

# Game Management Unit 8

## Kodiak Archipelago

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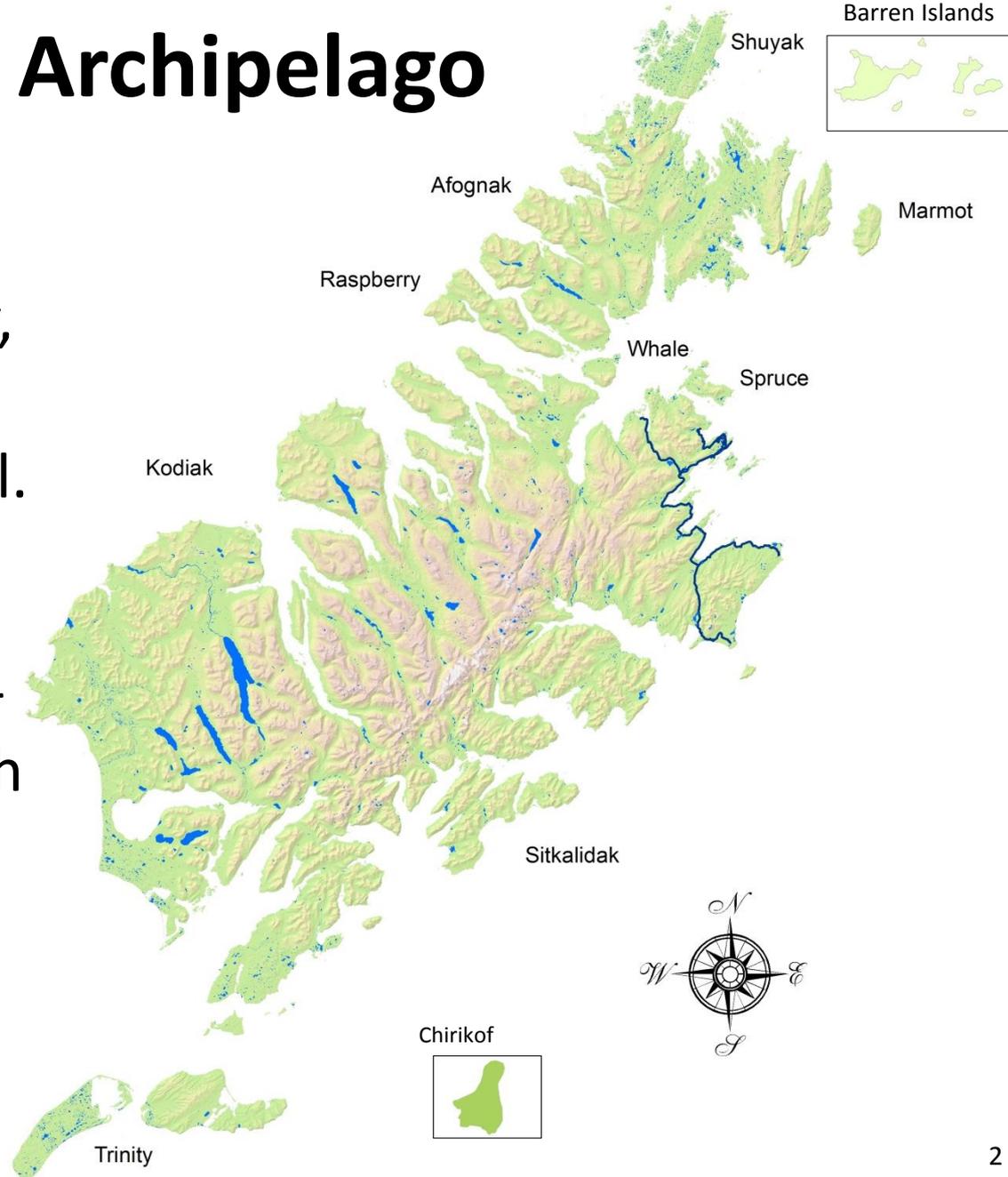


*w/ Special guest:  
Dr. Larry Van Daele*



# GMU 8 – Kodiak Archipelago

- 5,000 miles<sup>2</sup>
- Afognak, Raspberry, Kodiak, Sitkalidak, Trinity, Chirikof et al.
- 12,000 residents
- Mountainous, high-alpine terrain (north and center)
- Tundra (southern portions)



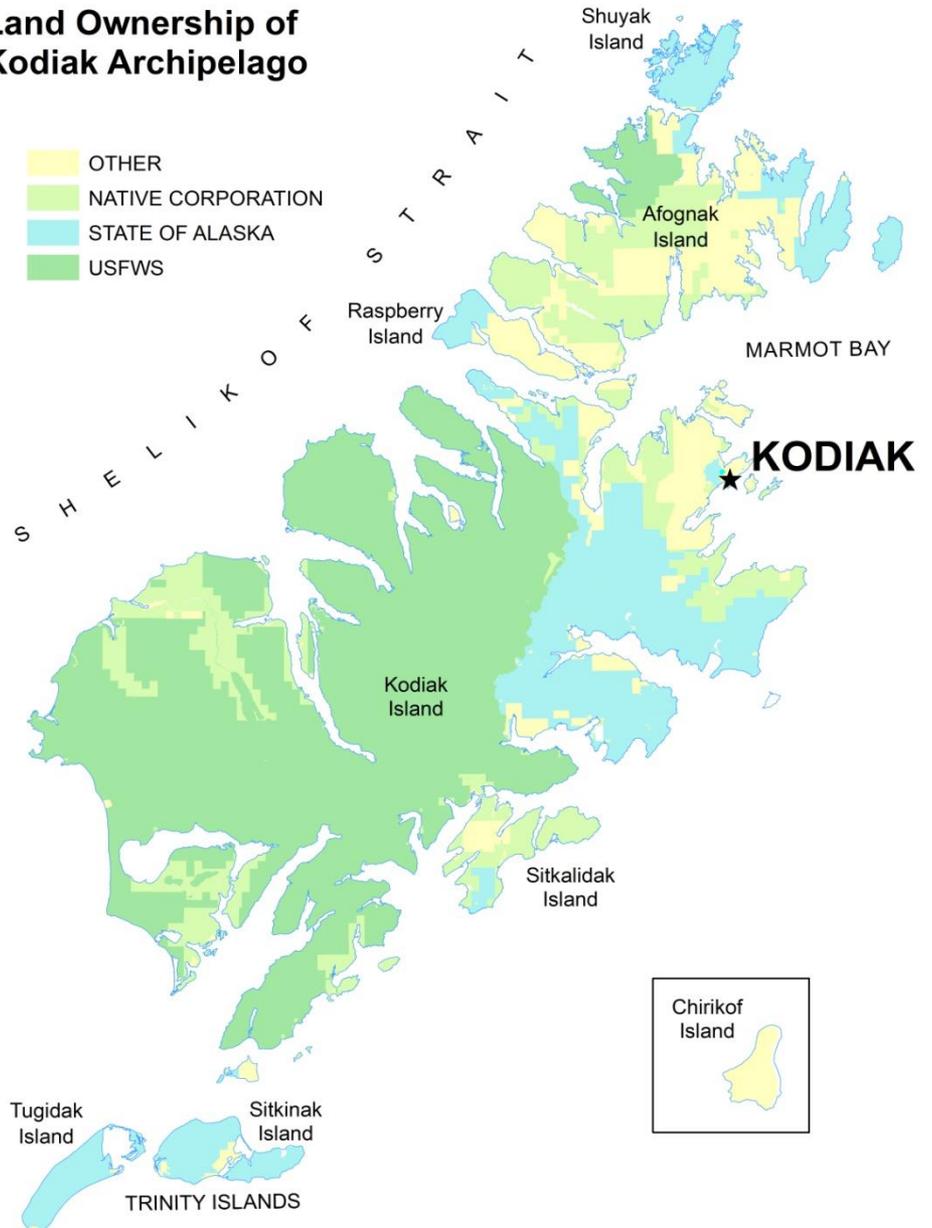
# GMU 8 – Kodiak Archipelago



- 19% State of Alaska
- 16% Native Corporation
- 52% KNWR
- 13% Other

Credit: Nate Svoboda

## Land Ownership of Kodiak Archipelago



Map prepared by Kodiak Island Borough 12/15/2014; Map data may not reflect current conditions.

# Kodiak Archipelago

- **Sitka black-tailed deer**  
*(25,000-35,000)*
- **Roosevelt elk**  
*(850-900)*
- **Mountain goats**  
*(2,800)*
- **Brown bear**  
*(3,000-3,500)*
- **Caribou**  
*(250-350)*
- **Bison (domestic)**  
*625 (125, Saltery Cove; 500, Narrow Cape)*



# Sitka Black-tailed Deer



# Sitka Black-tailed Deer

## **HISTORICAL:**

- 1925-1934; 3 transplants, 25 deer (Sitka, POW, Petersburg)
- Evidence of deer prior to 1925 (pre-Katmai eruption)
- Important subsistence species; primary mammalian protein for villagers
- Winter severity primary factor impacting mortality

## **CURRENT STATUS:**

- Estimate ~50% decline following 2011-12 winter
- Recovering rapidly
- Population increasing; ~25,000-35,000
- Occupy all major islands of archipelago

## **SEASON:**

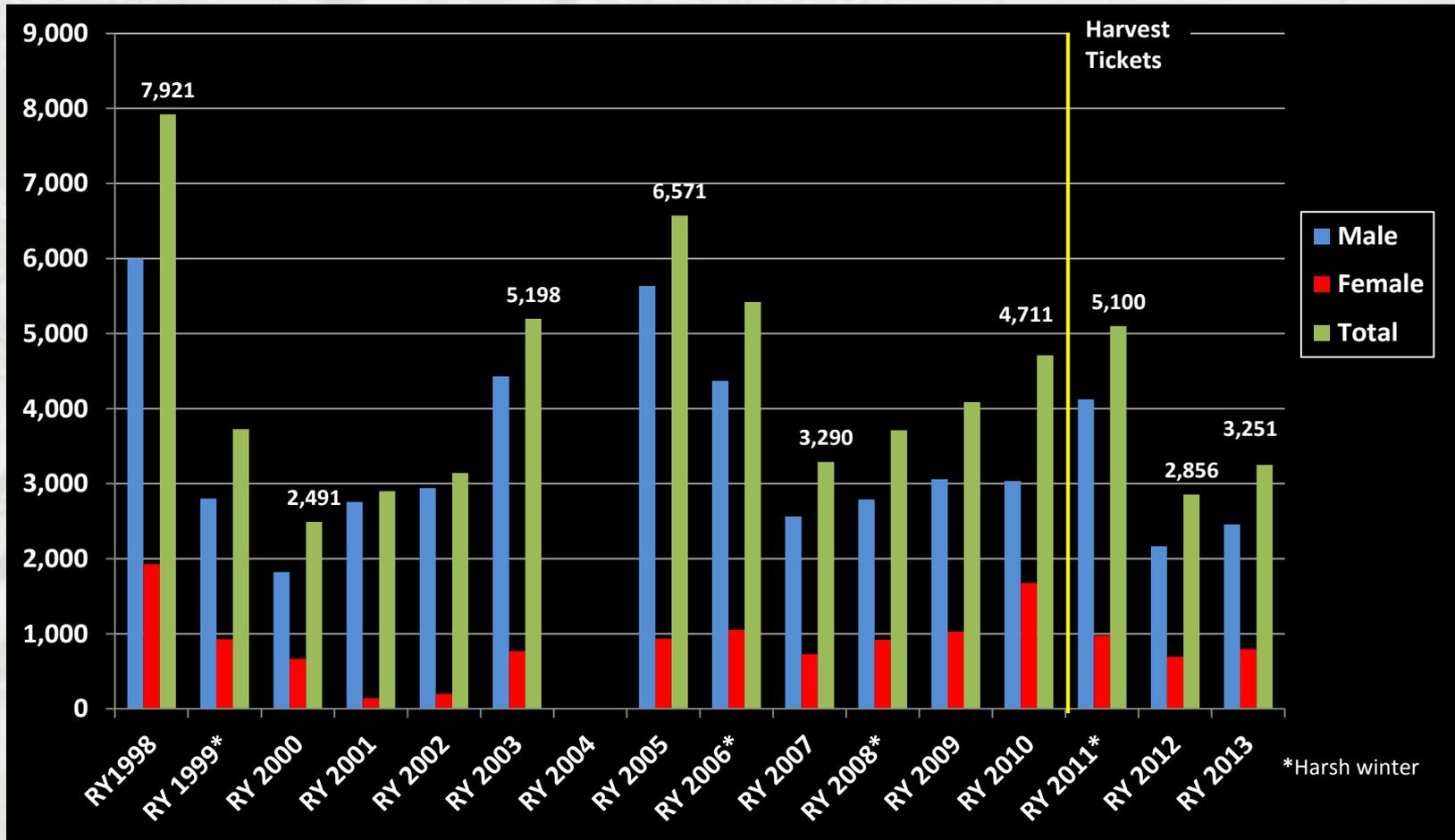
- Aug 1–Dec 31; bag limit 1 buck to 3 deer
- Federal season Aug 1–Jan 31

