

Wolf Monitoring and Management in Wyoming 2018



WILDLIFE DIVISION
WYOMING GAME AND FISH DEPARTMENT

WOLF MANAGEMENT REQUIREMENTS

WYOMING GRAY WOLF MANAGEMENT PLAN

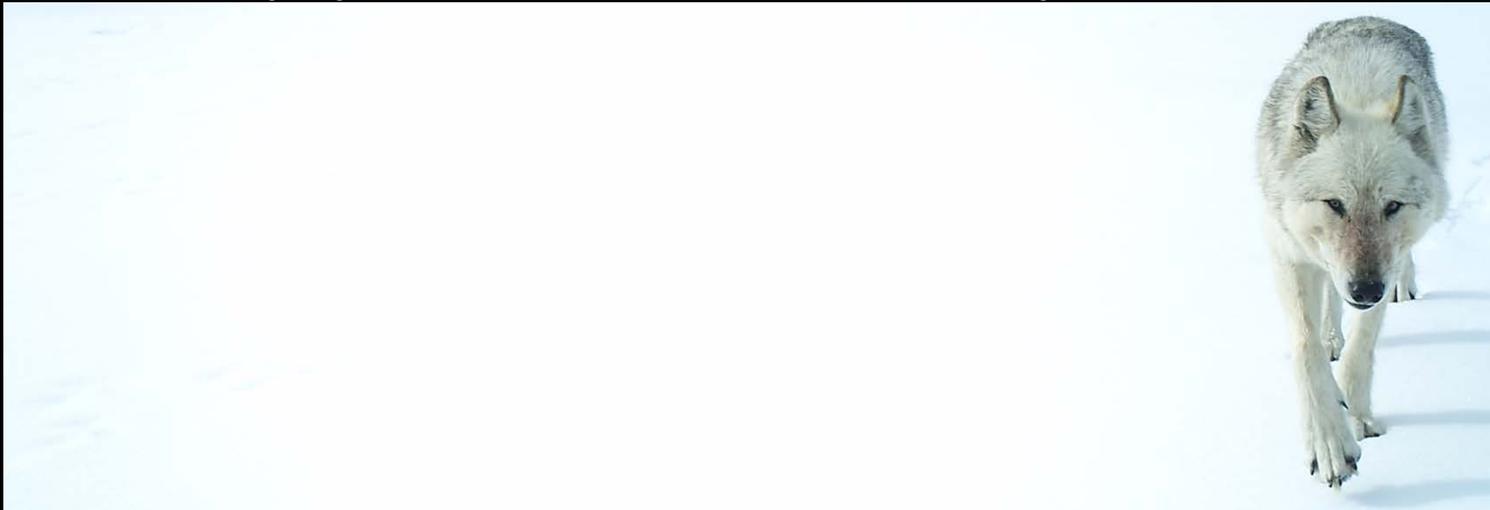


WYOMING GAME AND FISH COMMISSION

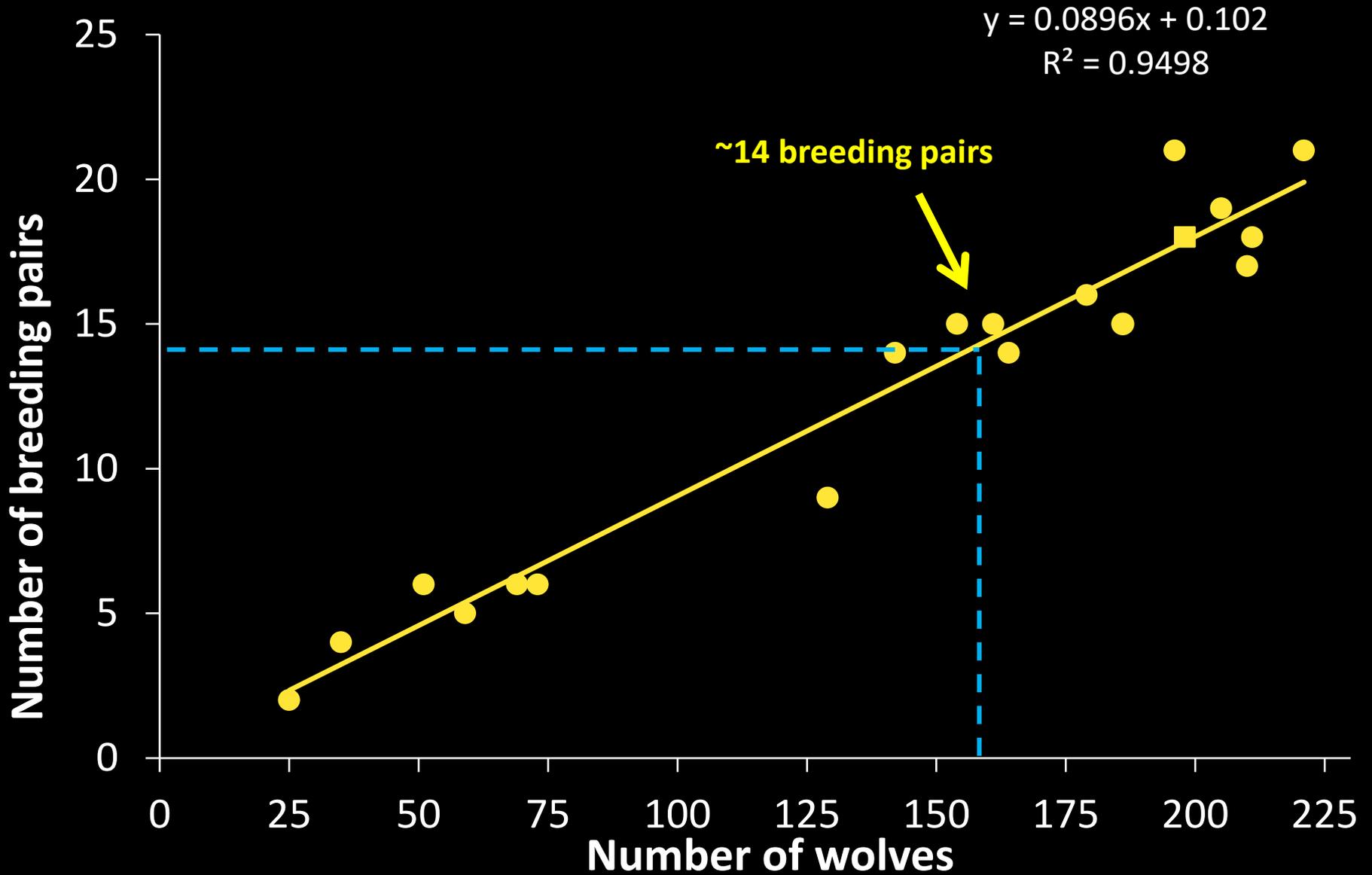
September 14, 2011

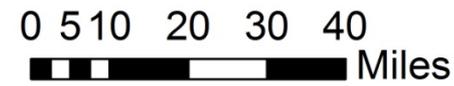
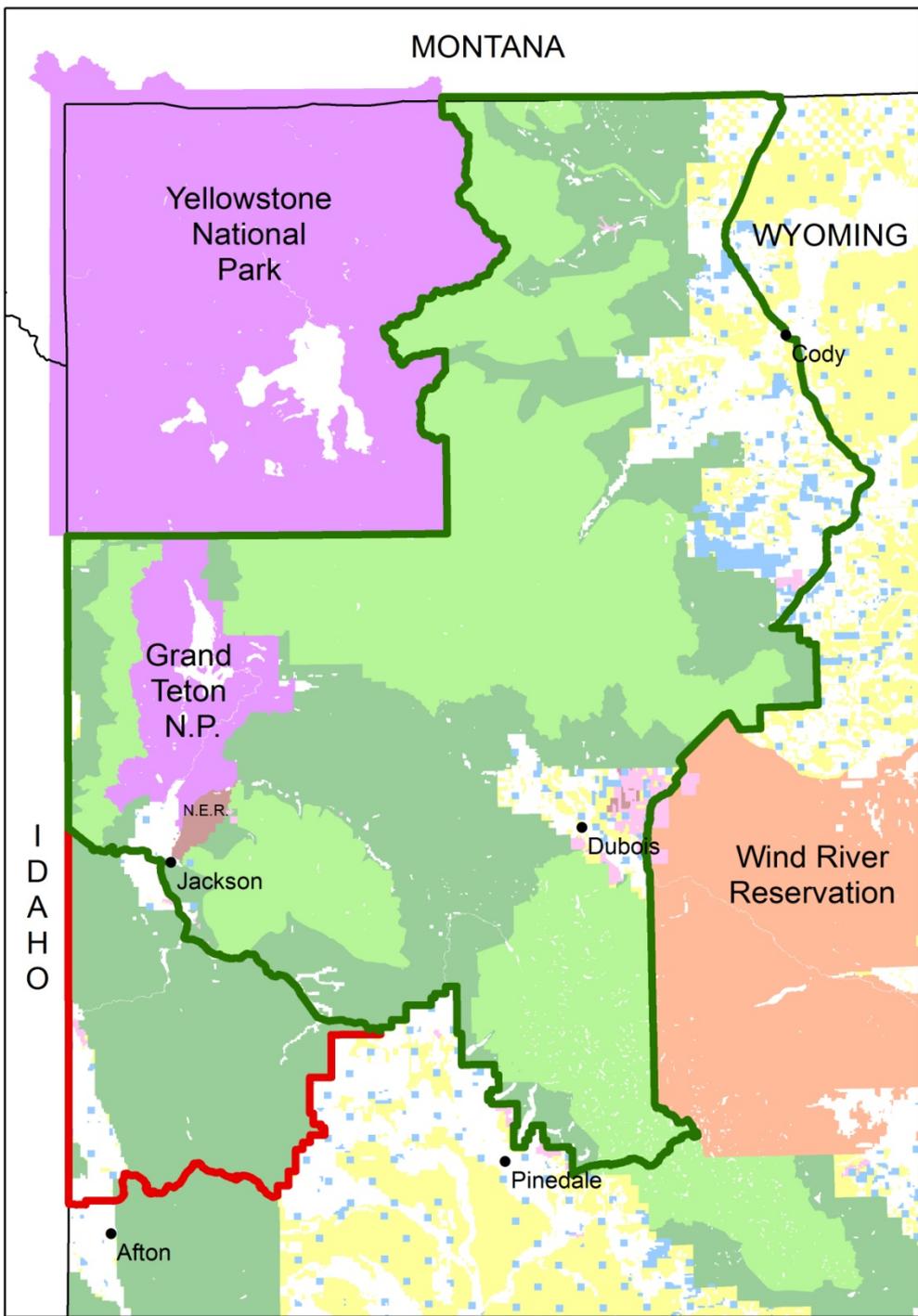
WOLF MANAGEMENT REQUIREMENTS

