12 Yellowfin Croaker, *Umbrina roncador*

Yellowfin croaker, *Umbrina roncador*. Photo credit: P Gregory.

History of the Fishery

The yellowfin croaker, *Umbrina roncador*, is a nearshore fish caught exclusively by recreational anglers since being banned by the State of California for commercial sale in 1915. A majority of anglers catch these fish from sandy beaches, piers, jetties, harbors, and bays. They are most commonly caught from Santa Barbara to the U.S./Mexico border during summer months. About 80 percent of the catch occurs from May to September. Yellowfin croaker are popular with recreational anglers because they can be readily caught from shore with basic, light spinning gear. Common baits used to catch them include mussels, sand crabs, blood worms, ghost shrimp, artificial worms, and lures.

Estimates of recreational catch were generated by the Marine Recreational Fisheries Statistics Survey (MRFSS) from 1981 to 1989 and from 1993 to 2003. From 2004 to the present, catch estimates are produced by the California Recreational Fisheries Survey (CRFS), which benefits from an improved sampling design. Both surveys rely on an angler-intercept method to determine species composition and catch rates, coupled with a telephone survey to estimate fishing effort. Though similar methodology in general was used for each, the two sampling designs are sufficiently different that catch estimates generated from MRFSS and CRFS are not considered comparable and will be provided in separate graphs and tables below.

A review of the Marine Recreational Fisheries Statistics Survey (MRFSS) data from 1980-1989 showed an average annual catch of 76,433 yellowfin croaker (Figure 12-1). The average annual catch decreased by five percent to 72,622 fish from 1993-2003, but catch fluctuated greatly from year to year. The California Recreational Fisheries Survey (CRFS) data from 2004-2009 showed an average annual catch of 101,852 yellowfin croaker (Figure 12-2). CRFS reduced sampling levels for the beach/bank (BB) mode in 2010 and BB and man made (MM) modes in 2011; therefore, the estimates for 2010

and 2011 are not comparable with the 2004 to 2009 estimates. Between 2004 and 2009, yellowfin croaker catch reached a high of 159,502 fish in 2007 and a low of 64,980 fish in 2004.

According to MRFSS, from 1993-2003 anglers fishing from shore modes (BB and MM) accounted for two-thirds of the total recreational catch while boat modes (party/charter boats and private/rental boats) comprised the remaining third (Figure 12-3). That changed dramatically during 2004-2009, based on CRFS data, when boat modes only comprised 5 percent of the recreational catch (Figure 12-4). Yellowfin croaker are rarely caught by party/charter boats due to their affinity for shallow water and sandy habitats.

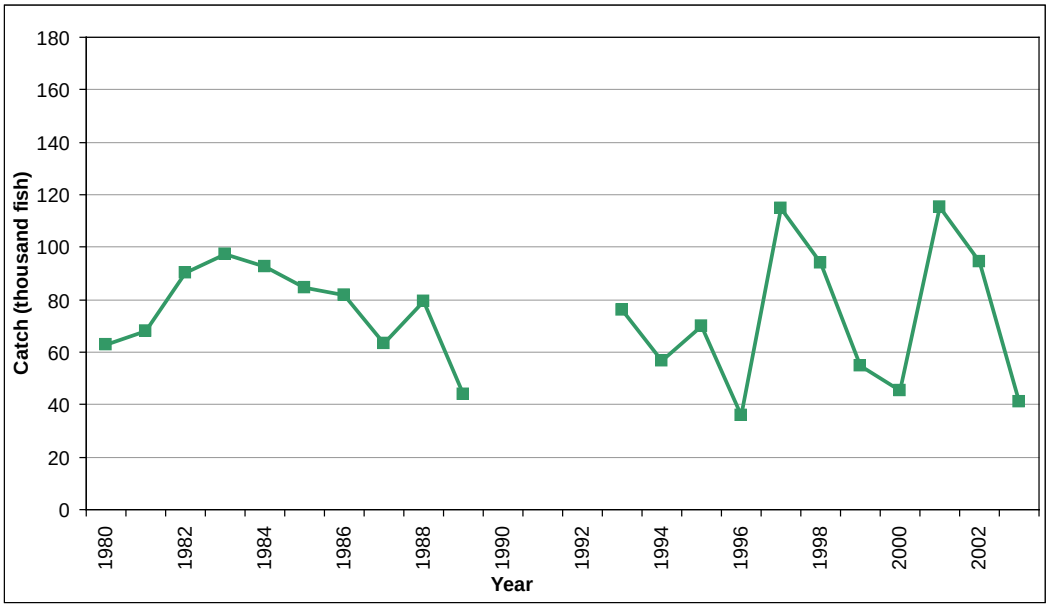

Figure 12-1. Yellowfin croaker recreational catch, 1980-2003. Data source: MRFSS data, all fishing modes and gear types combined. Data for 1990-1992 are not available.

