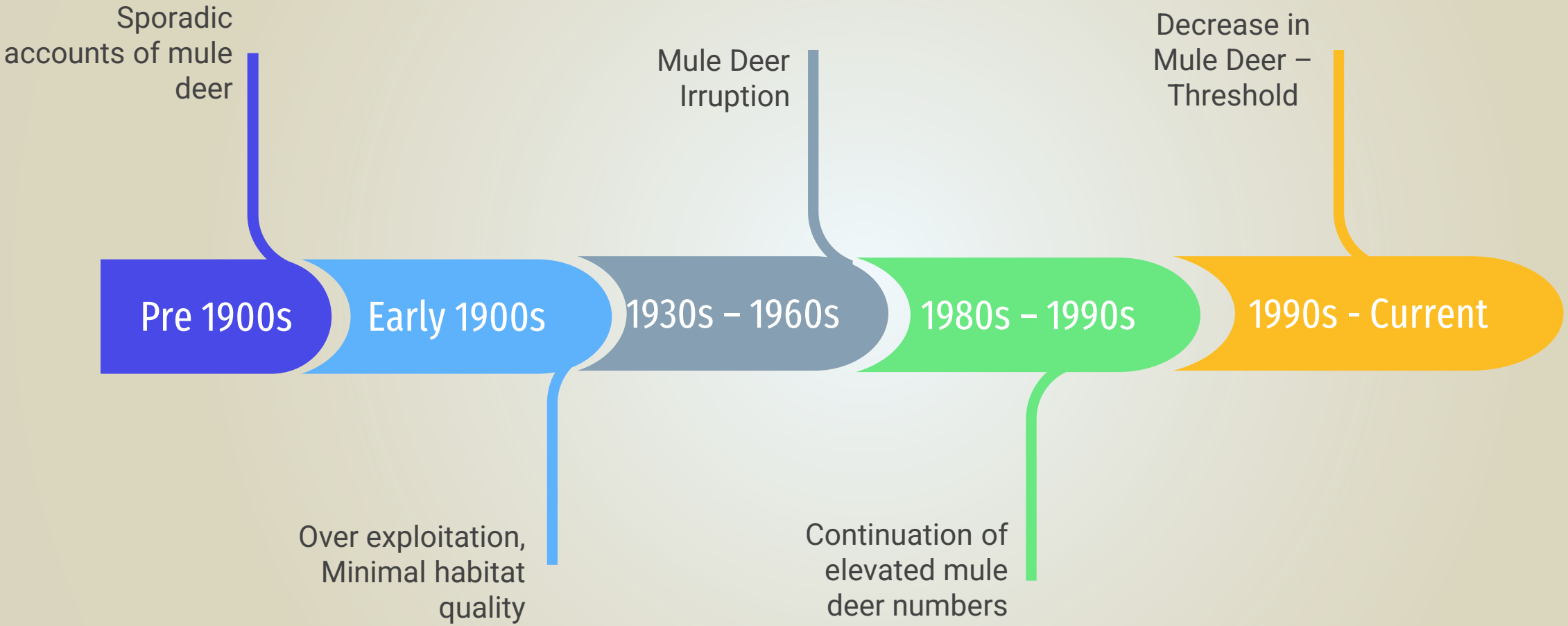
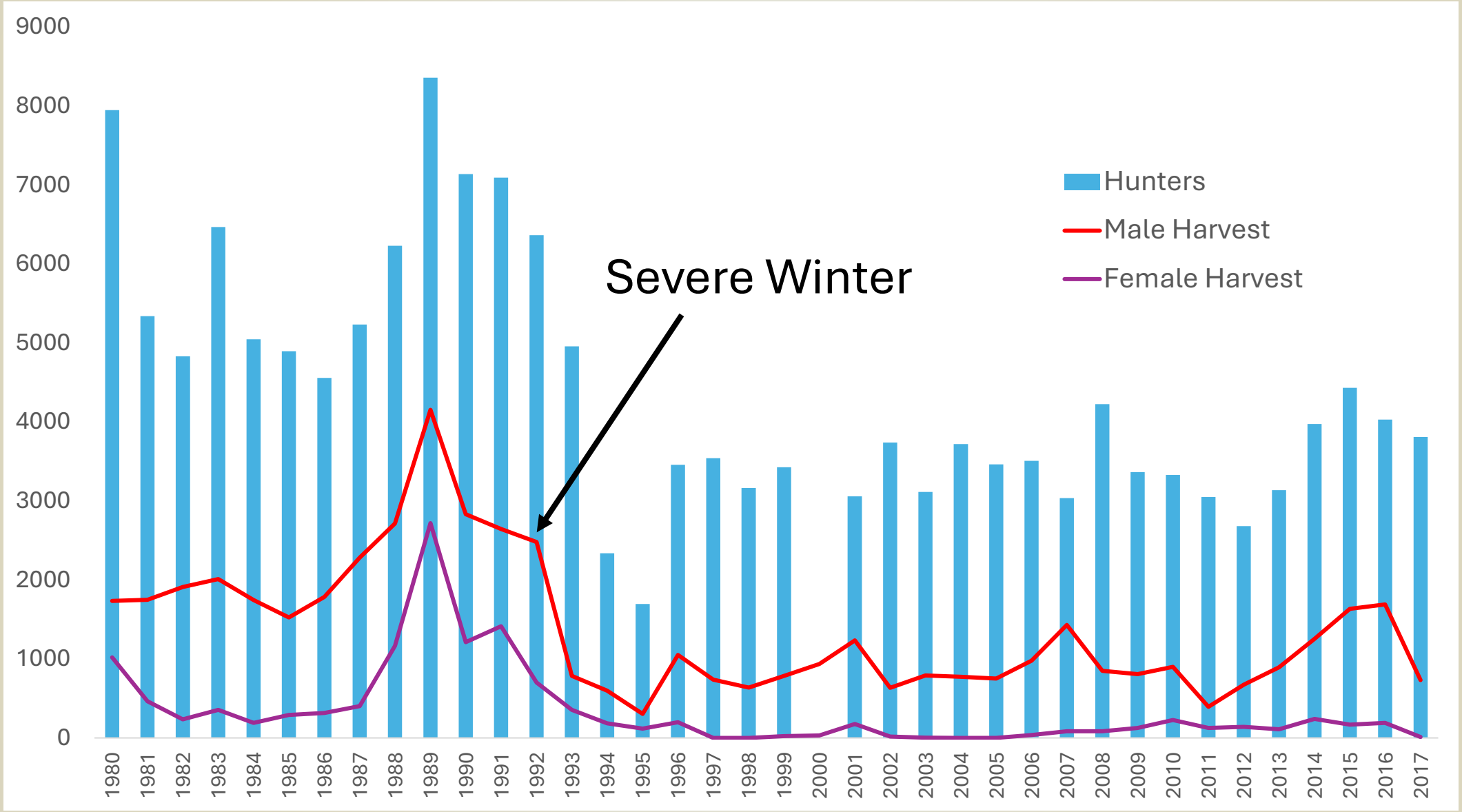
MULE DEER & SOUTHEAST IDAHO

