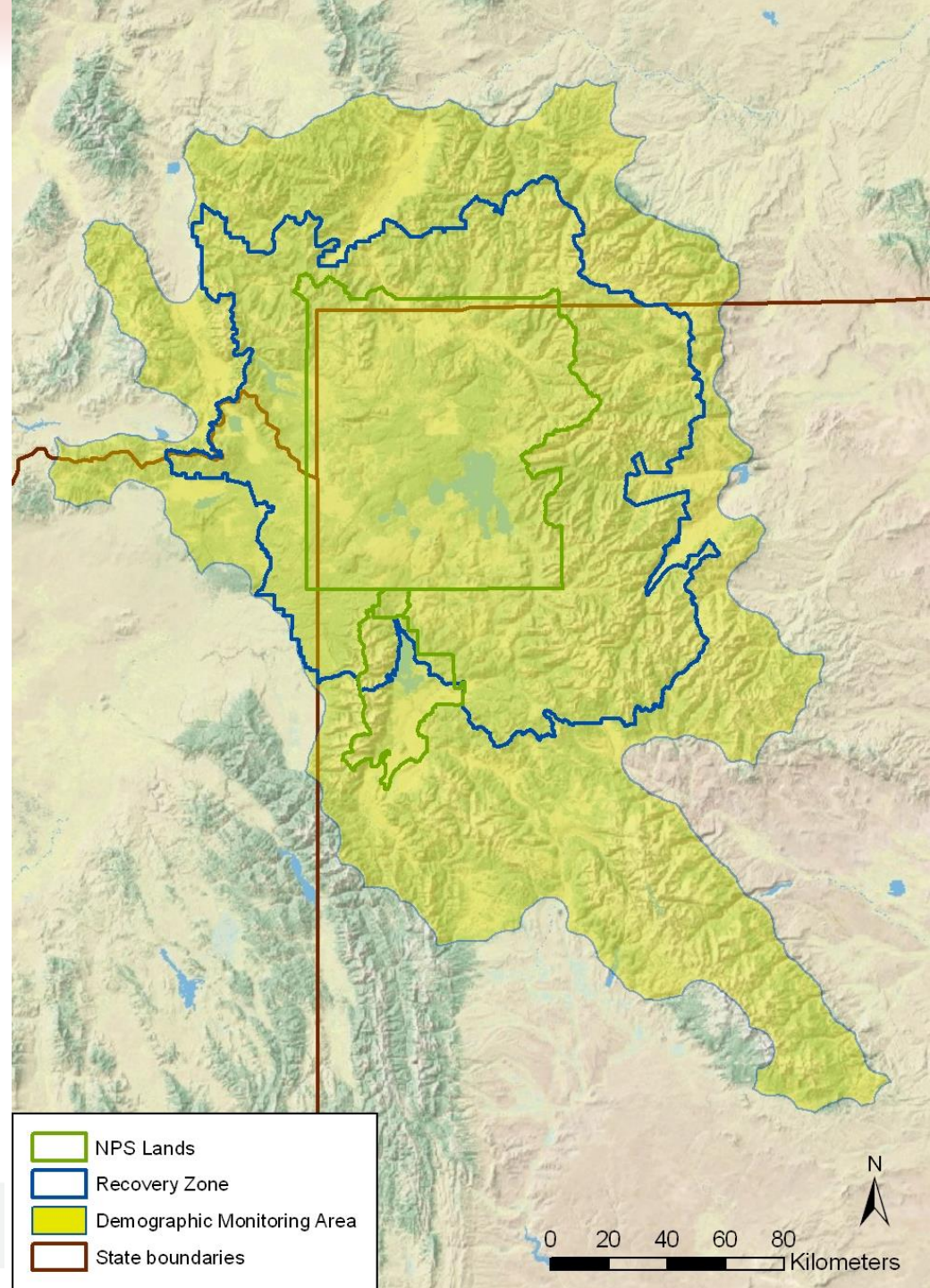


IGBST Mortality Data: Patterns and Trends



Photo: J. Davis

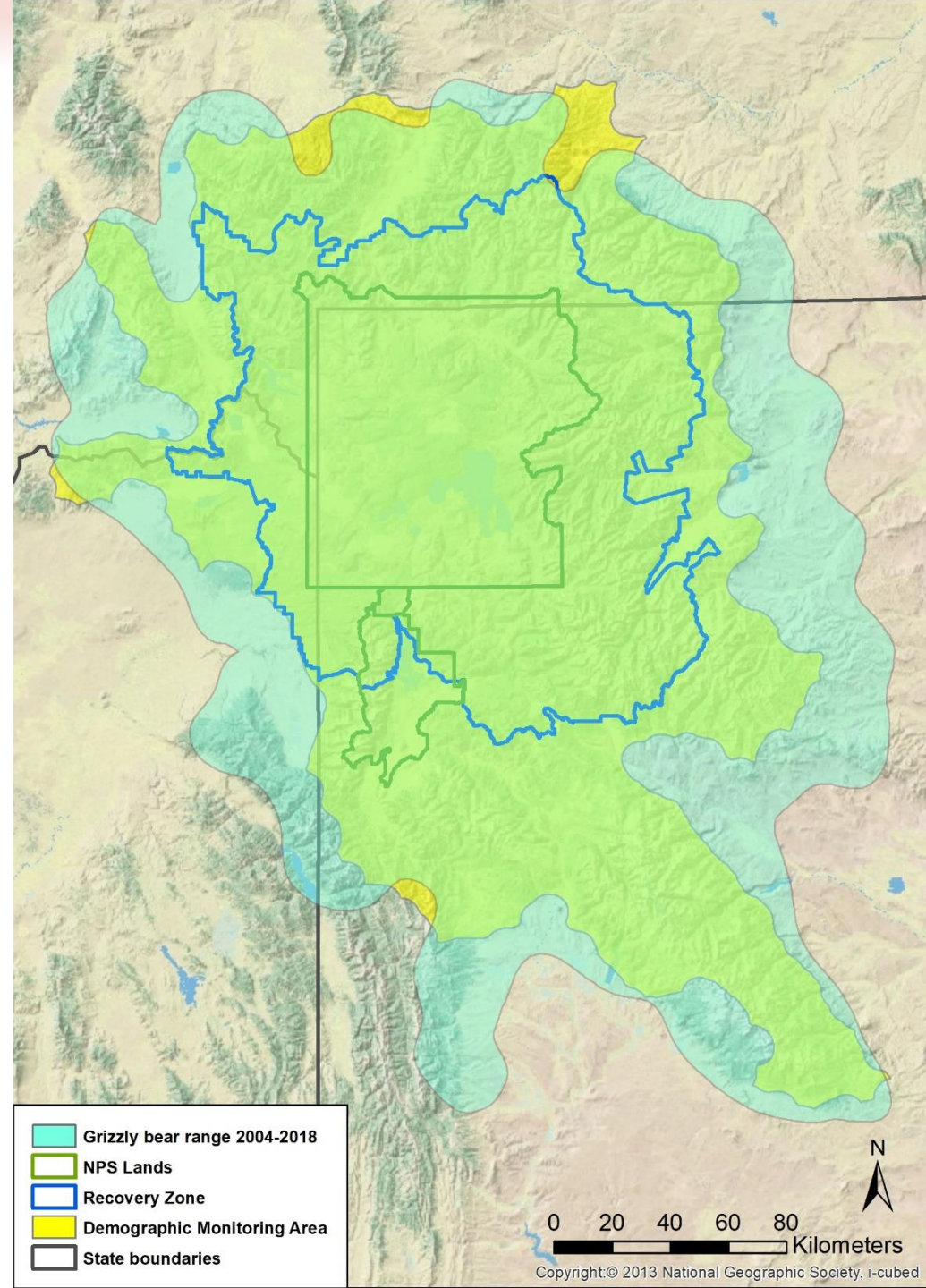
Greater Yellowstone Ecosystem



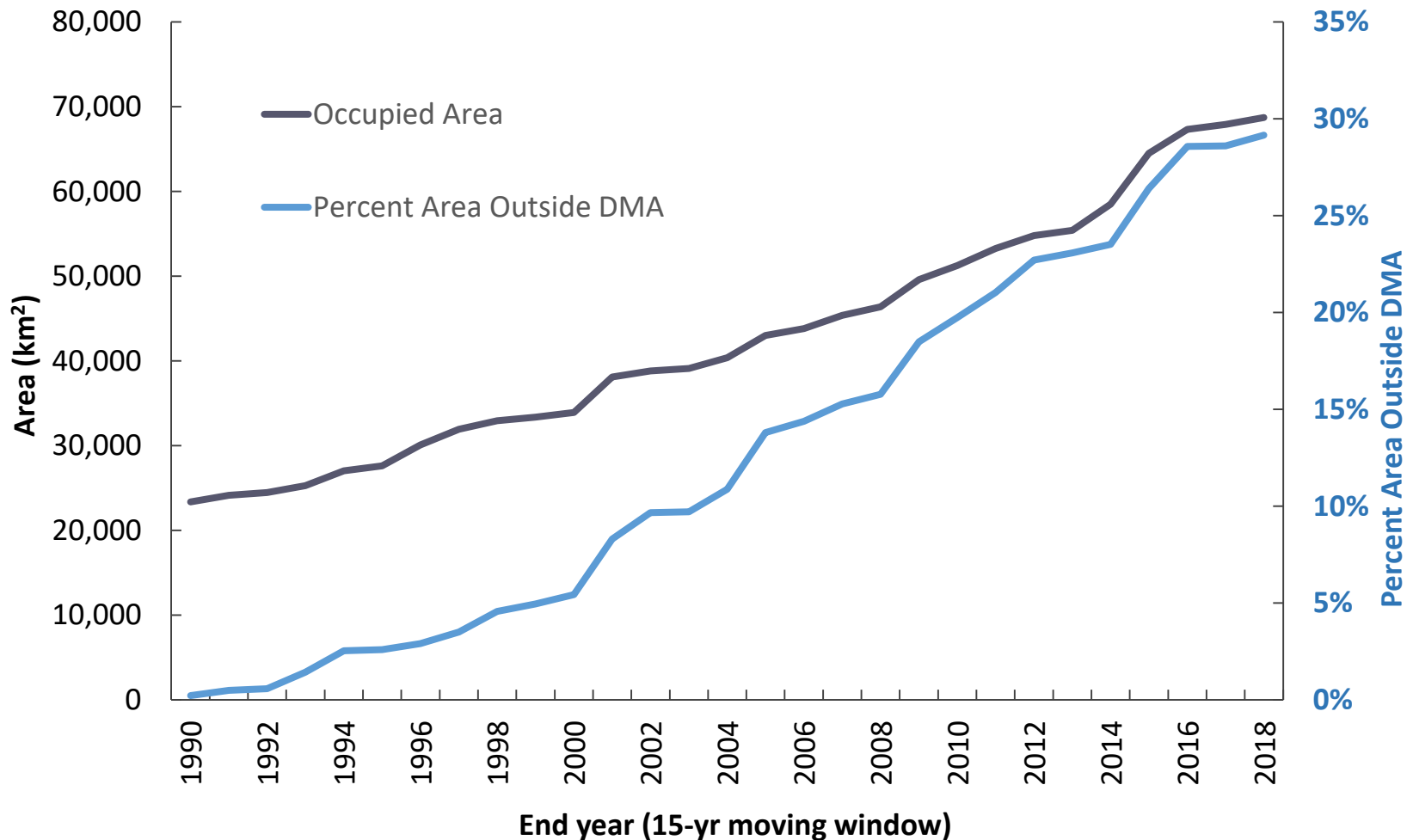
This information is preliminary and is subject to revision. It is being provided to meet the need for timely best science. The