

SSL Mitigation Proposal

Thorn Smith

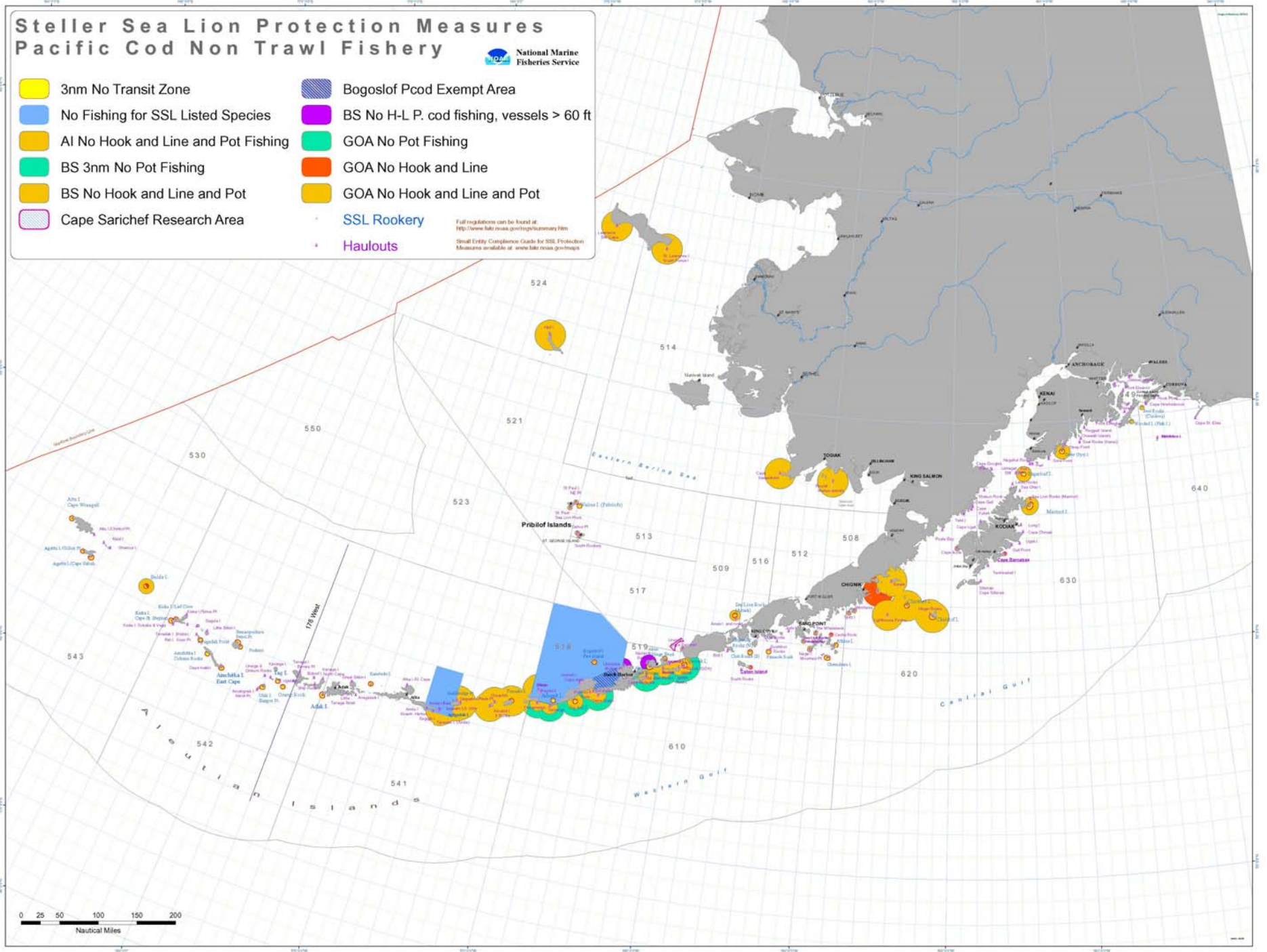
North Pacific Longline Association

Steller Sea Lion Protection Measures Pacific Cod Non Trawl Fishery



- | | |
|-------------------------------------|---|
| 3nm No Transit Zone | Bogoslof Pcod Exempt Area |
| No Fishing for SSL Listed Species | BS No H-L P. cod fishing, vessels > 60 ft |
| AI No Hook and Line and Pot Fishing | GOA No Pot Fishing |
| BS 3nm No Pot Fishing | GOA No Hook and Line |
| BS No Hook and Line and Pot | GOA No Hook and Line and Pot |
| Cape Sarichef Research Area | SSL Rookery |
| | Haulouts |

