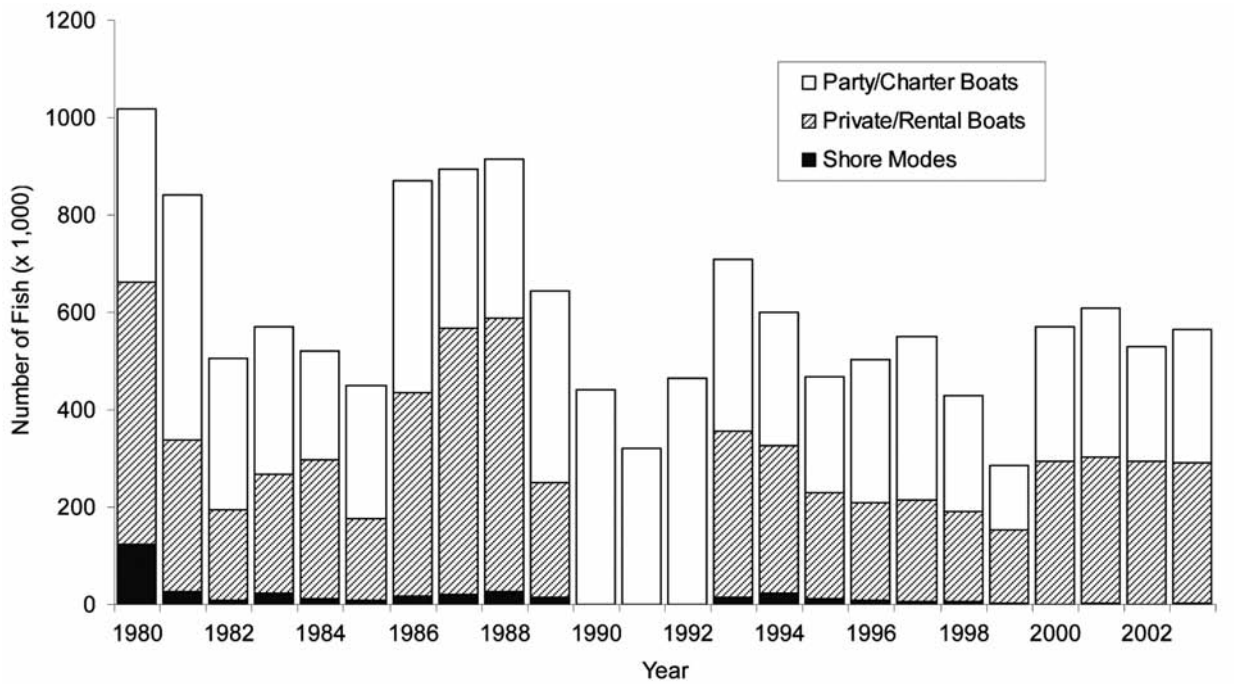


Figure 11. California recreational landings of kelp bass (*Paralabrax clathratus*) as reported in the Marine Recreational Fisheries Statistical Survey (MRFSS) by three different fishing modes, 1980–2003.

The WSFMP includes a provision for annual monitoring and assessment of the white seabass fisheries.

**Kelp Bass**

The kelp bass (*Paralabrax clathratus*) commonly referred to as calico bass, is one of the most popular species caught by recreational anglers in southern California. Kelp bass are found in nearshore waters and have historically ranged from the Washington/Oregon border in the north to Magdalena Bay, Baja California, Mexico in the south; however, their occurrence is rare north of Point Conception. Kelp bass live in relatively shallow water (typically less than 50 m) and tend to be associated with rocky structures and kelp. The best time of year to catch kelp bass is from May through September when the fish tend to feed more aggressively. Kelp bass are known to reach 721 mm (28.4 in) and can weigh up to 6.6 kg (14.5 lb).

In the first half of the twentieth century, kelp bass were targeted by both commercial and recreational fishermen. At that time, they were recorded on landing receipts and logbooks in a general "rock bass" category which included barred sand bass (*Paralabrax nebulifer*) and spotted sand bass (*Paralabrax maculatofasciatus*). In 1953, it became illegal to fish for kelp bass commercially in California due to a sharp decline in annual landings. Recreational anglers were still permitted to take kelp bass, but in 1959 a minimum size limit of 12 in (305 mm) TL was imposed. This minimum size limit is still in effect today, as well as a bag limit that allows a maximum of 10 kelp bass per day to be taken or possessed by each licensed angler.

