

Sea Otters (*Enhydra lutris*): an update on the species status



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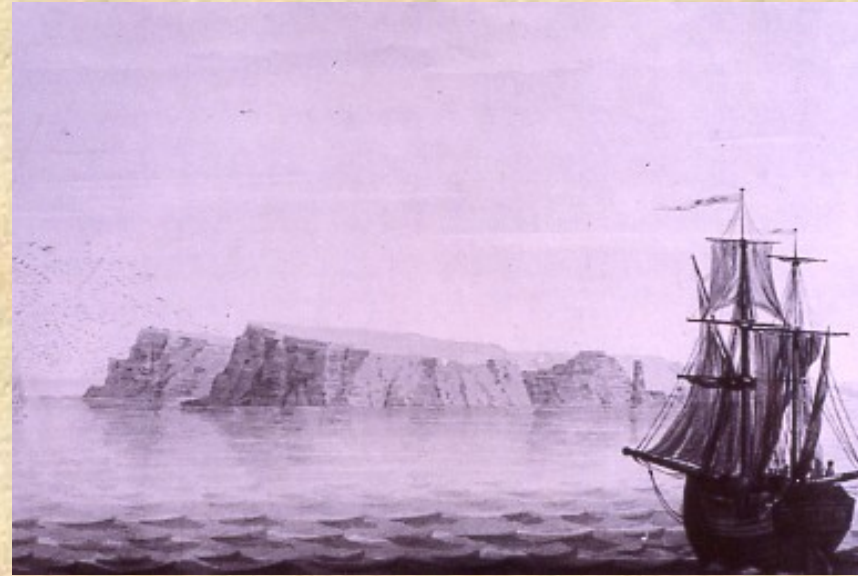
KARL WALTON KENYON
1918-2007

An Update On:

- Population Status and History
- Population Stocks in Alaska
 - Monitoring Plan and Recovery Team
- Population Status in Russia and Japan
- Population Status in Canada
- Population Status in California and Washington States
- Conservation Concerns