## **ISSUES:**

- Difficulty obtaining reliable population estimate

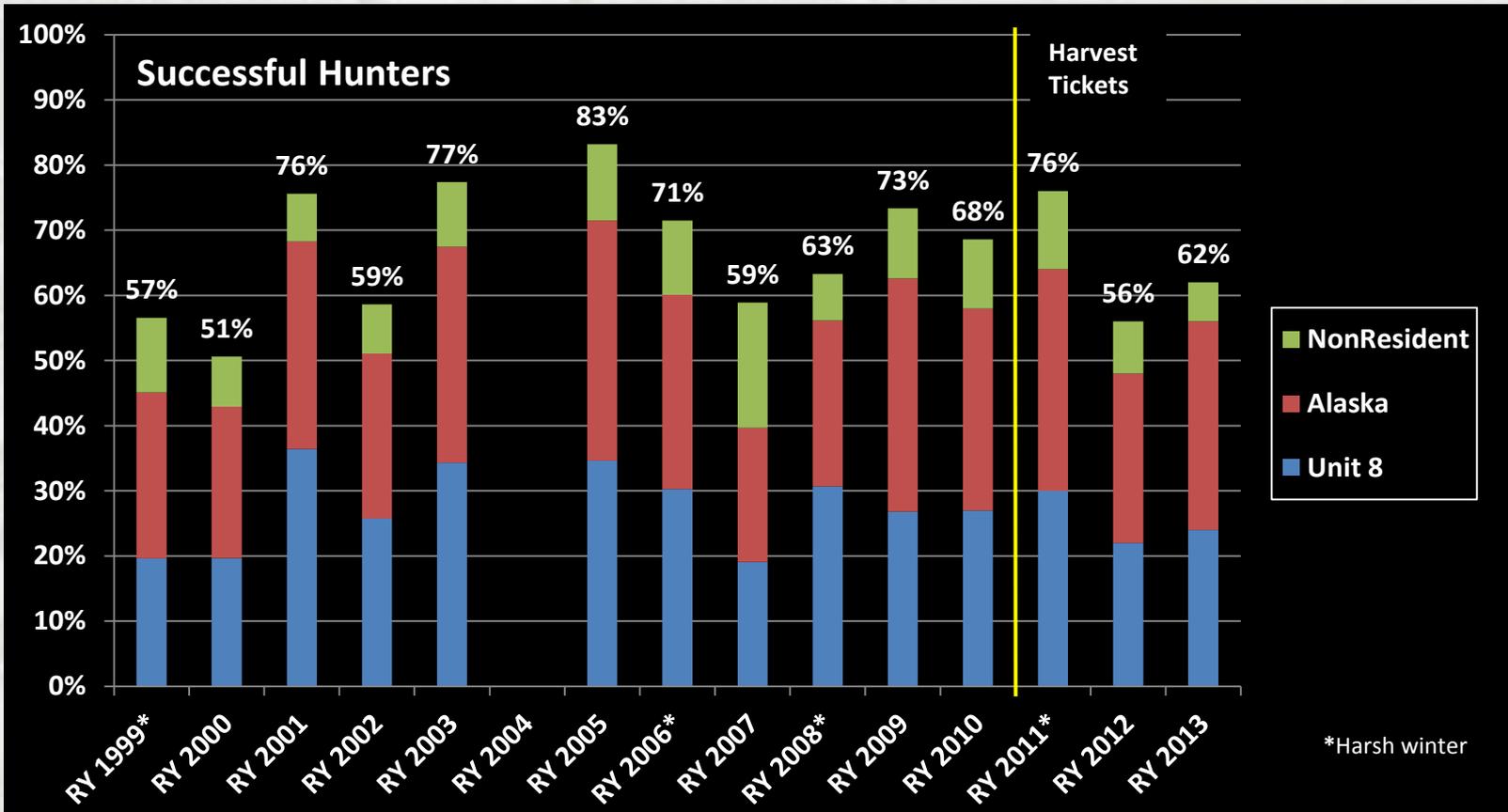
# Sitka Black-tailed Deer - Harvest

**HARVEST:** (5-yr avg.) 4,001 deer/year; 74% male harvest; weather



# Sitka Black-tailed Deer – Hunter Effort

**HUNTER EFFORT:** (5-yr avg.) 3,000 hunters/yr, 67% overall success, Method: 45% boat, 25% plane



# Roosevelt elk



# Roosevelt elk

## **HISTORICAL:**

- 1928; 8 calves (3 M, 5 F) from Hoh Valley, WA.
- First to Kodiak, grazing concerns, moved to Afognak following spring
- Expanded rapidly: 1933 = 30+; 1948 = 200+; 1961 = 1100
- 1951 observed on Raspberry Island

## **CURRENT STATUS:**

- Stable to increasing at about 885 elk in 8 herds
- Occupy Afognak and Raspberry Islands
- Northernmost elk pop'n in N. America; only Roosevelt elk in AK

## **SEASON:**

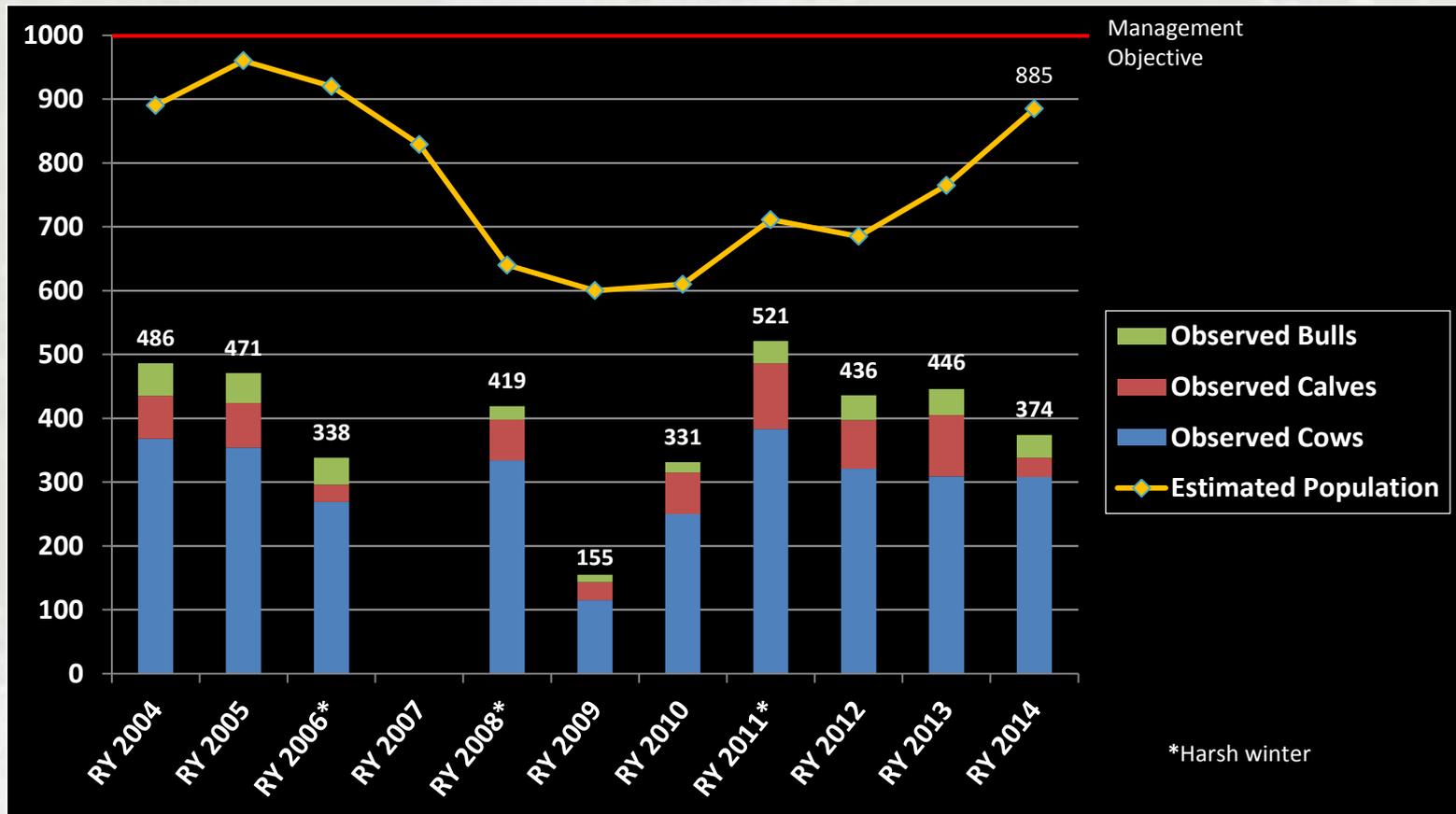
- Sep. 25–Nov 30; bag limit 1
- 9 drawing hunts (281 drawing permits); 1 registration hunt (234 permits)
- Federal season Sep. 15–Nov 30

## **ISSUES:**

- Greater potential; unable to reach management objective (1,000)
- Impact of logging on habitat