information is provided on the condition that neither the U.S. Geological Survey nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the information

Greater Yellowstone Ecosystem

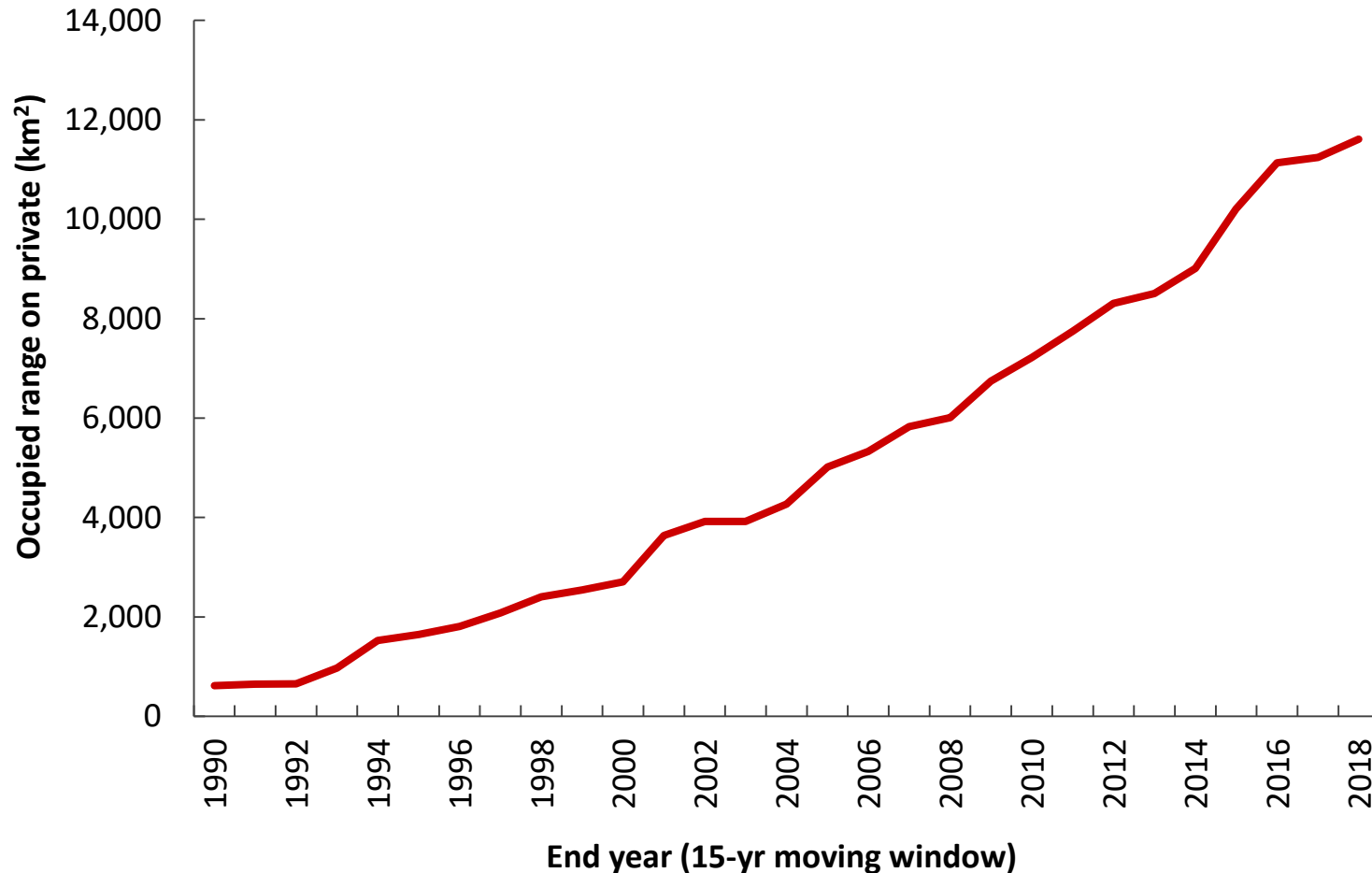
- Occupied range (2004-2018) = 68,736 km²
 - 98% of DMA occupied
 - 30% outside the DMA
 - ~12,000 km² private land



