears that the investigated sandy beaches were fully functional ecosystems 50 days after the tsunami in terms of meiofaunal communities. The results indicate that the beaches recovered very quickly after the tsunami, and were only slightly impacted by the tsunami waves.

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