

Pinedale Anticline Project Area 2019 Annual Pronghorn Report

Prepared for:

Pinedale Anticline Project Office

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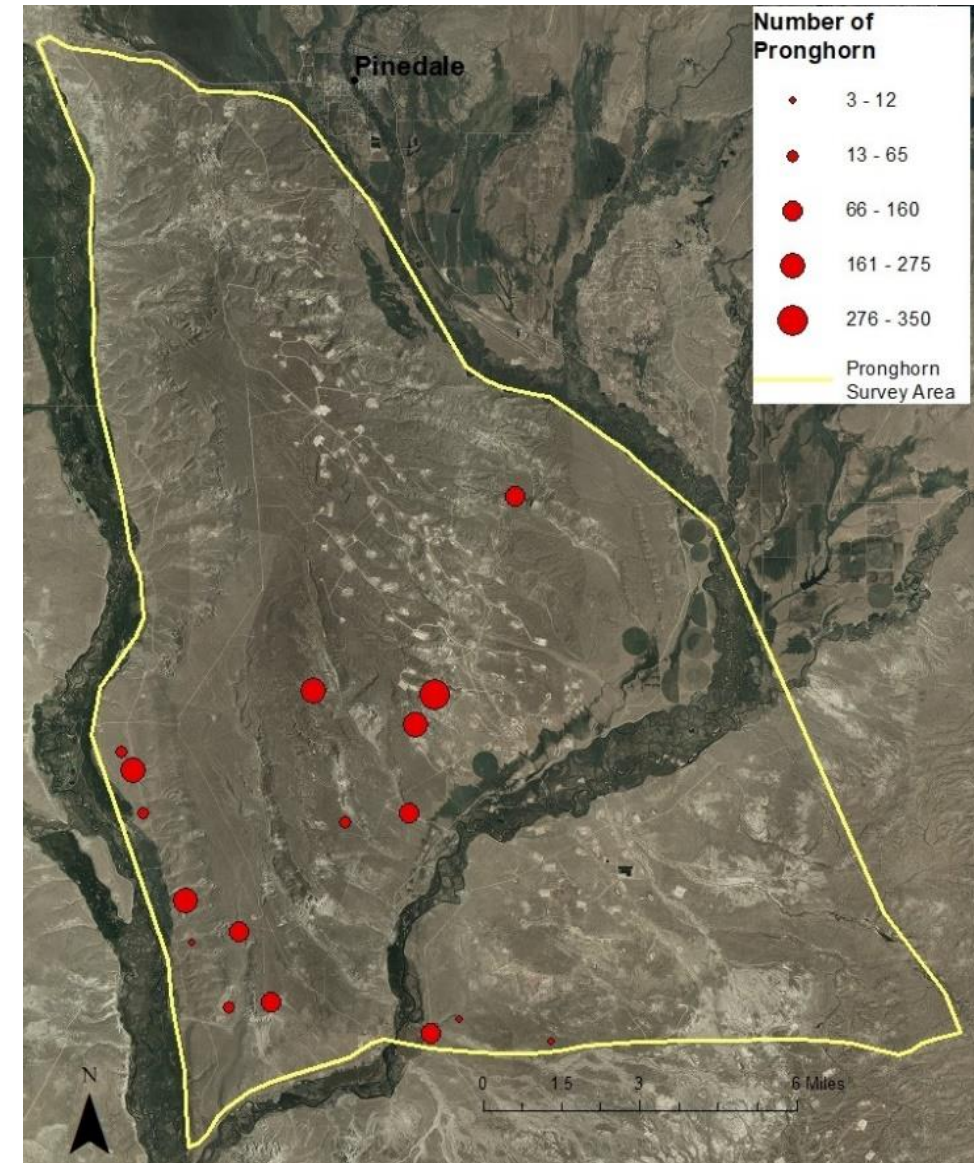


