

Memorandum

Date: December 5, 2011

To: Sonke Mastrup
Executive Director
Fish and Game Commission

From: Charlton H. Bonham
Director



Subject: **Striped Bass Sport Fishing Regulation Amendment Proposal**

Introduction

The Department, in cooperation with NOAA Fisheries and the U.S. Fish and Wildlife Service, has prepared a proposal, based on the best available science, to amend the striped bass sport fishing regulations with the goal of increasing striped bass harvest to reduce striped bass predation on endangered and threatened fishes in the anadromous waters of California. Striped bass are opportunistic predators, preying on a wide variety of fish, invertebrates, and other species. Among its prey are Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, delta smelt, longfin smelt, and other listed fishes ("listed species"). Populations of these listed species have plummeted to record lows over the past few decades. For example:

- The population of winter-run Chinook salmon had collapsed by the mid-1980s such that spawning escapement in 1994 was estimated at fewer than 200 fish, increased to 17,153 in 2006, then declined to just 1,596 fish in 2010.
- The three indices the Department uses to monitor delta smelt abundance trends have declined steeply since the late 1990s, indicating the population has declined sharply since its listing in 1993. Recent indices are persistently low despite sometimes-favorable environmental conditions and intensive management efforts.
- The three indices the Department uses to monitor longfin smelt relative abundance trends have declined steeply since the late 1990s. Recent indices are persistently low despite sometimes-favorable environmental conditions and intensive management efforts.

Furthering recovery of these species is of vital importance to the health of the Delta and is a key component of the Department's public trust duty to protect and conserve fish and wildlife resources.

Causes of Decline of the Listed Species

Populations of listed species in the Delta and other anadromous waters of California are affected by numerous and varied stressors.

Threats to salmonid populations include, in no particular order: barriers and impediments to migration; water diversions; habitat loss, modification, and degradation; impaired water quality; habitat channelization; loss of spawning habitat due to operations of dams; dewatering; commercial and recreational fishery effects; hatchery effects; and competition from and predation by non-native fish, including striped bass.

Threats to delta smelt and longfin smelt include, in no particular order: low numbers of adults; water diversions; a decline in fall habitat environmental quality; water pollution; adverse water quality; changes in food web function; prevalence of exotic species (including food items); a commercial bait fishery for shrimp in the San Francisco Estuary and Sacramento-San Joaquin Delta; and predation by non-native fish, including striped bass.

Predation by striped bass is only one of numerous stressors on the listed species and it may not be among the most significant stressors for each of those species. However, through the historical stocking of striped bass (which ended in the year 2000) and by enacting the striped bass sport fishing regulations currently in effect, the Department and the Commission may have inadvertently contributed to this stressor by helping establish and maintain the current population of predatory striped bass. While recovery of the listed species will require concerted action to alleviate multiple stressors affecting these species, including, of course, water quality and quantity issues, the Department recommends this regulatory proposal to the Commission not only because this particular stressor has roots in the actions of the Department and the Commission, but because standard fisheries management practices indicate it may be alleviated, at least in part, by further action on the part of the Department and Commission.

The Goal

The Department seeks to increase the abundance of the listed species by reducing the abundance of striped bass through sport fishing regulations that would allow increased harvest of striped bass. Whereas populations of the listed species have declined and some are at perilously low levels, the striped bass population remains substantial despite a decline in abundance in recent decades. Although the listed species constitute a relatively small part of the striped bass diet, the enormous volume of fish (up to 110 million pounds annually) consumed by striped bass and the widespread distribution of striped bass within the geographic range of the listed species indicate the impact of striped bass predation on the listed species could be substantial, and the relative impact has likely become even greater as listed fish populations have declined.

Due primarily to lack of information about angler preference and the striped bass stock-recruitment relationship, the Department cannot forecast with precision how the proposed regulation would impact the striped bass population or fishery. The Department acknowledges the stakeholder interest in this recreational fishery. It is real and substantial. Because striped bass are resilient and fishing effort for striped bass appears to be a simple function of striped

bass abundance, the Department expects that striped bass would become somewhat less abundant. The effect of the regulation may also cause a decline in the average size of striped bass. Fishing effort and fishing success would likely increase for a period of at least several years. Management according to the proposed regulations would thus result in a decrease in the striped bass population but not the collapse of the associated fishery. Furthermore, the fundamental character of California's longstanding and popular striped bass fishery, and the recreational and economic interests it supports, would be preserved under the proposed regulations.

The Regulatory Proposal

Notwithstanding uncertainty as to the extent and impact of striped bass predation, the regulatory proposal, which the Department recommends the Commission adopt, includes the following provisions:

- Raising the daily bag limit for striped bass from 2 to 6 fish;
- Raising the possession limit for striped bass from 2 to 12 fish;
- Lowering the minimum size for striped bass from 18 to 12 inches;
- Establishing a "hot spot" for striped bass fishing at Clifton Court Forebay and specified adjacent waterways at which the daily bag limit will be 20 fish, the possession limit will be 40 fish, there will be no size limit, and anglers fishing at the hot spot will be required to fill out a report card and deposit it in an iron ranger or similar receptacle;
- Changes to the sport fishing regulations for the Carmel, Pajaro, and Salinas Rivers to allow harvest of striped bass when the fishery would otherwise be closed.

Managing the Uncertainty

Given the lack of certainty as to the ultimate effectiveness of the proposed regulation change, the Department recommends an adaptive management plan designed, in part, to assess the efficacy of the new regulations as a means of increasing fishing effort and harvest of striped bass.

To allow for adaptive management based on actual conditions, the Department would monitor the striped bass population, the striped bass fishery, and the demographics of winter- and spring-run Chinook salmon, Central Valley steelhead, longfin smelt, and delta smelt. Evidence of any of the following would be of particular concern: (1) the striped bass population shows signs of imminent collapse and the listed species show signs of recovery; (2) illegal commercialization of sport-caught striped bass increases substantially or user-group conflicts became evident; (3) the striped bass population shows no signs of decrease and the listed species show no signs of recovery; and (4) bycatch of listed species increases to substantial levels.

The Department would also monitor for signs that ecological processes in the Delta may be adversely impacted by any reduction in the striped bass population (e.g., increased predation on listed species by a non-native fish).

The Department would report back to the Commission on a regular basis the results of the monitoring and surveys and provide the Commission with the Department's evaluation of

whether the new regulations are having the intended and desired effect.

Recommended Action

The Department concludes that the highly precarious state of the populations of the listed species warrant a change in sportfishing regulations to allow greater harvest of striped bass, even though there remains uncertainty as to the extent and impact of striped bass predation on the listed species. Attached is a regulatory proposal to amend several sections of Title 14

with the goal of increasing the harvest of striped bass and thereby reducing predation by striped bass on the listed species. The Department recommends that the Commission:

- Direct the Department and Commission staff to prepare a regulatory packet for the attached proposal in accordance with the California Administrative Procedure Act; and
- Direct the Department and Commission staff to commence appropriate environmental review under the California Environmental Quality Act for the proposed regulation change.

Attachment