August 9, 2010

Chairman Eric Olsen
North Pacific Management Council
605 4th Ave. Suite 306
Anchorage Alaska 99501-2252

Dear Chairman Olsen,

I own and operate a 58 foot trawler based out of Sand Point Alaska. When I first saw the new Stellar sea lion BIOP that just was released, my first reaction was a sigh of relief because the Western Gulf, where the majority of my boat's income is made, was left unscathed. On further review, I discovered just how bad Adak got whacked and I realized that my initial reaction was a bit optimistic. I hope the Council is already aware of this, but the reason that I am writing this letter is to point out that there is going to be considerable collateral damage in the Western and Central Gulf if these closures that NOAA is demanding are enacted.

I hope I am not being too fast and loose with figures here, but it is my understanding that there are between 20 and 25 large and efficient trawlers that are committed to the Aleutians every year. Those vessels are all going to go back to the Bering Sea or the Gulf of Alaska. I already know of two boats that are going to enter the Central Gulf trawl fishery this coming winter. In the Western Gulf there are probably 35 to 40 full time trawlers and one half of them do not fish pollock. That is out of, I believe, 78 L.L.Ps. Of the local Sand Point and King Cove fleet the trawl fleet is made up of 58' combination boats, with the exception of one. ***Please remember***, in the Gulf of Alaska we are still "racing for fish", and a larger, more powerful trawler can fish in more weather and are decisively more effective. In a race for fish with larger boats, the small boat fleet will most certainly loose.

As for myself, I have participated in Adak enough that I was given a federal endorsement last year. Adak, in years past, has been the majority of my boat's winter income. This last year, 5 boats from the Western Gulf went out to Adak. The more the fleet that is spread out the better it is for everyone concerned. My vessel and another went to the Central Gulf for pollock because there was room for us at the company for whom we fish. The two displaced boats, that I mentioned earlier, I assume are going to fish for the market that I had last year, so I am making the same assumption that I will not have the opportunity to leave the Western Gulf this coming winter. If these closures are in fact enacted it will ultimately harm the communities of Sand Point and King Cove. How bad? That remains to be seen, but it will most definitely hurt us.

Sincerely,

John T. Evich
Owner/operator F/V Karen Evich

Chairman Eric Olson
North Pacific Management Council
605 W. 4th Avenue, Suite 306
Anchorage, AK 99501-2252

Mr. Chairman ;

My name is Carlos Prado and I'm fisherman from my childhood. I been fishing in the Aleutian Islands since 1986. I'm the engineer and mate of F/V Forum Star for many years.
I was a crab captain before rationalization. After rationalization my only fishery is the Pacific Cod Fishery in the Aleutian Islands. Cod is 90% of my yearly income.

In the A season we only get to spend about 20 days in the areas 543 and 542 a year but it is 80% of our cod catch.

The area we get to fish in out there is very tiny. So much area is already closed for sea lion protection, and then more area was closed for coral. When we travel through these closed places we see so much fish on the sonar.

I spent lots of time in the wheel house and we never see a sea lions in the areas where we fishing. Those sea lions are not fishing where we are fishing.

Closing these areas means, I will lose my way of life which I love.

I believe the sea lion survey and the fish survey are not done properly to know where these things are in the winter. In my opinion survey should be done at least twice a year.

More study needs to be done in diferent time of the year not only in the summer.

Sincerely

Carlos Prado

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AUG 11 2010

Chairman Eric Olson
North Pacific Management Council

Mr. Chairman

First I'd like to apologize for the letter format as I had to compose this correspondence in the form of an email from the vessel on which I'm currently fishing.

My name is David Willmore and have been fishing in the Aleutian Islands since 1980 when we fished Joint Venture for Atka Mackerel with foreign processors.

The Aleutian Islands have been my primary fishing grounds for close to thirty years. The Pacific cod fishery in the AI accounts for 75% of the yearly income for my crew, my vessel and myself as well as supporting the processor and crew to whom I deliver my catch, which in turn supports the economy of Alaska.

The mere two weeks that we were allowed to fish in area 543 this year accounted for 80% of our season. If taken as a whole the area open for Pacific cod in area 543 is less than 10% of the Attu/Agattu/Shemya plateau due to coral reserve and C/H closures already in place.
During these early years of pioneering new fishing grounds for mackerel we had considerable interaction with sea lions. When the foreign processors were phased out we began targeting Pacific cod, as our domestic markets weren't interested in mackerel. Since we switched to fishing for Pacific cod we saw our interactions with sea lions drop to almost non-existent.

I had thought that we had reached a point where, even though we had given up the majority of our historic fishing areas for the benefit of the sea lion, we at least had the opportunity to find new areas to fish. The original CH's seemed to be placed in such a way as to blanket the areas where we had traditionally fished up to this time.

Then came the coral boxes. The coral preserves basically stopped all further prospecting of new grounds. I believe that this hasn't been taken into account when you consider how much usable fishing grounds had been lost in the original sea lion rookeries.

Now we have further closures that effectively close the entire Aleutian Islands except for Nazan Bay to Pacific cod. Although some areas are to remain open, there aren't enough grounds left to support a fishery.

In area 542 the extension of the 20nm closure through out the whole of the year effectively kills any prospect of fishing Petral Bank which has seasonally good fishing.

In 541 the systematic extension of haulouts and rookeries has closed significant areas to fish safely and productively.
The BiOp attempts to ascertain the amount of fish available for a winter time fishery based on surveys done in mid-summer when fish are dispersed through out whole areas and water depths. I have known pot boats to catch 50-60 cod per pot in 8 fathoms of water in midsummer. I

guarantee the surveys did not include these locations or depths. I have fished our winter areas in summer months and caught more halibut than cod. In the winter our halibut rates are negligible.

As for our effectiveness as to catch percentage of available biomass, I thought that number as borderline ridiculous. How can we catch 93% of the available fish when we can only get to about 20% of the available area due to C/H, coral, untowable bottom, etc. If we were that good I could have retired years ago and would not have to be writing to you this letter.

Localized depletion. Forcing those who choose to remain undying AI fishermen into very small fishing locations will do exactly what the BiOp attempts to forstall. The added impact of vessels forced to move into Unimak Pass will have implications both in target and in bycatch.

One of the reasons Unimak has been on the comeback for the last few years is because of the distribution of a portion of the fleet to the AI.

I truly believe that this is just the next step into terminating my way of life that I have pursued since exiting high school.
A biologist with an extreme conservation agenda can skew the data in which ever way suits them.

Please give my comments consideration when you make your final decision on extensive AI closures. If it goes through as the BiOp suggests then I expect to see the end of trawling in Alaska in my immediate lifetime.

