

Feral Horse Aerial Survey, Wind River Reservation Jan-Feb 2022

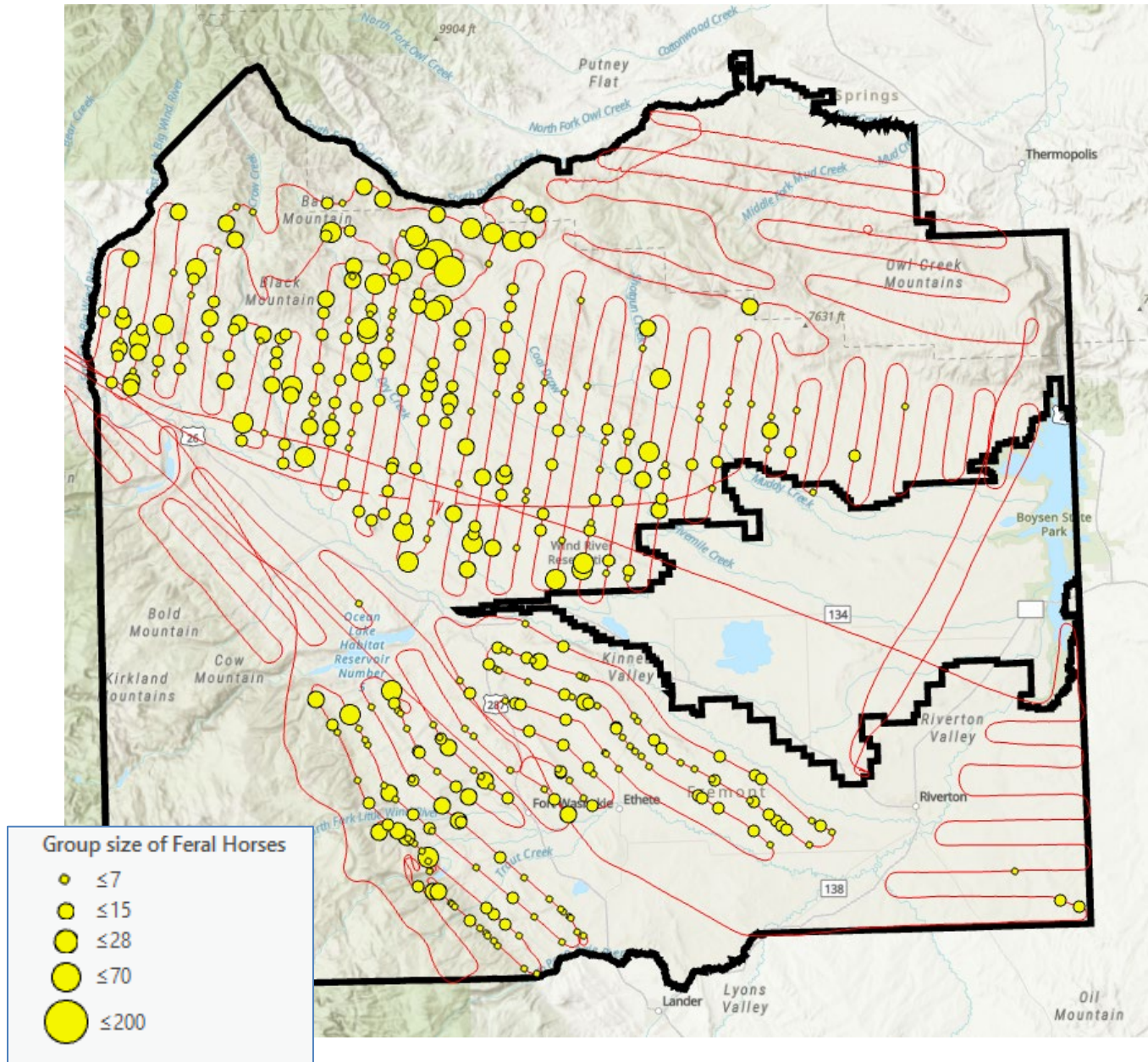
To determine a minimum estimate of the number of feral horses on the entire Wind River Reservation, a cooperative aerial survey between Shoshone & Arapaho Fish & Game, Wind River BIA and US Fish & Wildlife was conducted in January and February 2022. The total number of horses observed was 5,004 during four flights of 13.8 hours of survey in a tandem-seat American Scout airplane. This survey is not a population estimate, only a minimum count, as an unknown percentage of horses went unobserved. However, given a horse's large size and general openness of terrain, we believe that a high percentage was seen (estimate of 65-80% observed).

The following two maps show the flight track, locations and size of feral horse groups, and the areas with the highest density. The entire Reservation was sectioned into 1.5 mile wide transects, along which a pilot and an observer counted all horses observed within 0.75 miles of each side of the plane. Pilot Mark Packila of Wildlife Air Dubois WY, flew ~100 mph at ~500 feet above-ground-level. The observer recorded each horse group into estimated 0.25 miles distance bands, and whether each group was located in sun/shade; no, broken or solid snow cover; moving yes/no at moment of sighting; and was terrain flat or hilly. Cost of the survey was \$4,725.



Looking down from the plane on a group of horses

Map of feral horse groups observed during four fixed-wing flights in Jan-Feb 2022 on the Wind River Reservation. A total of 5,004 horses were counted. The larger the symbol, the greater the number of horses at that location. Red lines indicate flight routes.



Map showing the density of feral horses observed during 4 fixed-wing flights in Jan-Feb 2022 on the Wind River Reservation. The areas marked by red are the highest density areas.

