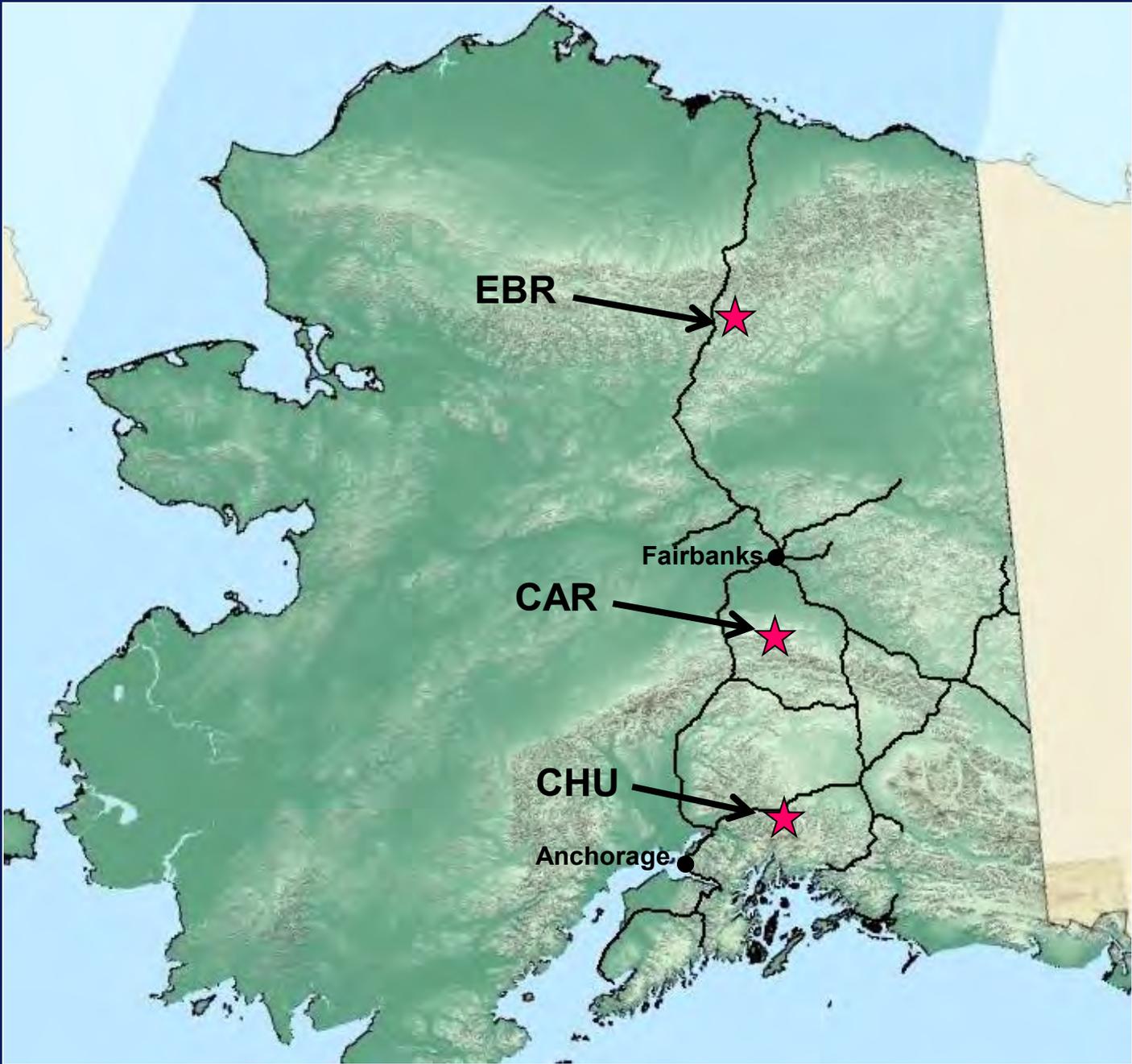


# Rates and causes of mortality of Dall's sheep in Alaska: a comparison among mountain ranges



Steve Arthur, National Park Service, Denali National Park, AK 99755  
Tom Lohuis, Alaska Department of Fish and Game, Anchorage, AK 99518