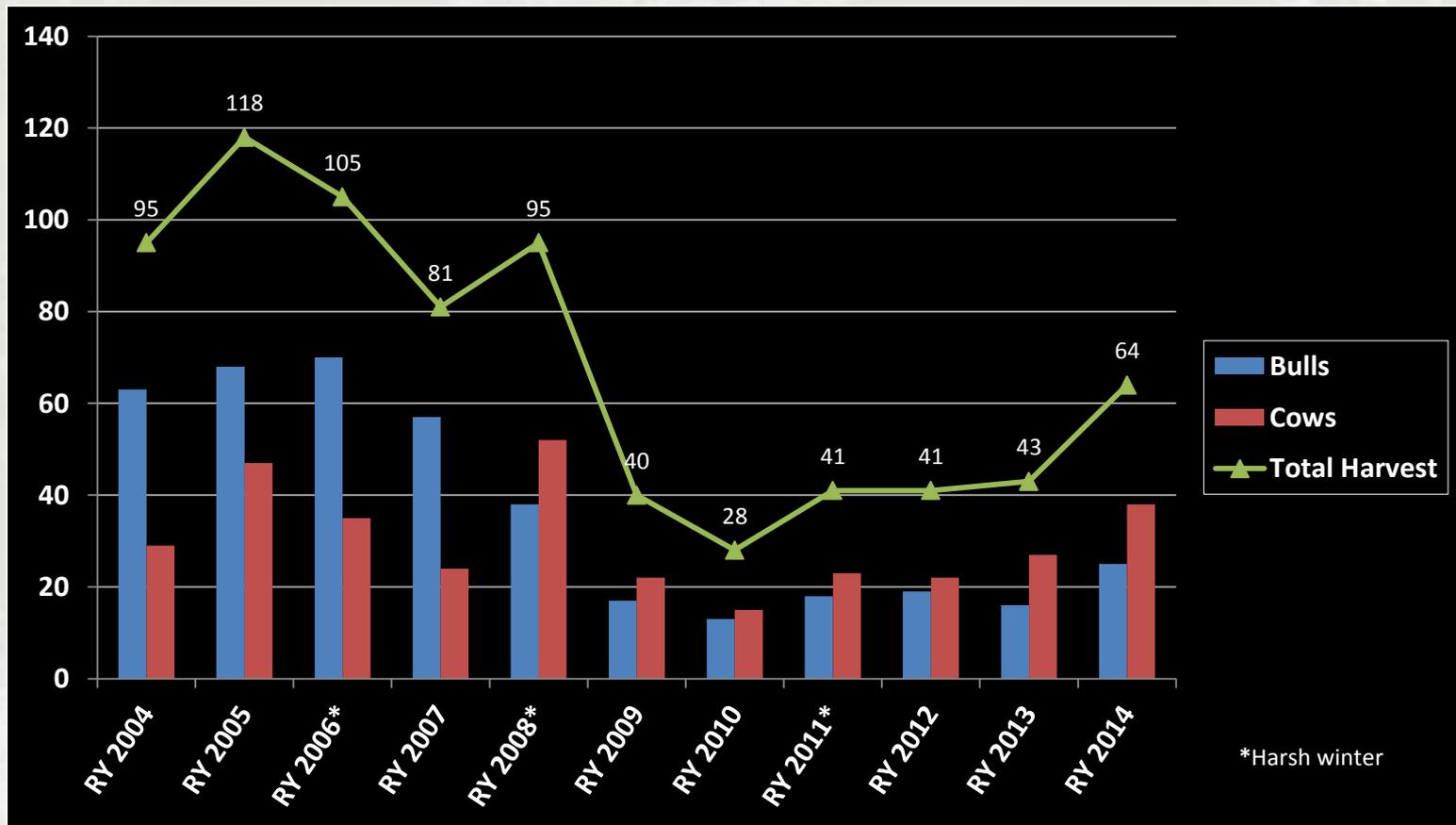
# Roosevelt elk - Population

**POPULATION ESTIMATE:** Slowly increasing population, 2014 minimum pop'n count = 885; management objective = 1,000



# Roosevelt elk - Harvest

**HARVEST:** (5-yr avg.) 43 elk/year; 43% male harvest; ~200 hunters/year with 19% success; Method: boat 39%, plane 32%, vehicle 28%



# Roosevelt elk - Research

## Afognak Island:

- Extensive commercial logging since 1970's
- Concern regarding impact on habitat/population
- Partners: Afognak, Ouzinkie, Koniag, and Kodiak Native Corporations

## Goal:

Evaluate seasonal shifts in resource use with regard to different forest age stands and forest management practices

## Summary:

- Captured and GPS radio-collared 9 female elk in June
- Obtaining location every 100 minutes
- Collected >15,000 locations
- Set-up 120 random vegetation monitoring /transect sights

# Mountain goat



# Mountain goat

## HISTORICAL:

- 1952-1953: 11 female, 8 male from Kenai Peninsula
- Expanded rapidly: 4 goats observed in 1957 to 2,732 goats in 2014
- 2013: increased bag limit in RG480 to 2 goats

## CURRENT STATUS:

- Stable in some areas, increasing in others; Estimate = >2,700
- Occur in nearly all suitable habitats throughout the island

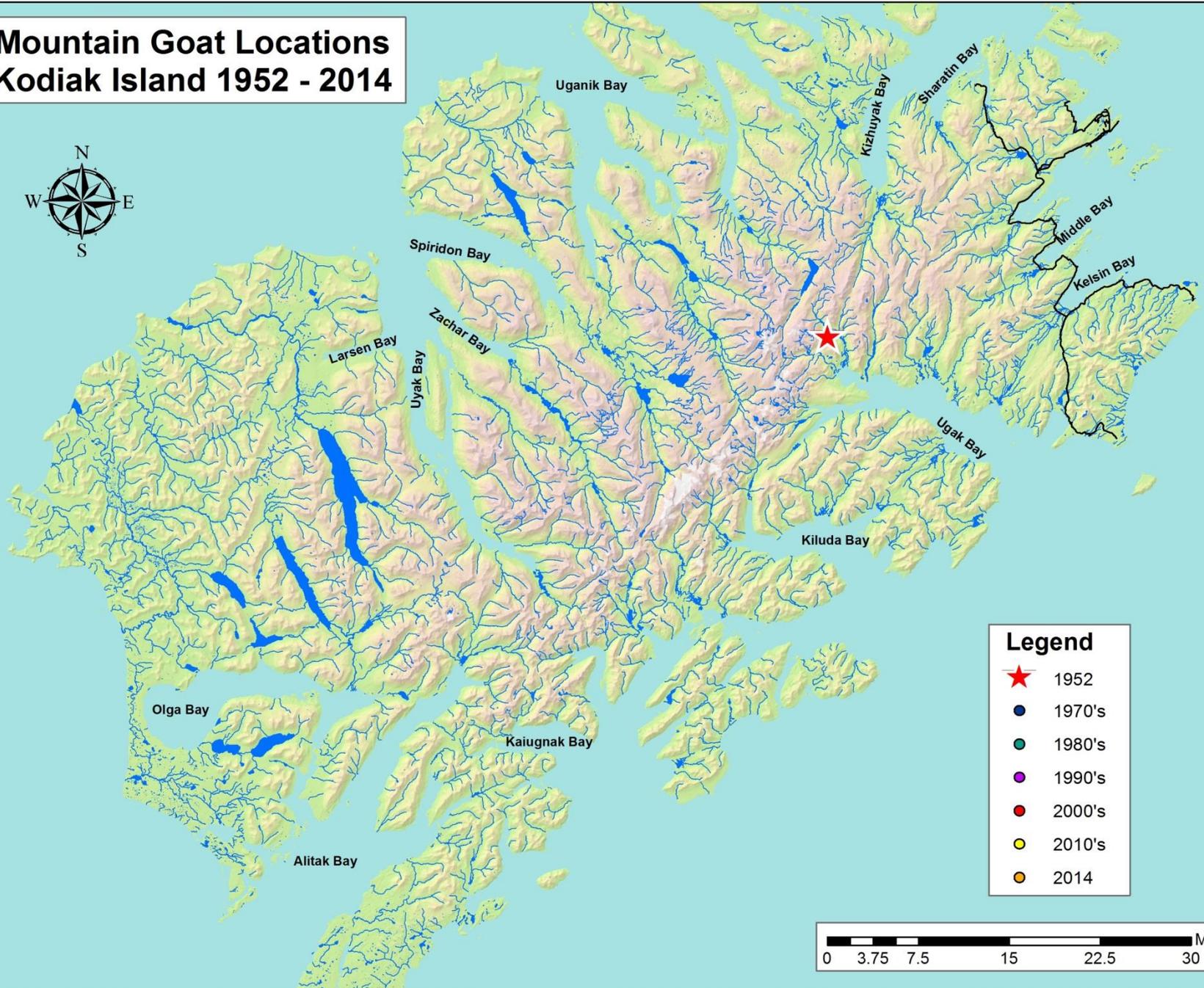
## SEASON:

- Drawing: Aug. 20 – Oct. 25 (255 permits)
- Registration: Aug 20 – Mar 20 (RG 480)
- Registration: Nov 1 – Dec 15
- 8 hunt areas

## ISSUES:

- Increasing and expanding population
- Concern regarding potential impact on vegetation

