

White Seabass Fishery Management Plan 2006-2007 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 white seabass forage 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 met on April 11, 2008 to review the 2006-2007 fishery season (September 1 to August 31), and together agreed that none of the points of concern were met. 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 WSSCAP annually reviews current information to evaluate the status of the white seabass resource based on points of concern adopted to implement the WSFMP, and to consider whether current management measures provide adequate protection to the resource. 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 2006-2007.

Table 1. Analysis of the points of concern.

Criteria	Analysis	Result
Catch is expected to exceed the current harvest guideline or quota.	2006-2007 total catch = 519,551 pounds; 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 white seabass forage 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 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 2006-07 season, the total recreational and commercial

harvest was 519,551 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 416,420 pounds in 2006-2007; this is an 11 percent increase when compared to the 5-season average (373,861 pounds). In 2005-2006 commercial landings totaled 388,630 pounds; this is a 15 percent increase compared to the 5-season average (339,025 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 2006-2007 increased 27 percent compared to the previous season. In 2005-2006, the number of fish caught by recreational anglers decreased 47 percent compared to the previous season. The average weight of fish caught in the 2006-2007 season increased 22 percent when compared to the previous season. In the 2005-2006 season the average weight declined 6 percent when compared to the previous season. While there was a decline in recreational catch and average weight in 2005-2006, the number of fish and average weight increased in the 2006-07 season. 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 2005-2006 and 2006-2007 seasons. As a result, this review compared the catch for October only. The results show a 28 percent decrease in recruitment for the 2006-2007 season, compared to the previous 5-season average. In 2005/06, there was a 15 percent increase in the October catch compared to the previous 5-season average.

Although the October 2006 recruitment index of 244 is the lowest in the 10-year history of the program, it is only slightly lower than the previous low of 259 in October 1998. Based on fishery-independent recruitment surveys, the WSSCAP and the Department

agree that the juvenile recruitment overfishing criterion was not met because there was not a 30 percent decline in recruitment for the current season.

Table 2. Analysis to determine if the white seabass resource is overfished (Criteria taken from California Code of Regulations, Title 14).

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.	2006-2007 416,420 pounds = 11% increase 5-season average = 373,861 pounds 2005-2006 388,630 pounds = 15% increase 5-season average = 339,025 pounds	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.	2006-2007 5,409 fish = 27% increase 21.4 pound average = 22% increase 2005-2006 4,272 fish = 47% decline 17.5 pound average = 6% 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.	2006-2007 244 fish = 28% decline 5-season average = 340 fish 2005-2006 395 fish = 15% increase 5-season average = 342 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 Department summarized some basic social and economic information for the commercial fishery, and provided those summaries to the WSSCAP (Appendix A, Table 5). The number of commercial vessels landing white seabass has varied over time. In the 2006-2007 season, the number of vessels declined slightly. The most common ex-vessel value (price per pound) for white seabass remained steady at \$2.25-\$2.50 per pound for the 9 seasons ending in 2004-05 and increased to \$3.00 per pound in the last 2 seasons. 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 2006-2007. Recreational anglers may fish in Mexico under the authority of a Mexican sport fishing license. During the 2006-2007 season, Commercial Passenger Fishing Vessel log book data reported 185 white seabass taken in Mexico, up from the 115 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
1997/98	155,909	134,306	290,215
1998/99	410,607	263,439	674,046
1999/00	588,760	218,842	807,602
2000/01	245,835	215,692	461,527
2001/02	663,651	402,537	1,066,188
2002/03	556,684	483,410	1,040,094
2003/04	98,656	304,939	403,595
2004/05	116,734	288,547	405,281
2005/06	65,168	389,873	455,141
2006/07	103,131	416,420	519,551

Source: Recreational Fisheries Information Network and Commercial Fisheries Information System
 Note: 2004 - 2007 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
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%
2006/07	416,420	373,861	11%

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
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%
2006/07	5,409	27%	21.4	22%

