

Steller Sea Lion Protection Measures on St. George Island

**A Proposal for Expanded Protection of the
Dalnoi Point Steller Sea Lion Critical Habitat
Area**

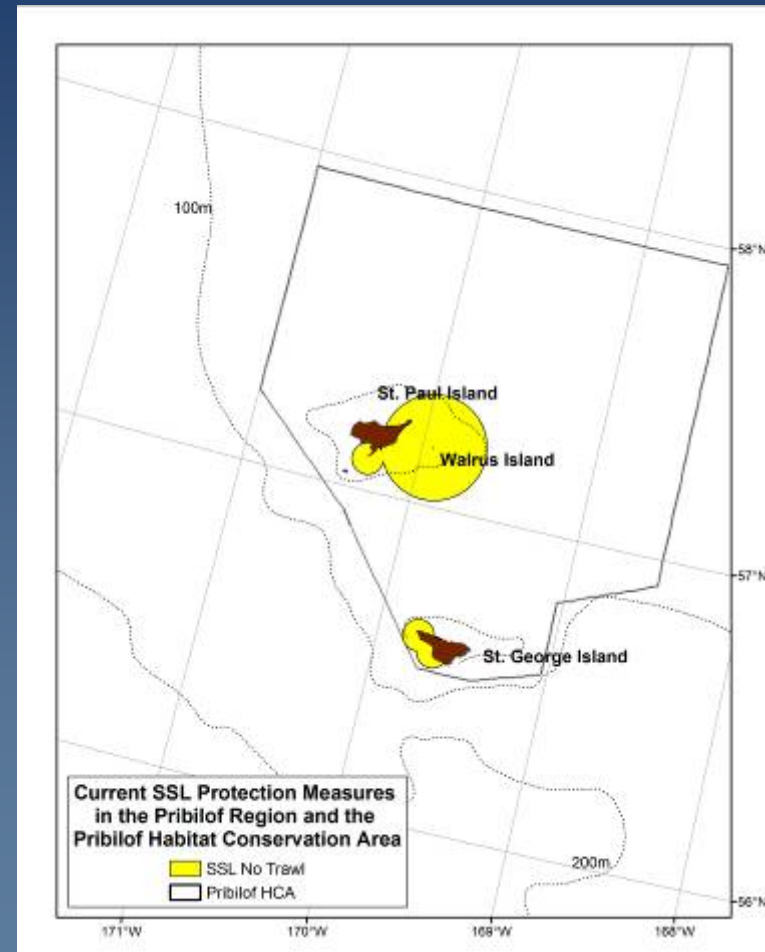
Prepared by Max Malavansky and
Bruce Robson

St. George Traditional Council

A stylized, dark blue silhouette of a mountain range is positioned in the bottom right corner of the slide, extending from the right edge towards the center.

