THE EFFECT OF EL NINO ON THE DISTRIBUTION OF REEF-ASSOCIATED LABRID FISHES IN THE EASTERN PACIFIC OCEAN.


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We surveyed the labrid reef fishes at multiple sites in the eastern Pacific Ocean before, during, and after the recent El Nino-Southern Oscillation event (ENSO). The only prominent changes in labrid biogeography noted were the extension of two tropical eastern Pacific species into Baja California (Thalassoma virens and Stethojulis bandanensis) and a massive ENSO-associated settlement of S. bandanensis onto the Galapagos Islands where the species was previously rare. Analysis of daily otolith increments revealed that the pelagic larval duration of the new arrivals of S. bandanensis was relatively short (about one month) and no different from the pelagic larval duration for the species recorded at other locations in the eastern Pacific Ocean before and during ENSO as well as from the western Pacific Ocean at Palau and the Cook Islands. The results suggest that a one month pelagic larval duration was sufficient for spread among isolated island groups in this region. Adults of this species were present at some of their new locations during the subsequent cold La Nina period.

EARLY LIFE HISTORY AND EXTENT OF CALIFORNIA REEF ASSOCIATED LABRIDS: PELAGIC LARVAL DURATION, SETTLEMENT, AND RECRUITMENT

D. Ross Robertson

San Diego State University

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STATE OF KNOWLEDGE

A1: Large Scale Ecology

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