Thank you for your time.
David Willmore

St. George Traditional Council

P.O. Box 940
St. George Island, Alaska 99591
Phone 907-859-2205 Fax 907-859-2242

August 11, 2010

Eric Olson
Chair
North Pacific Fishery Management Council
605 West 4th Street, Suite 306
Anchorage, AK 99501-2252

Dear Mr. Olson,

The St. George Traditional Council requests that the North Pacific Fishery Management Council (NPFMC) and the National Marine Fisheries Service (NMFS) review the revised protection measures proposed in the Draft SSL Biological Opinion recently released by the NMFS, and based on the local and regional importance of the Dalnoi Point haulout for Steller sea lions, extend the current 0-3 nautical mile trawl closure to prohibit groundfish trawling within 0-20 nautical miles of this haulout. The Traditional Council originally requested that the NPFMC review and reconsider the protection measures established for St. George Island haulouts on March 30, 2005. This request was first made to NMFS, which forwarded it to the NPFMC, on September 24, 2004. On August 18, 2006 the SGTC presented a formal proposal for this management change through the NPFMC Steller Sea Lion Mitigation Committee (SSLMC) and we have regularly attended meetings over the last 4 years. We are very disappointed that there is no additional protection for Dalnoi Point proposed in the draft revised protection measures and question the value of our involvement in this process over the last 6 years.

In contrast to the majority of Steller sea lion (SSL) critical habitat (CH) designated under the Endangered Species Act, groundfish trawling is prohibited from only 0-3 nautical miles of the St. George Island SSL haulout at Dalnoi Point under the current protection measures. This is because the consistent, long-term usage of Dalnoi Point was not recognized when the National Marine Fisheries Service (NMFS) adopted the current protection measures in January 2003. The St. George Traditional Council has since presented ample evidence to NMFS and the NPFMC that significant numbers of Steller sea lions use Dalnoi Point and other St. George Island haulouts, especially during winter and spring. These data establish that as the largest haulout area in the Pribilof Islands Archipelago, Dalnoi Point is regularly used by substantial numbers of sea lions and warrants a greater level of protection. We have also collaborated with the National Marine Mammal Laboratory (NMML) in a recent study of prey remains found in scat samples collected at the Dalnoi Point haulout. These data were presented at the February 2010 meeting of the SSL Mitigation Committee and show that adult sized walleye pollock is a primary prey species for SSL from Dalnoi Point indicating the potential for competition between fisheries and SSL in this area (see attached supporting information).

The available data also strongly suggest that there is potential for localized depletion of SSL prey resources in proximity to the Dalnoi Point haulout. The 2003 Supplement to the 2001 BiOp[1] documented that pollock catch in St. George Island CH (0-20 nm) increased dramatically between 1999 and 2002, from 0.39% to 2.07% of the EBS pollock fishery total (Table III-9C, p. 107). Pollock catch in 2002 in the 0-10 nautical mile zone of St. George Island CH amounted to 0.2% of the EBS pollock total catch. NMFS summarized the existing protection measures by stating on page 56 of the 2001 BiOp Supplement that "[i]nside 10 nm conservation measures are very conservative except for catch off St. George Island." We strongly urge the NPFMC and NMFS to update this analysis of catch rates in St. George CH in the coming months during the preparation of the final draft BiOp.

In summary, the St. George Traditional Council has worked extremely hard over the last 6 years to substantiate the need for additional protection of Steller sea lion Critical Habitat around our island. As a Co-Management partner with the NMFS for the management of Steller sea lions we feel that this is part of the shared stewardship of our local wildlife and subsistence resources. We thereby request that the NMFS and NPFMC review the proposed protection measures and include additional protection for Dalnoi Point in the measures to be implemented in 2011.

Thank you for your consideration,

Chris Merculief
President
St. George Traditional Council

Please see attached supporting data & other information

[1] NMFS. 2003. Supplement to the 2001 Endangered Species Act, Section 7 Consultation, Biological Opinion and Incidental Take Statement on the authorization of the Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Fishery Management Plan Amendments 61 and 70. NMFS Alaska Region, Protected Resources Division, Juneau, AK.

Supporting Data & Other Information for the St. George Traditional Council Proposal

- Since 2002, significant numbers of SSL have been observed from December through April at three haulouts on St. George Island: Dalnoi Point (max. count 439 on 3/19/04), Murre Rock (max. count of 44 sea lions on 5/11/05), and Tolstoi Point (max. count of approximately 100-125 sea lions on 3/24/04). Sea lions have also been observed during both winter and summer at these and other sites including Kitasilax, East Reef, Northwest Rookery, South Rookery, Staraya Artil Rookery, Sea Lion rock and the St. George harbor. These results indicate that large numbers of sea lions utilize several St. George haulouts during winter and spring, and that year around there are sea lions hauled out on the Island. The average maximum count of sea lions at the Dalnoi Point haulout during March of 2004-06 (mean number = 376.7) exceeds by nearly four-fold the Alaska-wide average for March haulout counts recorded in 1993 and 1999.[2]

- The widespread use of St. George Island haulouts during winter is significant in several regards. Steller sea lions typically nurse their pups throughout the winter, moving their pups to winter haulouts following the summer breeding season.[3,4] The SGTC has presented data to the SSLMC documenting a pre-molt Steller sea lion pup, likely with its mother, photographed at Tolstoi Point on September 4, and has shown photographic documentation of mother-pup pairs of Steller sea lions nursing at Dalnoi Point. It is reasonable to assume based on other studies of Steller sea lions,[4,5] that mother-pup pairs from Walrus Island move to other Pribilof haulouts such as Dalnoi Point during the winter, especially when Walrus Island offers little protection from winter storms.

- The importance of the Dalnoi Point haulout is underscored by the results of the 2005 pup counts at Walrus Island rookery. The Draft Steller Sea Lion Recovery Plan[5] states that "Walrus Island is the only Steller sea lion rookery still active in the Pribilofs, but pup production has declined steadily from 2,866 in 1960 to approximately 334 in 1982, 50 in 1991, 39 in 2001, and only 29 in 2005." The 2005 census indicates that the number of pups born in the Pribilof Islands is at a critically low level, having declined by approximately 25% between 2001 and 2005. This rate of decline is comparable to that observed for SSL in the western Aleutian Islands since 2000. Steller sea lion pups usually remain within 500 km of their natal site during their first year.[4] Given the geographical isolation of the Pribilof Archipelago, the Dalnoi Point haulout is an important site for the Pribilof population during winter and thereby requires additional protection measures.

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[2] Sease, J.L. and York, A.E. 2003. Seasonal distribution of Steller's sea lions at rookeries and haulout sites in Alaska. Marine Mammal Science 19:745-763.

[3] Raum-Suryan, K.L., Pitcher, K.W., Calkins, D.G. Sease, J.L., and Loughlin, T.R. 2002. Dispersal, rookery fidelity, and metapopulation structure of Steller sea lions (Eumetopias jubatus) in an increasing and decreasing population in Alaska. Marine Mammal Science 18:746-764.

