

SEA WATER TEMPERATURES 1972 - 1973

K. HISCOCK and J. N. DYMOND

The range of sea water temperatures to which an area is exposed is important in determining the composition of the marine fauna and flora. The marine life of Lundy includes many species whose centres of distribution lie well to the south of the British Isles and some species at the northern limits of their recorded distribution. As a background to the marine ecological investigations now being carried out around Lundy, one of us (JND) has taken surface sea water temperatures in the Landing Bay at approximately two-week intervals from October 1972 to October 1973. A mercury thermometer was used and, as far as possible, the records were taken from the landing stage.

The records are shown below. Temperatures ranged from 8.4°C on March 11th 1973 to 17.5°C on August 19th 1973. The irregularities occurring throughout the year cannot be associated with maximum and minimum air temperatures taken on the same day at Lundy (information supplied by RAF Chivenor and Trinity House for the South Light). Records taken at low water on February 27th were 0.5°C higher than the reading taken at high water. The record taken on June 18th was 0.9°C lower than that taken on June 19th (both were taken at mid-tide on the flood). It is probable that surface temperature in the sheltered Landing Bay are susceptible to modification from insolation and air temperature.

The 1972-1973 winter was mild and sea water temperatures would not have been expected to fall to their mean winter level. It is hoped that, in the future, sea water temperature will continue to be taken with an effort being made to record maxima and minima at appropriate times of the year. In this way it will be possible to indicate the range of temperatures determining the composition of the fauna and flora and it will be possible to investigate the effects of, for instance, a series of cold winters on the marine life.

