

ABSTRACT

R. L. TILNEY, G. NELSON, S. E. RADLOFF and C. D. BUXTON

ICHTHYOPLANKTON DISTRIBUTION AND DISPERSAL IN THE TSITSIKAMMA NATIONAL PARK MARINE RESERVE, SOUTH AFRICA

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The nature of ichthyoplankton distribution within the Tsitsikamma National Park marine reserve was investigated in an attempt to evaluate the potential for export of larvae of commercially and recreationally important reef species to adjacent, exploited areas. Monthly, inshore ichthyoplankton samples were taken using Bongo nets over an 18-month period. Sampling sites were located over areas of high-profile reef and sand. Current-meter measurements of the area were used to determine current velocity, direction and reversal periodicity. Statistical analysis of the data was performed independently for larvae from four families: *Blenniidae*, *Gobiesocidae*, *Sparidae* and *Engraulidae*. Results suggested that *blenniid* and *gobiesocid* larvae practised active position retention throughout their pelagic phase, while this feature was less defined in *sparid* and *engraulid* larval distribution. Using larval distribution and current-meter information, projected dispersal distances for *sparid* larvae, the family containing the most target commercial and recreational angling species, were estimated. The results suggest that *sparid* larvae are exported from the reserve to adjacent, exploited areas.