# Mountain Goat Locations Kodiak Island 1952 - 2014

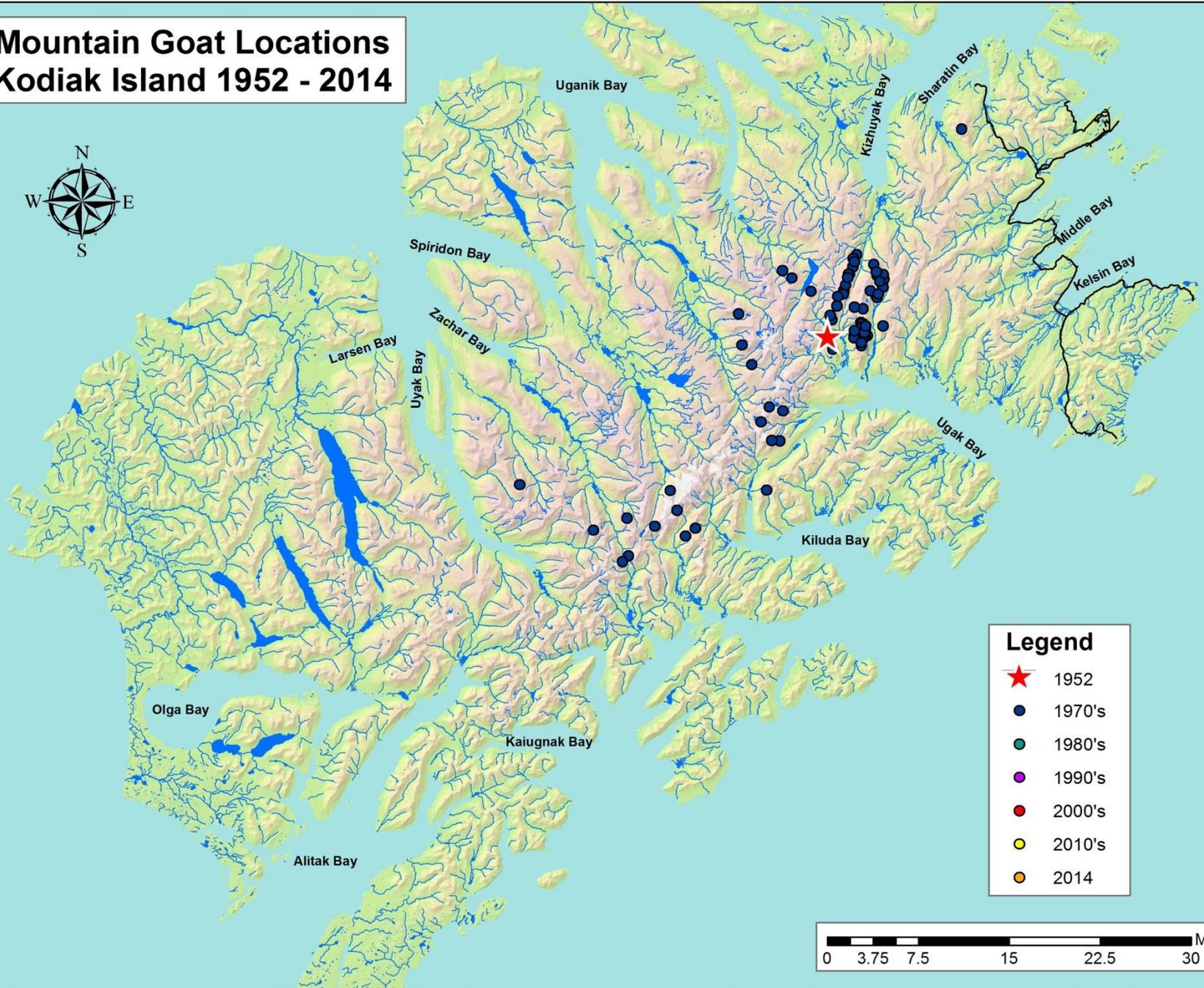


**Legend**

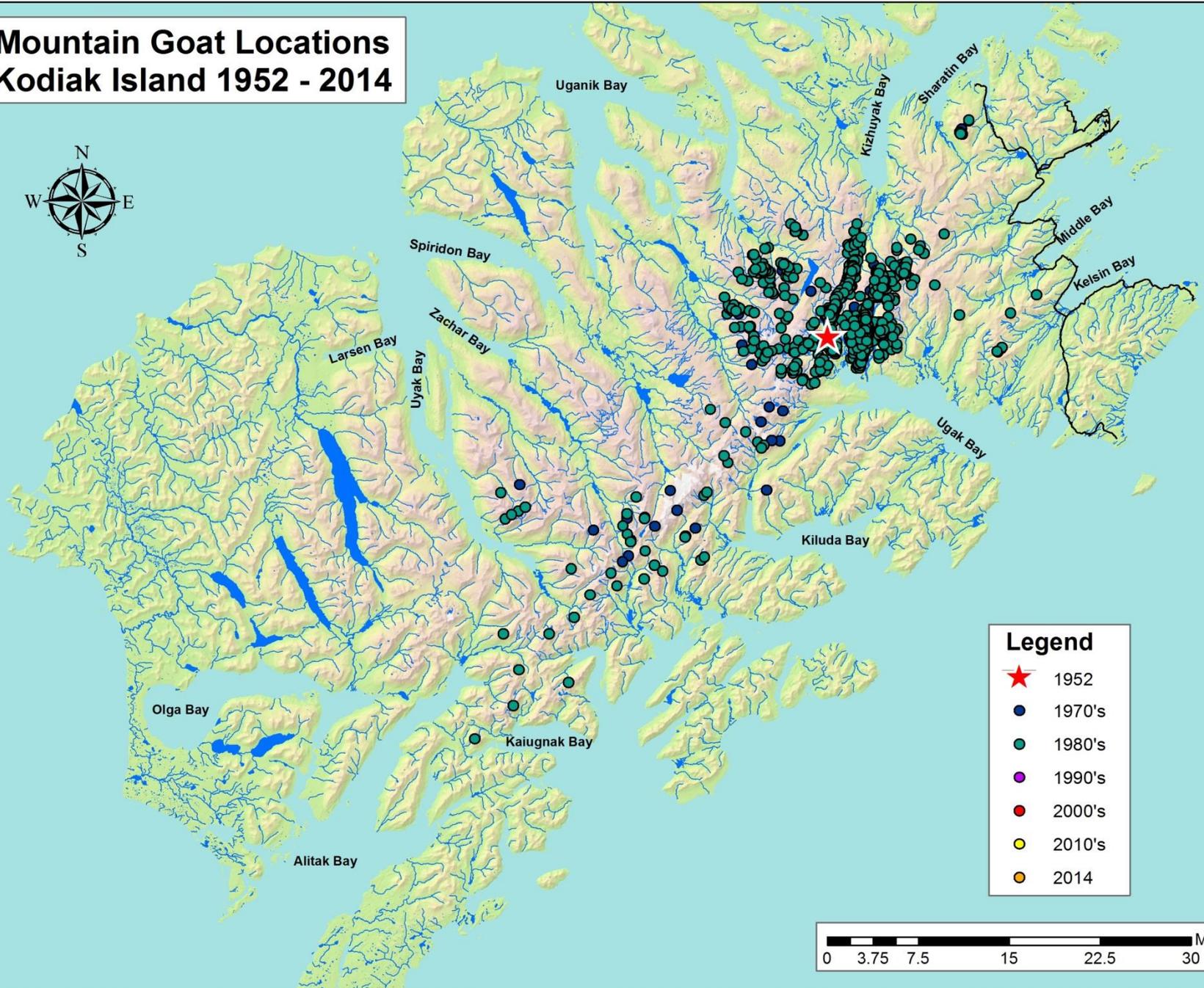
- ★ 1952
- 1970's
- 1980's
- 1990's
- 2000's
- 2010's
- 2014



# Mountain Goat Locations Kodiak Island 1952 - 2014



# Mountain Goat Locations Kodiak Island 1952 - 2014

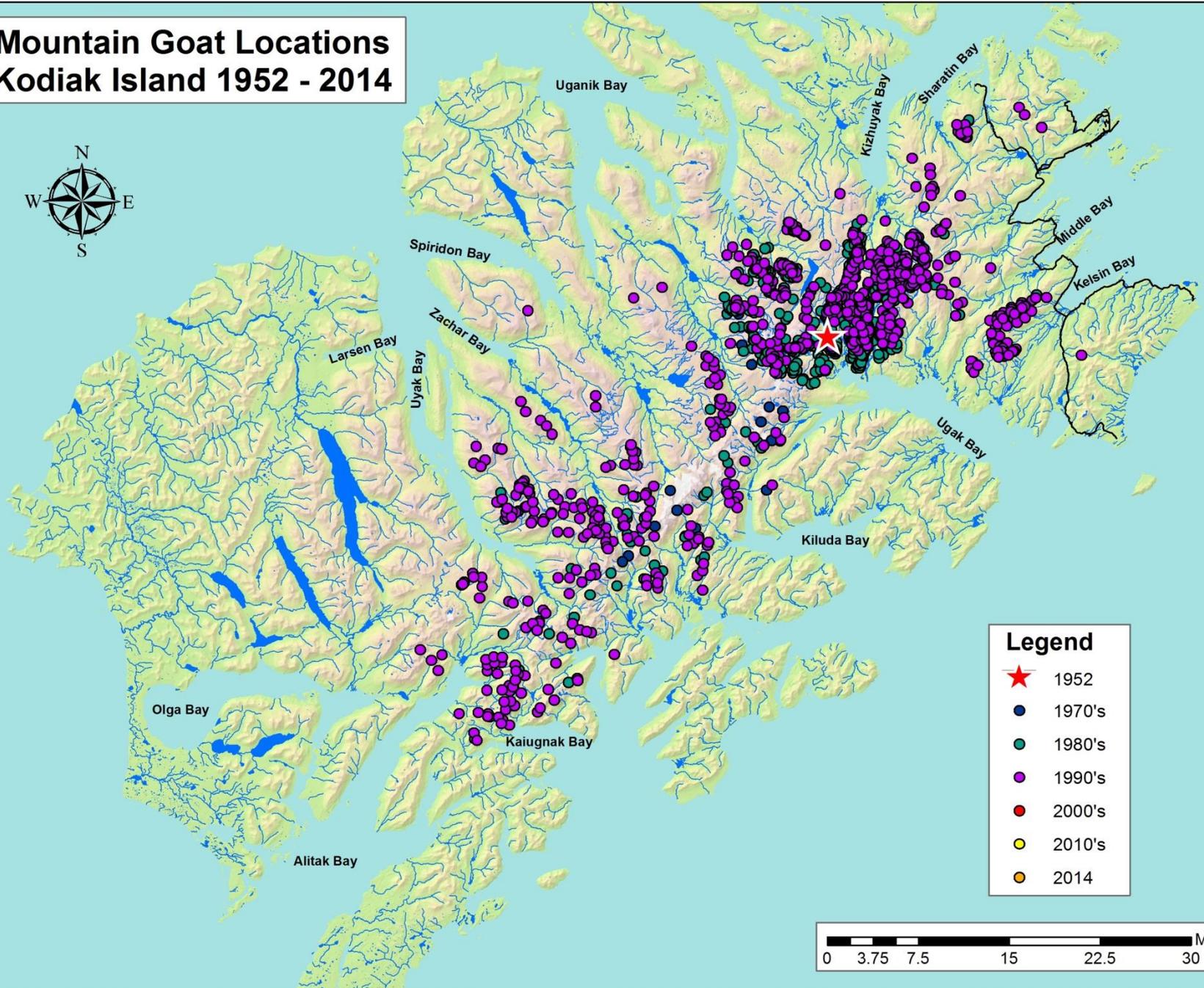


**Legend**

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# Mountain Goat Locations Kodiak Island 1952 - 2014

