June 17, 2012

Jon Kurland
Assistant Regional Administrator for Protected Resources
Alaska Region, National Marine Fisheries Service
Attn: Ellen Sebastian
RIN: 0648–BB41
709 West 9th Street, Room 420A
Juneau, AK 99802

Re: Comments by the Marine Section of the Society for Conservation Biology and the American Society of Mammalogists on the Proposed Delisting of the Eastern Distinct Population Segment of the Steller Sea Lion.

On behalf of the Society for Conservation Biology's Marine Section (SCB)[1] and the American Society of Mammalogists,[2] we offer the following comments on the National Marine Fisheries Service's (NMFS) proposed rule[3] to remove the Eastern Distinction Population Segment (Eastern DPS) of the Steller sea lion (*Eumetopias jubatus*) from the list of threatened and endangered species under the Endangered Species Act. While the data from the NMFS 5-year status review[4] indicate that the population of the Eastern DPS has met the recovery targets for delisting in Alaska, British Columbia, and possibly Washington and Oregon, the data do not demonstrate that recovery targets for the Eastern DPS have been met in California. Steller sea lions were extirpated from the Channel Islands in the 1980s and remain well below their historic population levels. At best, Steller sea lion populations in California have remained stable for the last 15 years, but remain at approximately one-third the level that the Steller population represented in the first half of the 20th century. Therefore, SCB believes that it is premature to delist the Eastern DPS at this point.

The Endangered Species Act (ESA) provides the National Marine Fisheries Service with the ability to protect a species that is threatened or endangered in "a significant portion of its

[1] SCB is an international professional organization whose mission is to advance the science and practice of conserving the Earth's biological diversity, support dissemination of conservation science, and increase application of science to management and policy. The Society's 5,000 members include resource managers, educators, students, government and private conservation workers in over 140 countries.
[2] The American Society of Mammalogists (ASM) was established in 1919 for the purpose of promoting interest in the study of mammals, and providing information for public policy, resources management, conservation, and education. It is the largest and oldest society of mammalian biologists in the world.
[3] *Proposed Delisting of Eastern DPS of Steller Sea Lions*, 77 Fed. Reg. 23,209 (Apr. 18, 2012).
[4] NMFS. 2012. (Draft) Status Review of the Eastern Distinct Population Segment of Steller Sea Lion (*Eumetopias jubatus*). Protected Resource Division, Alaska Region, 709 West 9th St, Juneau, Alaska 99802.

range" as well as those species that are threatened or endangered throughout their entire range. We believe that the offshore waters of California, including the California Current and the Southern California Bight, represent distinct ecological regions from those ecological regions farther north.[5] Accordingly, the California portion of the Steller sea lion's range represents a significant portion of the species' range and therefore warrants continued protection under the ESA. Because this portion of the Steller sea lion population remains threatened, delisting the Eastern DPS, as it is currently defined, is premature and does not meet the best available science mandate contained within the ESA. NMFS should consider either protecting the California portion of the Steller sea lion range as a separate Distinct Population Segment, or it should leave the entire Eastern DPS listed. It should then use its authorities under Section 4(d) of the ESA to craft a flexible management regime for Steller sea lions to provide continuing protections of the ESA where needed, while providing regulatory flexibility.

I. NMFS Should Not Rely on the Draft Policy: *Interpretation of the Phrase 'Significant Portion of Its Range'* in Determining the Final Status of the Steller Sea Lion Because the Draft Policy Does Not Represent the Best Available Science.

A. Background on the Draft Policy Interpreting the Phrase "Significant Portion of its Range."

The Endangered Species Act (ESA)[6] defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range," and defines a threatened species as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."[7] On December 9th, 2011 the NMFS together with the U.S. Fish and Wildlife Service (collectively "the Services") published a draft policy interpreting the phrase "significant portion of its range" for the two definitions described above.[8] The Draft Policy proposed that a portion of a species' range is significant only when "its contribution to the viability of the species is so important that without that portion the species would be in danger of extinction." This definition effectively rendered the term "significant portion of its range" (hereafter SPR) redundant because listing a species as "threatened" under the ESA throughout its range already covers the scenario where the loss of a portion of the range would leave the species in danger of extinction.