Source: Recreational Fisheries Information Network

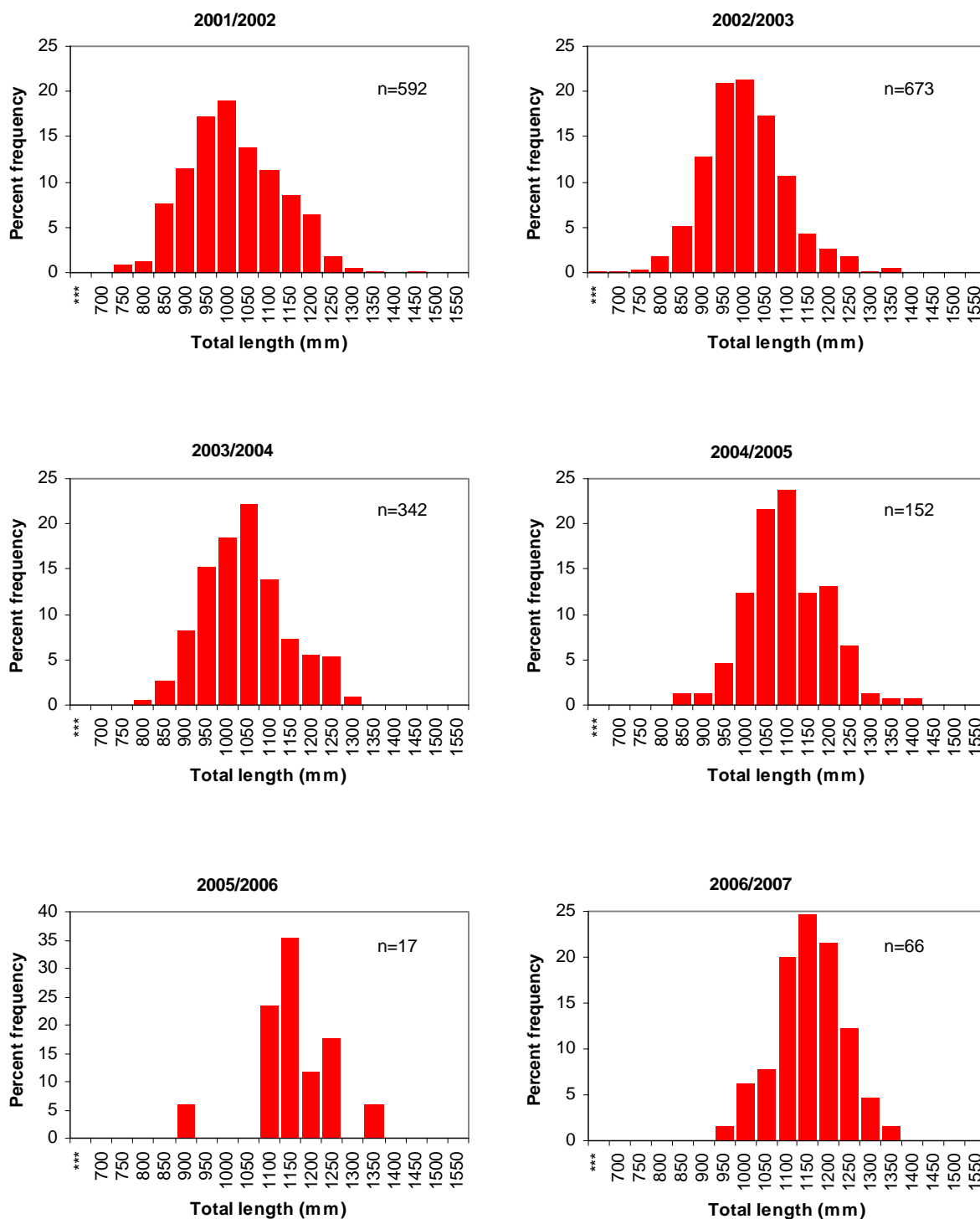
Note: 2004 - 2007 recreational data are from a different survey program than used in previous years

Season	October	Previous 5-season average	Percent change from 5-season average
1997/98	294		
1998/99	259		
1999/00	580		
2000/01	402		
2001/02	323	342	-6%
2002/03	274	372	-26%
2003/04	287	368	-22%
2004/05	423	373	13%
2005/06	395	342	15%
2006/07	244	340	-28%