Summary of the St. George Traditional Council Proposal

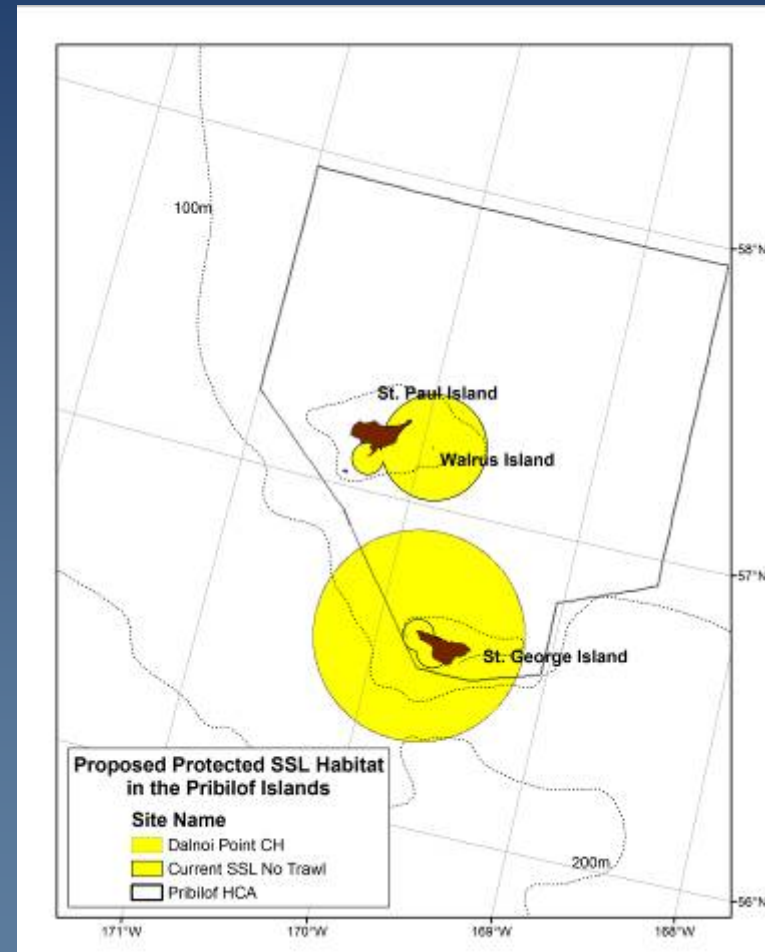
- ◆ The St. George Traditional Council requests that the NMFS and the NPFMC extend the current 0-3 nautical mile trawl closure to prohibit groundfish trawling within 0-20 nautical miles of the Dalnoi Point Steller sea lion haulout