The narrow definition of "significant portion of its range" offered by the Services ignores the fact that Congress intended the ESA's concept of endangerment to be broader than merely the biological concept of extinction risk. The ESA's stated purpose is to "provide a means whereby the *ecosystems* upon which endangered species and threatened species depend may be conserved."[9] This broader ecological goal is furthered by the presence of listed species across their historic ranges. The phrase "significant portion of its range" connotes a geographic component to listing, delisting, and recovery of threatened and endangered species. SCB

[5] Spalding et al. 2007. *Marine Ecoregions of the World: A Bioregionalization of Coastal and Shelf Areas. BioScience* 57:573-583.
[6] 16 U.S.C. § 1531 et seq.
[7] 16 U.S.C. § 1532(6) & (20).
[8] *Draft Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species."* 76 Fed. Reg. 76,987 (Dec. 9, 2011).
[9] 16 U.S.C. § 1531(b) (emphasis added).

provided extensive comments regarding the SPR Draft Policy, including an alternative, science-based approach to defining SPR which focused primarily on a species' geographic representation within an ecoregion to define significance.[10] Under SCB's alternative approach to defining SPR, a portion of the range is significant when its loss would mean that a species is no longer extant within an ecoregion or ecosystem unit. This definition would provide the flexibility to consider threats at a much finer scale both spatially and temporally, using for example, threat criteria similar to those used by NatureServe[11] to specifically evaluate extirpation risk within a portion of a species' range. This definition would also allow the Services to address the risks of a species being extirpated from a portion of its range, *independent* of whether this loss in range would lead to the extinction of a species as a whole.

Just as for listing species under the ESA, a species may be delisted only upon a determination that none of the five factors in Section 4(a)(1) of the Act threatens or endangers the species.[12] This determination must be made "solely on the basis of the best available scientific and commercial information regarding a species' status, without reference to possible economic or other impacts of such determination."[13] Because the listing and delisting listing criteria are the same under the ESA,[14] an additional consequence of the draft SPR policy is that in the *delisting* context, a portion of a species' range would be significant only if delisting that portion would place the entire species again at risk of extinction in the future. SCB is concerned that, if the agencies' proposed SPR policy were applied to the Steller sea lion, the conclusion that NMFS would be likely to draw is inconsistent with the ESA's best science standard of the Act. SCB recognizes that the "best science" standard is not a particularly difficult standard for NMFS to meet. Courts generally conclude that NMFS can meet this standard if the agency is able to demonstrate a rational connection between the science it relied upon and its conclusion to delist a species.[15] The proposal to delist the Steller sea lion does not meet this standard because the NMFS is *only* relying on the draft SPR policy for its rationale to delist the Eastern DPS, namely that the loss of the California population of the species would not implicate the entire species' biological viability and therefore delisting is legally appropriate. The scientific facts indicate, and indeed both the status review of the species and the delisting proposal itself both acknowledge,[16] that the Steller sea lion is not recovering in the California Current (see Figure One below). For the reasons discussed below, the California population of the Steller sea lion should retain protection under the ESA.

Many organizations raised concerns with the Draft Policy, including the Marine Mammal Commission (MMC), which offered detailed comments on the SPR Draft Policy, pointing out many of the same issues that SCB raised in its comments. In particular, the MMC recommended that the Services:

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[10] A full copy of SCB's comments can be found at: http://www.conbio.org/activities/policy/docs/SCB_Comments_on_SPR_Policy_3_8_2012.pdf

[11] Faber-Langendoen, D. et al. 2009. NatureServe conservation status assessments: methodology for assigning ranks. NatureServe, Arlington, Virginia.

[12] *Greater Yellowstone Coalition v. Serveen*, 665 F.3d 1015, 1024 (9th Cir. 2011)**,**

[13] 50 C.F.R. § 424.11(b)

[14] *See* 50 C.F.R. § 424.11(b)-(d).

[15] *Greater Yellowstone Coalition v. Serveen*, 665 F.3d 1015, 1024 (9th Cir. 2011)**,**

[16] NMFS. 2012. (Draft) Status Review of the Eastern Distinct Population Segment of Steller Sea Lion (*Eumetopias jubatus*). Protected Resource Division, Alaska Region, 709 West 9th St, Juneau, Alaska 99802

> Revise the draft policy by defining the word "significant" in the phrase "significant portion of its range" in a way that recognizes the ecological and/or evolutionary significance of various parts of a species' range to the species and the ecosystem, and that does not diminish the species' resilience or potential to adapt in response to rapidly changing environmental conditions, *or rule out the possibility that areas that do not now constitute good habitat might become so as a consequence of the same processes that are causing the loss or degradation of presently occupied areas*.[17]

As in SCB's recommendations regarding SPR, the MMC suggested to the Services that "*extirpation from an ecosystem* might be considered a loss from a significant portion of its range. That is, one alternative might be to define significance to include *loss from an ecosystem*. Such an approach would be entirely consistent with efforts by NOAA to focus on ecosystem-based management."[18] At the time, the MMC noted that the California Current would be an appropriately large-scale ecosystem unit to assess significance for a species' range. We agree with the conceptual approach recommended by the MMC and believe that as an SPR policy is applied to the case of the Steller sea lion, the continued threat of extirpation from the California Current represents a valid rationale for continuing to protect the Steller sea lion as a threatened species under the ESA.