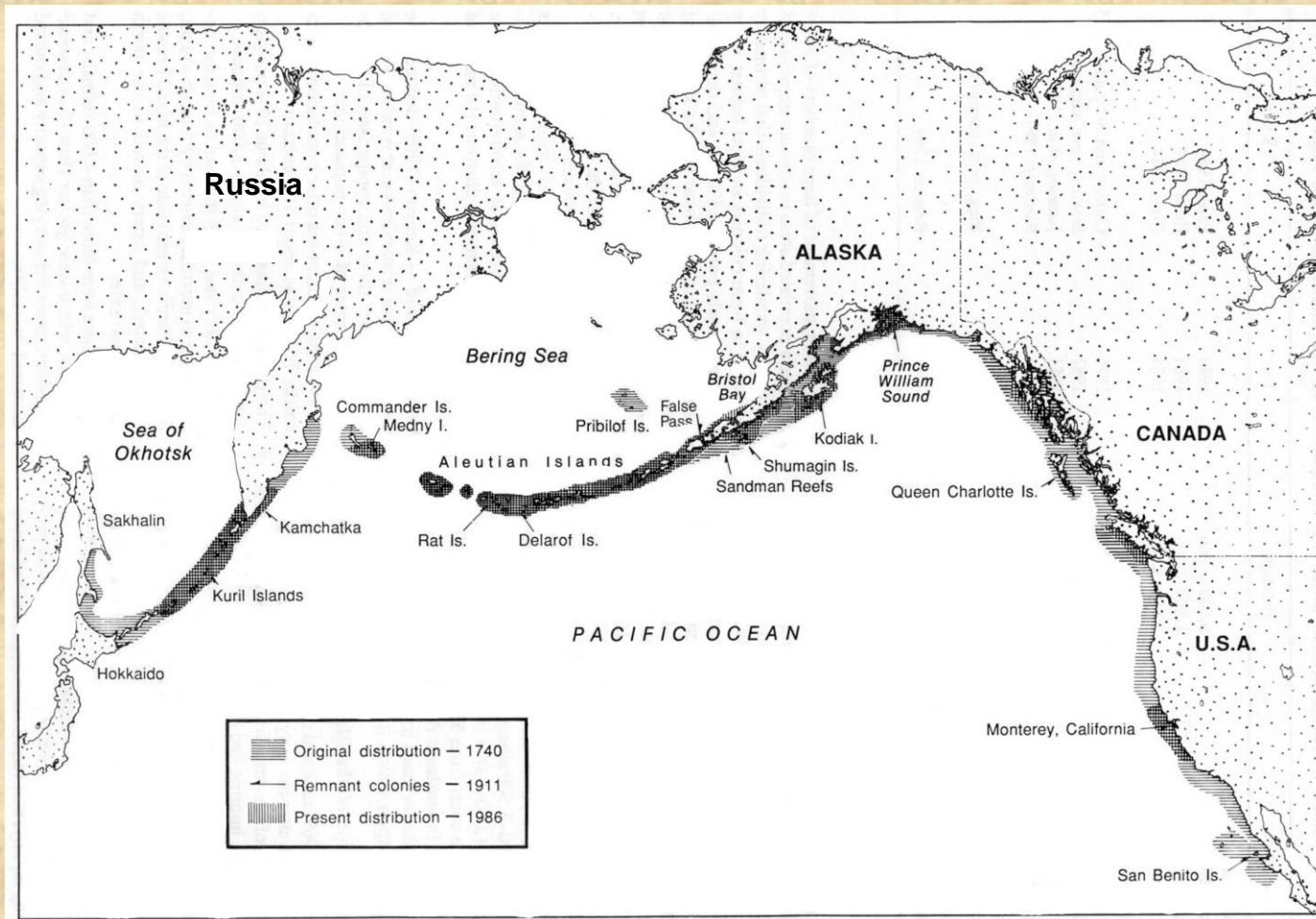
History: Before the Fur Trades

- Sea otters once ranged across the Pacific rim from Japan to the Pacific coast of Mexico



- Estimates of the world population prior to exploitation were 100,000 - 300,000

Past and Present Sea Otter Distribution



Subspecies of *Enhydra lutris*

- *Enhydra lutris lutris*
 - *Russia and Japan: Commander Islands, Kamchatka Peninsula, Kuril Islands*
- *Enhydra lutris kenyoni*
 - *Alaska: translocations to SE Alaska, Pribilof Islands, Alaska, British Columbia, Canada, Washington, and Oregon*
- *Enhydra lutris nereis*
 - *California: translocation to San Nicholas Island*

Distribution in Alaska



Enhydra lutris kenyoni: Distribution and Status for Alaska: 2007

- Southeast **10,563**
- Southcentral **15,090**
- Southwest **47,676**
- Total **73,329**

Conservation: Marine Mammal Protection Act (1972); SW Stock listed under Endangered Species Act