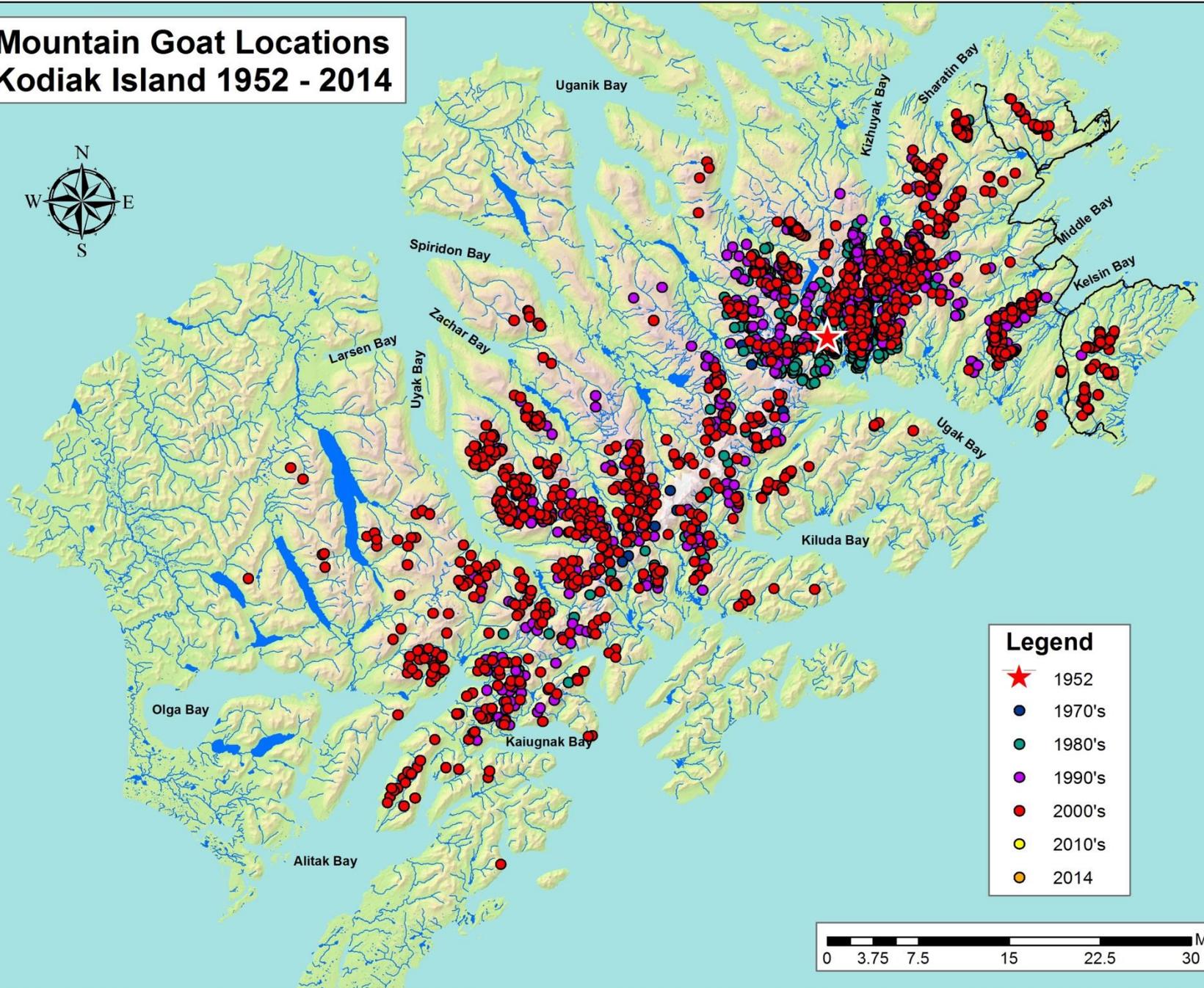


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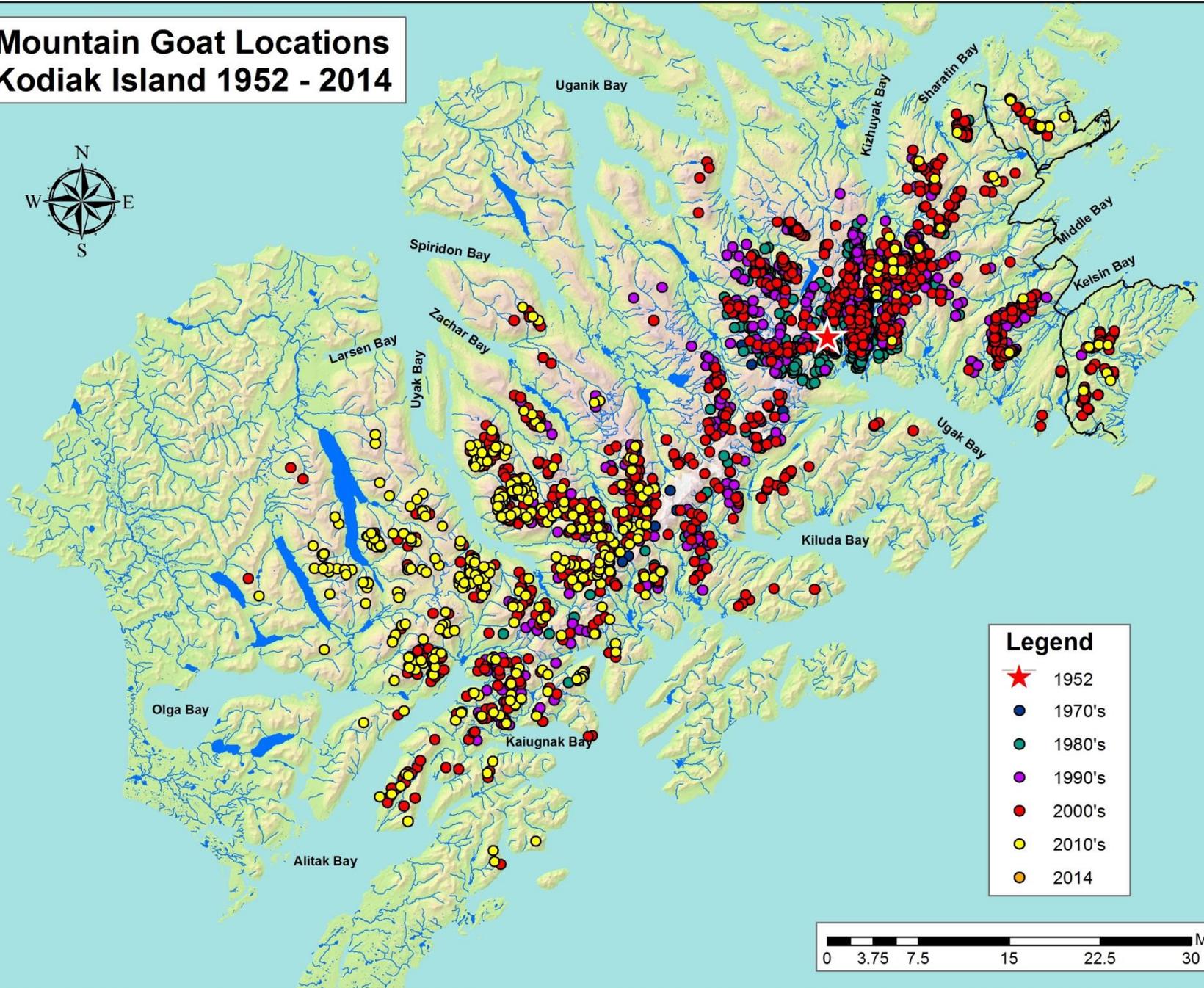
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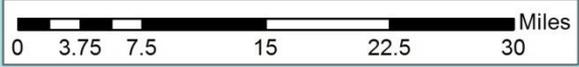


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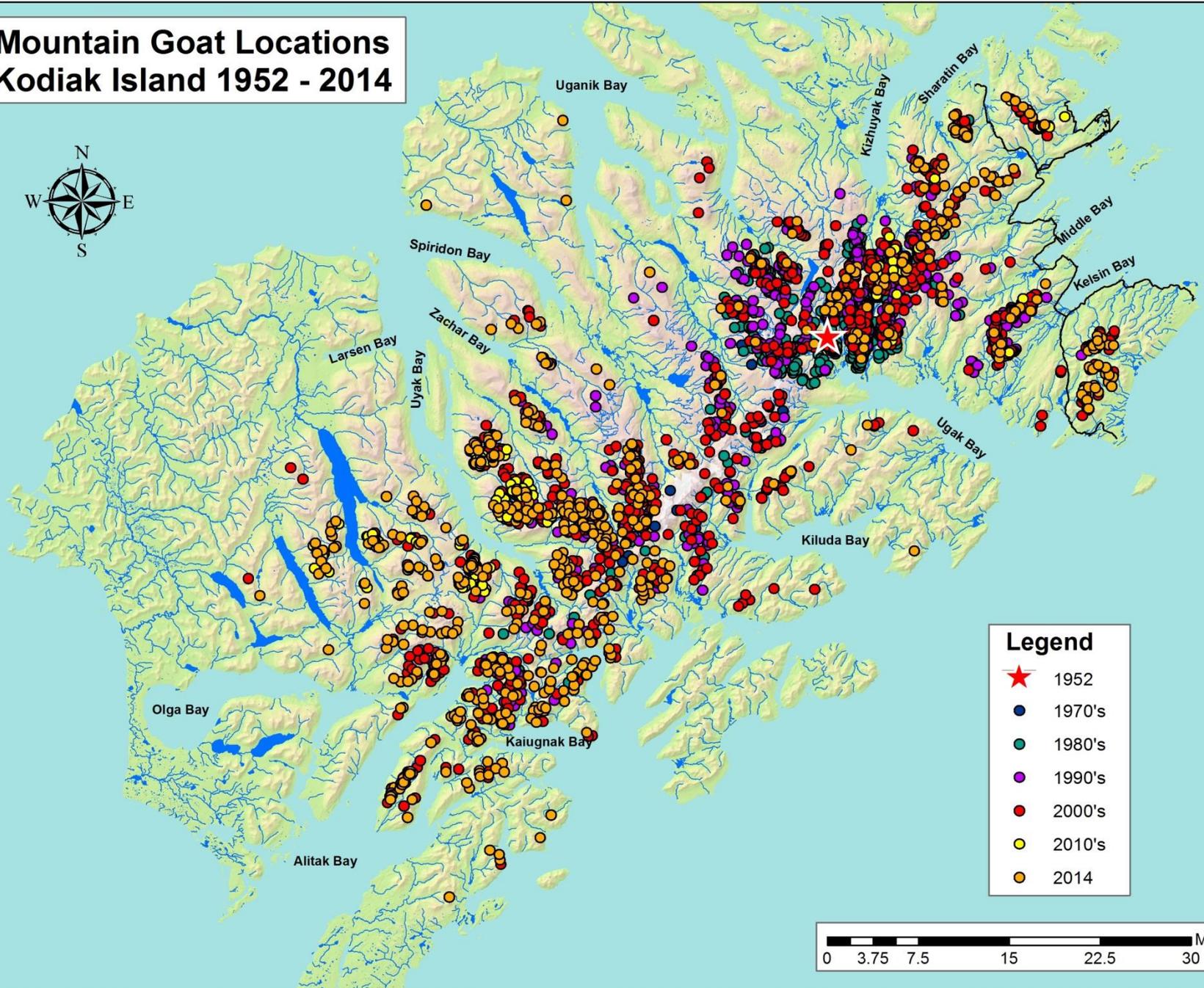


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# Mountain Goat Locations Kodiak Island 1952 - 2014

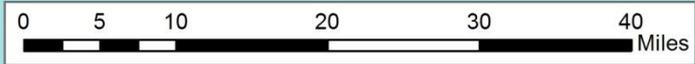
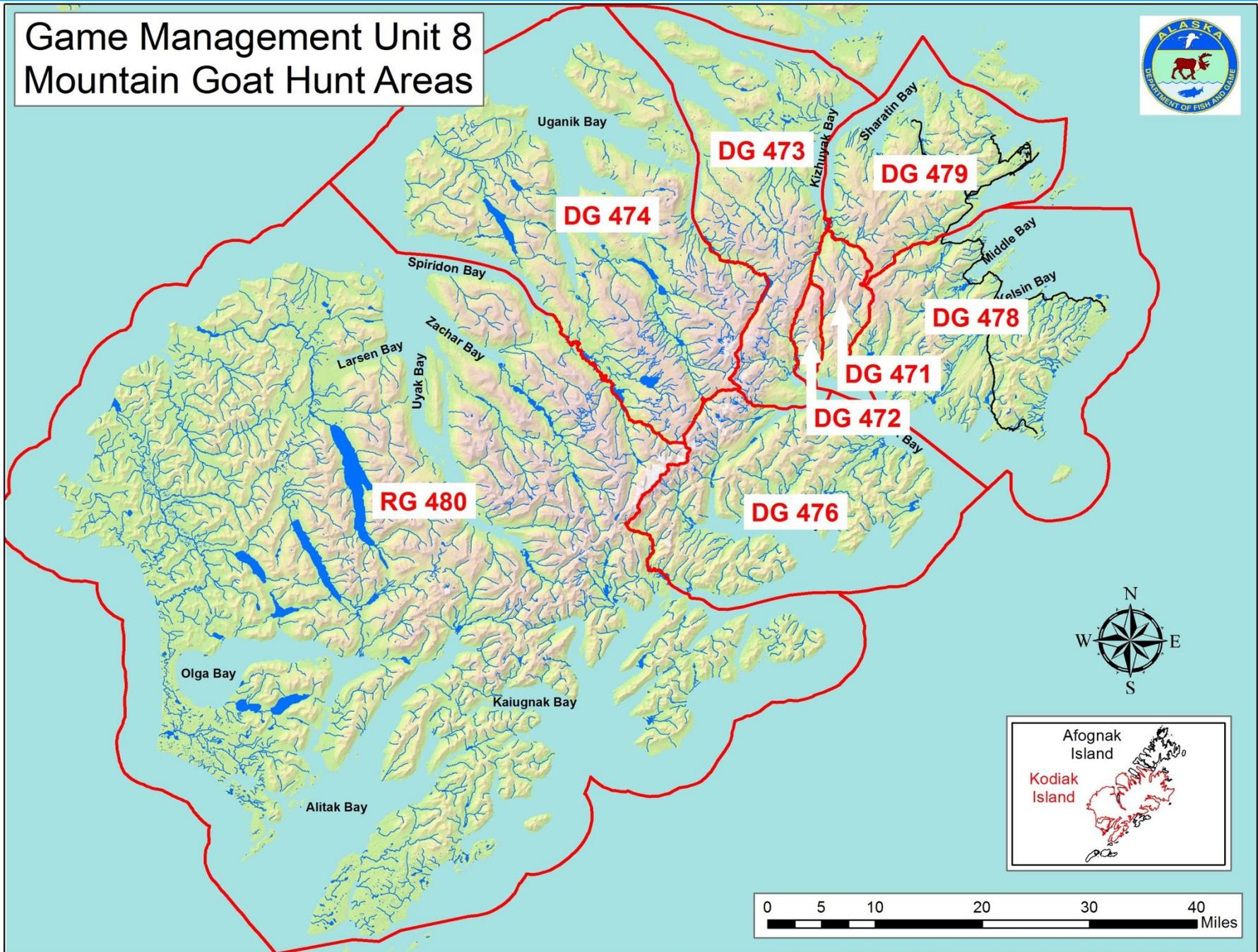


