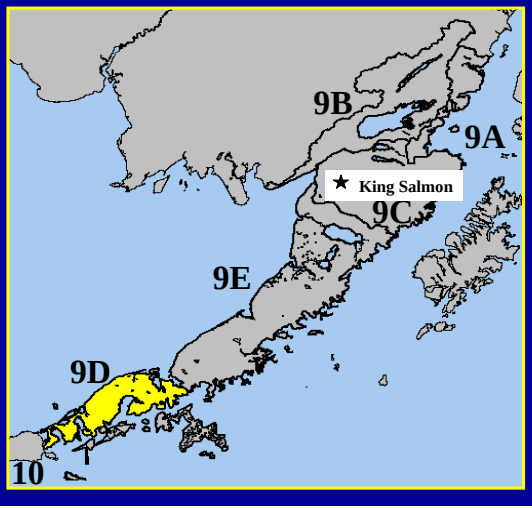
# Special Board Report

## Unit 9 Predator Control Area

**Reduce wolf predation of caribou calves in the Southern Alaska Peninsula Caribou Herd (Subunit 9D)**

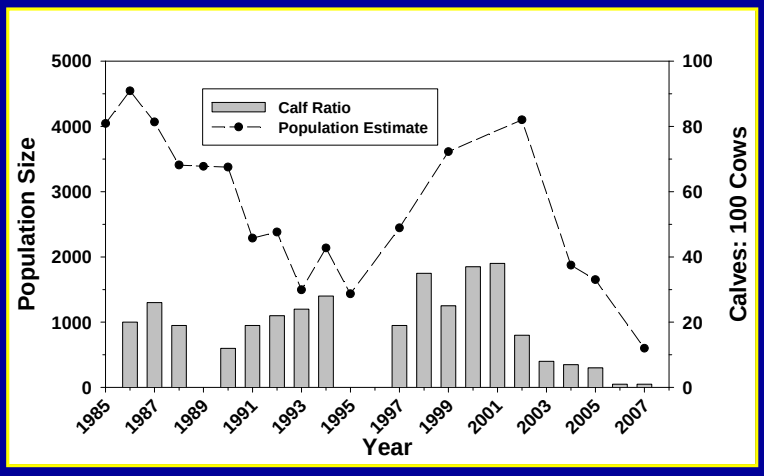
# Southern Alaska Peninsula Caribou Herd (SAPCH)



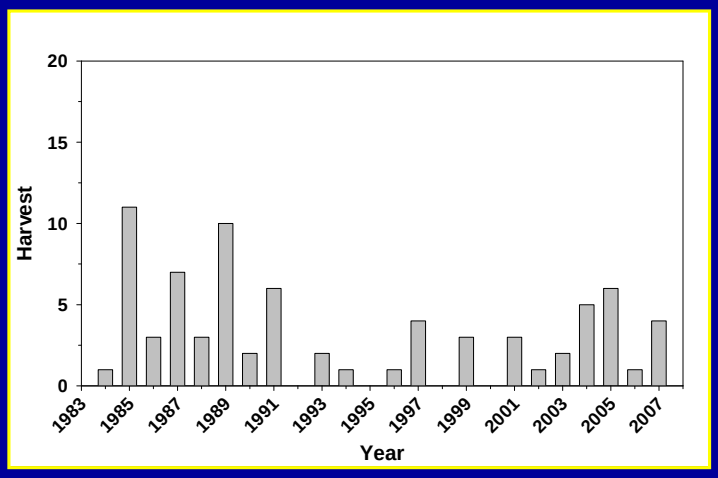

**Population Size: 700**
**Status: Stable**

# SAPCH – Subunit 9D

## 2007 Population Status



# Wolf – GMU 9D
## Hunting and Trapping Harvest




Backup Slide

GMU 9D Wolf Harvest by public taken under normal seasons and bag limits for hunting and trapping.

# SAPCH – GMU 9D
## Program Implementation

- **Department staff removed 28 wolves from the caribou calving grounds**
  - **14 adults were members of 2 wolf packs**
  - **14 pups located in 2 dens, belonging to 1 pack**
  - **In keeping with Board directive and existing division orphan animal protocols the pups were euthanized**
- **Monitored the survival of 65 caribou calves and investigated causes of calf mortality**

Program overview

The 28 wolves were members of 2 wolf packs.

1 pack was fairly large and centrally located in the middle of the calving areas. This pack possessed 2 den sites (1 mile apart). All pups that were euthanized belonged to this single pack.

Members of the 2nd pack were located as they were moving toward the calving grounds. The wolves removed were all young (1-3 yrs of age) and were not reproductively active. The size of this 2nd pack is unknown and no evidence of a den site was located.

Department staff captured 67 caribou calves. 2 calves were censored due to abandonment (never observed with cow post-capture). 65 calves were monitored for survival.

20 calf mortalities (not attributed to human disturbance) were investigated for cause of death.

# SAPCH – GMU 9D
## Caribou Calving

- **Calving occurred on traditional calving areas for the SAPCH**
- **Adult female pregnancy rate was good**
  - **(86% of cows 2+ years of age were pregnant)**
- **Calves were born in good health**
  - **No still births detected**
  - **Good birth weights and mobility**

Calving occurred as expected in 2 relatively distinct areas that have been important historically for this herd.

All radio collared cows that showed characteristics of pregnancy gave birth to healthy calves.

The calves handled were in good condition and were very mobile. Their calf weights in 2008 (7.5 kg) were similar to the calf weights reported in the SAPCH during periods of population growth in the SAPCH (7 kg) and were about 2 kg heavier than weights reported in the SAPCH during previous population declines.