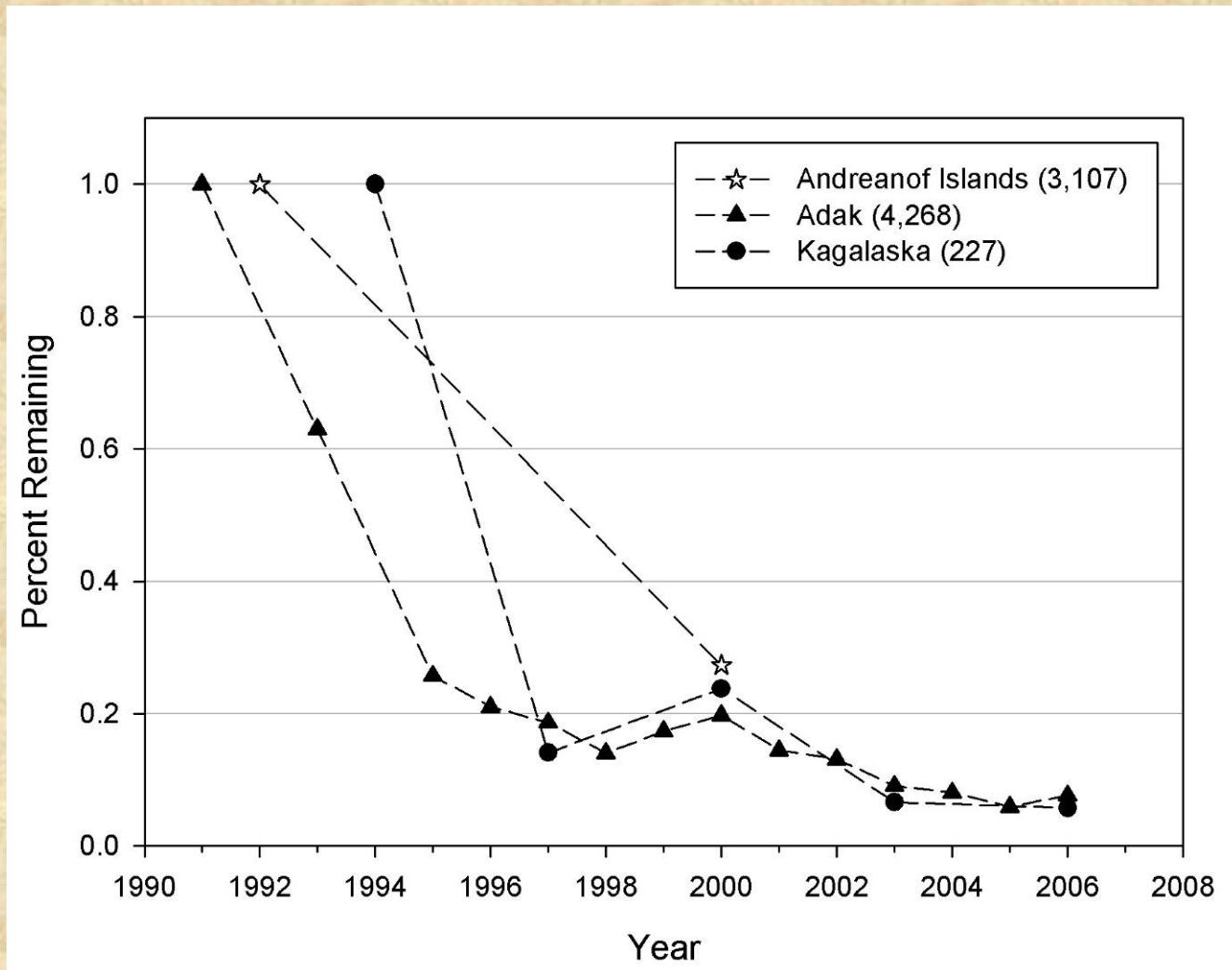


Southwest Stock: Threatened Status

| Management Unit | Year | Adjusted Count or Estimate | Population Trend | References |
|---------------------------------------|-------------------|----------------------------|----------------------|--|
| Western Aleutian | 2000 | 6,250 | -73% | Doroff et al. (2003) Estes et al. (2005) |
| Eastern Aleutian | 2000 | 2,492 | -55% | Doroff et al. (2003) |
| Bristol Bay | 2000 | 11,253 | -39% | Burn and Doroff (2005) |
| South Alaska Peninsula | 2001 | 4,724 | -74% | Burn and Doroff (2005) |
| Kodiak, Kamishak, Alaska Peninsula | 2001 - 2004 | 22,957 | Relatively stable | Burn and Doroff (2005) Doroff et al. (in prep.) Bodkin et al. (2003) |
| Total | | 47,676 | -49 to -63% | |



Population Trends: Andreanof Islands



Southcentral Stock

| Survey Area | Year | Unadjusted Estimate | Adjusted Estimate | CV | N _{MIN} | Reference |
|-------------------------|------|---------------------|-------------------|-------|------------------|------------------------------|
| North Gulf of Alaska | 2000 | 198 | 428 | 0.378 | 314 | USGS unpublished data |
| Cook Inlet/Kenai Fiords | 2002 | | 2,673 | 0.271 | 2,136 | Bodkin <i>et al.</i> (2003b) |
| Prince William Sound | 2003 | | 11,989 | 0.179 | 10,324 | Bodkin <i>et al.</i> (2003a) |
| Current Total | | | 15,090 | | 12,774 | |
| Previous SAR Total | | | 16,552 | | 13,955 | |



