

White Seabass Fishery Management Plan 2005-2006 Annual Review



Prepared by

Department of Fish and Game
Marine Region
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Executive Summary

The California Fish and Game Commission (Commission) adopted the White Seabass Fishery Management Plan (WSFMP) in June 2002. The WSFMP includes a provision for annual monitoring and assessment of the white seabass fisheries. The White Seabass Scientific and Constituent Advisory Panel (WSSCAP) was established to assist the Department of Fish and Game (Department) and the Commission with the review of the fishery assessments, management proposals, and plan amendments. The annual review includes fishery-dependent data (e.g., commercial and recreational landings and length frequencies), and fishery-independent data (e.g., recruitment information), as well as documented changes within the social and economic structure of the recreational and commercial industries that utilize the white seabass resource within California. The review also includes information on the harvest of white seabass from Mexican waters and other relevant data. Based on the results of the annual review, in cooperation with the WSSCAP, the Department will provide management recommendations, if needed, to the Commission.

To assist the Commission in determining if management measures need to be modified or added, the WSFMP framework includes, and the Commission adopted, points of concern criteria to help determine when management measures are needed to address resource issues. The points of concern are:

1. catch is expected to exceed the current harvest guideline or quota;
2. any adverse or significant change in the biological characteristics of white seabass (age composition, size composition, age at maturity or recruitment) is discovered;
3. an overfishing condition exists or is imminent;
4. any adverse or significant change in the availability of a managed species' forage for dependent species, or in the status of a dependent species, is discovered;
5. new information on the status of white seabass is discovered;
6. an error in data or stock assessment is detected that significantly changes estimates of impacts due to current management.

The Department and WSSCAP determined that none of the points of concern were met during the review of the 2005-2006 fishery season (September 1 to August 31). Additional social and economic information along with the catch information from Mexico support this conclusion. As a result, the Department does not recommend any changes to the management of white seabass or to the WSFMP at this time.

Background

The White Seabass Scientific and Constituent Advisory Panel (WSSCAP) met with the Department of Fish and Game (Department) in May 2007 to consider if current management measures provide adequate protection for the white seabass resource. The WSSCAP annually reviews current information to evaluate the status of the white seabass resource based on points of concern adopted to implement the White Seabass Fishery Management Plan (WSFMP). If a resource conservation issue is found, based on the points of concern, the WSSCAP will provide its recommendation, rationale, and analysis to the Department, which will recommend to the California Fish and Game Commission (Commission) the appropriate management measure(s) to address the issue(s).

Results

Analysis of the points of concern (Table 1) showed that none of the criteria were met in 2005-2006.

Table 1. Analysis of the points of concern.

Criteria	Analysis	Result
Catch is expected to exceed the current harvest guideline or quota.	2005-2006 total catch = 435,809 lbs; Optimum Yield = 1.2 million pounds; Total catch is below optimum yield.	No action necessary
Any adverse or significant change in the biological characteristics of white seabass (age composition, size composition, age at maturity or recruitment) is discovered.	Recreational and commercial fishery length-frequencies showed no significant change. No new information on age composition, age at maturity, or age at recruitment.	No action necessary
An overfishing condition exists or is imminent.	See analysis in Table 2. No overfishing conditions noted.	No action necessary
Any adverse or significant change in the availability of a managed species' forage for dependent species, or in the status of a dependent species, is discovered.	Forage species landings are fairly stable and there has been no reduction in harvest guideline or quota for those species actively managed. No changes noted.	No action necessary
New information on the status of white seabass is discovered.	No new information.	No action necessary
An error in data or stock assessment is detected that significantly changes estimates of impacts due to current management.	Minor adjustments to the recreational and commercial catch estimates were made to correct errors. No significant errors detected.	No action necessary

Point of Concern: Expectation of optimum yield being exceeded.

