

Table 1. History of Council Actions

- The Council initiated development of the FMP for Northern anchovy in January of 1977. The FMP was submitted to the U.S. Secretary of Commerce (Secretary) in June of 1978. Regulations implementing the FMP were published in the Federal Register on September 13, 1978 (43FR40868). Subsequently, the Council has considered seven amendments.
- The first amendment changed the method of specifying the domestic annual harvest for Northern anchovy and added a requirement for an estimate of domestic processing capacity and expected annual level of domestic processing. Approval for this amendment was published in the Federal Register on July 18, 1979 (44FR41806).
- The second amendment, which became effective on February 5, 1982, was published in the Federal Register on January 6, 1982 (47FR629). The purpose of this amendment was to increase the domestic fishing fleet's opportunity to harvest the entire optimum yield (OY) of Northern anchovy from the U.S. EEZ by releasing, inseason, unutilized portions of the Northern quota.
- During the spring of 1982, the Council considered a third amendment that divided the quota for Northern anchovy into two halves and made release of the second half conditional on the results of a mid season review of the status of the stock. The methods proposed for the mid season assessment were considered too complex to implement, and the amendment was not approved.
- The fourth amendment, which had two parts, was published in the Federal Register on August 2, 1983 (48FR34963) and became effective on August 13, 1983. The first part abolished the five inch size limit in the commercial fishery and established a minimum mesh size of 5/8 inch for Northern anchovy. The mesh size requirement did not become effective until April 1986 in order to give the fleet additional time to comply without undue economic hardship. The second part established a mid season quota evaluation that was simpler in design than the method proposed in Amendment 3.
- The fifth amendment in 1983 incorporated advances in scientific information concerning the size and potential yield of the central subpopulation of Northern anchovy. In addition, the fifth amendment included changes to a variety of other management measures. Two or more alternative actions were considered in each of seven general categories; (1) OY and harvest quotas; (2) season closures; (3) area closures; (4) quota allocation between areas; (5) the reduction quota reserve; (6) minimum fish size or mesh size; and (7) foreign fishing and joint venture regulations. The alternatives for the fifth amendment were reviewed by the Council during 1983. The final rule was published in the Federal Register on March 14, 1984 (49FR9572).
- In 1990, the sixth amendment implemented a definition of overfishing for Northern anchovy consistent with National Standard 7, and addresses vessel safety (56FR15299, April 16, 1991).
- The Council began developing the seventh amendment as a new FMP for CPS on a motion from NMFS and California in 1990. A complete draft was available in November of 1993, but the Council suspended further work, because NMFS withdrew support due to budget constraints. In July of 1994, the Council decided to proceed with the plan through the public comment period. NMFS agreed with the decision on the condition that the Council also consider the options of dropping or amending the anchovy FMP.

Thus, four principal options were considered for managing CPS (1) drop the anchovy FMP (no federal or Council involvement in CPS); (2) continue with the existing FMP for anchovy (status quo); (3) amend the FMP for Northern anchovy; and (4) implement an FMP for the entire CPS fishery. In March of 1995, the Council decided to proceed with the FMP for CPS. Final action was postponed until June 1995 when the Council adopted a draft plan that had been revised to address comments provided by NMFS and the SSC. Amendment 7 was submitted to the Secretary, but rejected by NMFS, Southwest Region, as being inconsistent with National Standard 7. NMFS announced its intention to drop the FMP for Northern anchovy (in addition to FMP=s other species) in the Federal Register on March 26, 1996 (61FR13148), but the action was never completed.

- Development of Amendment 8 began in June, 1997 when the Council directed the CPSPDT to amend the FMP for Northern anchovy to conform to the recently revised Magnuson-Stevens Fishery Conservation and Management Act and to expand the scope of the FMP to include the entire CPS fishery. Amendment 8 was partially approved by the U.S. Secretary of Commerce on June 10, 1999, and final regulations were published on December 15, 1999 (64FR69888). The FMP was implemented on January 1, 2000.
- At its meeting in June 1999, the Council directed its Coastal Pelagic Species Management Team (CPSMT) to recommend appropriate revisions to the FMP and report to the Council the following September. A public meeting of the CPSMT was held in La Jolla, California, on August 3 and 4, 1999, and August 24, 1999, and a meeting was held between the CPSMT and the Coastal Pelagic Species Advisory Subpanel on August 24, 1999. At its September 1999 meeting, the Council gave further direction to the CPSMT regarding MSY for squid. At its March 2000 meeting, the Council asked the CPSMT for a more thorough analysis of the alternatives proposed for establishing MSY for squid and for bycatch. At a public meeting in La Jolla, California, on April 20 and 21, 2000, the CPSMT reviewed comments from the Council, the Council's Scientific and Statistical Committee (SSC) and prepared additional material for establishing MSY for squid based on spawning area.
- The Council distributed Amendment 9 for public review on July 27, 2000. At its September 2000 meeting, the Council reviewed written comments, received comments from its advisory bodies, and heard public comments, and decided to submit only two provisions for Secretarial review. Based on testimony concerning MSY for squid, the Council decided to include in Amendment 9 only the bycatch provision and a provision providing a framework to ensure that Indian fishing rights are implemented according to treaties between the U.S. and the specific tribes. Since implementation of the FMP, the CPS fishery has expanded to Oregon and Washington. As a result, the FMP must discuss Indian fishing rights in these areas. These rights were not included in the FMP; and the Council decided to address this issue in Amendment 9. The Council decided to conduct further analysis of the squid resource and will prepare a separate amendment that addresses OY and MSY for squid.
- The Secretary of Commerce approved Amendment 9 on March 22, 2001.
- In April 2001, the Council adopted the capacity goal and transferability provisions recommended by the CPSMT for inclusion in Amendment 10. The Council directed the CPSMT to develop an amendment to the CPS FMP that will include the capacity goal, provisions for permit transferability, a process for monitoring fleet capacity relative to the goal, and a framework for modifying transferability provisions as warranted by increases or decreases in fleet capacity. The amendment will also address determination of OY and MSY for market squid.

- In November 2001, the Council reviewed the findings of the market squid stock assessment review (STAR) workshop and endorsed the egg escapement approach as a proxy for squid MSY, as recommended by the market squid STAR Panel and CPSMT.
- In March 2002, the Council adopted draft Amendment 10 to the CPS FMP for public review.
- In June 2002, the Council adopted Amendment 10 to the CPS FMP.
- December 30, 2002, the Secretary of Commerce approved Amendment 10. On January 27, 2003 NMFS issued the final rule and regulations for implementing Amendment 10.
- September 2002, the Council requested NMFS take emergency action to reallocate the unharvested portion of the harvest guideline prior to October 1. The Council believed this action would minimize negative economic impacts in the northern fishery without causing market disruptions in the southern fishery. On September 26, 2002, through an emergency rule, NMFS reallocated the remaining Pacific sardine harvest guideline and reopened the northern subarea fishery, which had been closed on September 14, 2002.
- September 2002, the CPSAS recommended the Council initiate a regulatory or FMP amendment and direct the CPSMT to prepare management alternatives for revising the sardine allocation framework. The Council directed the CPSMT to review CPSAS recommendations for revising the allocation framework. A public meeting of the CPSMT was held on October 8, 2002. The CPSMT discussed information needs and prospective analyses for developing allocation management alternatives.
- On October 30, 2002, the Council initiated a regulatory amendment to address allocation problems.
- The CPSMT met January 30-31, 2003 to analyze various alternatives for revising the allocation framework and developed recommendations for Council consideration.
- At the March 2003 Council meeting, the SSC and CPSAS reviewed analyses of the proposed management alternatives for sardine allocation. Based on the advisory body recommendations and public comment, the Council adopted five allocation management alternatives for public review.
- At the April 2003 Council meeting, the CPSAS reviewed the five management alternatives and developed recommendations for the Council. The Council took final action on the regulatory amendment. The proposed action adopted by the Council would (1) change the definition of subarea A and subarea B by moving the geographic boundary between the two areas from 35° 40' N latitude to 39° N latitude, (2) move the date when Pacific sardine that remains unharvested is reallocated to Subarea A and Subarea B from October 1 to September 1, (3) change the percentage of the unharvested sardine that is reallocated to Subarea A and Subarea B from 50 percent to both subareas to 20 percent to Subarea A and 80 percent to Subarea B, and (4) reallocate all unharvested sardine that remains on December 1 coast wide. The Council's intent is for this interim revision to the allocation framework be in effect for the 2003 and 2004 seasons. The allocation regime could be extended to 2005 if the 2005 harvest guideline were at least 90% of the 2003 harvest guideline.

- The regulatory amendment for allocation of the Pacific sardine harvest guideline was approved on August 29, 2003. The final rule implementing the regulatory amendment was published September 4, 2003 (68FR52523).
- At the November 2003 Council meeting, the Council adopted a harvest guideline of 122,747 mt for the 2004 Pacific sardine fishery, within an incidental catch allowance of up to 45%. This harvest guideline is based on a biomass estimate of 1,090,587 mt. Per the revised allocation framework, on January 1, the harvest guideline will be allocated 33% to the northern subarea and 66% to the southern subarea, with a subarea dividing line at Point Arena, CA. . The final rule implementing the harvest guideline was published December 3, 2003 (68FR67638).
- At the June 2004 Council meeting, the Council adopted the following management measures for the July 2004-June 2005 Pacific mackerel fishery: 1) Total fishery harvest guideline of 13,268 mt; 2) Directed fishery guideline of 9,100 mt; and 3) Set-aside for incidental catches of 4,168 mt and an incidental catch rate limit of 40% when mackerel are landed with other CPS species, except that up to one mt of Pacific mackerel can be landed without landing any other CPS. The Council also requested NMFS track utilization of the directed fishery guideline and advise the Council at the March 2005 meeting if additional action (e.g. a mop-up fishery) is warranted. Additionally, the Council initiated an amendment to the CPS FMP with the primary purpose of allocating the coastwide Pacific sardine harvest guideline. The Council discussed a schedule that included final Council action on the FMP amendment by June 2005, which would enable implementation by January 2006. To facilitate development of the amendment, the Council directed the CPSAS to draft a range of alternative sardine allocation scenarios. The Council also directed the CPS Management Team to formally review the CPS FMP issues raised by NMFS to identify issues that could be addressed through amendment to the CPS FMP and if they could be addressed in the short-term or would require more extensive time to complete.
- At the September 2004 Council meeting, the Council adopted STAR Panel reports for Pacific mackerel and Pacific sardine. New assessment methodologies will be used for management of the 2005 sardine fishery and the 2005-2006 Pacific mackerel fishery. Relative to the CPS FMP amendment process, the Council requested the CPSAS to narrow the current broad range of Pacific Sardine allocation alternatives for Council consideration at the November 2004 meeting and Secondly, received information from the CPSMT about their consideration of several FMP-related issues raised by NMFS, and directed Council staff to communicate to NMFS the Council plans for further review of CPS EFH.
- At the November 2004 Council meeting, the Council adopted a harvest guideline of 136,179 mt for the 2005 Pacific sardine fishery. This harvest guideline is based on a biomass estimate of 1.2 million mt. Per the FMP allocation framework, on January 1 the harvest guideline will be allocated 33% to the northern subarea and 66% to the southern subarea with a subarea dividing line at Point Arena, California. Additionally, the Council directed the Coastal Pelagic Species (CPS) Management Team and staff to begin development of Amendment 11 to the CPS FMP to include alternatives for sardine allocation, as recommended by the CPSAS as well as two additional alternatives. The Council anticipates reviewing the draft analyses and considering formal adoption of allocation alternatives at the April 2005 Council meeting.

- At the March 2005 Council meeting, the Council reviewed a progress update from NMFS Southwest Region on a proposed course of action for management of krill in the West Coast Exclusive Economic Zone and National Marine Sanctuaries under the auspices of the Coastal Pelagic Species FMP. The Council approved a draft outline for an alternatives analysis.
- At the April 2005 Council meeting, the Council approved a range of alternatives for the allocation of Pacific sardine for further analysis and public review. After reviewing preliminary results on the range of alternatives approved for analysis in November 2004 and reports of the Coastal Pelagic Species (CPS) advisory bodies, the Council eliminated two alternatives (Alternatives 2 and 5) from further consideration. The Council recommended that the CPS Management Team follow the advice of the SSC as they complete the analysis of allocation alternatives for public review.
- At the June 2005 Council meeting, the Council addressed three CPS matters, pacific mackerel harvest guideline and management measures, long term Pacific sardine allocation and CPS essential fish habitat (EFH).

Regarding Pacific mackerel, the Council adopted the new assessment and the following management measures for the July 2005-June 2006 Pacific mackerel fishery: 1) total fishery harvest guideline of 17,419 mt; 2) directed fishery guideline of 13,419 mt; and 3) set-aside for incidental catches of 4,000 mt and an incidental catch rate limit of 40%, when mackerel are landed with other coastal pelagic species, except that up to one mt of Pacific mackerel can be landed without landing any other CPS. The Council requested NMFS track utilization of the directed fishery guideline and advise the Council at the March 2006 meeting if release of the incidental set-aside is warranted.

Regarding Pacific sardine allocation, the Council took final action on a long-term allocation of the annual Pacific sardine harvest guideline. The Council approved a modified version of Alternative 3, which provides the following allocation formula for the non-tribal share of the harvest guideline:

1. a seasonal allocation structure with 35% of the harvest guideline to be allocated coastwide on January 1;
2. 40% of the harvest guideline, plus any portion not harvested from the initial allocation, to be reallocated coastwide on July 1; and
3. on September 15 the remaining 25% of the harvest guideline, plus any portion not harvested from earlier allocations, to be reallocated coastwide.

The Council also recommended a review of the allocation formula in 2008.

The Council adopted the 2005 SAFE document as drafted by the CPS Management Team (CPSMT) including the required review of CPS EFH. The Council recommended no changes to the existing definition of EFH because the CPSMT review identified no new information on which to base EFH modifications. The Council agreed with the research needs identified by the CPSMT in the 2005 SAFE and stressed the importance of coastwide sardine research and harvest policy review.

- At the November 2005 Council meeting, the Council adopted a Pacific sardine harvest guideline of 118,937 mt for the 2006 season to be managed under the terms of the allocation arrangements under Amendment 11.

The Council also approved a range of krill fishing alternatives for public review and additional analysis, including a preliminary preferred alternative to identify krill as a prohibited species in the Exclusive Economic Zone. The proposed krill management measures will be implemented as Amendment 12 to the CPS FMP. At the June 2005 Council meeting, the Council addressed three CPS matters, pacific mackerel harvest guideline and management measures, long term Pacific sardine allocation and CPS essential fish habitat (EFH).

Table 2. Regulatory Actions

January 25, 2000. NMFS published harvest guidelines for Pacific sardine and Pacific mackerel for the fishing year beginning January 1, 2000. A harvest guideline of 186,791 mt was established for Pacific sardine, based on a biomass estimate of 1,581,346 mt. The harvest guideline was allocated for Subarea A, which is north of 35° 40' N latitude (Point Piedras Blancas) to the Canadian border, and for Subarea B, which is south of 35° 40' N latitude to the Mexican border. The northern allocation was 62,264 mt; the southern allocation was 124,527 mt. The sardine harvest guideline was in effect until December 31, 2000, or until it was reached and the fishery closed. A harvest guideline of 42,819 mt was established for Pacific mackerel based on a biomass estimate of 239,286 mt. The harvest guideline for Pacific mackerel was in effect until June 30, 2000, or until it was reached and the fishery closed. (65FR3890)

September 11, 2000. NMFS announced the annual harvest guideline for Pacific mackerel in the exclusive economic zone (EEZ) off the Pacific Coast. Based on the estimated biomass of 116,967 mt and the formula in the FMP, a harvest guideline of 20,740 mt was calculated for the fishery beginning on July 1, 2000. This harvest guideline is available for harvest for the fishing season July 1, 2000, through June 30, 2001. (65FR54817)

November 1, 2000. NMFS announced the closure of the directed fishery for Pacific mackerel in the EEZ off the Pacific Coast on October 27, 2000. The FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on a formula in the FMP and to close the fishery when the harvest guideline is reached. The harvest guideline of 20,740 mt is projected to be reached before the end of the fishing season on June 30, 2001, which requires closing the directed fishery and setting an incidental harvest limit for Pacific mackerel so that the harvest of other coastal pelagic species will not be further restricted. The intended effect of this action is to ensure conservation of the Pacific mackerel resource. For the reasons stated here and in accordance with the FMP and its implementing regulations at 50 CFR 660.509, the directed fishery for Pacific mackerel will be closed October 27, 2000, after which time no more than 20% by weight of any landing of Pacific sardine may be Pacific mackerel. (65FR65272)

November 17, 2000. NMFS published a correction to the Pacific mackerel closure which was published on November 1, 2000. In 65FR65272, make the following correction: On page 65272, in the third column, under the heading SUPPLEMENTARY INFORMATION, the last sentence is corrected to read as follows: "For the reasons stated here and in accordance with the FMP and its implementing regulations at 50 CFR 660.509, the directed fishery for Pacific mackerel will be closed October 27, 2000, after which time no more than 20% by weight of a landing of Pacific sardine, northern anchovy, jack mackerel, or market squid may consist of Pacific mackerel." (65FR69483)

December 27, 2000. NMFS announced the annual harvest guideline for Pacific sardine in the EEZ off the Pacific Coast for the January 1, 2001, through December 31, 2001, fishing season. This harvest guideline has been calculated according to the regulations implementing the FMP. The intended effect of this action is to establish allowable harvest levels for Pacific sardine off the Pacific Coast. Based on the estimated biomass of 1,182,465 mt and the formula in the FMP, a harvest guideline of 134,737 mt was calculated for the fishery beginning January 1, 2001. The harvest guideline is allocated one third for Subarea A, which is north of 35° 40' N latitude (Point Piedras Blancas) to the Canadian border, and two thirds for Subarea B, which is south of 35° 40' N latitude to the Mexican border. Any unused resource in either area will be reallocated between areas to help ensure that the optimum yield will be achieved. The northern allocation is 44,912 mt; the southern allocation is 89,825 mt. (65FR81766)