Overview

- Pinedale Anticline Project Area (PAPA) pronghorn
 - Portion of the Sublette pronghorn herd wintering annually on the Pinedale Anticline Project Area (PAPA)
- 2008 Bureau of Land Management Record of Decision (ROD)- Wildlife Monitoring and Mitigation Matrix (WMMM)
 - **15% change in any year, or cumulatively over all years, compared to reference herd (Sublette)**
- Winter 2018-19 PAPA pronghorn monitoring
 - PAPA pronghorn had a relative change of $\pm 82\%$ from the baseline compared to the Sublette reference herd
 - PAPA pronghorn abundance decreased 9% from last year's survey relative to Sublette herd

Methods

- Winters 2009-2017
 - Fixed wing aircraft aerial line transects in January, February and March (Sawyer 2018, LeBeau and Hiler 2017)
- Winter 2018-present
 - Aerial infrared surveys in early February
 - Video, real time counts, geographical coordinates
 - 119,600 acres pronghorn treatment area (PAPA)
 - ¼ mile transects
- Calculations
 - Sublette pronghorn reference herd estimates from Wyoming Game and Fish Department (WGFD)
 - Updated PAPA and Sublette reference herd abundances compared to baseline estimates to calculate rate of change



2019 Survey

Methods



Results

- 2,234 pronghorn counted in PAPA = 46% increase from baseline (1,533)
- Most were in groups >50 individuals
- WGFD estimated 37,500 pronghorn in Sublette herd = 36% decrease from baseline (59,000)
- 82% change in PAPA pronghorn relative to Sublette reference herd

Winter	PAPA			Sublette Herd Unit			Relative % Change	Threshold Exceeded ?
	Estimate	SE	% Change	Estimate	SE	% Change		
2009-10	1,533 ^a	761	baseline	59,000	n/a	baseline	n/a	baseline
2010-11	1,036 ^a	825	-32%	37,800	n/a	-36%	4%	NO
2011-12	1,861 ^a	388	21%	40,000	n/a	-32%	53%	NO
2012-13 ^b	1,567 ^a	672	2%	34,000 ^b	n/a	-42%	44%	NO
2013-14	2,409 ^a	359	57%	31,300	n/a	-47%	104%	NO
2014-15	5,347 ^a	1251	248%	32,000	n/a	-46%	294%	NO
2015-16	4,998 ^a	919	226%	38,000	n/a	-36%	262%	NO
2016-17	2,335 ^a	798	52%	37,800	n/a	-36%	88%	NO
2017-18	2,345 ^a	n/a	53%	36,000	n/a	-39%	92%	NO
2018-19 ^c	2,234 ^c	n/a	46%	37,500	n/a	-36%	82%	NO