Southeast Stock

| Survey Area | Year | Unadjusted Estimate | Adjusted Estimate | CV | N _{MIN} | Reference |
|---------------------------|------|---------------------|-------------------|-------|------------------|-----------------------------|
| North Gulf of Alaska | 2000 | 15 | 32 | 0.378 | 24 | USGS unpubl. data |
| Glacier Bay | 2002 | | 1,266 | 0.15 | 1,117 | Bodkin and Esslinger (2006) |
| Northern Southeast Alaska | 2002 | | 1,838 | 0.17 | 1,594 | Bodkin and Esslinger (2006) |
| Southern Southeast Alaska | 2003 | | 5,845 | 0.14 | 5,198 | Bodkin and Esslinger (2006) |
| Yakutat Bay | 2005 | | 1,582 | 0.334 | 1,203 | USFWS unpubl. data |
| Current Total | | | 10,563 | | 9,136 | |
| Previous SAR Total | | | 12,632 | | 9,266 | |

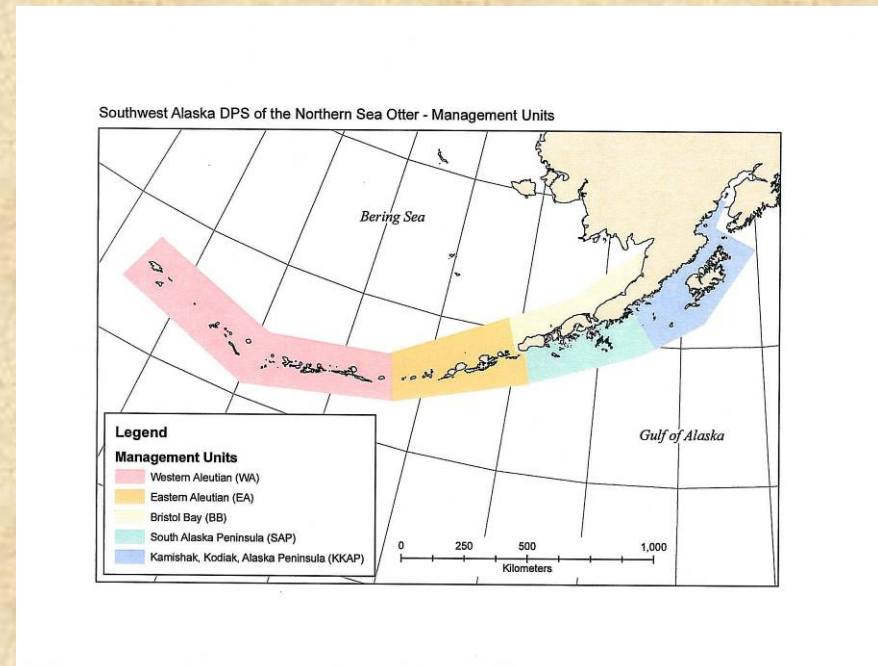


Population Monitoring Plan

- Within each stock, identify survey regions
- Identify methods appropriate for each region
- Survey interval
 - Trend sites
 - Abundance surveys
- Analytical method to determine temporal dynamics

Recovery Team Progress

- 4th Recovery Team to meet October 2007
- Draft recovery plan for the SW population stock based on recovery units