# Sheep Survival:

Lambs were radiocollared each year within 2 days of birth



Lamb remains were examined to estimate mortality rates and causes



EBR:  $n = 69$  lambs, 2009-2011

CAR:  $n = 119$  lambs, 1999-2004

CHU:  $n = 77$  lambs, 2009-2012

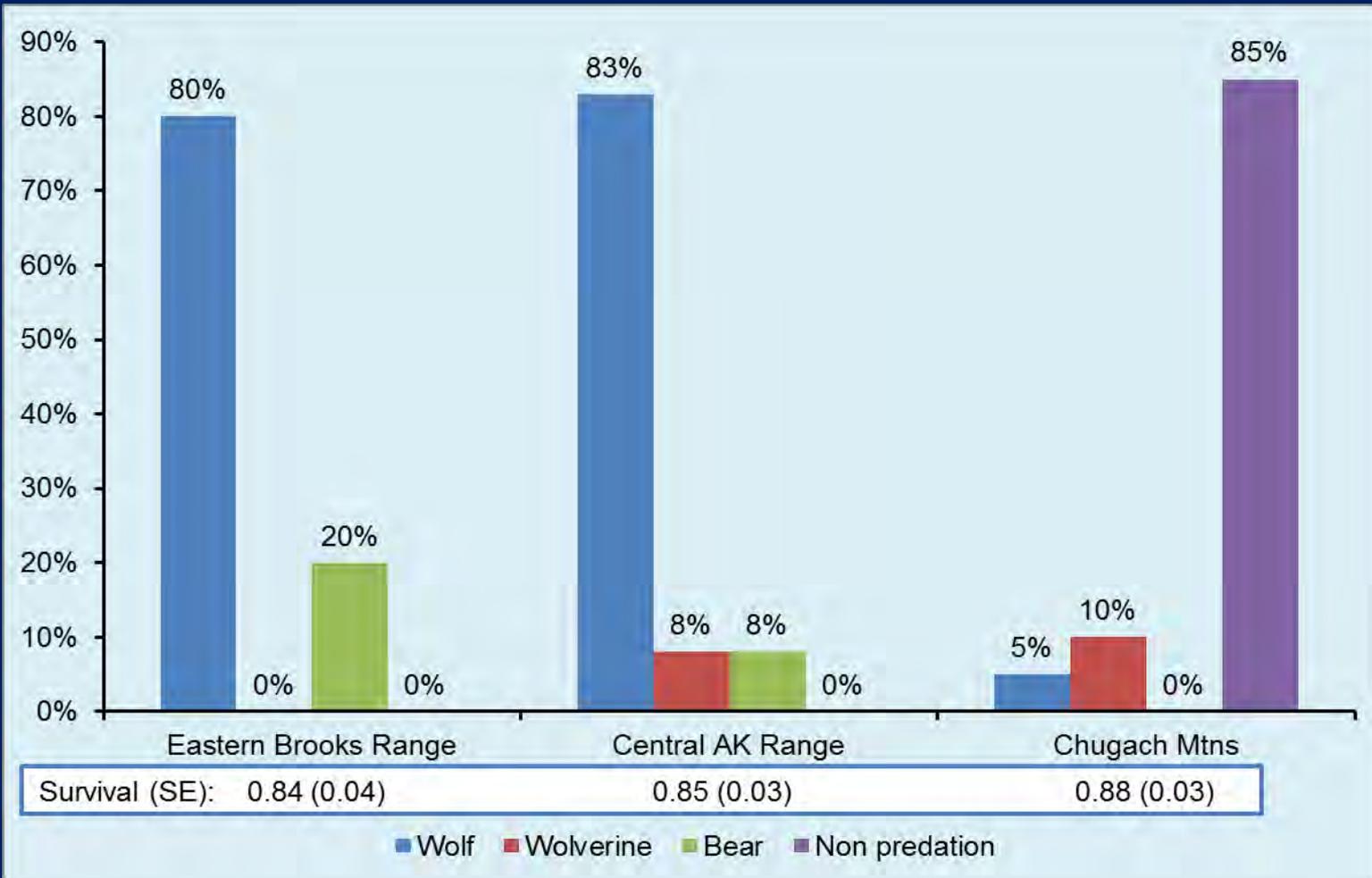
## Ewes Captured by Net Gun

- EBR: 69 ewe-years (2009 – 2012)
- CAR: 117 ewe-years (1999 – 2005)
- CHU: 152 ewe-years (2009 – 2014)