February 22, 2001. NMFS announced changes to the restriction on landings of Pacific mackerel for individuals participating in the CPS fishery and for individuals involved in other fisheries who harvest small amounts of Pacific mackerel. The incidental limit on landings of 20% by weight of

Pacific mackerel in landings of Pacific sardine, northern anchovy, jack mackerel, and market squid remains in effect; however, CPS fishermen may land up to 1 mt of Pacific mackerel even if they land no other species from the trip. Non CPS fisherman may land no more than 1 mt of Pacific mackerel per trip. After the harvest guideline of 20,740 mt is reached, all landings of Pacific mackerel will be restricted to 1 mt per trip. This action is authorized by the FMP and is intended to ensure that the fishery achieves, but does not exceed, the harvest guideline while minimizing the economic impact on small businesses. For the reasons stated here, no fishing vessel may land more than 1 mt of Pacific mackerel per fishing trip, except that fishing vessels with other CPS on board may land more than 1 mt of Pacific mackerel in a fishing trip if the total amount of Pacific mackerel on board the vessel does not exceed 20% by weight of the combined weight of all CPS on board the vessel. (66FR11119)

March 30, 2001. NMFS announced the closure of the fishery for Pacific mackerel in the EEZ off the Pacific Coast at 12:00 a.m. on March 27, 2001. The FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on a formula in the FMP and to close the fishery when the harvest guideline is reached. The harvest guideline of 20,740 mt has been reached. Following this date no more than 1 mt of Pacific mackerel may be landed from any fishing trip. The effect of this action is to ensure conservation of the Pacific mackerel resource. (66FR17373)

July 25, 2001. NMFS announced a harvest guideline of 13,837 mt for Pacific mackerel for the fishing season July 1, 2001 through June 30, 2002. A directed fishery of 6,000 mt was established, which, when attained, would be followed by an incidental allowance of 45% of Pacific mackerel in a landing of any coastal pelagic species. If a significant amount of the harvest guideline remained unused before the end of the fishing season on June 30, 2002, the directed fishery would be reopened. This approach was taken because of concern about the low harvest guideline's potential negative effect on the harvest of Pacific sardine if the fishery for Pacific mackerel had to be closed. The two species occur together often and could present incidental catch problems. (66FR38571)

November 27, 2001. NMFS announced the closure of the directed fishery for Pacific mackerel in the EEZ off the Pacific Coast at 12:00 noon on November 21, 2001. For the fishing season beginning July 1, 2001, 6,000 mt of the 13,837 mt harvest guideline was established for a directed fishery. More than 6,000 mt has been landed. Therefore, the directed fishery for Pacific mackerel was closed on November 21, 2001, after which time no more than 45% by weight of a landing of Pacific sardine, northern anchovy, jack mackerel, or market squid could consist of Pacific mackerel. The intended effect of this action was to ensure that the harvest guideline was achieved, but not exceeded, and to minimize bycatch of Pacific mackerel while other CPS were being harvested. (66FR59173)

December 27, 2001. NMFS published the harvest guideline for Pacific sardine for the fishing season beginning January 1, 2002. A harvest guideline of 118,442 mt was established for Pacific sardine based on a biomass estimate of 1,057,599 mt. The harvest guideline is allocated for Subarea A, which is north of 35° 40' N latitude (Point Piedras Blancas) to the Canadian border, and for Subarea B, which is south of 35° 40' N latitude to the Mexican border. The northern allocation is 39,481 mt; the southern allocation is 78,961mt. The sardine harvest guideline is in effect until December 31, 2002, or until it is reached and the fishery closed. (66FR66811)

April 5, 2002. NMFS announced the reopening of the directed fishery for Pacific mackerel in the U.S. EEZ off the Pacific Coast on April 1, 2002. A significant portion of the Pacific mackerel harvest guideline remains unharvested (6,585 mt). Therefore, the incidental catch allowance that has been in effect since November 21, 2001 is removed, and any landing of Pacific mackerel may consist of 100% Pacific mackerel. This action was taken to help ensure that the harvest guideline is attained. If the harvest guideline is projected to be reached before June 30, 2002, the directed fishery will be closed and an appropriate incidental landing restriction imposed. (67FR16322)

July 11, 2002. NMFS proposed a regulation to implement the annual harvest guideline for Pacific mackerel in the EEZ off the Pacific Coast. The CPS FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on the formula in the FMP. This action proposes allowable harvest levels for Pacific mackerel off the Pacific Coast. Based on the estimated biomass of 77,516 mt and the formula in the FMP, a harvest guideline of 12,456 is proposed for the fishery beginning on July 1, 2002, and continue through June 30, 2003, unless the harvest guideline is attained and the fishery closed before June 30. (67FR45952)

September 18, 2002. NMFS announced the closure of the fishery for Pacific sardine in the U.S. EEZ off the Pacific Coast north of Point Piedras Blancas, California, (35° 40' N latitude) at 0001 hrs local time on September 14, 2002. The closure will remain in effect until the reallocation of the remaining portion of the coast wide harvest guideline is required by the CPS FMP. That reallocation is expected to occur on or about October 1, 2002. The purpose of this action is to comply with the allocation procedures mandated by the FMP. (67FR58733)

September 26, 2002. Emergency rule. NMFS announced the reallocation of the remaining Pacific sardine harvest guideline in the U.S. EEZ off the Pacific Coast. The CPS FMP requires that NMFS conduct a review of the fishery 9 months after the beginning of the fishing season on January 1, and reallocate any unharvested portion of the harvest guideline, with 50% allocated north and south of Point Piedras Blancas, California. The allocation north of Point Piedras Blancas was reached on September 14, 2002, and the fishery was closed until the scheduled time for reallocation on October 1, 2002. This action reallocates the remainder of the harvest guideline earlier than the date specified in the FMP in order to minimize the negative economic effects on fishing and processing, primarily in the Pacific Northwest, that would result from delaying the reallocation. (67FR60601)

October 3, 2002. NMFS issued a regulation to implement the annual harvest guideline for Pacific mackerel in the EEZ off the Pacific Coast. The CPS FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on the formula in the FMP. This action is to conserve Pacific mackerel off the Pacific Coast. Based on the estimated biomass of 77,516 mt and the formula in the FMP, a harvest guideline of 12,456 is proposed for the fishery beginning on July 1, 2002, and continue through June 30, 2003, unless the harvest guideline is attained and the fishery closed before June 30. There will be a directed fishery of at least 9,500 mt, and 3,035 mt of the harvest guideline will be utilized for incidental landings following the closure of the directed fishery. After closure of the directed fishery, no more than 40% by weight of a landing of Pacific sardine, northern anchovy, jack mackerel, or market squid may consist of Pacific mackerel, except that up to 1 mt of Pacific mackerel may be landed without landing any other CPS. The fishery will be monitored, and if a sufficient amount of the harvest guideline remains before June 30, 2003, the directed fishery will be reopened. The goal is to achieve the harvest guideline and minimize the impact on other coastal pelagic fisheries. (67FR61994)

October 30, 2002. NMFS proposed a regulation to implement Amendment 10 to the CPS FMP, which was submitted by the Council for review and approval by the Secretary of Commerce. Amendment 10 addresses the two unrelated subjects of the transferability of limited entry permits and maximum sustainable yield for market squid. Only the provisions regarding limited entry permits require regulatory action. The purpose of this proposed rule is to establish the procedures by which limited entry permits can be transferred to other vessels and/or individuals so that the holders of the permits have maximum flexibility in their fishing operations while the goals of the FMP are achieved. (67FR66103)

November 25, 2002. NMFS proposed a regulation to implement the annual harvest guideline for Pacific sardine in the U.S. EEZ off the Pacific Coast for the fishing season January 1, 2003, through December 31, 2003. This harvest guideline has been calculated according to the CPS

FMP and establishes allowable harvest levels for Pacific sardine off the Pacific Coast. Based on the estimated biomass of 999,871 mt and the formula in the FMP, a harvest guideline of 110,908 mt was determined for the fishery beginning January 1, 2003. The harvest guideline is allocated one third for Subarea A, which is north of 35° 40' N latitude (Point Piedras Blancas) to the Canadian border, and two thirds for Subarea B, which is south of 35° 40' N latitude to the Mexican border. The northern allocation is 36,969 mt; the southern allocation is 73,939 mt. (67FR70573)

December 31, 2002. NMFS issued a regulation to implement the annual harvest guideline for Pacific sardine in the U.S. EEZ off the Pacific Coast for the fishing season January 1, 2003, through December 31, 2003. This harvest guideline has been calculated according to the CPS FMP and establishes allowable harvest levels for Pacific sardine off the Pacific Coast. Based on the estimated biomass of 999,871 mt and the formula in the FMP, a harvest guideline of 110,908 mt was determined for the fishery beginning January 1, 2003. The harvest guideline is allocated one third for Subarea A, which is north of 35° 40' N latitude (Point Piedras Blancas, California) to the Canadian border, and two thirds for Subarea B, which is south of 35° 40' North latitude to Mexican border. The northern allocation is 36,969 mt; the southern allocation is 73,939 mt. If an allocation or the harvest guideline is reached, up to 45% by weight of Pacific sardine may be landed in any landing of Pacific mackerel, jack mackerel, northern anchovy, or market squid. (67FR79889).

January 27, 2003. NMFS issued a regulation to implement Amendment 10 to the CPS FMP, which was submitted by the Council for review and approval by the Secretary of Commerce. Amendment 10 addresses the two unrelated subjects of the transferability of limited entry permits and maximum sustainable yield for market squid. Only the provisions regarding limited entry permits require regulatory action. The primary purpose of this final rule is to establish the procedures by which limited entry permits can be transferred to other vessels and/or individuals so that the holders of the permits have maximum flexibility in their fishing operations while the goals of the FMP are achieved. (68FR3819)

June 26, 2003. NMFS proposed a regulatory amendment to the CPS FMP. This amendment was submitted by the Council for review and approval by the Secretary. The proposed amendment would change the management subareas and the allocation process for Pacific sardine. The purpose of this proposed amendment is to establish a more effective and efficient allocation process for Pacific sardine and increase the possibility of achieving OY. (68FR37995)

July 29, 2003. NMFS proposed a regulation to implement the annual harvest guideline for Pacific mackerel in the EEZ off the Pacific coast. The CPS FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on the formula in the FMP. (68FR44518)

September 4, 2003. NMFS issued a final rule to implement a regulatory amendment to the CPS FMP that changed the management subareas and the allocation process for Pacific sardine. The purpose of this final rule was to establish a more effective and efficient allocation process for Pacific sardine and increase the possibility of achieving OY. (68FR52523)

September 9, 2003. NMFS announced the reallocation of the remaining Pacific sardine harvest guideline in the EEZ off the Pacific Coast. On September 1, 2003, 59,508 mt of the 110,908 mt harvest guideline is expected to remain unharvested. The CPS FMP requires that a review of the fishery be conducted and any uncaught portion of the harvest guideline remaining unharvested in Subarea A (north of Pt. Arena, California) and Subarea B (south of Pt. Arena, California) be added together and reallocated, with 20 percent allocated to Subarea A and 80 percent to Subarea B; therefore, 11,902 mt is allocated to Subarea A and 47,600 mt is allocated to Subarea B. The intended effect of this action is to ensure that a sufficient amount of the resource is available to all harvesters on the Pacific Coast and to achieve OY. (68FR53053)

October 3, 2003. NMFS issued a final rule to implement the annual harvest guideline for the July 1, 2003 - June 30, 2004 Pacific mackerel fishery in the EEZ off the Pacific coast. The CPS FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on the formula in the FMP. Based on this approach, the biomass for July 1, 2003, is 68,924 mt. Applying the formula in the FMP results in a harvest guideline of 10,652 mt, which is lower than last year but similar to low harvest guidelines of recent years. (68FR57379)

October 28, 2003. NMFS announced the closure of the fishery for Pacific sardine in the EEZ off the Pacific Coast north of Pt. Arena, California (39° N latitude) at 12:01 a.m. local time on October 17, 2003. The purpose of this action is to comply with the allocation procedures mandated by the CPS FMP. (68FR61373)

December 3, 2003. NMFS proposed a regulation to implement the annual harvest guideline for Pacific sardine in the U.S. EEZ off the Pacific coast for the fishing season January 1, 2004, through December 31, 2004. This harvest guideline was calculated according to the regulations implementing the CPS FMP and established allowable harvest levels for Pacific sardine off the Pacific coast. (68FR67638)

February 25, 2004. NMFS issued a regulation to implement the annual harvest guideline for Pacific sardine in the U.S. EEZ off the Pacific coast for the fishing season January 1, 2004, through December 31, 2004. This action adopts a harvest guideline and initial subarea allocations for Pacific sardine off the Pacific coast that have been calculated according to the regulations implementing the CPS FMP. Based on a biomass estimate of 1,090,587 mt (in U.S. and Mexican waters), using the FMP formula, the harvest guideline for Pacific sardine in U.S. waters for January 1, 2004, through December 31, 2004 is 122,747 mt. The biomass estimate is slightly higher than last year's estimate; however, the difference between this year's biomass is not statistically significant from the biomass estimates of recent years. Under the FMP, the harvest guideline is allocated one third for Subarea A, which is north of 39° N latitude (Pt. Arena, California) to the Canadian border, and two thirds for Subarea B, which is south of 39° N latitude to the Mexican border. Under this final rule, the northern allocation for 2004 would be 40,916 mt and the southern allocation would be 81,831 mt. (69FR8572). July 20, 2004. NMFS proposed a regulation to implement the annual harvest guideline for Pacific mackerel in the EEZ off the Pacific coast for the fishing season July 1, 2004, through June 30, 2005. The CPS FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on the formula in the FMP. This action proposes allowable harvest levels for Pacific mackerel off the Pacific coast. (69 FR 43383)

September 14, 2004. Information memorandum. NMFS announced the reallocation of the remaining Pacific sardine harvest guideline in the U.S. EEZ off the Pacific Coast. A regulatory amendment (69 FR 8572, February 25, 2003) requires that NMFS conduct a review of the fishery 10 months after the beginning of the fishing season on January 1, and reallocate any unharvested portion of the harvest guideline, with 20% allocated north of Point Area, California, and 80% allocated south of Point Area, California. (69 FR 55360)

October 21, 2004. NMFS issued a final rule to implement the annual harvest guideline for the July 1, 2004 - June 30, 2005 Pacific mackerel fishery in the EEZ off the Pacific coast. The CPS FMP and its implementing regulations require NMFS to set an annual harvest guideline for Pacific mackerel based on the formula in the FMP. Based on this approach, the biomass for July 1, 2003, is 81,383 mt. Applying the formula in the FMP results in a harvest guideline of 13,268 mt. (69 FR 61768)

December 8, 2004. NMFS proposed a regulation to implement the annual harvest guideline for Pacific sardine in the U.S. EEZ off the Pacific coast for the fishing season January 1, 2005,

through December 31, 2005. This harvest guideline was calculated according to the regulations implementing the CPS FMP and established allowable harvest levels for Pacific sardine off the Pacific coast. (69 *FR* 70973)

June 22, 2005. NMFS issues a regulation to implement the annual harvest guideline for Pacific sardine in the U.S. exclusive economic zone off the Pacific coast for the fishing season January 1, 2005, through December 31, 2005. This harvest guideline was calculated according to the regulations implementing the CPS FMP and established allowable harvest levels for Pacific sardine off the Pacific coast. Based on a biomass estimate of 1,193,515 metric tons (mt)(in U.S. and Mexican waters) and using the FMP formula, NMFS calculated a harvest guideline of 136,179 mt for Pacific sardine in U.S. waters. Under the FMP, the harvest guideline is allocated one-third for Subarea A, which is north of 39°00' N. lat. (Pt. Arena, California) to the Canadian border, and two-thirds for Subarea B, which is south of 39° 00' N. lat. to the Mexican border. Under this final rule, the northern allocation for 2005 would be 45,393 mt, and the southern allocation would be 90,786 mt. (70 *FR* 36053)

August 29, 2005. NMFS proposes a regulation to implement the annual harvest guideline for Pacific mackerel in the U.S. exclusive economic zone (EEZ) off the Pacific coast. For specific regulations, see final rule language from October 21, 2005 below. (70 *FR* 51005)

October 21, 2005. NMFS issues a final rule to implement the annual harvest guideline for Pacific mackerel in the U.S. exclusive economic zone (EEZ) off the Pacific coast. The biomass estimate for July 1, 2005, would be 101,147 metric tons (mt). Applying the formula in the FMP results in a harvest guideline of 17,419 mt, which is 32 percent greater than last year but similar to low harvest guidelines of recent years. For the last three years, the fishing industry has recommended dividing the harvest guideline into a directed fishery and an incidental fishery, reserving a portion of the harvest guideline for incidental harvest in the Pacific sardine fishery so that the Pacific sardine fishery is not hindered by a prohibition on the harvest of Pacific mackerel. At its meeting on June 15, 2005, the Subpanel recommended for the 2005–2006 fishing season that a directed fishery of 13,419 mt and an incidental fishery of 4,000 mt be implemented. An incidental allowance of 40 percent of Pacific mackerel in landings of any CPS would become effective if the 13,419 mt of the directed fishery is harvested. The Subpanel also recommended to allow up to 1 mt of Pacific mackerel to be landed during the incidental fishery without the requirement to land any other CPS. (70 *FR* 61235)

October 28, 2005. NMFS announces that the Pacific Fishery Management Council (Council) has submitted Amendment 11 to the Coastal Pelagic Species Fishery Management Plan (FMP) for Secretarial review. Amendment 11 would change the framework for the annual apportionment of the Pacific sardine harvest guideline along the U.S. Pacific coast. The purpose of Amendment 11 is to achieve optimal utilization of the Pacific sardine resource and equitable allocation of the harvest opportunity for Pacific sardine. The public comment period on Amendment 11 was open through December 27, 2005.. (70 *FR* 62087)

