

What we have Learned from Wolf Restoration to

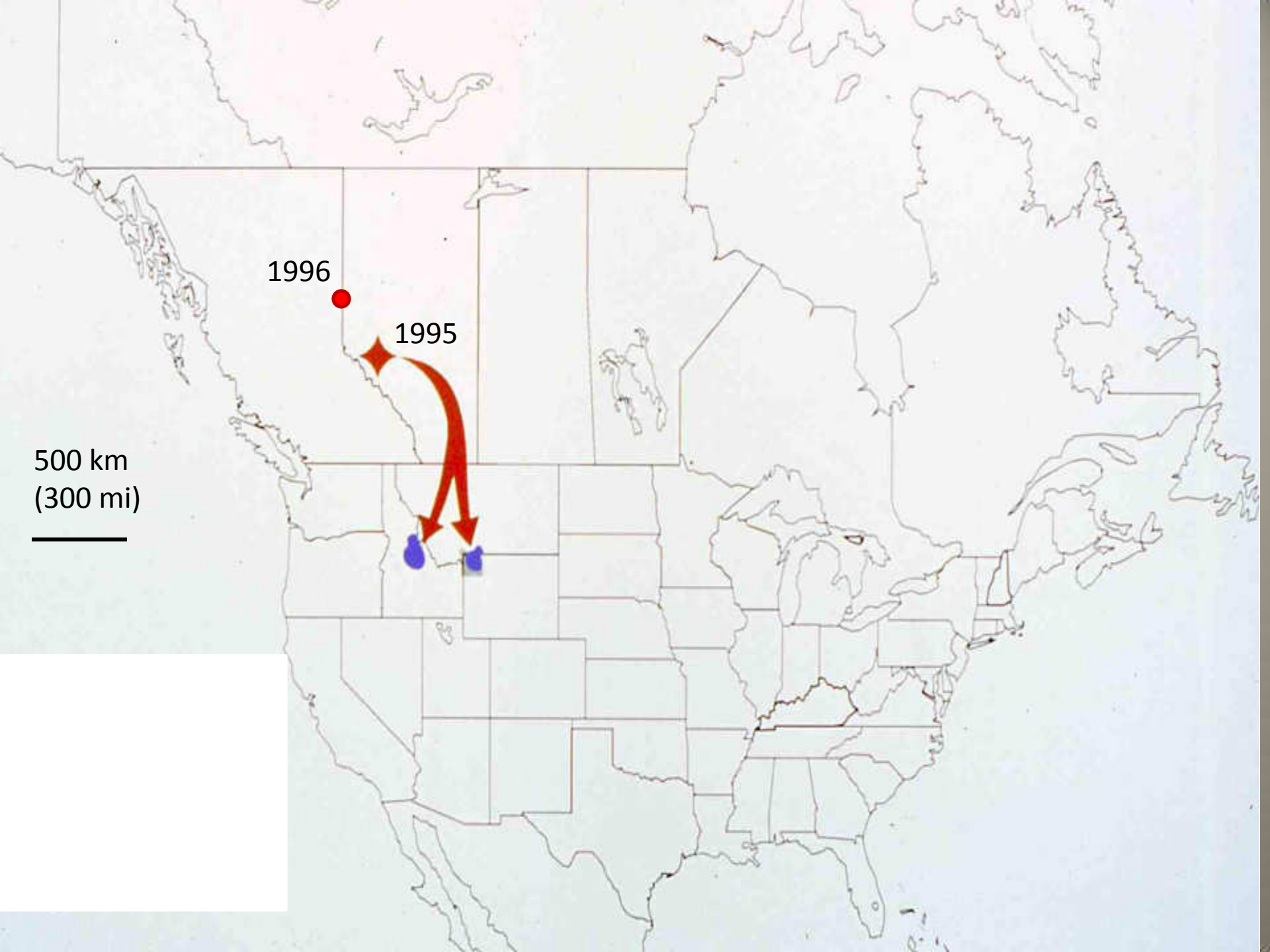


Background

- **Nat. Parks –minimal human interference**
- **Govt. killed off wolves in YNP by 1930**
- **Thus OK to restore wolves**
- **20+ yr of lobbying, EIS, lawsuits, etc.**
- **Endangered Species Act helped**
- **Stakeholders agreed to population of 300 wolves for delisting from the End. Sp. List and return to state management**







1996

1995

500 km
(300 mi)