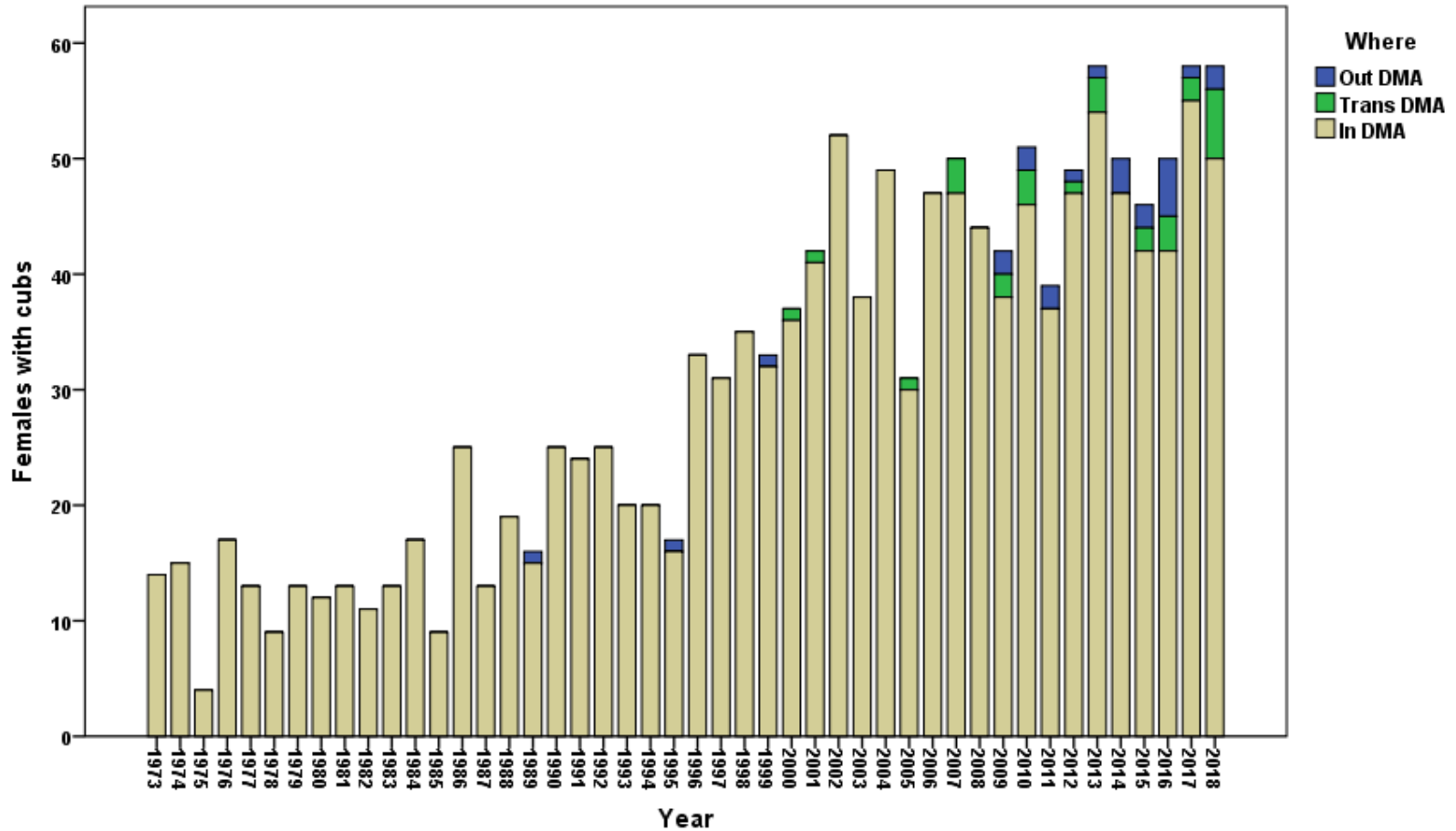
Occupied grizzly bear range and percent outside DMA 1990-2018



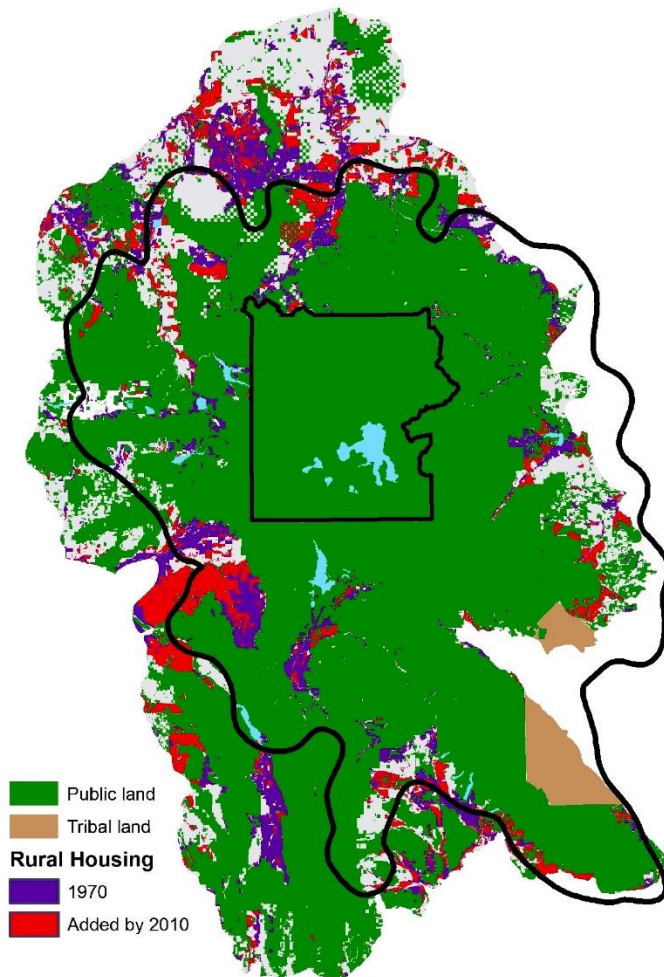
Occupied grizzly bear range and private land 1990-2018



