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RECENT SEA WATER TEMPERATURES AT BOOTHBAY HARBOR, MAINE

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The cooling trend of surface sea water along the Maine coast, 1953-66, has previously been documented (Welch, 1967). The temperature at a depth of 1.7 m below mean low water is recorded continuously at the U.S. Bureau of Commercial Fisheries Biological Laboratory, Boothbay Harbor, Maine. Previous writers (Lauzier, 1965, 1967; Colton, 1968) have shown that surface and subsurface sea temperatures and air temperatures from the Scotian shelf to New Jersey have followed the same trends as the Boothbay Harbor temperatures.

The mean annual temperature (Fig. 1) continued the decrease to 1967, but 1968 showed a 0.8° C. increase over the previous year. The January-February-March temperatures, averaged together for a single mean for each year, showed a similar trend. The July-August-September temperatures, treated in the same way, showed an upturn in the trend beginning with 1967. The means of the intermediate seasons, April-May-June and October-November-December, although not plotted in Fig. 1, followed the same trend as the annual means except for the upturn of the latter which began in 1967.

In addition to the 1968 increase, three previous temporary increases have occurred in the 14-year downward trend of annual means, and each of the four has been progressively larger. Long-range predictions are for a short-term increase, but an overall trend toward lower temperatures over the next several decades.

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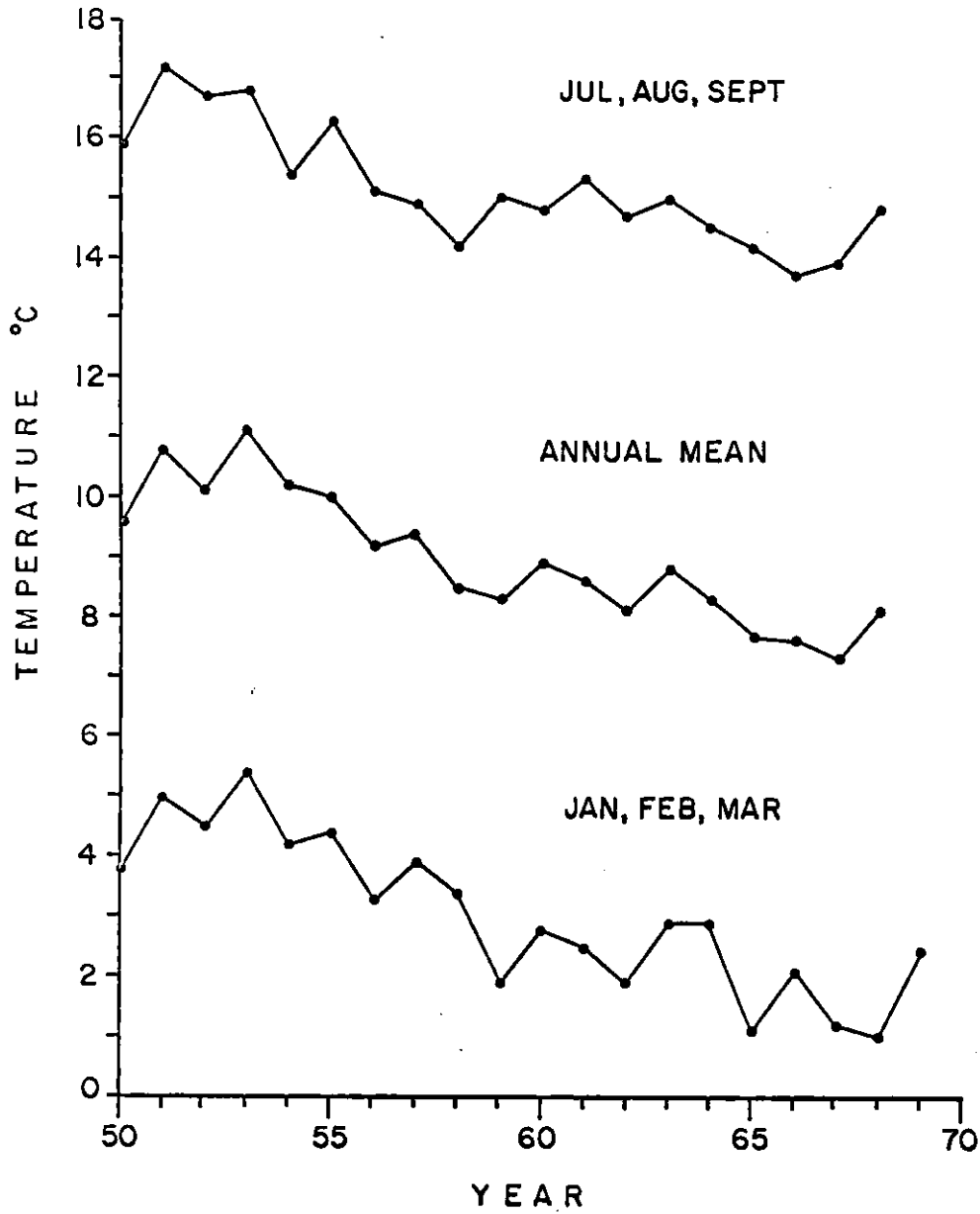


Figure 1. Annual and seasonal means of surface sea temperature, Boothbay Harbor, Maine, 1950-69.