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ON
NOAA'S STELLER SEA LION SCIENCE AND FISHERY MANAGEMENT RESTRICTIONS

BEFORE THE
COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

SEATTLE, WASHINGTON

October 17, 2011

Chairman Hastings and members of the Committee, thank you for the opportunity to testify before you today on NOAA's Steller sea lion science and fishery management decisions to protect the species. My name is Eric Schwaab and I am the Assistant Administrator for Fisheries, within the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce. NOAA's National Marine Fisheries Service (NMFS) is dedicated to the stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems. As a steward, NMFS conserves, protects, and manages living marine resources to ensure functioning marine ecosystems and recreational and economic opportunities for the American public.

On November 24, 2010, NMFS released the 2010 Final Groundfish Biological Opinion, which analyzed the effects of the groundfish fisheries in Alaska on the western population of the Steller sea lion. On December 13, 2010, NMFS published an interim final rule to implement Steller sea lion protection measures to insure that the Bering Sea and Aleutian Islands management area groundfish fisheries off Alaska are not likely to jeopardize the continued existence of the western distinct population segment of Steller sea lions or adversely modify its designated critical habitat (75 Fed. Reg. 77535). This rule went into effect on January 1, 2011. For purposes of consultation under the Endangered Species Act (ESA), NMFS was both the action agency as well as the consulting agency. The actions taken were designed to conserve Steller sea lion prey in important times and areas while allowing as much fishing to continue as possible.

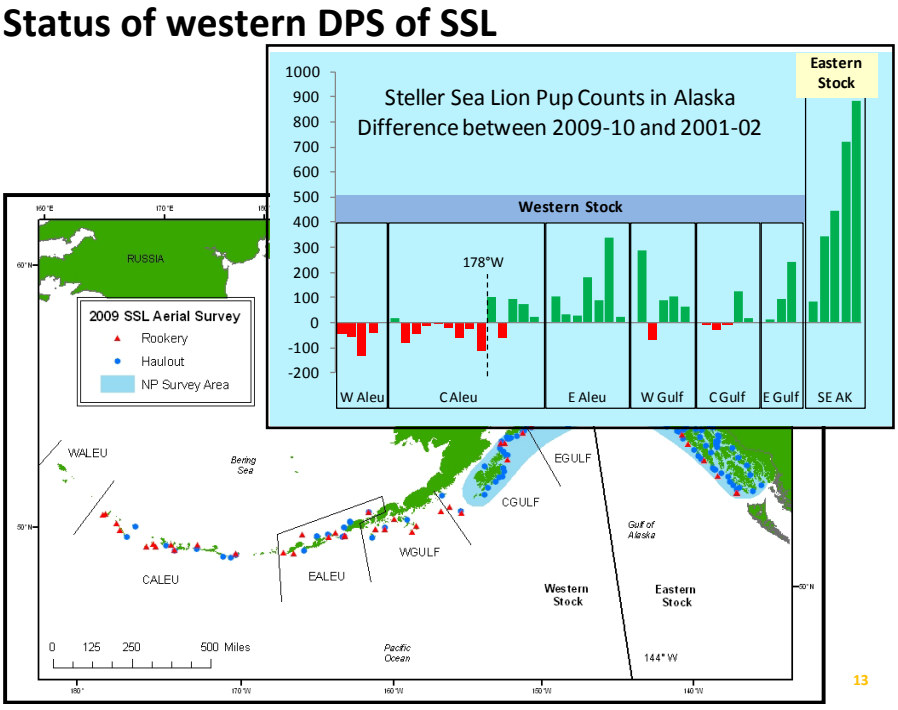
On October 6, 2011, the acting Secretary of Commerce received an invitation from the Natural Resources Committee of the House of Representatives to testify at a hearing to be held on

October 17, 2011 in Seattle, WA concerning several aspects of management decisions regarding the federally managed groundfish fishery in Alaska and potential interactions with the endangered population of Steller sea lion. In particular, the concerns of the Committee are outlined in a series of questions that were posed by the Committee and are addressed herein.