- 1) ≥ 10 “breeding pairs” and ≥ 100 wolves at end of calendar year
 - ≥ 15 breeding pairs and ≥ 150 wolves in Wyoming (including Yellowstone NP and Wind River Reservation)
- 2) Adequate regulatory mechanisms ensure wolf population will meet or exceed delisting criteria
- 3) Document genetic interchange between wolf subpopulations in Northern Rocky Mountains



DUAL POPULATION PARAMETERS





WOLF POPULATION DYNAMICS



WOLF POPULATION DYNAMICS

- Populations can expand rapidly if limitations are removed
 - Prey availability/suitable habitat
 - Human-caused mortality
- In Wyoming, populations limited by suitable habitat and human-caused mortality
 - Average 13% growth despite 34% human-caused mortality; 2000-2018



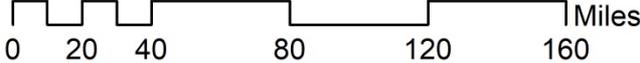
2018

WYOMING

Colonization Probability

- 0.00 - 0.099
- 0.10 - 0.299
- 0.30 - 0.499
- 0.50 - 0.799
- 0.80 - 1.00

N



2018

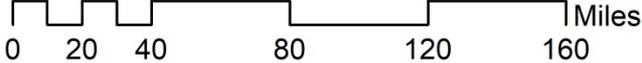
- WTGMA
- Seasonal WTGMA
- Yellowstone National Park
- Wind River Reservation

Colonization Probability

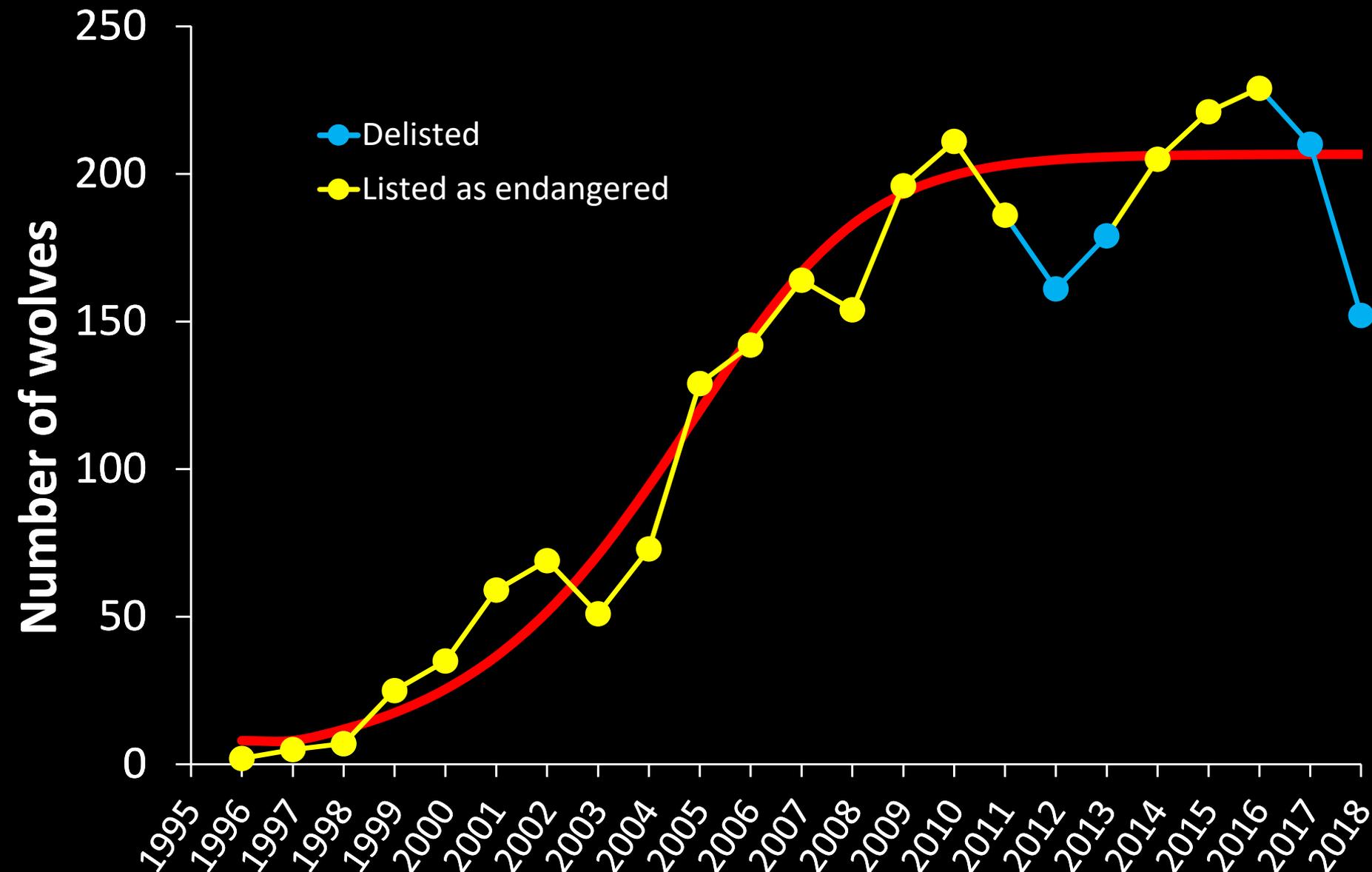
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WYOMING

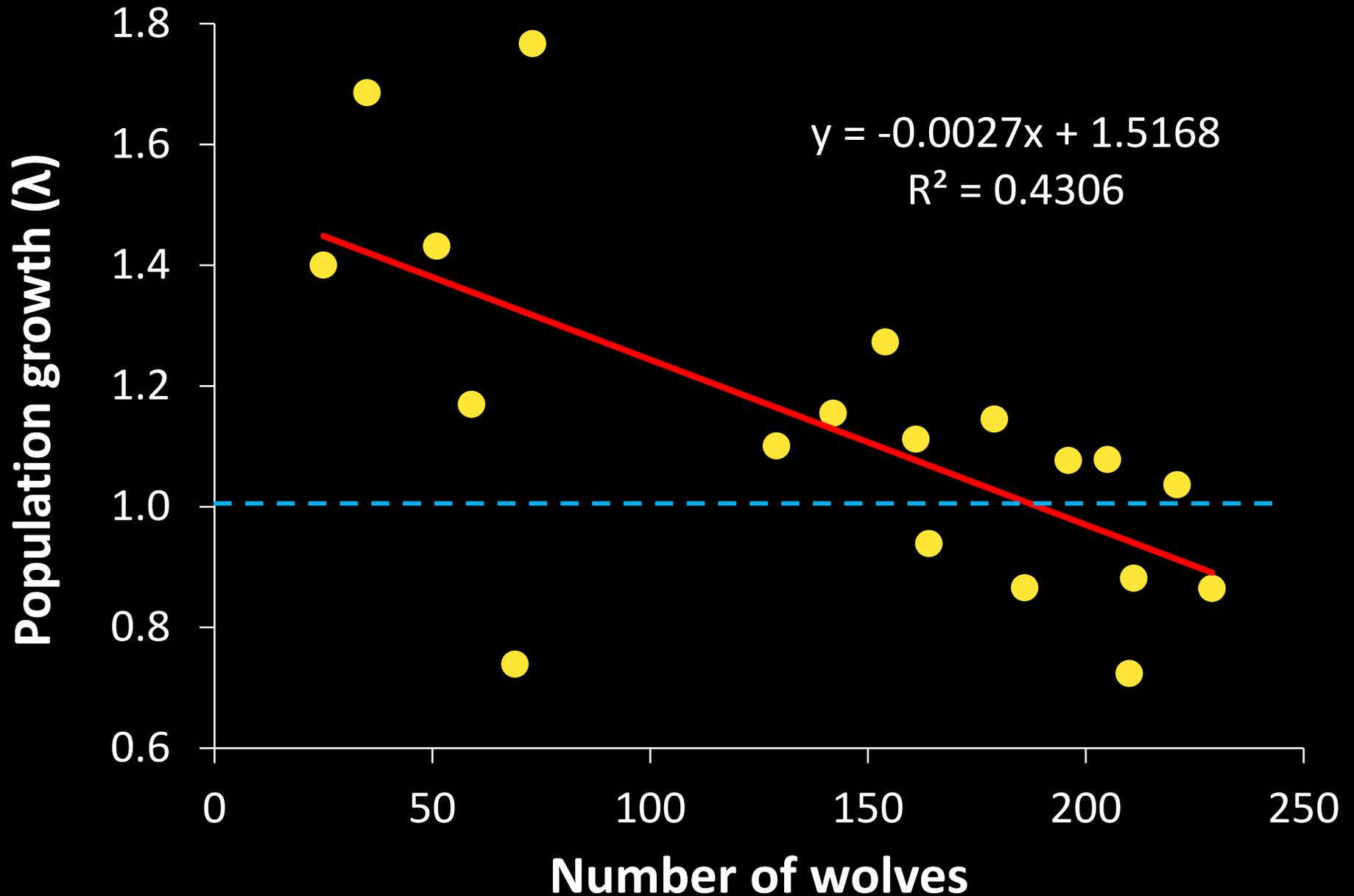
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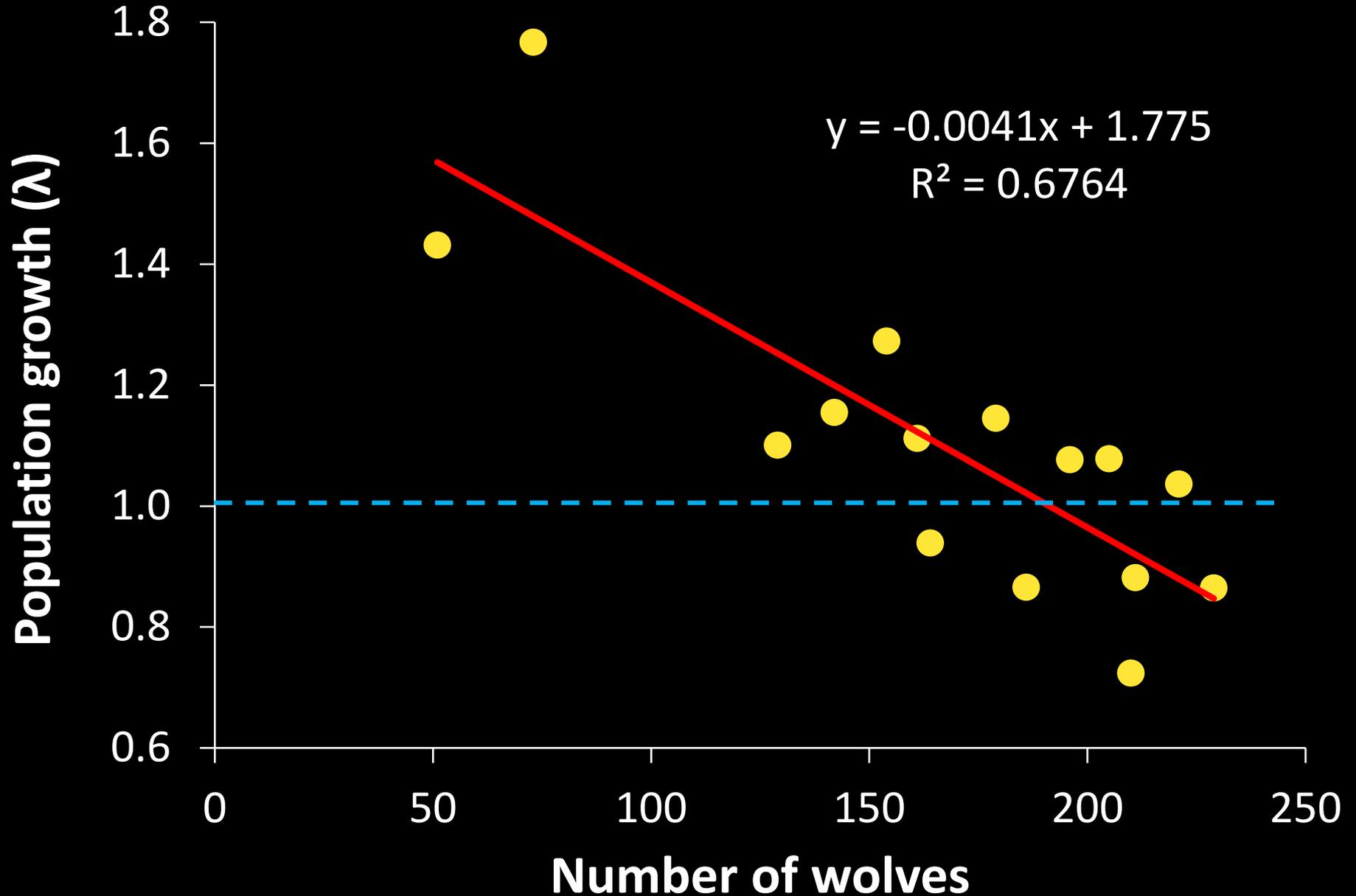
WTGMA POPULATION GROWTH