[4] Loughlin, T.R., Sterling, J.T., Merrick, R.L., Sease, J.L., and York, A.E. 2003. Diving behavior of immature Steller sea lions (Eumetopias jubatus). Fishery Bulletin 101(3): 566-582.

[5] Steller Sea Lion Recovery Team. 2006. Draft Steller Sea Lion Recovery Plan, Eastern and Western Population Segments. Available at http://www.fakr.noaa.gov/protectedresources/stellers/recovery.htm.

- The presence of branded juvenile sea lions from Southeast Alaska, the Gulf of Alaska, the Aleutian Islands and Russia, on St. George, in addition to re-sights of branded sea lions at other Pribilof haulouts, also indicates that St. George Island is an important haulout at the northern extent of the species range for sea lions from other Western Stock breeding areas. In this regard, the numbers of sea lions observed at Dalnoi Point from December through April establish this site as an important haulout for the Western Stock of Steller sea lions.

- A pilot project conducted by the SGTC and the NMML, examined prey remains in scat samples collected in June of 2009 at the Dalnoi Point haul-out. These data were presented at the February 2010 meeting of the SSL Mitigation Committee and show that adult sized walleye pollock is a primary prey species for SSL from Dalnoi Point. Walleye pollock was the primary prey species, with a frequency of occurrence (FO) of 77.8%, followed by Irish Lord sculpins (*Hemilepidotus sp.*; 70.4% FO), and rock sole (*Lepidopsetta biliniata*; 55.6% FO). Other important prey (FO > 14%) included skates (Rajidae), polychaete worms (polychaete spp.), and Pacific cod (*Gadus macrocephalus*). The fork length of walleye pollock estimated from regressions of the bone measurements ranged from 41.6 cm to 73.7 cm, indicating that most pollock consumed by SSL at Dalnoi Point were of the size generally taken by the trawl fishery. The high occurrence of commercially fished species in the diet of SSL at Dalnoi Point indicates a high likelihood for competition with commercial fisheries near this important winter haulout.

- The subsistence use and cultural importance of Steller sea lions in the St. George Aleut community has been documented since the early 1800s.[6,7] The Traditional Council noted in its letter of March 30, 2005 that implicit in this request is the recognition by the Traditional Council that existing Steller sea lion protection measures may disproportionately impact the Aleut Community of St. George Island by placing the local sea lion population at risk. Executive Order 12898 provides that

  > [t]o the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

  The NPFMC is thus bound, to the greatest extent practicable and permitted by law, to identify and address the disproportionate environmental impacts of the existing Steller sea lion protection measures on the Aleut Community of St. George Island.

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[6] Veniaminov, Ivan. 1984 (orig. 1840). Notes on the Islands of the Unalashka District. L.T. Black and R.H. Geoghegan, transl. Richard A. Pierce, ed. Kingston, Ontario: Limestone Press.
[7] Veltre, Douglas W., and Mary J. Veltre. 1981. A Preliminary Baseline Study of Subsistence Resource Utilization in the Pribilof Islands Alaska Department of Fish and Game, Division of Subsistence Technical Paper No.57. Juneau.

ALEUT
Enterprise, LLC

Chris Oliver
Executive Director
North Pacific Fisheries Management Council.
605 W 4th Ave, Ste 306
Anchorage, AK 99501

RECEIVED
AUG 11 2010

Subject: Steller Sea Lion Biological Opinion

Dear Sir or Madam,

My Name is Rudy Tsukada and I am the President for Aleut Enterprise, LLC, a wholly owned subsidiary of The Aleut Corporation. Aleut Enterprise operates fuel terminals in Cold Bay and Adak.

I have serious concerns regarding the economic impact the proposed regulations in the draft SSL BiOp will have on the communities in Western and Central Aleutian Island region. While we are very protective of the sustainability of the resources surrounding our "home waters" in the Aleutians, the science outlined in the proposed regulations does not justify the severity of the economic impact to those who I believe should benefit most from the resource...the residents of the Aleutian Islands.

The economic impact the proposed regulations will have on Aleutian communities will be significant. One community in particular, Adak, could be destined for extinction sooner than any worst case scenario for the wSSL population.

The late Senator Stevens was instrumental in allocating Pollock to the Aleut Corporation for the purpose of transitioning the former Naval Base into a viable community. That allocation has gone virtually un-fished due to the SSL issue. Now the council is considering taking away from the community the last economically viable private sector employment opportunity in Adak.

Economic impacts estimated by the biological opinion may seem minor when compared to the overall fisheries in the BS/AI region. However, to the community and residents of Adak, the proposed regulations would have devastating effects.

With a State certified population of 165 in 2009, Adak is heavily dependent on the fisheries resources in our surrounding waters. The seafood facility is a major provider of seasonal employment and the associated fisheries taxes account for 30 percent of the City of Adak's proposed budget in FY 2011.

Aleut Enterprise employees 8 people in Adak full time that support in total 19 residents or 12% of Adak's population. In addition Aleut Enterprise paid over $350,000 in taxes to the city of Adak during the last fiscal year. Taxes paid directly by Aleut Enterprise combined with the fisheries taxes account for over 60% of the proposed city budget in 2011.

Aleut Enterprise estimates that fuel sales would decrease over 50% if the proposed regulations are enacted. This would result in a substantial decrease in our staffing requirements as well as taxes paid to the city. In addition, fuel prices to every resident and commercial customer including the electrical utility would increase substantially as lower volumes would lead to higher allocation of the fixed costs to the community.

The draft biological opinion and associated press releases are rife with statements of uncertainty. Nowhere in the opinion can I find a statistically significant correlation between fishing and the decline in the SSL population. The BiOp's executive summary makes it clear that there are other factors in the decline of the SSL. Page xxix of the executive summary states: "There are no significant negative relationships between wSSL trends in abundance and commercial fisheries since 1990 (NMFS 2010a)."

I thought perhaps we should propose a test case by limiting fishing to varying degrees to monitor the impact. That experiment though had already been conducted. Ship Rock in Kanaga Sound was recently reclassified as a rookery because the population had increased substantially. Fishing had been allowed as close as 3 miles from Ship Rock. At the nearby Lake Point rookery which had been closed to fishing within 10 miles, the population dropped. The conclusion here is that there appears to be a positive correlation between fishing inside 10 miles of the critical habitat and the SSL population.

What is certain is the proposed regulations place into jeopardy the resident population of a species that should be given, at the very minimum, equal consideration in efforts to stave off their imminent extinction based on human activities (i.e. the proposed regulation): The resident human population of the Western and Central Aleutian Islands.