Source: Ocean Resources Enhancement and Hatchery Program gill net surveys

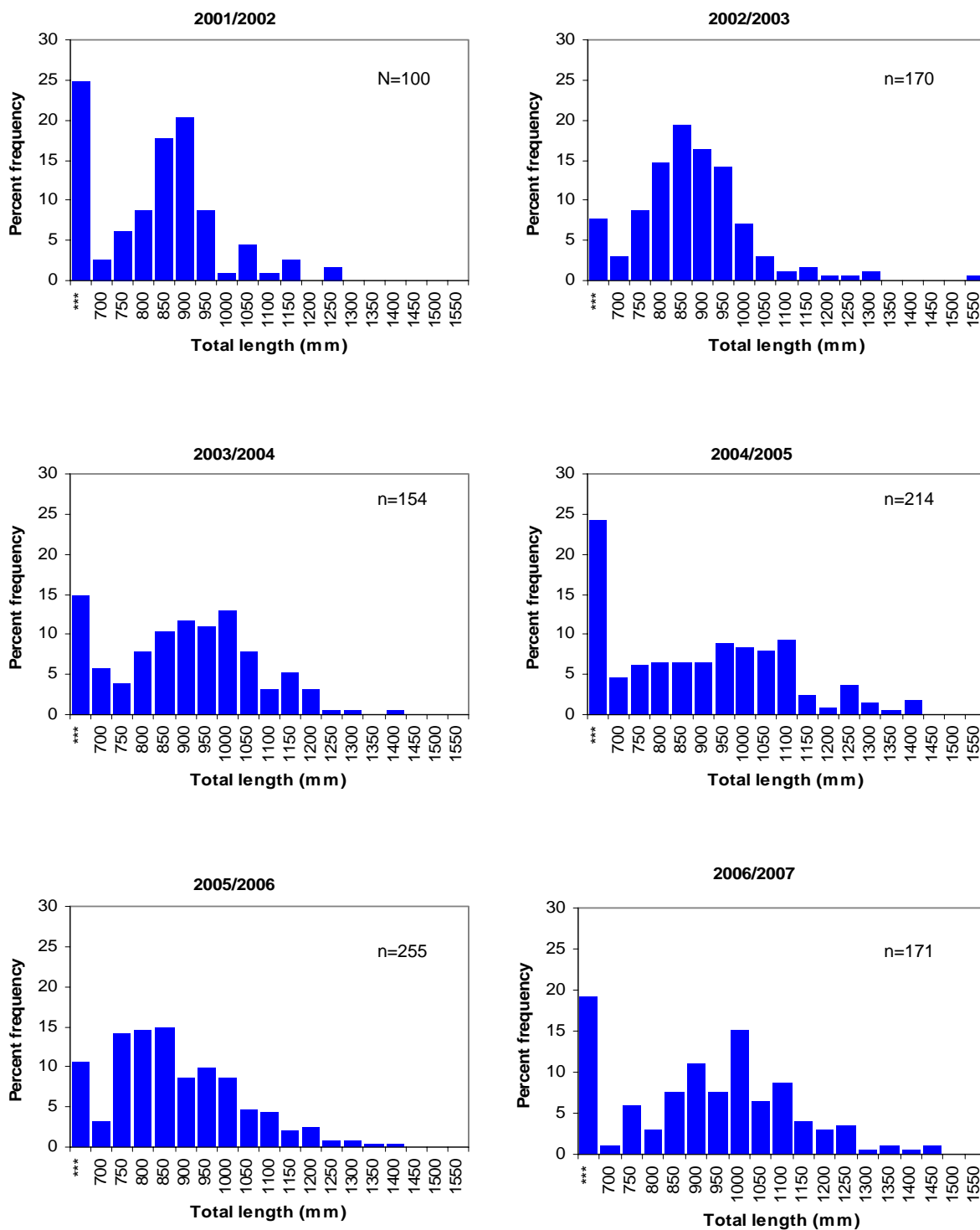
Season	Total number of vessels landing white seabass	Most common ex-vessel price per pound
1997/98	117	\$2.50
1998/99	164	\$2.50
1999/00	175	\$2.50
2000/01	190	\$2.50
2001/02	216	\$2.25
2002/03	157	\$2.50
2003/04	117	\$2.50
2004/05	80	\$2.50
2005/06	97	\$3.00
2006/07	96	\$3.00

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, 2001/02 – 2006/07.