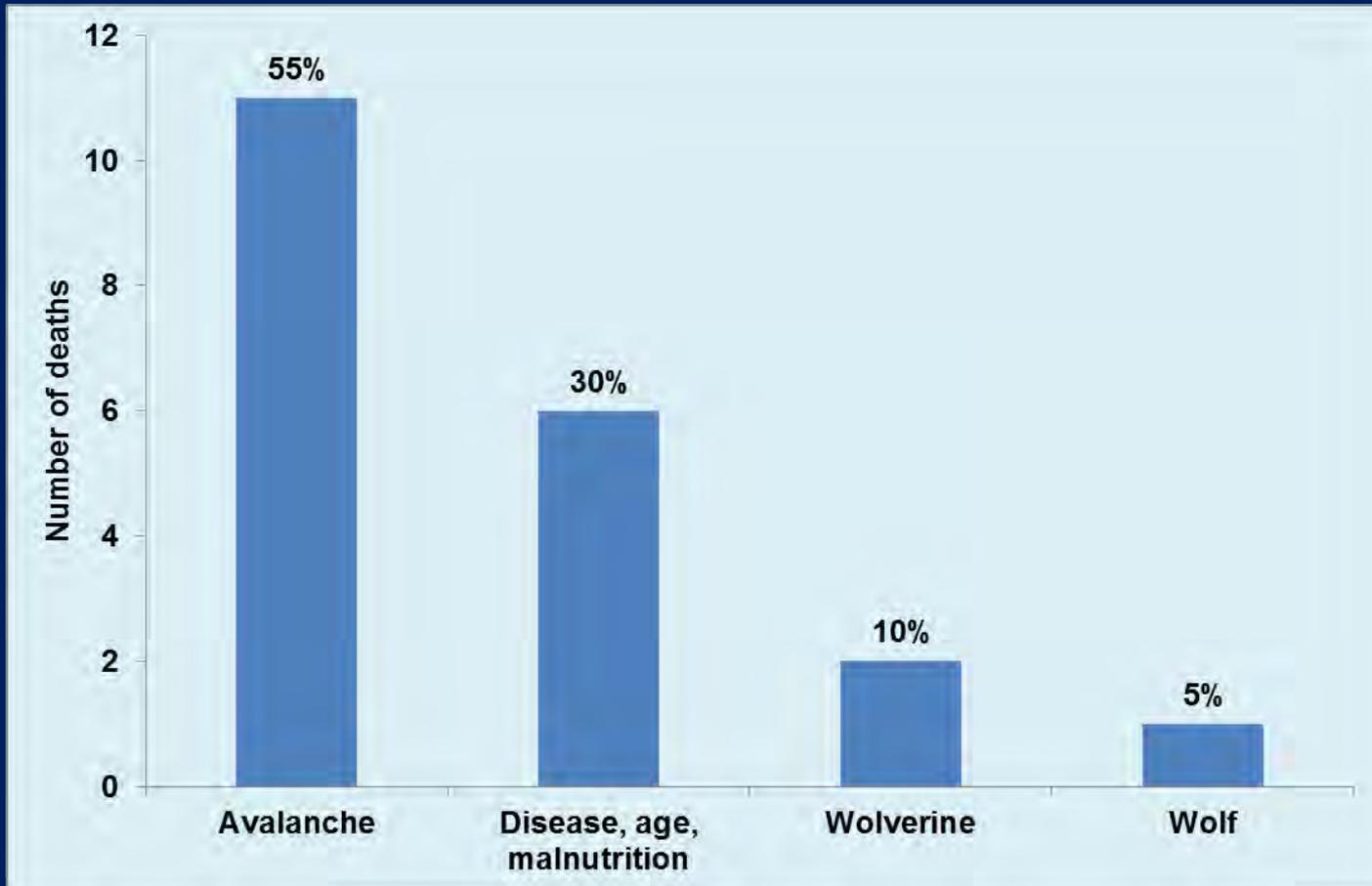


**Mortalities were investigated to assign cause of