To propose such restrictive regulations on commercial fishing when the science shows no significant negative correlation is unfathomable and irresponsible. As a company whose shareholders are of Aleut descent, we take the conservation of all animal and plant species in our region seriously. What separates our viewpoint perhaps from the recommendations in the SSL Biological opinion is that we consider our people part of the environment and worthy of protection from rules and regulations based on speculation and not science.

We hope you will reconsider the proposed regulations and urge that any rules enacted, go through proper third party independent review and a thorough public hearing process.

Sincerely,

Ryuichi Rudy Tsukada
President
Aleut Enterprise, LLC

August 11, 2010

Mr. Eric Olson, Chair
North Pacific Fishery Management Council
605 West 4th Street, Suite 306
Anchorage, AK 99501-2252

Dear Mr. Olson,

On behalf of World Wildlife Fund (WWF), I wish to submit this letter for consideration during the August 18-19, 2010 North Pacific Fishery Management Council (Council) review of the Draft Steller sea lion (SSL) Biological Opinion (BiOp) and draft Environmental Assessment/Regulatory Impact Review (EA/RIR) of potential mitigation alternatives. WWF has begun a review of the Draft SSL BiOp and EA/RIR and we will continue our analysis of these documents over the course of the month before providing additional comments to National Marine Fisheries Service (NMFS). Based on our initial analysis, in addition to the proposed revisions to the existing Steller sea lion protection measures, WWF strongly recommends that the Council and NMFS consider additional protection measures for important Bering Sea haulout areas in the Pribilof Islands. Specifically, WWF endorses the proposal by the St. George Traditional Council to extend the critical habitat protection measures for the Dalnoi Point haulout from 3 nautical miles (nm) to 20 nm.

Since 2003, local researchers from the St. George Traditional Council have been surveying to substantiate local knowledge that Steller sea lions use haulouts on St. George Island in numbers that require a greater level of protection of habitat than that which is currently provided. Local researchers have used time-lapse and remote video photography to consistently record counts of over 400 Steller sea lions at Dalnoi Point on St. George Island from January through April of every year. Counts of 50 to 100 Steller sea lions are also regularly observed at Kitasilox and Tolstoi haulouts on northeast St. George during the fall and winter, making these some of Alaska's largest sea lion haulouts.[1] Steller sea lions observed at these sites are not only from the Pribilof Islands, but come from areas throughout the entire Steller sea lion range. Local observations of branded Steller sea lions from Southeast Alaska, the Gulf of Alaska, the Aleutian Islands, and even Russia demonstrate the regional and even global significance of these sites for Steller sea lions. The consistent presence of these animals on St. George Island underscores the need to provide adequate protection in the Pribilof Islands and to implement regular monitoring programs to evaluate the success of these measures.

These proposed management changes are important because the area currently closed to trawling (0-3 nm) around the Dalnoi Point haulout is a small portion of the designated critical habitat (0-20 nm) for this area. The current no-trawl area may result in localized depletion of prey resources that are important to Steller sea lions during the winter. The 2003 Supplement to the

[1] Sease, J.L. and York, A.E. 2003. Seasonal distribution of Steller's sea lions at rookeries and haulout sites in Alaska. Marine Mammal Science 19:745-763.

2001 BiOp[2] d ocumented that pollock catch in St. George Island critical habitat (0 -20 nm) increased by an order of magnitude between 1999 and 2002, from 0.39% to 2.07% of the Eastern Bering Sea pollock fishery total (Table III-9C, p. 107). Pollock catch in 2002 within the 0-10 nm zone of St. George Island critical habitat amounted to 0.2% of the Eastern Bering Sea pollock total catch. NMFS summarized the existing protection measures by stating on page 56 of the 2001 BiOp Supplement that "[i]nside 10 nm conservation measures are very conservative except for catch off St. George Island" where catch rates in Steller sea lion critical habitat were higher than in other protected areas. WWF strongly recommends that NMFS and the Council revisit the results of the Rookery Cluster Area (RCA) analysis in the current Draft BiOp to critically assess the current harvest rates of Steller sea lion prey species in St. George Steller sea lion critical habitat relative to other Western Distinct Population Segment (WDPS) areas to determine whether current harvest levels could result in localized depletion of Steller sea lion prey species such as walleye pollock (*Theragra chalcogramma*).

New data reported at the February 2010 meeting of the Steller sea lion Mitigation Committee show that adult-sized walleye pollock is a primary prey species for Steller sea lions from Dalnoi Point. A pilot project conducted by the St. George Traditional Council and the National Marine Mammal Laboratory examined prey remains in scat samples collected in June 2009 at the Dalnoi Point haulout. Walleye pollock was the primary prey species, with a frequency of occurrence (FO) of 77.8%, followed by Irish Lord sculpins (*Hemilepidotus sp.*; 70.4% FO), and rock sole (*Lepidopsetta biliniata*; 55.6% FO). Other important prey (FO > 14%) included skates (*Rajidae*), polychaete worms (*Polychaete spp.*), and Pacific cod (*Gadus macrocephalus*). The fork length of walleye pollock estimated from regressions of the bone measurements ranged from 41.6 cm to 73.7 cm, indicating that most pollock consumed by Steller sea lions at Dalnoi Point were of the size generally taken by the trawl fishery. The high occurrence of species that are commercially fished in the diet of Steller sea lions at Dalnoi Point indicates a strong likelihood for competition with commercial fisheries near this important winter haulout.

Competition with commercial fisheries in proximity to Pribilof Steller sea lion haulout sites could have a negative impact on the Pribilof Island breeding population. Steller sea lion pups usually remain within 500 km of their natal site during their first year and lactating female Steller sea lions often move with their pups from the natal rookery to winter haulout sites near more productive foraging grounds[3]. Given the geographical isolation of the Pribilof Archipelago, the winter haulout sites on St. Paul and St. George Islands are very likely to be important for the Pribilof breeding population at Walrus Island and for young of the year during winter. The St. George Traditional Council has documented pre-molt Steller sea lion pups on St. George as early as September and has recorded consistent wintertime observations of female sea lions nursing

[2] NMFS. 2003. Supplement to the 2001 Endangered Species Act, Section 7 Consultation, Biological Opinion and Incidental Take Statement on the authorization of the Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Fishery Management Plan Amendments 61 and 70. NMFS Alaska Region, Protected Resources Division, Juneau, AK.

[3] Raum-Suryan, K.L., K.W. Pitcher, D.G. Calkins, J.L. Sease, and T.R. Loughlin. 2002. Dispersal, Rookery Fidelity and Metapopulation Structure of Steller Sea Lions (*Eumetopias jubatus*) in an Increasing and a Decreasing Population in Alaska. Marine Mammal Science. 18:746-764.

their young at Dalnoi Point and other St. George haulout areas. These female Steller sea lions likely gave birth on Walrus Island.