B. <u>The California Current Ecoregion Represent a Significant Portion of the Range for the Steller Sea Lion as a Species.</u>

Over the last two decades, mapped classifications of patterns in biodiversity have become prominent tools for conservation planning. In 2001, Olson et al. (2001) proposed a classification system that divided up the terrestrial land masses of the planet into 867 ecoregions representing distinct biotic assemblages.[19] This classification system was a noted improvement on earlier classification systems which only divided the Earth into extremely coarse biodiversity units, including biomes and realms. Most importantly, since 2001, several ecoregion classification schemes have been proposed for the marine environment. For example, Spalding et al. (2007) proposed a nested system dividing the marine environment into 62 ecological provinces, which are subdivide into 232 ecoregions covering all coastal and shelf waters of the world.[20] Wilkinson et al. (2009), in an effort of the Commission for Environmental Cooperation (a tri-national body established by the North America Free Trade Act to address large scale environmental challenges), classified the marine ecoregions of North America into 22 distinct

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[17] The full comments of the Marine Mammal Commission on the FWS/NMFS draft policy can be found at: http://mmc.gov/letters/pdf/2012/spr_draftpolicy_cmt_031212.pdf (emphasis added).

[18] *Id*. (emphasis added). See also, *Interagency Cooperative Policy for the Ecosystem Approach to the Endangered Species Act*. 59 Fed. Reg. 34,274, Jul. 1, 1994; and *Making "Ecosystems" Part of NOAA's Shared Vocabulary.* Report to the NOAA Executive Panel, 2003; *Developing Regional Marine Ecosystem Approaches to Management*, NOAA Technical Memorandum MNFS-F/SPO-77, 2005.

[19] Olson, D. M., et al. 2001. *Terrestrial ecoregions of the world: a new map of life on earth*. BioScience 51:933–938.

[20] Spalding et al. 2007. *Marine Ecoregions of the World: A Bioregionalization of Coastal and Shelf Areas. BioScience* 57:573-583.

ecological regions, which are then further subdivided into fine scale ecological regions based on features of the seafloor and coast.[21] As noted by the MMC, NOAA also has acknowledged the importance of ecosystem-based management in its activities, and strives to work on issues in a geographic manner based on the large marine ecosystems of the world.[22]

We believe that, given the current state of knowledge regarding marine ecoregions, it is appropriate for NMFS to determine which portions of a species' range are significant based on the species presence or threat of extirpation from an ecoregion. Under this approach the NMFS would determine the risks of extirpation, based on the five statutory listing factors of Section 4(a)(1) of the ESA, within each relevant ecosystem unit.[23] This type of assessment is recommended by NatureServe, which allows for sub-global assessments of a species' conservation status. By doing assessments in this manner, the Services would still be considering viability of the species, but at the *proper geographic scale*. In addition, focusing on the risk of extirpation from an ecoregion is consistent with the 1994 joint policy by the Fish and Wildlife Service (FWS) and NMFS regarding an ecosystem approach to implementing the ESA.[24] This policy states that "species will be conserved best not by a species-by-species approach but by an ecosystem conservation strategy that transcends individual species. The future for endangered and threatened species will be determined by how well the agencies integrate ecosystem conservation with the growing need for resource use." We believes that NMFS should retain some discretion with respect to which ecoregional classification scheme it chooses to follow, and that there may be instances where other geographical and ecological classifications are more applicable. In this case, the California Current, including the Southern California Bight, represents a logical, science-based ecoregion in which to assess the viability of the Steller sea lion.

Finally, analyzing the threats to a species at the ecoregion or ecosystem unit level is consistent with multiple listing actions by NMFS and FWS. For example, in a 12-Month Finding on a petition to delist the Coho salmon (*Oncorhynchus kisutch*) south of San Francisco Bay, NMFS reviewed the threats to this Evolutionarily Significant Unit of salmon. In the review, the NMFS noted that several creeks had similar characteristics to the Coast Range ecoregion, which is found further north. Because of these similarities, NMFS actually extended the range of the salmon based on ecoregion similarities, rather than delisting the species.[25] In the listing of the polar bear as a threatened species FWS analyzed threats to the polar bear (*Ursus maritimus*) based on the species' status in each polar ecoregion.[26]

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[21] Wilkinson et al. 2009. *Marine Ecoregions of North America*. Commission for Environmental Cooperation. Montreal, Canada. 200 pp.

[22] For additional information, see: http://ecosystems.noaa.gov/geographically_specified_areas.htm

[23] 16 U.S.C. § 1533(a)(1). The five factors for listing a species as threatened or endangered are: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

[24] *Interagency Cooperative Policy for the Ecosystem Approach to the Endangered Species Act*. 59 Fed. Reg. 34,274 (Jul. 1, 1994).

[25] *12-Month Finding on a Petition To Delist Coho Salmon South of San Francisco Bay*, 76 Fed. Reg. 6,383 (Feb. 4, 2011).

[26] *Determination of Threatened Status for the Polar Bear* (Ursus maritimus) *Throughout Its Range*, 73 Fed. Reg. 28,212 (May 15, 2008).