Canada



















U-HAUL

The Way & Price Are Right

U-HAUL

NUMBER ONE FAMILY MOVER

The Fishes on Air

MISSISSIPPI

N179Z

Yellowstone National Park





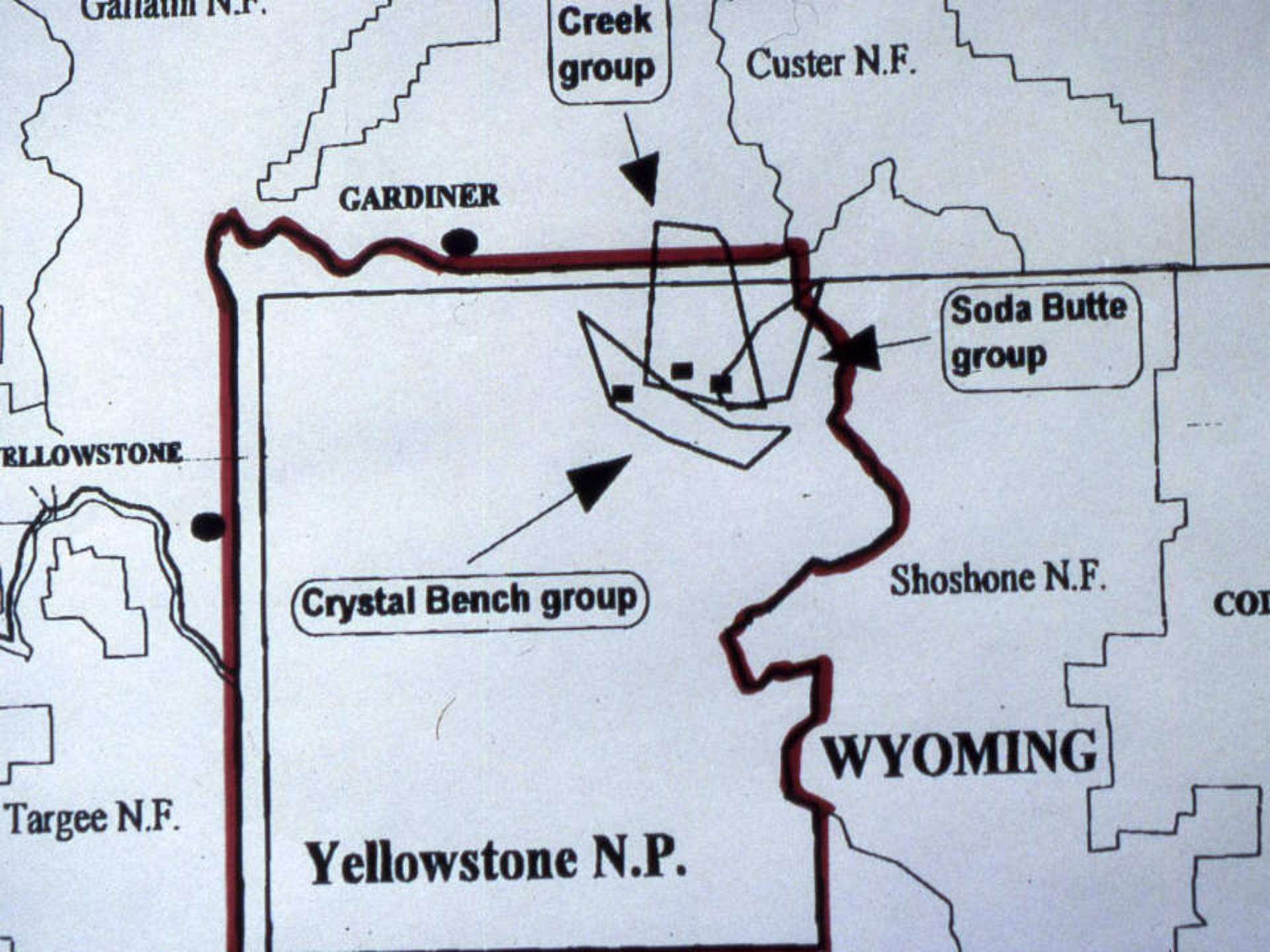




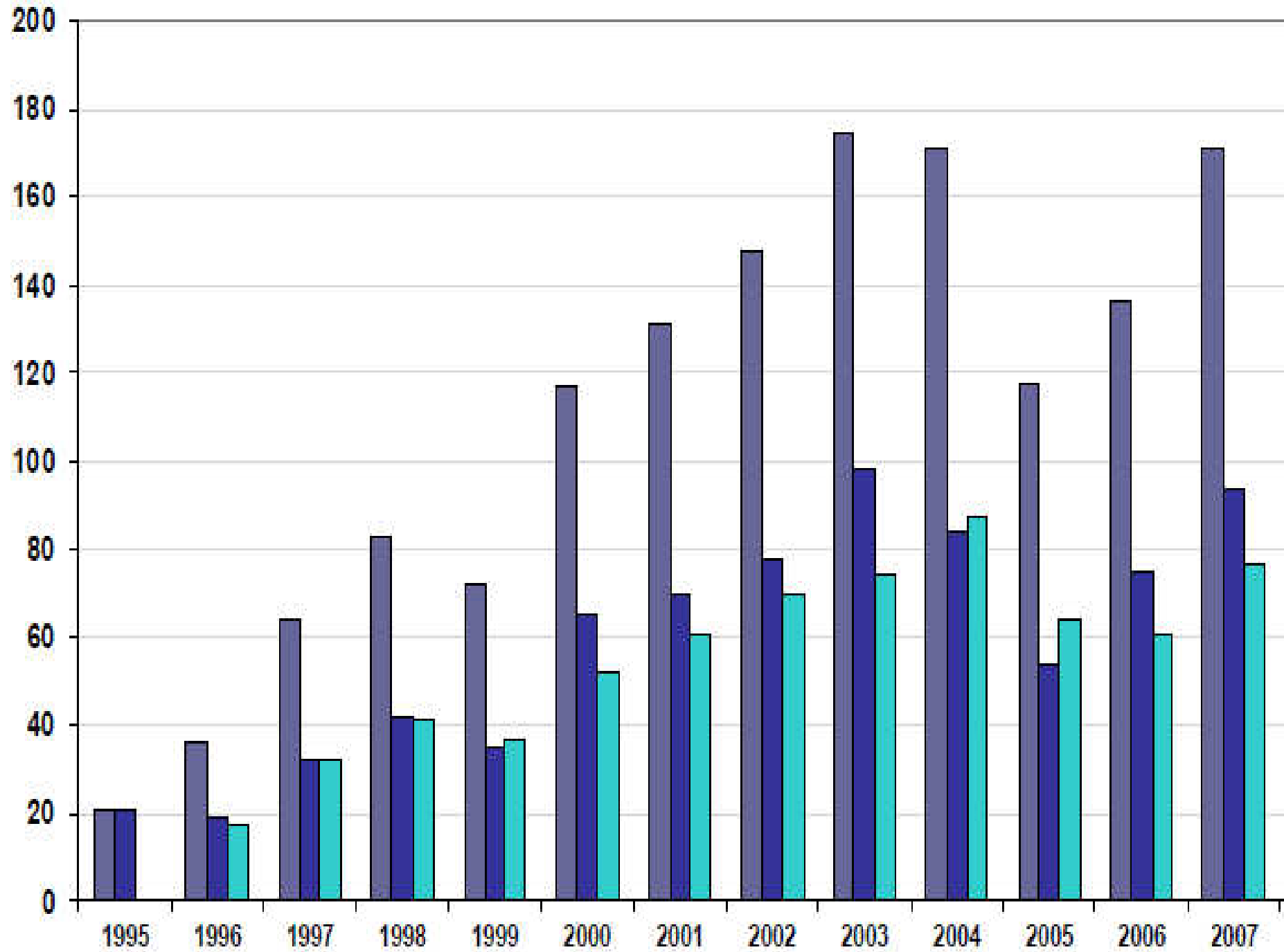