The Steller sea lion population in the Pribilof Islands has declined to extremely low levels and the sole remaining breeding rookery at Walrus Island is currently in danger of extinction. Over the last 50 years, pup production on Walrus Island has declined by over 90%, from 2,866 pups born in 1960 to approximately 334 in 1982, 50 in 1991, 39 in 2001, and only 29 in 2005[4]. The 25% rate of decline observed from 2001 to 2005 is comparable to that observed in the Western Aleutian Islands in recent years. The declining trend at Walrus Island is also in stark contrast to the stable or increasing population trends for other Steller sea lion rookery areas classified within the Bering Sea Rookery Cluster Area (RCA) number 6 in the Draft BiOp analysis. WWF questions whether the Walrus Island rookery should be combined with the eastern Aleutian rookeries in this analysis. Given the geographic isolation of the Pribilof Islands and the difference in population status, WWF recommends the Pribilof Islands be considered as a separate area.

In summary, WWF supports the effort made in the current Draft BiOp to evaluate the ecosystem carrying capacity and the implications for predators such as Steller sea lions. A 2002 scientific review of harvest strategies commissioned by the Council points to the likelihood of reduced predator populations under the F40 strategy.[5] WWF is concerned that recent declines in northern fur seals and certain seabird populations, as well as Steller sea lions in the Pribilof Islands region, may be related to the indirect effects of fishing and thereby require additional precautionary management measures. Consequently, we believe that additional protection measures for the Steller sea lion haulout at Dalnoi Point are warranted because it is one of the largest haulout sites in the WDPS; it is likely a winter haulout site for females and pups from the precipitously declining Walrus Island rookery; and because there is a high likelihood for competition for prey resources with commercial fishing within the 20 nm critical habitat zone. We hope that you will consider these management measures and add protection for the Pribilof Islands Steller sea lion habitat and foraging areas.

Sincerely,

Heather Brandon
Senior Program Officer, Fisheries
Arctic Field Program, World Wildlife Fund
419 Sixth St, #317
Juneau, Alaska 99801

[4] NMFS. 2008. Recovery Plan for the Steller Sea Lion (*Eumetopias jubatus*). Revision. NMFS, Silver Spring, Maryland, 325 pp.

[5] Page 85 in Goodman, D., M. Mangel, G. Parkes, T. Quinn, V. Restrepo, T. Smith and K. Stokes. 2002. Scientific Review of the Harvest Strategy Currently Used in the BSAI and GOA Groundfish Fishery Management Plans. North Pacific Fishery Management Council, 605 West 4th Ave., Suite 306, Anchorage, Alaska 99501.

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Ocean Conservancy
Start a Sea Change

August 11, 2010

Mr. Eric Olson, Chair
North Pacific Fishery Management Council
605 W. Fourth Avenue, Suite 306
Anchorage, AK 99501-2252

RE: Agenda item B-1, Steller Sea Lion Biological Opinion

Dear Chairman Olson and Council Members:

After a lengthy process, the National Marine Fisheries Service (NMFS) has released a Draft Biological Opinion (BiOp) evaluating the impacts of the Bering Sea/Aleutian Islands and Gulf of Alaska groundfish fisheries on endangered species. The draft BiOp makes clear that the groundfish fisheries, as they are currently managed, do not comply with the substantive requirements of the Endangered Species Act (ESA) and recommends minimum changes necessary to bring the fisheries into compliance with the law. NMFS plans to implement these management changes for the 2011 fisheries, and the North Pacific Fishery Management Council now has the opportunity and obligation to further its commitment to a healthy Aleutian Islands ecosystem that supports sustainable fisheries and vibrant communities by urging swift completion of the ESA Section 7 consultation process and implementation of the necessary changes.

The western population of Steller sea lions was listed under the ESA as a threatened species in 1990. Critical habitat was designated for the species in 1993, and in 1997, it was reclassified as endangered. *See* 50 C.F.R. § 226.202; 58 Fed. Reg. 45,269 (August 27, 1993). Accordingly, NMFS must "insure that any action . . . is not likely to jeopardize the continued existence of" that population "or result in the destruction or adverse modification of" its critical habitat. 16 U.S.C. § 1536(a)(1). The agency's obligation to prevent jeopardy and adverse modification includes not just ensuring survival of the species but also allowing for recovery—an action can cause jeopardy or adverse modification when it does not allow for the recovery of the listed species. *See Gifford Pinchot Task Force v. U.S. Fish and Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004); *National Wildlife Federation v. National Marine Fisheries Serv.*, 481 F.3d 1224, 1238 (9th Cir. 2007).

Conflicts about NMFS's compliance with these mandates led to lengthy and often contentious litigation. *See Greenpeace v. National Marine Fisheries Serv.*, 237 F. Supp. 2d 1181, 1184-87 (W.D. Wash. 2002) (detailing agency actions, procedural posture, and previous decisions). In the court of that litigation, the court repeatedly rejected the agency's rationale for its conclusion that fishing under the FMP was not causing jeopardy to the species or adversely modifying its critical habitat. NMFS revised the BiOp several times and ultimately, on June 19, 2003, released a final document entitled "Supplement to the Endangered Species Act - Section 7 Consultation

Biological Opinion and Incidental Take Statement of October 2001." *See* http://fakr.noaa.gov/protectedresources/stellers/biop2002/703remand.pdf. That document was not subject to court challenge and, therefore, concluded that consultation process.

In April 2006, NMFS Office of Sustainable Fisheries sent a request to the Office of Protected Resources requesting reinitiation of formal Section 7 consultation about the effects of the federal groundfish fisheries on Steller sea lions and other listed species. *See* Letter from S. Salveson, Ass't Reg'l Admin for Sustainable Fisheries to K. Brix, Assistant Reg'l Admin for Protected Resources, *Reinitiation of Endangered Species Act (ESA) Section 7 Consultation for the Alaska Groundfish Fishery Management Plans (FMPs)* (April 19, 2006). At that time, the Office of Protected Resources expected to complete the new BiOp by August 2007, it has not yet been finalized. *See* Memo from S. Salveson to K. Brix, *Reinitiation of ESA Consultation* (June 23, 2006).

In 2008, NMFS issued a revised Recovery Plan for the Steller Sea Lion. *See* http://www.fakr.noaa.gov/protectedresources/stellers/recovery.htm. Now, in 2010—more than four years after consultation was reinitiated and more than 14 years after this dialogue began—NMFS has released a draft BiOp. The draft BiOp concludes that the fisheries are likely to cause jeopardy to the western population of Steller sea lions and likely to adversely modify designated critical habitat. Therefore, the groundfish fisheries, as currently managed, do not comply with the Endangered Species Act. Accordingly, the draft proposes a Reasonable and Prudent Alternative (RPA) to bring the fisheries into compliance with the law. That RPA would require changes in the Atka mackerel, Pacific cod, and groundfish fisheries in Management Sub-areas 543, 542, and 541. The schedule proposed by NMFS for completion of the consultation process would allow for public input, including discussion at the Council, development of a final rule, and implementation of the necessary changes for the 2011 fisheries.