C. The Steller Sea Lion Remains Threatened Within the California Current Ecoregion and Requires Continued Protection Under the Endangered Species Act.

According to the 5-year status review of the Steller sea lion, "for the 25-year period between 1977 and 2002, overall abundance of the eastern DPS of Steller sea lion had increased at an average rate of 3.1% per year," and that the current population numbers between 46,000 and 58,000 individuals.[27] SCB does not disagree that throughout a majority of the Eastern DPS, Steller sea lions appear to be recovering. However, the data presented in the status review are less conclusive regarding the population of the Steller sea lion in Washington, and the data for California indicate that the Steller sea lion has not recovered within the California Current ecoregion.

In Washington State, the Status review noted that 2000-3000 Steller sea lions were present in 1914-1916, but those populations were substantially reduced due to intentional killing related to a historical bounty offered by the State of Washington on Steller sea lions. Currently, Steller sea lions regularly haul out at four major locations in the State. While some pupping has been reported, there are no active breeding rookeries in the State. This fact may be important because the lack of breeding populations in Washington State represents a significant gap in the breeding range of the Steller sea lion between the breeding populations in California and Oregon (where breeding occurs only in the southern portion of Oregon) and the closest rookery at the north end of Vancouver Island farther north. As will be discussed below, a significant breeding gap in a larger population is an important factor in determining whether a valid Distinct Population Segment should be designated under the ESA. We request that NMFS provide addition information explaining how this large gap in the breeding range of the Steller sea lion in Washington State does not represent a reason for concern regarding the Steller sea lion in Washington and farther south. We also have a question regarding the following statement in the five-year status review of the Steller sea lion:

> Citing unpublished [Washington Department of Fish and Wildlife] data, [WDFW] reported that sea lion surveys conducted by the WDFW along the Washington coast show 'both increasing Steller sea lion numbers at haul out areas as well as increasing number of newborn pups at several locations over recent years.' However, these data were not submitted with the petition.[28]

Given that the data regarding the WDFW surveys were not provided to the NMFS, we request additional information regarding how the claims made by the WDFW were evaluated without the underlying data being submitted to NMFS and we suggest that NMFS publish this in its next Federal Register statement on this matter.

In California, Steller sea lions historically used six breeding rookeries: San Miguel Island in the Channel Islands; Año Nuevo Island, the Farallon Islands, and Seal Rocks along the central coast; Sugarloaf Island near Cape Mendocino; and Saint George Reef near Crescent City. As discussed in the status review, an unknown number of Steller sea lions were killed in the

[27] NMFS. 2012. (Draft) Status Review of the Eastern Distinct Population Segment of Steller Sea Lion (*Eumetopias jubatus*). Protected Resource Division, Alaska Region, 709 West 9th St, Juneau, Alaska 99802.
[28] *Id*. At 21.

Channel Islands by commercial sealers and fishermen in the 1800s and early 1900s, meaning that the historic baseline for this species is somewhat uncertain. What is known is that by the first half of the 20th century, the population of Steller sea lions in California was approximately 3,900-5,600 animals.[29] The combined 2004 count at the six rookery sites was 1,578 non-pups and 818 pups, indicating that "about a third as many Steller sea lions were in California in 2004 as in the first half of the century.[30] Regarding the population at San Miguel island, the status review states, "Steller sea lions in the Channel Islands peaked at about 2,000 non-pups in the late 1930s, and declined considerably in the 1940s….950 animals at San Miguel Island in 1947….in June 1958 with 37 animals reported….The last known birth of a pup on the island is variably reported to have occurred in 1981."[31]

For the central California coast, Año Nuevo Island and the Farallon Islands were the most important Steller sea lion rookeries in California, with 625 and 400 pups counted at each site respectively in 1922.[32] Between 1990 through 2009 pup production has ranged from 312 to 152 at Año Nuevo Island, while at the Farallon Islands, pup production has almost completely ceased with only 2 to 24 born each year between 1990 to 2009. The Steller sea lion rookery at Seal Rocks near the entrance to San Francisco Bay has been abandoned. According to the status review, the "reasons underlying the disappearance of breeding Steller sea lions from the southernmost part of their range are not entirely known nor is it entirely clear why this site has not been recolonized when the eastern DPS, overall, has increased for an extended period of time."[33] Thus, while populations of Steller sea lions have remained relatively stable in California over the past 15 years, they remain substantially below the levels seen in the 20th century. And, as the 2008 recovery plan for the Steller sea lion noted, "it is believed that the population may have been larger yet in the 19th century.