HISTORY OF MULE DEER

- Fluctuate through time
  - Pre-colonization sporadic and inconsistent records
  - Native Americans did hunt mule deer
- Decline leading up to 1900s during homesteading era
- Dramatic increase in mule deer in 1930s-1960s
  - Profound and widespread
  - Evidence for ecological shift
  - Combination of many factors
- Settlement brought disturbance by grazing, suppression of fires (after a period of intense and frequent fires), irrigated crops
- Grasses converted to shrubs, forbs and woody plants
  - Predator control may have complimented this ecological shift

TIMELINE OF MULE DEER

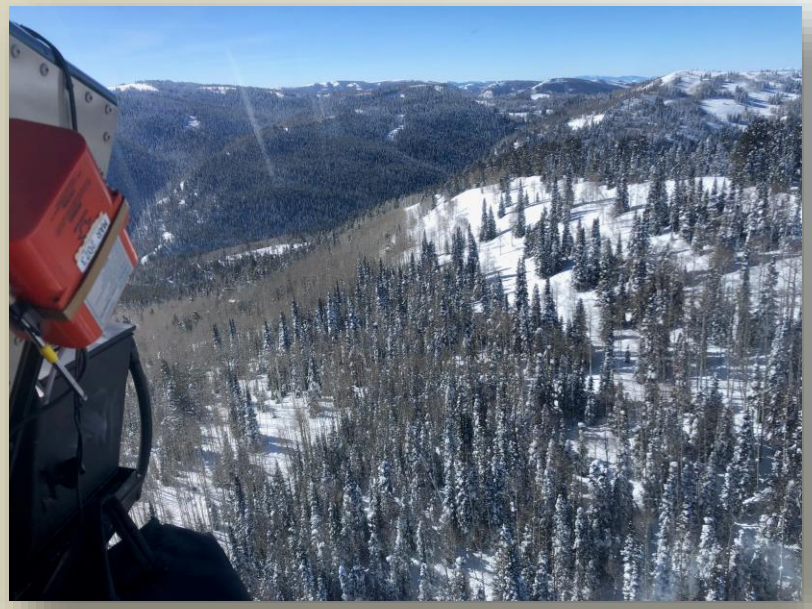



9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Severe Winter
Hunters
Male Harvest
Female Harvest
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017

WHERE ARE WE NOW?

Habitat

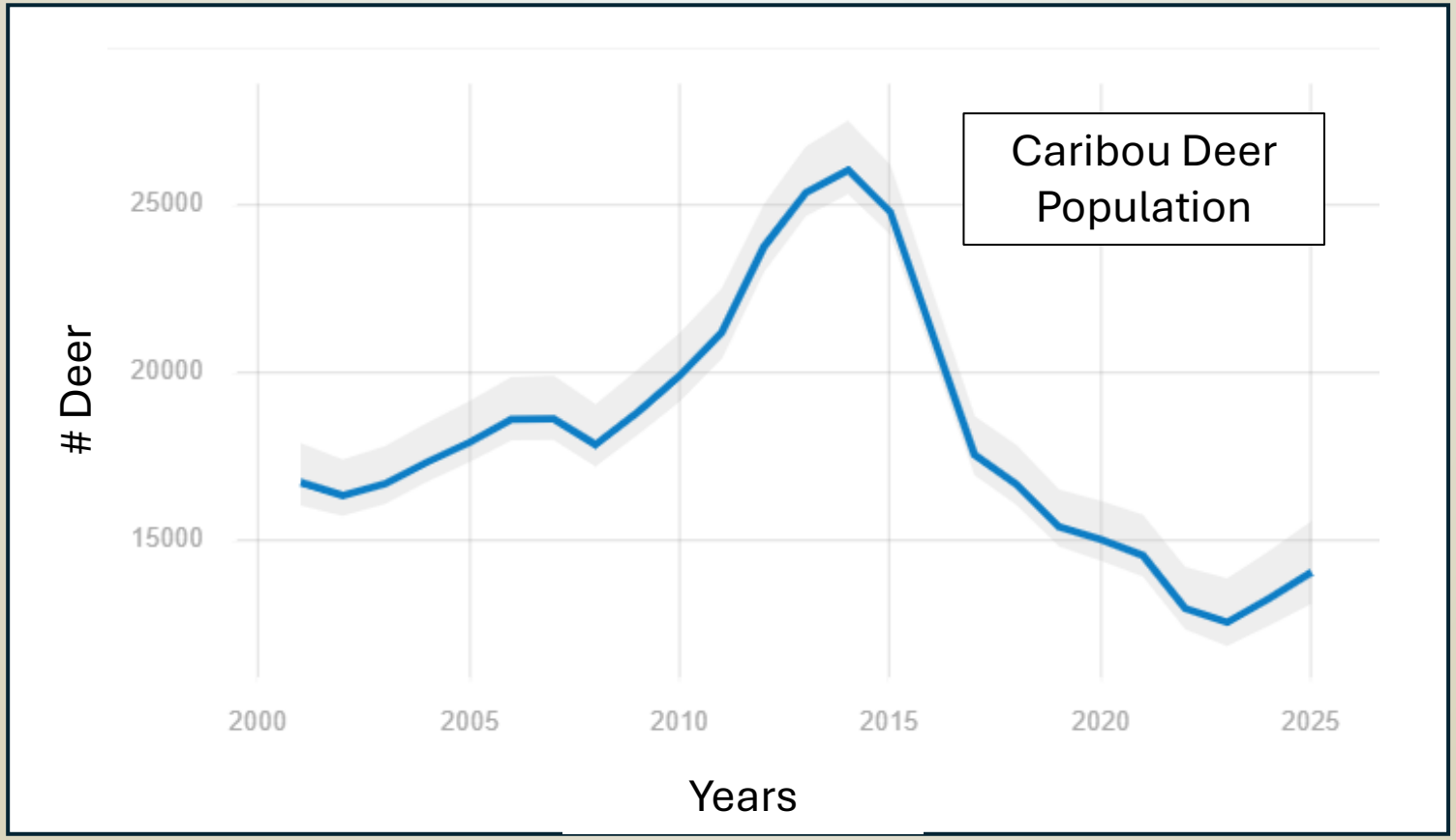
- Wide variation in habitat potential in West
- Most have older stage habitat types – limited production
- Existing shrub stands are old and vigor is low
- Conifer encroachment into aspen stands



WHERE ARE WE NOW?