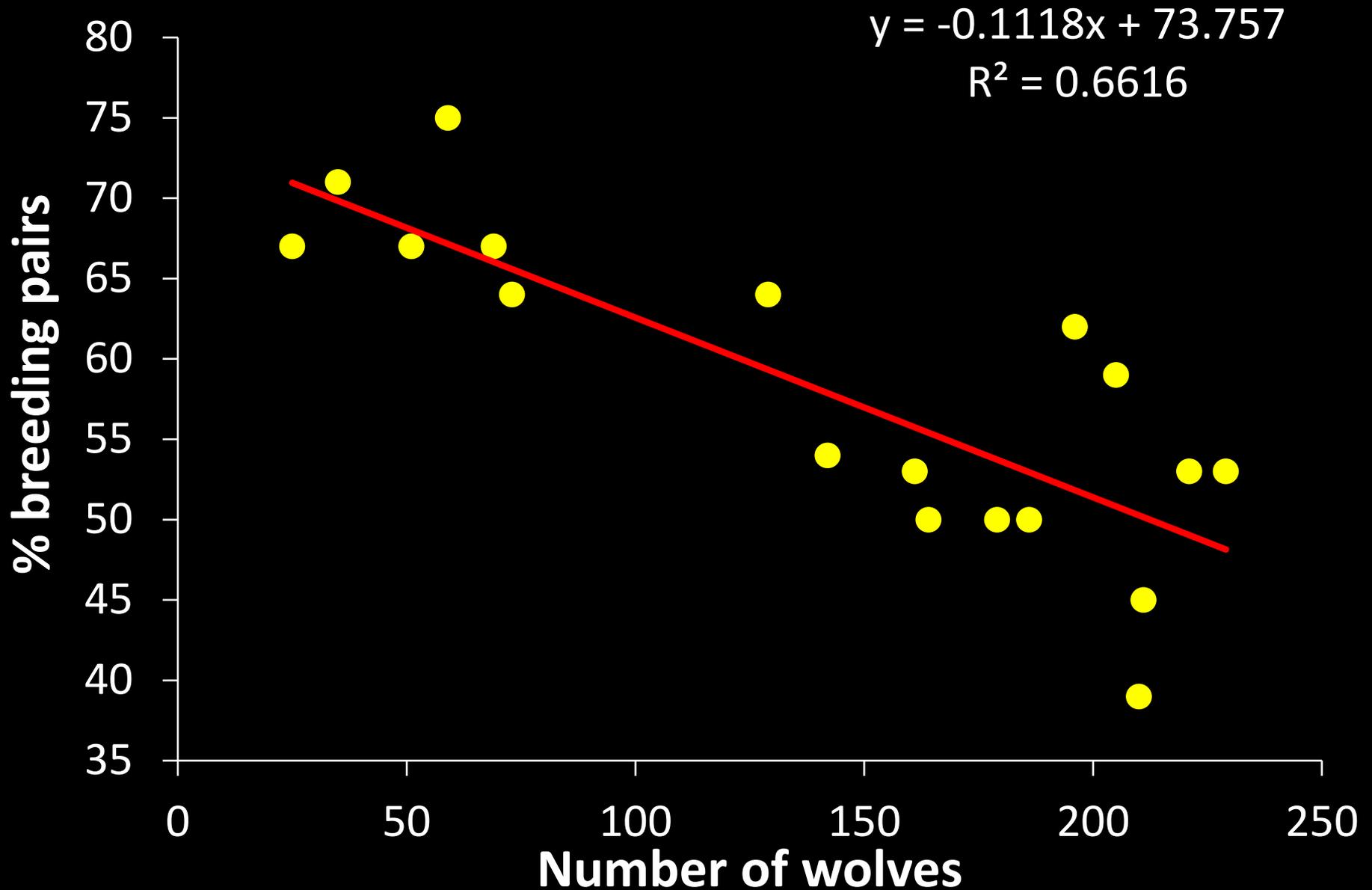
WTGMA POPULATION GROWTH; 2000-18



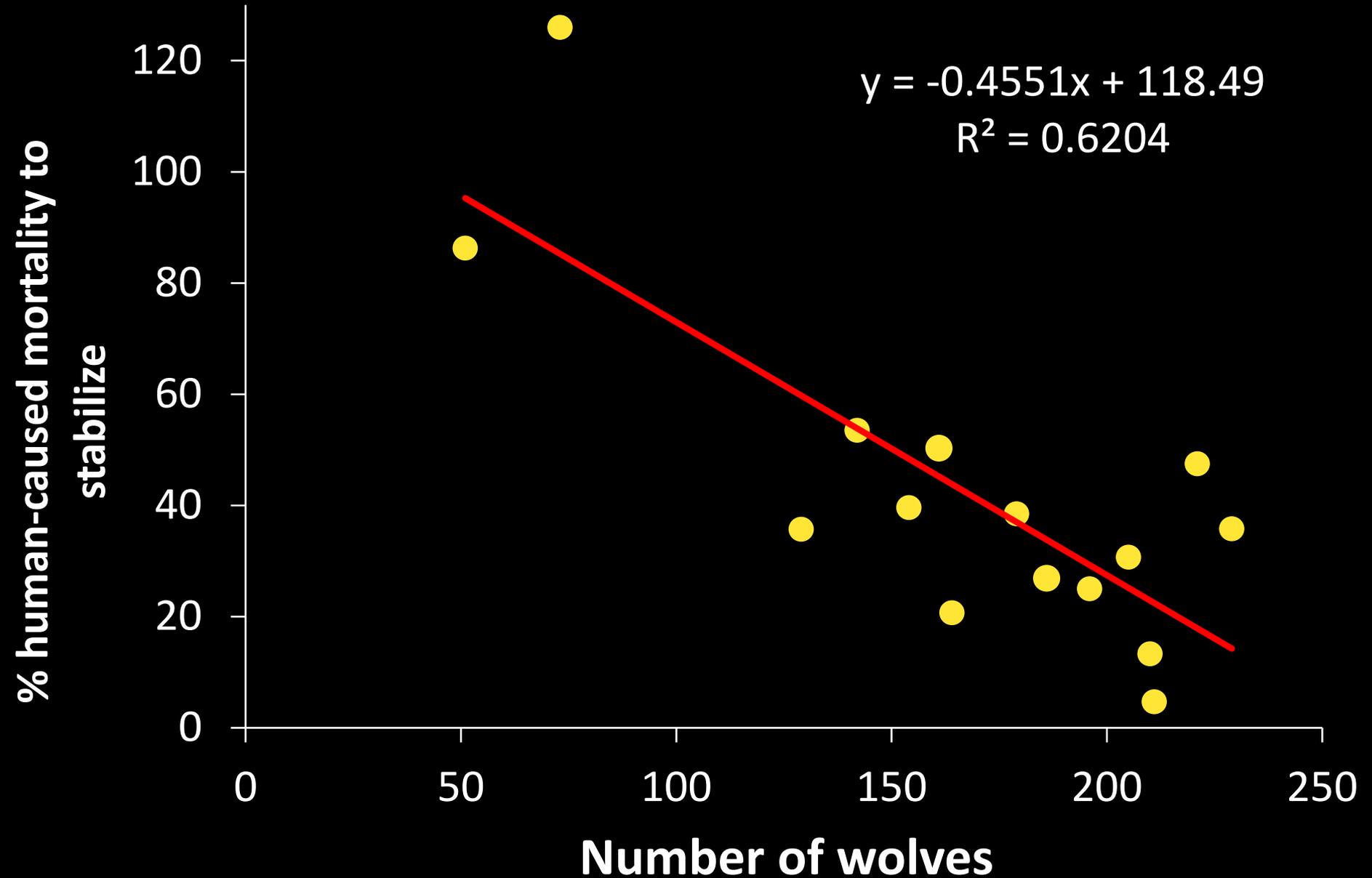
WTGMA POPULATION GROWTH; 2004-18



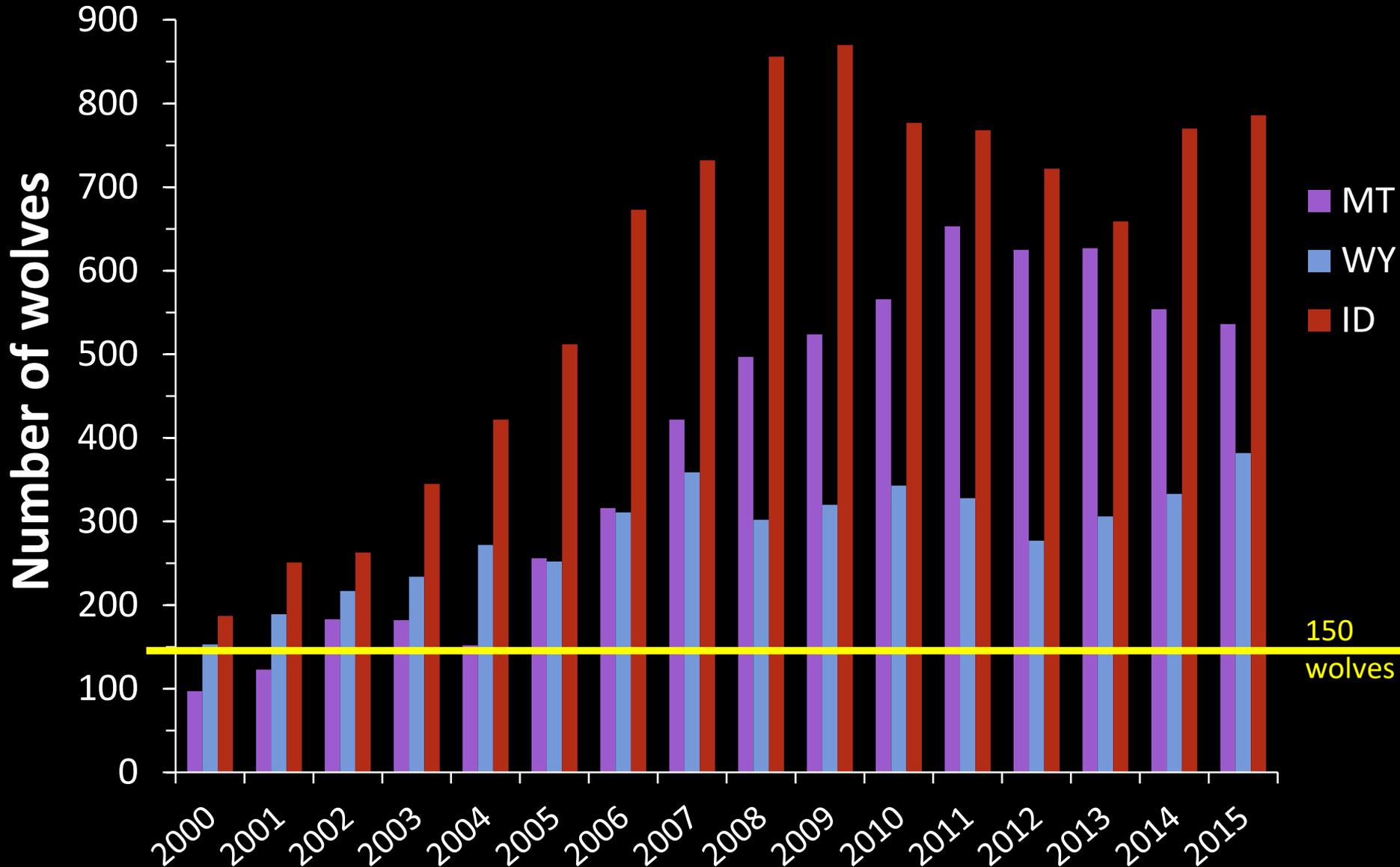
WTGMA RECRUITMENT; 2000-18



WTGMA STABILIZATION MORTALITY; 2004-18



WOLF MANAGEMENT REQUIREMENTS



2018 WOLF POPULATION STATUS



**WYOMING GRAY WOLF
MONITORING AND MANAGEMENT
2018 ANNUAL REPORT**



Prepared by the Wyoming Game and Fish Department in cooperation with the National Park Service, U.S. Fish and Wildlife Service, USDA-APHIS-Wildlife Services, and Eastern Shoshone and Northern Arapahoe Tribal Fish and Game Department