Background

NOAA has been assessing the interactions between Alaskan groundfish fisheries and Steller sea lions for many years. The endangered western population of Steller sea lion has declined by almost 90% throughout its range, reaching its smallest size in 2000. In the late 1990's and early 2000's, NOAA and the North Pacific Fishery Management Council implemented a number of significant changes towards fisheries management that lessened the potential impact of the fisheries on the sea lions. Most of these changes were made in the area to the east of 178º W longitude and in those areas we have seen significant improvement in the numbers of sea lions. However, as Figure 1 indicates, there appears to be a significant problem west of 178º W longitude.

Figure 1. Comparing the difference in pup production in 2001/02 and 2009/10 of Steller sea lions by longitude. Red indicates a decline in pup production, while green indicates an increase in pup production.



This boundary at 178º W longitude is significant because this geographic boundary is the same boundary where NMFS changed its management strategy in 2001 by implementing the Steller sea lion protection measures analyzed in the 2001 Biological Opinion, such that the management strategies west of 178º W longitude provided considerably more opportunity for commercial fishermen to prosecute fisheries inside of critical habitat.

The best, peer-reviewed available science indicates that continued declines in sea lions in the western and central Aleutian Islands sub-region are due in part to reduced birth rates. One possible explanation for lowered birth rates in marine mammals is insufficient nutrition. Atka mackerel and Pacific cod are primary prey of Steller sea lions in the Aleutian Islands and they are targeted by the fisheries. Unless pup production in the western and central Aleutian Islands sub-regions is improved, the recovery of this ESA listed population will remain in doubt. As noted, historically, fishing was allowed in closer proximity to sea lion rookeries and haulouts in the western and central Aleutian Islands sub-regions than other parts of the western population's range. NMFS, therefore, took action to reduce fishing pressure in important times and areas for sea lions with the expectation that the biomass of Pacific cod and Atka mackerel will increase appreciably.

In its Biological Opinion, NOAA determined that the continued operation of the fishery as it was currently being conducted, particularly in the western Aleutians, was likely to jeopardize the continued existence of the Steller sea lions. NOAA then worked with the Council to craft a suite of measures to address the situation in a Reasonable and Prudent Alternative or RPA. The Biological Opinion required closing the western Aleutian Islands fishery management area (543) to fishing for Atka mackerel and Pacific cod, two Steller sea lion prey species. Protective measures in the Central Aleutian Islands (Area 542 and 541) include establishing a 3 nm no-fishing buffer around a newly-established rookery; new closures of important Steller sea lion critical habitat foraging zones to fishing for Atka mackerel and Pacific cod; reductions in Atka mackerel harvest amounts; and varying seasonal closures for various sectors targeting Pacific cod. The protective measures implemented as part of the interim final rule in 2010 are designed to increase the availability of forage fish (e.g., Atka mackerel and cod) in the region where sea lion abundance is currently in decline. NMFS took action because, without these protective measures, sea lions will likely continue to decline in abundance in the foreseeable future. Extirpation, or localized extinction, in the western Aleutian Islands sub-region is likely, and possible in the central Aleutian Islands sub-region.

Development of the 2010 Final Groundfish Biological Opinion

The fishery management decisions in the 2010 Final Groundfish Biological Opinion were developed through a collaborative process between the NMFS Alaska Region, Sustainable Fisheries Division and NMFS Alaska Region, Protected Resources Division. The Protected Resources Division identified the fishing activities that were likely to jeopardize the continued existence and recovery or adversely modify designated critical habitat for the western distinct population segment of Steller sea lion (hereafter referred to as the western population). The potential impacts of all Alaska groundfish fisheries on the western population of sea lions and their critical habitat were examined. NMFS determined through the analysis in the Biological Opinion that it could not ensure the groundfish fisheries in the Bering Sea and Aleutian Islands Management Area (primarily Atka mackerel and Pacific cod fisheries in the Aleutian Islands) were not likely to jeopardize the continued existence of the western population of sea lions or

adversely modify its critical habitat. This determination required changes in these fisheries to ensure the effects of these fisheries were not likely to adversely impact the western population of Steller sea lion.