The Commission established a fishing season of September 1 through August 31 of the following year. The Commission also adopted an optimum yield. The optimum yield is based on a maximum sustainable yield proxy of the unfished biomass, and is currently set at 1.2 million pounds. In the 2005-06 season, the total recreational and commercial harvest was 435,809 pounds, less than half of the allowable catch (Appendix A, Table 1).

Point of Concern: Changes in the biological characteristics of white seabass.

A review of new information on white seabass (size composition) revealed no significant changes that would indicate a problem in the fishery (Appendix A, Figures 1 and 2).

Point of Concern: An overfishing condition exists or is imminent.

Three criteria (Table 2) determine if an overfishing condition exists or is imminent. For the commercial fishery, there must be a 20 percent decline in landings in each of 2 consecutive seasons compared to the prior 5-season running average. Commercial landings of white seabass (Appendix A, Table 2) totaled 388,630 pounds in 2005-2006; a 15 percent increase when compared to the 5-season average (339,025 pounds). In 2004-2005 commercial landings totaled 288,546 pounds an 11 percent decline compared to the 5-season average (325,084 pounds). The WSSCAP and the Department agree that the overfishing criterion for the commercial fishery was not met.

For the recreational fishery, the overfishing criterion is defined as a 20 percent decline in each of 2 consecutive seasons for both the number of fish and the average weight (Appendix A, Table 3). In the recreational fishery, the number of fish caught in 2005-2006 declined 47 percent compared to the previous season. In 2004-2005, the number of fish caught by recreational anglers increased 46 percent compared to the previous season. The average weight of fish caught in the 2005-2006 season decreased 6 percent when compared to the previous season. In the 2004-2005 season the average weight declined 2 percent when compared to the previous season. While there was a decline in recreational catch in 2005-2006, the average weight of fish caught by recreational anglers has not shown the same downward trend, thus the WSSCAP and the Department agree that the overfishing criterion was not met.

The final criterion for determining if an overfishing condition exists is a 30 percent decline in the recruitment index for juvenile white seabass compared to the 5-season average of recruitment (Appendix A, Table 4). The Ocean Resources Enhancement and Hatchery Program conducts standardized field studies four times a year (August, October, April and June) for juvenile recruitment. Lack of funding resulted in reduced sampling during the 2004-2005 and 2005-2006 seasons. As a result, this review

compared the catch for October only. The results show a 16 percent increase in recruitment for the 2005-2006 season, compared to the previous 5-season average. In 2004/05 there was a 13 percent increase in the October catch compared to the previous 5-season average.

Based on fishery-independent recruitment surveys the WSSCAP and the Department agree that the juvenile recruitment overfishing criterion was not met because there was no decline in recruitment for the current season.

Table 2. Analysis to determine if the white seabass resource is overfished.

Criteria	Analysis	Result
A 20 percent decline in the total annual commercial landings of white seabass for the past 2 consecutive seasons compared to the prior 5-season average of landings, based on landing receipt data.	2005-2006 = 388,630 lbs = 15% increase 5-season average = 339,025 lbs 2004-2005 = 288,546 lbs = 11% decline 5-season average = 325,084 lbs	No action necessary
A 20 percent decline in both the number of fish and the average weight of white seabass caught in the recreational fishery for the same 2 consecutive seasons, as determined by the best available data.	2005-2006 = 4,272 fish = 47% decline average weight = 17.5 lbs = 6% decline 2004-2005 = 8,129 fish = 46% increase average weight = 18.7 lbs = 2% decline	No action necessary
A 30 percent decline in recruitment indices for juvenile white seabass compared to prior 5-season average of recruitment, as determined by the best available data.	2005-2006 = 423 fish = 16% increase 5-season average = 373 fish 2004-2005 = 423 fish = 13% increase 5-season average = 395 fish	No action necessary

Other Points of Concern:

The remaining three points of concern (Table 1) consider changes to the availability of a forage species upon which the white seabass depends, any new information on the status of white seabass, and any errors in data or stock assessment which were found. A review of white seabass forage species (Appendix A, Figure 3) revealed no changes in availability, there is no new information on stock status, and there were no significant errors found in the data.