death**

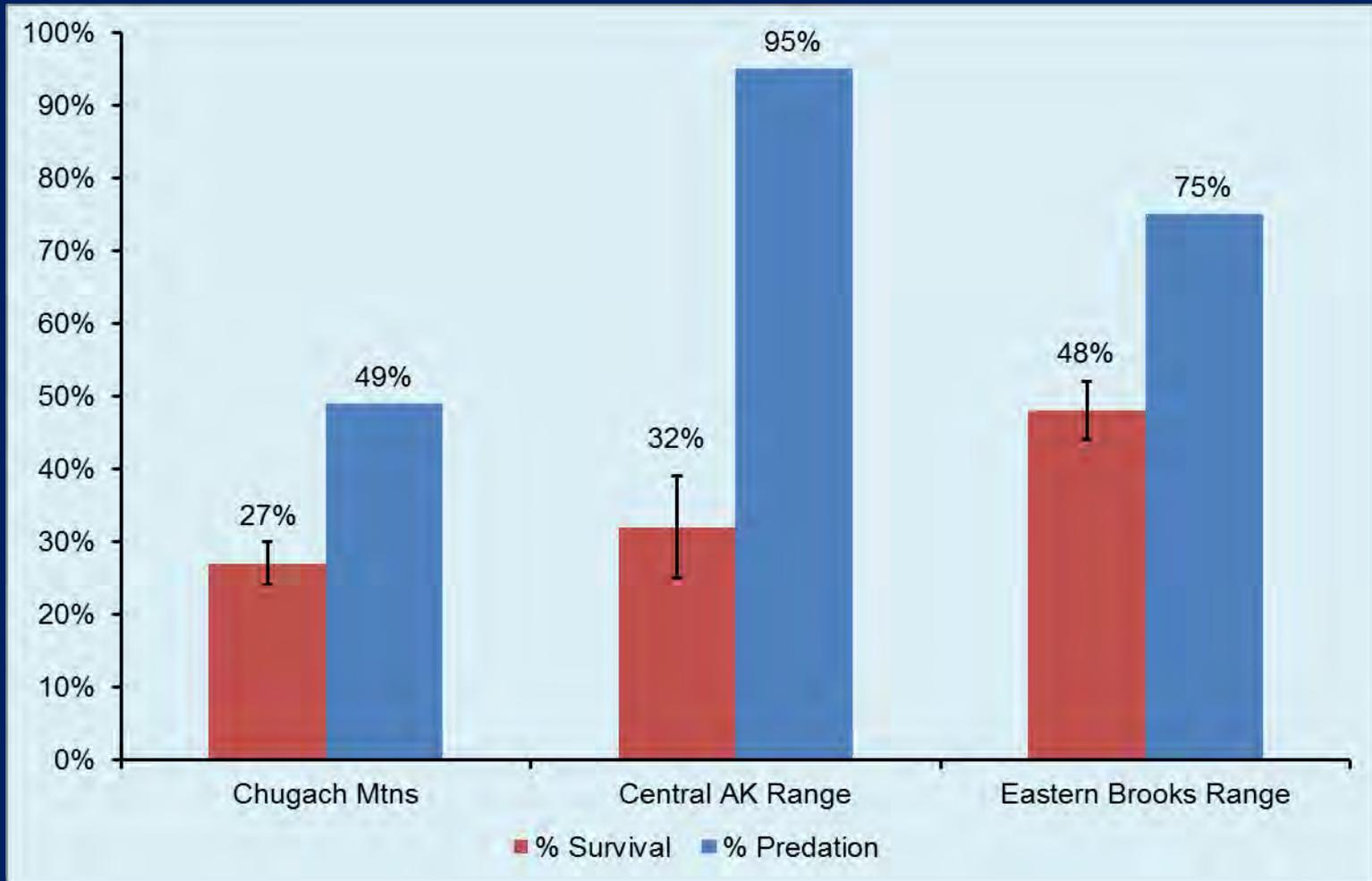
# Percent of Deaths of Adult Ewes by Cause