Females with cubs



Development and future projections

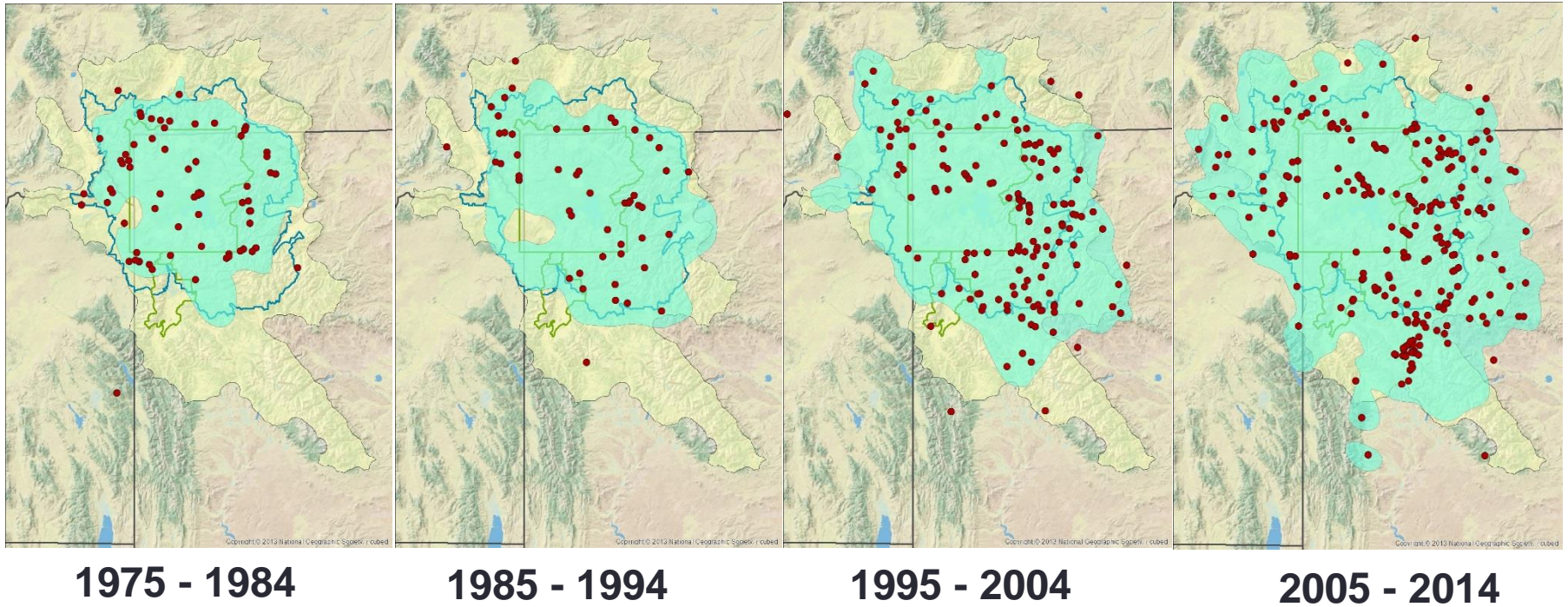


Source: McIntyre and Ellis (2011)

“....human population has **doubled**, and housing density has **tripled** in the GYE since 1970 and both are projected to **double** again by 2050. Human development is now estimated to cover 31% of the GYE.”

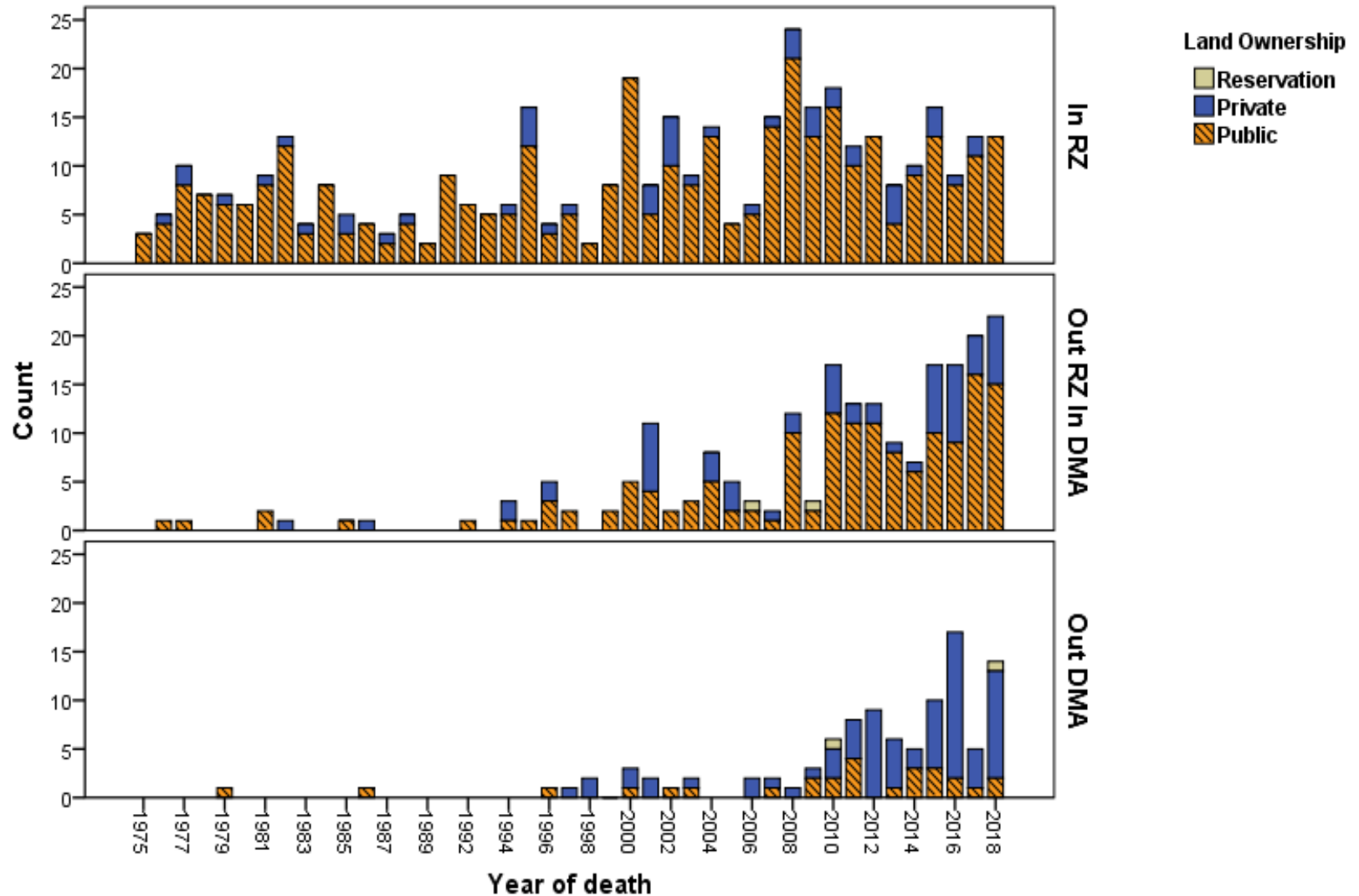
Source: Hansen and Phillips (2018)