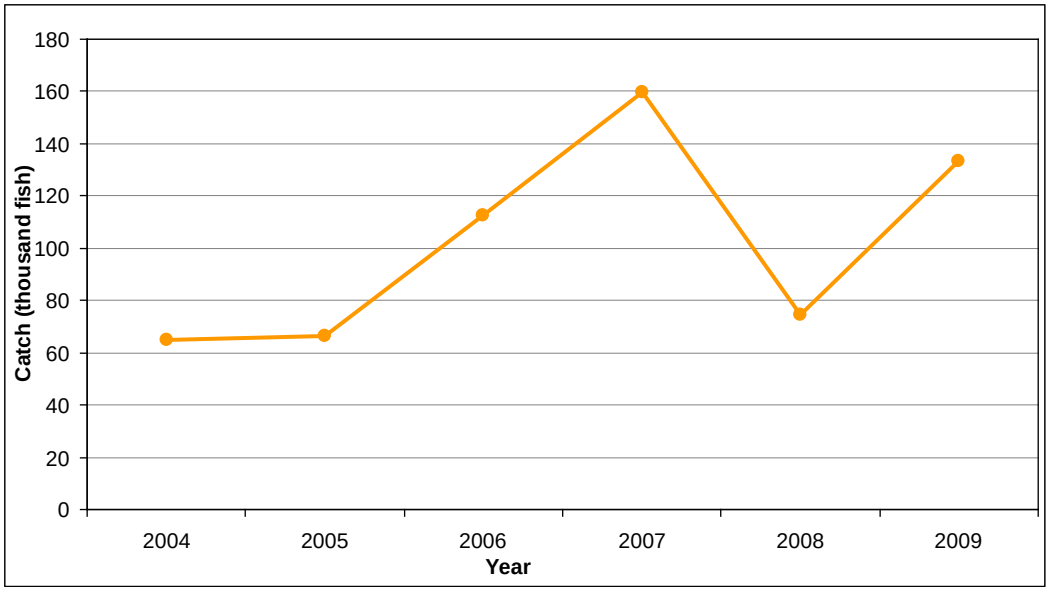

Figure 12-2. Yellowfin croaker recreational catch, 2004-2009. Data source: CRFS data, all fishing modes and gear types combined. Data for 2010-2011 are not available.