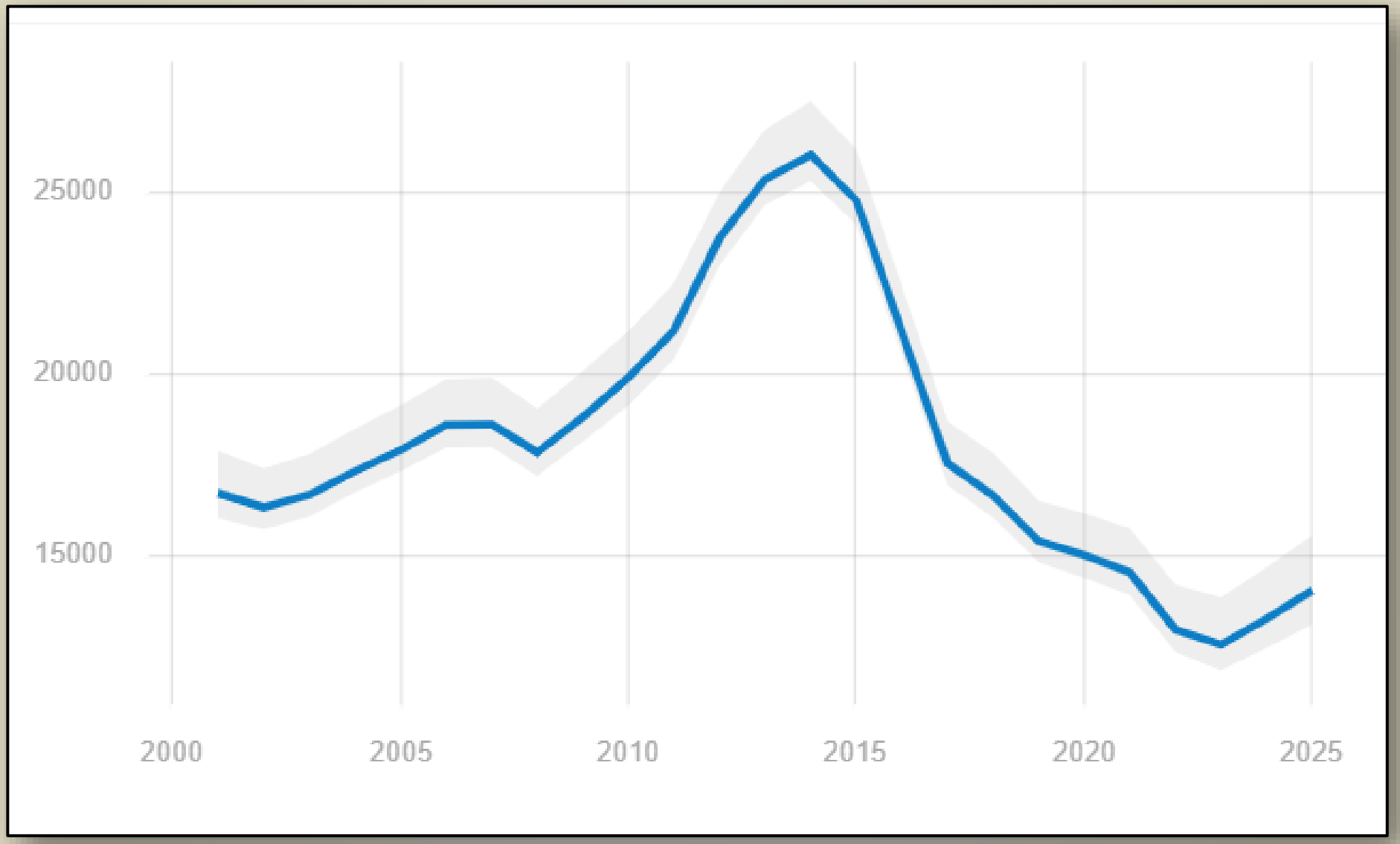
Population

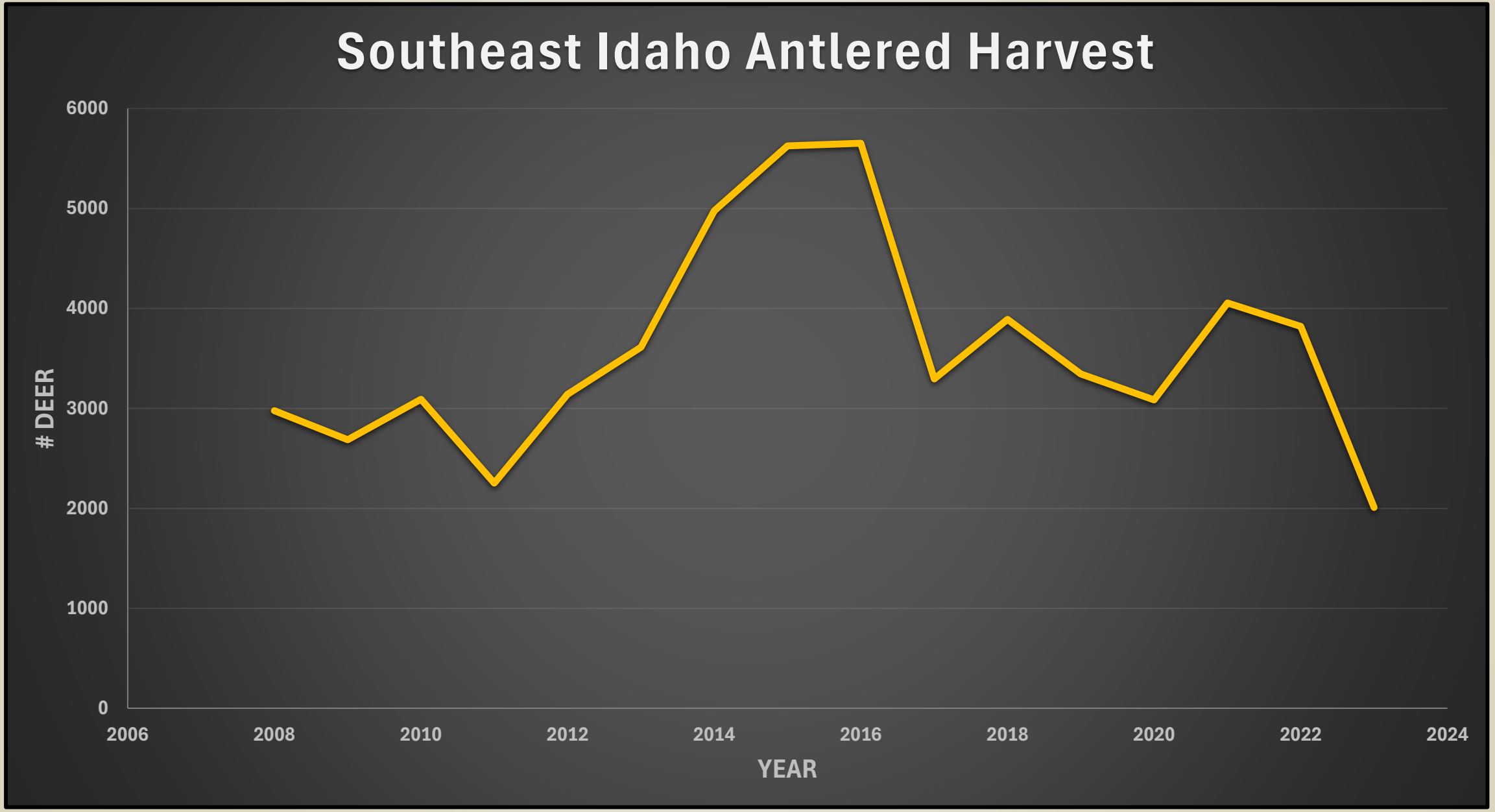
- Suppressed deer herd in SE Idaho (majority of West)



MULE DEER IN SE IDAHO

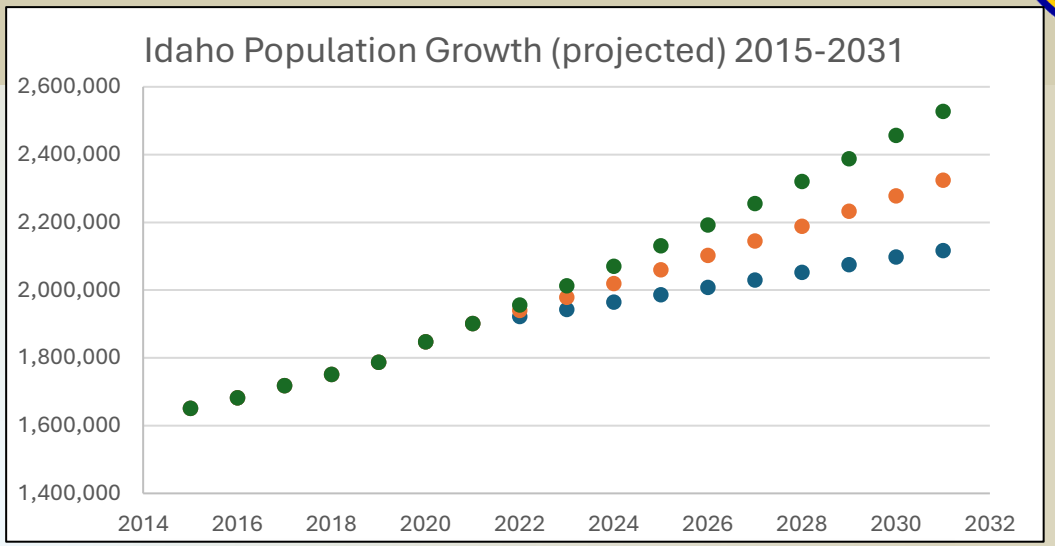
- Many factors contribute to mule deer populations
- SE Idaho - Winter driven system


25000
20000
15000
2000
2005
2010
2015
2020
2025


