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Reproductive biology of the barred sand bass (*Paralabrax nebulifer*)

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ABSTRACT

The barred sand bass (*Paralabrax nebulifer*) is a common species in the nearshore marine environment and an important part of the marine recreational fishery of southern California. Related species of *Paralabrax* are either secondary gonochores or protogynous hermaphrodites. The objective of this study was to determine which reproductive strategy, if any, prevails in barred sand bass. A total of 437 specimens were collected from June 1996 through April 1997 from seven different locations along the southern California coast. Using the criteria outlined by Sadovy and Shapiro (1987), gonadal tissue from all individuals was examined for the presence of features strongly indicative of protogynous hermaphroditism. Two transitional individuals were found: a 273 mm standard length (SL) fish from Huntington Flats and a 306 mm SL fish from San Diego Bay. All males examined had a membrane-lined central cavity in the testes and a sperm sinus in the gonadal wall. These features are believed to result from individuals passing through a female-like juvenile stage before maturing based upon the examination of juvenile individuals. Fifty-two percent of the males examined had atretic bodies. Males and females were equally distributed throughout the size classes collected. Although most barred sand bass examined appeared to be secondary gonochores, some individuals had the ability to change from female to male (protogynous hermaphroditism). This sexual strategy did not appear to differ between locations.

Full Text

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