Area of mortalities 1975-2014

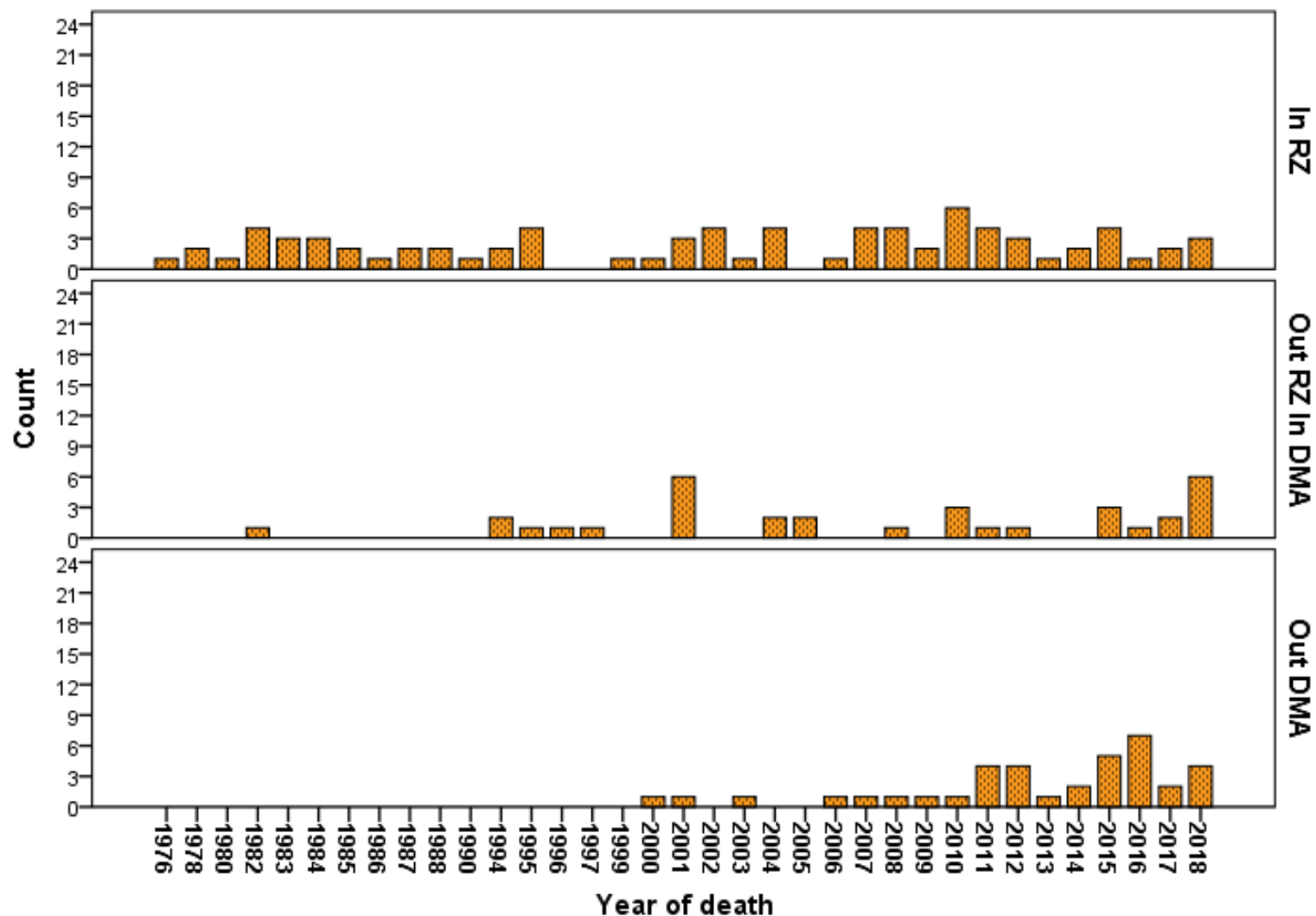


Increase in area per decade: 11,700 km²

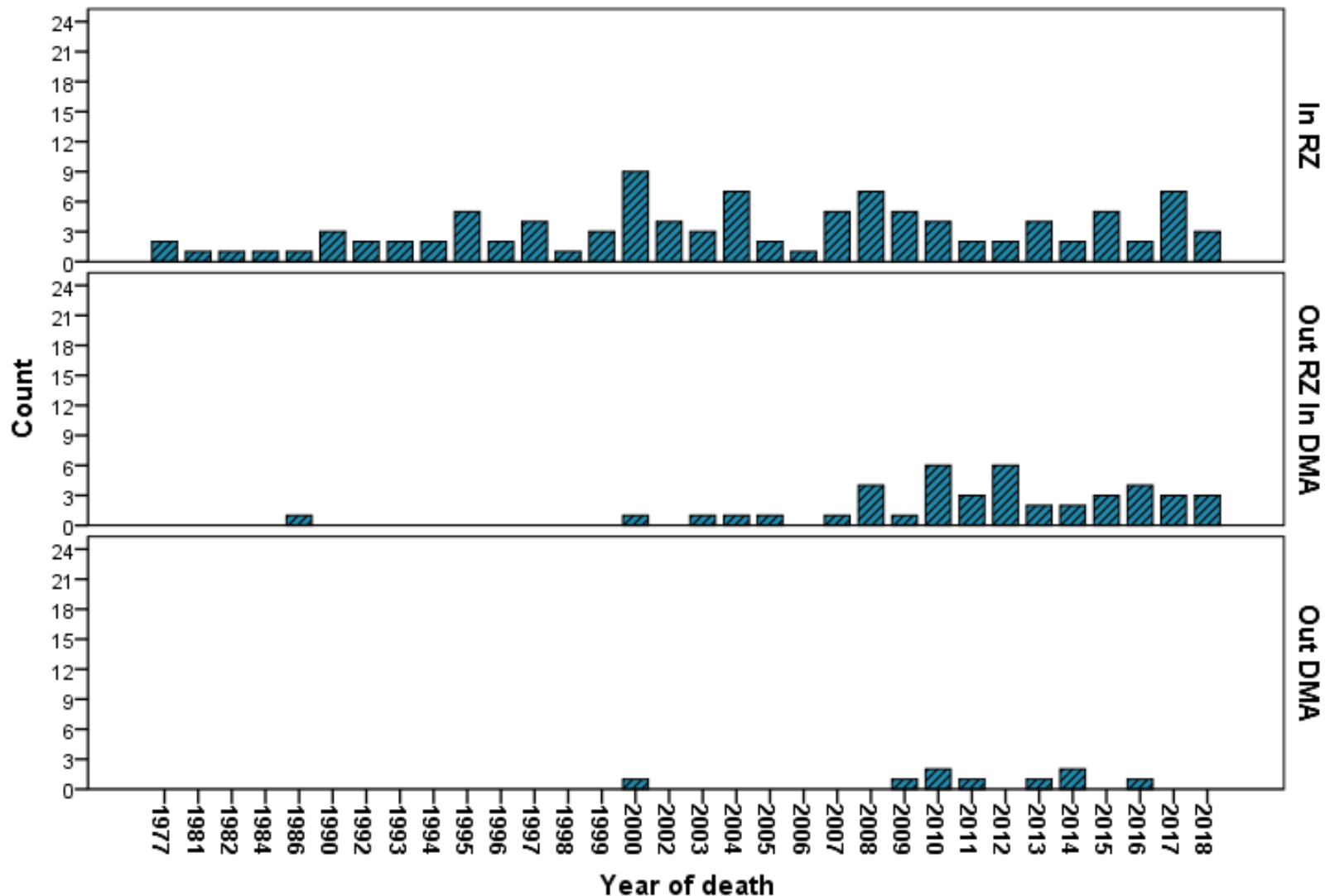
Documented mortalities and landownership 1975-2018



