STELLER SEA LION CRITICAL HABITAT REVIEW:
Public Meeting to Elicit External Scientific Information

AGENDA

October 8, 2014: 5:30 p.m.-8:30 p.m.
Dillingham/Katmai Room
Hilton Anchorage
500 W. 3rd Ave, Anchorage, AK 99501

Lisa M. Rotterman, Ph.D., Meeting Chairperson

Background

This is the agenda for the second of two public meetings that NMFS is holding to elicit external scientific information relevant to our ongoing review of Steller sea lion critical habitat.

The session will begin promptly at the times shown. Participants are asked to arrive early so that we can load presentations before the meeting begins, begin on time, and keep on schedule. Please note that times for the beginning of all but the first talk are fluid and may vary based on the amount of Q&A for each presenter.

Schedule for Meeting (Times given are Alaska Time)

Wednesday, October 8, 2014:

5:30 – 5:40   Lisa Rotterman, Ph.D., Steller Sea Lion Coordinator, AKR, NMFS
Welcome and Introductions

5:40 - 6:10   Lisa Rotterman, Ph.D., Steller Sea Lion Coordinator, AKR, NMFS
Steller sea lion critical habitat review: background and process

6:10 – 6:50   Andrew Trites, Ph.D., Director and Professor, North Pacific Universities Marine Mammal
Research Consortium
Improving descriptions of critical habitat for Steller sea lions

6:50 -7:20   Dave Fraser**,** Adak Community Development Corporation
Consideration for Using POP Data in Evaluating SSL Habitat Use Break

7:20 - 7:30   Break

7:30 – 8:00   Gerry Merrigan, Technical Advisor, Freezer Longline Coalition
Essential Features of Critical Habitat

8:00 – 8:20   John M. Maniscalco and Lori Polasek, Ph.D., Alaska SeaLife Center
Is there an effect of diet quality on Steller sea lion natality?

8:20- 8:30   Lisa Rotterman, Ph.D.
Next Steps and Wrap-up

8:30   Adjourn

ABSTRACTS OR STATEMENTS OF INTERESTS FOR PRESENTATIONS
October 8, 2014 Meeting
(LISTED ALPHABETICALLY BY LAST NAME OF FIRST AUTHOR)

Consideration for using POP data in evaluating SSL habitat use

Dave Fraser
Adak Community Development Corporation, P.O. Box 1943 Adak AK 99546

Abstract

To the extent that POP data are to be used in identifying SSL CH, the data needs to be parsed into more homogeneous categories of platforms for analysis. (CV vs CP, trawl vs fixed gear, and by target, fishing vessel vs research vessel, foreign vs US). Once the data is parsed in this manner, it will provide a more standardized unit of sighting effort than was used in the Boor paper. In analyzing the observer data all the "zero" sighting days should be included to determine where there may be area of proportionately greater presence of SSL. Due to confidentiality restrictions on access to NMFS observer data, this analysis needs to be done by the agency.

I would also appreciate clarification of whether the agency has implementation guidelines beyond the statute for identifying CH. (How to treat temporal and ephemeral features - can an physically defined area be CH for just 1 month of the year? Does "essential to conservation" imply a focus on "bottleneck" issues - weighing areas used by lactating females higher than areas used by young males?)

Is there an effect of diet quality on Steller sea lion natality?

John M. Maniscalco and Lori Polasek
Alaska SeaLife Center, 301 Railway Ave, Seward, AK 99664