Table 3. Coastal pelagic species limited entry permit vessel listing, with U.S. Coast Guard registered measurements and calculated gross tonnage (GT) values for each vessel. (Page 1 of 2)

Vessel Name	Coast Guard Number	Year Built	Vessel Age	Registered Measurements (ft) ¹			Calculated Vessel GT ²	Permit No.	Permit GT Endorsement	Permit Transfer Allowance
				Length	Breadth	Depth				
Misty Moon	D578511	1976	29	49.60	19.00	10.10	63.8	1	63.8	70.2
Paloma	D280452	1960	45	47.40	16.50	8.30	43.5	2	43.5	47.9
St. George II	D238969	1939	66	71.40	21.20	9.70	98.4	3	98.4	108.2
Barbara H	D643518	1981	24	64.90	24.00	11.60	121.1	4	121.1	133.2
San Antonio	D236947	1937	68	72.10	19.50	8.70	82.0	5	82.0	90.2
<i>Permit No Longer Exists</i>	---	---	---	---	---	---	---	6	---	---
San Pedro Pride	D549506	1973	32	79.60	24.50	12.30	160.7	7	160.7	176.8
Ferrigno Boy	D602455	1978	27	69.60	23.70	12.60	139.3	8	139.3	153.2
King Phillip	D1061827	1997	8	79.00	26.00	11.40	156.9	9	156.9	172.6
Sea Wave	D951443	1989	16	78.00	22.00	18.00	206.9	10	206.9	227.6
Mary Louise	D247128	1944	61	58.30	18.00	8.00	56.2	11	56.2	61.8
Bainbridge	D236505	1937	68	78.60	22.70	9.60	114.8	12	114.8	126.3
Pioneer	D246212	1944	61	77.80	24.30	11.20	141.9	13	141.9	156.1
Maria	D236760	1937	68	70.70	20.50	9.20	89.3	14	89.3	98.2
St. Joseph	D633570	1981	24	62.90	22.00	9.10	84.4	15	84.4	92.8
<i>Permit No Longer Exists</i>	---	---	---	---	---	---	---	16	---	---
Retriever	D582022	1977	28	54.20	19.60	8.70	61.9	17	61.9	68.1
Atlantis	D649333	1982	23	49.60	19.00	10.10	63.8	18	63.8	70.2
G. Nazzareno	D246518	1944	61	78.00	22.70	10.50	124.6	19	124.6	137.1
Sea Queen	D582167	1974	31	68.40	22.00	11.10	111.9	20	111.9	123.1
Pacific Leader	D643138	1981	24	59.50	21.00	9.20	77.0	21	77.0	84.7
Chovie Clipper	D524626	1970	35	51.10	18.00	10.30	63.5	22	63.5	69.9
Pacific Journey ⁴	OR661ZK	2001	4	64.30	22.01	10.30	97.7	23	97.7	107.5
Ocean Angle I	D584336	1977	28	49.60	19.00	10.10	63.8	24	63.8	70.2
Maria T	D509632	1967	38	57.30	18.10	9.80	68.1	25	68.1	74.9
Manana	D253321	1947	58	40.10	13.20	6.70	23.8	26	23.8	26.2
Miss Juli ⁵	---	---	---	---	---	---	---	27	55.5	61.1
Mineo Bros.	D939449	1989	16	58.00	21.00	9.00	73.4	28	73.4	80.7
Sea Queen	D583781	1977	28	49.00	16.00	8.00	42.0	29	42.0	46.2
Little Joe II	D531019	1971	34	50.10	16.00	7.60	40.8	30	40.8	44.9
Caitlin Ann	D960836	1990	15	98.00	33.00	15.70	340.2	31	340.2	374.2
Eldorado	D690849	1985	20	56.00	17.00	8.60	54.9	32	54.9	60.4
Kristen Gail	D618791	1980	25	87.00	26.00	12.80	194.0	33	194.0	213.4
Fiore D'Mare	D550564	1973	32	71.50	23.00	11.40	125.6	34	125.6	138.2
Endurance	D613302	1979	26	49.00	16.00	8.00	42.0	35	42.0	46.2
New Sunbeam	D284470	1961	44	50.30	20.00	4.00	27.0	36	27.0	29.7
Calogera A	D984694	1992	13	57.75	21.00	10.50	85.3	37	85.3	93.8
Eileen	D252749	1947	58	79.40	22.10	10.20	119.9	38	119.9	131.9
Pamela Rose	D693271	1985	20	54.00	19.00	9.00	61.9	39	61.9	68.1
New Stella	D598813	1978	27	58.00	22.00	8.40	71.8	40	71.8	79.0
Traveler	D661936	1983	22	56.00	17.00	6.90	44.0	41	44.0	48.4
Lucky Star	D295673	1964	41	49.90	17.00	7.30	41.5	42	41.5	45.7
Ocean Angel II	D622522	1980	25	74.50	28.00	10.70	149.5	43	149.5	164.5
Crystal Sea ⁷	D1061917	1997	8	66.00	26.00	12.00	138.0	44	138.0	151.8
Trionfo	D625449	1980	25	63.80	19.30	9.60	79.2	45	79.2	87.1
Corva May ⁶	D615795	1979	26	49.60	19.00	10.10	63.8	46	85.0	93.5
Heavy Duty	D655523	1983	22	58.00	21.30	10.20	84.4	47	84.4	92.8
Aliotti Bros	D685870	1985	20	67.60	26.00	9.10	107.2	48	107.2	117.9
Lady J	D647528	1982	23	50.30	17.00	7.10	40.7	49	40.7	44.8
Anna S	D253402	1947	58	50.80	16.20	9.10	50.2	50	50.2	55.2
Endeavor	D971540	1990	15	57.40	19.00	9.90	72.3	51	72.3	79.5

Table 3. Coastal pelagic species limited entry permit vessel listing, with U.S. Coast Guard registered measurements and calculated gross tonnage (GT) values for each vessel. (Page 2 of 2)

Vessel Name	Coast Guard Number	Year Built	Vessel Age	Registered Measurements (ft) ¹			Calculated Vessel GT ²	Permit No.	Permit GT Endorsement	Permit Transfer Allowance
				Length	Breadth	Depth				
Antoinette W	D606156	1978	27	45.40	16.00	7.60	7.0	52	37.0	40.7
Donna B	D648720	1982	23	73.20	25.00	12.90	158.2	53	158.2	174.0
Papa George	D549243	1973	32	72.00	22.80	11.50	126.5	54	126.5	139.2
Mercurio Bros	D650376	1982	23	42.00	16.70	8.60	40.4	55	40.4	44.4
Kathy Jeanne	D507798	1967	38	65.90	22.20	8.80	86.3	56	86.3	94.4
Merva W	D532023	1971	34	56.70	17.90	8.00	54.4	57	54.4	59.8
Santa Maria	D236806	1937	68	79.20	19.50	8.80	91.1	58	91.1	100.2
Buccaneer	D592177	1978	27	62.10	19.90	9.00	74.5	59	74.5	82.0
Midnight Hour	D276920	1958	47	61.10	18.00	8.60	63.4	60	63.4	69.7
Nancy B II	D542513	1972	33	56.40	18.00	8.80	59.9	61	59.9	65.9
Miss Kristina	D580843	1977	28	50.00	16.00	7.40	39.7	62	39.7	43.7
Emerald Sea	D626289	1980	25	62.70	26.00	7.90	86.3	63	86.3	94.9
Connie Marie/8	---	---	---	---	---	---	---	64	54.5	60.0
Theresa Marie	D629721	1980	25	40.90	14.70	6.60	26.4	65	26.4	29.0

/1 Vessel dimension information was obtained from the Coast Guard Website at: <http://psix.uscg.mil/>

/2 Vessel Gross Tonnage GT=0.67(Length*Breadth*Depth)/100. See 46 CFR 69.209.

/3 Maximum transfer allowance is based on permit GT + 10%.

/4 Pacific Journey was built in Canada and is not currently registered with the U.S. Coast Guard. Measurements by marine surveyor Det Norske Veritas.

/5 Miss Juli sank in 2001 and is pending replacement.

/6 Permit #46 was transferred to Corva May after the Jenny Lynn sank in 2003.

/7 Permit #44 formerly registered as Mellow Boy was sold and the name changed to Crystal Sea. The permit was transferred to new owner on 01/17/2005.

/8 Connie Marie sank in 2002 and is pending replacement.

Table 4. Vessel age and calculated gross tonnage (GT) for the initial and current limited entry fleet.

	Initial Fleet	Current Fleet
Number of Vessels	65	61
Average Vessel Age	35 years	33 years
Range of Ages	12 to 66 years	4 to 68 years
Average GT	71.3	88.7
Range of GT	12.8 to 206.9	23.8 to 340.2
Sum of Fleet GT	4,635.9	5,408.4
Capacity Goal (GT) ¹	---	5,650.9
Transferability Trigger	---	5,933.5

/1 Established in Amendment 10 to the CPS FMP.

Table 5. Preliminary catch summary for vessels targeting Pacific sardine from NMFS-SWR coastal pelagic species pilot observer program. Page 1 of 2.

Target species - Pacific sardine					
Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Sardine	1495 mt		80 mt	100 lbs	100 lbs
Anchovy		9 mt	82	1300 lbs	
Bat Ray		1	143	14	1
Bat Star			5		
CA Barracuda		2	1	3	
CA Halibut		9		4	
Giant Sea Bass			2		
Jacksmelt		1			
Jack Mackerel		2 mt			
Midshipman			1	13	1
Moon Jelly		1			
Pacific Bonito		10 lbs			
Pacific Butterfish		3			
Pacific Electric Ray			2		
Pacific Mackerel		1 mt	100 lbs		
Pacific Tomcod		1			
Pompano		167			
Queenfish		49			
Sanddab			25 lbs	10 lbs	
Scorpionfish		1			1
Sculpin				1	3
Shovelnose Guitarfish			1		
Spanish Mackerel		100 lbs			
Squid		1 mt	2 mt		
Starry Flounder			2		
Stingray		2			
Thornback Ray			2		
Unid. Crab			1		1
Unid. Croaker		40			
Unid. Flatfish		78	8	130	12
Unid. Jellyfish		3	3		
Unid. Mackerel		8 mt	12 mt		
Unid. Octopus					2
Unid. Ray					2
Unid. Rockfish		2	1		
Unid. Seastar			41	135	1
Unid. Scorpionfish/Sculpin					1
Unid. Shark				2	
Unid. Skate				3	

Table 5. Preliminary catch summary for vessels targeting Pacific sardine from NMFS-SWR coastal pelagic species pilot observer program. Page 2 of 2.

Target species - Pacific sardine					
Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Unid. Smelt		2			
Unid. Surf Perch		1			
Unid. Turbot				60	
White Croaker		31 lbs	50 lbs		
Yellowfin Croaker		10 lbs			
CA Sea Lion			49		
Harbor Seal			1		
Unid. Gull			3	2	4

Table 6. Preliminary catch summary for vessels targeting market squid from NMFS-SWR coastal pelagic species pilot observer program.

Target species - Squid					
Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Squid	1274 mt		28 mt	350 lbs	2 mt
Anchovy		100 lbs	120 lbs		
Jack Mackerel		2 mt	18 lbs	2 lbs	
Pacific Mackerel		20 mt	20 mt	180 lbs	1 lb
Sardine		12 mt	13 mt	1077 lbs	3 lbs
Spanish Mackerel		20 lbs			
Bat Ray			53		1
Bat Star			1		
Blue Shark			2		
Common Mola			1		
Pelagic Stingray			60		
Pacific Butterfish		19			1
Sunstar		30	4		
Squid Eggs					505 lbs
Lobster			3		
Brittle Star				3000	
Unid. Batfish				2 lbs	
Unid. Crab		1	1		93
Unid. Croaker		3	2	16 lbs	
Unid. Flatfish		1	1	6	2
Unid. Jellyfish		4			
Unid. Mackerel		2 lbs	102 lbs		
Unid. Octopus		1			
Unid. Rockfish		1	1	4	
Unid. Ray			4		1
Unid. Sanddab		4	3		4
Unid. Seastar		1			
Unid. Seaslugs					21
Unid. Scorpionfish		1			
Unid. Surfperch				3	
Unid. Skate		3		1	
Unid. Smelt		49			
Unid. Stingray		9	17		
Unid. Shark					1
Thresher Shark		1			
CA Sea Lion			98		
Harbor Seal			3		
Common Dolphin				1	
Unid. Gull			16	1	

Table 7. Preliminary catch summary for vessels targeting Pacific mackerel from NMFS-SWR coastal pelagic species pilot observer program.

Target species - Pacific mackerel					
Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Pacific Mackerel	40 mt	16 mt			
Bat Ray			2		
CA Yellowtail			1		
Midshipman			1		
Sardine					
Sea Cucumber			5		
Unid. Crab			1		
Unid. Flatfish					3
Unid. Jellyfish					3
Unid. Shark					1

Table 8. Preliminary catch summary for vessels targeting northern anchovy and northern anchovy/Pacific sardine from NMFS-SWR coastal pelagic species pilot observer program.

Target species - Anchovy and Anchovy/Sardine							
Species	Target Catch	Incidental Catch	Bycatch Returned				
			Alive	Dead	Unknown		
Anchovy	373 mt	21 mt	2 mt	1 mt			
Sardine			2 mt				
Bat Ray			4				
CA Lizardfish			4				
Kelp Bass			1				
Midshipman						5	
Pacific Bonito					20 lbs		
Pacific Mackerel			2				
Queenfish			50 lbs		11 lbs		
Round Stingray					1		
Sculpin			2				
Spiny Dogfish					1		
Unid. Croaker			20		45		
Unid. Flatfish			10				
Unid. Hake			4				
Unid. Seastar					1		
Unid. Smelt			2				
Unid. Turbot					1	1	20
White Croaker			50 lbs		35 lbs		
Yellowfin Croaker			50 lbs		10 lbs		
CA Sea Lion					5		
Sea Otter					1		

Table 9. Number of commercial landings sampled per year by the CDFG port sampling program, 1985-2005.

Year	Pacific Sardine Landings	Pacific Mackerel Landings	Landings Observed
2005	171	102	231
2004	168	68	212
2003	151	74	194
2002	185	92	251
2001	143	82	198
2000	110	85	182
1999	157	70	189
1998	97	97	200
1997	113	116	184
1996	96	85	645
1995	254	215	1276
1994	119	116	779
1993	85	183	625
1992	231	111	370
1991	169	185	618
1990	100	195	705
1989	149	279	1089
1988	190	385	937
1987	128	290	1023
1986	105	283	999

Table 10. Incidental catch from landings sampled by the CDFG port sampling program, 1992-1999. (Information represents occurrence of incidental catch, not numbers or weights of fish.)

Yr	Anchovy	Jack-smelt	Herring	White Croaker	M. Squid	Ling-cod	Pac Mack	Y-tail	Jack Mack	Y-fin Tuna	Skip-jack Tuna	Total
99	5	1	1									7
98	3		2	1	4							10
97	1		1		44							46
96	8			1	22	1						32
95	5		1		71		1	1	1			80
94			1									1
93												--
92					1					1	1	3

Table 11. Percent frequency of bycatch in observed incidents of CPS finfish, by port, 2001-2005. (Page 1 of 3).

Common Name	All Ports					San Pedro					Monterey/Moss Landing*		
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2003	2004	2005
Finfish													
Anchovy, northern	4.4	3.8	3.7	7.4	6.1	4.4	3.8	4.1	4.2	5.8	2.1	32.6	18.2
Barracuda, California	2.2	0.6		0.5	0.4	2.2	0.6		0.6	0.4			
Bass, barred sand	0.9	1.5	1.1	1.1	1.1	0.9	1.5	1.4	1.2	1.2			
Bass, kelp	0.9	0.6	1.1		1.1	0.9	0.6	1.4		1.2			
Bonito, Pacific	0.4	0.3				0.4	0.3			0.0			
Butterfish, Pacific (Pompano)	2.6	3.2	2.8	4.7	5.5	2.6	3.2	2.7	5.1	5.2	3.1	2.3	18.2
Corbina, California		1.5					1.5						
Combfish, longspine			0.2										
Croaker, white (kingfish)			7.8	6.9	0.2			7.4	5.7	0.2	9.4	16.3	
Croaker, yellowfin		0.3					0.3	0.0	0.0	0.0			
Cusk-eel	1.7	2.6	1.1	1.3	4.7	1.7	2.6	1.4	1.5	4.8			
Eel, yellow snake		0.3	0.2				0.3	0.3					
Eel, wolf			0.2								1.0		
Fish, unspecified			0.9					1.1					
Flatfish, unspecified	14.4	8.5	2.2	1.8	0.2	14.4	8.5	2.7	2.1	0.2			
Flounder, starry			0.4	0.3							2.1	2.3	
Flyingfish	0.4	0.6	0.4	0.3	0.6	0.4	0.6	0.5	0.3	0.6			
Grunion, California				0.3	0.0							2.3	
Halibut, California	3.5	1.8	6.9	4.2	7.6	3.5	1.8	7.1	4.8	7.7	6.3		
Herring, Pacific			0.4								2.1		
Jacksmelt		0.9	1.1	0.8	1.5		0.9	0.3	0.6	1.0	4.2	2.3	27.3
Lizardfish, California	2.6	2.6	0.9	2.1	5.7	2.6	2.6	1.1	2.4	5.8			
Midshipman, plainfin		3.8					3.8						
Midshipman, specklefin			0.4	1.3				0.5	1.5				
Midshipman, unspecified	5.7		3.5	2.1	0.6	5.7		4.4	2.4	0.6			
Pipefish, kelp			0.2	1.1	0.6			0.3	1.2	0.6			
Sablefish	1.3					1.3							
Sanddab, Pacific			0.2								1.0		
Sanddab, unspecified		0.3	3.0	4.0	2.1		0.3	2.2	3.9	1.9	6.3	4.7	9.1
Scorpionfish, California	11.4	7.6	8.0	10.0	8.7	11.4	7.6	9.9	11.3	8.9	1.0		
Sculpin, staghorn			0.4								2.1		
Sculpin, pithead			0.2	1.3	0.2				0.3	0.2	1.0	9.3	
Seabass, giant (black)		0.3					0.3						
Senorita	0.4	0.3				0.4	0.3						
Shad, American													
Smelt, whitebait			0.7								3.1		
Sole, curlfin			0.2					0.3					
Sole, fantail		0.3	0.0				0.3						
Sole, Sand			2.2	0.3							10.4	2.3	
Sole, unspecified			0.2								1.0		
Surfperch, pink		0.6					0.6						
Surfperch, unspecified		0.3					0.3						
Sturgeon, unsp.			0.2								1.0		
Surfperch, walleye				0.3								2.3	
Surfperch, Unspecified			0.4		0.0						2.1		
Tonguefish	1.3	0.9	0.9	2.1	1.9	1.3	0.9	1.1	2.4	1.9			
Topsmelt		0.3					0.3						
Turbot, curlfin		0.3					0.3						
Turbot, diamond		0.3					0.3						
Turbot, hornyhead		0.9	3.5	4.0	6.1		0.9	4.4	4.5	6.2			

Table 11. Percent frequency of bycatch in observed incidents of CPS finfish, by port, 2001-2005. (Page 2 of 3).