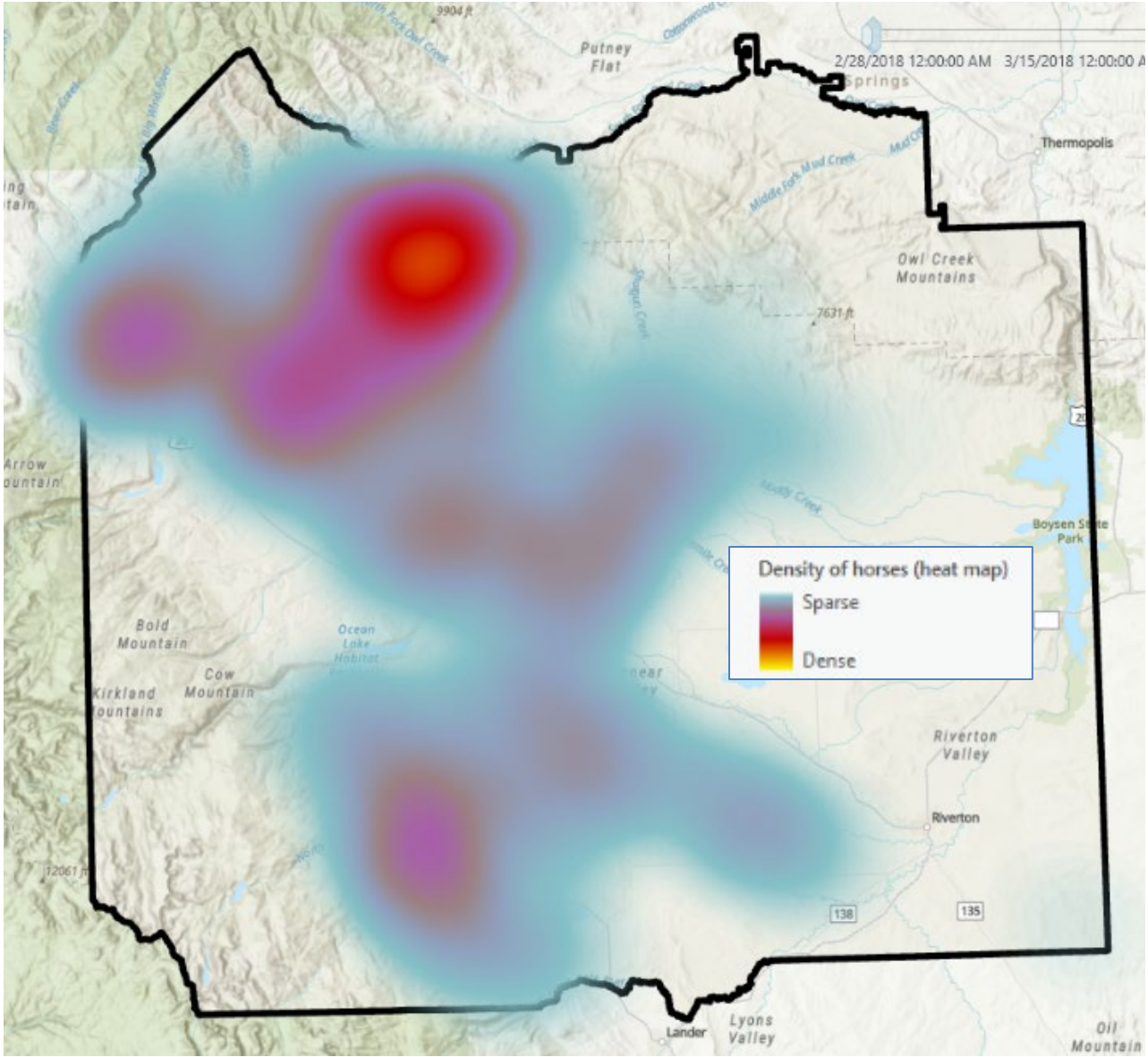


Table of survey statistics.

Date	Area (color matches transect lines flown on map below)	Observer	Begin Temp F	End Temp F	Begin Winds	End Winds	Begin Clouds	End Clouds	Take off	Land	Start Survey	End Survey	Total Flight hrs	Survey hrs	Horse Groups	Avg Group Size	Total Horses	Groups/survey hr	Horses/survey hr
1/18/2022	West Owl Creeks & 1/3rd of East Owl Creek	A. Lawson	28		windy		clear		736	1342	745	1304	6.2	5.3	212	16.5	3500	40.0	660.4
1/20/2022	Eastern 2/3rd of East Owl Creeks, entire N. side of Owl Creeks	J. Friday	21				mostly clear		1057	1433	1110	1420	5.1	3.2	9	9.8	88	2.8	27.5
1/21/2022	Southeast Winds	P. Hnilicka	27	29	light	light	clear	mostly cloudy	748	1140	808	1002	4.1	1.9	89	9.0	801	46.8	421.6
1/21/2022	Bighorn Draw/Mule Butte	P. Hnilicka	29	31	calm	calm	mostly cloudy	mostly cloudy	same flight as Southeast Winds		1004	1117		1.2	74	8.0	592	61.7	493.3
2/14/2022	Northwest Winds	J. Friday	25		light		partly		802	1123	809	923	3.5	1.2	1	8.0	3	0.8	2.5
2/14/2022	Kirby Draw	J. Friday		34				partly	same flight as Northwest Winds		935	1035		1	3	8.0	20	3.0	20.0
Totals	For the Bighorn Draw/Mule Butte flight, 355 horses were in Bighorn Draw portion, and 237 were counted in Mule Butte portion												18.9	13.8	388	12.9	5004	28.1	362.6

Flight hours are higher than start and end flight times because pilot had to ferry from Dubois to Riverton where to pick up observer and is not shown in start/end times