Full regulations can be found at:
<http://www.fishbase.gov/registry/summary.htm>
 Small Entity Compliance Guide for SSL Protection
 Measures available at: www.fishbase.gov/ssl



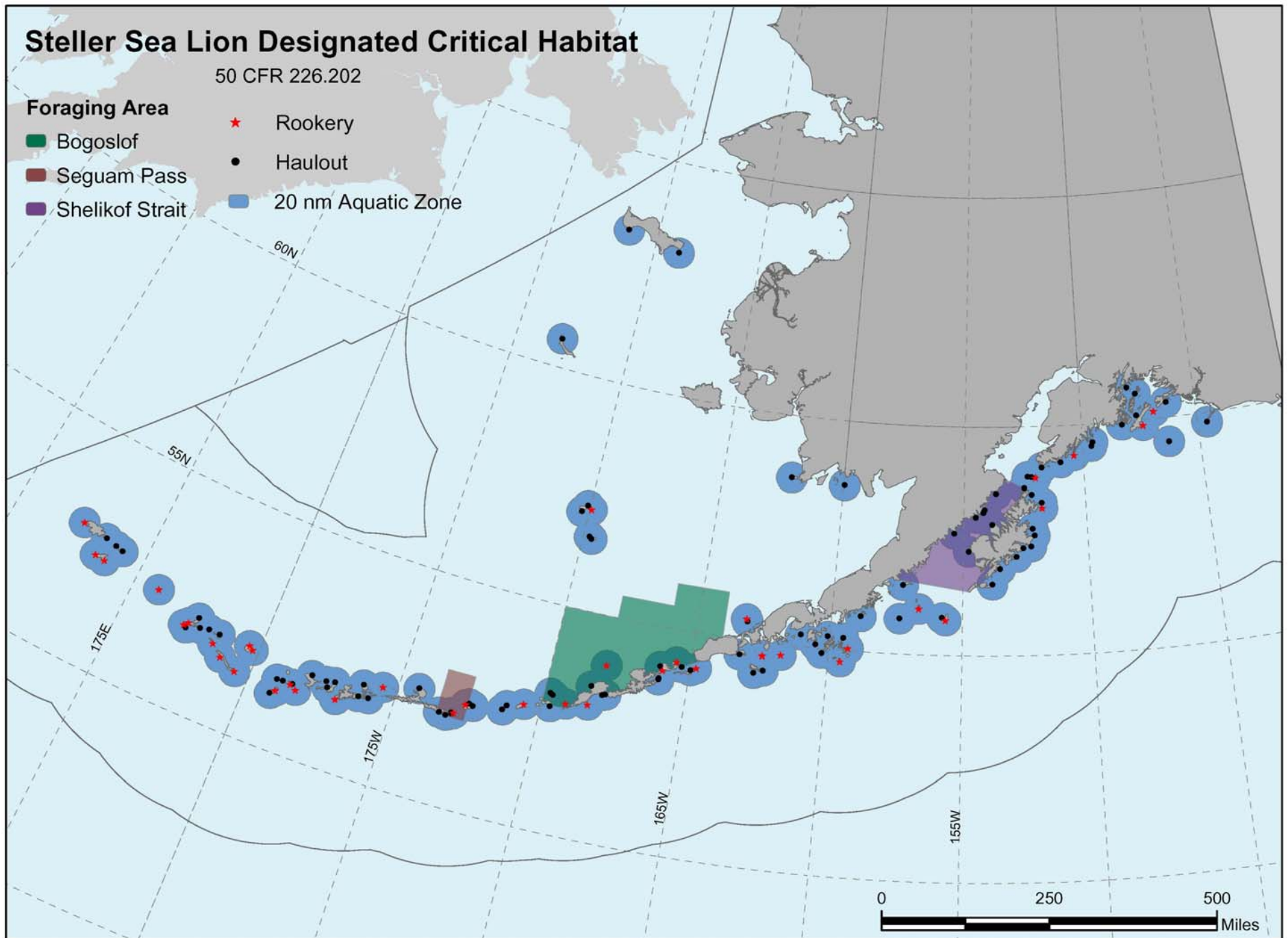
Steller Sea Lion Designated Critical Habitat