Common Name	All Ports					San Pedro					Monterey/Moss Landing*		
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2003	2004	2005
Turbot, unspecified			0.7		1.1			0.3		1.2	2.1		
Whitefish, ocean		0.3					0.3						
Total Percent Frequency Fish Incidents	54.1	45.3	56.4	58.0	55.9	54.1	45.3	55.1	55.7	55.5	61.5	76.7	72.7
Elasmobranchs													
Guitarfish, shovelnose		0.3	2.0		1.5		0.3	2.5		1.5			
Ray, Bat		5.8	7.8	7.4	6.3		5.8	9.3	7.1	6.4	2.1	9.3	
Ray, California butterfly			0.3		0.2			0.3		0.2			
Ray, Pacific electric	0.9	0.9	0.4	0.3		0.9	0.9		0.3		2.1		
Ray, Unspecified			0.2					0.3					
Shark, brown smoothhound		0.3	0.0				0.3						
Shark, gray smoothhound		0.3	0.2				0.3				1.0		
Shark, horn	1.7					1.7							
Shark, Pacific angel		0.3					0.3						
Shark, shortfin mako			0.4								2.1		
Shark, spiny dogfish				0.3								2.3	
Shark, swell	0.4					0.4							
Shark, Unspecified	0.9	0.3				0.9	0.3						
Skate, Big			0.4								2.1		
Skate, California			0.2								1.0		
Skate, longnose			0.4	0.8				0.5	0.9				
Skate, thornback	1.7	1.5	3.7	2.4	3.6	1.7	1.5	3.6	2.7	3.7	4.2		
Skate, Unspecified	1.7	0.6	0.4			1.7	0.6				2.1		
Stingray, round	0.4	0.3	1.1	0.3	1.5	0.4	0.3	1.4	0.3	1.5			
Total Percent Frequency Elasmobranch Incidents	7.9	10.8	17.4	11.3	13.1	7.9	10.8	17.5	11.3	13.3	16.7	11.6	0.0
Invertebrates and Plants													
Crab shells		0.3	0.2	0.8			0.3	0.3	0.9				
Crab, decorator			0.2								1.0		
Crab, Dungeness			1.1								5.2		
Crab, elbow			0.2					0.3					
Crab, pelagic red		1.8					1.8						
Crab, sheep			0.2					0.3					
Crab, slender			0.4								2.1		
Crab, unspecified Rock	3.1	0.9	0.9	1.3	0.2	3.1	0.9	0.8	1.5	0.2	1.0		
Eelgrass		0.9	0.9	1.1	1.5		0.9	1.1	1.2	1.5			
Gorgonians		0.3					0.3						
Jellies		0.3	1.1	1.3	2.3		0.3	0.5	0.3	2.3	3.1	9.3	
Kelp	24.0	19.6	10.4	15.3	15.0	24.0	19.6	12.6	17.3	14.9	2.1		18.2
Lobster, California spiny	1.3	0.9				1.3	0.9						
Octopus, unspecified		0.9					0.9						
Pleurobranch		0.3					0.3						
Prawn, spot		0.3					0.3						
Salps		5.6	0.7	0.5	0.2		5.6	0.8	0.6	0.2			
Sea cucumber	0.9	0.9	0.9	0.3	0.6	0.9	0.9	1.1	0.3	0.6			
Sea pansies			0.2		0.2			0.3	0.0	0.2			
Sea star	0.9	0.6	2.2	0.3	0.8	0.9	0.6	1.9	0.3	0.8	3.1		
Shrimp, black-spotted bay			0.4		0.2			0.5	0.0	0.2			
Snail, Unspecified	0.4					0.4							
Squid Egg Cases	0.4	0.3	0.2	0.5		0.4	0.3		0.6		1.0		

Table 11. Percent frequency of bycatch in observed incidents of CPS finfish, by port, 2001-2005. (Page 3 of 3).

Common Name	All Ports					San Pedro					Monterey/Moss Landing*		
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2003	2004	2005
Squid, market	7.0	10.2	6.1	9.2	10.2	7.0	10.2	6.8	10.1	10.3	3.1	2.3	9.1
Total Percent Frequency Invert/Plant Incidents	38.0	43.9	26.2	30.6	31.1	38.0	43.9	27.4	33.0	31.1	21.9	11.6	27.3
Total All Incidents	229	342	461	379	528	229	342	365	336	517	96	43	11
Total Observed Landings	195	203	200	205	199	195	203	167	180	199	27	33	25

Table 12a. Market squid incidental catch for 2001 - 2005. Incidental catch includes species landed with market squid and recorded on landing receipts (round haul gear).

Species name	2001		2002		2003		2004		2005	
	Number of Landings	Tons	Number of Landings	Tons	Number of Landings	Tons	Number of Landings	Tons	Number of Landings	Tons
Pacific sardine	62	778.2	127	1,601.6	109	1,447.9	122	1,525.7	179	1,076.9
Northern anchovy	25	693.6	19	342.6	8	91.9	17	616.1	31	1,042.9
Pacific mackerel	35	152.5	37	71.2	16	163.2	23	143.1	187	571.5
Jack Mackerel	15	51.2	15	16.5	14	33.6	19	38.8	19	21.0
Jacksmelt	1	0.2			1	1.9			2	0.2
Yellowtail	1	>0.1								
Surfperch					1	0.1				
Kelpfish							1	2.2		
Bonito							1	0.01	1	1.3
Pacific herring									2	34.0
White seabass									1	>0.1

Table 12b. Percent frequency of bycatch in observed loads of California market squid by port, 2001-2005 (Page 1 of 4).

Common Name	Total All Ports					San Pedro					Santa Barbara/Ventura/Pt. Hueneme					Monterey/Moss Landing				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Finfish																				
Anchovy, northern	8.0	4.8	4.4	5.8	5.7	7.9	5.9	4.2	4.1	5.9	9.6		5.8	7.4	3.8	4.9	3.8	3.2	5.8	6.5
Baracuda, California	1.9		0.2		0.3	1.7		0.2			3.0									0.7
Bass, barred sand	0.3		0.2			0.6		0.2												
Blacksmith			0.5					0.5												
Bonito, Pacific			0.2					0.2												
Butterfish, Pacific (Pompano)	3.2	4.1	3.3	1.6	0.5	0.6	3.9	1.7	2	0.7	5.9		4.2			4.9	5.1	4.1	1.2	0.7
Cabezon	1.1	0.4	0.2			1.7	0.7	0.2			0.7						0.6			
Combfish, longspine				0.7					0.7											
Croaker, queenfish	0.3		0.5					0.5			0.7									
Croaker, white (kingfish)		0.7	0.5	0.6			2	0.5											0.6	
Croaker, unspecified				0.7					0.7											
Cusk-eel				0.7					0.7											
Eel, wolf				1.2															1.2	
Fish, unspecified		0.9					2.6													
Flatfish, unspecified				0.7					0.7											
Flounder, starry				1.2															1.2	
Flyingfish	0.3		0.7					0.7			0.7									
Greenling, painted			0.2	0.7				0.2	0.7											
Halibut, California	0.3		0.9					1			0.7							0.9		
Herring, Pacific		0.4	0.9	1.8	0.5												1.3	0.9	1.8	1.3
Herring, round			0.2	0				0.2	0											
Jack mackerel	8.6	5.2	8.1	7.5	6.5	13.6	5.9	10.5	8.2	10.5	1.5		4.2	7.4		9.8	6.4	9.6	7	5.9
Jacksmelt	0.3	2.6	4	7.7	3.1			0.7	0.7	0.7						1.6	7.7	7.3	14.6	7.2
Lizardfish, California			0.5	0.7				0.5	0.7											
Mackerel, Pacific	14.7	8.9	9.9	13.8	21.0	15.8	13.1	10.3	10.9	25.7	16.3	0.1	15.8	25.9	41.3	8.2	1.3	3.7	4.7	5.9
Midshipman, plainfin		0.2					0.7													
Midshipman, unspecified	0.5		0.7	1.2	0.5	1.1		0.5	0.7					1.3				0.9	1.8	0.7
Medusa fish			0.5															0.5		
Poacher, unspecified			0.2					0.2												
Pomfret, Pacific	1.3					0.6					3.0									
Rockfish, blue			0.5		0.3					0.7								0.5		

Table 12b. Percent frequency of bycatch in observed loads of California market squid by port, 2001-2005 (Page 2 of 4).

Common Name	Total All Ports					San Pedro					Santa Barbara/Ventura/Pt. Hueneme					Monterey/Moss Landing				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Rockfish, bocaccio	0.3	0.4	0.8	0.7				0.7	0.7						1.6	1.3	0.9			
Rockfish, chilipepper				1.8	0.3														1.8	0.7
Rockfish, olive			0.2					0.2												
Rockfish, shortbelly			0.5															0.5		
Rockfish, unspecified		0.2	0.4					0.2								0.6	0.5			
Roughback Sculpin				0.7					0.7											
Salema			1.4															1.4		
Salmon, chinook		1.3	0.5	0.6												3.8	0.5	0.6		
Salmon, unspecified			0.5															0.5		
Sanddab, longfin			0.7	0.7				0.7	0.7											
Sanddab, Pacific		0.2	1.3	1.6	2.1			1.7	2	1.3						0.6	0.9	1.2	3.3	
Sanddab, speckled			0.4	0.7				0.2	0.7									0.5		
Sanddab, unspecified	0.5	2.2	4.4	3	0.5		0.7	3.7	0.7			0.1	6.7		3.3	0.6	2.7	5.3	1.3	
Sardine, Pacific	24.9	26	24.2	24.8	21.6	22.6	32.7	18.1	21.1	23.7	36.3	0.3	42.5	44.4	25.0	6.6	12.2	11.9	8.8	17.6
Saury, Pacific		0.4	0.8					0.2								1.3	1.4			
Scorpionfish, California	0.8	0.9	3.2	1.4	0.8	1.7	2.6	3.2	1.4	2.0										
Sculpin, staghorn					0.3					0.7										
Sculpin, unspecified			1.4															1.4		
Silversides(jack-or top smelt)					0.3					0.7										
Smelt, night			0.5															0.5		
Smelt, true			0.2					0.2												
Smelt, unspecified			0.2					0.2												
Sole, bigmouth		0.2	0.2				0.7	0.2												
Sole, curlfin			0.2					0.2												
Sole, English		0.2	0.6					0.2								0.6	0.9			
Sole, fantail			0.5					0.5												
Sole, sand	0.3		0.9	0.6							0.7							0.9		
Sole, Petrale																				
Sole, unspecified	1.6	0.4	0.8	3.7			0.7				4.4		0.8	3.7					0.6	
Sunfish, ocean			0.5															0.5		
Surfperch, kelp			0.2					0.2												
Surfperch, pink		0.2	0.2				0.7	0.2												
Surfperch, shiner				2					2											

Table 12b. Percent frequency of bycatch in observed loads of California market squid by port, 2001-2005 (Page 3 of 4).

Common Name	Total All Ports					San Pedro					Santa Barbara/Ventura/Pt. Hueneme					Monterey/Moss Landing				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Surfperch, unspecified		0.2	0.4					0.2								0.7	0.5			
Topsmelt			0.2	3.7	0.3			0.2					3.7	1.3						
Thornyhead, unspecified			0.2					0.2												
Triggerfish		0.2					0.7													
Turbot, curlfin		0.2	0.6				0.7	0.2									0.9			
Turbot, diamond		0.2	0.2				0.7	0.2												
Turbot, hornyhead		0.2	1	0.7	0.3		0.7	1	0.7											0.7
Turbot, unspecified		0.2	3.7	0.7	0.3				0.7								0.6	3.7		0.7
Total Percent Frequency Fish Incidents	69.2	62.0	89.3	94.0	64.9	67.8	75.7	65.8	62.2	72.4	83.7	0.5	80.0	92.5	73.8	41.0	48.5	62.6	58.2	52.9
Elasmobranchs																				
Guitarfish, shovelnose		0.2					0.7													
Ray, bat	4.8	1.5	1.2	1.3	2.1	4.5	2	1.5	1.4	3.3	6.7		0.8	3.8	1.6	1.9	1.4			
Ray, Pacific electric		1.7		6.4	3.9											5.1		1.2	9.8	
Ray, thornback			0.5					0.5										6.4		
Ray, unspecified	0.3	0.2	0.2			0.6		0.2								0.6				
Shark, horn		0.4	0.7		0.3		0.7	0.5		0.7			0.8							
Shark, Pacific angel			0.2					0.2												
Shark, spiny dogfish																				
Skate, California																				
Skate, thornback																				
Skate, unspecified	0.3				0.3						0.7									0.7
Stingray, round		0.4	0.7	3.4			0.7	0.5	3.4				0.8							
Total Percent Frequency Elasmobranch Incidents	5.4	4.4	3.5	11.1	6.5	5.1	4.1	3.4	4.8	3.9	7.4	0.0	2.4	0.0	3.8	1.6	7.6	1.4	7.6	10.5
Invertebrates and Plants																				
Barnacle		0.2					0.7													
Cnidaria (Sea Anenomes)	7.8	0.2	3					0.5							47.5	0.6	5.5			
Crab shells			0.7					0.7												
Crab, box	0.3		0.2			0.6		0.2												

Table 12b. Percent frequency of bycatch in observed loads of California market squid by port, 2001-2005 (Page 4 of 4).

Common Name	Total All Ports					San Pedro					Santa Barbara/Ventura/Pt. Hueneme					Monterey/Moss Landing					
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	
Crab, decorator			0.2					0.2													
Crab, Dungeness		2.2	5	1.2					0.7							6.4	5				
Crab, elbow																			1.8		
Crab, hermit			0.2					0.2													
Crab, pelagic red	2.4	0.2				5.1	0.7														
Crab, purple globe			0.5					0.5													
Crab, sheep			0.7		0.3			0.7		0.7											
Crab, rock unspecified	0.8	0.4	0.5		0.3	1.7	1.3	0.5		0.7											
Eelgrass			1.5	5.4	0.8			1.5	5.4	2.0											
Gorgonians				0.7					0.7												
Invertebrates, colonial		15.2						0.7								44.2					
Jellies			7.1	15.8	2.6			0.5						1.3			13.7			5.9	
Kelp	9.4	15.4	10.7	8.9	17.4	18.6	21	13.9	13.6	18.4	1.5	0.1	14.2	3.7	13.8	14.1	4.1	15.8	18.3		
Lobster, California spiny	0.3				0.3					0.7	0.7										
Mussels		0.2						0.7													
Octopus, unspecified			0.7					0.7											9.4		
Salps	0.3		0.2	2.7				0.2	2.7		0.7										
Sea cucumber			1.5					1.5													
Sea star	0.3	0.9	1.1	1.9	0.5	0.6	2	1	0.7	1.3			0.8	3.7				1.4			
Squid Egg Cases	0.8	8	4.9	5.1	1.6	0.6	3.3	5.4	8.8				2.5	0		3.3	18.6	6.8	1.2	3.9	
Squid, jumbo	3.2		0.2	0.7	4.9			0.2	0.7		5.9			7.5	6.6			6.4	8.5		
Tunicates			0.5					0.5													
Urchin, purple			0.7					0.7													
Total Percent Frequency Invert/Plant Incidents	25.5	42.9	40.1	42.4	28.6	27.1	30.4	29.6	33.3	23.7	8.9	0.1	17.5	7.4	22.5	57.4	83.9	36.5	34.6	36.6	
Total Observed Landings	554	461	395	160	178	210	153	192	86	100	224	156	117	32	42	120	152	86	42	36	

Table 13. Expanded salmonid bycatch in Pacific sardine fisheries in Oregon and Washington, 2000-2005.

	Chinook (live)	Chinook (dead)	Coho (live)	Coho (dead)	Pink (live)	Unid (live)	Unid (dead)	Total (live)	Total (dead)	Grand Total
2005										
Oregon								411	176	587
Washington ^{1/}	47	156	29	178				76	334	410
2004										
Oregon								518	305	823
Washington	35	225	19	105	0	39	0	93	330	423
2003										
Oregon								315	185	500
Washington	92	262	81	231	0	173	0	346	493	839
2002										
Oregon								199	81	280
Washington	150	356	61	765	0	200	0	411	1211	1532
2001										
Oregon	45	45	201	134	22	45	0	313	179	492
Washington	449	170	571	504	0	80	0	1100	674	1774
2000										
Oregon	43	72	159	43	0	303	43	505	158	663
Washington	38	3	276	116	0	7	0	321	119	440

1/ 2005 Washington totals calculated from observed 2000-2004 observed bycatch rates

Table 14. Observed and reported catches of non-target species caught in Oregon sardine fishery, 2005.