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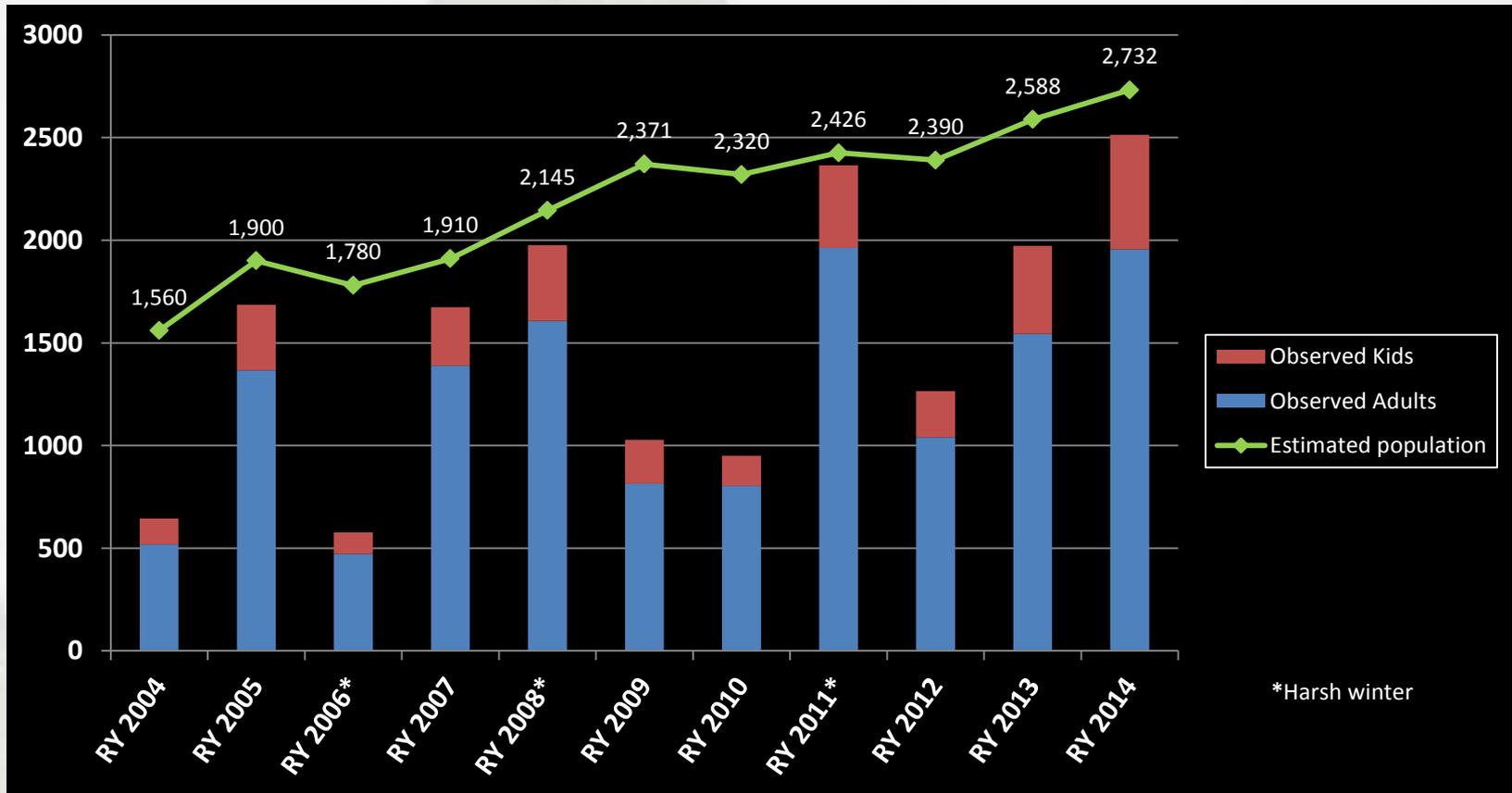


# Game Management Unit 8 Mountain Goat Hunt Areas



# Mountain goat - Population

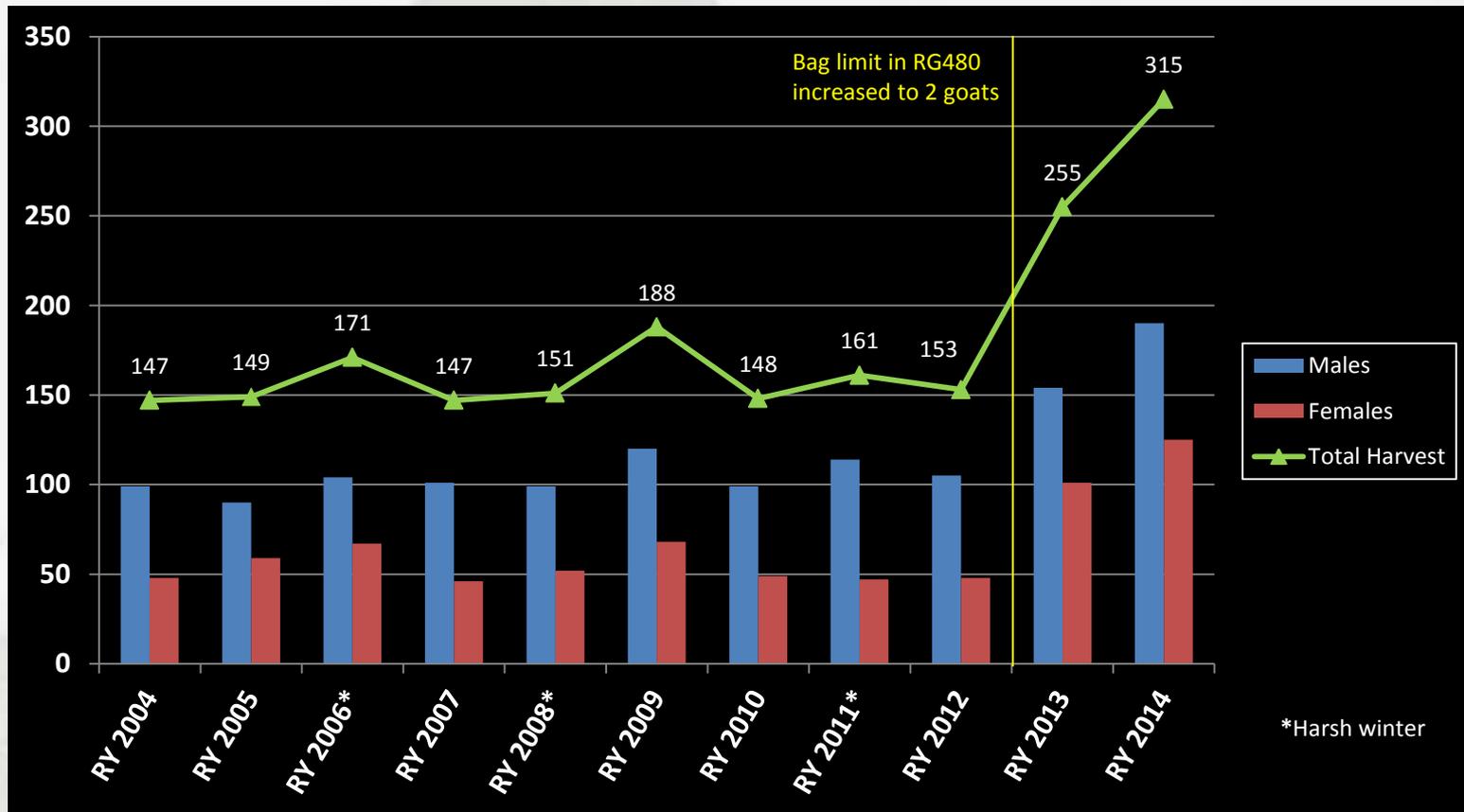
**Population Estimate:** Increasing population; 2014 minimum pop'n count = 2,732



\*Harsh winter

# Mountain goat - Harvest

**HARVEST:** (5-yr avg.) 181 goats/year; 66% male harvest. Harvest and hunters increased following bag limit change; remained ~39% success



# Mountain goat - Research

## Kodiak Island:

- Population has experienced irruptive growth since introduction
- Concern regarding impact on habitat/vegetation
- Partners: Kodiak National Wildlife Refuge

## Objectives:

1. Develop aerial survey sightability model
2. Quantify seasonal and annual habitat selection and movement patterns
3. Estimate reproduction and survival rates

## Summary:

- Captured and GPS radio-collared 15 goats (8 M, 7 F) in June 2013
- Location every 180 mins
- Collected 34,782 locations on 14 animals

# Brown bear



# Brown bear

## HISTORICAL:

- Kodiak bears isolated from other bears for 12,000+ years
- Developed into unique subspecies (*Ursus arctos middendorffi*)

## CURRENT STATUS:

- Stable to increasing at ~3,500 bears
- Occur on all major islands of the Archipelago
- Highly valued trophy hunt

## SEASON:

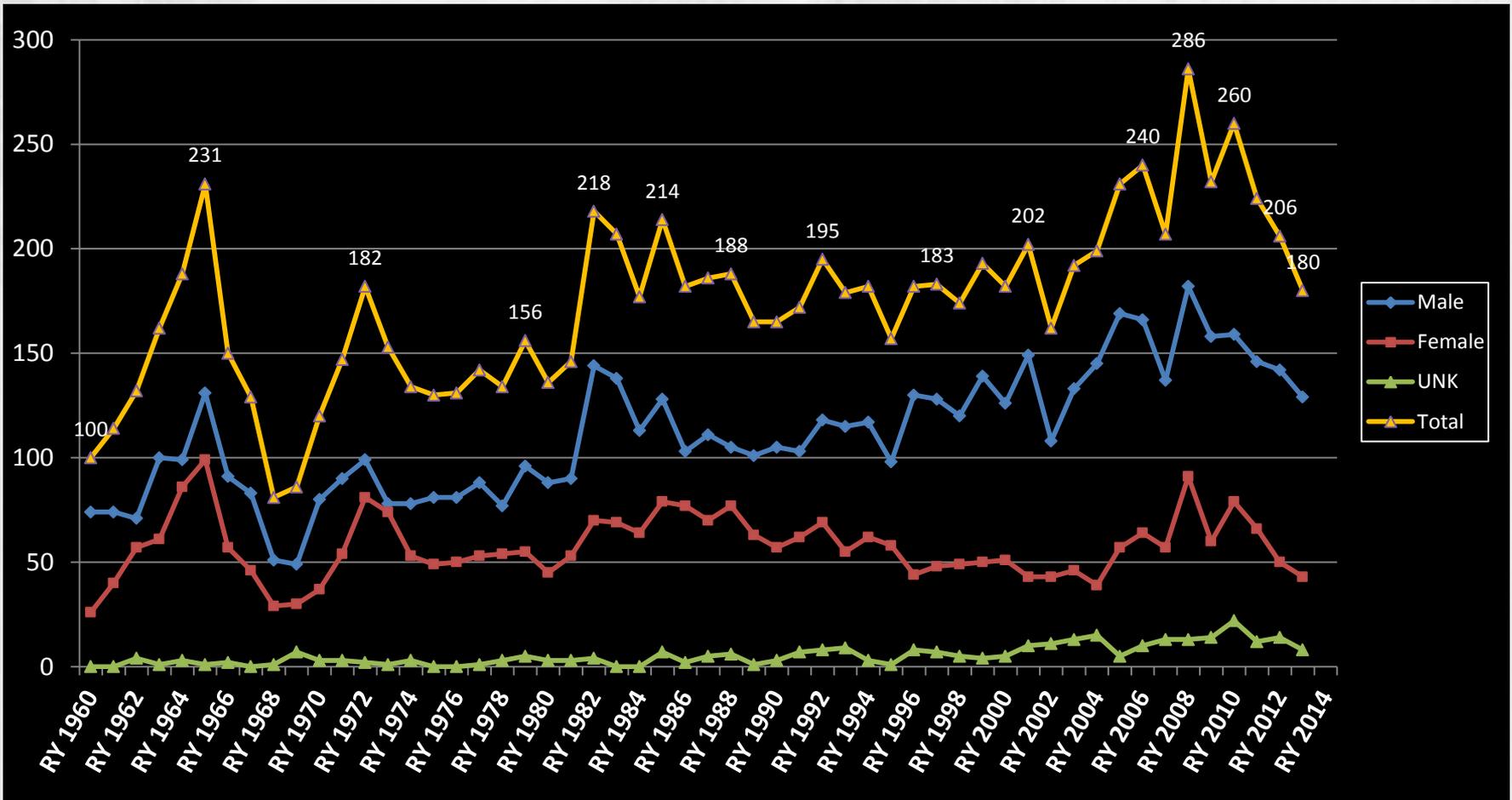
- Spring: Apr 1 – May 15 (71 registration permits; 206 drawing permits )
- Fall: Oct 25 – Nov 30 (173 registration permits; 134 drawing permits)
- 31 drawing hunt areas, 1 registration hunt area
- Federal Season: Apr 1 – May 15; Dec 1 – Dec 15 (up to 10 permits)