Two of the more likely causes of the continued lack of recovery of the Steller sea lion in California are "(1) ecological changes associated with climate disruption and/or (2) competition for prey with fisheries and/or growing populations of California sea lions and harbor seals."[34] In a summary of strandings in California between 1984-1990, Gerber et al. (1993) reported that the majority of stranded Steller sea lions were underweight pups, which supports a hypothesis of food competition leading to nutritional stress and poor post-weaning survival.[35] Steller sea lions are also at risk from entanglement in derelict salmon fishing gear (Hanni &Pyle 2000).[36] As the MMC noted in its comments on the earlier 90-day finding by the NMFS to delist the Eastern

[29] Pitcher et al. 2007. *Abundance and distribution of the eastern North Pacific Steller sea lion (Eumetopias jubatus) population*. Fishery Bulletin 107: 102-115.
[30] *Id*.
[31] NMFS. 2012. (Draft) Status Review of the Eastern Distinct Population Segment of Steller Sea Lion.
[32] Bonnot. 1929. *Report on the seals and sea lions of California, 1928*. California Department of Fish and Game Fish Bulletin 14.
[33] NMFS. 2012. (Draft) Status Review of the Eastern Distinct Population Segment of Steller Sea Lion (*Eumetopias jubatus*). Protected Resource Division, Alaska Region, 709 West 9th St, Juneau, Alaska 99802.
[34] Comments of the Marine Mammal Commission on the 90-day petition finding regarding the possible delisting of the Steller sea lion, 75 Fed. Reg. 77,602. Feb. 17, 2011. Available at: http://mmc.gov/letters/pdf/2011/ssl_delisting_021711.pdf
[35] Gerber JA, Roletto J, Morgan LE, Smith DM, Gage LJ. 1993. Findings in pinnipeds stranded along the Central and Northern California coast, 1984-1990. Journal of Wildlife Diseases 29(3): 423-433.
[36] Hanni KD, Pyle P. 2000. Entanglement of pinnipeds in synthetic materials along the Southeast Farallon Islands, CA 1976-1998. Marine Pollution Bulletin 40(12): 1076-1081.

DPS, more research is needed to "identify possible causes of the southern range contraction and the evidence needed to prove or disprove each [cause]."[37] SCB agrees that more research is needed to understand the causes underlying the continued lack of recovery of Steller sea lions in California. However, SCB also notes that regardless of which threat is the primary cause of the Steller sea lion's lack of recovery in California, the mere fact that there are continuing threats to the species at this level warrants continued protection under ESA. The MMC raised similar concerns in 2011, stating that it "does not believe it appropriate for the Service simply to delist the eastern population without also addressing the southern contraction….At present, the poor understanding of the observed changes precludes a sound scientific basis for management."[38]

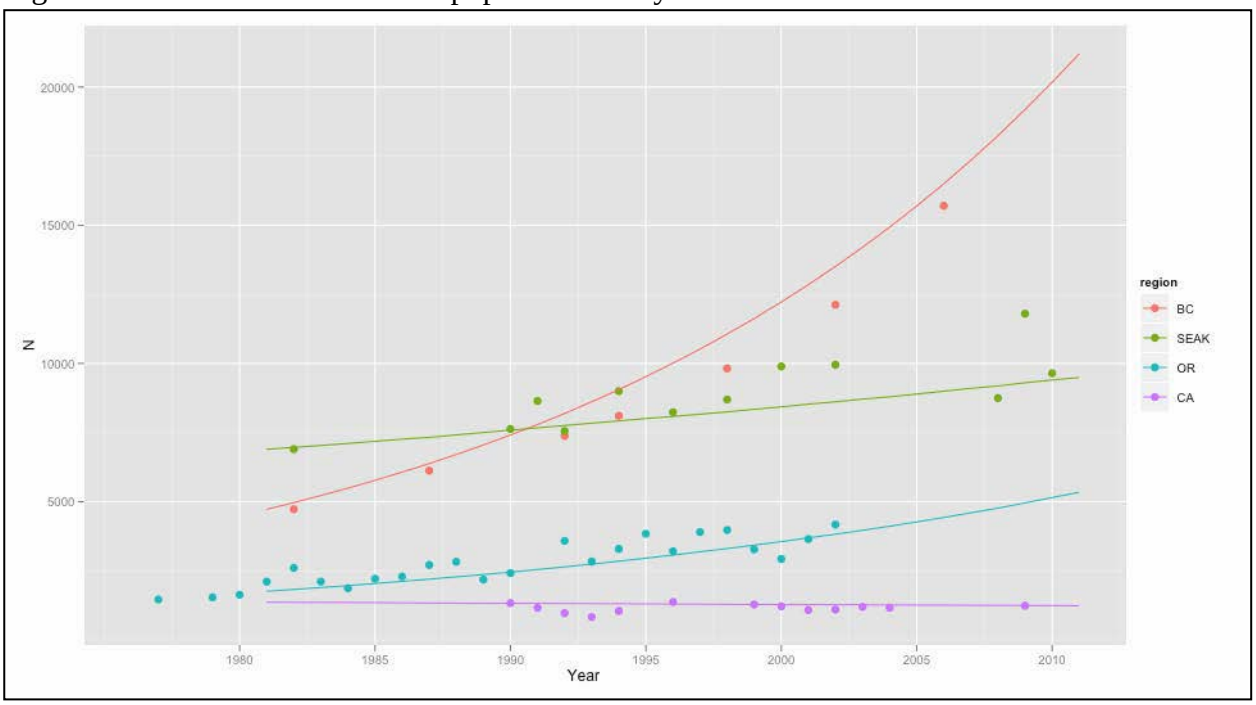
Unfortunately, the NMFS has taken the opposite view primarily due to the flawed legal interpretation of the phrase "significant portion of its range." In the proposed delisting rule, NMFS states that the California portion should not be considered a significant portion of the range of the Steller sea lion:

> While the California portion of the eastern DPS likely had its lowest abundance in the 1980s, recovery throughout the rest of the eastern DPS to the north (in OR, BC and southeast AK) was already underway. Recovery in California lagged the rest of the stock by 10-15 years but has recently shown a positive trend. Clearly, this portion of the population is not 'so substantial that [its loss or decline] undermines the viability of the species as it exists today.'[39]

As stated above in Section A, the Services' proposed analytical framework for SPR does not comport with the plain meaning of the ESA because there is simply no meaningful distinction between a species that is threatened throughout its range versus being threatened in a significant portion of its range. If the California population of Steller sea lions was "so substantial that its loss or decline" undermined the viability of the *entire* Eastern DPS, then the *entire* DPS would be legally threatened *throughout* its range, a scenario addressed by *other* parts of the ESA's statutory language. SCB agrees that the Eastern DPS of the Steller sea lion is no longer threatened throughout its range, it is only threatened in a significant portion of its range. SCB also is concerned with NMFS's assessment that the Steller sea lion "has recently shown a positive trend" in California. While there may be a slight increase in pup production in California, data from the 5-year status review conducted by NMFS show no increase in the non-pup population of the sea lion (Figure One). For these reasons, SCB believes that the California range represents a significant portion of the range for the Eastern DPS, the significant portion in California remains threatened, and as a result the Eastern DPS must continue to be protected under the ESA.

[37] *Id*.
[38] *Id*.
[39] *Proposed Delisting of Eastern DPS of Steller Sea Lions*, 77 Fed. Reg. 23,209 (Apr. 18, 2012).

Figure One – Steller Sea Lion Nonpup Trend Analysis.[40]



D. NMFS Can Use Its Existing Authority Under Section 4(d) of the Endangered Species Act to Limit the Regulatory Impact of Continued Protection of the Eastern DPS Under the Endangered Species Act.

As explained in the Draft Policy on SPR, Section 4(d) of the ESA allows NMFS to issue special regulations "necessary and available to provide for the conservation of such species."[41] When a species is listed as threatened, as is the Eastern DPS of the Steller sea lion, NMFS is able "to tailor regulations to the needs of the species…to provide regulatory flexibility and to ensure that [NMFS] apply the prohibitions of the Act where appropriate."[42] Because the Eastern DPS of the Steller sea lion has recovered in eastern Alaska and British Columbia (and possibly in Oregon), NMFS can tailor the special rule for the Eastern DPS to allow certain limited kinds of take, under permit by the agency, and supported by science, such as take authorized under the Marine Mammal Protection Act, of Steller sea lions to occur in those areas without violating the ESA. We believe that this management tool is appropriate here as a more prudent course of action, rather than the premature delisting of the entire Eastern DPS.

II. If NMFS Elects Not to Continue Protecting the Steller Sea Lion Based on Threats within a Significant Portion of the Species Range, NMFS Should

[40] NMFS. 2012. (Draft) Status Review of the Eastern Distinct Population Segment of Steller Sea Lion (*Eumetopias jubatus*), page 101.
[41] 16 U.S.C § 1533(d).
[42] *Draft Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species."* 76 Fed. Reg. 76,987, 77,003 (Dec. 9, 2011).

Establish a Distinct Population Segment of Steller Sea Lion Within the California Current.

A. Background on Distinct Population Segments in the Endangered Species Act.

In 1978, Congress amended the definition of the term "species" to include "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." 16 U.S.C. § 1533(16). In 1996, NMFS and FWS adopted a joint policy that described how potential DPS units of species and subspecies would be identified under the ESA.[43] Under this policy, a population must be both "discrete" and "significant" in order to qualify for protection under the ESA as a DPS. A population is discrete if it is (1) "markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors" or (2) "delimited by international governmental boundaries within which differences in control…are significant in light of Section 4(a)(1)(D) of the Act." A population may be "significant" based on: (1) persistence in an unusual or unique ecological setting for the taxon, (2) evidence that the loss of the population segment would result in a significant gap in range, (3) evidence that the discrete population segment represents the only natural occurrence may be more abundant elsewhere as an introduced population outside its historic range, or (4) evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics. It is important to note that the significance inquiry for a DPS unit is not a closed set, and the Services acknowledged in the DPS policy that there may be other "classes of information that might bear on the biological and ecological importance of a discrete population segment."

