## North Pacific Fishery Management Council

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## MINUTES Scientific and Statistical Committee November 8-9, 1998

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met November 8-9, 1998 at the Hilton Hotel in Anchorage, AK. All members were present except Doug Larson, Harold Weeks, and Terrance Quinn:

Richard Marasco, Chair

Seth Macinko Al Tyler Jack Tagart, Vice-Chair

Sue Hills Doug Eggers Steve Klosiewski Keith Criddle Dan Kimura

## C-2 Marine Mammal Issues

The SSC received a staff presentation and heard public testimony from Dr. Andrew Trites - UCB, Dr. D. Lee Alverson - NRC, Vidar Wespestad - Pacific Whiting Conservation Coop., John Roos, John Iani - PSPA/UniSea, Al Geiser - FV Hazel Lorraine, Jim McManus, Bob Desautel - Trident, Fisherman, Jay Stinson, Steve Drage - ADA, Chris Blackburn - AGDB, Francine Bennis - AMCC, Fred Yeck - MTC, Paul McGregor and Karl Haflinger - At Sea Processors Association, Henry Mitchell - Tyson, Steve Hall - Fisherman "Spirit of the North", John Gauvin, Groundfish Forum, Brett Johnson - Arctic Storm, and Thorn Smith, related to the Section 7 consultation on Steller Sea lion/fishery interactions. Documents provided to the SSC were treated as public testimony.

The SSC notes that the context of the ESA, and a Section 7 consultation in particular, are largely unfamiliar to the Council family. The roles of the Council and the SSC are not clear. Furthermore, a Section 7 consultation involves a fundamental shift in the burden of proof. The operative question is not whether the fishery is the controlling factor in the decline of the Steller sea lion population, but rather is there a chance of the fishery impeding their recovery.

Several hypotheses were presented to the SSC during public testimony. The SSC recommends that these hypotheses and others be examined.

Hypothesis 1. Physical oceanographic conditions in the eastern Bering Sea and North Pacific changed in the mid-1970s. This change influenced the productivity of several species.

Hypothesis 2. Among the species that declined were forage fishes high in fat, including capelin, herring, eulachon and sandlance.

Hypothesis 3. At the start of the fatty forage fish decline, the W. Steller sea lion (SSL) stock was in high abundance. The forage fish decline initiated the subsequent decline in SSL.

Hypothesis 4. Walleye pollock numbers increased as the W. SSL decreased and became the major prey of SSL.

Hypothesis 5. Pollock as a prey item are less nutritious than forage fish, to the point that SSL in captivity show declines in health when fed solely on pollock. By implication feeding on pollock is contributing to the decline.

Hypothesis 6. The present fishery for pollock adversely affects the availability of prey limiting the ability of SSL to recover.

The SSC believes that if there is a finding of jeopardy, and if RPAs are put into place, that monitoring programs be implemented. With the enormous uncertainty as to the extent of factors affecting sea lions, it is incumbent on those proposing mitigation measures to monitor the results on the sea lions, on the fisheries, and on the ecosystem. Further, there is a responsibility to ensure that the RPAs are designed and implemented in such a way that their efficacy can be determined. Arguments that support the adoption of measures that constrain fishing activities are contingent on the hypothesis that commercial fishing decreases the effectiveness of sea lion foraging. The SSC recommends that future management be based on an experimental design that provides information about the interaction of fisheries and Steller sea lions. The criteria for designating critical habitat should be examined.

Although there is no requirement that the Section 7 consultation address the effect of RPA implementation on industry, communities, or other management objectives, it behooves the Council to explore these issues. The Council should seek information on the effect that the RPAs will have on prohibited species bycatch, changes in the size/age distribution of catch and consequent effects on stock dynamics, gear conflict, and economic impacts.

In addition to monitoring the effects of whatever RPAs are put into place, directed research is needed to test the many hypotheses concern the decline of Steller sea lions. The SSC proposes five questions to guide future work.

- 1) What is the distribution of fish in relation to areas that are used for fishing;
- 2) What is the distribution of fish in fishing areas during and after fishing;
- 3) How do sea lions use pollock in relation to pollock distribution;
- 4) What does the answer to #3 mean in relation to sea lion population dynamics; and
- 5) Does the fishery affect sea lions in other ways (e.g., disturbance).

In addition, the SSC cautions that the factors that were important at the beginning of the decline may or may not be important now.

## Miscellaneous

The SSC recommends that Ms. Susan McCorkle Shirley be appointed to the Scallop Plan Team.