Abstract

Natality rates of Steller sea lions in the eastern Gulf of Alaska are high and indicative of a recovering population (Maniscalco et al. 2010). Nevertheless, there is some annual variation in the proportions of females giving birth (Maniscalco et al. In Press). Winter is a critical period for pregnant Steller sea lions as females that are nutritionally compromised may abort their pregnancy (Pitcher et al. 1998). Based on hard parts in scat samples collected during the early months of 2011, we found significant differences in the overwintering diets of sea lions at 3 haulout locations used by Chiswell Island breeding females. Two haulouts were dominated by sea lions that fed predominantly on cod and pollock, while another haulout was dominated by sea lions that fed predominantly on capelin and sand lance. A comparison of females that were repeatedly observed at these overwintering haulouts showed no difference in pupping frequency during the summer of 2011. The results are only preliminary but suggest no effect of diet quality (low lipid vs. high lipid) on the likelihood of giving birth. This research should be examined in more detail with additional years of study and individual comparisons of pregnancy hormones and diet analysis of prey DNA found in scat samples. Further work would help elucidate potential correlations between diet, overwintering locations, and pregnancy rates.

Essential features of critical habitat
Gerry Merrigan, Technical Advisor
Freezer Longline Coalition

Abstract
A brief review of the essential features of SSL Critical Habitat designation including relevant new scientific information related to those essential features. This would include new information regarding food resources, exposure analysis, and scientific information regarding the distribution of SSLs (telemetry and POP). As ESA allows for consideration of economic activities in the designation of CH, new information related to the economics of the freezer-longline fleet will also be provided.

Steller sea lion critical habitat review: background and process.
Lisa M. Rotterman, Steller Sea Lion Coordinator
Protected Resources Division, Alaska Region, National Marine Fisheries Service, P.O. Box 21668, Juneau, Alaska 99802-1668. Lisa.Rotterman@noaa.gov

Abstract
NMFS listed the Steller sea lion (SSL) in 1990 and designated critical habitat for this species in 1993. In 1997, NMFS recognized two distinct population segments (DPS) of Steller sea lions under the ESA: a western DPS and an eastern DPS. NMFS published a final rule to delist the eastern DPS in 2013. However, the western DPS remains listed as endangered. NMFS is undertaking a review to consider whether amendment of the existing SSL critical habitat designation is appropriate based on new and pertinent sources of information since SSL CH was designated in 1993, including determining whether amendment of the designated critical habitat is appropriate due to the delisting of the eastern DPS. NMFS is at the information gathering stage of this review and intends to use all appropriate data and information in our review. NMFS is holding two public meetings to elicit relevant scientific information from external sources. I provide a brief review of the purpose of these meetings, relevant background, and the expected timeframes for major work products expected as part of the review.

Improving descriptions of critical habitat for Steller sea lions
Andrew W. Trites, Director and Professor
North Pacific Universities Marine Mammal Research Consortium, Room 247, AERL, 2202 Main Mall, University of British Columbia, Vancouver, B.C. Canada. a.trites@fisheries.ubc.ca

Abstract
In 2008, Gregr and Trites (Marine Ecology Progress Series 365: 247–261) proposed alternative maps identifying critical habitat of adult female Steller sea lions based on published information about foraging behaviour, terrestrial resting sites, bathymetry and seasonal ocean climate. We developed a series of habitat models predicting the probability of sea lions occurring within 3×3 km^2 grids in the Gulf of Alaska and the Bering Sea. We compared our deductive model predictions with opportunistic at-sea observations of sea lions (presence-only data) using different statistical techniques that evaluated the distribution of the predicted values associated with true presence observations. We found the habitat maps we produced for adult female sea lions using the deductive modelling approach captured a higher proportion of presence observations than the current habitat model (critical habitat) used by NMFS since 1993 to manage Steller sea lions. Such improved predictions of habitat are necessary to effectively design, implement, manage and evaluate fishery mitigation measures. As a first step in developing a revised map of critical habitat

for Steller sea lions, the models we developed for adult females should be adapted to other age and sex classes, and integrated into a revised definition of critical habitat for all Steller sea lions. The models should also be improved using some of the latest statistical techniques and the wealth of available data collected over the past decade (population census, satellite tracking, and fish habitat) to determine the most accurate description of Steller sea lion habitat. Having different groups from NMFS, Academia and Industry work together to build and compare alternative models would be a constructive means to achieve consensus about what is the best map of Steller sea lion critical habitat.