That schedule provides the Council with the opportunity, at this special meeting and again at the October meeting, to provide input to NMFS as the agency makes a final decision about the changes needed to comply with the law. The Council has two choices at this time.

It could take no action or encourage the agency to take no action. Further delay or inaction, however, will not comply with the law. The Steller sea lion population continues to decline in the western Aleutian Islands, and is not meeting the clear demographic criteria for recovery set out in the Recovery Plan. The most recent observation data show that, overall, the stock is not increasing in a statistically significant manner, and any increases certainly do not satisfy the Recovery Plan's threshold of a statistically significant increase at an average annual growth rate of 3%. Moreover, there are sharp declines in pup production across the western portion of the range. These facts make clear that the current management measures are not sufficient to satisfy the agency's ESA obligations and that the agency must take action to change the management measures for 2011, if not sooner. Thus, by recommending inaction or delay, the Council will be encouraging NMFS to continue to authorize fishing that is not in compliance with the law.

On the other hand, the Council could recommend that the agency follow the schedule and implement the changes suggested in the RPA. NMFS has identified the minimum changes necessary to comply with the ESA, and the Council could take steps to ensure that those changes

are made by January 2011 and, possibly, in time for the September Atka mackerel fishery. Doing so would help ensure compliance with the law and would help move this lengthy process to its conclusion.

To the extent that the Council seeks to modify the RPA, it must bear in mind that changes not in accordance with the analysis in the BiOp may not comply with the ESA and certainly will invite conflict. The Council should help NMFS move forward toward a solution, rather than backward toward litigation.

Thank you for your consideration of these comments, and we look forward to working with you on this and other important issues related to restoring and maintaining a healthy North Pacific marine ecosystem, including sustainable fisheries and vibrant coastal communities.

Sincerely,

Susan Murray
Director, Pacific
Oceana

Sincerely,

Janis Searles Jones
Vice President for Programs
Ocean Conservancy

cc: Dr. Jim Balsiger, Administrator Alaska Region, National Marine Fisheries Service

Adak Community Development Corporation

PO Box 1943 Adak, Alaska 99546

August 11th, 2010

Eric Olson, Chairman NPFMC
605 W. 4th Avenue. Suite 306
Anchorage, Alaska 99501-2252

Re: SSL EA-RIR and BiOp

Dear Eric,

The community of Adak is extremely concerned about the impact proposed RPAs on our economic base.

Both the EA-RIR and the BiOp document estimate that roughly half of the Aleutian Island P. cod catch will be displaced by the new closures. Roughly 16,000 tons of cod catch are either lost or shifted to other areas.

The tables for Chapter 10 of the EA estimate the value of the AI P. cod fishery at roughly $57 million which means over $25 million is at risk due to being displaced. While some of it may be made up in the EBS, but that is no consolation to an Aleutian Island community.

$25 million may seem like small change measured against all Alaskan fisheries, but $25M flowing through Adak would mean the difference between a vibrant community and a dead community. In addition to the loss of cod, Adak will be further impacted by the loss of fuel sales and support services to the mackerel fleet.

Summary of 2008 Cod catch data tables from 10.x series from EA-RIR					**Alt 3 reduction in AI due to RPAs**		**Alt 3 halibut increase if effort moves to EBS**	
Area	541	542/3	All AI Areas	Millions of $'s	cod low	cod high	halibut low	halibut high
Fixed Gear CPs	1,942	4,897	6,839	$14.1	4600	5200	-30	-34
CVs	10,633	3,847	14,480	$25.6	2300	7100	52	161
Am80 CPs	2,834	2,442	5,276	$10.9	2464	6876	61	170
State managed	*5,262*		*5,262*	*$6.3*				
All sectors	21,212	11,186	31,857	$56.9				

The 2004 congressional promise of economic development based on Pollock to replace what was lost due to crab rationalization has gone unfulfilled. A stable well managed Aleutian Island cod fishery is crucial to the survival Adak .

Before the Council approves the RPAs proposed by the agency, we ask that you consider the following summary of points where the basis of BiOp's conclusions on the need for specific RPA should be subject to more scrutiny and review.

The NMFS-PR conclusion that more restrictive RPAs are necessary in the AI seems to be based on the following:

1- Lower forage ratios in the AI, and a high percent of the harvest in CH
2- Telemetry and Platform of Opportunity data showing SSL outside CH
3- Higher Exploitation Rates in some sub-components of AI fisheries
4- The desire for an Adaptive Management experiment
5- Significant declines in SSL counts in RCA 1 (Area 543, the western AI)
6- Reduced Natality as a symptom of Nutritional Stress
7- Competitive Overlap between AI Cod Fishery and SSL
   A- Size Overlap
   B- Depth Overlap
   C- Spatial Overlap
   D-"Frequency of Occurrence" in SSL Scat

NMFS-PR overstates their case on all these points.

Comments on Points for Review and Further Scrutiny

Forage Ratios:

The AI has almost double the prey density of the EBS in "biomass per unit of area". Much of the EBS biomass is distributed far from rookeries and haulouts. (A supplemental summary of bottom trawl survey CPUE data follows this overview).

A far higher percentage of the overall biomass in the AI is inside of CH, because a far higher percentage of the shelf is inside CH than in the EBS. If effort should be distributed according to biomass, a goal established in the 2001 BiOp, then it follows that a higher percent of the harvest in the AI should occur inside the lower priority zones of CH.

SSL Outside CH from Telemetry / Platform of Opportunity Data

Despite NMFS making much over the "outside CH" telemetry data, the fact is that in the Aleutians 100% of the telemetry 'hits' are inside 10 miles during "winter" when most of the fishing takes place (table 3.11). The BiOp fails to breakdown the percent of 'hits' inside 3 miles, but before NMFS removed the ability to view the telemetry data online and refused MCA's FOIA request for the raw data, it was

evident from looking at the data plots in detail that the vast majority of these were inside 3, during winter. The figures in the just released unpublished "AFSC, 2010b" seem to tell the same story.

The 3 tagged male CAI SSL that did wander out in the basin did so in May/June.

An examination of the maps of telemetry position plots and POP observations, show that the "outside CH observation are also "outside the 1000 meter isobath" – and thus it is highly unlikely that SSL foraging outside CH is targeted on groundfish. This data does not indicate competitive spatial overlap with fisheries for groundfish.

Neither the telemetry nor the POP data justify expanding the existing closures of CH in the AI.

Fishery & Oceanagraphic Analysis (Fritz 2010):

The Fritz, 2010 "Analysis" was posted as supplemental material to the BiOp on NMFS website, but it is used as reference material in other tables in the BiOp. Unconventionally loose "P" values were used to try to give significance to weak correlations, but even then there is no current correlation between fishing and SSL population decline rates.