Southeast Idaho Antlered Harvest
6000
5000
4000
3000
2000
1000
0
DEER
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
YEAR

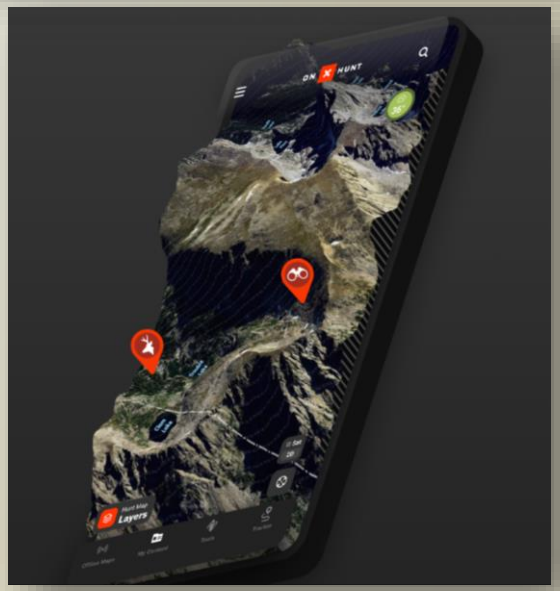
CURRENT CHALLENGES FACING MULE DEER

- Modern habitat capacity issues
- Urban expansion
- Winter range degradation and elimination
- Road-kill
- Winter severity/drought
- Ungulate competition?