Additional Information

The WSSCAP was provided with social and economic information for the commercial fishery (Appendix A, Table 5). The number of commercial vessels landing white seabass has varied over time. In the 2005-2006 season the number of vessels increased slightly. The most common (mode) ex-vessel value of white seabass has remained steady at \$2.25-\$2.50 per pound for the prior 9 seasons and increased to \$3.00 in the 2005-2006 season. No similar social or economic data are available for the recreational fleet.

Information about the take of white seabass in Mexican waters was considered by the WSSCAP. California commercial fishermen are forbidden by Mexican law to fish in the territorial seas of Mexico, and no landings of white seabass from Mexico by California commercial fishermen were reported in 2005-2006. Recreational anglers may fish in Mexico under the authority of a Mexican sport fishing license. During the 2005-2006 season, Commercial Passenger Fishing Vessel log book data reported 115 white seabass taken in Mexico, down from the 128 reported taken in the prior season. No additional information about either the recreational or commercial catch of white seabass in Mexico is available.

Appendix A – Data Analyses

Season	Recreational	Commercial	Total
1996/97	138,753	60,605	199,358
1997/98	155,903	134,306	290,209
1998/99	410,605	263,439	674,044
1999/00	588,752	218,842	807,594
2000/01	245,833	215,692	461,525
2001/02	663,640	402,537	1,066,177
2002/03	556,688	483,410	1,040,098
2003/04	98,660	304,939	403,599
2004/05	116,736	288,547	405,283
2005/06	65,179	388,630	453,809

Source: Recreational Fisheries Information Network and Commercial Fisheries Information System
 Note: 2004 - 2006 recreational data are from a different survey program than used in previous years

Season	Pounds Landed	Prior 5-season average	Percent change from previous 5-season average
1996/97	60,604		
1997/98	134,306		
1998/99	263,438		
1999/00	218,841		
2000/01	215,692	155,563	39%
2001/02	402,538	178,576	125%
2002/03	483,410	246,963	96%
2003/04	304,939	316,784	-4%
2004/05	288,546	325,084	-11%
2005/06	388,630	339,025	15%

Source: Commercial Fisheries Information System

Season	Total number of fish caught	Percent change in number of fish from prior season	Average weight in pounds	Percent change in weight from prior season
1996/97	13,020	22%	10.0	22%
1997/98	6,823	-48%	20.4	104%
1998/99	23,674	247%	18.1	-11%
1999/00	34,470	46%	14.1	-22%
2000/01	24,110	-30%	12.0	-15%
2001/02	42,929	78%	14.5	21%
2002/03	34,024	-21%	17.1	18%
2003/04	5,581	-84%	19.1	12%
2004/05	8,129	46%	18.7	-2%
2005/06	4,272	-47%	17.5	-6%