to fulfill the U.S. Fish and Wildlife Service requirement to report the status, distribution and management of the gray wolf population in Wyoming from January 1, 2018 through December 31, 2018.



2018 ANNUAL REPORT

- All wolf data from 2018
 - Statewide report
 - Available to the public
- Year 2 of 5 year post-delisting monitoring period (ends 2022)
- 2019 begins Year 3

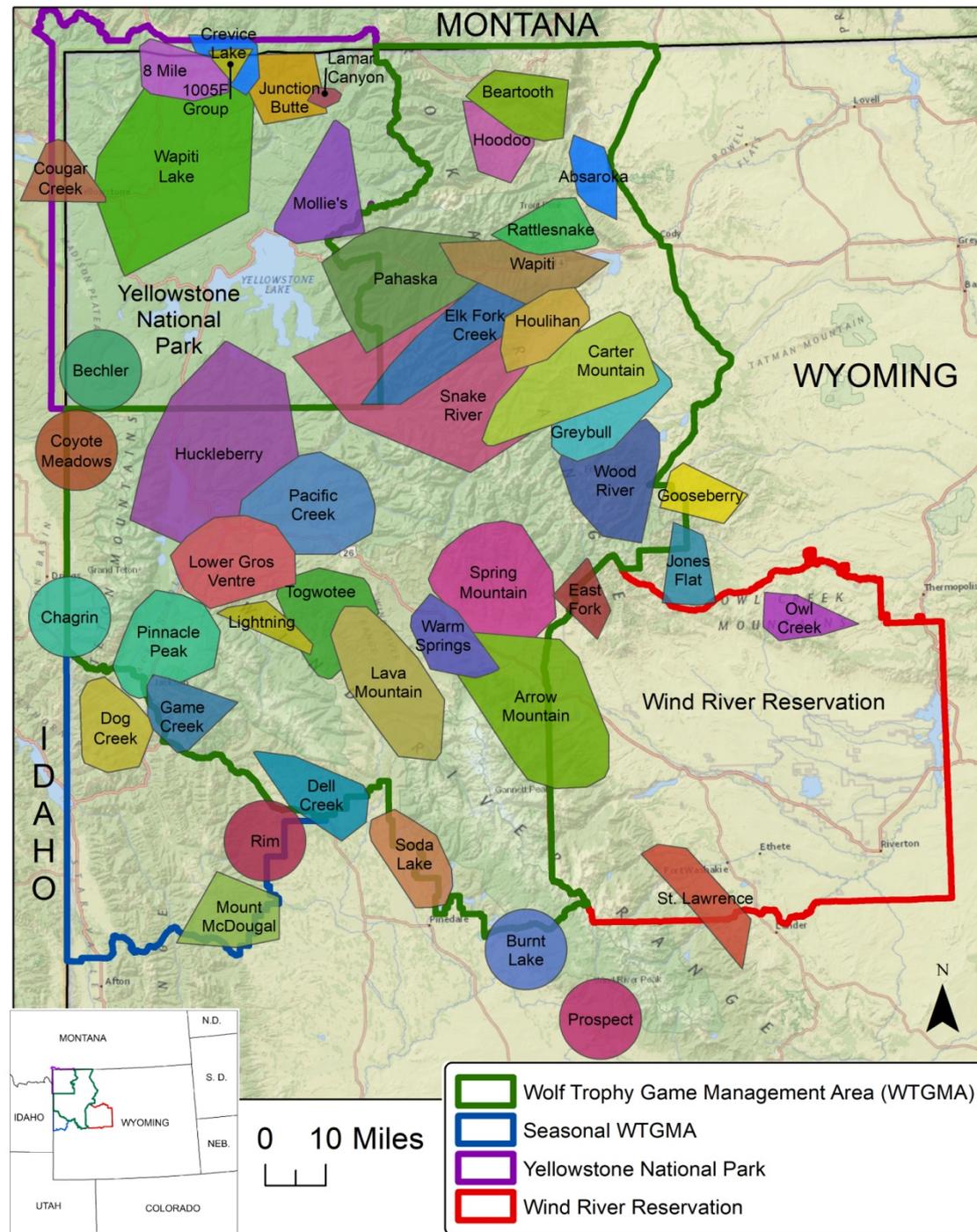
WOLF CAPTURE

- Captured 47 wolves from 23 packs in 2018
 - 53 wolves in 26 packs at the end of 2018
- 2019: captured 40 wolves in 23 packs
 - 90 wolves in 31 packs at end of March
- GPS collars in 19 packs