TECHNOLOGY

- Trail cameras
- Long range rifles and ballistic calculators
- Closed ignition systems
- Compound bows
- Optics
- Information (OnX, mapping software, social media, forums)
- Communication devices
- Night vision technology
- Rangefinders
- Lightweight gear
- ATVs



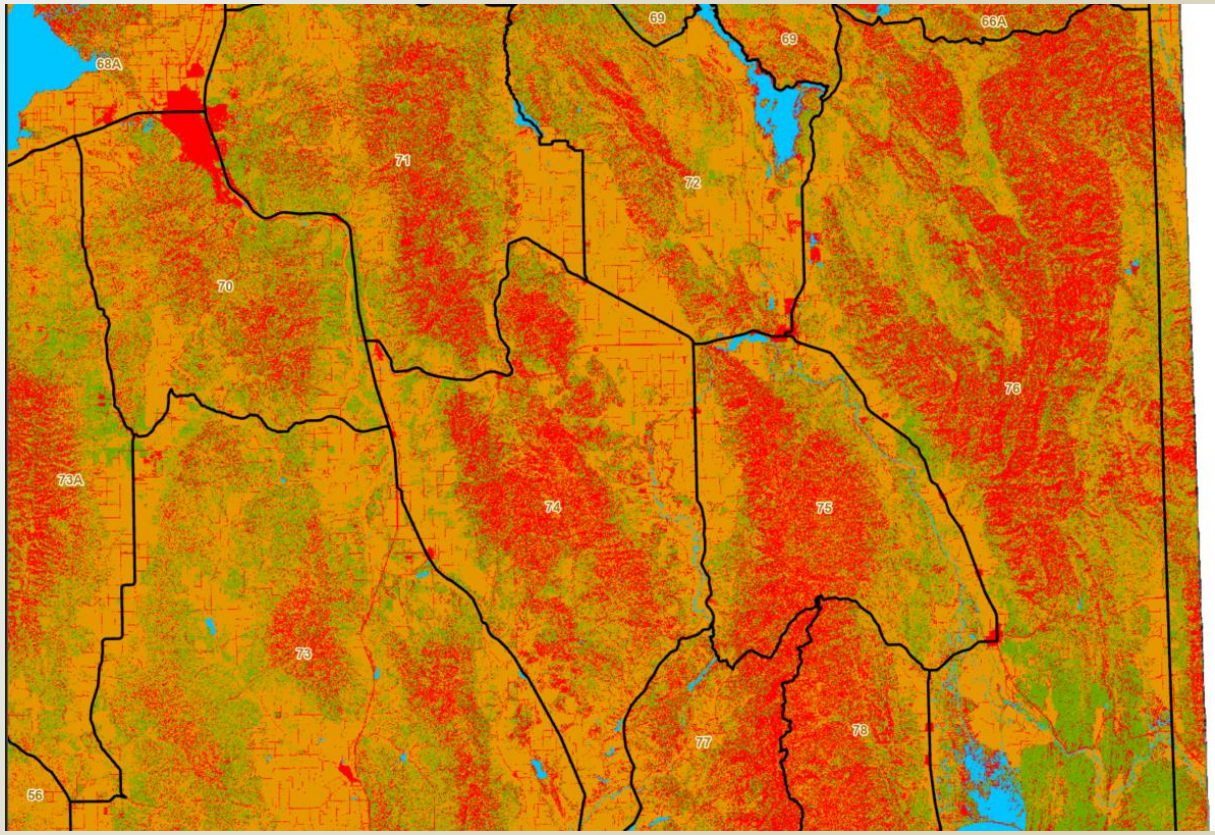
NUTRITION AND REPRODUCTION

- Nutrition – building block for populations
  - Adaptations to meet energy requirements
  - Selective diets that vary seasonally

Poor (late-stage conifer)

Moderate (Agriculture and grassland)

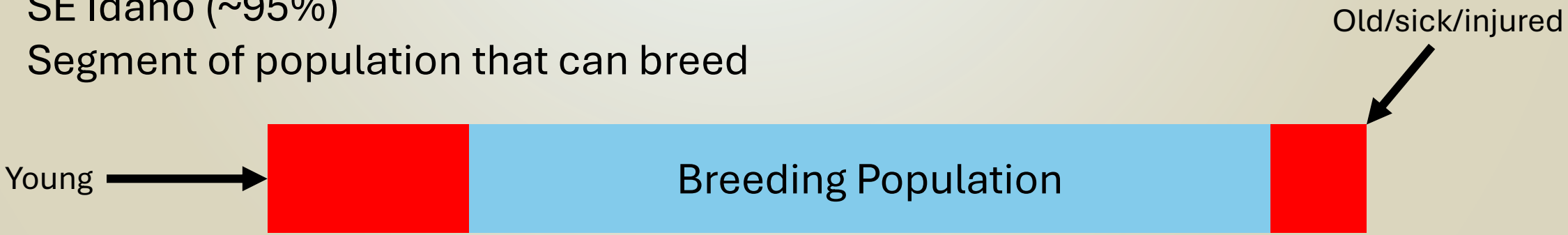
Good (Aspen/shrub/sagebrush)



NUTRITION AND REPRODUCTION

- Limited reproduction
  - 1.8 fawns/female
  - Slow and low compared to white-tailed deer
  - How fast can mule deer rebound from winter or other scenarios?

- Does and breeding
  - High pregnancy rates for mule deer in SE Idaho (~95%)
  - Segment of population that can breed