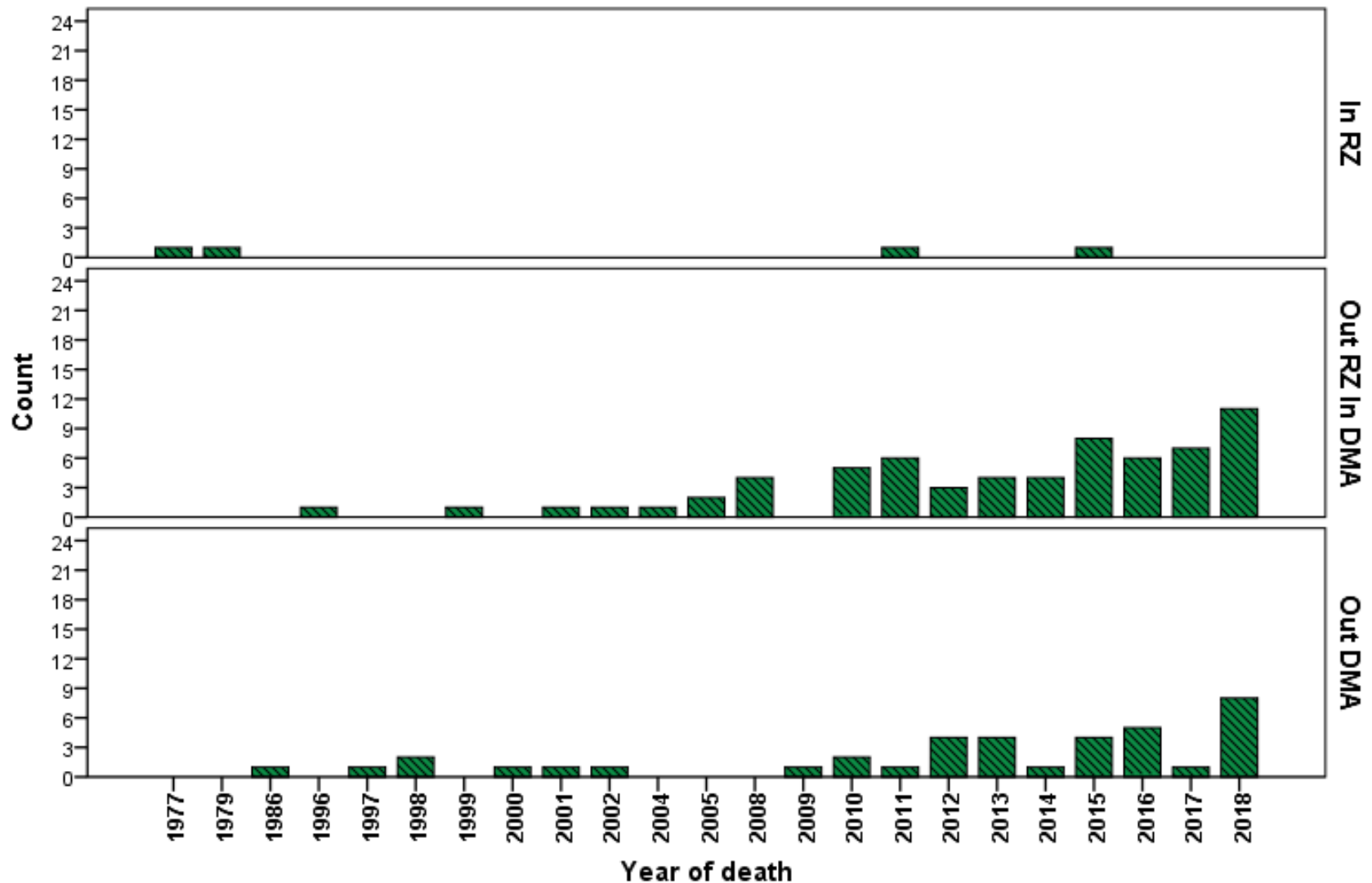
Mortality from site conflicts 1975-2018



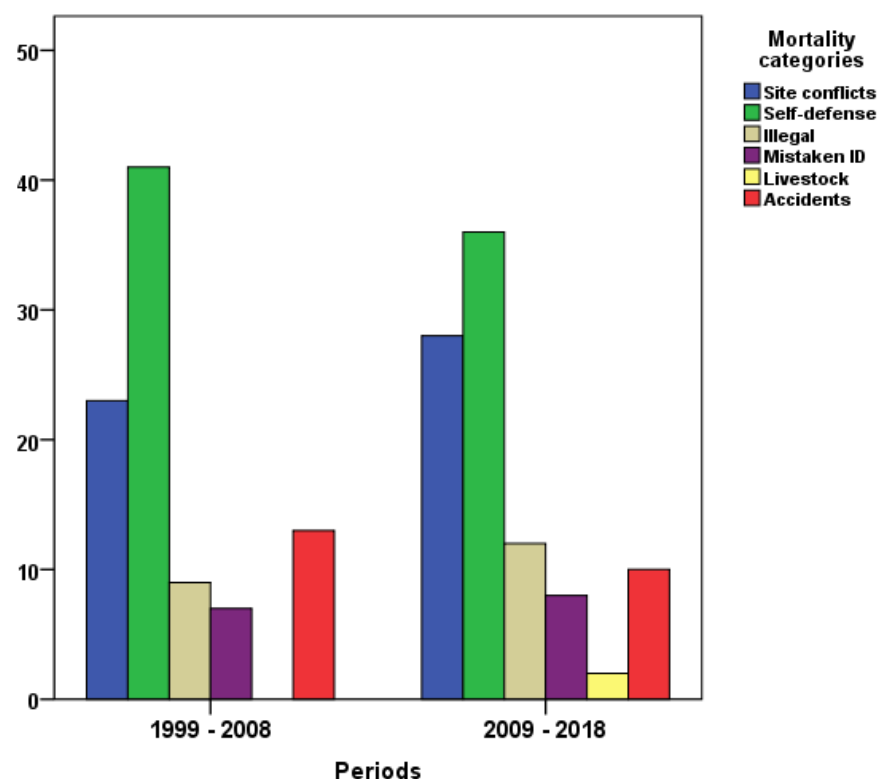
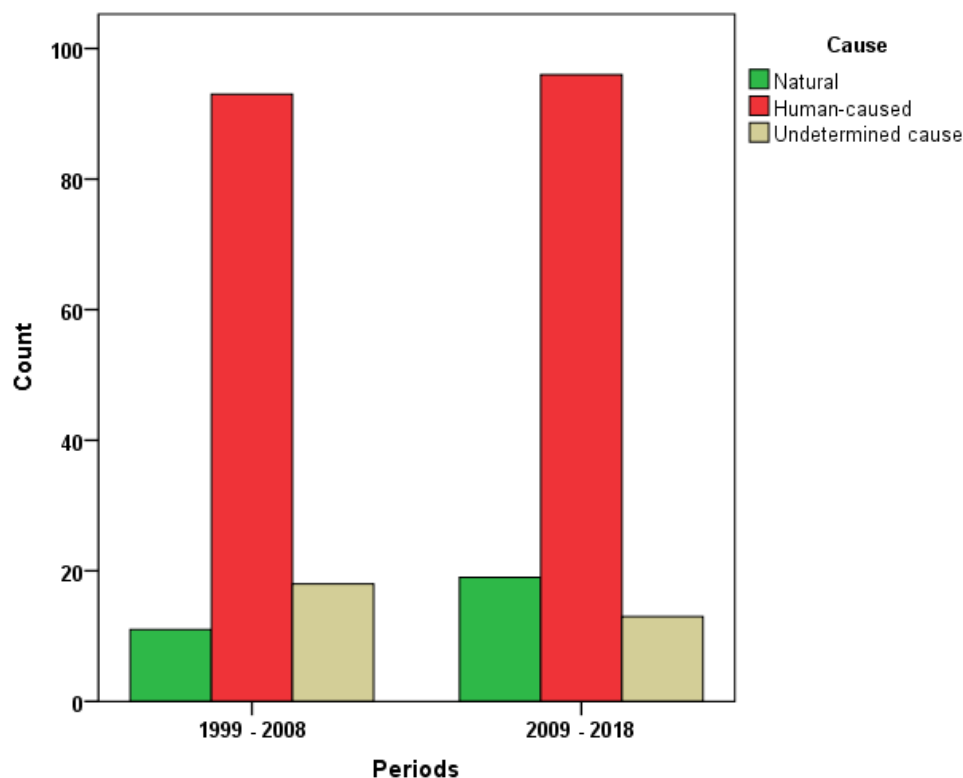
Mortality from self-defense kills 1975-2018