## ISSUES:

- Town bears, waste management
- Berry production and distribution
- Robust population estimate

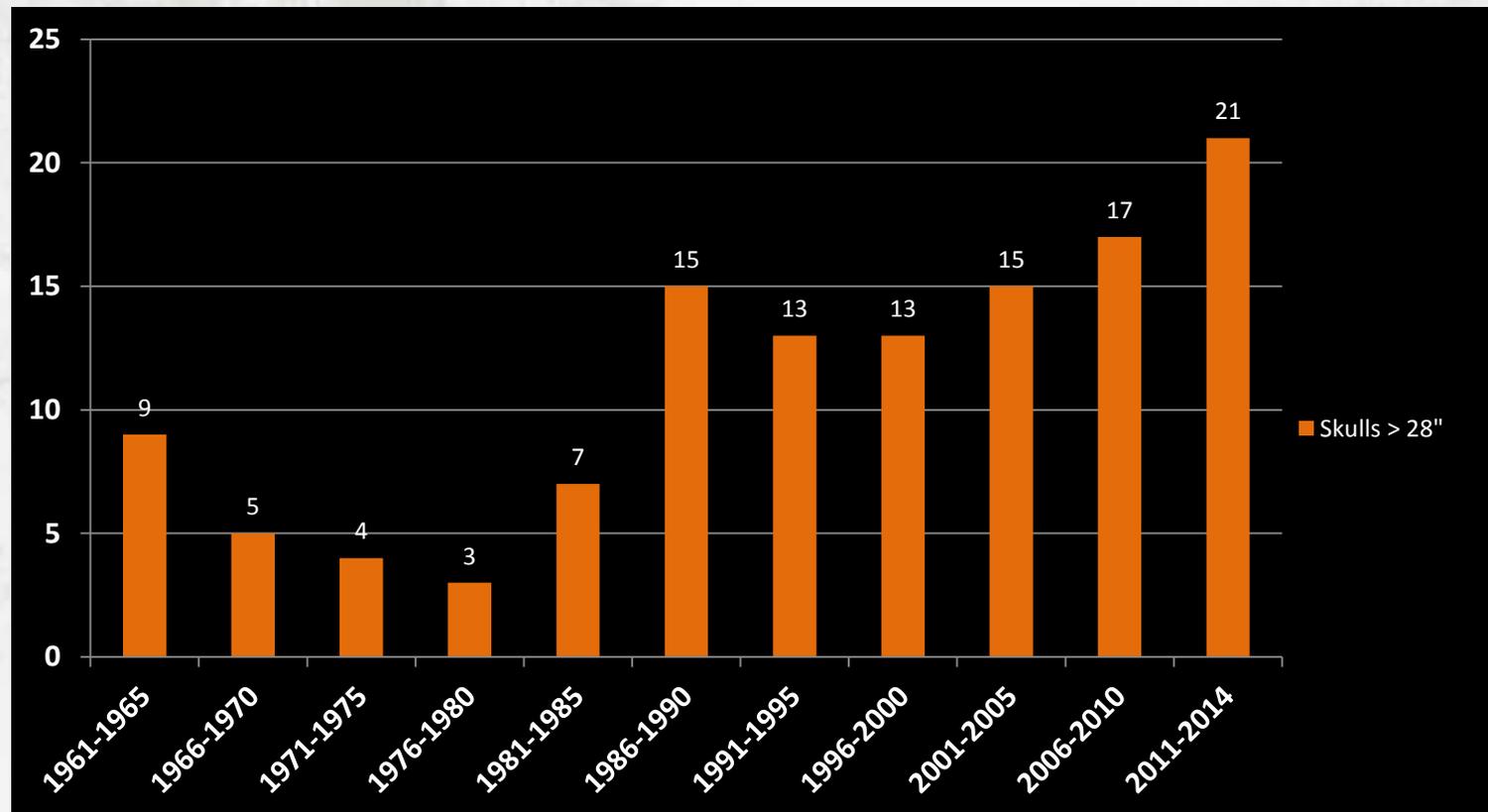
# Brown bear - Harvest

**HARVEST:** (5-yr avg.) 242 bear/year; 65% male harvest



# Brown bear- Trophy Bears

**Trophy Bears:** (> 28" total skull size). Number of trophy bears has been increasing.



# Brown bear – Research

## Sitkalidak Island:

- Develop survival estimate for female brown bears
- Estimate annual litter production and cub survival
- Investigate reproductive interval of adult females

## Afognak Island:

- Evaluate habitat use patterns in relation to timber harvest and forest successional stage
- Determine survival rates and productivity
- Investigate seasonal resource use and movement patterns

## Kodiak Archipelago – berry production:

- Develop method to monitor annual berry abundance and distribution

# Brown bear – Public Outreach



- Kodiak Unified Bear Subcommittee (KUBS)
- Bear Safety Group (AK Waste, USCG, AWT, KPD, State Parks)
- Bear Aware presentations (USCG, KISAR, local schools)
- Bear Safety and Bear Aware workshops

# Furbearers



# Furbearers

## HISTORICAL:

- 1888: Arctic fox to Chirikof (Semidi propagating company)
- 1929: 24 beaver to Kodiak; 21 to Raspberry
- 1952: 20 marten (8 M, 12 F) released on Afognak Island
- 1952: 47 red squirrel introduced to Kodiak

## CURRENT STATUS:

- Beaver, river otter, red fox, and marten populations are stable

## SEASON:

- Beaver: Nov 10 – Apr 30; no limit
- Red fox: Nov 10 – Mar 31; no limit
- River otter: Nov 10 – Jan 31; no limit
- Marten: Nov 10 – Jan 31; no limit

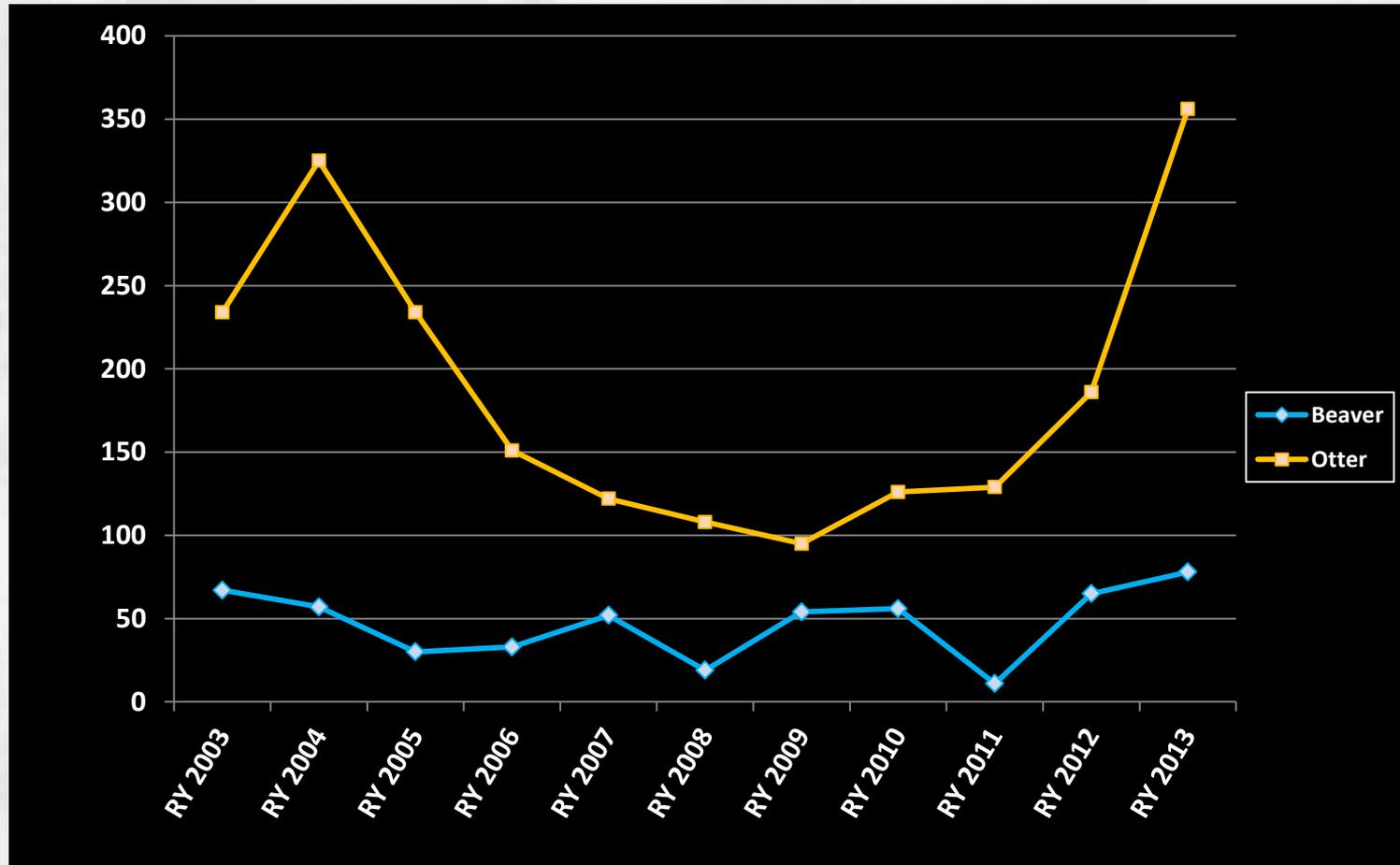
## ISSUES:

- Localized high harvest of red fox along road system
- Mink starting to show up on north road system and Long Island



# Furbearers – Harvest

**HARVEST:** 5-yr avg. = 53 beaver/year; 178 otter/year



# Caribou



# Caribou

## HISTORICAL:

- 1924, 32 brought to Alitak
- Reclassified from feral reindeer to caribou in 2011

## CURRENT STATUS:

- Stable at 250 – 350 individuals
- Occupy southwest Kodiak Island (Ayakulik and Sturgeon River drainages)