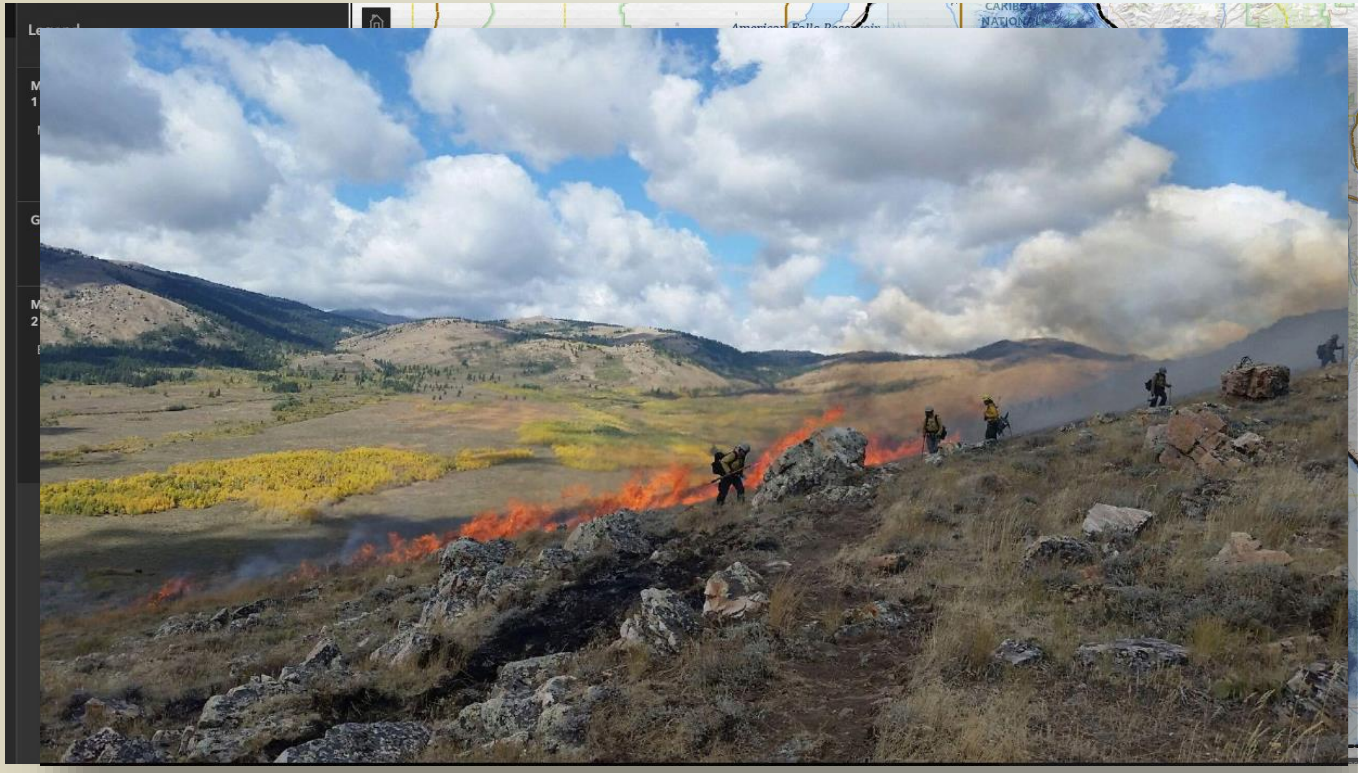


WHAT DO WE NEED ON THE LANDSCAPE?

- Habitat to ensure successful survival
  - Intact, productive spaces
  - Fawning areas/summer range
  - Winter range
- Unobstructed paths for migrations
- Enough bucks to breed does
  - ~10 bucks to 100 does
- Sufficient fawn to doe ratios
  - 60-70 fawns per 100 does = stable

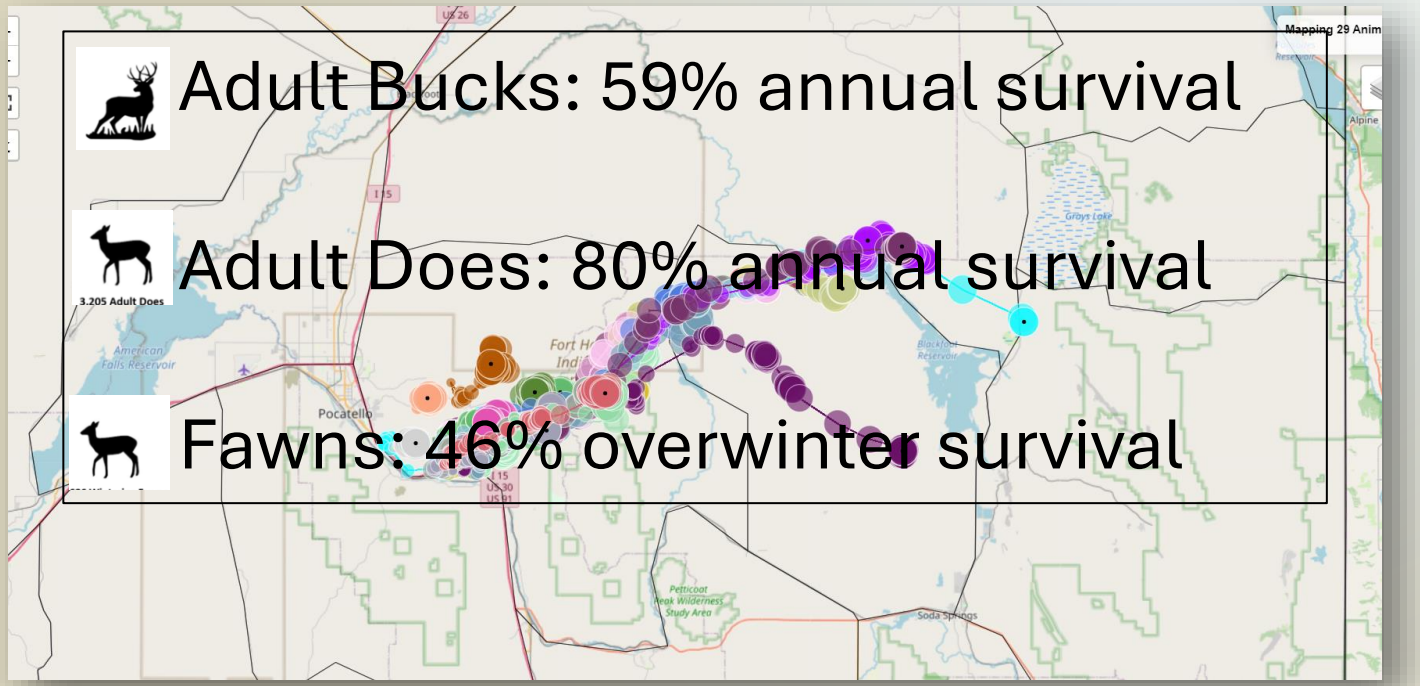
WHAT CAN WE DO?

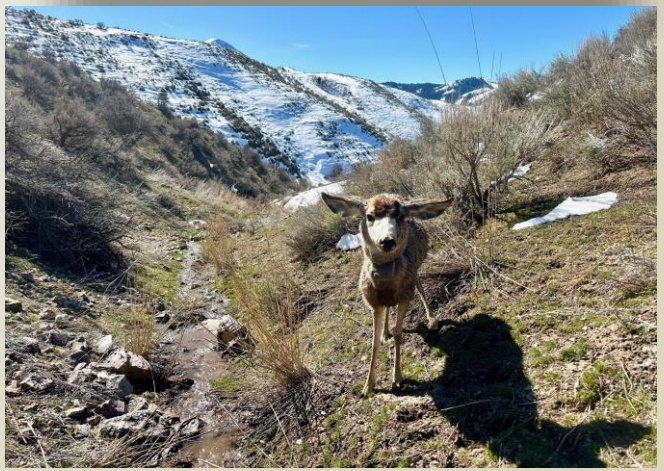
- Habitat team
  - Improving habitat quality - WMAs
  - Help “protect” additional lands
- Migration team
  - Mapping migrations of ungulates
  - Help winter/fawning ranges
- Forest Service and BLM