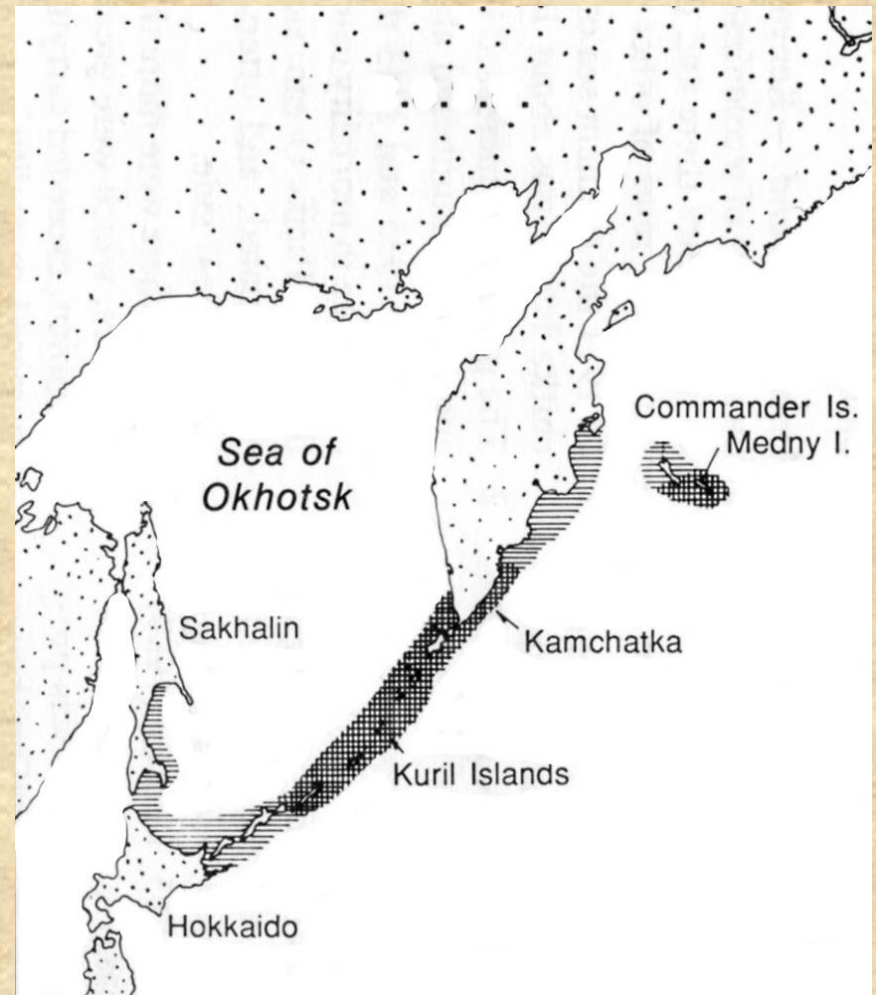


Enhydra lutris lutris: distribution and status in Russia and Japan 2007

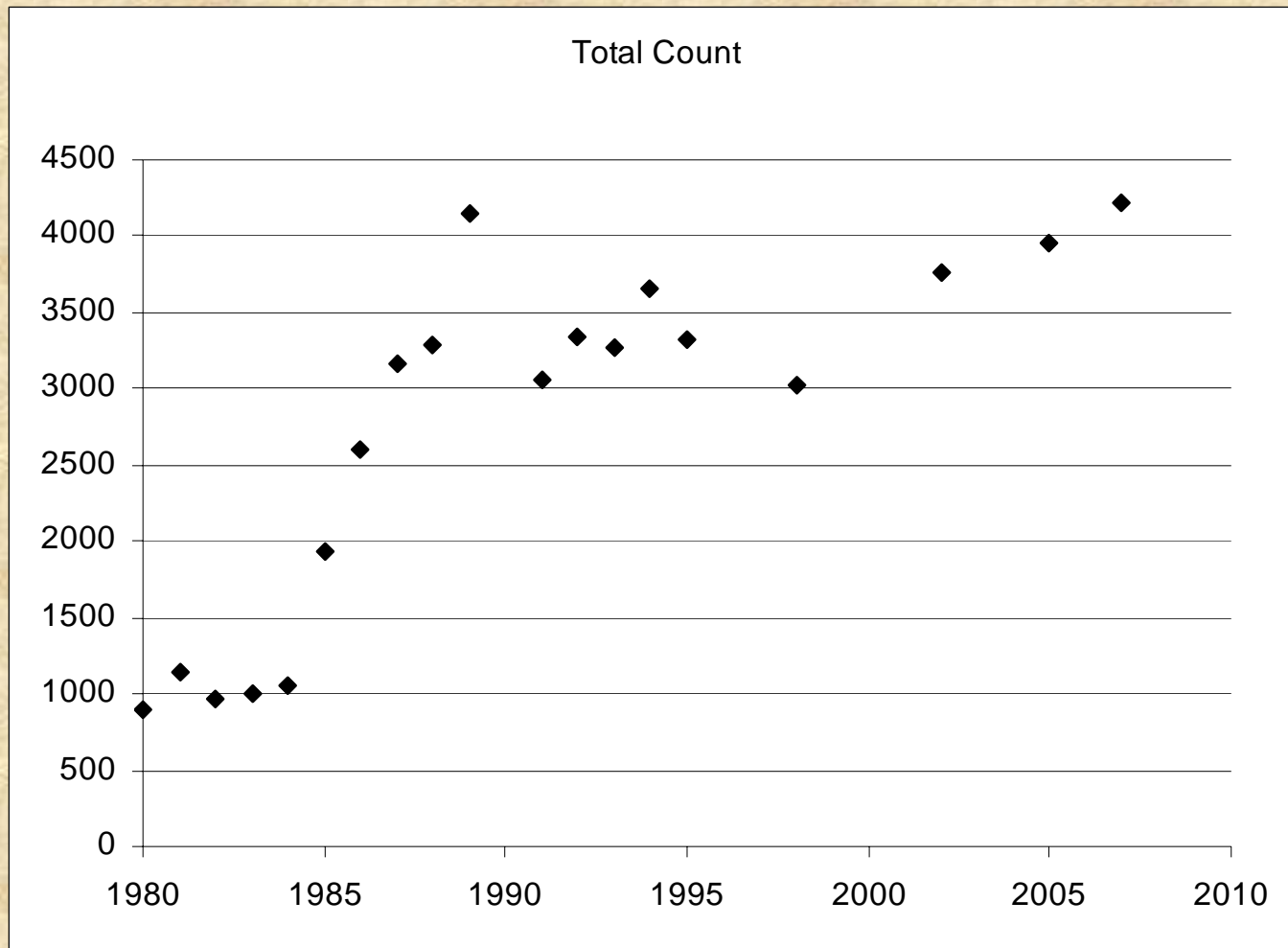
Method of Population Assessment: Skiff-based surveys

- Commander Is. >7,000
- Kamchatka 2,500
- Kuril Islands 13,000
- Hokkaido 2
- Total **22,502**