NMFS included an RPA for the management of the Atka mackerel and Pacific cod fisheries in the Biological Opinion. The Protected Resources Division identified in the Biological Opinion the protective measures that were needed to be met to remove the likelihood of jeopardizing the continued existence of the western population of sea lions and adversely modifying critical habitat in the development of the RPA. The Protected Resources Division then worked with the Sustainable Fisheries Division on the development of the RPA to ensure the fishery management decisions would meet the requirements of the ESA and that these measures could be developed and implemented in a timely manner for the start of the 2011 fishing year.

NMFS presented the draft RPA to the North Pacific Fishery Management Council (Council) in August 2010. Council and public comments were considered in development of the final RPA. In the final Biological Opinion, a result of the Council and public comment, revisions were made to the RPA as to further reduce the potential burden of the RPA on the fishing industry while maintaining the protection measures necessary to ensure no likelihood of the action jeopardizing the continued existence or adversely modifying critical habitat for the western population.

The RPA was structured to mitigate effects of the fishery in sub-regions where Steller sea lion abundance continues to decline (western and central Aleutian Islands sub-region) and where available information indicates that reproduction may be reduced to a level that cannot support positive population growth (the western Aleutian Islands sub-region). The western and central Aleutian Islands were the two sub-regions where population growth was negative from 2000-2008 and of most concern. NMFS determined that additional mitigation measures in the other three sub-regions in U.S. waters were unwarranted (i.e., western, central and eastern Gulf of Alaska). Currently, the western population of the Steller sea lion is growing at a rate of 1.4% per year. However, as explained in Chapter 7 of the Biological Opinion, the western population is not meeting the criteria of a recovering population as determined by the Revised Recovery Plan and is at risk of being extirpated in the western portion of its range in U.S. waters.

Scientific Information for the Biological Opinion

Information referred to in the Biological Opinion, on which the Agency made its determination regarding whether the action was likely to jeopardize the continued existence or adversely modify critical habitat of the western population, included: (1) counts of pups and non-pups by sub-region, (2) food habits data by sub-region, (3) telemetry data on foraging behavior, and (4) differences in fishery management strategies by sub-region. In addition, NMFS conducted research on the abundance of killer whales in the Aleutian Islands.

One of the most important pieces of information is shown in Fig 3.10 of the Biological Opinion (change in pup counts from 2005 to 2009 by degrees of longitude). Another very important

piece of information is shown in Table 3.6 of the Biological Opinion (pup to non-pup ratios by sub-region). A summary of the underlying evidence supporting the RPA can be found on pages 359 and 360 of the Biological Opinion.[1]

These data suggested that some factor was acting west of 178^{o} W longitude that was leading to the declines in pup production. Given the presumed linkage between Steller sea lion declines and nutritional stress, and the increased fishing effort in this region since 2001, it was reasonable to conclude that a restriction in fishing effort would remove fishery effects that may contribute to nutritional stress and potentially ameliorate the decline in pup production.

Economic Analysis of the Biological Opinion

The economic analysis examined a wide range of potential impacts, including 1) costs to the fishing industry directly affected and the communities deriving jobs and income from this fishing activity, and 2) benefits derived from recovering Steller sea lion populations.

The impacts on directly regulated Atka mackerel and Pacific cod fishing operations were evaluated by estimating the loss in gross revenue in Atka mackerel and Pacific cod production in prior years that would have occurred if the proposed measures had been in place. This information was supplemented by an analysis (based on past fishing patterns, and information on regulatory measures) of how the affected vessels might redeploy, what this might mean to their catches, and how this might affect other fishing fleets. Information from industry, primarily obtained during a special Council meeting in August 2010, and from comments on the draft Biological Opinion and draft environmental assessment/regulatory impact review, was used in this process.