Current SSL Critical Habitat Protection Measures in the Pribilof Islands

Summary of the St. George Traditional Council Proposal

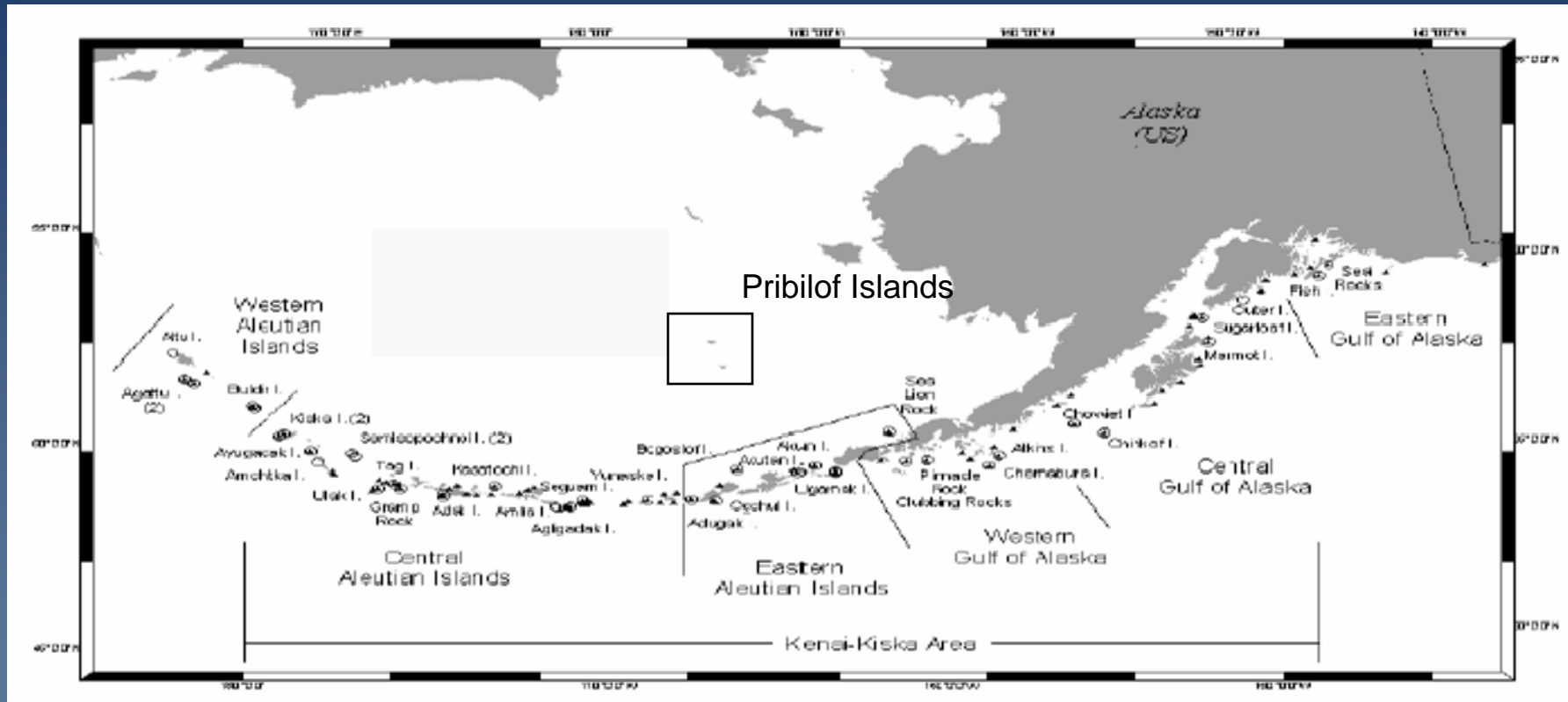
- ◆ The St. George Traditional Council requests that the NMFS and the NPFMC extend the current 0-3 nautical mile trawl closure to prohibit groundfish trawling within 0-20 nautical miles of the Dalnoi Point Steller sea lion haulout