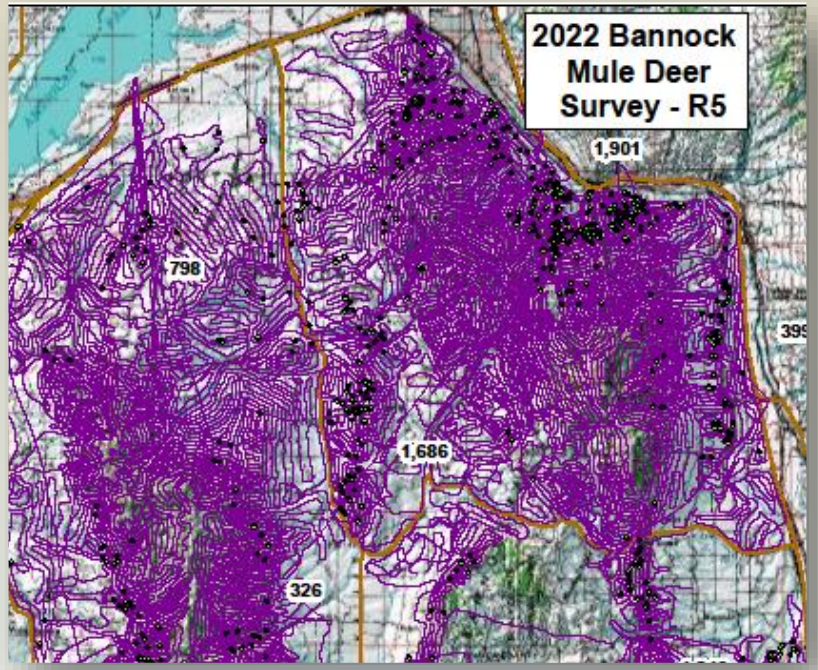


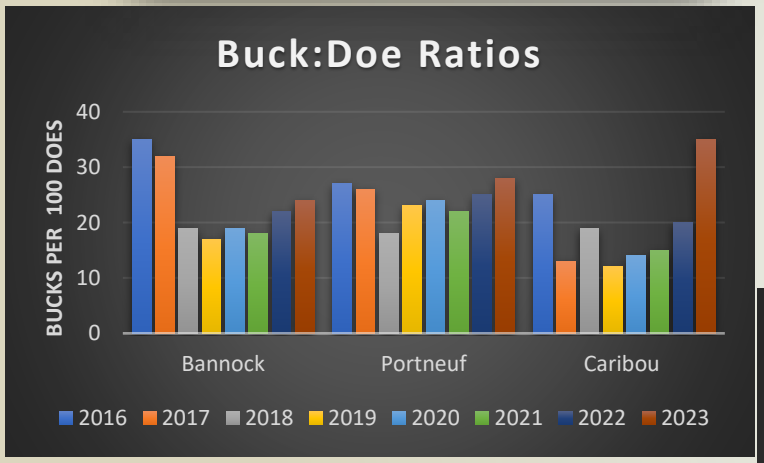
DATA WE COLLECT

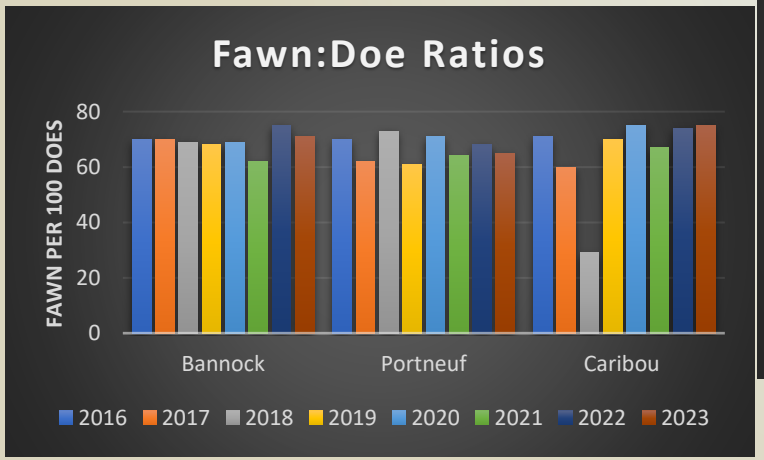
- GPS Collars
  - Ungulate migrations – link populations
  - Survival information