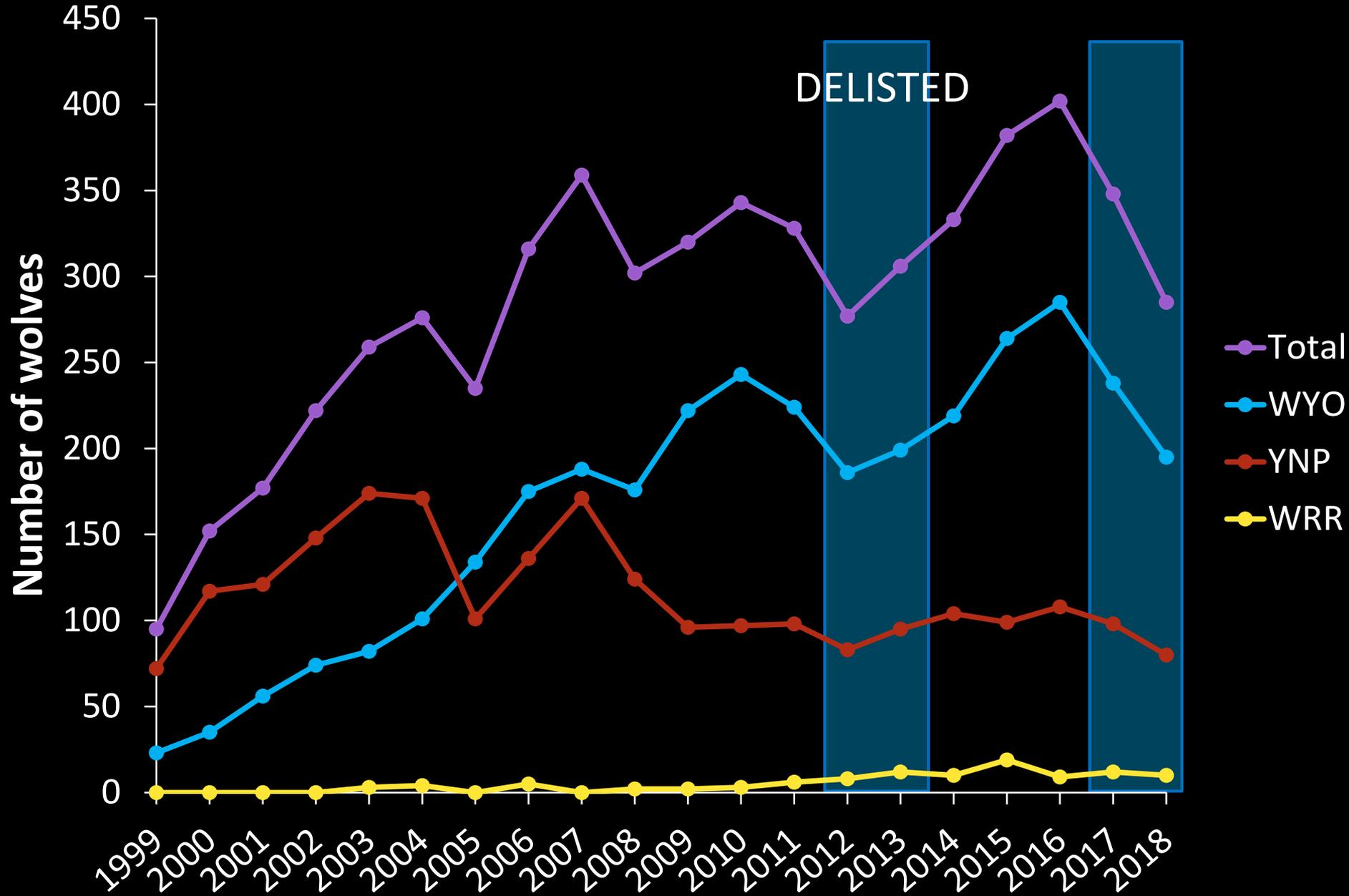


WOLF DISTRIBUTION IN WYOMING 2018

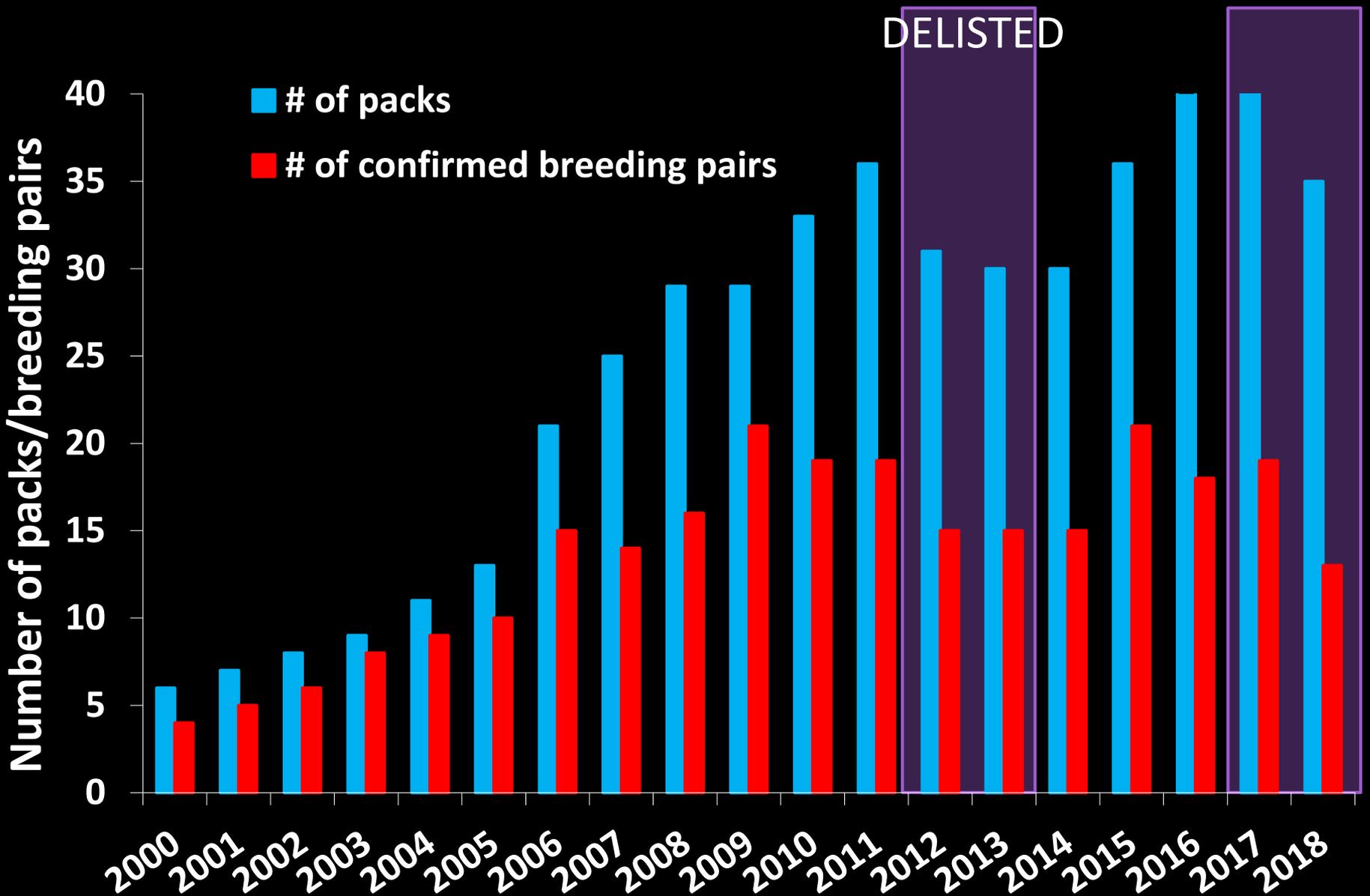
- Majority of packs and breeding pairs are in the WTGMA
- Packs residing outside the WTGMA rarely persisted under ESA protections



