Distribution of Macrobenthic Plants and Recent sediments on the Sea-Floor of the Anamur Bay (Turkey), NE-Mediterranean, mapped with Side-Scan Sonar

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A side-scan sonar system was used to obtain continuous acoustic pictures in the sea-floor along 14 lines in the Anamur Bay, in 1984-1986 (Figure 1). Additionally, a total of 94 surface sediment samples including benthic organisms were collected in the study area.

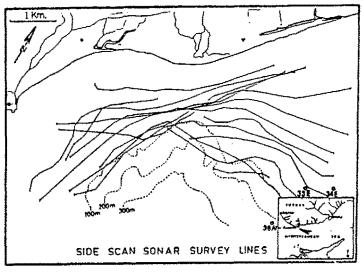

Figure 1. Side-Scan sonar survey lines.

Sediments overlying the sea-floor consisted of mixtures varying in gravel-, sand-, and mud-sized components. These sediments were partly infilling the Anamur submarine canyon, which is believed to have onshore-offshore extend. Three major zones can be distinquished on the basis of the grain-size distribution of the surficial sediments. These are the coastal zone, which is covered mainly with gravel; a large part of the shelf covered with sand, and the slopes and valleys/channels of the canyon covered with mud (Figure.2).

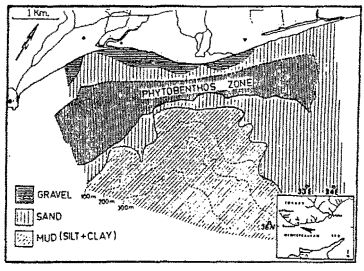

Figure 2. Map showing distribution of surface sediments and other features on the sea-floor based on sonographs.

Of course, the most prominent features on the sonographs were the presence of marine plants (Figure 3).

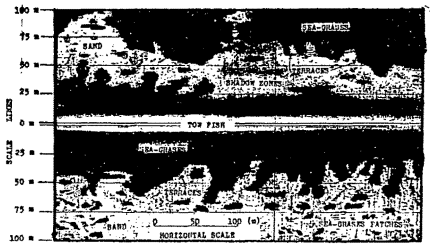

Figure 3. Side-scan sonar image showing the distribution patterns of the sea-grasses, some small terraces, and sand areas.

These were the Hydrocharitaceae and Potomogetonaceae. These include the species, Zostera nana, Zostera marina, Cymodocea nodosa, Udotea petiolata, and Posidonia oceanica, which were restricted between 10 and 40 m countour lines.