

## **Biogeography of annelids from newly-explored Caribbean, Indian Ocean and Southern Ocean hydrothermal vents**

Adrian G. Glover<sup>1</sup>, Helena Wiklund<sup>1</sup>, Jonathan T. Copley<sup>2</sup>

<sup>1</sup>Life Sciences Department, Natural History Museum, London, SW7 5BD, UK;  
a.glover@nhm.ac.uk

<sup>2</sup>Ocean and Earth Science, University of Southampton, Southampton SO14 3ZH, UK

A number of recent expeditions have revealed abundant hydrothermal vent faunal communities from new sites in the Caribbean (Mid-Cayman spreading centre), the Indian Ocean (Southwest Indian Ridge), and the Southern Ocean (East Scotia Ridge). Analysis of the large number of samples from these expeditions is slowly ongoing, but interesting patterns are already beginning to emerge. Here we review the latest combined morphological and molecular data for annelids from these sites. Traditionally, the larger body-size annelids (e.g tubeworms) are thought to have high reproductive output, dispersal ability and remarkably broad ranges at least within ocean basins. However, this broad dispersal ability in polychaetes has not really been tested in the smaller fauna, and in these new sites, most of these species are as yet undescribed. We show that for at least some of the smaller fauna, large species ranges are also possible and put forward some hypotheses to explain why this might be so.