The MRFSS and CRFS has collected historical size and total estimated catch data for kelp bass from the private/rental boat, beach-and-bank, and man-made structure fishing methods, and historical size data from the CPFV fishery. Total estimated catch data for CPFVs are available from CPFV logbooks. MRFSS provided data from 1980 to 2003 (fig. 11, tab.7), with the exception of 1990–92, and CRFS has provided data from 2004 to the present (fig. 12, tab. 7). Survey methods are not comparable. MRFSS data and CPFV logbook data in aggregate show an overall decline in number of fish caught by recreational anglers since 1980 when an estimated 1,019,000 kelp bass were caught. CRFS and CPFV logbook data estimated that 256,000 kelp bass were caught by recreational anglers in 2008, a decrease of 16% from 2007. Shore-based fishing modes, which include beaches, banks, and man-made structures, comprised only 4% of the recreational kelp bass catch in 2008, while CPFVs and private/rental boats comprised the remaining 96%. From 1999 to 2008 MRFSS and CRFS samplers measured over 52,000 kelp bass with an average TL of 365 mm (14.4 in.). In 2008, average TL of approximately 4,800 kelp bass measured was 366 mm (14.4 in.), slightly less than the 373 mm (14.7 in.) average TL from approximately 4,200 fish in 2007.

CPFV logbook data are available from 1935 to the present, but kelp bass were not differentiated from the other "rock basses" until 1975. CPFV logbook data in-

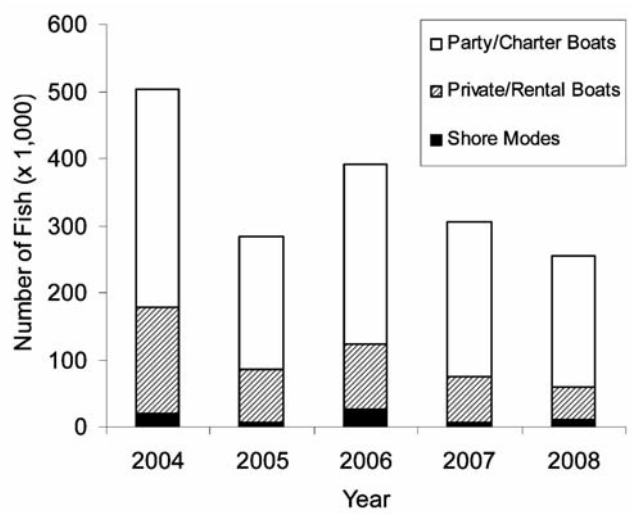


Figure 12. California recreational landings of kelp bass (*Paralabrax clathratus*) as reported in the California Recreational Fisheries Survey (CRFS) by three different fishing modes, 2004–08.

dicate annual kelp bass catches from 1980 to the present have fluctuated but have declined overall since 1992 (fig. 13). In general, the number of CPFV anglers on trips in which kelp bass were caught also declined, indicating that the average catch per angler has remained fairly consistent during that time period. The number of CPFV anglers participating in trips where kelp bass were caught peaked during the major El Niño event of 1997–98, and

TABLE 7
**California estimated annual kelp bass (*Paralabrax clathratus*) recreational catch in metric tons, 1980–2008.**

| Year | Metric Tons (mt) |
|---|---|
| 1980 | 726.4 |
| 1981 | 588.4 |
| 1982 | 308.5 |
| 1983 | 372.0 |
| 1984 | 407.1 |
| 1985 | 246.0 |
| 1986 | 567.6 |
| 1987 | 606.6 |
| 1988 | 564.5 |
| 1989 | 373.0 |
| 1993 | 562.0 |
| 1994 | 435.0 |
| 1995 | 354.2 |
| 1996 | 335.4 |
| 1997 | 363.6 |
| 1998 | 294.8 |
| 1999 | 192.8 |
| 2000 | 415.2 |
| 2001 | 389.0 |
| 2002 | 330.5 |
| 2003 | 378.4 |
| Values above and below are not comparable due to different survey methods | |
| 2004 | 325.4 |
| 2005 | 184.2 |
| 2006 | 261.8 |
| 2007 | 201.0 |
| 2008 | 162.6 |

Note: recreational data from MRFSS were unavailable from 1990-1992.