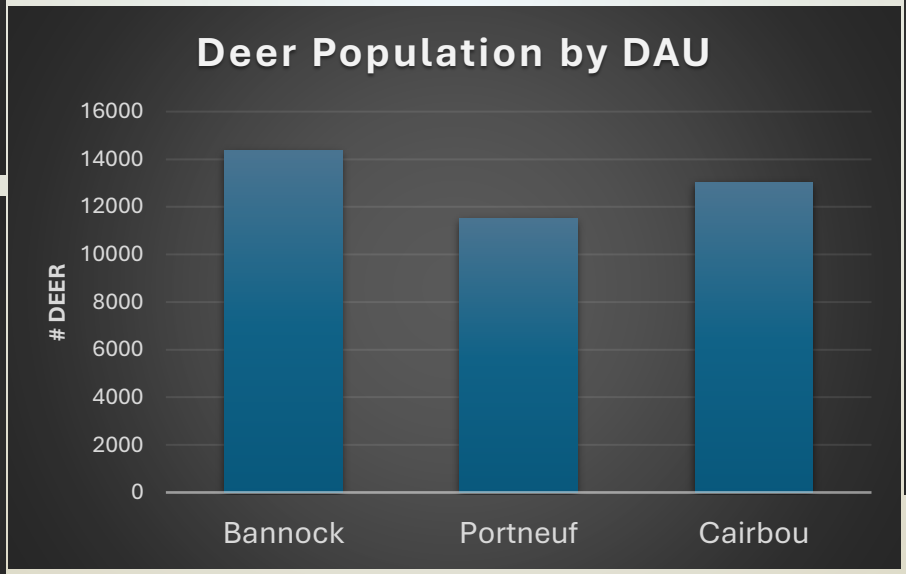


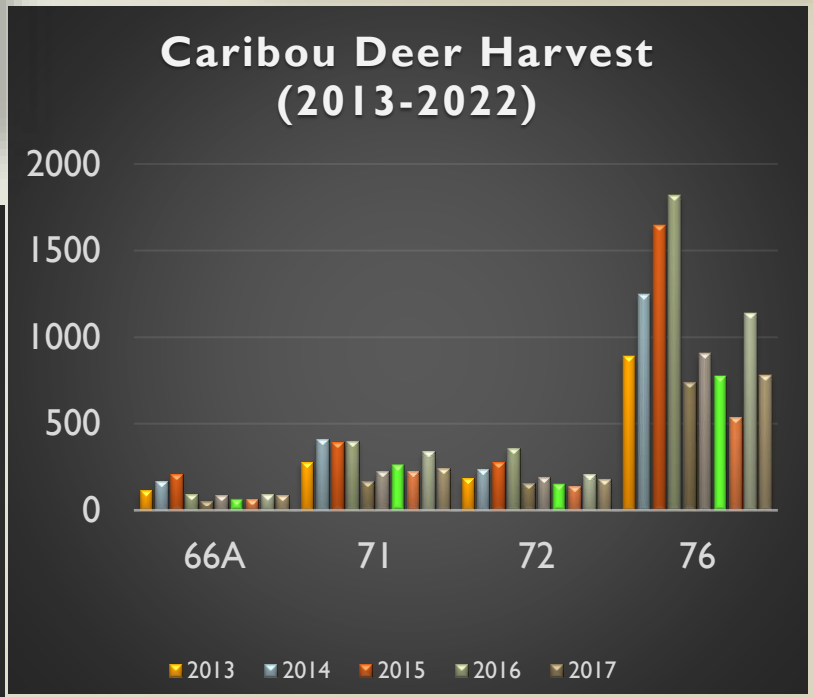


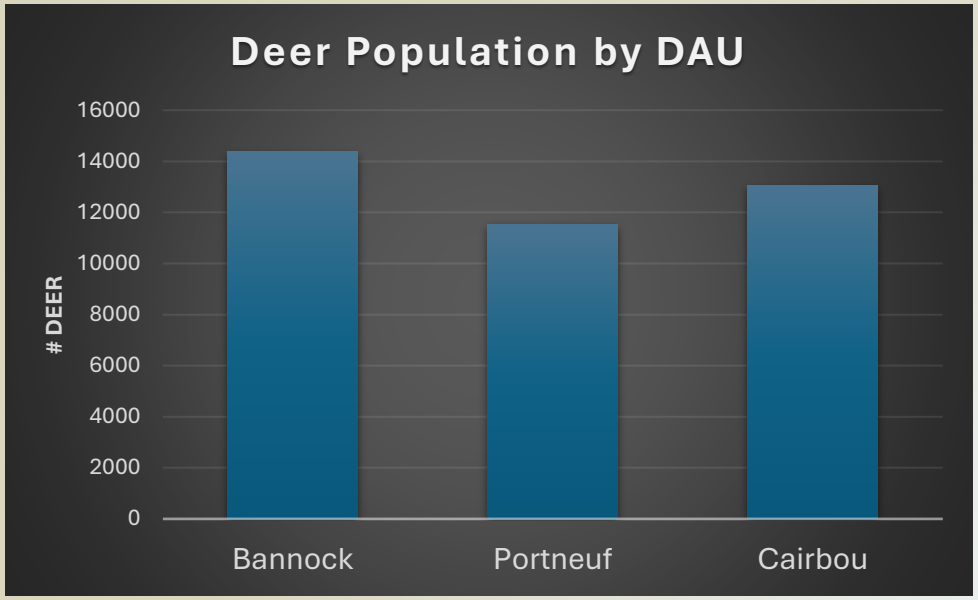

2022 Bannock Mule Deer Survey - R5
1,901
798
1,686
326

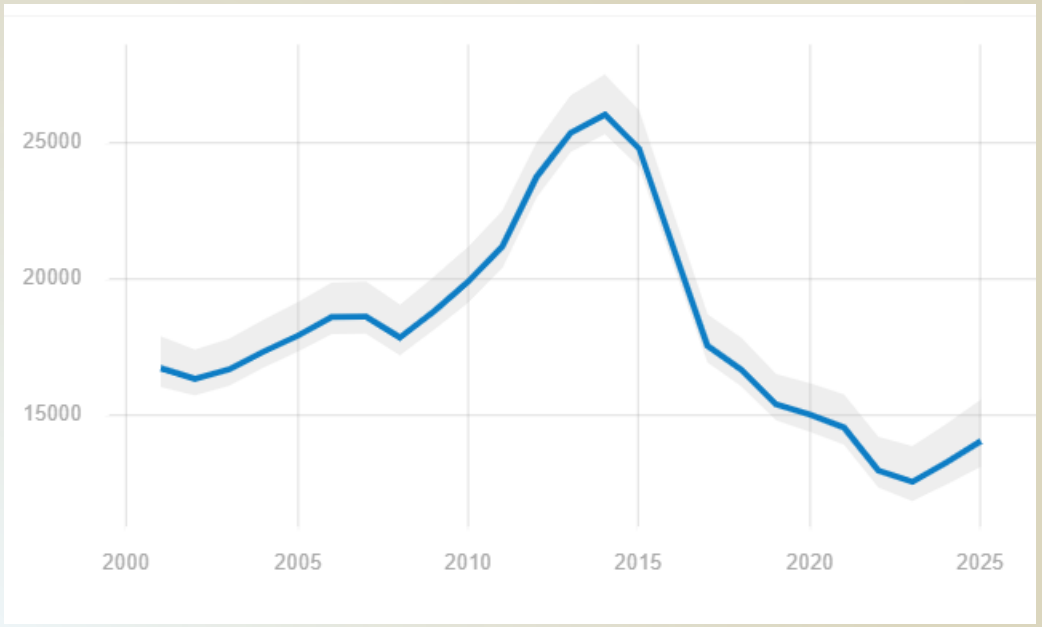

Buck:Doe Ratios
BUCKS PER 100 DOES
40
30
20
10
0
Bannock
Portneuf
Caribou
2016 2017 2018 2019 2020 2021 2022 2023


Fawn:Doe Ratios
FAWN PER 100 DOES
80
60
40
20
0
Bannock
Portneuf
Caribou
2016 2017 2018 2019 2020 2021 2022 2023


Deer Population by DAU
DEER
16000
14000
12000
10000
8000
6000
4000
2000
0
Bannock
Portneuf
Cairbou


Caribou Deer Harvest (2013-2022)
2000
1500
1000
500
0
66A
71
72
76
2013 2014 2015 2016 2017


Deer Population by DAU
16000
14000
12000
10000
8000
6000
4000
2000
0
DEER
Bannock
Portneuf
Cairbou


25000
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