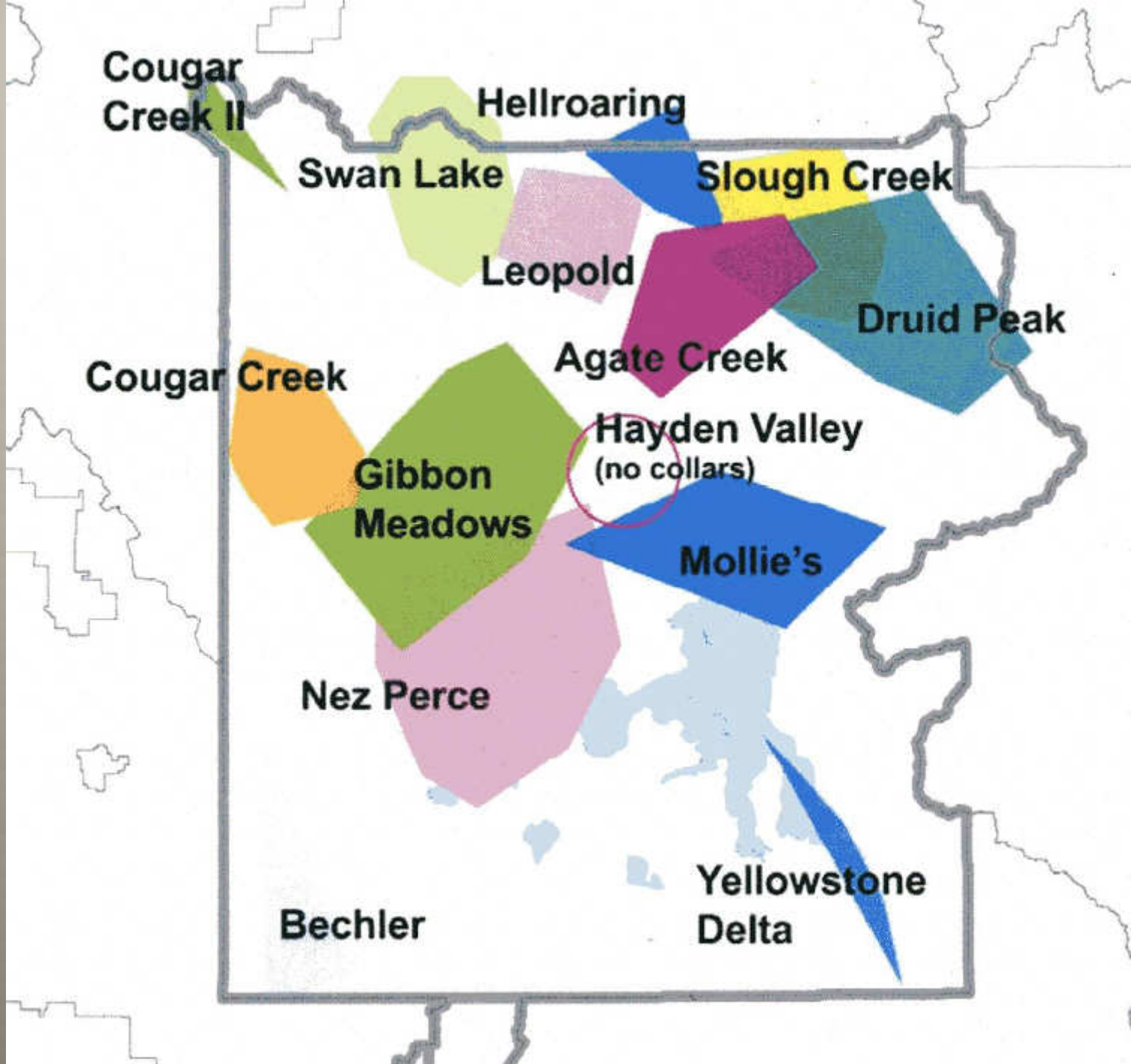


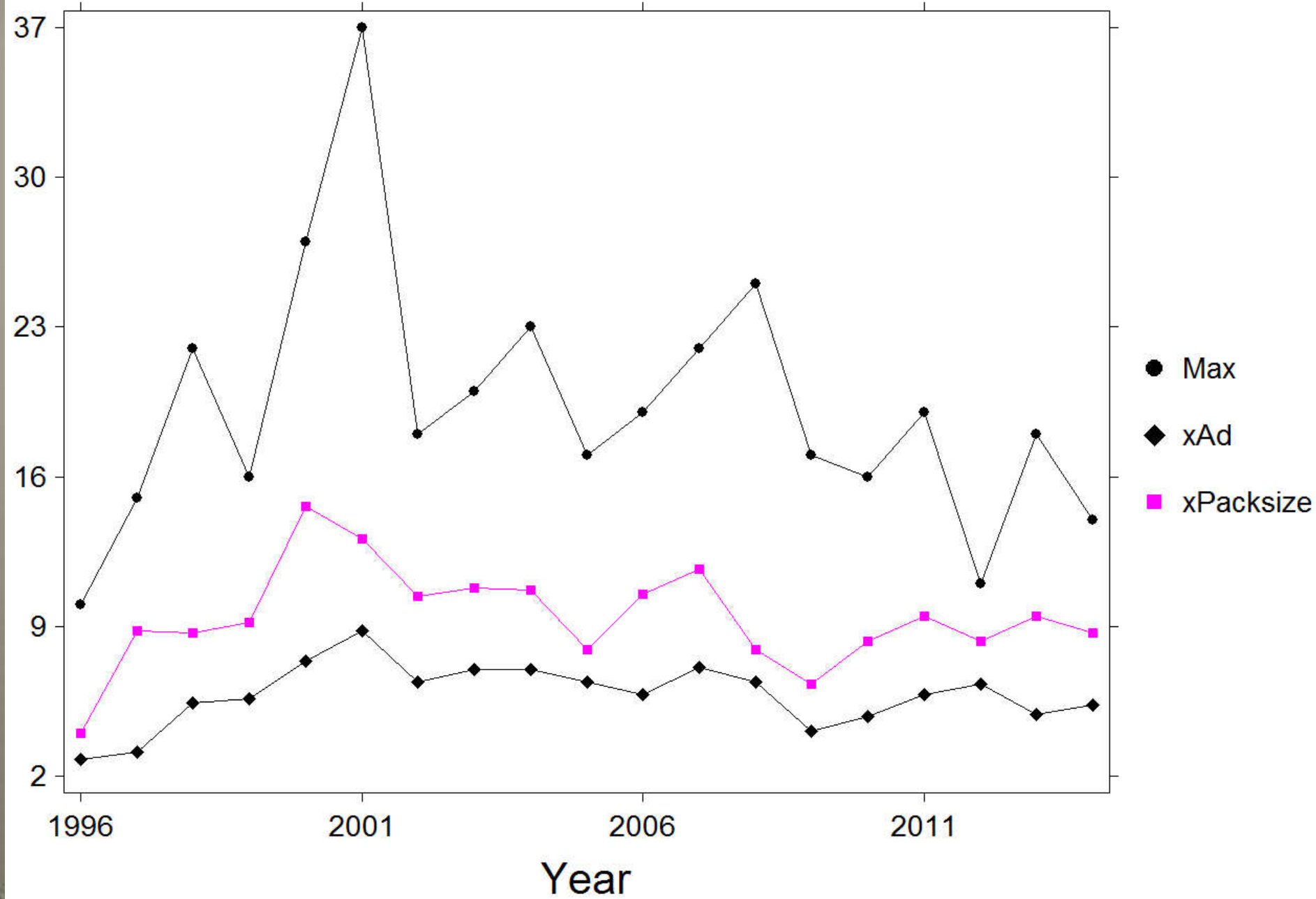


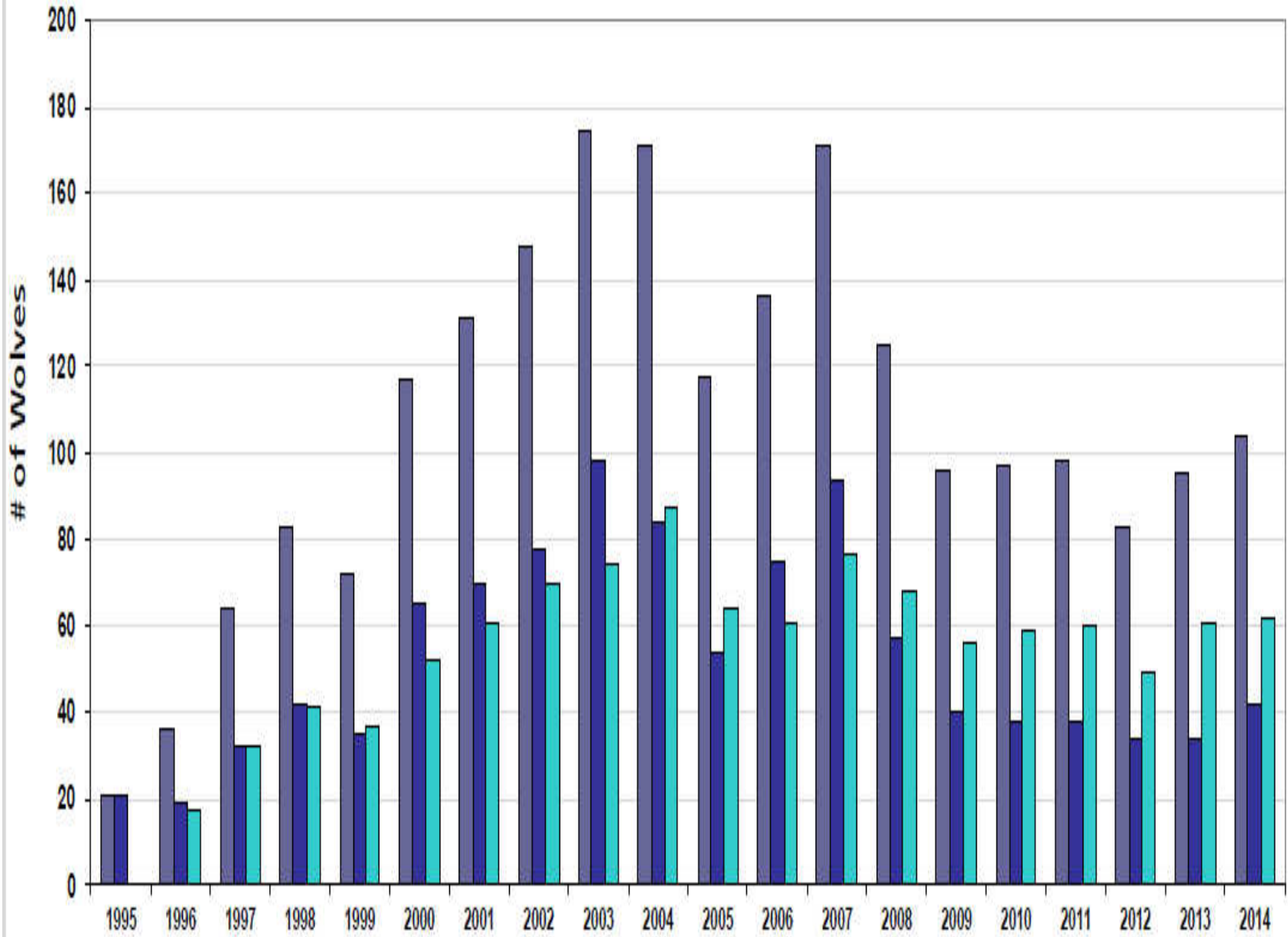