Mortality from livestock conflicts 1975-2018



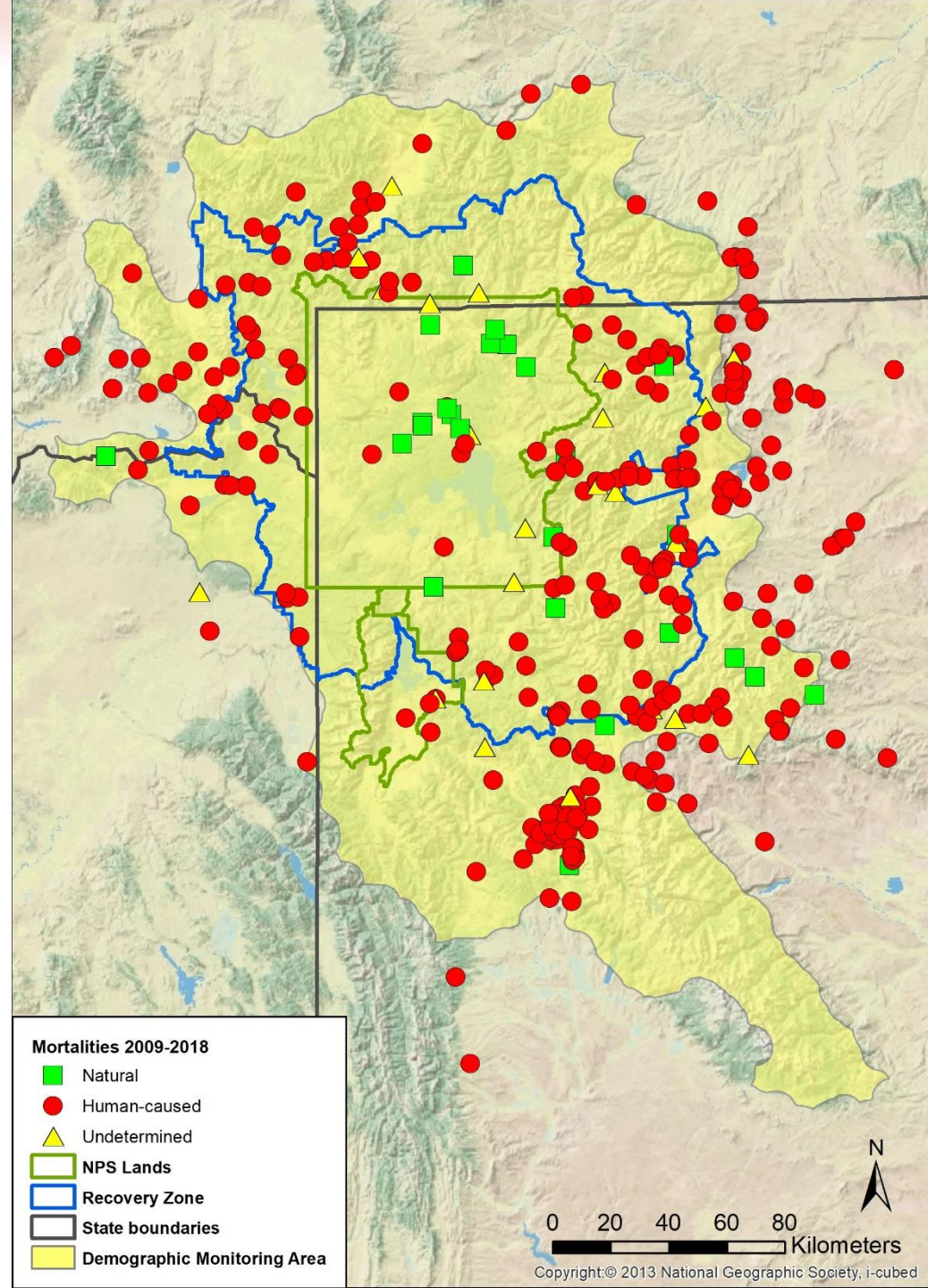
Recovery Zone mortalities by cause and category 1999-2008 and 2009-2018