WY WOLF POPULATION TREND

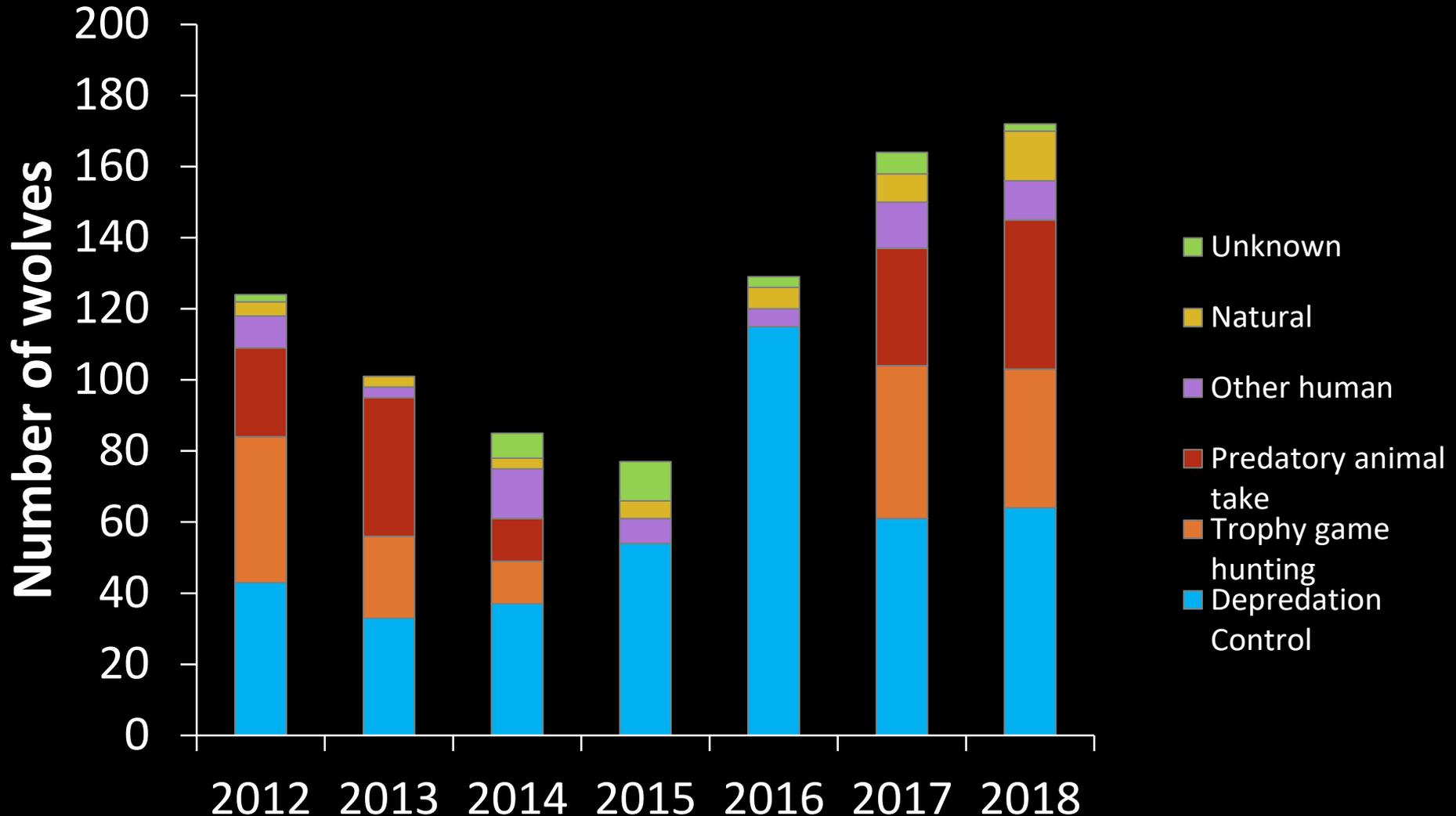


WOLF PACKS IN WYO



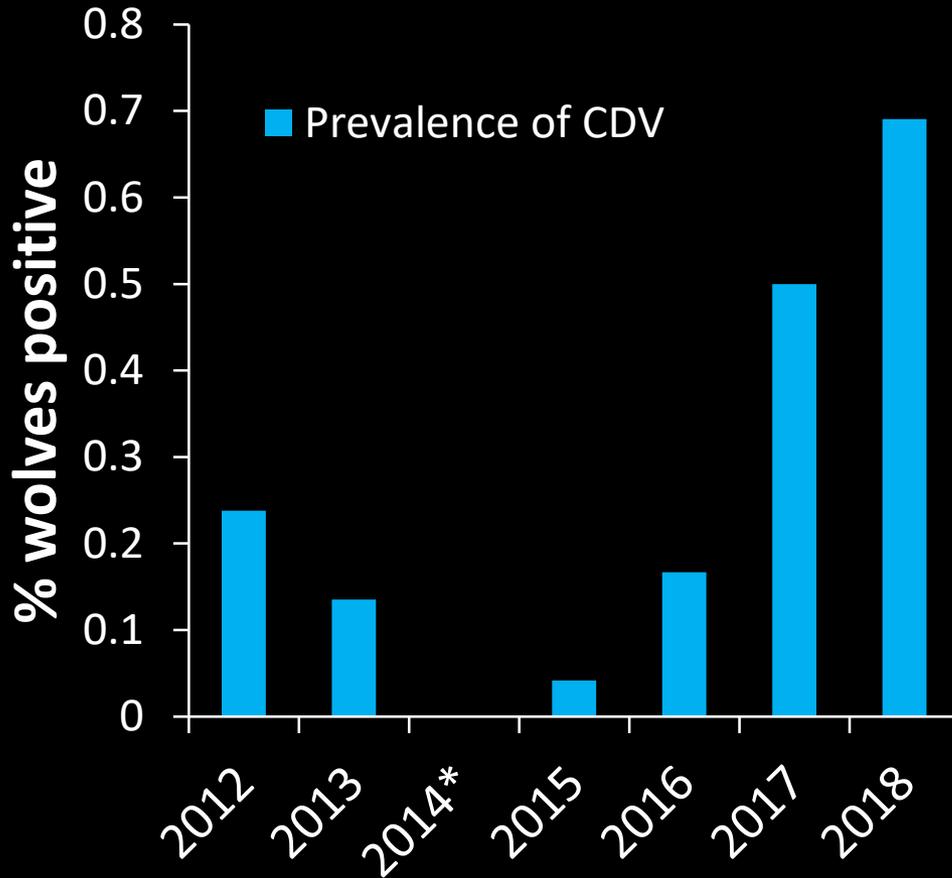
WOLF MORTALITY IN WYO

- 172 wolf deaths in WYO in 2018
- 47% of wolves known to be alive in 2018



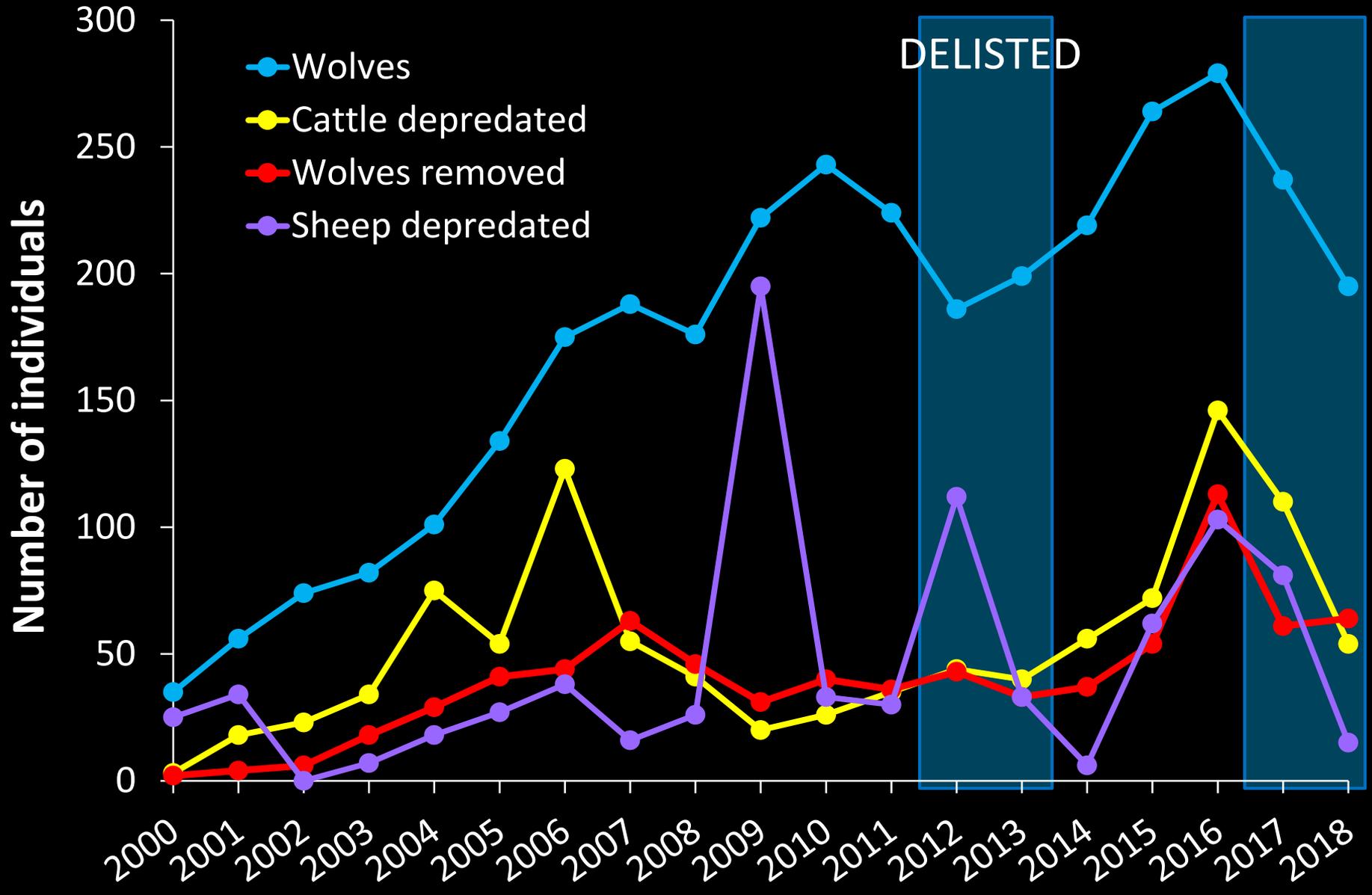
WOLF DISEASE IN WYO

- Prevalence of mange and canine distemper virus high in 2018

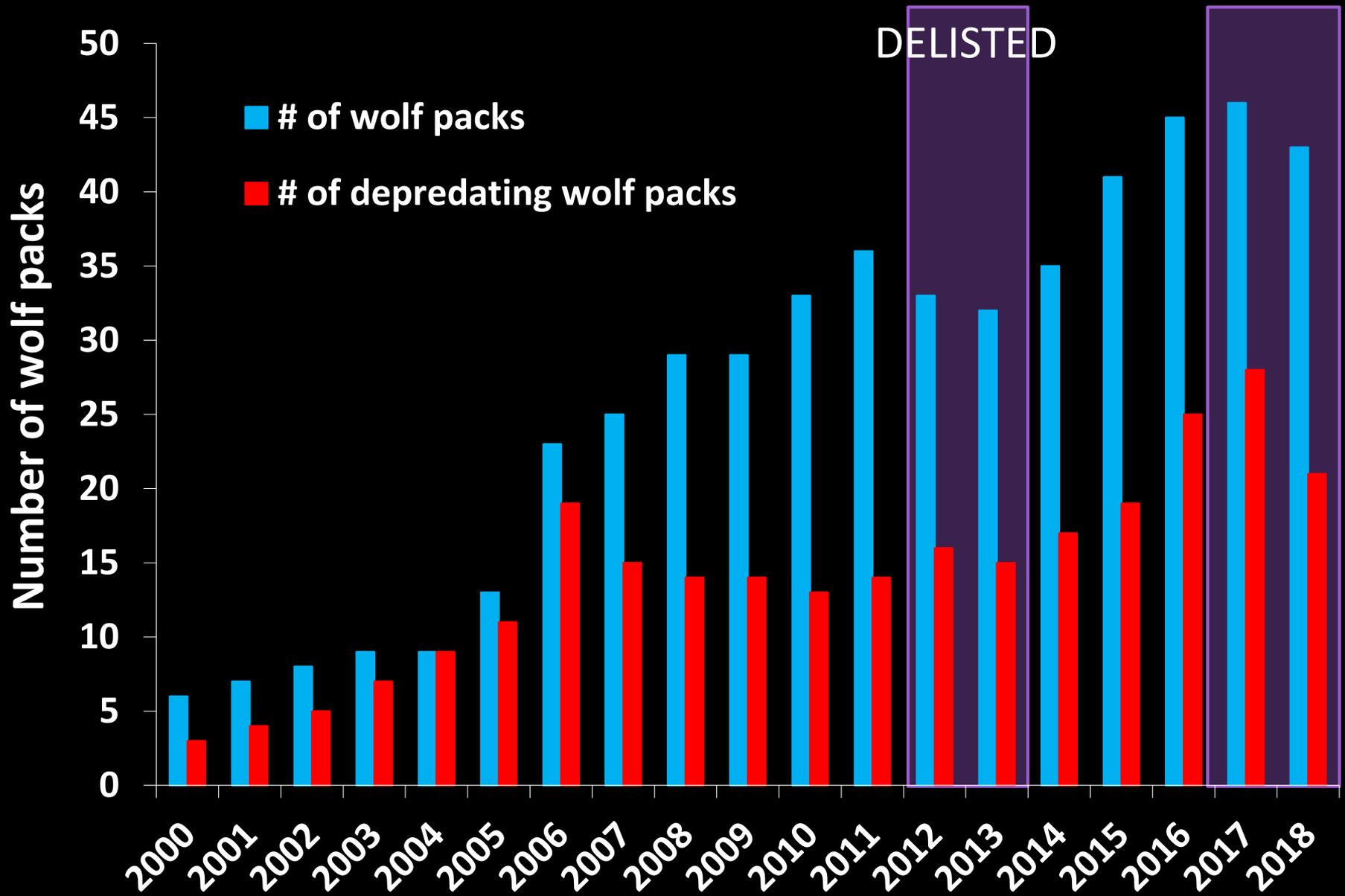


*Too few wolves were captured to measure distemper

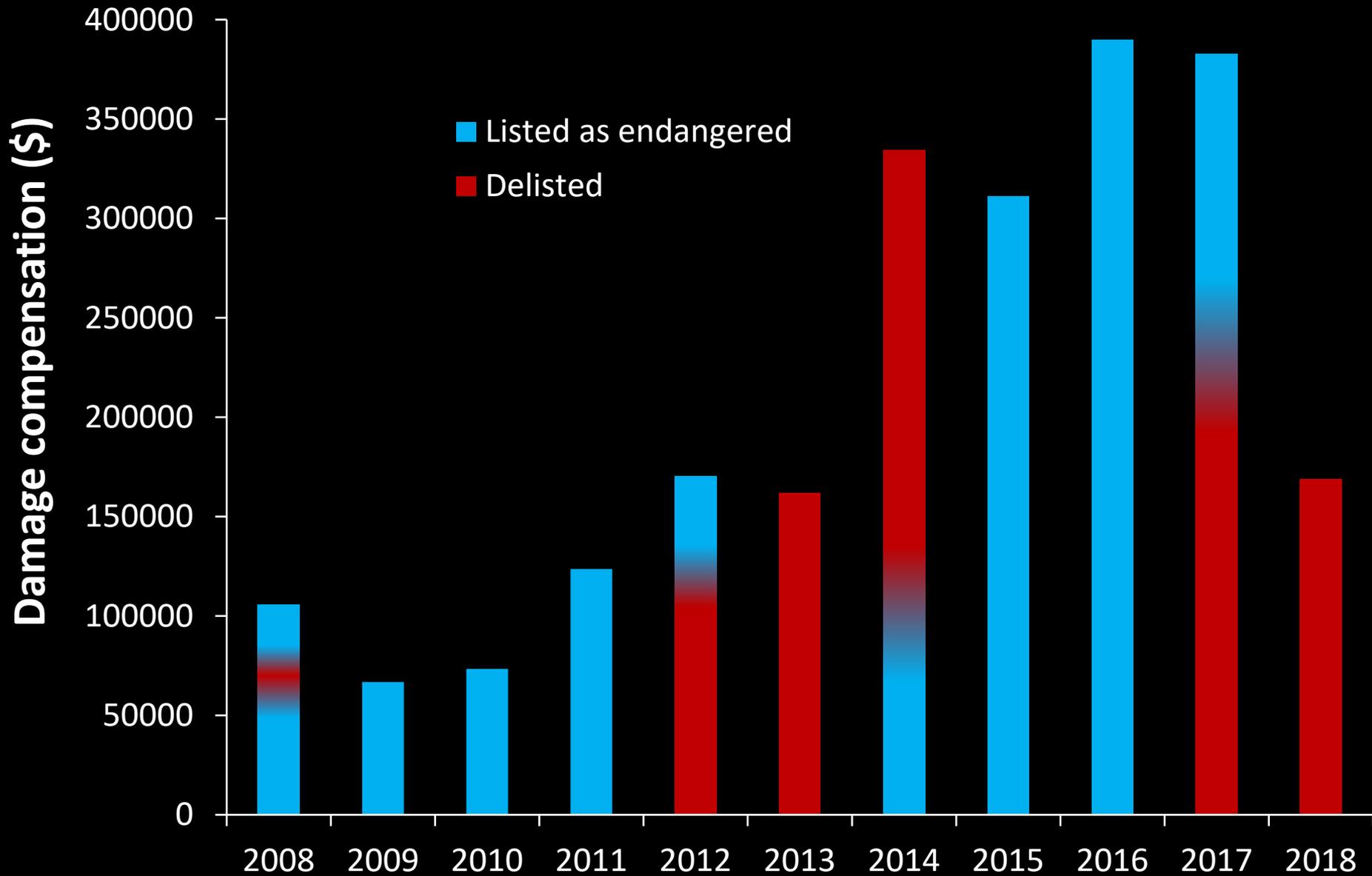
LIVESTOCK DEPREDATION IN WYO



LIVESTOCK DEPREDATION IN WYO



LIVESTOCK DAMAGE COMPENSATION



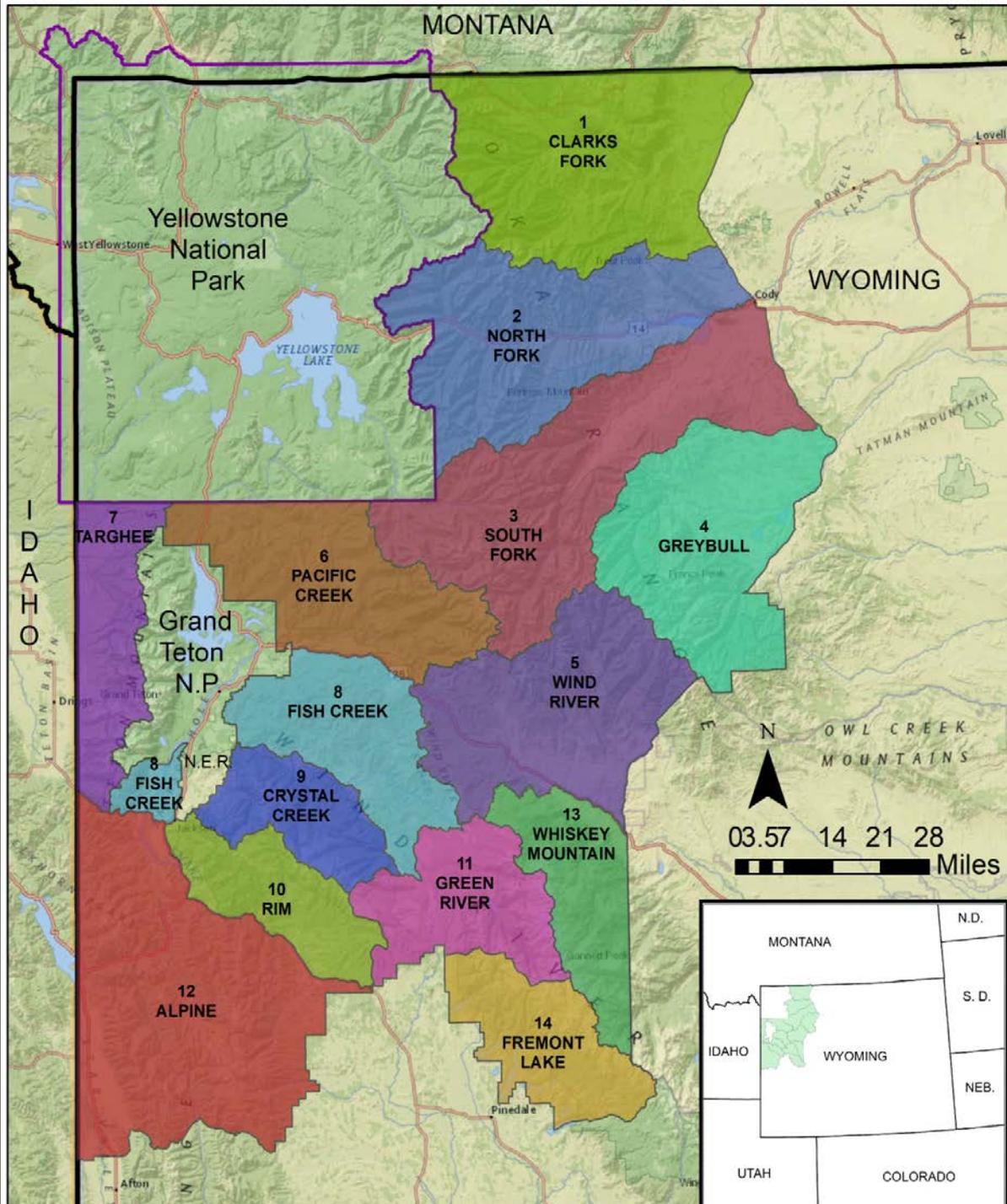
2018 WOLF HUNTING SEASONS



2018 WOLF HUNT

OVERVIEW

- Two new hunt areas
 - Areas 13 & 14
- Revised boundaries for hunt areas 1-4
- Combined mortality limits for some hunt areas
 - Areas 6 & 7
 - Areas 8, 9 & 11
- Moved season opener to September 1st vs. Oct. 1st
- 2 licenses/hunter
 - 4 hunters filled both licenses



2018 MORTALITY LIMIT

210	Start of 2018 wolf population in WTGMA
54	Estimated # of wolf mortalities that will stabilize the population at 210 wolves (25.8%)
+50	# of wolf mortalities to reduce the population from 210 to ~160 wolves and ~14 breeding pairs