Species	Logbook data (87% coverage)	Observer data (1% coverage)
	# Caught	# Caught
Blue shark	4	2
Thresher shark	9	1
dogfish shark	1	
unknown shark	4	1
Salmonids	541 (70% alive; 30% dead)	29 (62% alive; 38% dead)
Mackerel	397,390 lb	mixed in - not quantified
Anchovy	62,400 lb	2 tows released
Hake		20 lb
Sanddab		10 lb
Sunfish	1	1
Black Rockfish		1
Jelly fish		present
Pigeon Guillemot (bird)		1

Table 15. List of reported logbook catches of non-targeted species caught in the 2005 Washington sardine fishery (non-expanded numbers of individuals).

Species	Logbook Data	
	Released Alive	Dead
Chinook salmon	34	24
Coho salmon	41	33
Lingcod	1	0
Mola mola	2	0
Pacific Halibut	1	0
Pink salmon	0	1
Pollack	1	0
Rockfish (sp)	0	1
Shark (unid)	1	0
Sockeye salmon	0	1
Whiting	400	20

Table 16. Species noted as encountered on CDFG Live Bait Logs, 1996-2005.

Year	Days Fished	Grunion	Smelts	Barracuda	Herring	Stickle-back	Shiner Surfperch	Sea Star	Jellyfish	Queenfish	Market Squid	Pacific Bonito
2005	1,045			27					1		1	6
2004	1,059			13						1	1	8
2003	1,123			23							2	
2002	1,105			1						1		
2001	1,052	1		56								
2000	488	1		34								
1999	449		1	7	1							
1998	809			69	1		1					
1997	773			104			3	1				
1996	522		5	27	3	1						

Table 17. Estimates of Pacific sardine and Northern anchovy live bait harvest in California (mt). Data for 1939-1992 from Thomson et al. (1994), and 1993-2005 from CDFG logs.

Year	Anchovy	Sardine	Year	Anchovy	Sardine
1939	1,364	0	1972	5,307	0
1940	1,820	0	1973	5,639	0
1941	1,435	0	1974	5,126	0
1942	234	0	1975	5,577	0
1943	World War II	World War II	1976	6,202	0
1944	World War II	World War II	1977	6,410	0
1945	World War II	World War II	1978	6,013	107
1946	2,493	0	1979	5,364	0
1947	2,589	0	1980	4,921	12
1948	3,379	0	1981	4,698	6
1949	2,542	0	1982	6,978	38
1950	3,469	0	1983	4,187	193
1951	4,665	0	1984	4,397	53
1952	6,178	0	1985	3,775	11
1953	5,798	0	1986	3,956	17
1954	6,066	0	1987	3,572	216
1955	5,557	0	1988	4,189	50
1956	5,744	0	1989	4,594	100
1957	3,729	0	1990	4,842	543
1958	3,843	0	1991	5,039	272
1959	4,297	0	1992	2,572	1,807
1960	4,225	0	1993	669	176
1961	5,364	0	1994	2,076	1,506
1962	5,595	0	1995	1,278	2,055
1963	4,030	0	1996	703	1,801
1964	4,709	0	1997	1,077	2,344
1965	5,645	0	1998	304	2,037
1966	6,144	0	1999	453	2,411
1967	4,898	0	2000	834	1,270
1968	6,644	0	2001	1,238	1,245
1969	4,891	0	2002	965	1,701
1970	5,543	0	2003	1,085	3,028
1971	5,794	0	2004	192	3,900
			2005	1,464	2,949

Table 18. Ratio of anchovy to sardine in reported live bait catch in California, 1994-2005. Values are in metric tons with the assumption that 1 scoop =12.5 lbs.

Year	Anchovy	Sardine	Total	Proportion Anchovy	Proportion Sardine
2005	1,464	2,949	4,413	0.33	0.67
2004	192	3,900	4,092	0.05	0.95
2003	1,085	3,028	4,113	0.26	0.74
2002	965	1,701	2,666	0.36	0.64
2001	1,238	1,245	2,483	0.50	0.50
2000	834	1,270	2,104	0.40	0.60
1999	453	2,411	2,864	0.16	0.84
1998	304	2,037	2,341	0.13	0.87
1997	1,077	2,344	3,420	0.31	0.69
1996	703	1,801	2,504	0.28	0.72
1995	1,278	2,055	3,333	0.38	0.62
1994	2,076	1,506	3,582	0.58	0.42

Table 19. Commercial harvest (metric tons) of CPS finfish in Ensenada, Baja California, Mexico, for calendar years 1978-2004^{1,2,3/}. Data from December 2003 onward were not available from INP. Market squid are not commercially fished off Baja California.

Year	Pacific sardine	Northern anchovy	Pacific mackerel	Jack mackerel
1978	0	135,036	0	n/a
1979	0	192,476	0	n/a
1980	0	242,907	0	n/a
1981	0	258,745	0	n/a
1982	0	174,634	0	n/a
1983	274	87,429	135	n/a
1984	0	102,931	128	n/a
1985	3,722	117,192	2,582	n/a
1986	243	93,547	4,883	n/a
1987	2,432	124,482	2,082	n/a
1988	2,035	79,495	4,484	902
1989	6,224	81,811	13,687	0
1990	11,375	99	35,767	25
1991	31,392	831	17,500	30
1992	34,568	2,324	24,345	n/a
1993	32,045	284	7,741	n/a
1994	20,877	875	13,319	85
1995	35,396	17,772	4,821	0
1996	39,065	4,168	5,604	47
1997	68,439	1,823	12,477	78
1998	47,812	972	50,726	480
1999	58,569	3,482	10,168	781
2000	67,845	1,562	7,182	0
2001	46,071	76	4,078	0
2002	46,845	0	7,962	0
2003	41,342	1,287	2,678	0
2004	41,897	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

1/ CPS finfish landings through 2002 were taken from the report: García F. W. and Sánchez R. F. J. 2003. Análisis de la pesquería de pelágicos menores de la costa occidental de Baja California durante la temporada del 2002. Boletín Anual 2003. Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación. Instituto Nacional de la Pesca. Centro Regional de Investigación Pesquera de Ensenada, Cámara Nacional de la Industria Pesquera y Acuicola, Delegación Baja California. 15 p.

2/ Anchovy and mackerel landings for 2003 were provided by Dr. Celia Eva-Cotero, CRIP Instituto Nacional de la Pesca, Ensenada (pers. comm.), and include landings made from Jan-Nov of that year.

3/ Sardine landings for 2000-2004 were compiled by Jesús Garcia Esquivel (SEMARNAP–Ensenada), transmitted by Dr. Timothy Baumgartner (CICESE–Ensenada), and include estimates of sardine delivered directly to tuna rearing pens in northern Baja California.

Table 20. Pacific sardine population numbers at age (millions), spawning stock biomass (SSB, mt), and age 1+ biomass (mt) at the beginning of each biological year, 1982-83 to 2005-06 (July-June) (Hill et al. 2005). ‘Model SSB’ is based on maturity-at-age and fishery weights-at-age and is used in ASAP to estimate stock-recruitment. ‘Population SSB’ and ‘Age 1+ biomass’ were calculated using population weights-at-age. Total landings (Canada+USA+Ensenada) by biological year are also provided. Recruitment is shown as population numbers at age-0. Age 1+ biomass as of July 2005 (**bold**) served as the basis for setting a harvest guideline for the U.S. fishery in calendar year 2006.

Biological year	--- Population Numbers-at-age (millions) ---						Model SSB	Population SSB	Age 1+ Biomass	Total Landings
	0	1	2	3	4	5+				
1982-83	169	15	9	5	3	2	7,246	5,473	4,680	487
1983-84	321	112	9	5	3	3	14,871	12,496	14,904	372
1984-85	457	214	73	6	3	4	34,686	28,279	35,138	3,571
1985-86	504	296	133	44	4	5	56,213	47,517	58,868	1,838
1986-87	1,216	336	195	84	28	6	85,527	75,915	83,202	2,667
1987-88	1,329	810	220	124	54	22	143,450	120,318	150,063	5,887
1988-89	2,383	885	528	136	79	50	214,310	187,013	214,092	4,795
1989-90	2,329	1,591	584	340	89	86	349,300	273,909	337,541	15,322
1990-91	2,821	1,540	1,029	369	219	115	409,240	367,603	430,119	20,602
1991-92	4,741	1,861	990	644	236	219	463,370	465,191	525,168	35,022
1992-93	3,774	3,073	1,149	605	405	298	441,710	579,719	710,205	74,214
1993-94	6,857	2,340	1,694	618	350	444	464,730	661,919	733,519	31,540
1994-95	9,457	4,457	1,449	1,039	390	522	598,180	859,955	1,007,344	66,295
1995-96	6,512	6,058	2,646	848	637	595	741,050	1,102,002	1,371,383	62,677
1996-97	5,370	4,222	3,716	1,606	532	807	975,310	1,276,872	1,486,348	65,968
1997-98	6,372	3,494	2,618	2,283	1,016	882	928,060	1,306,901	1,460,963	131,380
1998-99	6,571	3,976	1,942	1,423	1,332	1,209	757,010	1,217,091	1,379,803	113,901
1999-00	4,654	4,053	2,139	1,018	810	1,606	584,550	1,144,594	1,329,681	119,258
2000-01	3,415	2,804	2,039	1,039	551	1,525	686,100	995,543	1,130,737	121,295
2001-02	6,500	2,103	1,490	1,034	563	1,269	668,820	870,016	933,416	125,612
2002-03	2,907	3,982	1,097	734	542	1,088	631,000	799,575	982,860	141,775
2003-04	10,042	1,790	2,093	535	372	920	661,010	791,832	810,115	106,550
2004-05	3,943	6,394	1,036	1,124	284	727	648,240	888,489	1,179,103	140,977
2005-06	4,131	2,479	3,563	526	564	545	677,500	931,483	1,061,391	135,762

Table 21. Annual U.S. Pacific sardine landings and harvest guidelines (metric tons) by state and management subarea, 1981-2005.

Year	California			California Total	Management Subarea ^{1,2\} Landings			Harvest Guidelines by Subarea ^{1,2\}				
	So. Calif.	Cen. Calif.	No. of 39°N		Oregon	Washington	Southern	Northern	Total	Southern	Northern	Total
1981	34.4	0.0	0.0	34.4	0.0	0.0	34.4	0.0	34.4	n/a	n/a	n/a
1982	1.8	0.0	0.0	1.8	0.0	0.0	1.8	0.0	1.8	n/a	n/a	n/a
1983	0.6	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.6	n/a	n/a	n/a
1984	0.9	0.3	0.0	1.2	0.0	0.0	0.9	0.3	1.2	n/a	n/a	n/a
1985	3.7	2.2	0.0	5.9	0.0	0.0	3.7	2.2	5.9	n/a	n/a	n/a
1986	304.0	84.4	0.0	388.4	0.0	0.0	304.0	84.4	388.4	n/a	n/a	n/a
1987	391.6	47.8	0.0	439.4	0.0	0.0	391.6	47.8	439.4	n/a	n/a	n/a
1988	1,185.4	3.0	0.0	1,188.4	0.0	0.0	1,185.4	3.0	1,188.4	n/a	n/a	n/a
1989	598.7	238.0	0.0	836.7	0.0	0.0	598.7	238.0	836.7	n/a	n/a	n/a
1990	1,537.1	127.1	0.0	1,664.2	0.0	0.0	1,537.1	127.1	1,664.2	n/a	n/a	n/a
1991	6,601.4	985.9	0.0	7,587.3	0.0	0.0	6,601.4	985.9	7,587.3	n/a	n/a	n/a
1992	14,821.9	3,127.6	0.0	17,949.5	4.0	0.0	14,821.9	3,131.6	17,953.5	n/a	n/a	n/a
1993	14,669.6	675.6	0.0	15,345.2	0.2	0.0	14,669.6	675.8	15,345.4	n/a	n/a	n/a
1994	9,348.5	2,295.0	5.0	11,643.5	0.0	0.0	9,348.5	2,295.0	11,643.5	n/a	n/a	n/a
1995	34,645.7	5,681.2	2.0	40,326.9	0.0	0.0	34,645.7	5,681.2	40,326.9	n/a	n/a	n/a
1996	24,565.0	7,988.1	0.5	32,553.1	0.0	0.0	24,565.0	7,988.1	32,553.1	n/a	n/a	n/a
1997	29,885.4	13,359.7	0.0	43,245.1	0.0	0.0	29,885.4	13,359.7	43,245.1	n/a	n/a	n/a
1998	32,462.1	10,493.3	21.0	42,955.4	1.0	0.0	32,462.1	10,494.3	42,956.4	n/a	n/a	n/a
1999	42,017.2	17,246.3	0.0	59,263.5	775.5	1.0	42,017.2	18,022.8	60,040.0	n/a	n/a	n/a
2000	42,248.0	11,367.5	0.0	53,615.5	9,527.9	4,842.0	42,248.0	25,737.4	67,985.4	124,527.3	62,263.7	186,791.0
2001	44,721.5	7,103.5	0.5	51,825.0	12,780.3	11,127.1	44,721.5	31,010.9	75,732.4	89,824.7	44,912.3	134,737.0
2002	44,464.0	13,881.0	0.0	58,345.0	22,710.8	15,832.4	44,464.0	52,424.2	96,888.2	78,961.3	39,480.7	118,442.0
2003	24,832.0	7,907.5	14.0	32,739.5	25,257.6	11,920.1	32,739.5	37,177.7	69,917.2	73,938.7	36,969.3	110,908.0
2004	32,393.4	15,284.8	23.6	47,701.8	36,110.7	8,934.3	47,678.2	45,068.6	92,746.8	81,831.3	40,915.7	122,747.0
2005	30,252.6	7,940.1	0.0	38,192.7	45,109.7	6,721.1	38,192.7	51,830.8	90,023.5	90,786.0	45,393.0	136,179.0
2006	---	---	---	---	---	---	---	---	---	n/a	n/a	118,937.0

1\ As of 2003, the 'Southern Subarea' comprises fisheries and landings from Pt. Arena, California (39°N latitude) to the Mexican border.

2\ As of 2006, the sardine harvest guideline is no longer managed by subarea. HG's are now allocated coastwide and released on a seasonal basis.

Table 22. West Coast Pacific sardine landings by country, 1981-2005. Landings made by commercial fisheries based in southern Baja California and the Gulf of California are not included.

Year	Ensenada Mexico	United States	Canada	Total
1981	0.0	34.4	0.0	34.4
1982	0.0	1.8	0.0	1.8
1983	273.6	0.6	0.0	274.2
1984	0.2	1.2	0.0	1.4
1985	3,722.3	5.9	0.0	3,728.2
1986	242.6	388.4	0.0	631.0
1987	2,431.6	439.4	0.0	2,871.0
1988	2,034.9	1,188.4	0.0	3,223.3
1989	6,224.2	836.7	0.0	7,060.9
1990	11,375.3	1,664.2	0.0	13,039.5
1991	31,391.8	7,587.3	0.0	38,979.1
1992	34,568.2	17,949.5	0.0	52,517.7
1993	32,045.0	15,345.4	0.0	47,390.4
1994	20,876.9	11,643.5	0.0	32,520.4
1995	35,396.2	40,326.9	25.0	75,748.1
1996	39,064.7	32,553.1	88.0	71,705.8
1997	68,439.1	43,245.1	34.0	111,718.2
1998	47,812.2	42,956.4	745.0	91,513.6
1999	58,569.4	60,039.0	1,250.0	119,858.4
2000	67,845.3	67,985.4	1,718.0	137,548.7
2001	46,071.3	75,732.4	1,600.0	123,403.7
2002	46,845.3	96,888.2	1,044.0	144,777.5
2003	41,341.8	69,917.2	954.0	112,213.0
2004	41,896.9	92,746.8	4,258.8	138,902.5
2005	n/a	90,023.5	3,200.0	n/a

Table 23. RecFIN estimated recreational harvest of Pacific (chub) mackerel by state (type A+B1 estimate in metric tons), 1980-2005.

Year	California	Oregon	Washington	Total
1980	2,754.4	0.0	0.0	2,754.4
1981	1,394.5	0.0	0.0	1,394.5
1982	1,667.5	0.0	0.0	1,667.5
1983	1,467.3	1.5	0.0	1,468.9
1984	1,445.1	0.2	0.0	1,445.4
1985	1,076.6	0.0	0.0	1,076.6
1986	1,002.6	0.0	0.0	1,002.6
1987	1,271.2	0.0	0.0	1,271.2
1988	800.1	0.0	0.0	800.1
1989	610.6	0.0	0.0	610.6
1990	n/a	n/a	n/a	n/a
1991	n/a	n/a	n/a	n/a
1992	n/a	n/a	n/a	n/a
1993	621.9	2.1	0.0	624.0
1994	947.1	0.2	0.0	947.3
1995	1,026.3	0.1	0.0	1,026.4
1996	693.8	0.1	0.0	694.0
1997	967.0	0.3	0.0	967.3
1998	448.2	0.0	1.0	449.3
1999	196.0	0.2	0.3	196.6
2000	250.0	0.1	0.0	250.1
2001	561.4	0.0	0.0	561.4
2002	279.1	0.1	0.0	279.2
2003	341.3	0.3	0.0	341.6
2004	457.2	0.1	0.0	457.3
2005	285.7	0.1	0.0	285.8

Table 24. RecFIN estimated recreational harvest of Pacific (chub) mackerel by fishing mode (type A+B1 estimate in metric tons), 1980-2005. Estimates for 'Man Made Structures' and 'Beach/Bank' were included in 'Shore Modes'.