Conservation: Protected status:
Commander Islands, Listed Red-book

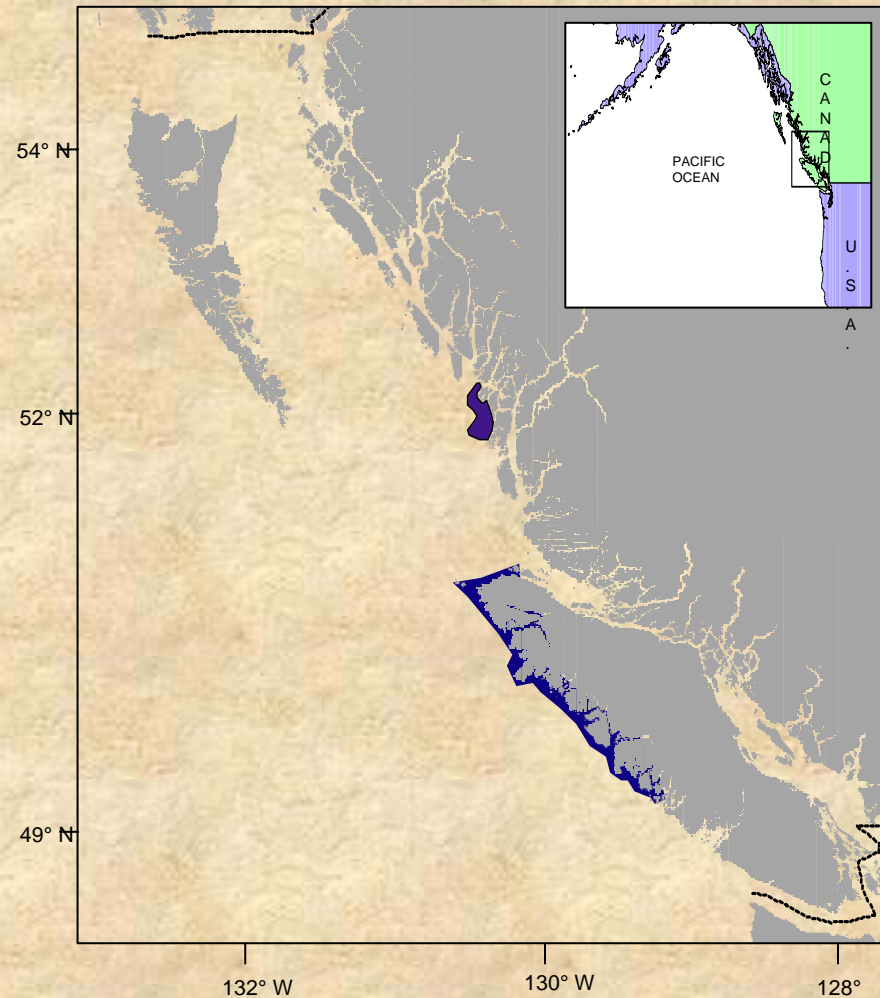


Sea Otter Survey Data for Bering Island, Russia



Enhydra lutris kenyoni: Distribution and Status Canada 2007

- Translocated from the U.S. during 1969-72
- Population Estimate: 3,185
- Growth Rates: 18.6% per year on Vancouver Is. & 12.4% on Central B.C. coast
- Conservation: Listed as Threatened under Species at Risk Act (SARA): COSEWIC recommends down-listing to a species of Special Concern



The range of the sea otter in Canada as of 2004 (blue shaded areas). Canada-U.S. borders (dashed line)

Enhydra lutris kenyoni: Distribution and Status Canada



Details of growth rate estimates are in Nichol et al. 2005 -

http://www.dfo-mpo.gc.ca/csas/Csas/Publications/ResDocs-DocRech/2005/2005_094_e.htm

Committee on the Status of
Endangered Wildlife in Canada
(COSEWIC)

http://www.sararegistry.gc.ca/status/showDocument_e.cfm?id=1434

-recommends downlisting sea otters to a species of Special Concern.

-a decision will be made in 2008/09.

Enhydra lutris: Distribution and Status 2007

- California (*E.l. nereis*)
 - Abundance Estimate 3,026
 - Translocation to San Nicholas Island
- Washington State (*E.l. kenyoni*)
 - Abundance Estimate 782
 - 3yr average(2004-06)

Conservation: Marine Mammal Protection Act (1972);
Threatened under Endangered Species Act, CA and listed as threatened by the State of WA