The methodology for apportioning mackerel biomass ignored the methodology sanctioned by the Plan Team and SSC and discarded data points that didn't fit the author's expectations.

This analysis is also used to make the argument that the Aleutians are an inherently harder place for SSL to live because of "storminess." This seems to be an anthropocentric point of view. Antarctica would be a harder place for me to live than Hawaii, but a penguin might not agree.

Use of the Fritz 2010 Data Tables to Calculate Table 5.3 "Exploitation Rates".

The SAFE uses 3 or 4 survey rolling averages for AI sub-area biomass distribution as the smoothing method sanctioned by Plan Team and SSC. Table 5.3 sub-divides sub-areas and uses a snapshot of 2006 survey summer distribution of 2008 model biomass to determine exploitation rates of catch that occurs in winter or fall.

The fleet distributes itself within the constraints of the open areas according to where fish are distributed during the fishing season. 93% exploitation of cod in RCA 4 in Table 5.3 – or even 57% from Table 5.2 - is not credible.

Adaptive Management Closure of Cod in all 543 and all CH in 542

The mackerel SAFE says: ***"approximately 20% of the Atka mackerel exploitation rate (as calculated by stock assessment) was due to the fishery, 62% due to predation...Of the 62% of mortality due to predation, a little less than half (25% of total) is due to Pacific cod predation, and one quarter (15% of total) due to Steller sea lion predation....If converted to tonnages, this translates to 100,000-120,000 t/year of Atka mackerel consumed by predatory fish (of which approximately 60,000 t is consumed by Pacific cod)."***

The goal of the "adaptive" closures is a doubling of the cod biomass, which means a doubling of the cod consumption of mackerel. As much mackerel could be consumed by the increased cod biomass as was taken by the foregone mackerel fishery.

The idea the closing cod and mackerel fishing would double the biomass is based on simplistic single species modeling that ignores the EcoPath modeling by Aydin/Gaichas 2007.

The RPAs in the 2001 BiOp set out a goal of distributing effort in proportion to biomass. This experiment reverses that principle and the instead it displaces effort from 543 and 542 into a reduced small portion of 541. Is localized depletion in 541 the goal of the 'experiment'?

Existing Adaptive Management "Experiments"

The BiOp proposes re-classifying Ship Rock in Kanaga Sound (RCA 3) as a rookery, because the counts have increased significantly. The status quo cod fishing restrictions only close Kanaga Sound out to 3 miles from Ship Rock. Meanwhile, just across the border in RCA4, the Lake Point rookery is closed out to 10 miles for cod (and 20 miles for Pollock and mackerel) and it is in slight decline.

Reduced Natality and the Population Decline.

In the Fig. 4.25 schematic, the BiOp attempts to draw a direct line from reduced natality to nutritional stress, attributing the decline in SSL counts to nutritional stress. However, the schematic lists a number of 'symptoms' of nutritional stress, of which reduced birth rate is just one. Those symptoms of nutritional stress are evaluated in table 3.17. Out of the 13 indicators for which data was available, only one (reduced birth rate) was consistent with the "potential biological effects" of nutritional stress.

Table 4.18 reflects this biased re-interpretation of data by ranking "indirect fishery effects" (i.e.: reduced prey leading to reduced SSL survival and reproduction) as "likely" while ranking "predation" by Killer Whales as only "possible" when the Recovery Plan ranked both as "potentially High."

Degrees of Overlap

One of the 1st steps in the risk analysis schematic in Fig. 4.24 is to evaluate several dimensions of overlap. It does so with a simplistic "Y/N" test rather than looking at the degree of overlap. The discussion in the text of the BiOp in section 4.5.3 lacks any data or references to studies by which one could begin to look at degree of overlap for "prey size" (4.5.3.1) or "depth "(4.5.3.2) AI cod fishery that is the subject of the RPAs.

Size Overlap

Though 4.5.3.1 fails to reference any data on the size of cod consumed by SSL in the proposed AI RPA areas or the sizes of cod harvested by the AI cod trawl fishery, that data does exist.

In a June 2000 discussion paper on Potential Interactions between SSL and Cod Fisheries, NMFS provided a size distribution for cod consumed by SSL. In that study, less than 15% of the cod consumed

by SSL in the AI were over 60 cm. Less than 20% of the cod landed in Adak were under 70 cm, which is consistent with observer data from the AI cod trawl fishery.

While size overlap occurs, the overlap band is narrow in the AI cod trawl fishery.

Depth Overlap

Though 4.5.3.2 fails to reference any data on the dive depth profiles of SSL or the haul depths of the AI cod trawl fishery, that data does exist.

Of dives by SSL greater than 4 meters, only between 4% to 14% of those dives are to depths greater than 100 meters. (Diving Behaviour of Adult Female Steller Sea Lions in the Kuril Islands, Russia" Loughlin, 1998; and ADF&G Wildlife Technical Bulletin No. 13, May 1996). A much larger data set exists and but a FOIA request for the data was not fulfilled.

The fishing depths are readily available from publicly available observer data. In the Aleutian Island cod trawl fishery less than 12% of the tows are less than 100 meters.

While depth overlap occurs, the overlap band is narrow in the AI cod trawl fishery.

Spatial Overlap

See comments on Telemetry...100% of the 'hits' in the AI RCA 1-5 were between 0- 10 miles during the winter AI cod fishery. No analysis was presented on the percent inside between 0-3 miles. The best source of "platform of opportunity" data in the space occupied by the AI cod trawl fishery are captains of the boats fishing. Sightings of SSL on the AI cod trawl fishing grounds are practically non-existent.

While spatial overlap occurs, the overlap is limited.

Cod Frequency of Occurrence in Scat

Table 3.16 identifies P.Cod as occurring in 26% of SSL scats in winter (6% in summer) in the Central/Western Aleutians. This is much lower than the FO of cod in the EBS or W/C-GOA areas.

The table also shows sculpins occurring at a rate of 23% and snailfish at 12%. Sculpins and snailfish have far smaller biomasses than P. cod, yet they have similar "FO's."

Rather than "Y/N" tests, overlap needs to be evaluated as a matter of degree, and the degree of overlap in the AI cod fishery is quite limited, and does not justify expanded RPA's for that fishery.

A More Detailed Analysis of Forage Ratios

The "forage ratio" analysis used in the 2001 Biop fails to capture what is important to a forager.

Table 5.3 (last column) compares the whole EBS shelf to the AI shelf to compute the "forage ratios" of 446:1 for the EBS and 11:1 for the AI, which makes the EBS sound 40 times better than the AI for foraging. However, that comparison fails to tell anything about the relative density of prey.