# SAPCH – GMU 9D
## Caribou Calf Survival

- **Early-calf survival was excellent (69%)**
- **Late-calf survival was good (62%)**
- **Predation was the primary cause of death**

Early-calf survival refers to survival during the neonate stage (age 0-14 days). Typical survival for neonates in the “best of times” ranges between 50-60%.

Late-calf survival refers to survival after the neonate stage (age 2wks to 4 months). Typically survival gets better (~80%). In the SAPCH we see a slight decline, but still good overall. In the NAPCH late-calf survival was as low as 40%.

| Cause of Death | # | % of deaths investigated | % of calves at risk |
|---|---|---|---|
| Bear | 5 | 25% of deaths | 8% |
| Wolf | 7 | 35% of deaths | 11% |
| Undetermined Predator | 4 | 20% of deaths | 6% |
| Drowning | 2 | 10% of deaths | 3% |
| Starvation | 1 | 5% of deaths | 2% |
| Uncertain | 1 | 5% of deaths | 2% |

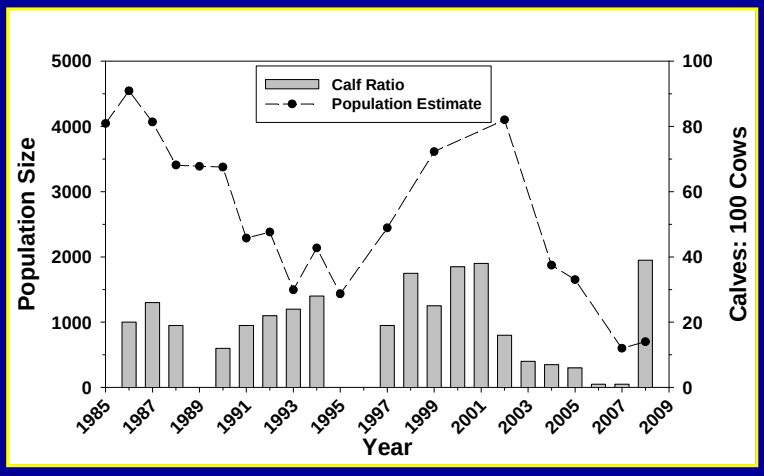
# SAPCH – GMU 9D
## Results

| | 2007 Pre-Control | 2008 Post-control |
|---|---|---|
| Calf Survival to 1 month | < 1% | 57% |
| Fall Calf Ratio (calves:100 cows) | < 1 | 39 |
| Population Size | 600 | 700 |

Comparison Statistics for pre and post wolf removal.

Highlights the positive response.

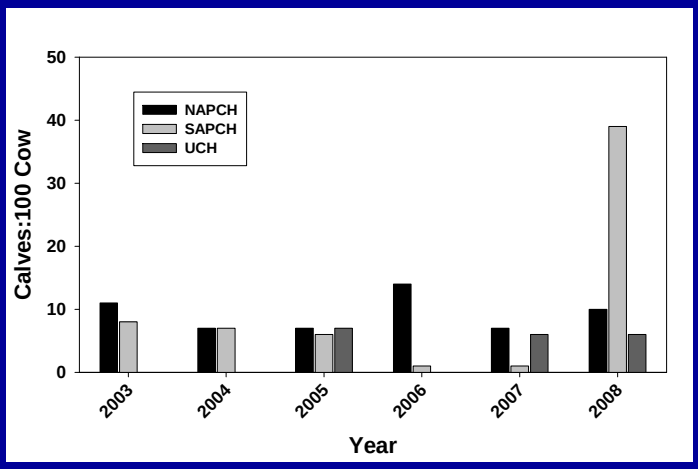
# SAPCH – Subunit 9D
## Population Status




Positive response in fall calf ratio (recruitment of calves to fall) and population size. The increase in the population estimate is attributed to the influx of calves.

We will continue to monitor calves to measure overwinter survival and get a better estimate on calf recruitment into the population.

# SAPCH – Subunit 9D
## Calf Ratio Comparison

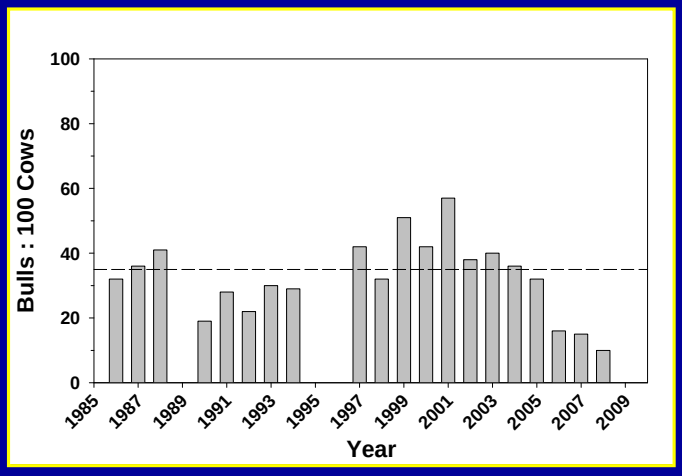



Positive response in fall calf ratio (recruitment of calves to fall) and population size. The increase in the population estimate is attributed to the influx of calves.

We will continue to monitor calves to measure overwinter survival and get a better estimate on calf recruitment into the population.

# SAPCH – Subunit 9D

## Population Status



# SAPCH – Subunit 9D
## Expectations for 2009

- Fewer adult wolves in control area prior to 2009 removal
- Reduced probability of encountering wolf pups in control area
- Continued improvements in calf survival
- Increased bull ratio if program continues to be successful
- Decrease in fall calf ratio if same success in reducing predation is realized due to new cohorts of juvenile cows in composition surveys