Impacts on communities were evaluated in several ways. Licensing and permit records were used to identify homes and home ports for fishermen and vessels directly involved in the fishery. Case studies were performed on regional communities especially likely to be impacted by the action, including Adak, Atka, and Unalaska. More general discussions were provided for areas not local to the fisheries. A new impact model prepared by economists at the Alaska Fisheries Science Center was used to make quantitative estimates of job, and other impacts, associated with the fishery management decisions. Potential impacts on Community Development Quota groups were also discussed.

Potential benefits of the action were evaluated qualitatively for persons placing a value on Steller sea lion population health, and for persons using Steller sea lion populations for subsistence purposes.

[1] NOAA would be happy to provide the referenced documents to Committee Members upon request.

While these findings were the primary focus of the analysis, the regulatory impact review also discussed impacts on other ecosystem resources, on consumers, on in-season management and enforcement, on safety, and on the collection of scientific information.

North Pacific Fishery Management Council Involvement in the Development of the Biological Opinion

Prior to finalizing the Biological Opinion, NMFS provided to the public a draft Biological Opinion with a draft RPA. The public review process involved a special meeting of the Council and its Scientific and Statistical Committee and Advisory Panel in August 2010. Public comments were sought, and over ten thousand were provided to NMFS. The Council submitted a recommendation for an alternative RPA that was initially crafted by its Advisory Panel. The Council's Scientific and Statistical Committee also reviewed the draft Biological Opinion and RPA, and drafted comments on the scientific analyses and the logic of the underpinning science supporting NMFS' recommended draft RPA. All comments and the Council's suggested alternative RPA were evaluated by NMFS and analyzed for possible inclusion in a revised RPA. NMFS ultimately accepted eight modifications to the RPA to the draft Biological Opinion. NMFS analyzed these modifications and found that there was a comparable conservation benefit in the revised RPA. For example, proposed restrictions were relaxed for vessels less than 60' in length using nontrawl gear, additional areas inside critical habitat in Area 542 was made available to nontrawl vessels, and small portions of critical habitat in the central Aleutian Islands were opened to trawling in a manner similar but not as extensive as the Council's motion. The revised draft RPA was presented to the Council and the public in October 2010, and then included in the final Biological Opinion.

Independent Scientific Review of the Biological Opinion

On October 8, 2011, the final version of the States of Alaska and Washington's review of the Biological Opinion (Bernard et al. 2011) was released. NMFS will review and consider the findings in the final report in any future consultations concerning impacts of federally managed groundfish fisheries on Steller sea lions. If new information on the impacts of the groundfish fisheries on Steller sea lions reveals effects on listed species or critical habitat that were not previously considered, then reinitiation of formal consultation is required (50 CFR sec. 402.16).

Future Review of the Biological Opinion

NMFS will obtain a review of the Biological Opinion by the Center of Independent Experts. NMFS has a contract with the Center of Independent Experts to conduct independent reviews for the Agency of controversial or complex decision documents or assessments. The Center of Independent Experts will be asked to examine information that was available at the time of the Biological Opinion's development (through May 2010). The draft Terms of Reference for this review will be provided to the Council for review and comment during the December 2011

Council meeting. The Council's comments will be considered by NMFS in the completion of the Terms of Reference for the Center of Independent Experts review, which is scheduled for completion in 2012.

Plans for Gathering Additional Scientific Information about Steller Sea Lions

NMFS will continue to conduct studies on Steller sea lions in Alaska, Washington, Oregon, and California, as well as in collaboration with other researchers in the U.S., Russia and Canada. These studies address critical data needs to support stock assessment and recovery efforts, test multiple hypotheses related to population decline, and inform management decisions and monitor protection measure effectiveness. Collectively this research encompasses population abundance and trend monitoring, estimation of survival and reproductive rates, determination of short and long-term movements within and between stock, state, and international boundaries, measures of foraging behavior, diet, and marine habitat requirements, and assessments of sea lion health and condition. The following types of research will be undertaken in FY12, assuming funding levels similar to those in FY11: (1) monitoring of population trends by sub-region for Steller sea lions in Alaska, (2) estimation of vital rates of Steller sea lions in Alaska and Russia, (3) research on the foraging ecology and composition of the diet in Alaska, and (4) surveys to determine the biomass of Atka mackerel and cod in the western, central, and eastern Aleutian Islands sub-regions.

