

Board of Fisheries Proposed Pollock Fishery in State Waters of Kanaga Sound

A BOF letter to the North Pacific Fishery Management Council requests review of the proposed fishery at an informal level (11/15/07). No formal consultation should be done.

Features of the Proposed Kanaga Sound Fishery:

1. GHL of 454 mt of pollock
2. Located in Kanaga Sound (No specific coordinates). NMFS assumes fishery would be in 0-3 nm waters on the north side of Kanaga Island.
3. Pollock harvest limited to A season beginning March 1, 2008
4. Limited to vessels < 58 ft LOA (probably 3 or less vessels)
5. No fishing within 3 nm of haulouts and within 20 nm of rookeries. NMFS assumes proposal uses the current description of sites so that Ship Rock is considered a haulout.

This brief analysis determines effects of the proposed fishery on Steller sea lions (SSL) and on their critical habitat (CH). Does it cause disturbance, increased risk of incidental takes or effects on CH that may impact foraging capabilities?

Pollock Stock (S. Barbeaux, 11/14/07 email)

Pollock stock assessment is Tier 5 with approximately 8,000 mt ABC (between 174 and 178 degrees W longitude). 454 mt of the 8,000 mt ABC is about 6 %, which is conservative assuming pollock is evenly distributed over the entire 174-178 area.

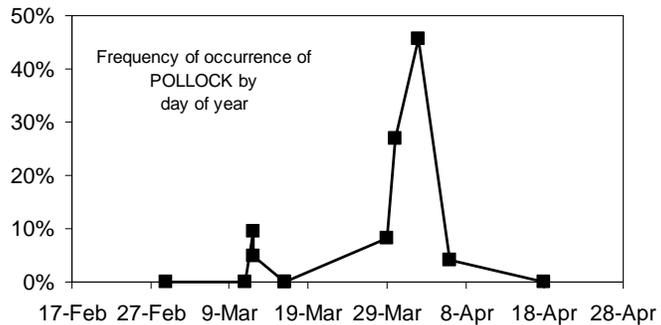
One concern is that the pollock harvest in Kanaga Sound may be on a 2000 year class with no replacement, and the pollock aggregation may be a small reservoir of what once was a larger population. The stock assessment does not take into account distinct aggregations. The fishery may impact a threshold number of spawners needed for good recruitment. No way to know if the pollock over the entire area (174-178) is composed of distinct aggregations or an interchangeable population with common pool of food and habitat.

Conclusion: We are not sure of the impact of the proposed fishery on the pollock stock. The quantity of fish if applied to the entire area does not seem like much, but if the pollock behaves in distinct aggregations, then this could result in localized depletion. Because of the concentrated location and timing of proposed fishing, it could be more of a concern for the pollock stock.

Diet in CAI (From L. Fritz NPBR proposal rationale 12/13/07)

1) Sea lion diet in the central Aleutians: Aggregated winter data suggests that pollock forms a small (frequency of occurrences generally less than 10%) part of the diet. However, pollock appear to aggregate for spawning in the Aleutians for relatively short periods of time. Sea lions are known to feed on fish that form ephemeral spawning aggregations. Pollock may be such a species for sea lions in the central Aleutians, rather than the mainstay of the diet as it is for sea lions in the eastern Aleutians. The table below shows the distribution of percent frequencies of occurrence of pollock in 361 scats sampled on 11 occasions from 6 sites within the central Aleutians between 172° and 180° W (Amukta to Amchitka Passes). These samples were collected between 29-February and 18-April in 1998-2005.

Pollock % Freq of Occ	Sampling Occasions
0	5
0.1% - 5%	2
5.1% - 10%	2
10.1% - 20%	0
20.1% - 50%	2
total	11



For 9 of the 11 occasions, the percent frequency of occurrence of pollock was 10% or less, but in 2 occasions, it ranged between 20-50%. These 2 sets of samples were collected in late-March early-April in 2002; one near Adak Island on Silak, and one on Amlia Island. The figure on the right above shows the temporal distribution (plotted by day of the year, lumping across years) of the same data, and suggests that pollock may be a relatively important, but a short-lived part of the diet of sea lions in the Central Aleutians in winter. It is these short periods of highly aggregated prey that sea lions may be dependent on, particularly in winter when prey species tend to be most dispersed.

Conclusion: Pollock may be an important part of diet during the time of the year when the proposed fishery would occur.

Effects on CH and Prey

This issue is likely the largest concern based on information below.

Spatial Concerns

SSL haulouts and rookeries in Kanaga Sound:

Three haulouts with 20 nm designated critical habitat (per 2000 BiOp) occur in this area. These are located in the eastern portion of the Central AI area for Steller sea lions (Yunaska to Tanaga Island). Kanaga Island is just east of Tanaga Island.

Kanaga/Ship Rock: Currently described as a haulout but proposed to be a rookery. Used year round.

Boborof: Haulout used mostly in winter.

Kanaga/N. Cape : Haulout used mostly in winter (March counts of 118 and 210 animals)

Ship rock and N. Cape are nonpup count trend sites.

All State waters in Kanaga Sound could potentially be closed if Ship Rock were treated as a rookery similar to other rookeries in western Alaska (See attached maps.). Two wedges of State water adjacent to Tanaga Island would remain open if Ship Rock is treated as a rookery.

For Ship Rock neither a 3 nm no transit under the ESA nor a 3 nm groundfish fishing closure under 50 CFR part 679 is established.

Non-pup Counts in June (Lowell Fritz, NMML, 10-15-07 memo)

Location	2004	2006	2007
Kanaga Ship Rock	229	No counts	331
Kanaga N. Cape	7	13	2
Boborof	49	21	No counts

These sites are located in the western edge of the eastern portion of the CAI which had a 20 percent drop in trend site counts between 2004 and 2007. Trend counts in the western portion of the CAI were last done in 2004 when there was a slight increase after steady, large declines since 1990.

Pup counts: Kanaga Ship Rock is now the 5th largest rookery of the 12 rookeries in the Central Aleutians (Yunaska through Kiska). There were 221 pups counted in 2005 on Ship Rock, and it produces more pups than 6 other locations in the Central Aleutians that are currently listed as rookeries.

Conclusions for SSL use of area: Ship Rock appears to be an important site for reproduction. Pregnant females are likely to be present in the area during the fishery. Because of increasing numbers of animals at Ship Rock, this may be an important site for the recovery of animals in the CAI and in the western portion of the CAI where counts have been declining

Proposed fishery would be prosecuted in an area that would potentially be closed if Ship Rock were described as a rookery. No protection would be provided to support reproduction as provided at other rookeries. This may have an impact on recovery.

Temporal Concerns

The proposed fishery is conducted during the A season, when pregnant females that may be nursing pups are likely to have high energy demands (later terms of pregnancy).

The fishery may disrupt and reduce pollock aggregations which could affect foraging efficiency. More energy would be required to obtain prey. The proposed fishery would overlap with the time period when pollock occurrence is more frequent in sea lion scat.

Conclusion: The timing of the fishery may be a problem because of the energy needs of the pregnant females and other animals using the pollock aggregations.

Disturbance:

The proposed fishery is likely to be of short duration and prosecuted by few small vessels. It would be conducted in nearshore waters which may have more animals present than 20 nm off shore of Steller sea lion sites. Because of the limited number of vessels and the short duration of the fishery, this is not likely to be a large concern.

Incidental Takes:

Steller sea lions may be encountered during fishing activities because of the nearshore location and vessel(s) would be present at a time when SSL are more dependent on pollock. With few small vessels participating over short time period, it is not likely that a take would occur.

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