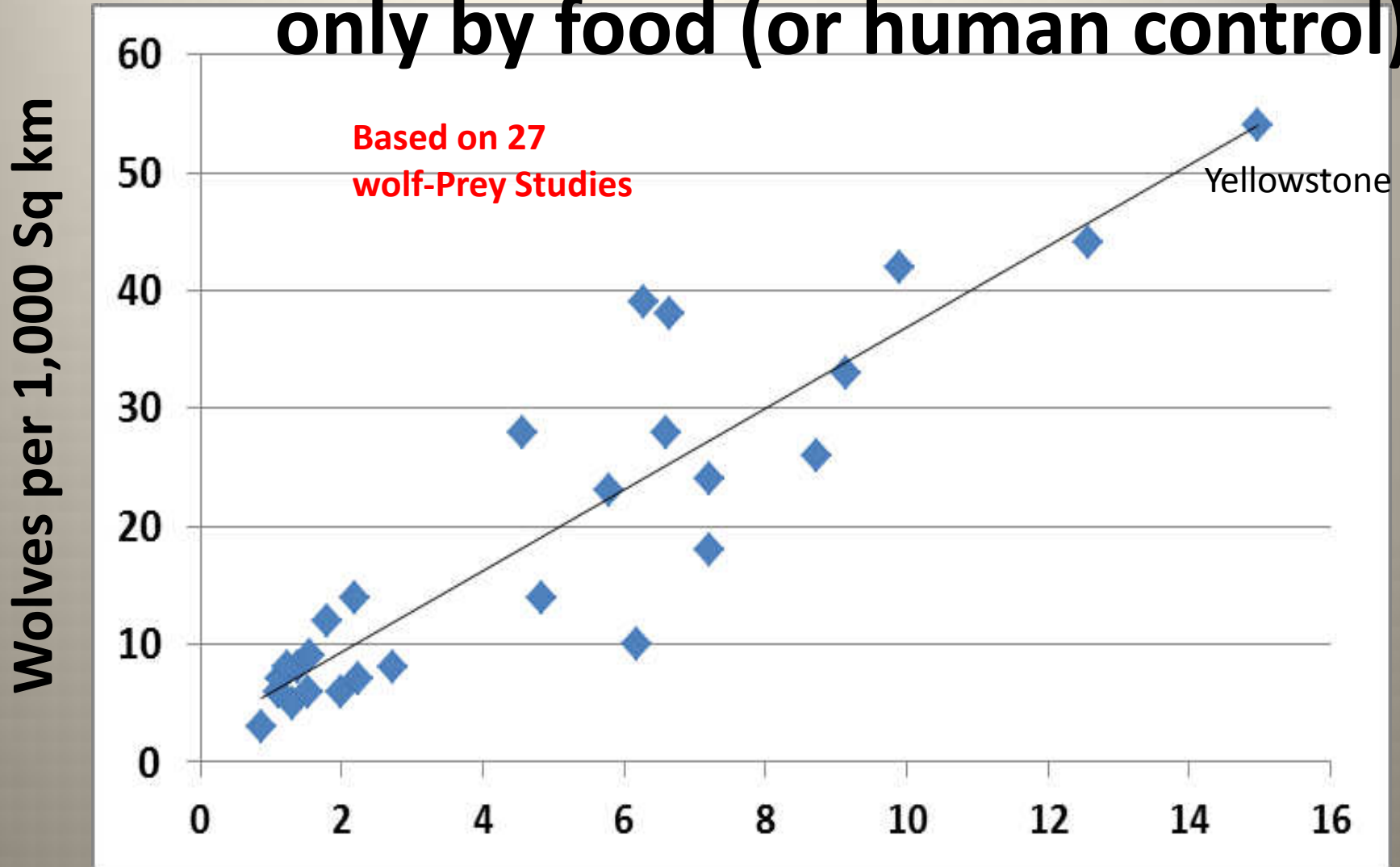








Wolf populations are limited only by food (or human control)



Prey Biomass (food supply)