=104	Total # of wolf mortalities that will result in a decrease of the population from 210 to ~160 wolves
-48	Estimated # of wolves expected to die from non-hunting human-caused mortality (Average: 22.9%)
56	Total WTGMA mortality limit (WHAs 1-11, 13, 14)
58	Total WTGMA mortality limit + 2 for the Seasonal WTGMA (WHA 12)

	HUNT AREA	QUOTA FROM REGS	SEASON DATES	HARVEST COUNTED TOWARDS QUOTA *1	AREA STATUS	DATE/TIME AREA CLOSED
			GENERAL			
	1	7	September 1 - December 31	7	CLOSED	11/11/2018 @ 7:30 am
	2	8		7	CLOSED	Dec. 31 per Regulation
	3	5		3	CLOSED	Dec. 31 per Regulation
	4	4		4	CLOSED	12/26 @ 5:00 pm
	5	3		0	CLOSED	Dec. 31 per Regulation
	6, 7	3		3	CLOSED	12/22 @ 12:30 pm
	8, 9, 11	15		14	CLOSED	Dec. 31 per Regulation
	10	5		1	CLOSED	Dec. 31 per Regulation
	12	2	Oct 15 - Dec 31	2	CLOSED	11/21 @ 8:30 AM
	13	5	September 1 - December 31	2	CLOSED	Dec. 31 per Regulation
	14	1		0	CLOSED	Dec. 31 per Regulation
	Total 2018 Trophy Quota	58	Total 2018 Trophy Harvest	43		
STATE WIDE	PREDATORY	No Quota	Total 2018 Predatory Animal Take *2	42		

*1 All legal harvest or illegal human-caused gray wolf deaths that occur during an open hunting season will apply to the quota.