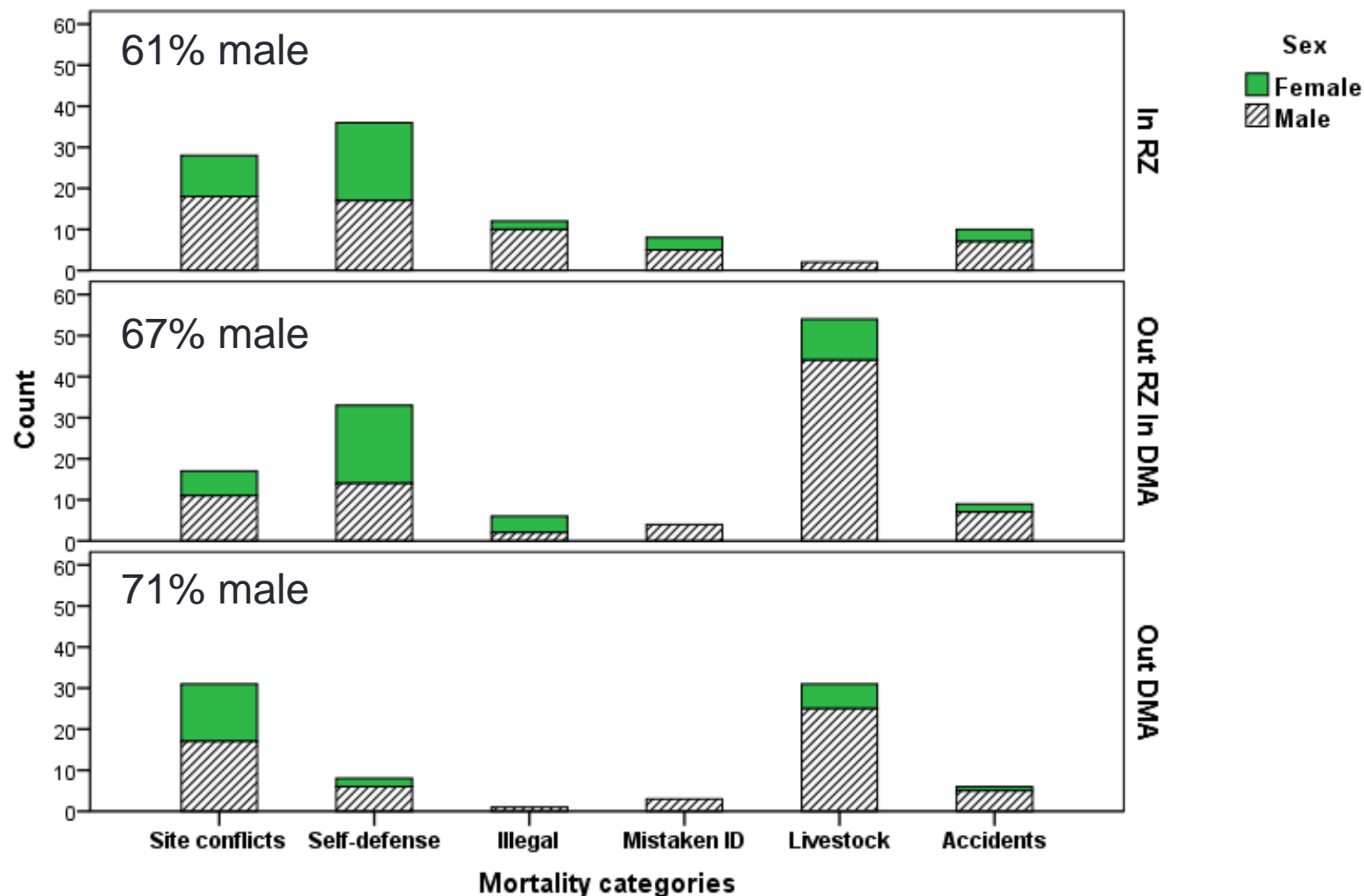
No statistical evidence of shifts

Documented mortalities 2009-2018

- 26 natural
- 299 human-caused
- 24 undetermined
- 349 total

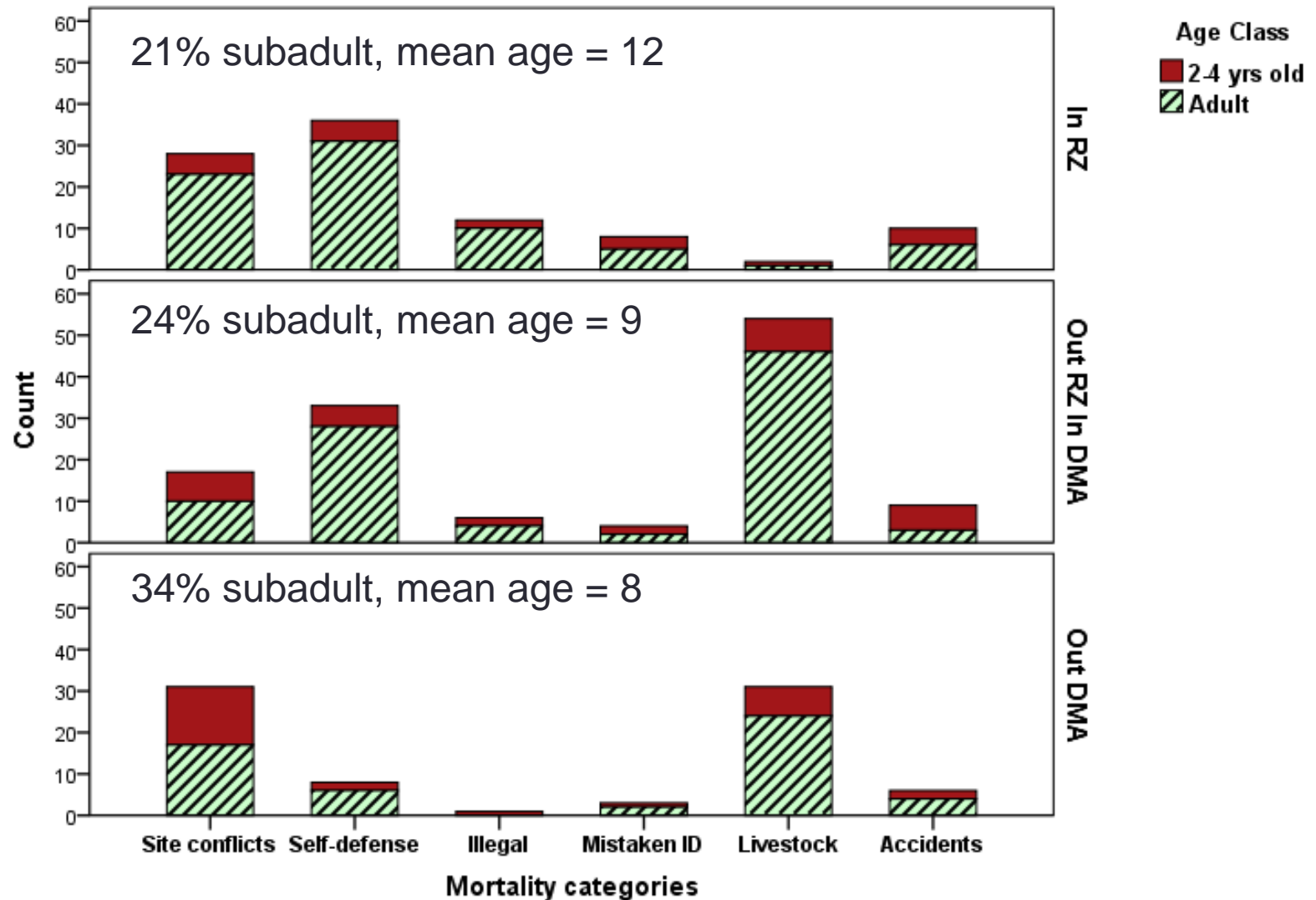


Human-caused mortalities by category and sex 2009-2018

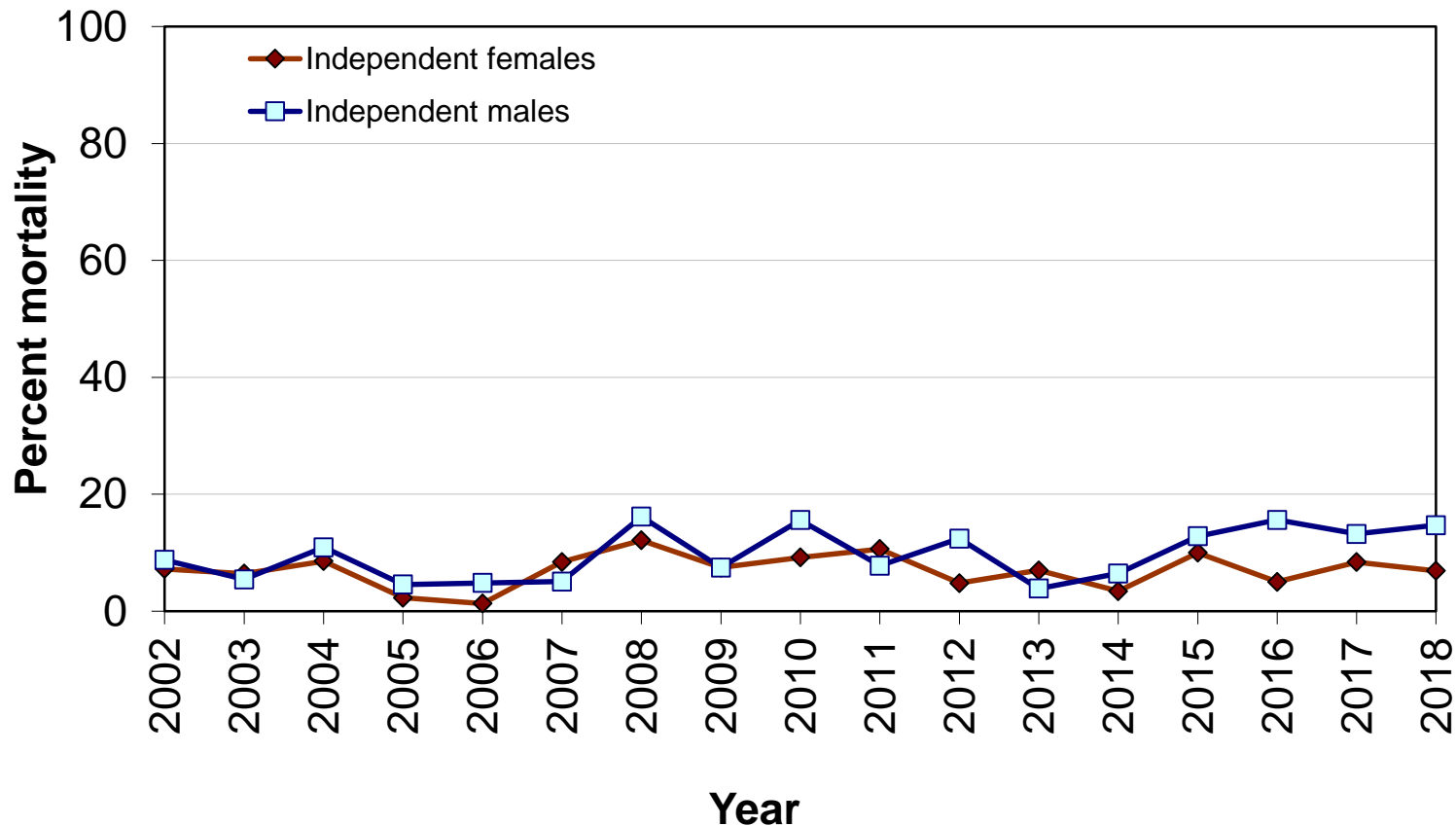


Human-caused mortalities by category and age

2009-2018



Estimated percent mortality of independent (≥ 2 yrs) grizzly bears, 2002–2018 (DMA only)



Female average = 7.0% Male average = 9.7%

Interagency Grizzly Bear Study Team

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We thank the hundreds of dedicated people who have assisted with the long-term grizzly bear research in the Greater Yellowstone Ecosystem. Without their contributions, the research and monitoring would not be possible.