**Criteria for removal from
the End. Sp. List = ≥ 100
wolves each in WY, MT, ID.**

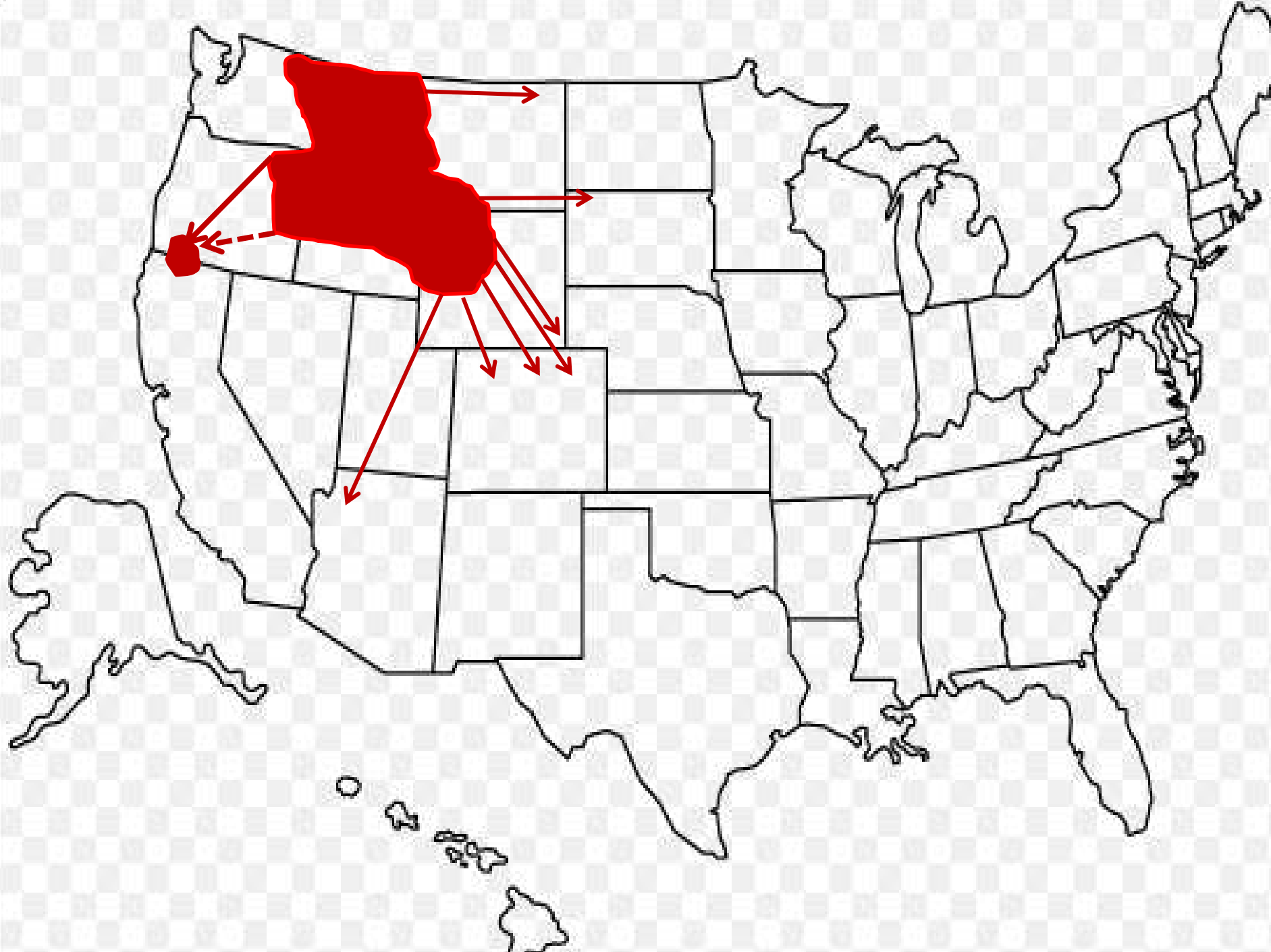
But, Animal Protection Groups sued and won on legal technicalities.



This kept wolves protected for many years, and population reached over 1,600



Livestock owners eventually became upset, and Congress took wolf off list in MT and ID



Wolf effect on elk population?



Mortality factors

Grizzly bears

Black bears

Cougars

Coyotes

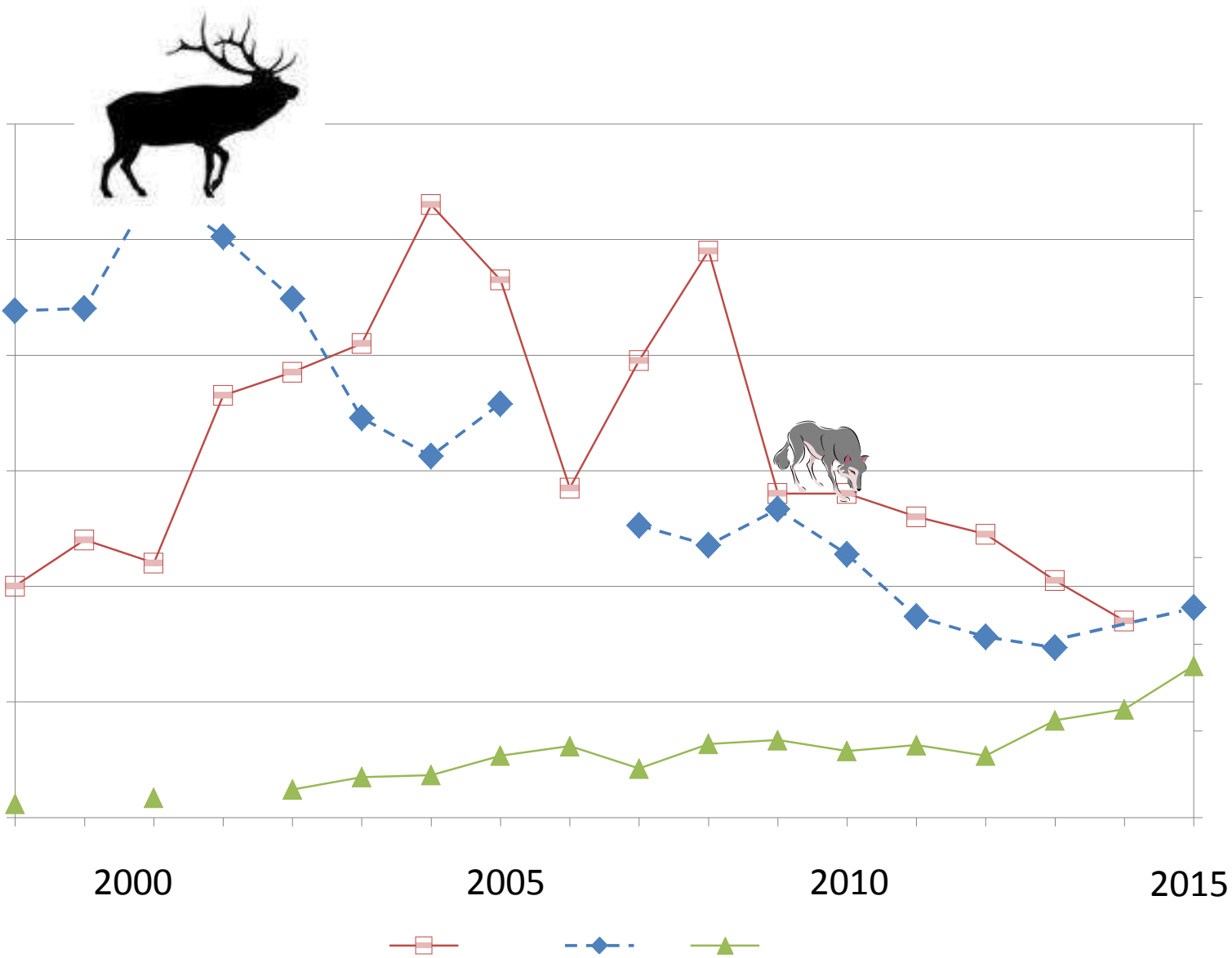
Wolverines

Human hunting

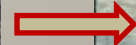
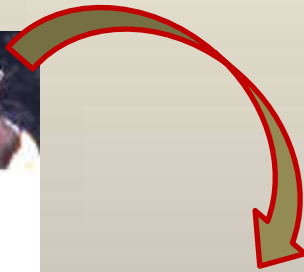
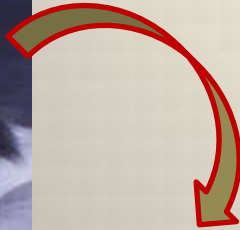
Drought

