

Barred Sand Bass

History of the Fishery

Barred sand bass (*Paralabrax nebulifer*) are commonly caught by anglers in California. Since the late 1970s, this species has consistently ranked among the top 10 species in the southern California marine sport fish catch. The major barred sand bass fishing sites include the Silver Strand, Del Mar, San Onofre, Huntington Flats area off Orange County, the inshore portion of northern Santa Monica Bay off Pacific Palisades and Santa Monica in Los Angeles County, and the Ventura Flats area off northern Ventura County. Barred sand bass are targeted exclusively by sport anglers; the commercial harvest of this species has been illegal since 1953. Throughout the 1930s and early 1940s, sand bass, as well as kelp bass, were not considered to be quality angling fare but gained tremendously in popularity as game fishes by the mid-1950s. At that time, concern about the resource by sport fishermen and fishery managers resulted in the initiation of life history studies and the formulation of conservation measures. By 1959, a 10-fish bag limit and a 12-inch minimum size limit had been imposed on all three kelp and sand bass species, measures designed to counteract the declining numbers, and shrinking size composition of the bass catches. The commercial passenger fishing vessel (CPFV) bass fishery responded positively to this management regime, and landings of kelp and sand bass increased substantially through the 1960s and early 1970s. From 1975 through 1989, the CPFV barred sand bass catch expanded threefold to a peak of 400,000 fish in 1988. Although lacking some of the sporting qualities of kelp bass, barred sand bass are much more susceptible to hook-and-line gear and are somewhat easier to catch. When CPFV skippers target barred sand bass aggregations, they can usually produce substantial catches for their passengers, even for novice anglers possessing minimal fishing skills. In 1985, 1987 and 1988, barred sand bass was the leading bass species in the CPFV catch exceeding kelp bass landings for the first time since 1961 when kelp bass and sand bass landings were first reported separately. Estimates of annual barred sand bass landings from all sport fishing activities (shore, pier,

private boat, CPFVs, etc.) ranged as high as 1,940,000 in 1988. The CPFV landings of barred sand bass remained stable at around 600,000 fish from 1993 to 1996, but declined dramatically thereafter. On average, landings of barred sand bass in the 1990s were about 40 percent lower than those in the 1980s.

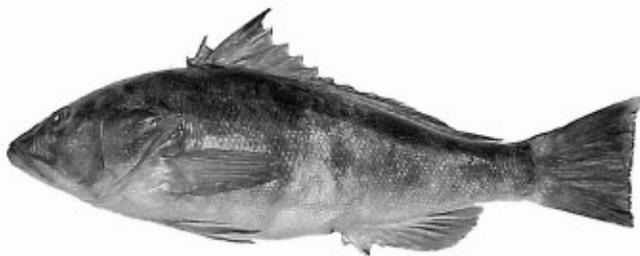
Status of Biological Knowledge

Barred sand bass range from Santa Cruz south to Bahia Magdalena, Baja California, Mexico. They are rare north of Point Conception. Sand bass chiefly inhabit the shallow waters near the southern California mainland, but have been captured at depths as great as 600 feet, but the greatest concentrations are found in depths less than 90 feet. Young sand bass are abundant in very shallow water (five to 30 feet). The name "sand bass" is somewhat unfortunate since they are usually closely associated with sand/rock interfaces of deep reefs and artificial structures and are rarely found out over sandy expanses.

Barred sand bass feed mainly on small fishes (including anchovies, sardines, midshipman), and invertebrates such as crabs, clams, and squid. The largest barred sand bass on record measured 26 inches in length, and the maximum-recorded weight was 11.1 pounds. Like their sympatric congener the kelp bass, barred sand bass are also relatively slow growing. A juvenile barred sand bass is approximately six inches long after one year, and reaches sexual maturity between seven and 10.5 inches in length and about three to five years. The oldest known barred sand bass was found to be 24 years old.

Barred sand bass form large breeding aggregations over sandy bottoms at depths of 60-120 feet in the summer months. Spawning occurs in these aggregations from April through November, usually peaking in July. During spawning, high-contrast, gray and white individuals with large golden-yellow crescents under their eyes are usually males. Sand bass produce a large number of small pelagic eggs that enter the plankton in coastal waters. Young-of-the-year sand bass begin appearing in shallow, nearshore waters in the early fall.

DFG tagging studies have revealed that barred sand bass are capable of movements of from five to 40 miles. In the early 1970s, evidence was presented that tumors, deformities, and other anomalies found in barred sand bass may have been linked to industrial and domestic wastes discharged into the nearshore environment. Reports of such abnormalities have decreased in the past two decades.



Barred Sand Bass, *Paralabrax nebulifer*
Credit: DFG

Status of the Population

The barred sand bass catch rose steadily in importance from 1975 to late 1989, to the point where sand bass are rivaled only by kelp bass in the nearshore recreational catch off southern California. From 1975 to 1978, barred sand bass ranked in the top ten in CPFV catch. By 1986 to 1989, barred sand bass consistently ranked in the top three species and was the top ranked species in CPFV catch in 1988. CPFVs and private boats take the majority of sand bass while fishing the summer spawning aggregations. Several factors seem to account for the upward trend. Most significantly, CPFVs, which account for the greatest portion of the barred sand bass catch, have begun to target them more frequently, especially during the summer spawning period. The fish are concentrated at that time, usually in well-defined areas along the coast. Also, new barred sand bass spawning sites have been discovered over the last 20 years and are now being exploited by CPFVs and private boats. As fishing effort targeting barred sand bass has increased, there has been concern that the stock may become over-exploited. Although, more information must be collected before the impacts of this intense fishing on barred sand bass populations can be determined, landings have recently begun to decline and there is cause for concern.

Management Considerations

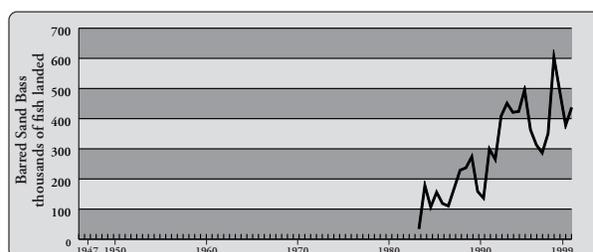
See the Management Considerations Appendix A for further information.

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Recreational Catch 1947-1999, Barred Sand Bass

CPFV = commercial passenger fishing vessel (party boat); Recreational catch as reported by CPFV logbooks. Prior to 1973, Barred Sand Bass and Kelp Bass CPFV catch data were aggregated.

References

- Ally, J.R.R., D.S. Ono, R.B. Read, and M. Wallace. 1991. Status of major southern California marine sportfish species with management recommendations, based on analyses of catch and size composition data collected on board commercial passenger fishing vessels from 1985 through 1987. Calif Dept. Fish and Game, Mar. Resour. Div. Admin. Rept. 90-2: May, 1991.
- Love, M.S., A. Brooks, and J.R.R. Ally. 1996. An analysis of commercial passenger fishing vessel fisheries for kelp bass and barred sand bass in the southern California Bight. Calif Dept. Fish and Game 82(3): 105-121.