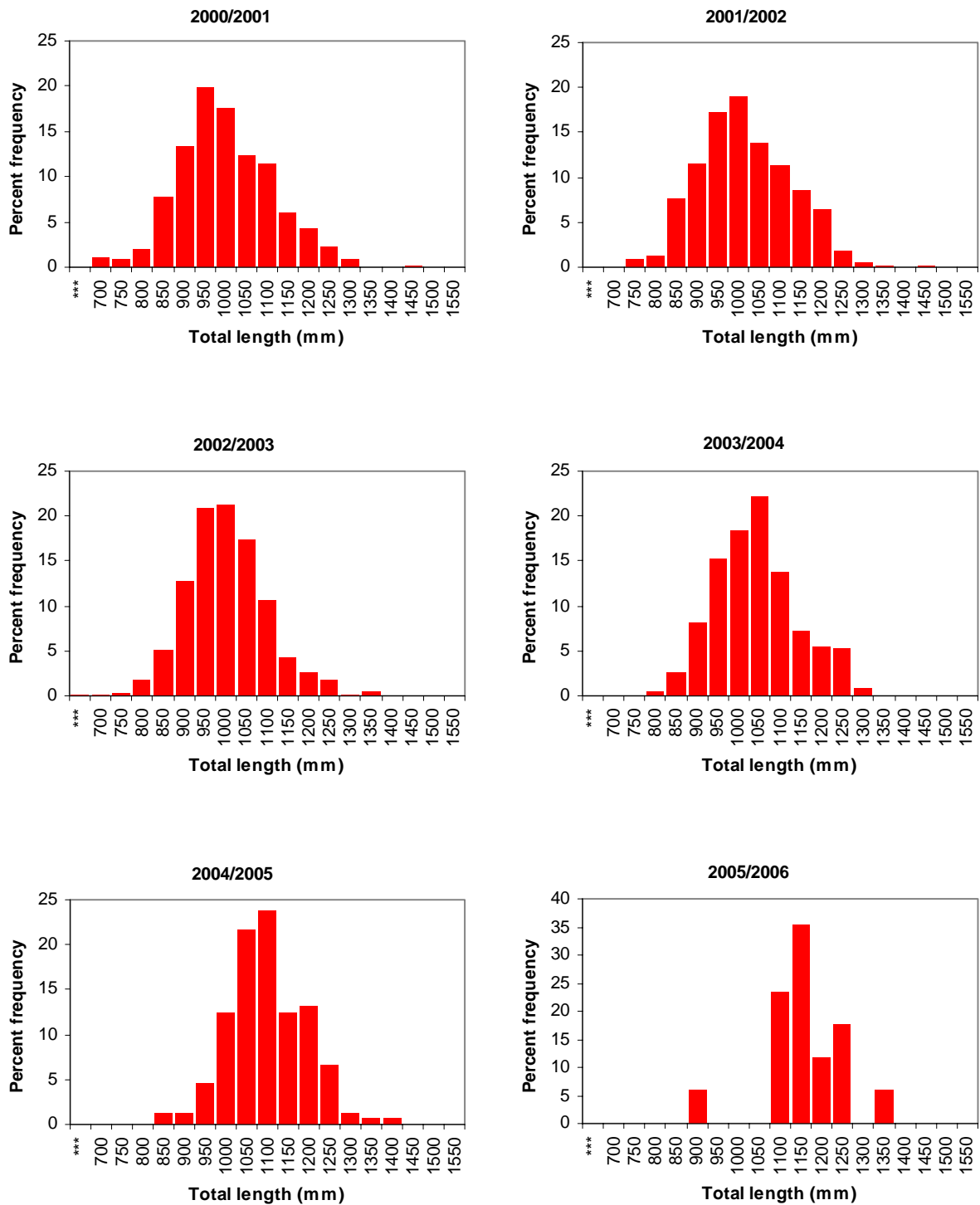
Source: Recreational Fisheries Information Network
 Note: 2004 - 2006 recreational data are from a different survey program than used in previous years

Season	October	Previous 5-season average	Percent change from 5-season average
1996/97	173		
1997/98	294		
1998/99	259		
1999/00	580		
2000/01	402		
2001/02	323	342	-5%
2002/03	274	372	-26%
2003/04	287	368	-22%
2004/05	423	373	13%
2005/06	395	342	16%