Severe Winters





Trophic Cascades



YNP Wolf Trophic Cascade Studies being Debated

- **16 Articles claiming cascades**
- **11 Articles challenging them**



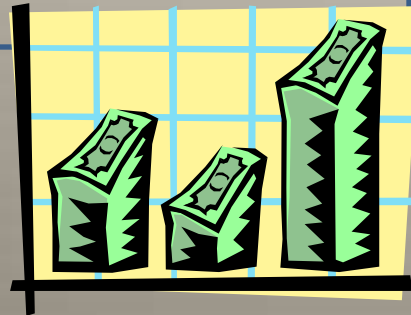
YNP Wolf Restoration Controversy

Positive Effects

Restores natural
park ecosystem

Park visitors enjoy
seeing wolves

Improves local economy
by > \$35 million/year



• Negative Effects

Wolves dispersing from
YNP kill livestock

YNP Wolves compete
with hunters, guides, and
their economy





Number of tiny squares = 28,000

1 tiny square = 10 cattle

Cattle killed annually by wolves per 290,000 = 1

MINNESOTA



- Wolves currently being hunted
- Idaho –255 (20% of pop.) –120 killed
- Montana -75 (15% of pop.)—72 killed



EFFECTS OF HUNTING ON YELLOWSTONE

Wolves

- Two collared wolves in a pack straddling the park boundary were killed by hunters.
- Montana changed hunting regulations the next year to minimize the problem.
- No population effect on park wolves.
- New proposal to minimize harvesting around Yellowstone.





CONSUMPTIVE USE

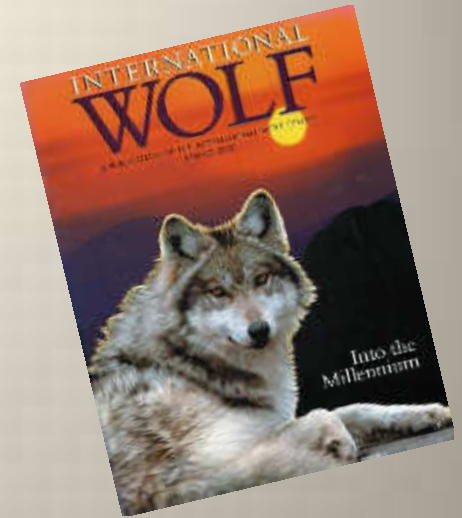
POLARIZATION

ANIMAL RIGHTS

“Wolves kill for fun”

Misinformation

“Wolves save rivers”