*2 Total harvest for Gray Wolves designated as predatory animals.

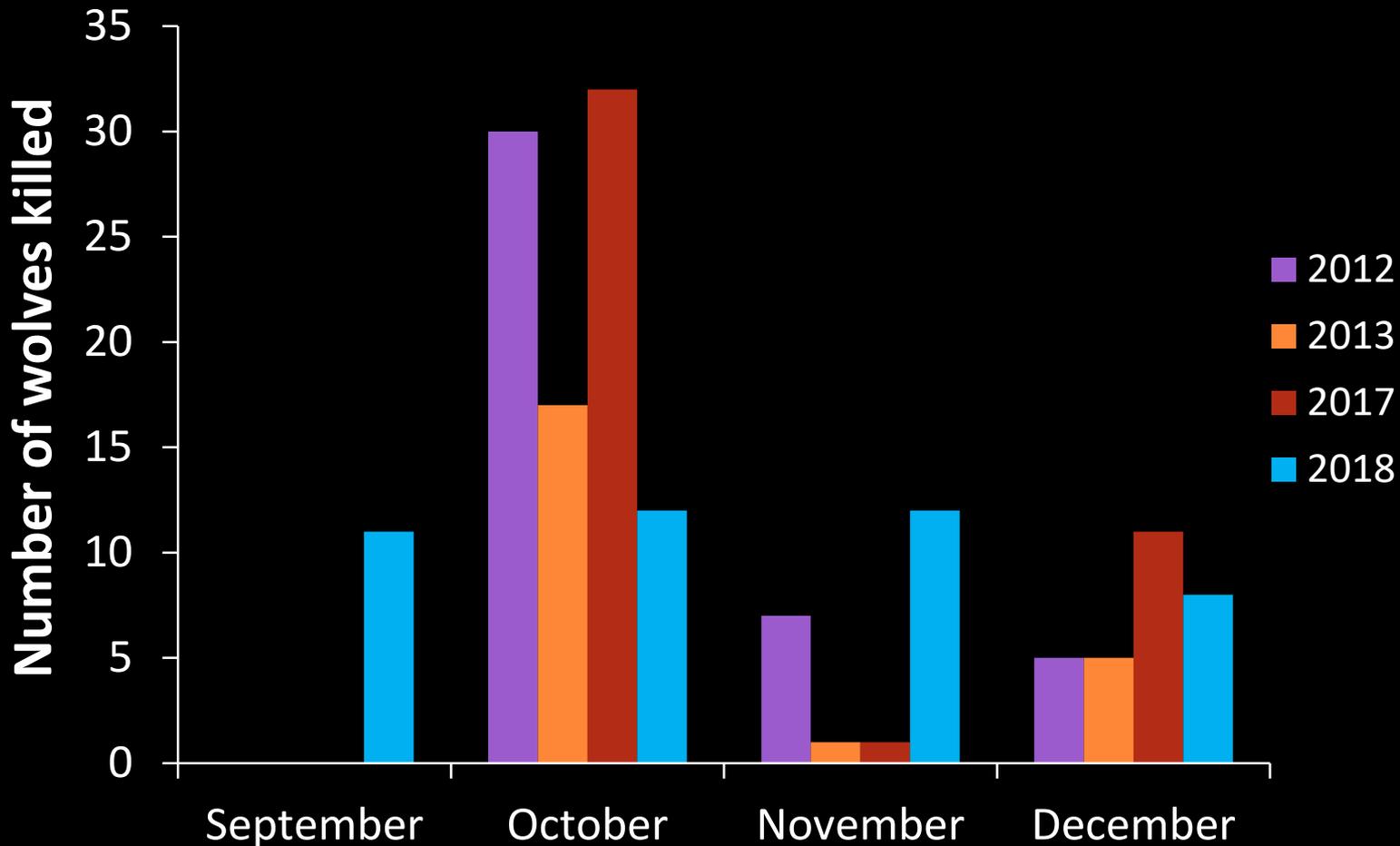
WOLF HUNTING

WTGMA POPULATION RESPONSE

	Predicted	Actual	Difference
End of 2018 population	~160	152	-8
End of 2018 breeding pairs	14	11	-3
# wolves taken	56	43	-13
% non-hunting human-caused mortality	22.9%	23.3%	+0.4%
% human-caused mortality to stabilize population	25.8%	13.3%	-12.5%

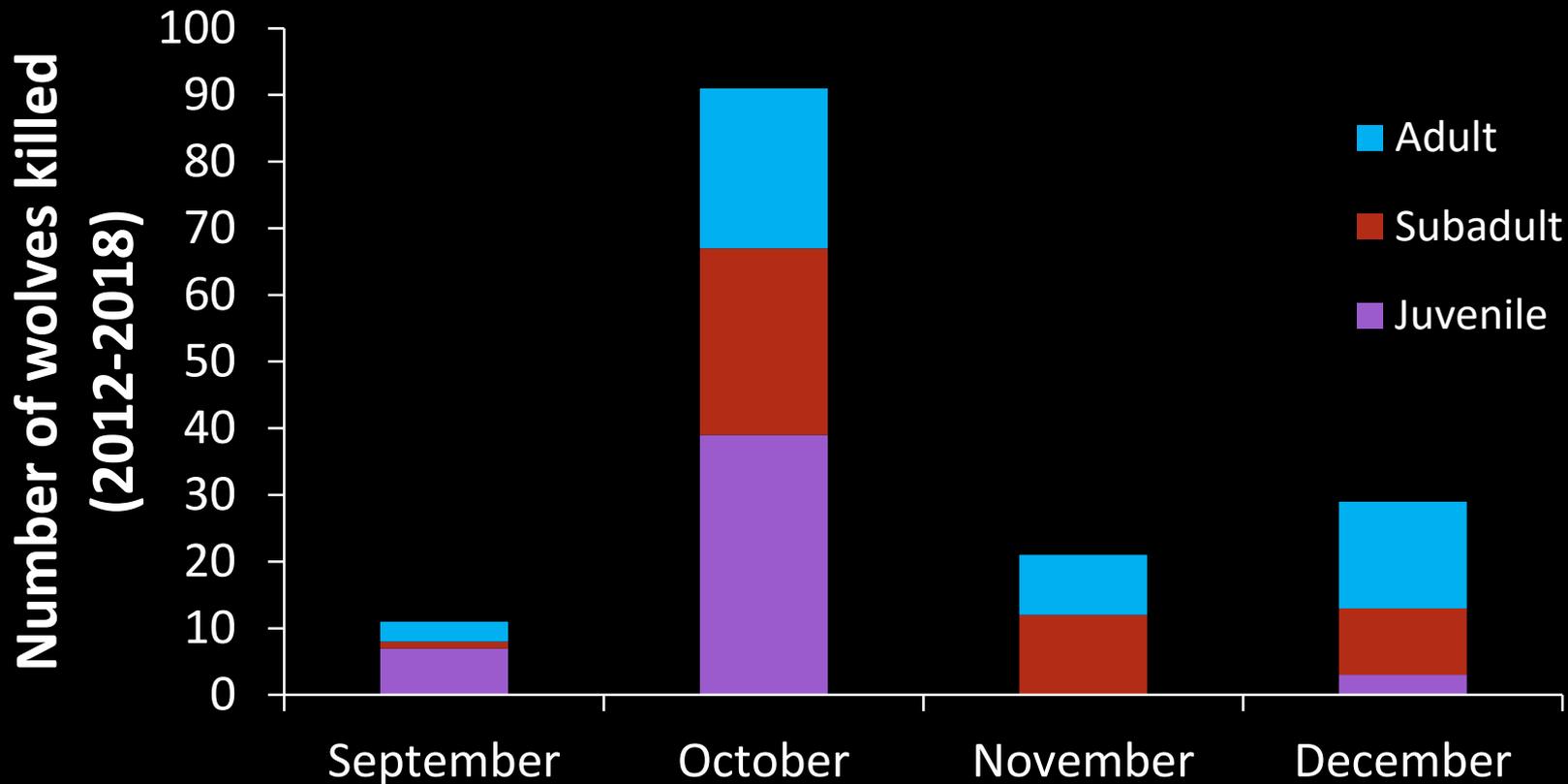
WOLF HUNTING MORTALITY

- Hunting mortality in 2018 was lower but steady compared to previous hunts



WOLF HUNTING MORTALITY

- 74% of the mortality limit was met
 - Fewer wolves
 - Low recruitment in the population
 - Older age classes are more difficult to hunt



2019 SEASON SETTING PROCESS

- Proposed Chapter 47 regulation based on data collected in 2018 & early 2019
 - Population, distribution, mortality and prey data
- Public comment period April 29 – June 14, 2019
- Department will analyze public comments
- Final recommendation scheduled for the July Commission meeting



QUESTIONS?