The survey reports published as NOAA Tech Memos provide the CPUEs by species in kg/ha. They also provide the sq. kilometers of shelf area for the EBS and AI as well as the survey biomasses for the groundfish (including the groundfish prey species with FO's >10%). By summing the prey biomasses in the two areas divided by the sq. km's of shelf, one can calculate the relative "prey per unit of area" in tons of prey biomass per sq. km.

The following tables summarize data from the NMFS Technical Memoranda for the AI 2002/4.6 and EBS 2007 surveys and makes the "groundfish prey per unit of area" calculation. The "CPUE (kg/ha)" is from the most recent published survey reports. The "area biomass" and "tons/km2" were calculated as an average of the last three AI surveys.

Looking at the five groundfish prey species in aggregate that exceed an FO in SSL scat of 10%, the AI has a groundfish prey base that is almost twice as dense as the EBS measured on a "prey per unit of area" basis.

The AI has a higher CPUE for Atka mackerel, Pollock, P.cod, Arrowtooth, and Sculpins in the aggregate than the EBS:

Aggregate of top 5 groundfish prey species	area Km2	area biomass	tons/km2
AI 2002/4/6 survey ave.	56,931	1,125,704	19.8
EBS - 2007 survey	463,374	5,328,789	11.5

The AI has a 50% higher P. Cod CPUE (despite having a lower cod FO in the AI than in the EBS:

P. cod	CPUE (kg/ha)	area Km2	area biomass	tons/km2
AI 2002/4/6 survey ave.	14.95	56,931	80,228	1.4
EBS 2007 survey	9.78	463,374	423,703	0.9

The AI has a higher Atka Mackerel CPUE than EBS :

Atka Mackerel	CPUE (kg/ha)	area Km2	area biomass	tons/km2
AI 2002/4/6 survey ave.	128.03	56,931	795,400	14.0
EBS 2007 survey **	0.00	463,374	*50,343*	0.1

(the 2007 EBS survey report showed no mackerel in the EBS, but the AI survey also covers the Southern BS, so that portion of the biomass is included with the EBS.)

The EBS has a higher Pollock CPUE than the AI:

Pollock	CPUE (kg/ha)	area Km2	area biomass	tons/km2
AI 2002/4/6 survey ave.	16.68	56,931	133,528	2.3
EBS 2007 survey	89.65	463,374	4,156,687	9.0

(Note that the EBS bottom trawl survey locates over half of the pollock biomass in Stratum 61, which is from 200 to 500 miles away from the Unimak Pass area where the preponderance of the SSL in RCA 6 are located.)

The AI has a higher Arrowtooth CPUE.

Arrowtooth	CPUE (kg/ha)	area Km2	area biomass	tons/km2
AI 2002/4/6 survey ave.	26.10	56,931	101,022	1.8
EBS 2007 survey	9.72	463,374	482,184	1.0

The EBS has a higher Sculpin CPUE.

Sculpins	CPUE (kg/ha)	area Km2	area biomass	tons/km2
AI 2002/4/6 survey ave.	3.13	56,931	15,526	0.3
EBS 2007 survey	4.80	463,374	215,872	0.5

Not only does the AI have a higher prey density per unit of area, the areas where the AI prey biomass are located are in far greater proximity to the rookery and haulout sites where the telemetry show SSL doing their foraging. This suggests that the foregoing comparison probably understates the degree to which the AI provides a more dense forage base of the five top groundfish prey species relative to the EBS.

The following table is a back of the envelope attempt to reproduce the 446:1 vs 11:1 "forage ratio" comparison from the 2001 Biop.

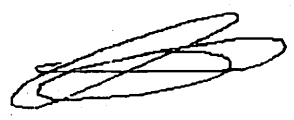
Area	SSL non pup counts from table 5.3	Daily ration (lbs per day per SSL)	Annual ration (tons per year per SSL)	Annual prey needs for non-pup count (ton/SSL)	Bottom trawl survey biomass of 5 top prey groundfish	Forage Ratio
RCA1-5 (AI)	6558	40 lbs	6.62	43,430	1,125,704	25.9
RCA 6 (EBS)	6519	40 lbs	6.62	43,172	5,328,789	123.4

There are lots of caveats. This uses the survey biomass and the raw counts of non-pups - both of which could be extrapolated up to model biomass/population estimates. However, my main interest was to look at the relative ratios in the EBS and AI.

Ignoring the distribution of the biomass relative to SSL and the question density per area, the EBS has a higher ratio, but it is closer to 5:1 compared the AI for the five main groundfish prey species, rather than 40:1 ratio that was carried over from the 2001 BiOp calculation.

Please consider our comments before you approve the RPAs as proposed in the new draft BiOp.

Thank you,



dave fraser, ACDC

To whom it may concern...

I am writing this to voice an opinion on the Alaska fishing closures and the impact it will have on our Family. My Brother has been a Commercial Fisherman since the age of 17, He went to this field with long term goals for his future and the future of his family. We are a Family of Three, My Brother, my Mother and Myself.

We are Native Alaskans who have always appreciated the good life that Alaska has given to us. Fishing is crucial to the livelihood of not only ours, but thousands of Families like ours. Alaskan Fishing Families are integral to the local economies. We buy and rent real estate in our local communities, we shop, we purchase automobiles (in a severely depressed economy that we have now, this is a major feat.) We pump money back into our communities, Taxes, Etc....

To cut us off from Fishing, will really impact all of our lives. The Politicals seem to forget about all of the "Average Jill's and John's" that work within this industry. First off, we have the Fisherman, Captains, Mates, Deck Bosses, Deck Hands, Fish Masters, Processors, Chief Engineers, Cooks, Cooks helpers (just to name a few). Now, lets talk about the support structure that backs these Fisherman up. How about we start in the office. There are Hr People that do all of the screening and the hiring, Accountants, Controllers, Margin Analysts, Attorneys that are paid retainers to assist the companies with all of the legal issues... Paralegals, Receptionists, Couriers. Then there are the Buyers and the Sellers of the Fish for Local and Foreign Markets and the 100's of People that are tied into those lines of Employment.

The local economy will be so greatly affected that many people will lose their jobs, take for instance the impact that this will have on a very small area in Seattle called Fisherman's Terminal, if we don't have Fisherman with viable Jobs, who is going to support these Businesses in this area, Restaurants, Bars and Taverns, Convenience Stores and Retail Shops, Bank Tellers, just to name a few.

Please reconsider these closures... This will be the downfall of 1000's of individuals that are affiliated with the Commercial Fishing Industry.

Sincerely,

Darrin A. West

To whom it may concern...

I am writing this to voice an opinion on the Alaska fishing closures and the impact it will have on our Family. My Brother has been a Commercial Fisherman since the age of 17, He went to this field with long term goals for his future and the future of his family. We are a Family of Three, My Brother, my Mother and Myself.

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Sincerely,

Cheree West