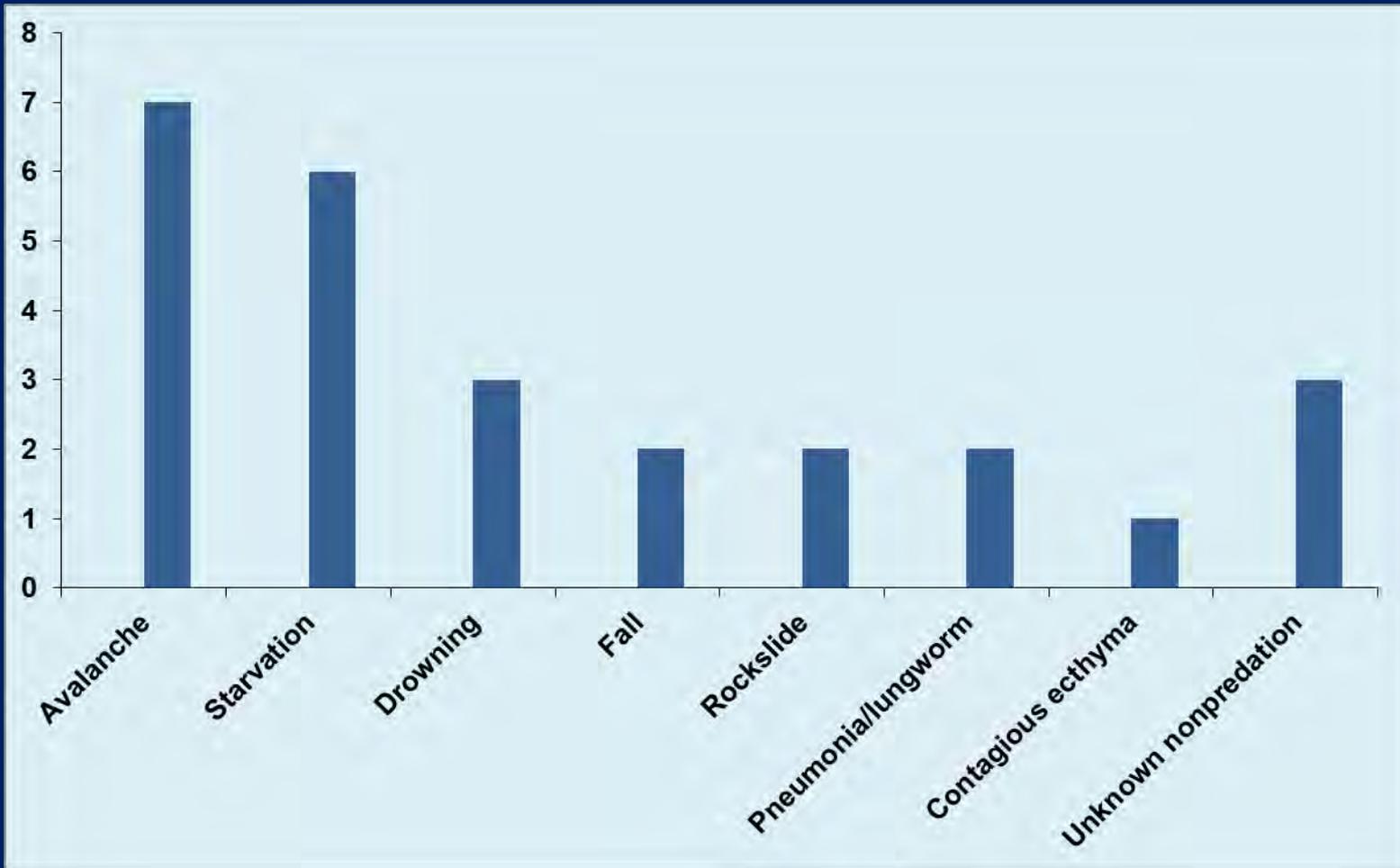
## Causes of Death of Ewes in the CHU Mts, 2009 - 2014