Year	Shore Modes	Party/Charter	Private/Rental	Total
1980	424.8	1,320.5	1,009.2	2,754.4
1981	288.1	590.7	515.7	1,394.5
1982	274.7	865.1	527.6	1,667.5
1983	361.9	702.6	404.3	1,468.9
1984	281.9	577.9	585.5	1,445.4
1985	142.0	544.7	389.9	1,076.6
1986	91.6	520.1	390.9	1,002.6
1987	450.8	244.6	575.8	1,271.2
1988	105.5	239.1	455.4	800.1
1989	256.7	134.8	219.1	610.6
1990	n/a	n/a	n/a	n/a
1991	n/a	n/a	n/a	n/a
1992	n/a	n/a	n/a	n/a
1993	88.8	172.5	362.7	624.0
1994	205.9	245.1	496.3	947.3
1995	121.2	373.5	531.8	1,026.4
1996	93.4	319.4	281.1	694.0
1997	148.3	168.6	650.4	967.3
1998	96.7	131.2	221.4	449.3
1999	62.4	60.8	73.4	196.6
2000	51.3	76.8	121.9	250.1
2001	347.0	52.2	162.2	561.4
2002	92.9	25.7	160.6	279.2
2003	208.4	25.4	107.8	341.6
2004	373.1	20.3	64.0	457.3
2005	238.9	19.4	27.5	285.8

Table 25. West coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid, 1981-2005.

Year	Pacific Sardine mt	Pacific Sardine Rev	Pacific Mackerel mt	Pacific Mackerel Rev	Jack Mackerel mt	Jack Mackerel Rev	Anchovy mt	Anchovy Rev	Squid mt	Squid Rev
1981	15	\$5,725	35,388	\$13,813,659	17,778	\$6,928,743	52,309	\$6,209,107	23,510	\$9,631,724
1982	2	\$962	36,065	\$12,984,856	19,617	\$7,122,902	42,155	\$3,869,997	16,308	\$6,456,637
1983	1	\$301	41,479	\$13,813,262	9,829	\$3,083,454	4,430	\$717,684	1,824	\$1,301,526
1984	1	\$1,440	44,084	\$13,730,870	9,149	\$2,267,220	2,899	\$687,602	564	\$502,589
1985	6	\$2,274	37,772	\$10,590,869	6,876	\$2,078,224	1,638	\$379,274	10,276	\$6,388,538
1986	388	\$128,687	48,089	\$12,539,000	4,777	\$1,331,266	1,557	\$518,913	21,278	\$7,120,385
1987	439	\$95,782	46,725	\$10,251,350	8,020	\$1,813,641	1,467	\$474,706	19,984	\$6,065,295
1988	1,188	\$235,939	50,864	\$12,552,858	5,068	\$1,178,820	1,518	\$593,691	37,232	\$11,655,663
1989	837	\$278,564	47,713	\$10,090,999	10,745	\$2,391,539	2,511	\$954,032	40,893	\$10,741,489
1990	1,664	\$273,143	40,092	\$7,352,128	3,223	\$598,098	3,259	\$872,959	28,447	\$6,525,815
1991	7,587	\$1,185,706	32,019	\$7,083,957	1,712	\$330,174	4,068	\$862,527	37,389	\$8,064,326
1992	17,954	\$2,408,319	19,045	\$5,200,887	1,526	\$310,139	1,166	\$290,303	13,110	\$3,177,922
1993	15,347	\$1,960,648	12,129	\$1,912,181	1,950	\$349,382	2,003	\$606,331	42,830	\$13,028,997
1994	11,644	\$1,882,575	10,293	\$1,785,169	2,906	\$473,523	1,859	\$684,824	55,892	\$17,806,710
1995	40,256	\$4,330,456	8,823	\$1,400,377	1,877	\$355,262	2,016	\$448,817	70,252	\$27,148,530
1996	32,553	\$3,765,484	9,729	\$1,573,752	2,438	\$364,693	4,505	\$836,836	80,561	\$26,119,578
1997	43,290	\$5,218,840	20,168	\$3,268,744	1,534	\$290,473	5,778	\$953,297	70,329	\$24,269,821
1998	43,312	\$4,211,054	21,560	\$2,951,449	1,777	\$444,822	1,584	\$284,938	2,895	\$1,887,410
1999	60,368	\$5,933,420	9,094	\$1,252,723	1,579	\$230,504	5,311	\$1,099,217	92,014	\$38,239,046
2000	68,034	\$8,170,011	22,042	\$3,281,839	1,451	\$307,445	11,831	\$1,620,367	118,903	\$30,547,727
2001	75,801	\$9,987,702	7,618	\$1,362,899	3,839	\$669,796	19,345	\$1,569,816	86,203	\$18,543,774
2002	96,897	\$11,415,857	3,744	\$565,183	1,026	\$224,302	4,882	\$670,935	72,878	\$19,652,069
2003	71,917	\$7,685,145	4,213	\$694,996	231	\$77,059	1,929	\$360,668	44,990	\$26,744,429
2004	89,339	\$10,355,344	3,708	\$590,955	1,160	\$274,963	7,019	\$842,021	40,068	\$20,331,011
2005	85,791	\$10,184,791	3,585	\$579,600	294	\$74,738	11,348	\$1,121,355	55,605	\$31,556,862

Source: PacFIN - 1981-2001 data extracted April 2004, 2002-2004 data extracted May 2005

¹Real values are current values adjusted to eliminate the effects of inflation. This adjustment has been made by dividing current values by the current year GDP implicit price deflator, with a base year of 2004.

²Pacific mackerel landings and revenues also include landings and revenues of unspecified mackerel.

Table 26. Pacific coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by landing area, 1981-2005. (Page 1 of 5)

Year	Landings (mt)					Exvessel Revenues (2005 \$)				
	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid
San Diego										
1981		13.2	11.8	1.7	4.3		\$17,517	\$7,707	\$1,241	\$3,420
1982		29.9	0.1		0.1		\$23,803	\$233		\$39
1983		18.4	0.4	1.7	1.2		\$16,478	\$916	\$1,180	\$1,233
1984	0.3	27.2	0.2		<0.1	\$436	\$21,593	\$682		\$41
1985		18.8	0.1		0.3		\$26,962	\$140		\$231
1986		9.4	0.1		<0.1		\$9,446	\$329		\$19
1987	<0.1	9.7	0.8	<0.1	2.7	\$51	\$11,786	\$1,481	\$17	\$2,199
1988	0.1	17.4	<0.1	5.5	18.6	\$81	\$17,741	\$1	\$4,785	\$10,470
1989	0.1	7.6	<0.1	93.5	2.1	\$223	\$9,092	\$21	\$293,017	\$3,162
1990	0.2	7.7	0.1	18.4	1.2	\$266	\$7,840	\$85	\$55,185	\$1,487
1991		11.3	0.1	399.9			\$10,353	\$105	\$136,076	
1992	0.1	17.4	1.1	120.9	16.4	\$229	\$18,167	\$1,241	\$27,470	\$4,688
1993	0.4	16.3	3.2	3.7	0.2	\$672	\$16,797	\$3,322	\$1,317	\$49
1994	2.0	20.8	4.9	27.9	0.8	\$1,085	\$16,914	\$3,182	\$12,027	\$269
1995	5.3	31.2	0.5	38.2	0.8	\$4,991	\$21,166	\$533	\$24,780	\$705
1996	1.2	26.0		144.6	1.8	\$1,331	\$18,540		\$80,609	\$547
1997	2.7	15.7	<0.1	11.7	2.6	\$3,480	\$11,767	\$2	\$6,481	\$845
1998	215.3	52.3		2.3	2.2	\$23,389	\$10,088		\$1,185	\$1,777
1999	592.3	15.3	0.1	1.9	4.1	\$68,581	\$5,229	\$143	\$762	\$5,156
2000	19.2	1.7	0.2	4.3	34.8	\$8,222	\$2,400	\$255	\$1,944	\$11,843
2001	0.2	2.8	0.1	1.5	11.0	\$108	\$2,781	\$121	\$813	\$5,063
2002	90.5	0.5	0.1	5.2		\$64,034	\$965	\$122	\$3,335	
2003	28.1	0.9	2.5	13.6		\$22,822	\$1,027	\$3,370	\$8,548	
2004	44.4	0.2			14.2	\$27,164	\$272			\$6,589
2005	21.5	1.0		18.2		\$12,843	\$862		\$10,431	
Orange/LA										
1981	14.7	29,084.7	14,699.9	38,216.3	8,290.6	\$5,710	\$11,440,904	\$5,723,462	\$4,424,620	\$1,825,172
1982	1.8	29,827.6	18,131.1	32,514.7	4,292.8	\$885	\$10,709,480	\$6,599,446	\$2,724,254	\$1,032,211
1983	0.6	33,902.3	6,785.8	900.2	853.6	\$278	\$11,642,881	\$2,371,773	\$175,599	\$560,300
1984	0.5	35,572.8	3,566.3	204.8	66.3	\$562	\$11,980,322	\$1,166,965	\$135,376	\$60,938
1985	3.4	32,012.5	5,860.1	43.1	3,095.9	\$1,310	\$9,245,782	\$1,759,985	\$28,222	\$1,639,236
1986	286.6	41,071.7	4,289.0	140.8	8,121.8	\$95,124	\$10,882,281	\$1,157,616	\$33,793	\$2,897,978
1987	317.3	39,863.3	7,801.2	108.8	5,421.5	\$70,710	\$8,786,307	\$1,758,672	\$30,768	\$1,703,477
1988	1,172.1	47,656.6	4,939.1	92.9	15,090.3	\$230,337	\$11,439,052	\$1,132,836	\$25,856	\$4,594,840
1989	505.0	41,717.5	10,703.7	479.0	16,353.4	\$83,217	\$9,254,680	\$2,344,968	\$72,891	\$4,057,867
1990	1,179.4	37,123.6	2,936.3	193.2	9,797.9	\$200,205	\$6,813,844	\$534,075	\$43,349	\$1,895,858
1991	6,415.1	31,555.0	1,640.2	414.3	12,305.3	\$1,013,354	\$6,973,924	\$303,816	\$64,664	\$2,142,758
1992	13,848.5	18,071.7	1,095.7	136.6	1,700.5	\$1,779,245	\$5,050,994	\$282,536	\$34,711	\$337,648
1993	13,977.6	11,715.1	1,268.9	118.7	12,889.7	\$1,783,179	\$1,857,612	\$224,194	\$21,669	\$3,425,111
1994	9,031.7	9,842.3	2,459.8	136.6	11,231.4	\$1,169,844	\$1,694,330	\$337,677	\$20,493	\$2,967,371
1995	34,137.0	7,864.0	1,596.2	297.8	18,413.1	\$3,649,292	\$1,253,635	\$236,314	\$34,567	\$6,277,393
1996	23,922.6	8,764.9	2,054.0	239.1	14,993.9	\$2,602,597	\$1,355,617	\$328,646	\$29,531	\$5,241,854
1997	26,533.7	14,002.6	822.6	1,120.8	17,779.1	\$2,984,532	\$2,596,550	\$211,868	\$112,194	\$6,858,549
1998	31,702.3	18,149.6	1,012.4	338.1	227.5	\$3,327,618	\$2,673,544	\$371,395	\$43,088	\$152,069
1999	39,084.2	8,551.1	927.4	1,418.2	27,596.9	\$4,022,316	\$1,187,828	\$212,235	\$249,869	\$10,446,596
2000	39,180.6	21,630.6	1,209.5	1,278.6	44,839.9	\$4,701,989	\$3,238,320	\$253,307	\$164,068	\$12,737,295
2001	40,763.6	6,676.6	3,623.8	3,657.7	39,170.6	\$4,903,140	\$1,167,447	\$614,959	\$352,794	\$9,298,705
2002	39,308.0	3,367.8	1,003.5	1,205.7	28,136.9	\$4,122,005	\$524,892	\$217,659	\$109,376	\$6,916,870
2003	22,877.2	3,941.3	133.4	205.5	7,693.2	\$1,934,382	\$655,599	\$54,115	\$32,326	\$4,662,782
2004	23,677.4	3,018.3	1,027.1	147.2	10,504.3	\$2,319,873	\$513,198	\$255,541	\$37,516	\$4,980,482
2005	24,146.1	3,145.7	166.6	1,992.4	31,561.9	\$2,365,653	\$522,207	\$49,068	\$191,900	\$18,781,573

Table 26. Pacific coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by landing area, 1981-2005. (Page 2 of 5)

Year	Landings (mt)					Exvessel Revenues (2005 \$)				
	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid
Ventura/Santa Barbara										
1981	<0.1	4,872.1	2,846.6	9,034.5	2,389.7	\$14	\$1,904,602	\$1,106,021	\$1,059,680	\$407,342
1982		4,095.4	1,195.0	6,440.7	1,403.2		\$1,560,872	\$417,725	\$622,996	\$265,773
1983	<0.1	3,905.0	559.1	2,727.1	3.2	\$2	\$1,217,369	\$157,651	\$269,264	\$3,569
1984		1,263.2	52.1	141.0	7.1		\$379,242	\$16,722	\$74,693	\$13,980
1985		2,950.7	787.1	109.8	2,959.4		\$742,096	\$223,118	\$49,419	\$1,221,938
1986	17.5	5,004.5	296.9	160.9	6,411.8	\$4,729	\$1,260,560	\$82,112	\$66,694	\$1,681,163
1987	74.3	5,877.7	8.0	140.2	8,406.6	\$16,834	\$1,262,733	\$2,517	\$57,062	\$2,328,107
1988	13.2	3,119.6	6.5	154.3	16,334.4	\$4,351	\$1,059,260	\$1,661	\$69,378	\$5,053,800
1989	93.3	5,907.6		160.9	16,861.9	\$15,261	\$793,556		\$73,640	\$4,304,654
1990	236.1	420.9	75.7	140.9	10,600.5	\$29,240	\$70,226	\$9,478	\$61,827	\$2,657,673
1991	186.4	138.1	8.6	189.9	16,904.8	\$28,425	\$20,148	\$1,264	\$78,381	\$3,287,616
1992	973.4	92.2	<0.1	89.8	2,806.9	\$90,279	\$9,918	\$3	\$37,142	\$579,154
1993	691.7	34.5	<0.1	298.1	17,367.2	\$65,439	\$4,592	\$10	\$106,490	\$4,641,021
1994	315.0	39.5	47.5	340.8	21,793.8	\$28,655	\$9,934	\$4,000	\$174,478	\$6,363,333
1995	354.5	249.1	0.4	346.3	41,184.3	\$48,776	\$28,935	\$229	\$173,653	\$16,987,207
1996	461.1	66.8	11.1	374.5	46,435.3	\$46,196	\$35,845	\$1,883	\$178,482	\$14,549,525
1997	3,357.3	1,160.3	7.4	510.4	34,610.6	\$276,015	\$121,433	\$3,005	\$106,277	\$10,934,257
1998	899.3	1,305.7		239.1	2,175.6	\$105,800	\$79,748		\$91,891	\$1,443,751
1999	2,545.1	215.0	<0.1	2,233.2	52,718.7	\$278,762	\$41,258	\$10	\$369,835	\$23,031,756
2000	3,047.9	230.0	9.1	3,548.3	48,747.0	\$331,951	\$24,115	\$978	\$439,207	\$11,207,999
2001	3,956.7	72.4	<0.1	3,909.3	31,876.3	\$404,371	\$7,271	\$33	\$493,504	\$5,797,789
2002	5,064.5	<0.1	<0.1	732.2	11,814.1	\$671,118	\$15	\$2	\$195,551	\$3,363,562
2003	2,365.9	39.3	<0.1	625.4	13,199.8	\$229,375	\$4,551	\$26	\$148,138	\$7,875,333
2004	4,711.0	67.4	<0.1	2,722.2	15,397.0	\$443,255	\$8,203	\$8	\$420,546	\$7,985,922
2005	1,830.4	96.0	44.3	2,946.1	13,682.1	\$170,410	\$16,180	\$2,665	\$490,208	\$7,373,747
San Luis Obispo										
1981		1.0	<0.1	17.2	0.1		\$939	\$16	\$12,187	\$145
1982		2.5	<0.1		0.3		\$2,125	\$10		\$429
1983		0.7			0.2		\$552			\$223
1984		5.0			0.1		\$3,220			\$128
1985	0.3	19.5	0.1	47.5	0.3	\$101	\$4,855	\$57	\$25,100	\$429
1986		0.6	<0.1	11.3	0.1		\$332	\$18	\$4,887	\$133
1987		0.8		2.4	0.4		\$702		\$960	\$398
1988	<0.1	0.2			0.1	\$1	\$308			\$87
1989		1.2	<0.1	0.2	19.2		\$854	\$1	\$43	\$6,179
1990	121.1	1.9	16.5		0.1	\$14,972	\$1,178	\$2,026		\$76
1991		1.0	<0.1		<0.1		\$627	\$11		\$22
1992		0.4	<0.1		0.2		\$318	\$70		\$129
1993		0.1	<0.1	1.1	2,035.9		\$55	\$16	\$634	\$1,021,488
1994	0.1	0.2	<0.1	0.8	1,343.6	\$31	\$118	\$5	\$447	\$722,880
1995		<0.1	<0.1		182.5		\$19	\$3		\$48,686
1996		<0.1			216.8		\$6			\$73,750
1997	<0.1	<0.1		22.6	<0.1	\$22	\$3		\$10,993	\$14
1998	<0.1	0.3	<0.1		<0.1	\$37	\$173	\$46		\$1
1999		<0.1		2.0	16.7		\$32		\$1,022	\$5,321
2000		<0.1	<0.1		<0.1		\$2	\$1		\$8
2001		<0.1		3.5	79.4		\$19		\$1,673	\$17,076
2002	101.9				356.2	\$7,255				\$81,816
2003		<0.1	<0.1	3.2	650.2		\$17	\$18	\$1,479	\$376,848
2004		<0.1			905.7		\$12			\$457,141
2005					40.0					\$22,043

Table 26. Pacific coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by landing area, 1981-2005. (Page 3 of 5)