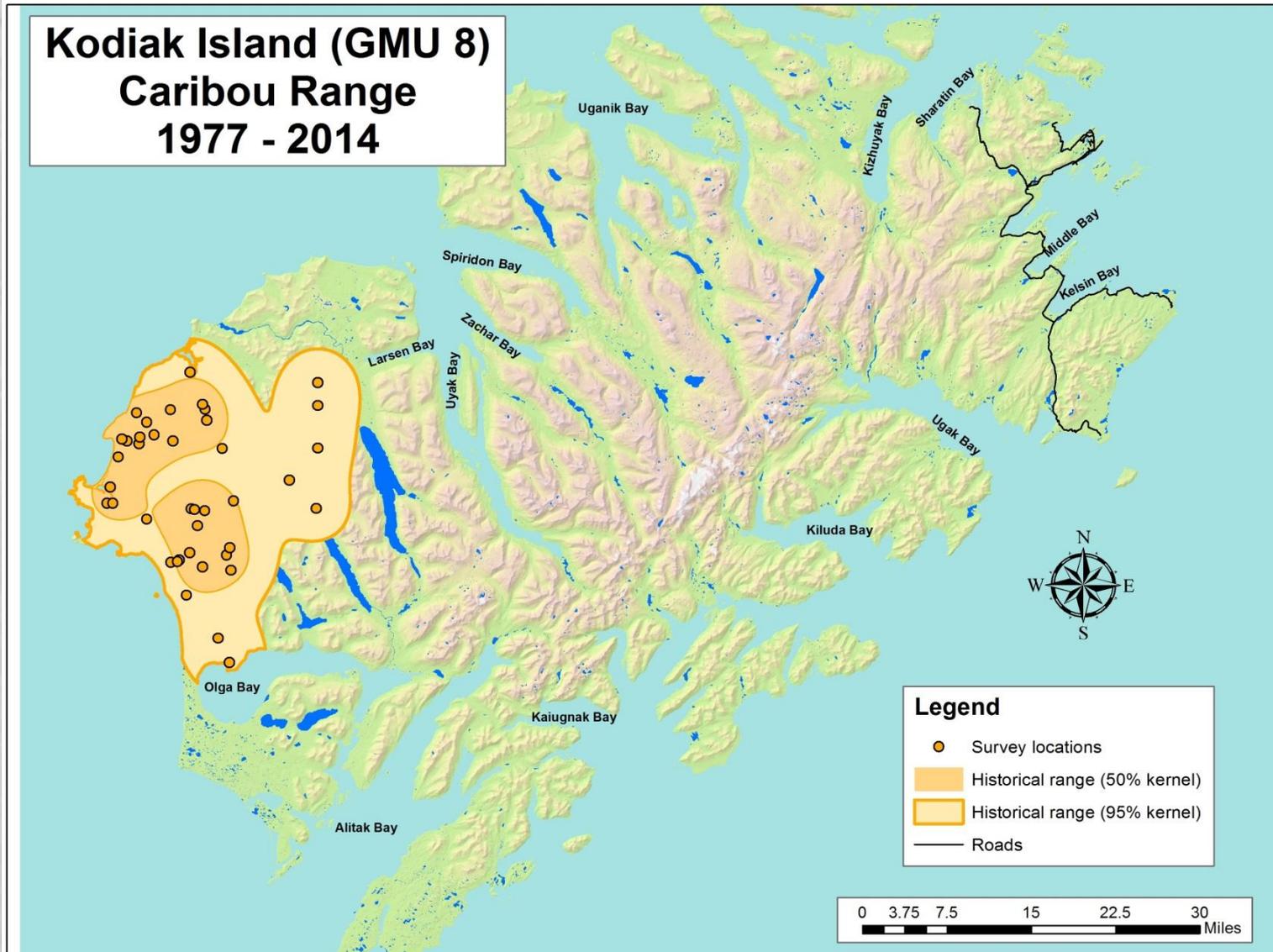
## SEASON:

- Aug 1–Jan 31; bag limit 1
- Harvest tag required
- Must salvage all meat

## ISSUES:

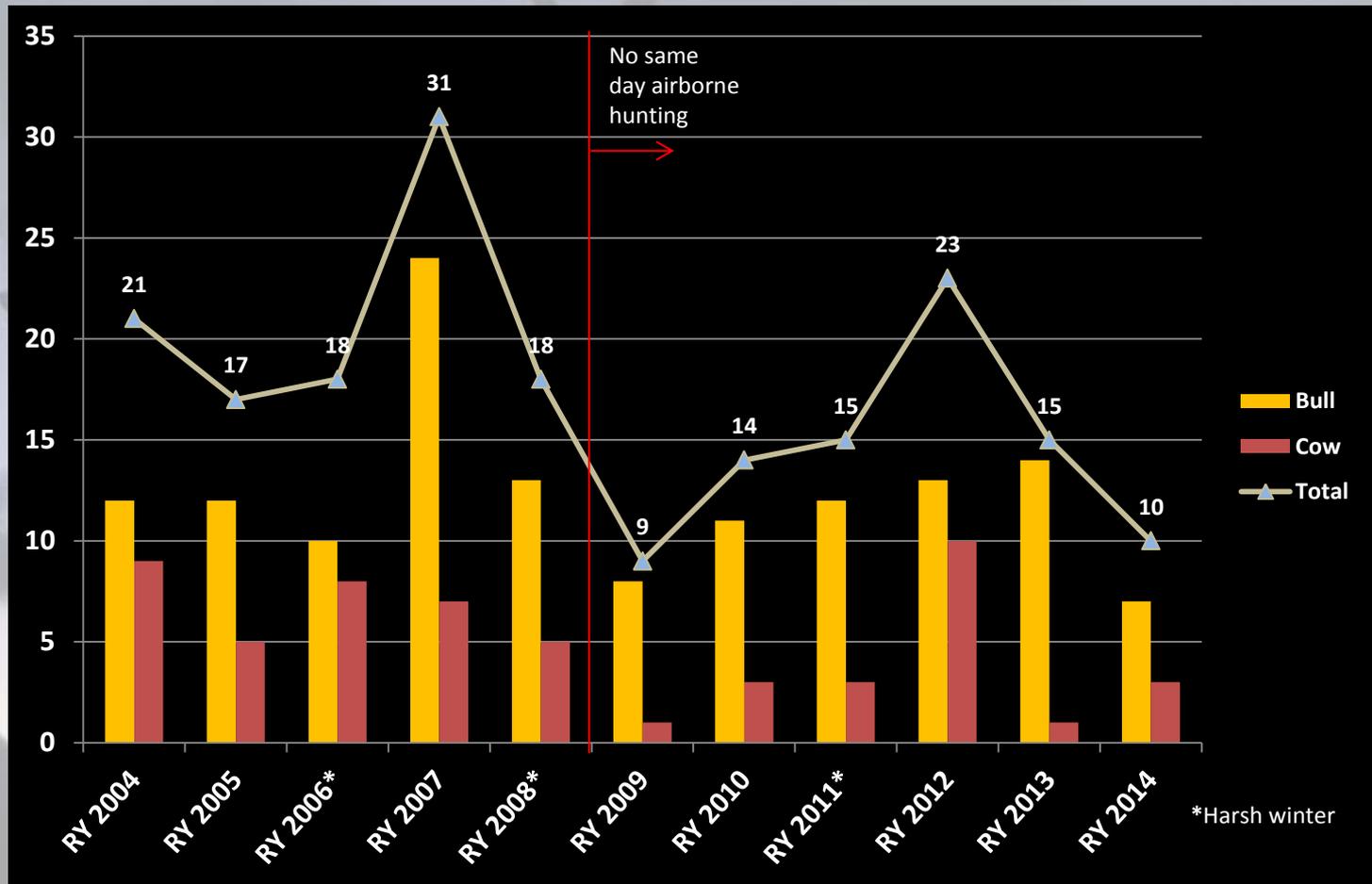
- KNWR is concerned about overpopulation and potential impact on habitat and vegetation

# Caribou – Historical Range



# Caribou – Harvest

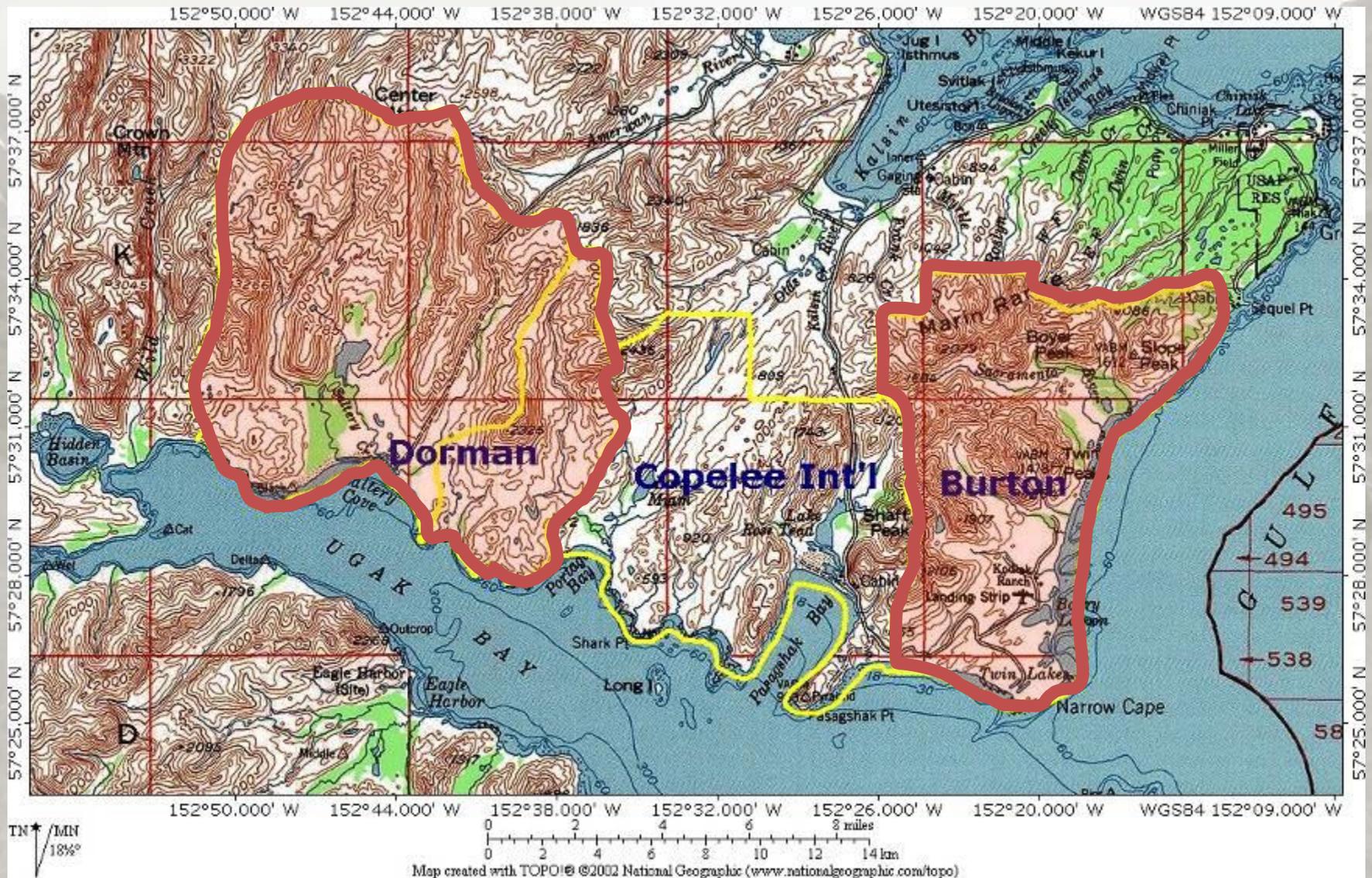
**HARVEST:** (5-yr avg.) 15 caribou/year; 76% male harvest



# Bison – domestic



# Bison – lease map



# Bison

- **2 ranchers currently have bison**
  - **Frank Bishop ~500 bison**
  - **Charlie Dorman ~ 200 bison (1994)**
- **Season authorized by BOG in 2007 (5 AAC 85.010(1))**
- **\*Proposal 213 proposes to repeal bison hunt and clarify definition of free-ranging**

# Questions?

