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Assessment of benthic infaunal condition on the mainland shelf of southern California

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ABSTRACT

Benthic infauna were sampled from 251 Southern California Bight (SCB) mainland shelf sites in the summer of 1994. Sample sites were selected using a stratified random design, with the primary strata being depth zone, geography, and proximity to point and non-point discharges. Benthic infaunal condition was assessed using the Benthic Response Index (BRI), and by comparing dominant taxa and community parameters (e.g., number of taxa) among strata. Ninety-one percent of sediments in the SCB were found to contain healthy benthic communities. Most stations with altered benthos were located near river mouths, in Santa Monica Bay, or on the Palos Verdes Shelf. Deviations at sites with altered benthic communities were mostly limited to minor changes in species composition, rather than to large declines in diversity or abundance.

Keywords: marine benthos, southern California, reference condition, assessment

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