

PRIMARY PRODUCTION IN WATERS AROUND SURIN ISLANDS OFF THE WEST COAST OF THAILAND

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ABSTRACT

Primary production was measured by means of the C-14 method, $\frac{1}{2}$ days experiments *in situ*, twice at a station in the southern bay of the north Surin Island and once at a station 24 km. west of the islands in the Andaman Sea. In the bay the depth of the photic zone was 30 m. with a maximum production of 85 mg C/m³/day at 4 m. The production was measured on the 13th. and the 17th. of April to 1.09 and 1.45 g C/m²/day respectively. On the latter date a bluegreen algae maximum was observed. The results show that the land run-off and the regeneration of nutrients in the shallow bay have a strong influence on the primary production. At the off-shore station the depth of the photic zone was more than 50 m. with a maximum production of 23 mg C/m³/day at the surface. The production here was 690 mg C/m²/day on the 14th. of April. Although few measurements were taken off-shore, the results indicate an area with a relatively high primary production which indicate upwelling. Net phytoplankton from all stations > 30 μ . were dominated by bluegreen algae and diatoms, in addition, dinophyceae were seen.

The heavy metals Cu and Hg are shown to inhibit photosynthesis with more than 50% in concentrations of 10 and 1.6 μ g. per liter respectively.