In SCB's comments regarding the Services' draft policy on "significant portion of its range," SCB recommended that the Services include, as a fifth possible criterion for significance under the DPS policy, a species' presence in an ecoregion as a valid rationale for protecting that portion of a species as a DPS unit. This approach already appears to be used by NMFS in some situations. For example, when protecting the Atlantic sturgeon (*Acipenser oxyrinchus*) under the ESA, NMFS divided the Atlantic sturgeon into five DPS units, based in large part on terrestrial ecoregion boundaries for where the species spawns. Of the five DPS units, NMFS listed the sturgeon as a threatened species in the Gulf of Maine, and as an endangered species in the New York Bight, the Chesapeake Bay.[44] NMFS protected the sturgeon as an endangered species in the South Atlantic (corresponding to the South Atlantic Coast Plain ecoregion), and the Carolina population (corresponding to the Mid-Atlantic Coastal Plain ecoregion). [45] In its listing decision, NMFS stated that it:

> evaluated whether the five discrete populations we identified persist in ecological settings unique for the taxon by comparing the area encompassing the present or historical spawning range of each discrete population with the terrestrial

[43] FWS-NMFS *Policy Regarding the Recognition of Distinct Vertebrate Population*, 61 Fed. Reg. 4,722 Feb. 7, 1996 (hereafter "DPS Policy")
[44] *Threatened and Endangered Status for Distinct Population Segments of Atlantic Sturgeon in the Northeast Region*, 77 Fed. Reg. 5,880 (Feb. 6, 2012).
[45] *Final Listing Determinations for Two Distinct Population Segments of Atlantic Sturgeon* (Acipenser oxyrinchus oxyrinchus) *in the Southeast*, 77 Fed. Reg. 5,914 (Feb. 6, 2012).

ecoregions identified by The Nature Conservancy. We used the terrestrial ecoregions rather than the Nature Conservancy marine ecoregions because the terrestrial ecoregions included rivers in which Atlantic sturgeon spawn.

SCB believes that a similar analytical approach should be used for delineating a California current DPS of the Steller sea lion. The MMC made a similar recommendation to NMFS in 2011 requesting that the agency "examine the existing genetic and related information to determine if the southern portion of the eastern population is discrete and warrants management as a separate unit."[46]

B. NMFS Should Establish a California Current DPS of Steller Sea Lions and Continue Protecting this DPS Unit Under the Endangered Species Act.

In the proposed rule to delist the Eastern DPS of the Steller sea lion, NMFS appears to have considered establishing a DPS for the California population, but rejected doing so because, "there is no genetic basis to further subdivide the California portion from the eastern DPS in its entirety."[47] SCB does not dispute that there is a genetic basis for establishing a California current DPS for the Steller sea lion. However, genetic distinctiveness is but one possible rationale for establishing a DPS, it is not a legal requirement for every DPS unit. SCB believes that the failure to consider other factors for establishing a California current DPS is not consistent with the NMFS's own policy regarding DPS units.

The California current population meets the discreteness criterion for designating a DPS because the population is markedly separate from other populations of Steller sea lion farther north as a consequence of ecological factors. In the Pacific Ocean, the North Pacific Current flows west-to-east between approximately 40 and 50 degrees north latitude across the Pacific Ocean basin. The current bifurcates as it approaches the west coast in the area around Vancouver Island and northern Washington State. As the current splits, the southern arm of the current becomes the California Current, while the northern arm flows north and becomes the Alaska Current. As discussed above, there are no breeding rookeries between the northern end of Vancouver Island and the breeding rookery in southern Oregon. Thus the two breeding rookeries in southern Oregon on the border of the Columbian Pacific ecoregion and the Montereyan Pacific Transition (following Wilkinson) easily would fit into a California current DPS unit. The next closest Steller sea lion colony is over 500 miles to the north in the Alaskan/Fjordlan Pacific ecoregion, which is influenced by the Alaska Current.

SCB acknowledges that there are not sufficient genetic differences between populations of Steller sea lion in California compared to the remainder of the Eastern DPS to warrant designation of a DPS unit based solely on that criterion. However, because adaptive potential is a hedge against unknown future changes in environment, and most genetic variation contributes incrementally to adaptive potential, it is difficult to identify a strict threshold as to how much diversity is enough diversity for any species. Therefore, given this inherent uncertainty, Carroll

[46] Comments of the Marine Mammal Commission on the 90-day petition finding regarding the possible delisting of the Steller sea lion, 75 Fed. Reg. 77,602. Feb. 17, 2011. Available at: http://mmc.gov/letters/pdf/2011/ssl_delisting_021711.pdf

[47] *Proposed Delisting of Eastern DPS of Steller Sea Lions*, 77 Fed. Reg. 23,209 (Apr. 18, 2012).

et al. (2010) concluded that geographic distribution across ecosystems may be a more practical surrogate for direct analysis of genetic viability. Thus, an additional benefit of properly considering the representation of Steller sea lions within an ecoregion unit is that "a species [that] is well distributed throughout its historic range (i.e., securely occupies all but an insignificant portion of its range) will generally correspond with the conditions necessary for genetic viability."

