

### *Soft Bottom Zone*

The soft bottom zone is characterized by a soft, level bottom community composed of both terrigenous sediments, originating from coastal rivers, and carbonate sediments, resulting from calcareous planktonic remains and erosion of rocky outcrops and coral reef communities (Office of National Marine Sanctuaries 2008).



Fig. 1.1. Photograph at 111 m (364 ft), at the West Flower Garden Bank, depicting a fine soft sediment bottom with mounds. (Photo credit: FGBNMS/ NURC-UNCW)

These large expanses of mud, sand and silt substrates are typically found in the deeper areas of the sanctuary with sand wave, burrow, mound and pit features (Fig. 1.1). Few conspicuous fishes and invertebrates occur on soft bottom communities in comparison to coral reef or rocky zones. Transitional zones between soft bottom communities and hard bottom features are characterized by exposed rubble, isolated patch reefs or exposed hardbottom. Areas with buried or exposed carbonate rubble are often colonized by antipatharians, octocorals, or solitary hard corals (Fig. 1.2). Soft bottom communities serve as important feeding areas for reef and reef-associated fishes (Rexing 2006).



Fig. 1.2. Photograph at 90 m (295 ft), at the West Flower Garden Bank, depicting a soft bottom antipatharian field. In this image is the black coral *Stichopathes* sp. (Photo credit: FGBNMS/ NURC-UNCW)

### *References*

- Office of National Marine Sanctuaries (2008). Flower Garden Banks National Marine Sanctuary Condition Report 2008. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD 49 pp.
- Rexing, S.R (2006). Structure and trophic importance of benthic macroinfaunal communities around live-bottom reefs at Flower Garden Banks National Marine Sanctuary. Thesis. College of Charleston – Charleston, South Carolina.