Year	Landings (mt)					Exvessel Revenues (2005 \$)				
	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid
Monterey/Santa Cruz										
1981		1,359.2	211.5	4,617.0	12,822.7		\$423,846	\$85,711	\$513,349	\$7,393,647
1982	<0.1	2,053.4	280.3	2,609.1	10,607.4	\$77	\$662,823	\$100,034	\$251,365	\$5,154,686
1983	<0.1	3,449.2	2,457.2	320.8	500.0	\$21	\$863,381	\$528,297	\$73,577	\$380,723
1984	0.3	7,149.3	5,480.5	1,894.7	390.9	\$442	\$1,313,250	\$1,068,246	\$187,787	\$335,245
1985	2.2	2,704.4	228.1	1,138.2	3,813.1	\$863	\$531,712	\$94,693	\$141,465	\$3,167,999
1986	84.5	1,987.9	191.1	808.2	5,487.9	\$28,834	\$375,595	\$91,094	\$230,037	\$2,095,355
1987	47.6	956.7	209.7	676.3	5,610.8	\$8,068	\$180,424	\$50,330	\$119,386	\$1,861,821
1988	3.0	59.0	121.5	696.3	4,896.7	\$1,133	\$26,812	\$43,831	\$249,770	\$1,706,242
1989	238.0	60.0	37.2	928.7	7,145.5	\$179,580	\$17,361	\$42,133	\$191,266	\$2,246,911
1990	127.1	2,495.7	192.4	2,131.5	7,917.5	\$28,284	\$430,902	\$51,425	\$439,856	\$1,927,918
1991	985.9	298.0	43.6	2,526.8	6,703.2	\$143,927	\$69,112	\$21,547	\$382,000	\$2,171,937
1992	3,093.2	374.9	109.8	608.2	6,111.3	\$530,656	\$99,004	\$23,972	\$101,582	\$1,639,907
1993	676.1	38.1	345.1	1,285.0	6,039.6	\$110,543	\$16,505	\$108,383	\$300,439	\$2,530,053
1994	2,289.4	38.4	191.2	985.8	13,648.3	\$680,442	\$21,938	\$118,600	\$307,380	\$5,589,390
1995	5,678.1	460.7	109.1	1,110.5	2,449.1	\$614,774	\$76,666	\$94,350	\$111,244	\$997,418
1996	7,987.9	703.0	91.0	3,553.9	4,672.0	\$1,060,637	\$109,693	\$15,746	\$441,898	\$1,643,891
1997	13,356.7	3,208.2	327.2	3,895.1	8,282.9	\$1,871,228	\$506,321	\$72,770	\$654,989	\$3,434,965
1998	10,009.0	1,456.7	32.5	901.2		\$711,999	\$164,982	\$12,838	\$78,407	
1999	16,417.2	2.7	24.2	1,511.3	301.3	\$1,369,899	\$11,455	\$2,002	\$384,970	\$91,287
2000	11,367.0	39.4	50.0	6,804.3	7,125.4	\$1,086,658	\$7,142	\$30,219	\$890,058	\$2,150,381
2001	7,102.5	172.2		11,660.3	7,746.6	\$1,570,443	\$20,718		\$623,237	\$1,942,260
2002	13,607.4	0.1	1.8	2,689.5	25,067.3	\$1,396,759	\$77	\$418	\$274,584	\$7,311,155
2003	7,907.3	1.0	19.8	705.7	13,921.4	\$703,728	\$4,449	\$2,602	\$86,460	\$8,355,287
2004	15,443.8	489.9	<0.1	3,890.8	5,542.5	\$1,229,937	\$54,158	\$5	\$298,806	\$2,931,898
2005	7,532.2	0.4	0.5	6,128.8	2,046.5	\$525,629	\$722	\$300	\$378,395	\$994,291
San Francisco										
1981	<0.1	<0.1	1.9	203.9	<0.1	\$1	\$51	\$1,615	\$89,260	\$14
1982		4.2	0.2	394.6	2.3		\$2,368	\$286	\$189,978	\$949
1983		13.3	1.2	332.3	461.5		\$5,051	\$359	\$129,690	\$351,091
1984		13.8	0.3	537.7	97.0		\$9,378	\$155	\$227,801	\$89,648
1985		14.6	<0.1	258.8	77.0		\$12,824	\$41	\$105,226	\$54,662
1986		12.0		392.7	831.9		\$8,640		\$144,596	\$343,072
1987	0.3	6.3	0.5	424.4	342.8	\$99	\$5,398	\$638	\$161,511	\$121,898
1988	<0.1	6.2	0.4	492.3	299.2	\$5	\$5,452	\$427	\$181,457	\$100,728
1989	<0.1	9.0	4.3	755.3	3.4	\$17	\$7,691	\$4,358	\$231,976	\$2,078
1990	<0.1	13.8	1.6	714.0	128.8	\$39	\$9,717	\$1,003	\$210,589	\$42,320
1991		2.7	0.2	459.2	1,471.4		\$1,988	\$92	\$143,520	\$459,980
1992	34.5	11.5	1.4	164.4	2,447.9	\$7,892	\$12,331	\$448	\$44,658	\$608,884
1993		1.2	0.3	243.9	1,017.8		\$1,259	\$262	\$138,244	\$477,152
1994	0.8	1.7	0.4	279.6	2,235.6	\$713	\$1,930	\$349	\$103,241	\$795,435
1995	1.6	0.6	0.2	93.2	746.8	\$587	\$650	\$288	\$10,653	\$264,516
1996		4.5	0.8	105.1	332.9		\$2,905	\$677	\$29,684	\$129,065
1997	3.1	3.7	0.2	155.7	204.5	\$1,520	\$2,775	\$419	\$12,504	\$81,357
1998	463.5	3.8	1.2	0.5	14.1	\$36,168	\$4,073	\$947	\$23	\$18,016
1999	949.0	0.9	<0.1	46.8	5.4	\$93,233	\$659	\$33	\$16,792	\$2,028
2000	0.5	<0.1	0.4	116.5	<0.1	\$234	\$23	\$761	\$71,132	\$4
2001	<0.1	0.6		42.3	279.9	\$103	\$1,816		\$14,708	\$81,089
2002	171.8	<0.1		17.2	864.6	\$34,391	\$2		\$10,188	\$231,121
2003	0.1	<0.1	<0.1		2,807.7	\$532	\$152	\$3		\$1,632,267
2004	370.1	0.1	<0.1	<0.1	164.5	\$35,344	\$122	\$6	\$28	\$93,239
2005	309.0	<0.1	<0.1	<0.1	0.6	\$27,258	\$29	\$4	\$29	\$141

Table 26. Pacific coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by landing area, 1981-2005. (Page 4 of 5)

Year	Landings (mt)					Exvessel Revenues (2005 \$)				
	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid
Northern California										
1981		1.9	<0.1		2.1		\$955	\$16		\$1,892
1982		3.0	1.1		1.7		\$989	\$517		\$1,625
1983		2.9	0.1		<0.1		\$1,369	\$29		\$56
1984		0.1	<0.1	0.5	0.1		\$73	\$2	\$995	\$139
1985					<0.1					\$19
1986		<0.1			<0.1		\$31			\$20
1987		<0.1	<0.1		0.1		\$16	\$3		\$61
1988			<0.1		1.0			\$4		\$944
1989		0.1	<0.1		0.6		\$63	\$1		\$522
1990		0.4			0.8		\$240			\$198
1991		0.1			1.3		\$59			\$568
1992		0.4	1.0	0.7	0.5		\$437	\$588	\$123	\$1,437
1993		0.2	55.4	0.1	<0.1		\$143	\$9,777	\$31	\$7
1994	4.9	0.3	0.1	8.4	37.6	\$1,806	\$197	\$82	\$3,561	\$13,012
1995	1.5	0.1	0.1		1.8	\$1,034	\$37	\$39		\$564
1996	0.3	3.1				\$139	\$2,046			
1997		5.7	2.2		3.4		\$3,691	\$1,433		\$2,319
1998	20.9	9.2	6.2		<0.1	\$5,060	\$3,835	\$4,660		\$48
1999		2.9	<0.1		<0.1		\$885	\$15		\$6
2000		1.7	0.1		0.5		\$376	\$101		\$651
2001	0.1			2.3	0.1	\$43			\$6,947	\$91
2002		0.2	0.1		3.9		\$514	\$38		\$1,393
2003	13.5		<0.1			\$6,269		\$15		
2004	23.6	<0.1	<0.1		<0.1	\$10,679	\$73	\$4		\$49
2005		<0.1	<0.1				\$112	\$2		
Other California										
1981		<0.1					\$14			
1982										
1983										
1984		0.1					\$29			
1985										
1986		0.2					\$102			
1987										
1988										
1989		<0.1					\$9			
1990										
1991										
1992										
1993										
1994		3.9		3.7	32.7		\$11,506		\$303	\$8,945
1995										
1996										
1997										
1998										
1999										
2000										
2001										
2002										
2003										
2004										
2005										

Table 26. Pacific coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by landing area, 1981-2005. (Page 5 of 5)

Year	Landings (mt)					Exvessel Revenues (2005 \$)				
	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid	Sardine	P. Mackerel	J. Mackerel	Anchovy	Squid
Oregon										
1981		<0.1					\$2			
1982		<0.1		0.1			\$74		\$178	
1983		8.3					\$13,421			
1984		3.0					\$1,339			
1985		<0.1	<0.1	<0.1			\$3	\$2	\$62	
1986		<0.1					\$1			
1987		1.5					\$797			
1988		0.6			<0.1		\$509		\$19	
1989		4.7			<0.1		\$1,600		\$21	
1990		10.3					\$4,949			
1991		0.5	19.3				\$205	\$3,220		
1992	3.9	462.3	316.5				\$201	\$1,035		
1993	0.2	279.9	276.6				\$1,088	\$3,375		
1994		252.2	202.3	0.9			\$11,938	\$9,621	\$248	
1995		189.2	148.6	0.2			\$4,337	\$8,753	\$590	
1996		60.6	258.5				\$4,569	\$9,160		
1997		1,610.8	373.3				\$2,689	\$882		
1998	1.0	536.3	686.0			\$901	\$10,038	\$50,854		
1999	775.5	259.2	518.0			\$98,406	\$1,155	\$6,824		
2000	9,527.9	119.1	160.8	0.1		\$1,288,792	\$7,060	\$19,325	\$336	
2001	12,780.4	322.0	183.1			\$1,744,706	\$77,834	\$48,610		
2002	22,711.0	126.6	8.9	3.1		\$3,034,427	\$6,959	\$4,120	\$1,913	
2003	25,257.9	160.0	73.6	39.1		\$3,102,373	\$19,658	\$16,784	\$3,282	
2004	36,111.0	106.9	125.8	13.1		\$5,005,567	\$11,549	\$17,743	\$4,762	
2005	45,110.1	317.6	69.8	68.4		\$6,193,625	\$35,687	\$19,489	\$1,576	
Washington										
1981				1.3					\$560	
1982				5.1					\$16,945	
1983				2.9					\$9,243	
1984		0.1		10.1			\$142		\$16,587	
1985				11.7					\$19,029	
1986				22.1					\$31,199	
1987				77.6					\$89,973	
1988				40.4					\$48,322	
1989		0.2		61.8			\$71		\$77,211	
1990		0.1		50.3			\$214		\$57,445	
1991		0.2		54.5			\$53		\$49,505	
1992		5.9		41.7			\$3,594		\$42,793	
1993		30.2		19.9			\$5,278		\$13,774	
1994		33.3		38.5			\$3,652		\$33,773	
1995		7.5		118.3			\$995		\$79,594	
1996		65.3	2.8	85.6			\$23,769	\$818	\$75,735	
1997		152.5	0.7	59.1			\$19,758	\$94	\$48,906	
1998		45.9	38.5	102.5			\$4,776	\$4,082	\$70,344	
1999	1.4	46.8	108.4	97.8		\$1,890	\$4,196	\$8,707	\$75,960	
2000	4,841.9	19.1	20.3	78.7		\$744,017	\$2,189	\$2,496	\$53,541	
2001	11,127.2	370.6	32.1	68.0		\$1,357,162	\$84,601	\$5,969	\$76,140	
2002	15,832.5	248.2	11.5	228.7		\$2,084,705	\$31,675	\$1,936	\$75,990	
2003	11,920.2	53.8	1.8	213.8		\$1,550,511	\$7,594	\$125	\$69,558	
2004	8,934.3	22.2	7.1	213.4		\$1,279,655	\$2,393	\$1,640	\$65,690	
2005	6,721.1	23.6	10.8	163.7		\$850,135	\$3,587	\$2,479	\$35,740	

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

¹Real values are current values adjusted to eliminate the effects of inflation. This adjustment has been made by dividing current values by the current year GDP implicit price deflator, with a base year of 2005.

²Pacific mackerel landings and revenues also include landings and revenues of unspecified mackerel.

Table 27. Average annual real¹ exvessel prices (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid, 1981-2005.

Year	Pacific Sardine \$/lb	Pacific Mackerel \$/lb	Jack Mackerel \$/lb	Anchovy \$/lb	Squid \$/lb
1981	\$0.17	\$0.18	\$0.18	\$0.05	\$0.19
1982	\$0.22	\$0.16	\$0.16	\$0.04	\$0.18
1983	\$0.14	\$0.15	\$0.14	\$0.07	\$0.32
1984	\$0.65	\$0.14	\$0.11	\$0.11	\$0.40
1985	\$0.17	\$0.13	\$0.14	\$0.10	\$0.28
1986	\$0.15	\$0.12	\$0.13	\$0.15	\$0.15
1987	\$0.10	\$0.10	\$0.10	\$0.15	\$0.14
1988	\$0.09	\$0.11	\$0.11	\$0.18	\$0.14
1989	\$0.15	\$0.10	\$0.10	\$0.17	\$0.12
1990	\$0.07	\$0.08	\$0.08	\$0.12	\$0.10
1991	\$0.07	\$0.10	\$0.09	\$0.10	\$0.10
1992	\$0.06	\$0.12	\$0.09	\$0.11	\$0.11
1993	\$0.06	\$0.07	\$0.08	\$0.14	\$0.14
1994	\$0.07	\$0.08	\$0.07	\$0.17	\$0.14
1995	\$0.05	\$0.07	\$0.09	\$0.10	\$0.18
1996	\$0.05	\$0.07	\$0.07	\$0.08	\$0.15
1997	\$0.05	\$0.07	\$0.09	\$0.07	\$0.16
1998	\$0.04	\$0.06	\$0.11	\$0.08	\$0.30
1999	\$0.04	\$0.06	\$0.07	\$0.09	\$0.19
2000	\$0.05	\$0.07	\$0.10	\$0.06	\$0.12
2001	\$0.06	\$0.08	\$0.08	\$0.04	\$0.10
2002	\$0.05	\$0.07	\$0.10	\$0.06	\$0.12
2003	\$0.05	\$0.07	\$0.15	\$0.08	\$0.27
2004	\$0.05	\$0.07	\$0.11	\$0.05	\$0.23
2005	\$0.05	\$0.07	\$0.12	\$0.04	\$0.26

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

¹Real values are current values adjusted to eliminate the effects of inflation. This adjustment has been made by dividing current values by the current year GDP implicit price deflator, with a base year of 2005.

²Pacific mackerel landings and revenues also include landings and revenues of unspecified mackerel.

Table 28. West coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by state, 1981-2005. (Page 1 of 3)

Year	Pacific Sardine mt	Pacific Sardine Rev	Pacific Mackerel mt	Pacific Mackerel Rev	Jack Mackerel mt	Jack Mackerel Rev	Anchovy mt	Anchovy Rev	Squid mt	Squid Rev
California										
1981	15	\$5,725	35,388	\$13,813,657	17,778	\$6,928,743	52,308	\$6,208,546	23,510	\$9,631,724
1982	2	\$962	36,065	\$12,984,782	19,617	\$7,122,902	42,150	\$3,852,874	16,308	\$6,456,637
1983	1	\$301	41,471	\$13,799,841	9,829	\$3,083,454	4,427	\$708,442	1,824	\$1,301,526
1984	1	\$1,440	44,081	\$13,729,389	9,149	\$2,267,220	2,889	\$671,016	564	\$502,589
1985	6	\$2,274	37,772	\$10,590,866	6,876	\$2,078,222	1,626	\$360,183	10,276	\$6,388,538
1986	388	\$128,687	48,089	\$12,538,999	4,777	\$1,331,266	1,535	\$487,714	21,278	\$7,120,385
1987	439	\$95,782	46,724	\$10,250,553	8,020	\$1,813,641	1,390	\$384,732	19,984	\$6,065,295
1988	1,188	\$235,939	50,863	\$12,552,349	5,068	\$1,178,820	1,478	\$545,350	37,232	\$11,655,663
1989	837	\$278,564	47,708	\$10,089,328	10,745	\$2,391,539	2,449	\$876,800	40,893	\$10,741,489
1990	1,664	\$273,143	40,081	\$7,346,952	3,223	\$598,098	3,208	\$815,514	28,447	\$6,525,815
1991	7,587	\$1,185,706	32,018	\$7,083,699	1,693	\$326,954	4,014	\$813,022	37,389	\$8,064,326
1992	17,950	\$2,408,319	18,577	\$5,197,092	1,209	\$309,102	1,124	\$247,510	13,110	\$3,177,922
1993	15,346	\$1,960,648	11,819	\$1,905,815	1,673	\$346,007	1,959	\$571,986	42,830	\$13,028,997
1994	11,644	\$1,882,575	10,008	\$1,769,579	2,704	\$463,902	1,789	\$624,793	55,892	\$17,806,710
1995	40,256	\$4,330,456	8,626	\$1,395,045	1,728	\$346,510	1,886	\$354,973	70,252	\$27,148,530
1996	32,553	\$3,765,484	9,604	\$1,545,414	2,177	\$354,715	4,419	\$761,100	80,561	\$26,119,578
1997	43,290	\$5,218,840	18,401	\$3,245,674	1,160	\$289,498	5,719	\$904,391	70,329	\$24,269,821
1998	43,311	\$4,210,153	20,978	\$2,936,628	1,052	\$389,886	1,481	\$214,594	2,895	\$1,887,410
1999	59,591	\$5,833,123	8,788	\$1,247,371	952	\$214,974	5,214	\$1,023,257	92,014	\$38,239,046
2000	53,664	\$6,137,202	21,904	\$3,272,591	1,269	\$285,623	11,752	\$1,566,490	118,903	\$30,547,727
2001	51,893	\$6,885,834	6,925	\$1,200,449	3,624	\$615,217	19,277	\$1,493,676	86,203	\$18,543,774
2002	58,353	\$6,296,725	3,369	\$526,549	1,005	\$218,245	4,650	\$593,033	72,878	\$19,652,069
2003	34,739	\$3,032,260	3,999	\$667,744	156	\$60,149	1,676	\$287,828	44,990	\$26,744,429
2004	44,293	\$4,070,122	3,579	\$577,013	1,027	\$255,579	6,793	\$771,570	40,068	\$20,331,011
2005	33,960	\$3,141,031	3,244	\$540,326	213	\$52,769	11,116	\$1,084,039	55,605	\$31,556,862