Source: Ocean Resources Enhancement and Hatchery Program gill net surveys

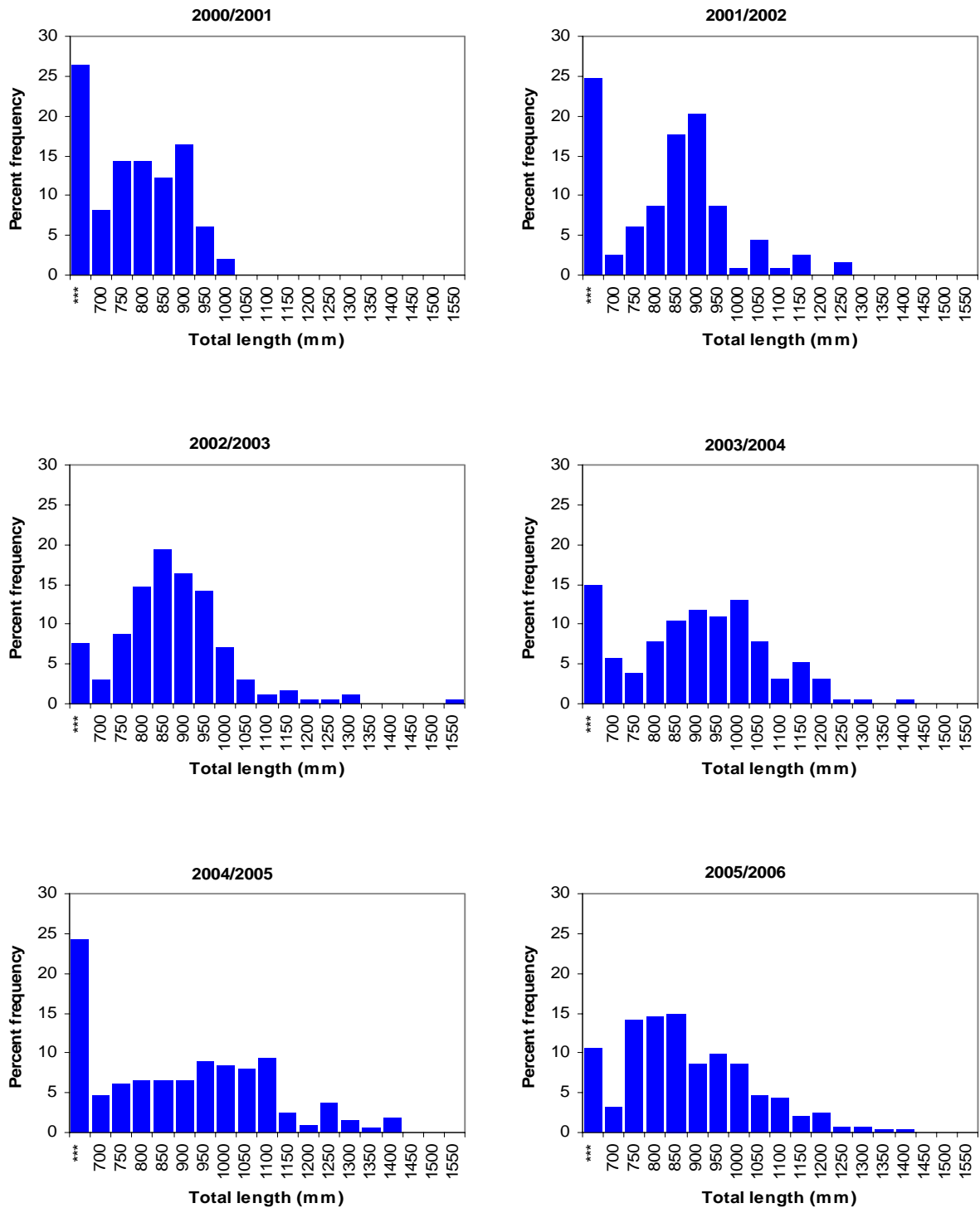
Season	Total number of vessels landing white seabass	Most common ex-vessel price per pound
1996/97	108	\$2.50
1997/98	117	\$2.50
1998/99	164	\$2.50
1999/00	175	\$2.50
2000/01	190	\$2.50
2001/02	216	\$2.25
2002/03	157	\$2.50
2003/04	117	\$2.50
2004/05	80	\$2.50
2005/06	97	\$3.00

Source: Commercial Fisheries Information System



***all sub-legal fish were grouped together
 Source: Department of Fish and Game Market Sampling Program

Figure 1. Commercial white seabass length frequencies, 2000/01 – 2005/06.



***all sub-legal fish were grouped together
 Source: Recreational Fisheries Information Network
 Note: 2004 - 2006 recreational data are from a different survey program than used in previous years

Figure 2. Recreational white seabass length frequencies, 2000/01 – 2005/06.