With regards to significance under the DPS inquiry, a California Current DPS of Steller sea lion would meet the second criteria described in the policy: evidence that the loss of the population segment would result in a significant gap in range. First, there is already a large gap in the breeding range of the Steller sea lion between northern Vancouver Island and southern Oregon. Second the loss of the southern populations would translate into the loss of the entire southern portion of the range south of British Columbia. Effectively, the loss of the southern population would result in a large "gap at the end of the fence." With respect to DPS units, the Fish and Wildlife Service has repeatedly determined that a gap at the end of a species' range is a valid reason for finding significance under the DPS policy. As explained by the Ninth Circuit in *National Ass'n of Home Builders v. Norton*:

> In other listing rules the FWS has interpreted the term 'gap' to include the loss of peripheral populations. *See* Determination of Endangered Status for the So. Calif. Distinct Vertebrate Population Segment of the Mountain Yellow-Legged Frog, 67 Fed. Reg. 44,382, 44,385 (July 2, 2002) (finding that 'the loss of the southern California frogs on the periphery of the species' range' would create a gap in the range of the taxon); Final Rule to List the Santa Barbara County Distinct Population of the Calif. Tiger Salamander as Endangered, 65 Fed.Reg. 57,242, 57,244 (Sep. 21, 2000) (finding that the loss of the 'southernmost population of the species' would create a gap in the range of the taxon); Determination of Threatened Status for the Northern Population of the Copperbelly Water Snake, 62 Fed.Reg. 4183, 4184 (Jan. 29, 1997) (concluding that 'the loss of the peripheral, isolated, northern population' would create a gap in the range of the taxon); 12-Month Finding for a Petition To List the Wash. Population of the Western Sage Grouse, 66 Fed.Reg. 22,984, 22,991-92 (proposed May 7, 2001) (finding that the loss of 'the extreme northwestern extent of greater sage grouse range' would create a gap in the range of the taxon).[48]

NMFS has used similar reasoning in protecting several species under the Endangered Species Act. For example, the Cook Inlet beluga whale (*Delphinapterus leucas*) was listed as an endangered species in 2008 because the loss of the Cook Inlet population would represent the loss of the southernmost population of the species and a significant gap in the species' range.[49] Likewise, in 2010 NMFS protected the Southern DPS of the Spotted Seal (*Phoca largha*) as a threatened species because the loss of the population would represent a significant gap for the species.[50] The loss of the southern populations of Steller sea lion would represent a similar gap

[48] 340 F.3d 835, 845 (9th Cir. 2003).
[49] *Endangered Status for the Cook Inlet Beluga Whale*, 73 Fed. Reg, 62,919 (Oct. 22, 2008).
[50] *Threatened Status for the Southern Distinct Population Segment of the Spotted Seal*, 75 Fed. Reg. 65,239 (Oct. 22, 2010).

in the range of the species as a whole, and therefore it warrants protection under the ESA. The extirpation of the Steller sea lion in the Channel Islands, the continued lack of recovery in the California Current, and the continued multiple, and likely synergistic, threats to the species, including climate change, entanglement, and fisheries pressures, all confirm that the Steller sea lion in the California Current represents a Distinct Population Segment that should be protected under the ESA., and possibly north into Oregon/Washington. These distinct marine ecoregions are significantly different from Alaska such that a separate DPS could be established and/or that these areas of the range do in fact represent a significant portion of the range.

CONCLUSION

Delisting the Eastern DPS of the Steller sea lion in its entirety is premature given the species' current conservation status in California. The ESA currently offers two viable alternatives to NMFS proposed course of action: 1) protecting the species due to threats in a significant portion of its range; or 2) establishing a California Current DPS. Each option would offer any management flexibility needed for Steller sea lions in areas where its populations have recovered. By properly taking into account the Steller sea lion's ecological role in the California Current, NMFS will better meet the best available science mandate of the ESA. Thank you for your consideration of these comments.

Respectfully,

Chris Parsons, Ph.D.
President, Marine Section, Society for Conservation Biology

Michael A. Mares, Ph.D.
President, American Society of Mammalogists

Hedley Grantham, Ph.D.
Chair, Policy Committee, Marine Section, Society for Conservation Biology

Leslie Cornick
Member, Policy Committee, Marine Section, Society for Conservation Biology

Andrew Wright
Member, Policy Committee, Marine Section, Society for Conservation Biology

John M. Fitzgerald, J.D.
Policy Director, Society for Conservation Biology

Brett Hartl, J.D.
Policy Fellow, Society for Conservation Biology