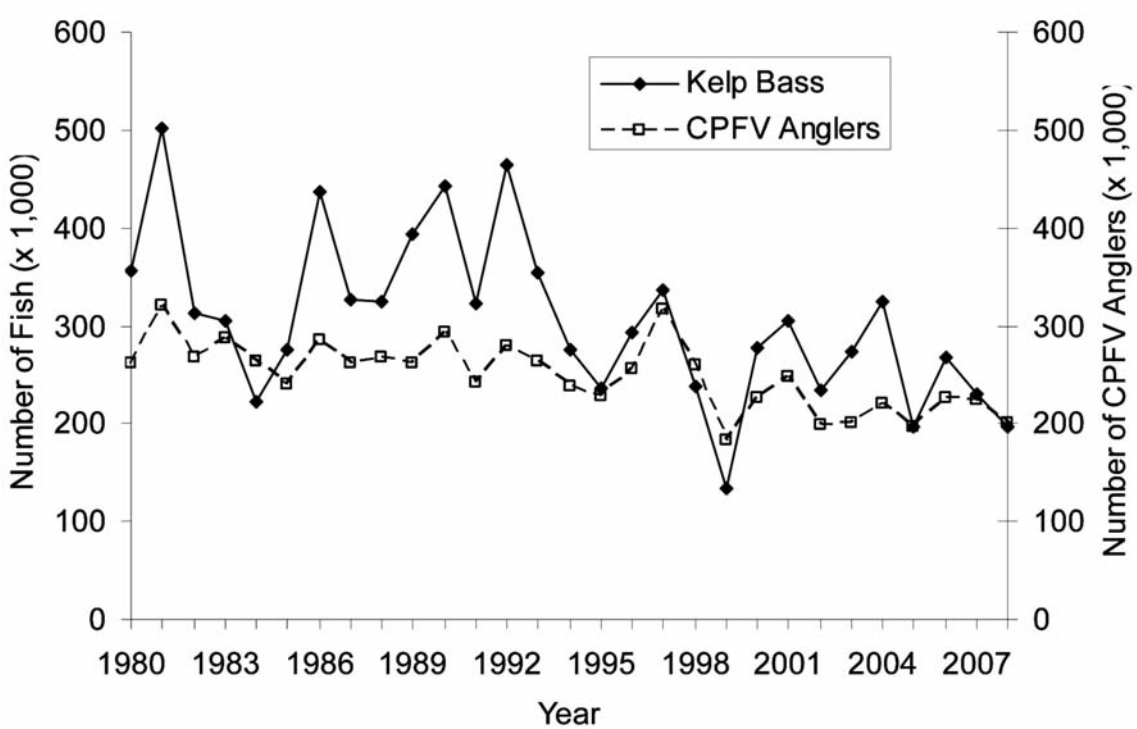


Figure 13. California recreational landings of kelp bass (*Paralabrax clathratus*) as reported in Commercial Passenger Fishing Vessel (CPFV) logbooks, 1980–2008.

TABLE 8
**Annual number of kelp bass (*Paralabrax clathratus*) caught by California commercial passenger fishing vessels (CPFVs) statewide by port for 2008 and 2007 and 10-year average (1999–2008).**

| | 2008 | | 2007 | | 10-Year Average (1999-2008) | |
|---|---|---|---|---|---|---|
| Port Name | No. Fish Caught | % Total | No. Fish Caught | % Total | No. Fish Caught | % Total |
| Oxnard/Channel Islands | 16,734 | 8.5 | 5,922 | 2.6 | 15,749 | 6.5 |
| Redondo Beach | 14,364 | 7.3 | 16,233 | 7.1 | 17,433 | 7.1 |
| San Pedro | 33,957 | 17.3 | 35,902 | 15.6 | 39,234 | 16.1 |
| Long Beach | 24,935 | 12.7 | 37,600 | 16.4 | 34,453 | 14.1 |
| Newport Beach | 17,541 | 8.9 | 20,391 | 8.9 | 22,494 | 9.2 |
| Balboa | 3,118 | 1.6 | 8,380 | 3.6 | 5,183 | 2.1 |
| Dana Point | 25,379 | 12.9 | 30,708 | 13.4 | 30,423 | 12.5 |
| Oceanside | 8,767 | 4.5 | 9,342 | 4.1 | 9,385 | 3.8 |
| Mission Bay | 17,230 | 8.8 | 28,494 | 12.4 | 30,755 | 12.6 |
| San Diego | 23,329 | 11.9 | 30,533 | 13.3 | 25,164 | 10.3 |
| Other | 11,043 | 5.6 | 6,334 | 2.8 | 13,677 | 5.6 |
| Total CPFV Catch | 196,397 | 100.0 | 229,839 | 100.0 | 243,950 | 100.0 |