Sea Otter Counts: 3-Year Running Averages

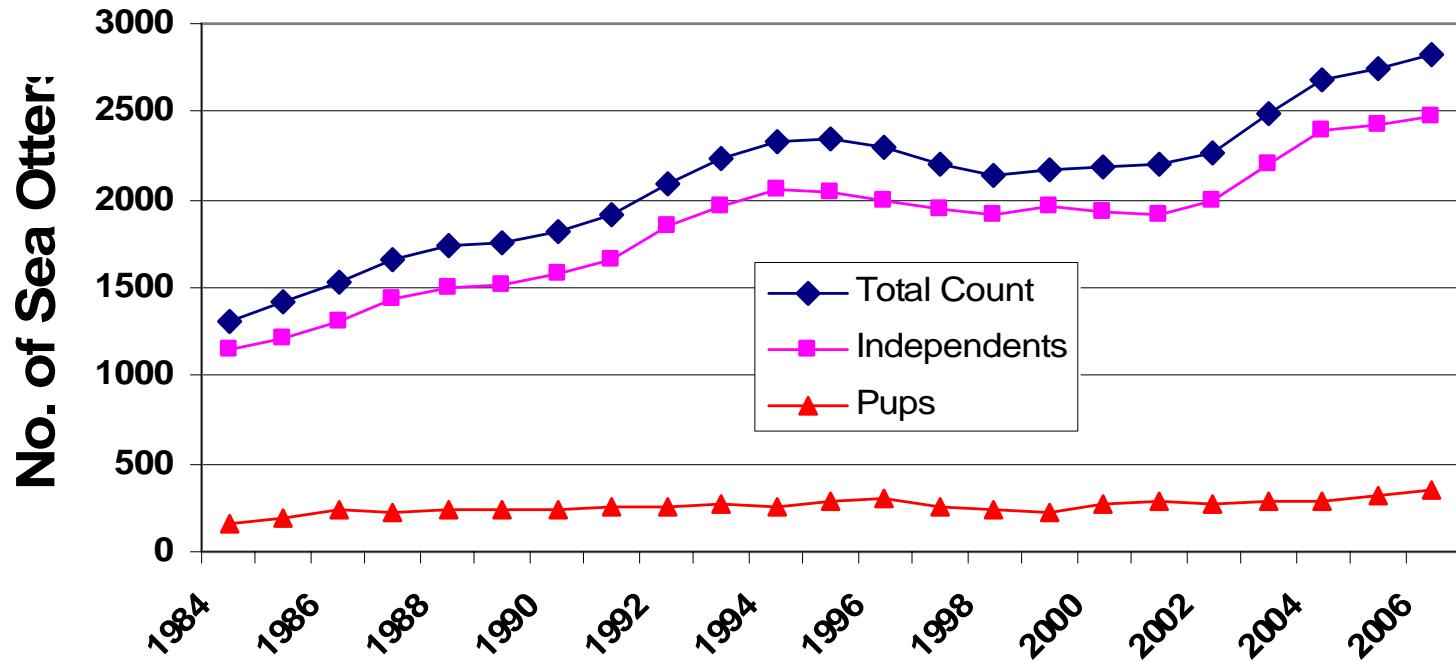


Figure 3. Number of southern sea otters counted during spring surveys, plotted as 3-year running averages. (Example: values for 2006 are the averages of the 2005, 2006, and 2007 counts.)

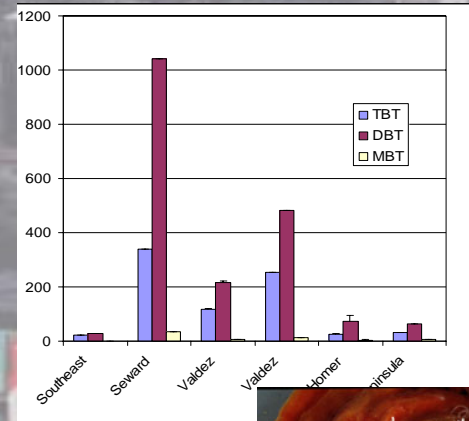
Conservation Issues



- Pollution
- Vulnerability to catastrophic and chronic oil spills
- Illegal harvest/killing
- Interaction with Fisheries
- Predation
- Vulnerability to storms and shore-fast sea ice
- Food limitation in regions at equilibrium density

Sea Otter - Human Interactions

- Harbor and Terrestrial Run-off Pollutants
- Foraging on Fish Waste
- Collisions with Boats



Selendang Ayu Oil Spill



Resource Conflicts



Fisheries and Sea Otters

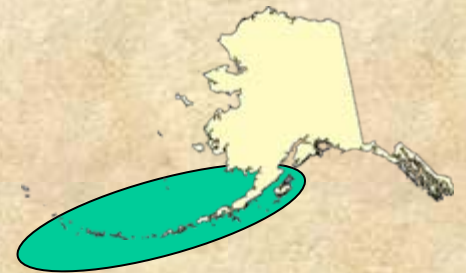


Other...



- Aleutian Islands, Alaska, U.S.A
 - Population estimated to be approximately 3% of the historical carrying capacity

- Unusual Mortality Event
 - Increased mortality due to disease



Thank you!