www.wolf.org

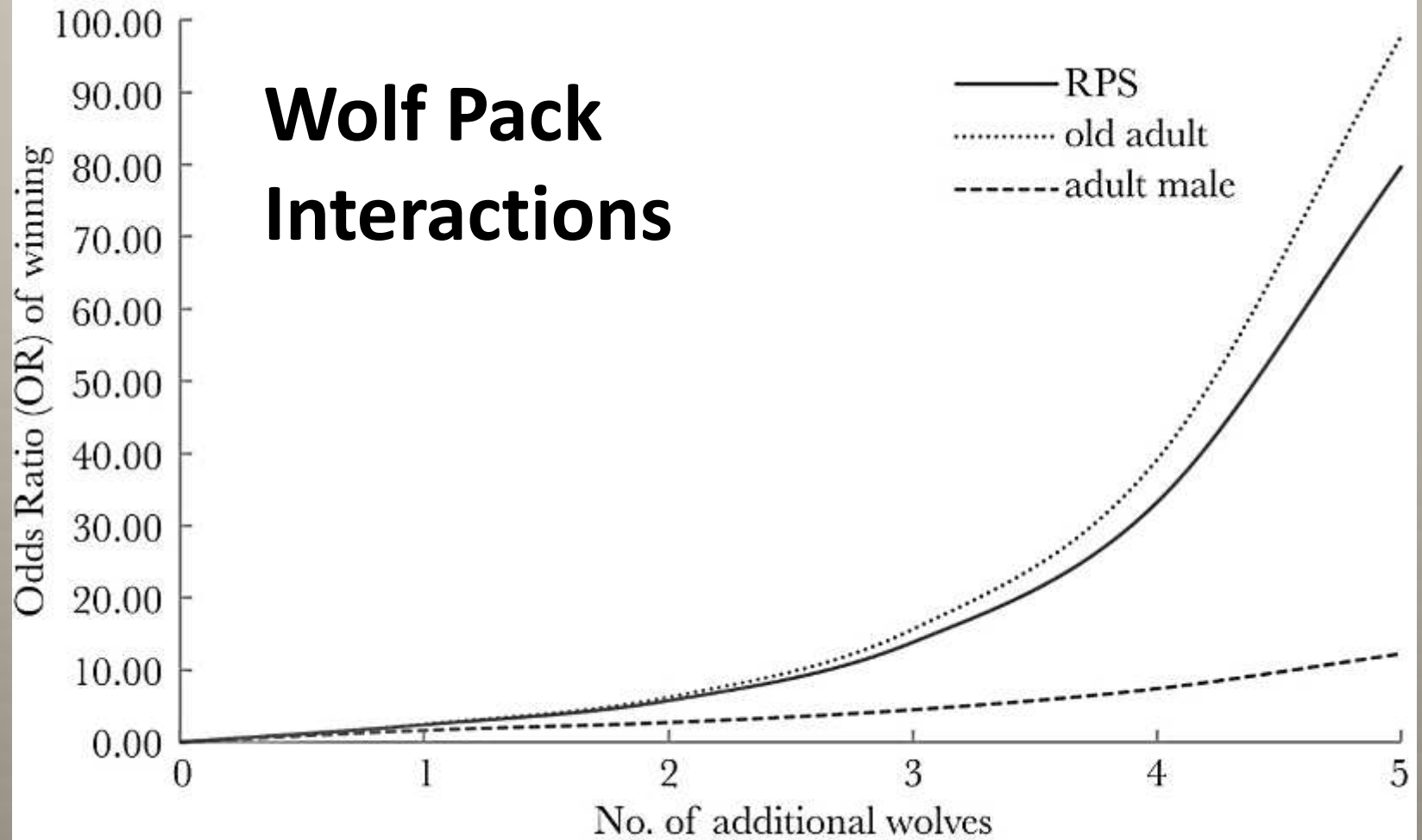


Lessons from the Yellowstone

Wolf Restoration

- **Biologically wolf restoration is easy.**
- **Wolves quickly establish and spread.**
- **They are limited only by food supply or human control.**
- **They reduce prey populations as they establish in an area.**
- **They prey on livestock when available.**
- **Some humans want to protect wolves as much as possible, while others want to kill them all.**
- **Wolf groups sometimes renege on management agreements.**
- **Whether wolves promote important trophic cascades is unsettled science.**

Wolf Pack Interactions



VS



Hunting success with larger prey, Elk --4 wolves most effective



NPS- Doug Smith

Bison—9-13 wolves



NPS

Scientifically and Personally . . .

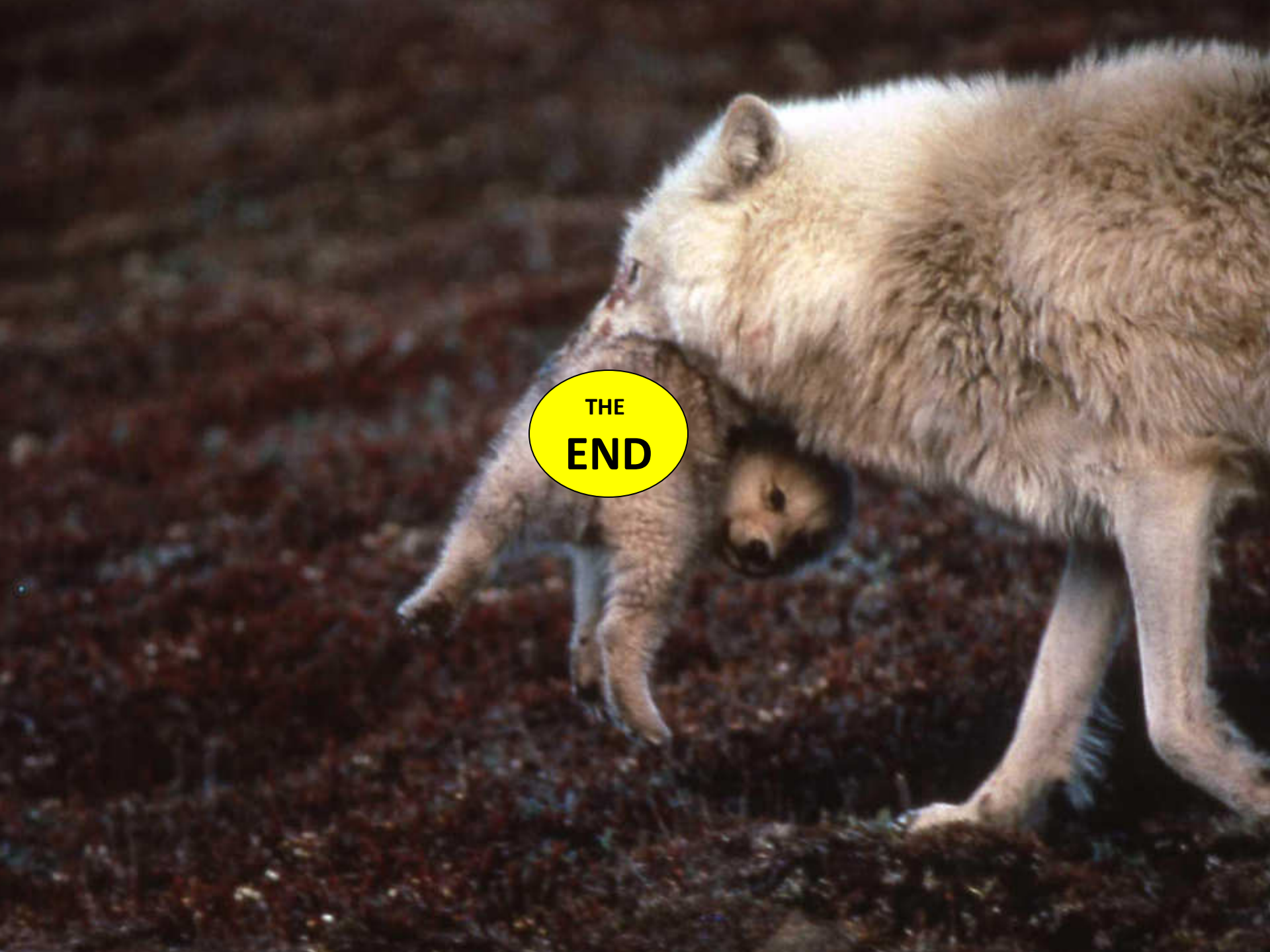
- Data in the form of the following Bob Landis video from Yellowstone changed the way we view wolf selection of vulnerable prey from MECHANISTICALLY to





TCR 00:13:47.02





THE
END