

SOME ASPECTS OF THE LIFE HISTORY AND SPAWNING OF THE MOI  
(POLYDACTYLUS SEXFILIS)

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By

Neil E. Lowell

Thesis Committee:

Thomas A. Clarke, Chairman  
Philip Helfrich  
Garth I. Murphy

## ABSTRACT

The moi (Polydactylus sexfilis) population of Kaneohe Bay, Oahu was sampled with gill-nets to determine spawning habits and distribution. Moi-*lii* (moi less than 150 mm S.L.) were taken alive in beach seines and kept in the laboratory to determine growth rates.

Spawning occurred monthly after the full moon from April (possibly March) to August in shallow areas (2-4 m deep) with periodic strong oceanward currents. Eggs are probably pelagic.

Pelagic moi-*lii* have dark vertical bars on their sides. At about 60 mm S.L., moi-*lii* enter the inshore environment where they rapidly attain silvery adult coloration. The inshore moi-*lii*'s growth rate drops from 5-7 mm to 3 mm per week over a period of 2 or 3 months.

Young moi (150 - 250 mm S.L.) are found from the shoreline breakers to 100 m depths. In Kaneohe Bay, adult moi (over 250 mm S.L.) were found on reef faces, in the depths of the inner bay and in shallow (2 - 4 m) areas with muddy sand bottoms.

Pelagic moi-*lii* are plankton feeders but become benthic feeders upon settling. Adults feed principally on crustaceans and fish. Feeding, especially by females, is sharply reduced during spawning runs. The lower pectoral filaments provide tactile cues for mid-water and benthic feeding.

Moi has a good potential for aquaculture. It grows rapidly, has a prolonged spawning period, and adapts well to captivity.