Data Source: CFIS

TABLE 9
**Annual commercial landings (metric tons) and value (dollars) of common thresher shark (*Alopias vulpinus*) into California port complexes for 2007 and 2008 and ten year average (1999–2008).**

| | 2008 | | 2007 | | 10-Year Average (1999-2008) | |
|---|---|---|---|---|---|---|
| Area | Landings (t) | Value ($) | Landings (t) | Value ($) | Landings (t) | Value ($) |
| San Francisco | <0.1 | 50 | 0.9 | 810 | 0.4 | 546 |
| Monterey | 1.5 | 2,399 | 3.6 | 3,594 | 3.7 | 5,806 |
| Santa Barbara | 75.1 | 126,626 | 65.7 | 108,079 | 60.7 | 90,387 |
| Los Angeles | 21.7 | 40,625 | 56.2 | 86,498 | 65.8 | 100,247 |
| San Diego | 48.7 | 109,962 | 77.1 | 137,912 | 97 | 164,289 |
| Total Landings | 147 | 279,662 | 203.5 | 336,893 | 227.5 | 361,275 |

after a substantial decline during the next two years fluctuated with no trend. Since 1980, a peak of 502,000 kelp bass were caught by CPFV anglers in 1981 and a low of 133,000 were caught in 1999. From 2007 to 2008 a 15% decline in CPFV catch was observed.

Kelp bass have consistently ranked among the top ten species or species groups caught by southern California CPFV anglers during the past 20 years. In terms of number of fish caught in 2008, kelp bass ranked second, with rockfish as an aggregate ranking first (only some rockfish are required to be reported by species). On average, over the past 10 years, the port of San Pedro had the highest number of kelp bass caught by CPFVs (tab. 8). In 2008, 17% (33,957) of the kelp bass caught in California were brought into San Pedro. In 2007, however, Long Beach was the number one port for kelp bass catch with 16% (37,600). Other major ports for kelp bass include Dana Point, Mission Bay, San Diego, and Newport Beach.

## Thresher Shark

The common thresher shark (*Alopias vulpinus*) is the most common commercially-landed shark in California. The common thresher sharks are large pelagic sharks whose most defining characteristic is the enormous upper lobe of the tail, which can be up to half their TL, and is used to stun their prey. They can be differentiated from two other thresher sharks that occur in California, the bigeye thresher (*A. superciliosus*) and the pelagic thresher (*A. pelagicus*) by the white belly markings extending over the top of the large pectoral fins and a slight bronzy-green iridescence to the skin. Common thresher sharks have a world-wide distribution in temperate seas and are found in the Mediterranean Sea and the Atlantic, Pacific, and Indian Oceans. They tend to be most common over continental shelves, associated with areas of high productivity where concentrations of the small schooling organisms that make up most of their diet are found. Young threshers tend to remain within three miles of the coast in their early years and as they grow larger, range much farther offshore. Migratory patterns inferred by seasonal catches seem to indicate that adult threshers move north from Baja California in the spring, into the Southern California Bight, where "pupping" is thought to occur.

***Commercial Fishery.*** Although primarily targeted using large-mesh drift gillnets (73% of total) and hook-and-line gear (6%), thresher sharks are also caught incidentally with small mesh gillnets (21%) and occasionally by harpoon. Commercial landings declined 28% in 2008 to 147 t (round weight) from 204 t in 2007 (tab. 9). The ex-vessel value of thresher shark totaled $279,661 with