Proposed SSL Critical Habitat Protection Measures in the Pribilof Islands

PRT Variable 4.

Geographic Sub-Region:



Proposed PRT Ranking: Pribilof Islands Region

Figure Adapted from Fritz, L.W. and C. Stinchcomb. 2005. Aerial, ship, and land-based surveys of Steller sea lions (*Eumetopias jubatus*) in the western stock in Alaska, June and July 2003 and 2004. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-153, 56 P.

PRT Variables 5

Seasons

- ◆ Local knowledge and SGTC Research indicate that Dalnoi Point and other hauouts on St. George are used regularly by SSL during the Fall, Winter & Spring
- ◆ Summer data will be collected during 2007



Steller sea lions at Dalnoi Point, February 2007

**Proposed PRT
Ranking: Winter**



Females with dependent pups/juveniles at Tolstoi Point. September, 2004

PRT Variables 6

SSL Site Type

- ◆ The SGTC has made consistent observations at Dalnoi Point of:
 - Adult males
 - Females with dependent pups
 - Juveniles
- ◆ The breeding rookeries on St. George Island were extirpated by 1916. No sea lion births have been documented on St. George since this time¹



Juvenile and adult SSL at Dalnoi Point. March, 2007

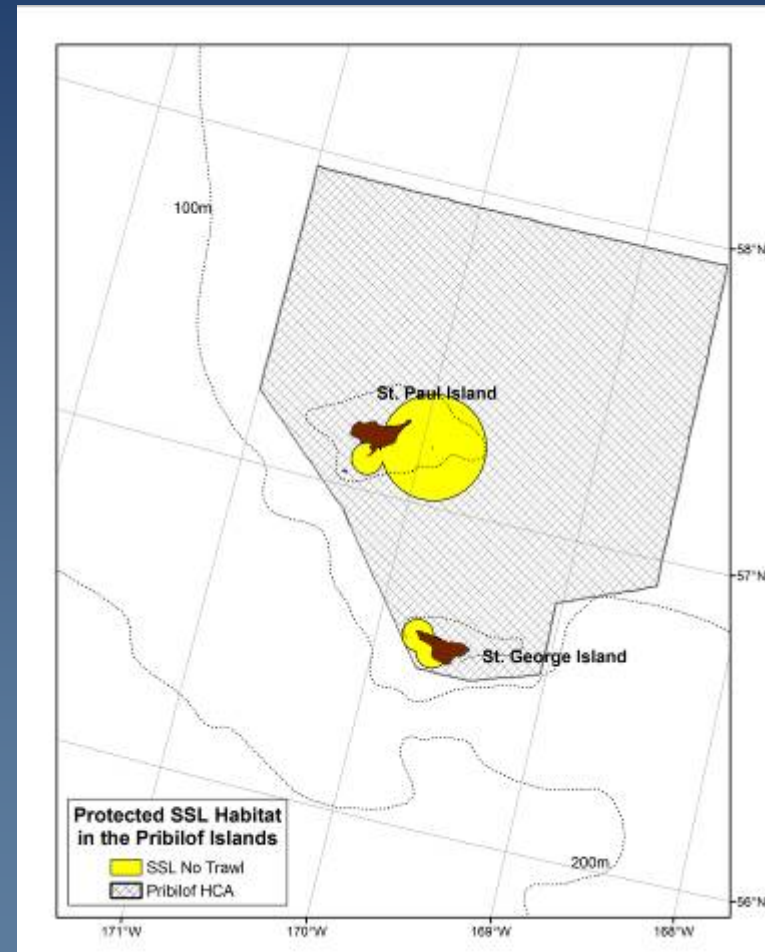
**Proposed PRT Ranking:
Haulout**

¹Loughlin, T. R., D. J. Rugh, and C. H. Fiscus. 1984. Northern sea lion distribution and abundance: 1956-80. *J. Wildl. Manage.* 48: 729-740.

PRT Variable 7

Proximity Zones to a SSL Site

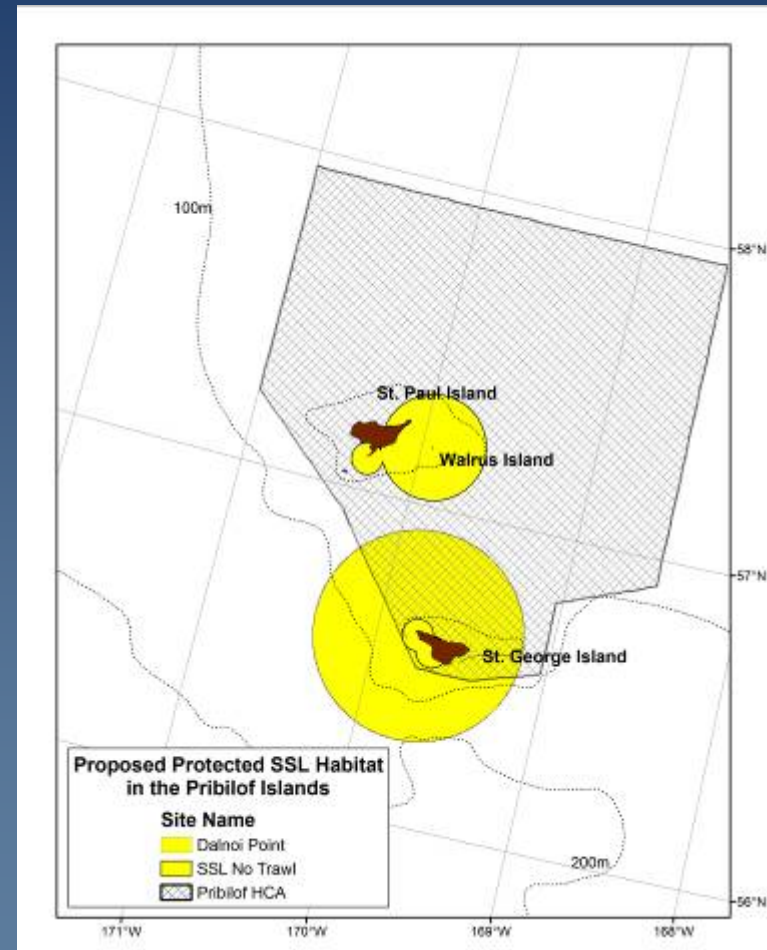
- ◆ The current SSL Protection measures provide only a 0-3 nm trawl closure for the Dalnoi Point Haulout