***all sub-legal fish were grouped together

Source: Recreational Fisheries Information Network

Note: 2004 - 2007 recreational data are from a different survey program than used in previous years

Figure 2. Recreational white seabass length frequencies, 2001/02 – 2006/07.

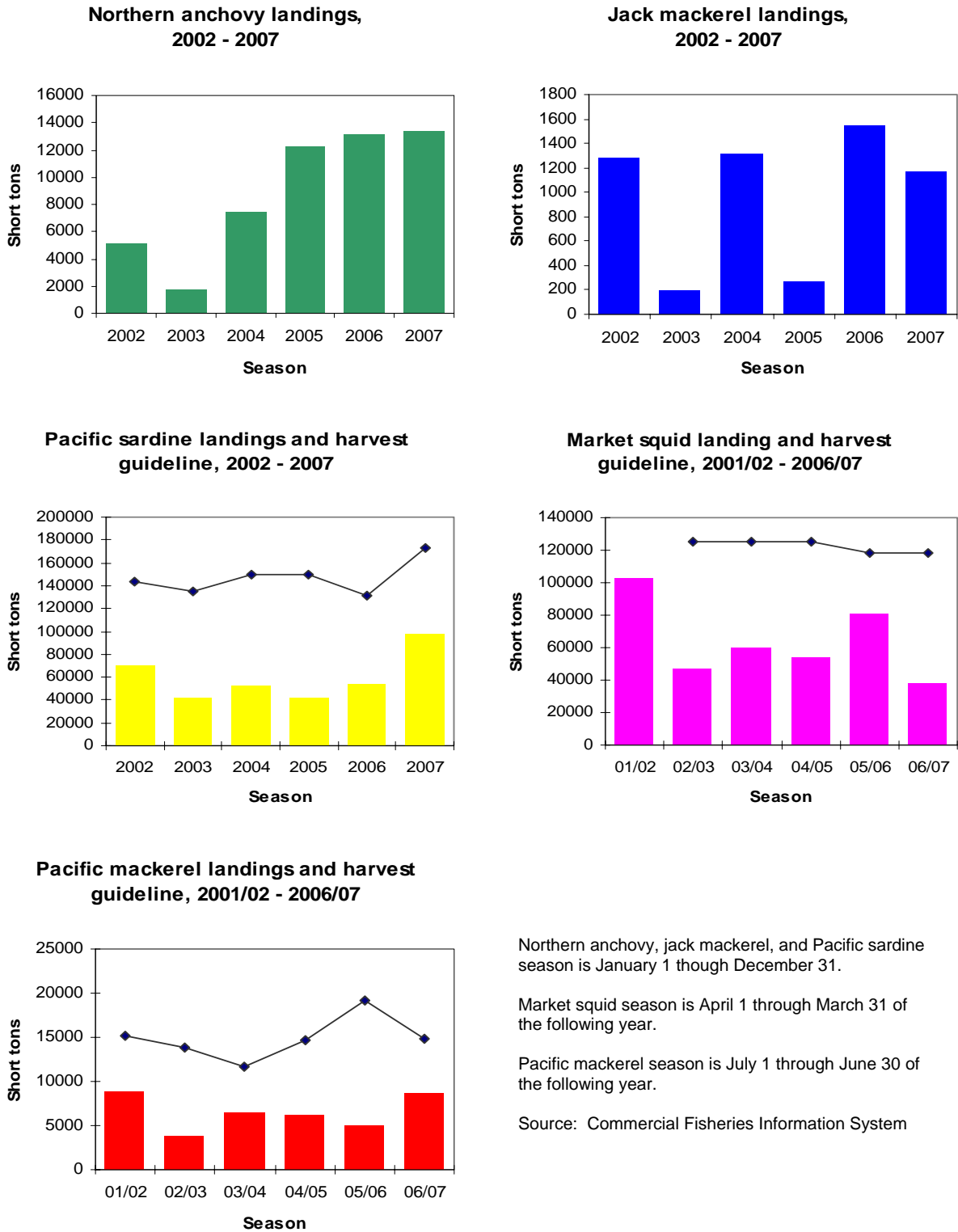


Figure 3. Harvest guidelines and commercial catch of white seabass forage species.