Recovery Criteria in the Biological Opinion

NMFS assembled a Steller Sea Lion Recovery Team (Team) in 2001 to assist in revising the Recovery Plan to promote the conservation of the Steller sea lion. The Team included: experts on marine mammals from the private sector, academia, and government; experts on endangered species conservation; and representatives of the commercial fishing industry, the Alaska Native Steller sea lion subsistence hunting community, and the environmental community. In March 2006, the Team submitted a draft of the Recovery Plan to NMFS, at which time it became an agency document. NMFS made minor editorial changes prior to releasing the first draft for public review and comment in May 2006. Upon review of the comments and recommendations submitted by peer reviewers and the public, and in light of new information available, NMFS further revised and updated the Plan. The changes made by NMFS were reflected in the Agency's updated (May 2007 version) Draft Revised Steller Sea Lion Recovery Plan, released by NMFS for further public review and comment on May 21, 2007 (72 Fed. Reg. 28473), with the comment period closing on August 20, 2007. NMFS reviewed the comments and recommendations submitted by peer reviewers and the public on the 2007 version of the draft revised plan and modified the plan as appropriate to produce the Final Revised Steller Sea Lion Recovery Plan in February 2008.

The Final Revised Steller Sea Lion Recovery Plan (2008) is a guidance document for the Agency as it continues to manage Steller sea lions and their habitat throughout their range. It contains recovery criteria which are described in several chapters of the Biological Opinion, and are stated as performance measures by sub-region (sub-regions from west to east are: Russia/Asia; western, central, and eastern Aleutian Islands; western, central, and eastern Gulf of Alaska). The Steller Sea Lion Recovery Team believed, and NMFS concurred, it was important to consider sub-population vital rates and demographic characteristics when considering the status of the western population of sea lions relative to recovery. The Recovery Plan notes that significant declines over large areas (two or more adjacent subareas) could indicate that extinction risk may still be high and that further research would be needed to understand the threats and would indicate a lack of recovery for the western population as a whole. Thus, NMFS believes it was important to maintain viable sub-populations within the western population and not rely solely on the core of the range to provide for increasing population numbers over the short term.

The 2008 Revised Recovery Plan for Steller sea lions provided NMFS' rationale for considering sub-population vital rates and demographic characteristics when considering whether the western population of Steller sea lion was sufficiently recovered to merit delisting. According to the Revised Recovery Plan, significant declines over large areas could indicate that the extinction risk for the western population may still be high and would indicate a lack of recovery. The Revised Recovery Plan stressed the importance of maintaining viable sub-populations throughout the range of the western population to achieve recovery and the ability to delist.

The current decline in abundance of Steller sea lions in the adjacent western and central Aleutian Islands sub-regions is, therefore, inconsistent with the recovery criteria of this population. Therefore, it was necessary to develop RPAs associated with the Biological Opinion for the Fishery Management Plans that could improve the availability of forage fish for sea lions in these sub-regions. Only then could NMFS ensure that authorization of the federal commercial fisheries was not likely to jeopardize the continued existence of the western population of sea lions or adversely modify its critical habitat.

The RPA recommended in the Biological Opinion was designed to insure that the action, the authorization of Federal fisheries off Alaska, was not likely to reduce appreciably the likelihood of recovery of the western population of the Steller sea lion. A key consideration in making the determination that the action, as modified by the RPA, would not reduce appreciably the likelihood of recovery was use of the criteria developed by NMFS and the recovery team to determine when recovery has been achieved and when the western population no longer requires protection under the ESA.

Conclusion

The ultimate goal of the actions taken by NMFS is the recovery of the western Steller sea lion population so it can be removed from the list of endangered and threatened wildlife. These

actions are designed to conserve Steller sea lion prey in important times and areas while allowing as much fishing to continue as possible.

Thank you again for the opportunity to discuss NOAA's Steller sea lion science and fishery management decisions. We are available to answer any questions you may have.