

The temperature changes are a reflection of changes in the California Current system. Once these conditions develop, they persist for several months and sometimes for several years, which is why we can forecast where the fish may appear off our coast. But sometimes we have made forecasts only to be contradicted by radical ocean changes between time of forecast and onset of fishing. We must understand causes behind these broad-scale ocean changes if we are to increase our precision in forecasting.

Downstream from the California Current, variations in the California Current Extension waters affect the Hawaiian skipjack fishery. Of importance in Hawaii are the North Pacific central and the North Pacific equatorial water types of the transition zone between these, the California Current Extension (Fig. 14). The boundary between the California Current Extension, with rela-

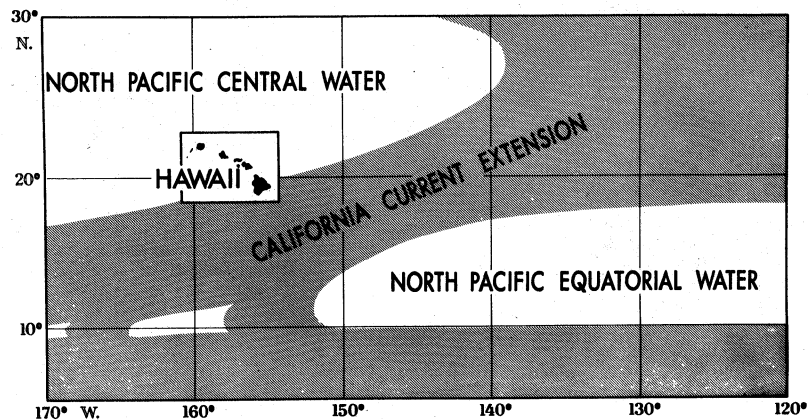
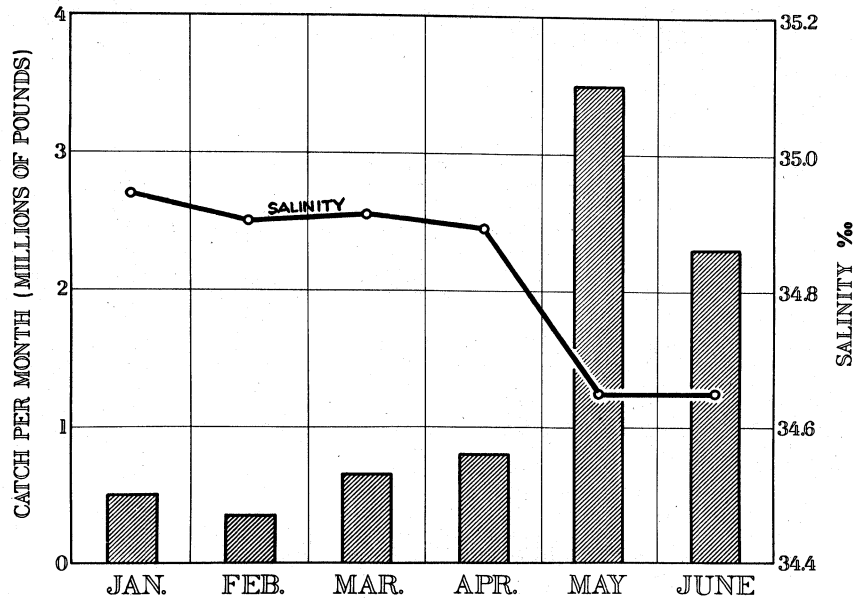


FIGURE 14