Variable 7. Proximity Zones to a SSL Site

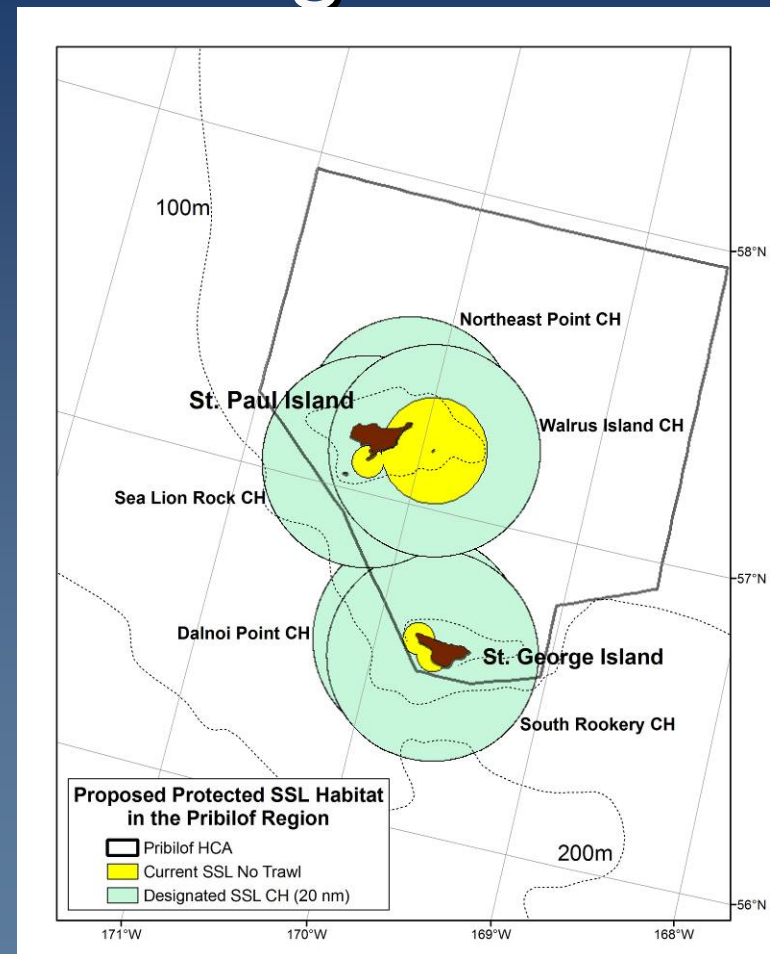
- ◆ The SGTC proposal would increase the level of CH protection to encompass the 0-3 nm, 3-10 nm and 10-20 nm CH zones around Dalnoi Point

Proposed PRT Ranking: Trawl closure from b. 3-10 nm and c. 10-20 nm



Variable 8. Percentage of SSL Sites Affected in a Region

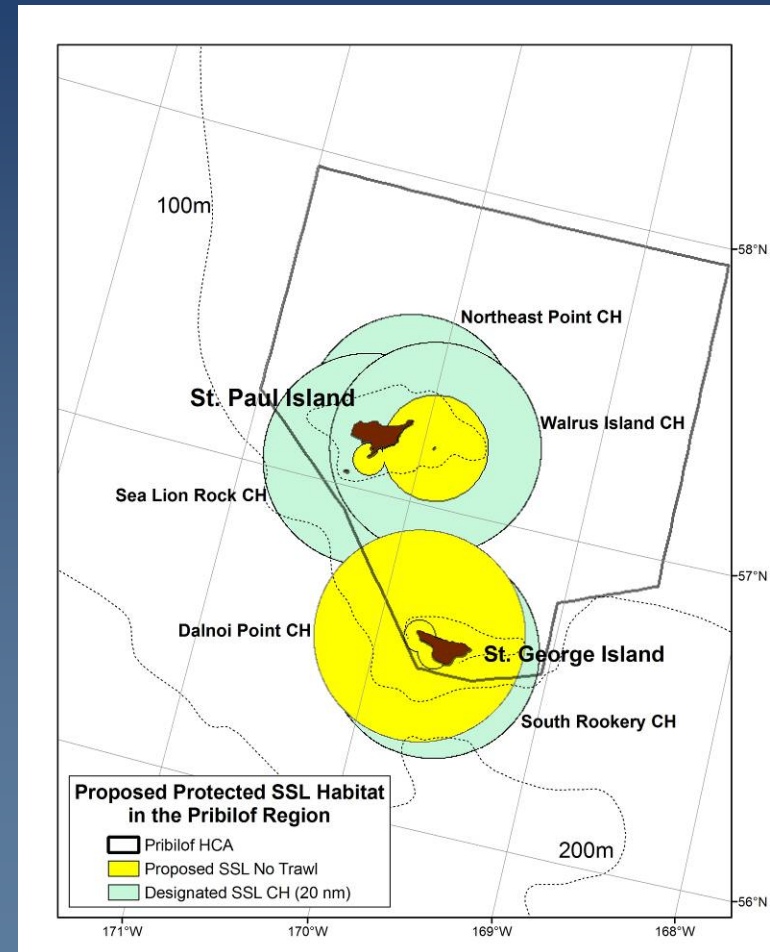
- ◆ 5 SSL CH areas have been designated within in the Pribilof Region. Of these:
 - Walrus Island and Northeast Point, St. Paul are completely within the PHCA and therefore their status would not change under the SGTC proposal
 - The CH areas around Sea Lion Rock on St. Paul and both Dalnoi Point and South rookery on St. George are partially unprotected under current SSL Protection measures
- ◆ Under this interpretation of Variable 8, three out of the five SSL CH areas or “sites” in the Pribilof Region are potentially affected by fishing under the present protection measures, for a status quo ranking of (d) 51-75%