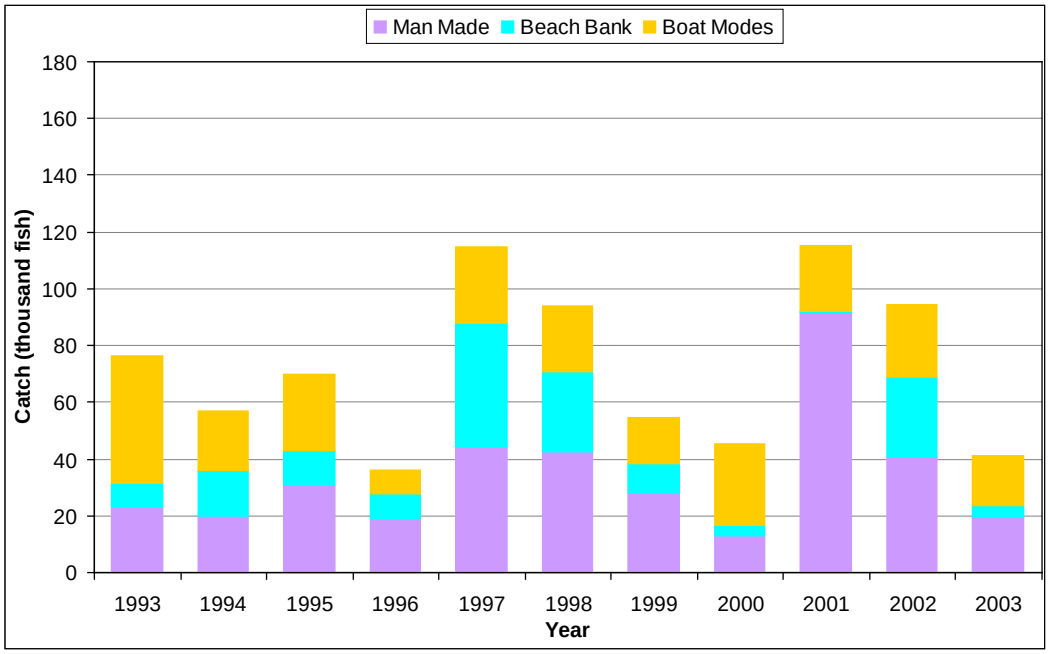

Figure 12-3. Yellowfin croaker recreational catch by fishing mode, 1993-2003. Data source: MRFSS data, all gear types combined.

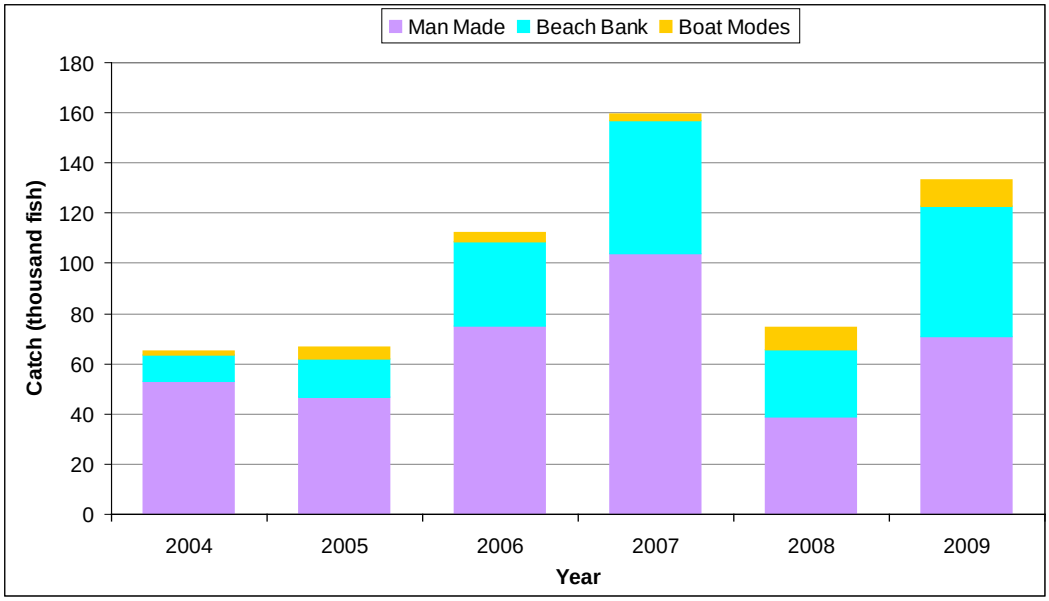

Figure 12-4. Yellowfin croaker recreational catch by fishing mode, 2004-2009. Data source: CRFS data, all gear codes combined. Data for 2010-2011 are not available.

Status of Biological Knowledge

Yellowfin croaker has an elliptical-elongate body with a series of dark brownish yellow stripes that run diagonally down their back, mostly yellow fins, and a short chin barbel. Yellowfin croaker range from Point Conception, California to southern Baja California, Mexico, but are rare north of Ventura. They typically occur in schools over soft bottom habitats from the surf zone out to 150 feet (46 meters), but are most abundant in waters less than 30 feet (10 meters). Yellowfin croaker are also common in harbors and bays as they tend to prefer calmer, more protected sites.

