Abstract

The purpose of this study was to record the species of Antipatharia on Jamaican reefs and to carry out limited studies on densities and sizes of the common species. In addition, a cliff face created by dredging in 2002 provided the opportunity to study growth of newly settled colonies. Observations since 1998 and measurements since 2001 were made using SCUBA at depths down to 35 m. Seven species of Antipatharia were observed on steep coral reef escarpments below 25 m depth. The commonest species was the unbranched wire coral Stichopathes lutkeni (Antipatharia: Antipathidae). Other common species included the fan-shaped black corals Antipathes atlantica and A. gracilis. Frequently encountered species included commercially important A. caribbeana and a species with an unusual, scrambling growth form, A. rubusiformis. The other major commercial species in the Caribbean, Plumapathes pennacea, and a cave-dwelling species, A. umbratica, were rarely observed. Greatest black coral abundance occurred on steep slopes of hard substrata in low light intensity but exposed to the long-shore current. Combined densities of the commoner Antipatharia at 30 m deep at Rio Bueno on the north coast, ranged from 0.1 to 2.5 m⁻² (eleven 10 m x 1 m belt transects, 1-25 colonies per transect, 68 colonies in total). Forty-six of the 68 colonies were S. lutkeni, while nearby at Discovery Bay at 30-35 m, 55 out of 59 colonies were S. lutkeni. There was a significant difference between the mean length of colonies in these two populations of S. lutkeni (100 cm and 80 cm, respectively), probably relating to habitat. A third population of S. lutkeni growing at 15-20 m deep on the recently dredged cliff had a much smaller mean length of 36.6 cm (n= 27). The largest individual measured 83 cm long, indicating a minimum growth rate of the unbranched corallum of 2.1 mm per day.

Keywords

Black coral, Antipatharia, Jamaica, Stichopathes, Antipathes, Discovery Bay, Rio Bueno.