Table 28. West coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by state, 1981-2005. (Page 2 of 3)

Year	Pacific Sardine mt	Pacific Sardine Rev	Pacific Mackerel mt	Pacific Mackerel Rev	Jack Mackerel mt	Jack Mackerel Rev	Anchovy mt	Anchovy Rev	Squid mt	Squid Rev
Oregon										
1981			<1	\$2						
1982			<1	\$74			<1	\$178		
1983			8	\$13,421						
1984			3	\$1,339						
1985			<1	\$3	<1	\$2	<1	\$62		
1986			<1	\$1						
1987			1	\$797						
1988			1	\$509			<1	\$19		
1989			5	\$1,600			<1	\$21		
1990			10	\$4,963						
1991			<1	\$205	19	\$3,220				
1992	4		462	\$201	317	\$1,037				
1993			280	\$1,088	277	\$3,375				
1994			252	\$11,938	202	\$9,621	1	\$248		
1995			189	\$4,337	149	\$8,753	<1	\$590		
1996			61	\$4,569	259	\$9,160				
1997			1,611	\$2,689	373	\$882				
1998	1	\$901	536	\$10,038	686	\$50,854				
1999	776	\$98,406	259	\$1,155	518	\$6,824				
2000	9,528	\$1,288,792	119	\$7,060	161	\$19,325	<1	\$336		
2001	12,780	\$1,744,706	322	\$77,834	183	\$48,610				
2002	22,711	\$3,034,427	127	\$6,959	9	\$4,120	3	\$1,913		
2003	25,258	\$3,102,373	160	\$19,658	74	\$16,784	39	\$3,282		
2004	36,111	\$5,005,567	107	\$11,549	126	\$17,743	13	\$4,762		
2005	45,110	\$6,193,625	318	\$35,687	70	\$19,489	68	\$1,576		

Table 28. West coast landings (mt) and real¹ exvessel revenues (\$ 2005) for Pacific sardine, Pacific mackerel², jack mackerel, anchovy and market squid by state, 1981-2005. (Page 3 of 3)

Year	Pacific	Pacific	Pacific	Pacific	Jack	Jack	Anchovy mt	Anchovy Rev	Squid mt	Squid Rev
	Sardine mt	Sardine Rev	Mackerel mt	Mackerel Rev	Mackerel mt	Mackerel Rev				
Washington										
1981							1	\$560		
1982							5	\$16,945		
1983							3	\$9,243		
1984			<1	\$142			10	\$16,587		
1985							12	\$19,029		
1986							22	\$31,199		
1987							78	\$89,973		
1988							40	\$48,322		
1989			<1	\$71			62	\$77,211		
1990			<1	\$214			50	\$57,445		
1991			<1	\$53			54	\$49,505		
1992			6	\$3,594			42	\$42,793		
1993			30	\$5,278			44	\$34,346		
1994			33	\$3,652			70	\$59,782		
1995			7	\$995			130	\$93,254		
1996			65	\$23,769	3	\$818	86	\$75,735		
1997			156	\$20,381	1	\$94	59	\$48,906		
1998			46	\$4,783	39	\$4,082	103	\$70,344		
1999	1	\$1,890	47	\$4,196	108	\$8,707	98	\$75,960		
2000	4,842	\$744,017	19	\$2,189	20	\$2,496	79	\$53,541		
2001	11,127	\$1,357,162	371	\$84,615	32	\$5,969	68	\$76,140		
2002	15,833	\$2,084,705	248	\$31,675	12	\$1,936	229	\$75,990		
2003	11,920	\$1,550,511	54	\$7,594	2	\$125	214	\$69,558		
2004	8,934	\$1,279,655	22	\$2,393	7	\$1,640	213	\$65,690		
2005	6,721	\$850,135	24	\$3,587	11	\$2,479	164	\$35,740		

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

¹Real values are current values adjusted to eliminate the effects of inflation. This adjustment has been made by dividing current values by the current year GDP implicit price deflator, with a base year of 2005.

²Pacific mackerel landings and revenues also include landings and revenues of unspecified mackerel.

Table 29. Pacific coast CPS landings (mt) and real¹ exvessel revenues (\$ 2005) by gear group, 1981-2005.

Year	Roundhaul	Dip Net	Pot or	Hook and		Gillnet	Other or
	or Lampara		Trap	Trawl	Line		Unknown
Landings (metric tons)							
1981	120,510	8,231	<1	11	9	75	74
1982	108,952	3,668	1	13	27	71	1,339
1983	41,397	490	<1	8	2	27	15,611
1984	48,057	64	<1	3	1	144	8,281
1985	50,312	494	<1	20	9	374	5,246
1986	65,595	88	4	2	<1	107	10,221
1987	64,607	213	1	6	7	1,296	10,459
1988	86,612	138	1	39	1	1,377	7,515
1989	94,757	248	<1	132	3	96	7,193
1990	70,263	489	2	15	34	64	5,725
1991	58,327	724	37	127	4	56	23,451
1992	45,788	4,322	3	802	15	28	1,779
1993	68,233	5,171	2	592	3	43	114
1994	77,694	2,988	59	510	49	9	1,084
1995	119,406	1,341	4	386	153	8	1,600
1996	128,277	850	1	401	64	23	84
1997	138,523	247	<1	2,157	90	14	9
1998	69,654	37	<1	1,333	44	5	7
1999	166,644	528	72	983	12	10	93
2000	219,871	1,552	45	275	420	4	17
2001	190,193	1,791	1	621	156	3	
2002	178,638	761	<1	10	10	2	
2003	123,057	133	<1	76	10	<1	<1
2004	140,277	790	<1	110	7	<1	63
2005	154,003	2,502	12	92	9	<1	
Revenues (2005 \$)							
1981	\$34,850,208	\$1,588,326	\$365	\$7,332	\$9,078	\$51,896	\$26,632
1982	\$29,107,491	\$804,424	\$3,829	\$7,430	\$15,718	\$38,870	\$417,622
1983	\$14,022,881	\$330,079	\$1,561	\$4,660	\$2,265	\$14,840	\$4,517,980
1984	\$14,786,992	\$57,549	\$2,740	\$3,100	\$1,608	\$53,144	\$2,214,074
1985	\$15,977,115	\$499,952	\$428	\$14,687	\$6,260	\$187,926	\$2,705,371
1986	\$18,175,603	\$41,668	\$1,639	\$2,044	\$206	\$51,768	\$3,310,144
1987	\$15,526,026	\$62,223	\$2,023	\$3,606	\$2,709	\$366,822	\$2,688,041
1988	\$23,337,976	\$47,642	\$1,304	\$43,071	\$733	\$366,336	\$2,346,580
1989	\$22,273,405	\$61,170	\$199	\$42,774	\$1,243	\$33,325	\$1,766,297
1990	\$14,229,612	\$62,842	\$1,198	\$9,021	\$39,670	\$36,514	\$1,189,471
1991	\$13,074,573	\$71,393	\$9,139	\$31,173	\$6,162	\$20,797	\$4,261,934
1992	\$10,274,165	\$619,712	\$2,556	\$9,197	\$25,407	\$13,127	\$396,538
1993	\$16,698,146	\$995,313	\$2,254	\$11,580	\$4,536	\$23,747	\$29,830
1994	\$21,646,367	\$570,674	\$21,696	\$34,655	\$51,203	\$5,713	\$218,303
1995	\$32,688,759	\$421,429	\$2,419	\$21,204	\$67,672	\$5,174	\$372,748
1996	\$32,219,784	\$225,462	\$591	\$48,174	\$74,648	\$12,883	\$23,158
1997	\$33,705,391	\$100,516	\$118	\$35,617	\$107,159	\$7,904	\$3,645
1998	\$9,568,932	\$28,665	\$157	\$89,819	\$67,298	\$3,422	\$5,261
1999	\$46,427,179	\$215,474	\$18,266	\$40,075	\$29,120	\$6,788	\$7,991
2000	\$43,312,543	\$434,955	\$11,312	\$30,360	\$99,198	\$2,233	\$1,064
2001	\$31,439,888	\$419,808	\$436	\$193,265	\$43,738	\$1,782	
2002	\$32,290,480	\$200,472	\$135	\$5,919	\$25,952	\$1,411	
2003	\$35,432,707	\$78,555	\$69	\$17,895	\$28,293	\$127	\$20
2004	\$31,933,798	\$382,465	\$1	\$16,055	\$19,973	\$105	\$35,462
2005	\$41,978,644	\$1,485,343	\$6,564	\$23,590	\$16,623	\$156	

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

¹Real values are current values adjusted to eliminate the effects of inflation. This adjustment has been made by dividing current values by the current year GDP implicit price deflator, with a base year of 2005.

Table 30. Number of vessels with Pacific coast landings of CPS finfish by landing area, 1981-2005.

Year	Ventura &				Monterey &			Northern CA	Other CA	Oregon	Washington	Other
	San Diego	Orange & LA	Santa Barbara	San Luis Obispo	Santa Cruz	San Francisco	CPS Finfish					
1981	64	136	71	46	82	9	6	1	5	4	24	
1982	60	135	38	53	109	18	7		4	1	30	
1983	53	113	28	49	117	47	15		64	1	15	
1984	54	103	35	44	121	65	3	1	3	2	26	
1985	51	124	49	34	115	74			4	2	24	
1986	39	116	37	33	85	48	1	1	1	2	13	
1987	38	110	41	30	77	63	5		92	2	21	
1988	39	104	40	22	97	77	2		79	3	21	
1989	46	99	31	28	62	111	5	1	152	3	20	
1990	48	95	34	50	122	106	6		162	4	30	
1991	53	96	34	33	48	21	4		39	4	18	
1992	53	86	12	27	152	138	7		38	11	26	
1993	46	103	14	16	73	41	5		28	10	23	
1994	49	94	17	7	52	53	8	4	38	12	14	
1995	40	96	32	3	35	38	2		43	6	18	
1996	35	99	29	1	41	38	4		41	14	30	
1997	27	102	20	3	49	53	7		50	18	14	
1998	21	77	15	10	35	56	11		46	9	10	
1999	18	80	17	2	23	21	5		44	10	7	
2000	17	83	18	2	41	35	7		43	19	10	
2001	18	76	17	3	27	14	4		43	28	6	
2002	8	80	9	2	21	7	4		42	24	7	
2003	8	58	14	2	22	6	2		43	20	9	
2004	6	60	11	1	19	9	4		46	21	17	
2005	4	66	12		14	8	2		42	25	16	

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

Table 31. Number of vessels with Pacific coast landings of market squid by landing area, 1981-2005.

Year	Ventura &				Monterey &			Northern CA	Other CA	Oregon	Washington	Other
	San Diego	Orange & LA	Santa Barbara	San Luis Obispo	Santa Cruz	San Francisco						
1981	6	61	26	9	53	1	10					3
1982	1	51	25	7	53	2	7					3
1983	4	44	12	4	32	22	3					7
1984	1	9	17	6	31	8	2					4
1985	1	44	32	5	59	10	1					23
1986	2	43	27	7	41	4	1					8
1987	7	41	30	3	33	17	1					7
1988	10	51	32	4	30	7	1					11
1989	3	48	31	7	28	3	2					5
1990	7	42	26	3	36	9	2					3
1991		36	24	2	30	7	1					3
1992	1	18	14	4	36	16	4					1
1993	1	43	25	13	33	13	1					9
1994	3	42	31	11	34	6	3		1			9
1995	2	59	44	8	28	4	2					27
1996	4	62	66	8	28	2						39
1997	3	55	50	3	28	4	11					22
1998	3	19	45	1		3	2					18
1999	1	76	81	3	13	1	2					44
2000	2	86	65	1	23	1	2					42
2001	4	62	50	2	18	3	3					27
2002		72	61	5	33	3	1					32
2003		43	54	9	36	17						29
2004	3	72	50	8	23	3	1					42
2005		92	40	1	13	2						28

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

Table 32. Number of vessels with CPS finfish as principle species¹ by principle landing area², 1981-2005.

Year	Ventura &			Monterey &			Northern CA	Other CA	Oregon	Washington	Other
	San Diego	Orange & LA	Santa Barbara	San Luis Obispo	Santa Cruz	San Francisco					
1981	4	53	6	1	3	2				1	5
1982	9	49	8	2	2	1				1	7
1983	8	50	7		7					1	3
1984	3	35	4		18	2				1	4
1985	2	40	6	2	3	1				2	2
1986	1	33	8	1	3	1				2	
1987	2	40	6		1	2				2	
1988	3	27	3		1	2			1	2	
1989	6	32	6		4	1				2	1
1990	5	28	3		2					2	2
1991	6	37	4		5					2	1
1992	5	37	4		3	2		1		1	1
1993	2	23	3	1	1	1					1
1994	2	27	6	1	2			1			
1995	2	18	5		2				1		
1996	2	19	7		9						
1997	1	26	3	1	5						
1998	3	37	4		8			1			
1999	1	19	2		6	1			2	1	
2000		26	3		4				6	1	
2001		24	3		3				11	6	
2002	2	23	4		1				10	8	
2003	2	10	2		2			1	10	5	
2004	2	13	3		5				13	6	
2005	1	7	2		2				14	4	1

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

¹Principle species is the species that accounts for the greatest share of a vessel's total exvessel revenues across all species landed.

²Principle landing area is the area that accounts for the greatest share of a vessel's total exvessel revenues across all areas in which it had landings.

Table 33. Number of vessels with market squid as principle species¹ by principle landing area², 1981-2005.

Year	Ventura &			Monterey &			Northern CA	Other CA	Oregon	Washington	Other
	San Diego	Orange & LA	Santa Barbara	San Luis Obispo	Santa Cruz	San Francisco					
1981	2	14	3		33					1	
1982		16	2		35					2	
1983		6			4	1			1	7	1
1984					3				4	7	
1985		6	6		28				3		2
1986		9	4		16	1					1
1987	2	6	8		14						
1988	3	18	18		15						1
1989	2	16	12		15						1
1990	1	7	13		12						
1991		5	15		12	1					
1992			4		16	2					
1993		15	13	3	16						2
1994		8	18		19	2					4
1995		24	31		3	2				2	6
1996		30	41		7					1	15
1997		28	33		8						9
1998		3	22								6
1999		31	48		1						20
2000	1	44	32		8						9
2001	1	32	22		8	1					5
2002		33	11		17	1					6
2003		20	21		15	1					15
2004	1	41	15		8						9
2005		60	13		1						8

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

¹Principle species is the species that accounts for the greatest share of a vessel's total exvessel revenues across all species landed.

²Principle landing area is the area that accounts for the greatest share of a vessel's total exvessel revenues across all areas in which it had landings.

Table 34. Number of processors and buyers, by landing area, whose annual purchases of CPS finfish represents the largest share of their total annual exvessel expenditures, 1981-2005.

Year	Ventura &			Monterey &			Northern CA	Other CA	Oregon	Washington	Other
	San Diego	Orange & LA	Santa Barbara	San Luis Obispo	Santa Cruz	San Francisco					
1981	1	5	4	2	1	1					2
1982		3	7							1	5
1983	1	4	5		2	1				1	3
1984	1	2	3		3	2				1	3
1985		5	2	1	2	1				1	1
1986		5	4		2	1				1	2
1987	1	6	5		1	2				2	1
1988		7	4		1	1				2	1
1989	3	8	3		1	1				2	1
1990	6	5	2		1	2				2	1
1991	2		3		2	1				2	1
1992	1	7	4		1	1				1	
1993		4	5		2	1				1	
1994	2	6	4		2	1		1		1	
1995	1	7	4			1		1			2
1996	2	4	6		1	1				1	1
1997	1	9	6		1	1				1	
1998	1		6		3	1	1			1	2
1999	2	5	4		2	2	1			1	
2000		9	4		3				2	1	1
2001		6	6	1		1	1		4	1	
2002	2	7	6		1	1			3	1	
2003	2	8	5		1		1		3	2	
2004	2	7	8	1	2		1		5		1
2005	1	3	3						6		

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.

Table 35. Number of processors and buyers, by landing area, whose annual purchases of market squid represents the largest share of their total annual exvessel expenditures, 1981-2005.

Year	Ventura &			Monterey &			Northern CA	Other CA	Oregon	Washington	Other
	San Diego	Orange & LA	Santa Barbara	San Luis Obispo	Santa Cruz	San Francisco					
1981		1	2		5	4					
1982		1			7	1	1			2	
1983						3				3	
1984					1					2	
1985			3		6						1
1986		1	3		6	1					1
1987		1	3		4	1					
1988		2	3	2	2	2					
1989		1	11	1	3	2					
1990		2	6		4						
1991			6			1					
1992			4			3					
1993	1		8	1	1	1					
1994		2	16	1	2			1			1
1995		1	16								1
1996		4	10		2					1	3
1997		6	10		1						1
1998	1		3								
1999		5	19								5
2000	1	9	20	1	1						5
2001	1	3	14	1	1		1				2
2002		4	11	1							4
2003		4	11	1	2						1
2004		3	16	2	1						2
2005		2	11								1

Source: PacFIN - 1981-2001 data extracted April 2004, 2002 data extracted May 2005, 2003-2005 data extracted March 2006.