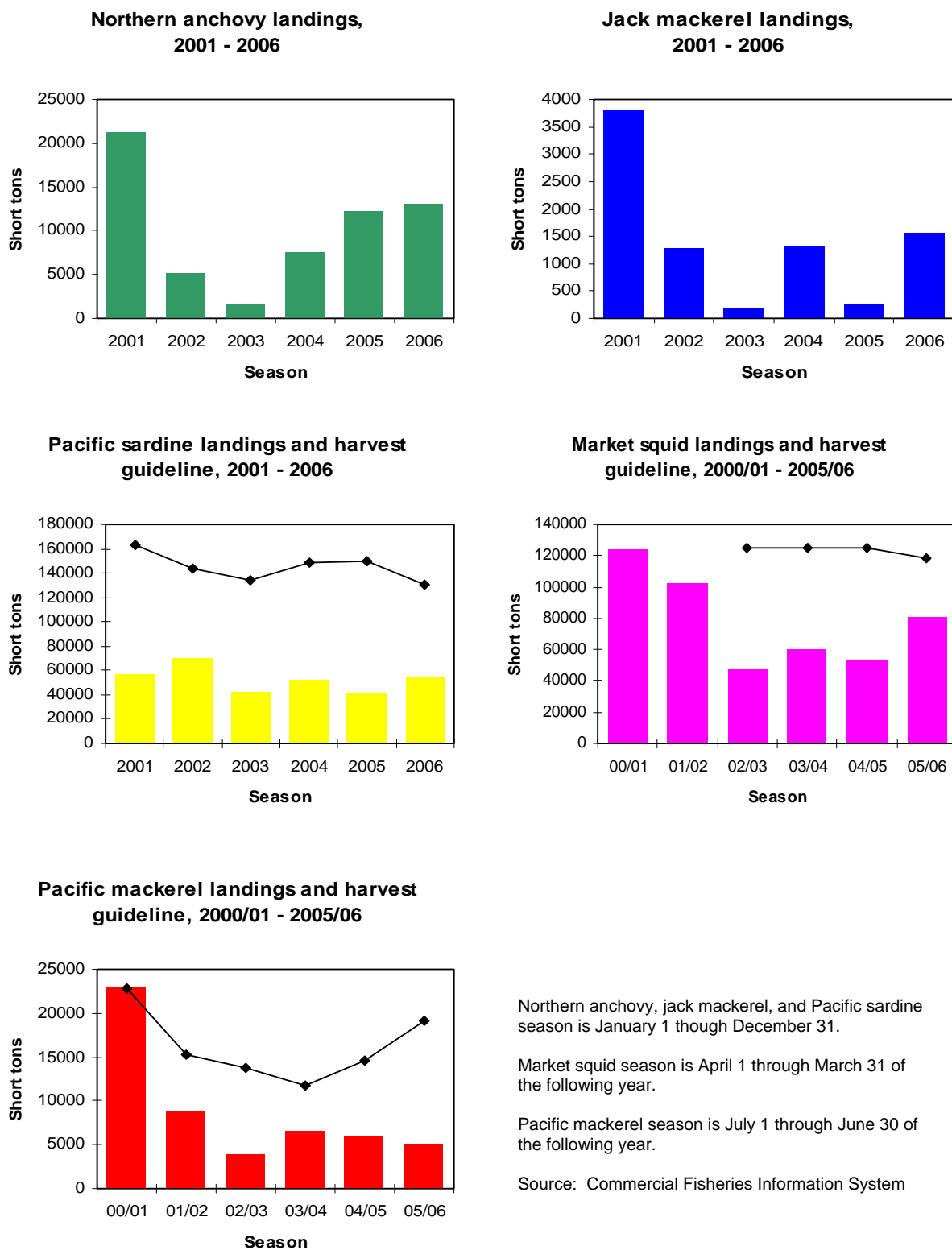


Figure 3. Harvest guidelines and commercial catch of white seabass forage species.