50 CFR 226.202

Foraging Area

- Bogoslof
- Seguam Pass
- Shelikof Strait

- ★ Rookery
- Haulout
- 20 nm Aquatic Zone



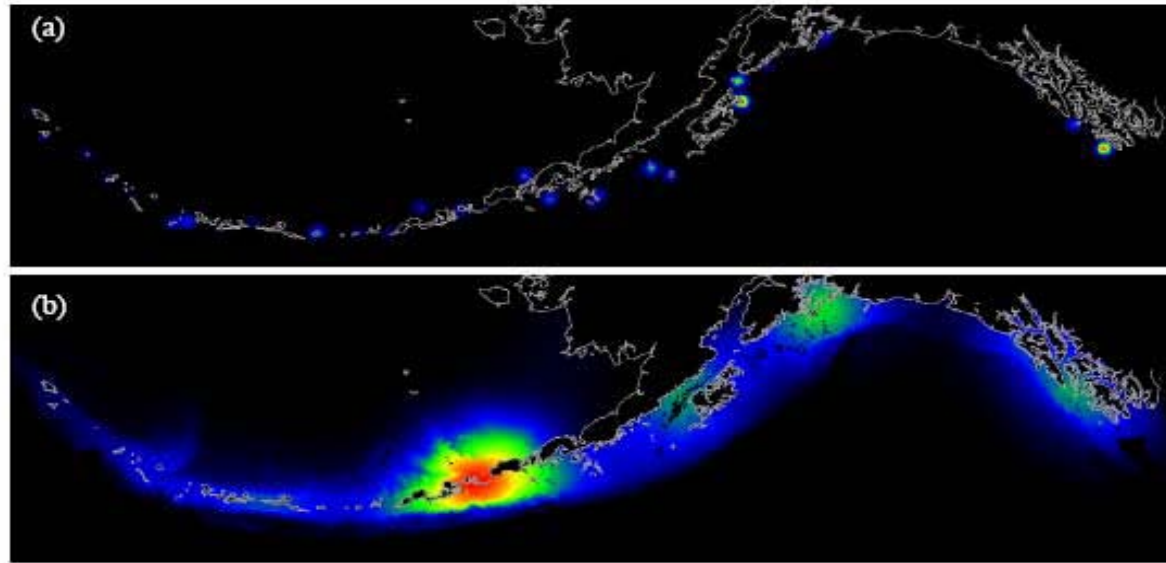


Figure 4. Predicted long-term habitat suitability for female Steller sea lions during summer (a. breeding season) and winter (b. non-breeding season) based on summarized telemetry values, long term count data, and hypothesized habitat use. Suitability $[0,1]$ is shaded from black through blue, green, yellow and red (areas with probabilities ≥ 0.75 are red). Regions with the highest suitability had the highest long-term average census counts from 1956 to 2002. From Gregr and Trites (pers. comm., 2005).