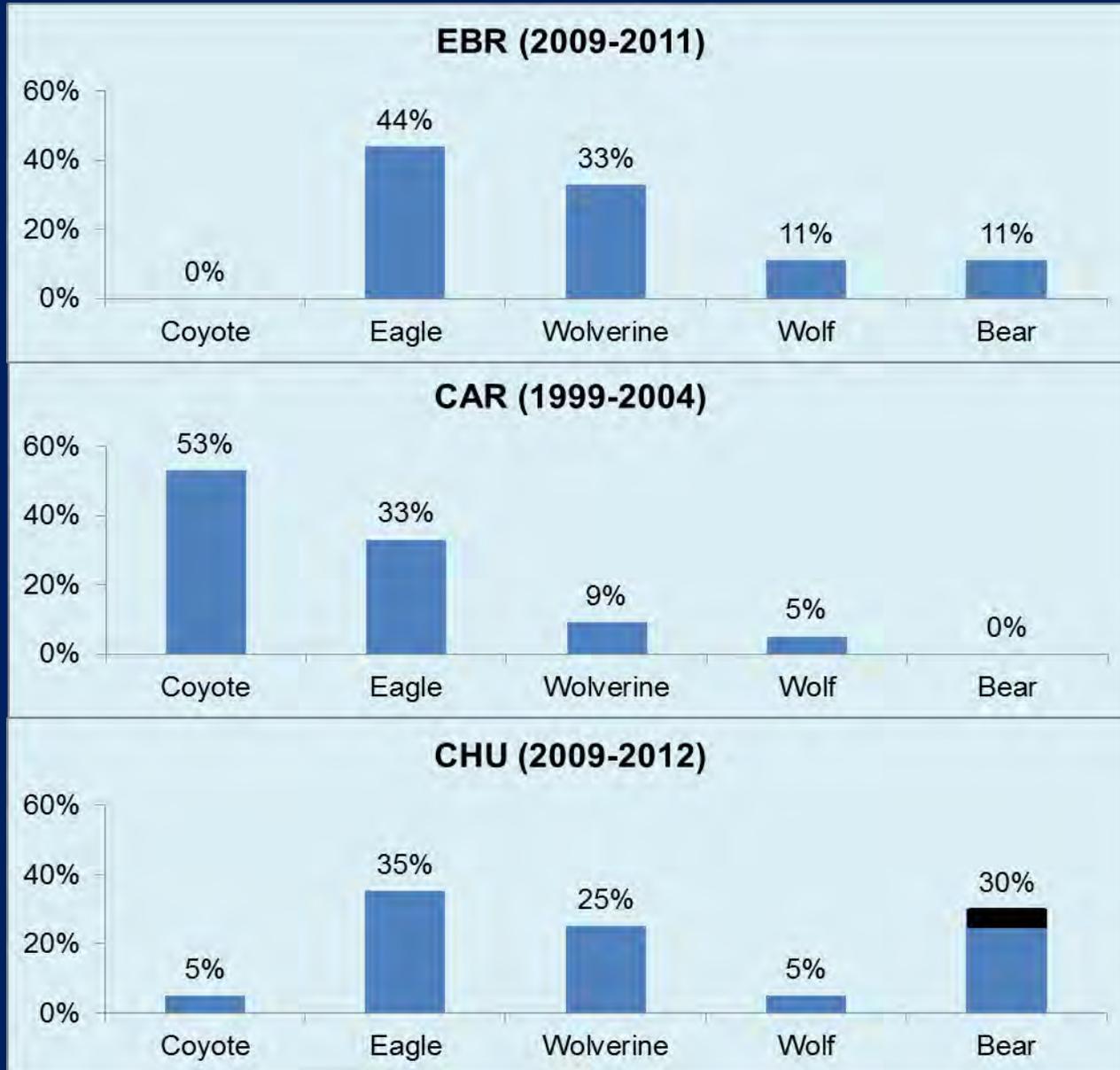
# Lamb Survival and Percent of Deaths Due to Predation



