

Discovery of hydrothermal vent communities in the Indian Ocean with biogeographical characteristics.

Jun Hashimoto[1], Suguru Ohta[2], Toshitaka Gamo[3], Toshiyuki Yamaguchi[4], Shinji Tsuchida[5], KR00-05 Shipboard Party Hashimoto Jun

[1] JAMSTEC, [2] ORI, Univ. Tokyo, [3] Div. Earth Planet. Sci., Hokkaido Univ., [4] Mar. Bio. Res. Center, Chiba Univ., [5] Marine Ecosystems Research Dept., JAMSTEC

In August 2000, active hydrothermalism and associated biological communities were discovered in the Indian Ocean. The temperature measured from an active black smoker was 360 degrees centigrade. The dominant species of the vent communities were Rimicaris shrimps, known heretofore only from the Atlantic Ocean, and actinians. The characteristics of the faunal composition of vent communities in the Indian Ocean is closely similar to that of the Atlantic vent field including TAG and Snake Pit in appearance. However, captured Alviniconcha snails, Austinograea crabs and Neolepas barnacles are at present the genera known only from the vent sites in the Pacific Ocean. The faunal composition of the Indian Ocean hydrothermal vent communities had links to both Pacific and Atlantic vent assemblages.