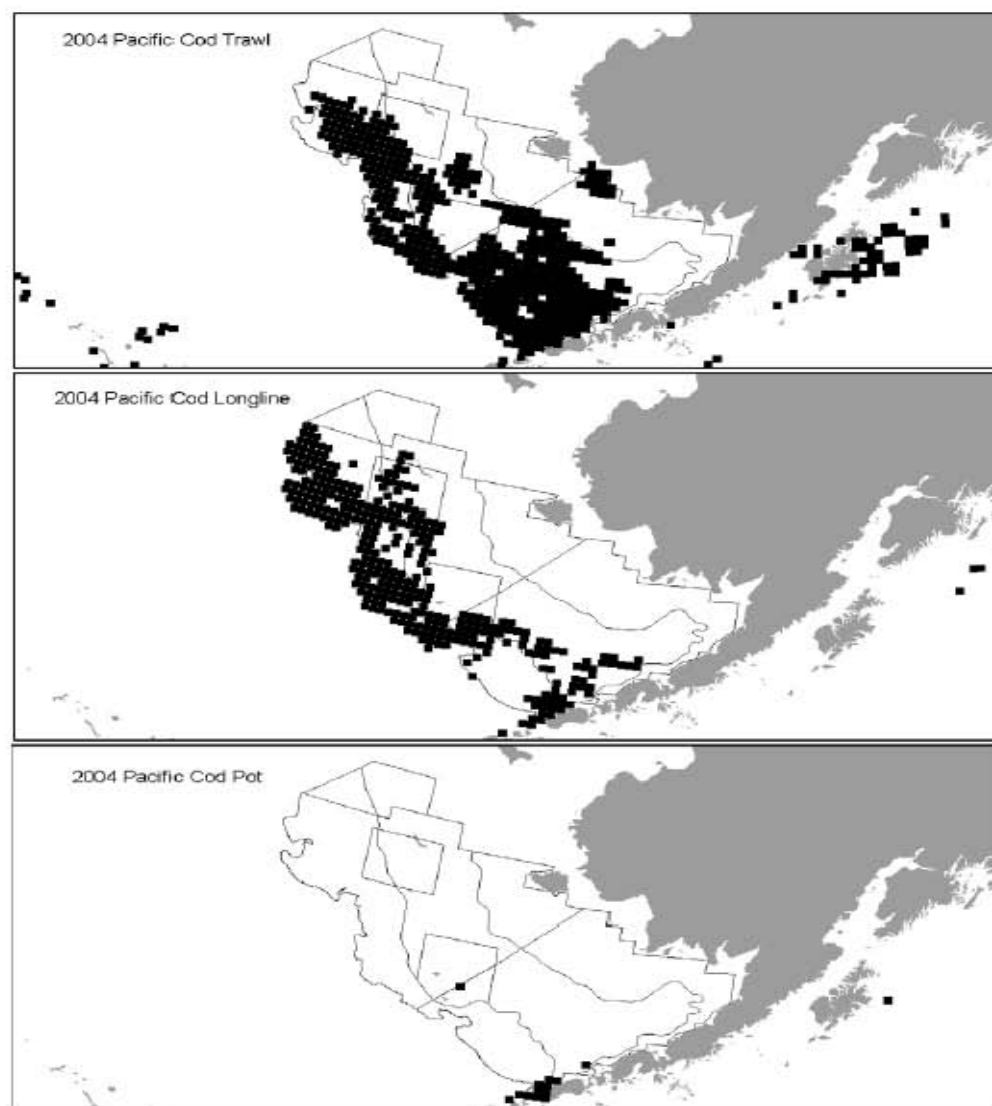


Figure 2.1b—Maps showing each 400 square kilometer cell with at least 3 observed hauls/sets containing Pacific cod in 2004, by gear type, overlaid against strata used in the EBS shelf survey.

4/12/07

FR 3/2/07

| BSAI COD | | 2005 | 2006 | 2007 | 2008 |
|-------------------|-------|-------------|-------------|-------------|-------------|
| TAC | | 206,000 | 188,180 | 170,720 | 127,070 |
| | gear | | | | |
| | share | | | | |
| H&L CP | 0.487 | 100,322 | 91,644 | 83,141 | 61,883 |
| CURRENT | | | | | |
| A | 0.51 | 51,164 | 46,738 | 42,402 | 31,560 |
| B | 0.49 | 49,158 | 44,905 | 40,739 | 30,323 |
| | TOT | 100,322 | 91,644 | 83,141 | 61,883 |
| REVISED | | | | | |
| A | 0.7 | 70,225 | 64,151 | 58,198 | 43,318 |
| B | 0.3 | 30,097 | 27,493 | 24,942 | 18,565 |
| | TOT | 100,322 | 91,644 | 83,141 | 61,883 |
| A SEASON INCREASE | | 19,061 | 17,412 | 15,797 | 11,758 |