Research indicates that spawning occurs offshore during summer months. Spawning begins in June, peaks in July, and is completed by September. Females are batch spawners known to produce 99,000-405,000 eggs per batch and batch fecundity was found to rapidly increase with length. Fish are thought to reach sexual maturity around 2 years of age (~ 9 inches total length [TL]; 23 centimeters). Females grow faster and reach a larger size than males. Yellowfin croaker have been reported to reach 22 inches TL (56 centimeters) and weigh nearly 4 pounds (2 kilograms), but a fish over 2 pounds (1 kilogram) is uncommon. The current California state record is 3 pounds and 14 ounces (1.76 kilograms). Ageing studies indicate that a 10 inch fish (25 centimeters) is about 4 years old and a 15 inch fish (38 centimeters) is about 10 years old. The maximum observed age of a yellowfin croaker is 15 years old.

Yellowfin croaker appear to be opportunistic predators and have been observed schooling during the day and dispersing to feed at night. Their diet consists of California grunion eggs, polychaetes, amphipods, clams, and brittle stars. Yellowfin

croaker eggs, larvae, and small juveniles are often preyed upon by a variety of fish while larger individuals are preyed upon by seals, sea lions, and bottlenose dolphins.

Status of the Population

The population appears to be healthy despite potential impacts associated with recreational fishing, contaminants from urban runoff, and shoreline habitat modifications. A fishery independent study done in 2007-2009 by the California Department of Fish and Wildlife found a greater abundance of yellowfin croaker within the surf zone of Los Angeles and Orange County beaches than similar studies done in the 1990s and 1950s. A stock assessment has not been done for yellowfin croaker so no population estimates exist and stock structure has not been examined. There is also a lack of larval abundance data.

Nearshore abundances are strongly correlated with sea surface temperatures. Increased sea surface temperatures caused by several El Niño events during the 1990s and 2000s have likely benefited yellowfin croaker since they are a warm temperate species. Power plant entrainment data collected along the southern California coastline for the past 38 years indicate dramatically increased population density for species with more southern distributions like yellowfin croaker in recent years, compared to historical records.

Management Considerations

Current regulations such as limiting harvest to recreational fishing only and retaining the existing 10 fish bag limit appear to be effective. Collection of more basic life history information and regular monitoring of catch and effort is necessary to accurately access the status of the fishery.

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Further Reading

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Yellowfin croaker recreational catch, 1980-2003.

Year	Number of fish	Year	Number of fish	Year	Number of fish
1980	62,977	**1988**	79,460	**1996**	36,126
1981	67,957	**1989**	44,038	**1997**	114,979
1982	90,443	**1990**	---	**1998**	94,079
1983	97,206	**1991**	---	**1999**	54,659
1984	92,574	**1992**	---	**2000**	45,168
1985	84,787	**1993**	76,139	**2001**	115,374
1986	81,749	**1994**	56,751	**2002**	94,418
1987	63,139	**1995**	69,900	**2003**	41,244

Data Source: MRFSS data, all fishing modes and gear types combined. Data for 1990-1992 are not available.

Yellowfin croaker recreational catch, 2004-2009.

Year	Number of fish	Year	Number of fish
2004	64,980	**2007**	159,502
2005	66,608	**2008**	74,375
2006	112,314	**2009**	133,330

Data source: CRFS data, all fishing modes and gear types combined. Data for 2010-2011 are not available.

Yellowfin croaker recreational catch (number of fish) by fishing mode, 1993-2003.

Year	Manmade	Beach Bank	Boat Modes	Total
1993	23,068	8,492	44,578	76,138
1994	20,056	16,198	20,497	56,751
1995	31,111	11,945	26,843	69,899
1996	19,061	8,674	8,391	36,126
1997	44,459	43,275	27,245	114,979
1998	42,457	28,209	23,413	94,079
1999	28,140	10,280	16,239	54,659
2000	12,858	3,665	28,646	45,169
2001	91,402	653	23,318	115,373
2002	40,938	27,893	25,587	94,418
2003	19,608	4,013	17,623	41,244

Data source: MRFSS data, all gear types combined**.**

Yellowfin croaker recreational catch (number of fish) by fishing mode, 2004-2009.

Year	Manmade	Beach Bank	Boat Modes	Total
2004	52,838	10,838	1,305	64,981
2005	46,526	15,578	4,504	66,608
2006	74,948	33,687	3,679	112,314
2007	103,975	52,763	2,764	159,502
2008	38,938	26,897	8,540	74,375
2009	70,714	52,001	10,614	133,329

Data source: CRFS data, all gear types combined. Data for 2010-2011 are not available.