Variable 8. Percentage of SSL Sites Affected in a Region

- ◆ Under the SGTC Proposal:
 - No change for Walrus Island and Northeast Point
 - Dalnoi Point and South are nearly contiguous and will receive greater protection under the SGTC Proposal
 - CH in Sea Lion Rock on St. Paul would remain partially unprotected under the SGTC proposal
- ◆ This approach recognizes that the PRT is designed to assess negative impacts and thereby accounts for the fact that the SGTC Proposal results in a net gain in CH protection within the Pribilof Region

Proposed PRT Ranking: b. 11-25% of sites affected in the Pribilof Region under the SGTC Proposal



PRT Variable 1

Target Fish Species

- ◆ Winter prey of SSL based on stomach samples (n=32) collected in 1981 in the Central Bering Sea northwest of the Pribilof Islands (Calkins 1998)¹
- ◆ Pollock is primary prey followed by Pacific Cod and Squid
- ◆ Atka mackerel were not present in these samples



Fig. 1. Study area with general locations in the Bering Sea where Steller sea lions were collected along the seasonal ice edge in March and April, 1981.

¹Calkins, D.G. 1998 Prey of Steller sea lions in the Bering Sea. *Biosphere Conservation* 1 (1) :33 – 44.

**Proposed PRT Ranking: (b) Pollock
(a) Pacific cod, (d) Other**

PRT Variable 2

Target Species Removals

- ◆ Between 1999 -2002 pollock catch in SG CH increased from 0.4% to 2.1% of total EBS catch
- ◆ NMFS summarized the existing protection measures by stating that “[i]nside 10 nm conservation measures are very conservative **except for catch off St. George Island.**”

Proposed PRT Ranking: If current catch levels are similar to previous analyses, the SGTC Proposal would result in (d) a decrease in amount of prey harvested in the Pribilof Region

PRT Variable 3

Fishing Duration

- ◆ Primary Fisheries in the Pribilof Region:
 - Summer and winter pollock fishery
 - Winter cod fishery

Proposed PRT Ranking: c. a fishing season of the same duration as status quo (no change)

SGTC Assessment of PRT Variables

Variable	Sub-unit
Target fish species	Primarily (b) Pollock and to a lesser extent (a) Pacific cod and (d) Other prey items (e.g. Squid)
Target species removals	d. a decrease in amount harvested
Fishing duration	c. a fishing season of the same duration as status quo (no change)
Geographic sub-regions	g. Pribilof Islands
Seasons	a. Winter
SSL site types	b. Haulout
Proximity zones to a SSL site	Trawl closure from a. 0-3 nm, b. 3-10 nm and c. 10-20 nm
The percentage of SSL sites affected in a region	a. 11-25%