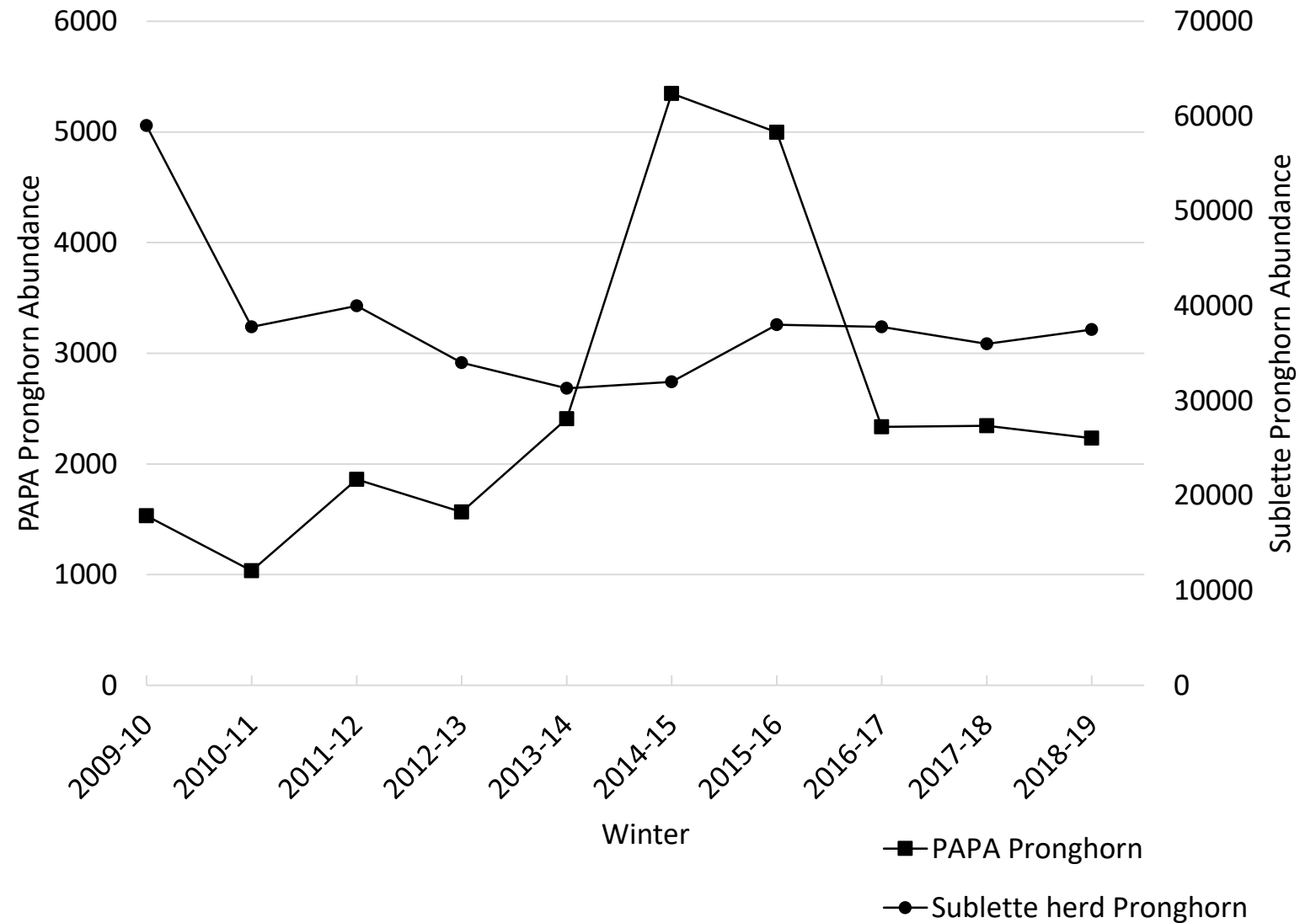
Results

- PAPA pronghorn abundance decreased 9% from last year's survey relative to Sublette herd

Winter	PAPA		Sublette Herd Unit		Relative % Change	Threshold Exceeded ?
	Estimate	% Change	Estimate	% Change		
2017-18	2,345 ^a	n/a	36,000	n/a	n/a	n/a
2018-19 ^c	2,234 ^c	-5%	37,500	4%	-9%	NO

Discussion

- 82% change in PAPA pronghorn relative to Sublette reference herd
 - WMMM threshold not met
- PAPA pronghorn abundance decreased 9% from last year's survey relative to Sublette reference herd
 - WMMM threshold not met



References

- Bureau of Land Management [BLM]. 2000. Record of Decision: Environmental Impact Statement for the Pinedale Anticline Natural Gas Field Exploration and Development Project. Pinedale Field Office, Wyoming.
- Bureau of Land Management [BLM]. 2008. Record of Decision: Final Supplemental Environmental Impact Statement for the Pinedale Anticline Natural Gas Field Exploration and Development Project. Pinedale Field Office, Wyoming.
- Gold, K. 2019. Pronghorn Monitoring in the Pinedale Anticline Project Area: 2019 Annual Update. Wyoming Game and Fish Department, Cheyenne, Wyoming, USA>
- LeBeau, C. and J. Hiler. 2017. Pronghorn monitoring in the Pinedale Anticline Project Area: 2017 Annual Report. Western EcoSystems Technology, Inc., Cheyenne, Wyoming, USA.
- Sawyer, H. 2018. Pronghorn Monitoring in the Pinedale Anticline Project Area: 2018 Annual Update. Western EcoSystems Technology, Inc., Laramie, Wyoming, USA.

Questions?