BSAI hook-and-line catcher processor Pacific cod total catch by week (retained and discarded, no CDQ)

| WEEK_END_DATE | # of CPs | Metric tons | Metric tons divided by # of CPs |
|---------------|----------|-------------|---------------------------------|
| 01-Jan-05 | 32 | 645 | 20 |
| 08-Jan-05 | 38 | 6,855 | 180 |
| 15-Jan-05 | 38 | 6,418 | 169 |
| 22-Jan-05 | 38 | 6,155 | 162 |
| 29-Jan-05 | 37 | 4,761 | 129 |
| 05-Feb-05 | 39 | 5,985 | 153 |
| 12-Feb-05 | 39 | 6,500 | 167 |
| 19-Feb-05 | 39 | 6,107 | 157 |
| 26-Feb-05 | 38 | 2,683 | 71 |
| 20-Aug-05 | 36 | 2,726 | 76 |
| 27-Aug-05 | 37 | 3,678 | 99 |
| 03-Sep-05 | 37 | 3,569 | 96 |
| 10-Sep-05 | 35 | 3,158 | 90 |
| 17-Sep-05 | 37 | 2,693 | 73 |
| 24-Sep-05 | 37 | 2,845 | 77 |
| 01-Oct-05 | 37 | 3,262 | 88 |
| 08-Oct-05 | 38 | 3,661 | 96 |
| 15-Oct-05 | 36 | 3,314 | 92 |
| 22-Oct-05 | 38 | 2,391 | 63 |
| 29-Oct-05 | 38 | 3,009 | 79 |
| 05-Nov-05 | 37 | 3,500 | 95 |
| 12-Nov-05 | 36 | 2,391 | 66 |
| 19-Nov-05 | 35 | 2,662 | 76 |
| 26-Nov-05 | 35 | 3,252 | 93 |
| 03-Dec-05 | 36 | 4,058 | 113 |
| 10-Dec-05 | 37 | 3,813 | 103 |
| 17-Dec-05 | 25 | 702 | 28 |
| 07-Jan-06 | 38 | 6,957 | 183 |
| 14-Jan-06 | 38 | 6,594 | 174 |
| 21-Jan-06 | 38 | 5,088 | 134 |
| 28-Jan-06 | 38 | 5,875 | 155 |
| 04-Feb-06 | 39 | 7,490 | 192 |
| 11-Feb-06 | 39 | 6,810 | 175 |
| 18-Feb-06 | 39 | 6,486 | 166 |

160 A season average (by CP by week)

86 B season average (by CP by week)

168 A season average (by CP by week)

| H&L CP | | | | COD | DAILY |
|----------|---------|----------|------|---------|-------|
| SEASONS | BEGIN | CLOSE | DAYS | CATCH | mt |
| 2005 A | 1/1/05 | 2/22/05 | 52 | 46,312 | 891 |
| 2005 B | 8/15/05 | 12/12/05 | 119 | 53,952 | 453 |
| 2006 A | 1/1/06 | 2/18/06 | 48 | 45,167 | 941 |
| 2006 B | 8/15/06 | 10/21/06 | 67 | 39,540 | 590 |
| 2007 A | 1/1/07 | 2/12/07 | 42 | 39,663 | 944 |
| 2005 TOT | | | 171 | 100,264 | 586 |
| 2006 TOT | | | 115 | 84,707 | 737 |

SSLMC Proposal Ranking Tool

Effects of fishing on fish

How does fishing alter the prey field?

Season Summer
Winter
Summer-Winter
Winter-Summer

% TAC 1-5%
6-10%
>10%
No change

Duration Shorter
Longer
Same duration

Effects of fishing on SSL

How sensitive are SSL to fishing?
spatial/temporal

Site-type Summer Rookery
Summer Haulout
Summer Other
Winter Rookery
Winter Haulout
Winter Other

Proximity 0-3 nm
3-10 nm
10-20 nm
20+ nm
Not CH

% sites 1-10%
11-25%
26-50%
51-75%
76-100%

How sensitive are SSL to fishing?
diet composition

Season Summer
Winter

Sub-region EGOA
CGOA
WGOA
EAI/BS
CAI
WAI
Prips

Target Pacific cod
Pollock
Atka mackerel
Other

Thank You