Scientific Monitoring: SGTC SSL Research Program

- ◆ Data Collection at local haulouts
 - Remote video camera at Dalnoi Point
 - Time-lapse cameras at all SSL haulouts
 - Visual observations
- ◆ These data can provide baseline information to assess the long-term benefits of an increase in the size of an SSL CH area around a winter haulout



Branded Juveniles from SE AK, GOA, Aleutian Island and Russian Rookeries



M426 from Medney
Island, Russia.
February, 2007



F1135 from
Forrester
Island, SE AK.
March, 2007

Frequent sightings of branded SSL from
Ugamak Rookery in the Eastern Aleutian
Islands (February, 2007)



X165
from
Sugarloaf
Rookery,
GOA.
February,
2007



Maximum Counts of Steller Sea Lions at Dalnoi Point 2002–07

Date	Count
February 2002	200
March 2004	439
March 2005	265
March 2006	426
April 2007	442



Dalnoi Point
March 17, 2007

Adult Female Steller Sea Lions Nursing Their Young at Dalnoi Point



Still photos from
video taken by the
Dalnoi Point
remote camera
during March,
2007



Other Visitors

- ◆ Photos of a male California sea lion observed at Dalnoi Point during March, 2007



Thank you!



Presented by Max Malavansky
St. George Traditional Council

Outside the Model Information

- ◆ Our assessment of PRT Variable 2 relies in part on the assumption that current target species removal rates in St. George CH are similar to those presented in the 2003 BiOp supplement.
- ◆ Squid bycatch is high in area 517 and may adversely affect the abundance of SSL prey species.

Summary SGTC PRT Assessment

Variable	Sub-units	
	Pribilof Region Status Quo (as proposed by the SGTC)	SGTC Dalnoi Point Proposed Ranking Variables
1. Target fish species	a. Pacific cod, and b. Pollock; to a lesser extent Atka mackerel and d. Other prey items	No change
2. Target species removals	Currently a very high harvest rate within Dalnoi Point CH relative to the EBS overall.	No change
3. Fishing duration	Summer and winter pollock fishery; Winter cod fishery; limited Atka mackerel catch near the Pribilofs	No change
4. Geographic sub-regions	g. Pribilof Islands	No change
5. Seasons	a. Winter (non-breeding season, October-April)	No change
6. SSL site types	b. Haulout	No change
7. Proximity zones to a SSL site	a. 0-3 nm	Trawl closure from b. 3-10 nm and c. 10-20 nm
8. The percentage of SSL sites affected in a region	d. 51-75%	a. 11-25%

Target Fish Species

- ◆ Primarily (b) Pollock and to a lesser extent (a) Pacific cod and (d) Other prey items (e.g. Squid) and possibly Atka mackerel
 - Winter prey of SSL based on stomach samples (n=32) collected in 1981 in the Central Bering Sea northwest of the Pribilof Islands (Calkins 1998)¹
 - Pollock is primary prey followed by Pacific Cod and Squid
 - Atka mackerel were not present in these samples

Prey	Percent Frequency	Percent Weight	Combined Rank Index
Pollock	100	87.6	1
Pacific Cod	28.1	5.9	2
Squid	18.8	3.1	3
Octopus	18.8	0.9	4
Sculpins (All)	6.3	0.6	5
Flatfishes (All)	25	1.8	6
Pacific herring	6.3	0.1	7

¹Calkins, D.G. 1998 Prey of Steller sea lions in the Bering Sea. Biosphere Conservation 1 (1) : 33 – 44.

PRT Variable 2

Pollock Catch in St. George Island Critical Habitat

Table III-9 Catch of pollock in the EBS around St. George Island from 1999 to 2002. Amounts are in mt.

Pollock catch near St. George Island (Pribilofs) from 1999 and 2002 (mt)							
Date	0-3	3-10	0-10	10-20	0-20 Total	EBS Pollock Fishery Total	% 0-20
1999	0	0	0	3,736	3,736	965,931	0.39%
2002	0	2,346	2,346	27,893	30,239	1,460,227	2.07%

Observed, directed pollock trawl hauls in the vicinity of St. George Island (Dalnoi Pt. and South Rookery). Observed totals have been expanded up to the Blend total to estimate the amount of the total catch in this area.

Table from: 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.