# Non-Predation Deaths of Lambs in the CHU Mts, 2009 - 2012

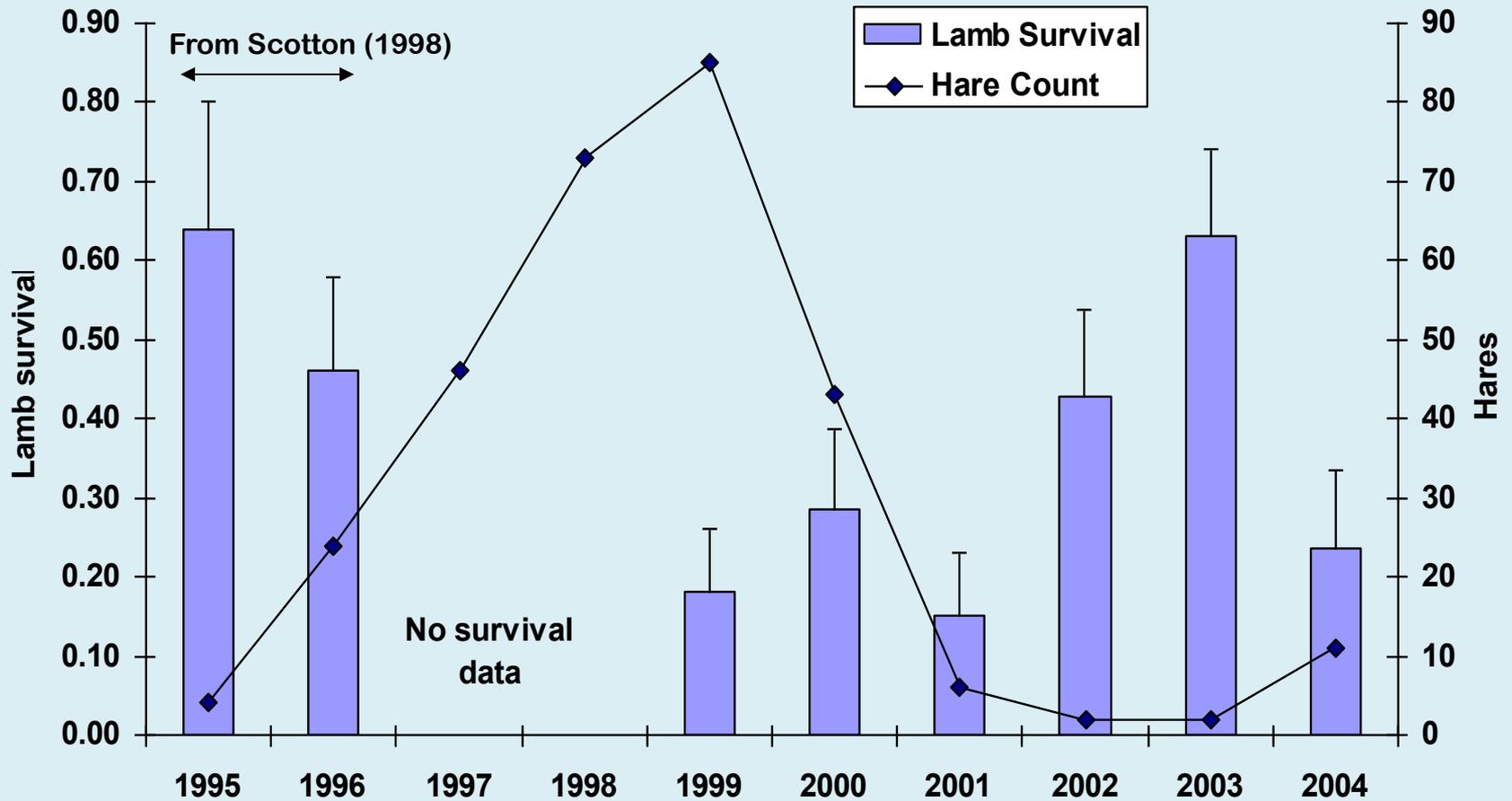


# Percent of Lamb Predation by Predator Species



# Snowshoe Hare Abundance\* and Lamb Survival in the CAR

\*Data courtesy of S. Dubois, ADF&G



# Random Events Can Be Important!



## EBR Lamb Survival:

2009	2010	2011
0.65	0.48	0.28

## Number of Drownings:

1	1	4
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# Differences Among Study Areas



## **CONCLUSIONS:**

- **Ewe survival was generally high**
- **Lamb survival was much lower, more variable**
- **Populations seem to be limited by lamb survival rather than adult survival**
- **Predation was major cause of mortality for both lambs and ewes in EBR and CAR, not in CHU**
- **Importance of various predators of lambs varied among areas**
- **Predator management should be informed by data specific to each area**

