

Benthic surveys were conducted on submerged lava beds of varying age off the east coast of Reunion in 2011. Scuba-mediated collecting and photography was undertaken within depth zones at 10 sites on four pre-1977 lava beds and those formed in 1977, 2002, 2004 and 2007. Sponges (23 species in 18 genera and 17 families), octocorals (20 species in 9 genera and 5 families) and ascidians (4 species in 4 genera and 2 families) were identified and these were differentially distributed in terms of lava bed age but not depth. Older lava formations had a greater biotic density and diversity, and colonisation of the lava beds appeared to be slow. The benthic fauna differed from that on the west coast of Reunion and the octocoral diversity was impoverished relative to published records elsewhere in the region. These characteristics of the benthos were attributed primarily to harshness of the lava reef, abrasive nature of the associated sediment and the turbulent sea conditions.