

ANNUAL PELAGIC PRIMARY PRODUCTION WITH NOTES ON PHYSICAL AND CHEMICAL VARIABLES AT PHUKET, THE ANDAMAN SEA, THAILAND.

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ABSTRACT

Pelagic primary production data were obtained by the ¹⁴C method. **In situ** incubations were made during 1981-82 in Phang-Nga Bay and along the east and west coast of Phuket Island. Weekly incubations were made at one station. Physical and chemical variables were measured but no single variable, or set of variables, could be shown to correlate with primary production. However, production was low during the dry season compared with the wet season.

Pelagic primary production was calculated inside the bay of Phang-Nga and indicated some extremely fertile areas within the bay. Annual production rates in Phang-Nga bay ranged from 287 to 956 g C m⁻² at 6 stations in the bay, with an average of 384 g C m⁻² yr⁻¹. Chlorophyll-a concentrations averaged 10.7 mg Chl-a m⁻².

The relationship between pelagic primary production and fish yield is discussed and it is concluded that it is difficult to predict fish yields from data on primary production in tropical seas.

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