

#### Recent research publications related to wild horses and burros Western USA-centric, since approximately October 2022

The <sup>\$BLM\$</sup> symbol before a citation indicates BLM-funded and -supported work. Some non-BLMsupported publications are listed here because they may relate to BLM WHB management. For a list of papers from 2021 to 2022, see the <u>fall 2022 research update to the advisory board</u>.

WHB In General, and Human Dimensions

Taylor et al. 2023. <u>Early dispersal of domestic horses into the Great Plains and northern Rockies</u>. Science 379:1316-1323.

Carlisle, C, and D Adams. 2022. <u>Enhancing stakeholder engagement to achieve the</u> <u>sustainable management of free-roaming equids</u>. Human Wildlife Interactions 16(2):297-307.

Hennig, JD, CJ Duchardt, S Esmaeili, SD Fuhlendorf, JL Beck, TI Francisco, and JD Scasta. 2023. <u>A</u> crossroads in the rearview mirror: the state of United States feral equid management in 2023. BioScience.

Frey, N, JL Beck, L Singletary, L Snell, D Scasta, and J Hadfield. 2024. <u>Western US residents'</u> <u>knowledge of wild free-roaming horses and their management on federal public lands</u>. Rangeland Ecology and Management 92:12-23.

Frey, SN. 2022. It's time for the next step. Human Wildlife Interactions 16(2):175-176.

Frey, SN, JL Beck, JD Scasta, and L Singleterry. 2022. <u>U.S. public opinion of reproductive control</u> options for free-roaming horses on western public lands. Human Wildlife Interactions 16(2):217-232.

Wood, HS, SN Frey, and TA Messmer. 2022. <u>Stakeholder knowledge and perceptions of free-roaming equids and their management at a western U.S. land-grant university</u>. Human Wildlife Interactions 16(2):280-296.

Snell, LK. 2022. <u>Partnerships create success for the Devil's Garden wild horses</u>. Human Wildlife Interactions 16(2):317-323.

<sup>\$BLM\$</sup> Jenkins, D. 2022. <u>New research and wild horse and burro management</u>. Human Wildlife Interactions 16(2):324-328.

Sedinger, JS, and R. Stetson. 2022. <u>Healthy Western Lands: a proposal for healthy rangelands, wildlife</u>, and free-roaming horses and burros. Human Wildlife Interactions 16(2):329-336.

Bleich, VC. 2022. <u>Feral horses, feral asses, and professional politicians: broodings from a beleaguered biologist</u>. Human Wildlife Interactions 16(2):337-342.

#### Fertility Control

<sup>SBLMS</sup> Baker, DL, BE McCann, JG Powers, NL Galloway, JE Bruemmer, MA Thompson, and TM Nett. 2023. <u>Reimmunization intervals for application of GnRH immunocontraceptive vaccine (GonaCon-Equine) in free-roaming horses (*Equus ferus caballus*) using syringe darts. Theriogenology Wild 2023:100061.</u>

<sup>\$BLM\$</sup> Thompson, MA, BE McCann, RB Simmons, and T Rhen. 2022. <u>Major locus on ECA18 influences</u> <u>effectiveness of GonaCon vaccine in feral horses</u>. Journal of Reproductive Immunology 155:103779.

Bechert, US, JW Turner, DL Baker, DC Eckery, JE Bruemmer, CC Lyman, TM Prado, SRB King, and MA Fraker. 2022. <u>Fertility control options for management of free-roaming horse populations</u>. Human Wildlife Interactions 16(2):179-216.

Sas-Jaworsky, A, and JD Scasta. 2022. <u>Wyoming's Wild Horse Ranch: history and description of a socio-ecological experiment</u>. Human Wildlife Interactions 16(2):308-316.

Schulman, ML, JD Grewar, T Wilson, M Hou, and N Hayes. 2023. <u>Establishing feasibility for porcine</u> zona pellucida immunocontraception in a large population of free-roaming horses inhabiting the Virginia <u>Range of Nevada, USA</u>. Journal of Equine Veterinary Science 125: 124742.

## Surveys and Telemetry

<sup>\$BLM\$</sup> Hennig, JD and KA Schoenecker. 2023. <u>Comparing methods to estimate feral burro abundance</u>. Wildlife Society Bulletin (2023):e1495.

### <u>Genetics</u>

Bozlak et al. 2023. <u>Refining the evolutionary tree of the horse Y chromosome</u>. Scientific Reports 13: 8954.'

### Demography & Behavior

<sup>\$BLM\$</sup> Folt, B, KA Scheonecker, LS Ekernas, DR Edmunds, and M Hannon. 2023. <u>PopEquus: A predictive</u> <u>modeling tool to support management decisions for free-roaming horse populations</u>. Ecosphere 2023;14:e4632.

<sup>\$BLM\$</sup> King, SRB, MJ Cole, C Barton, and KA Schoenecker. 2023. <u>Proximate factors affecting mortality</u> and maternal abandonment of young free-roaming feral horse foals. Journal of Veterinary Behavior 66:1-10.

<sup>\$BLM\$</sup> Iacono, P. 2023. <u>Mountain lion (*Puma concolor*) and feral horse (*Equus ferus*) interactions: <u>examining the influence of a non-native ungulate on predator behavior in a semi-arid environment.</u> Utah State University masters thesis.</u>

Mesler, JI, and AS Jones. 2022. <u>Feral burros as a mountain lion prey item in west central Arizona</u>. The Southwestern Naturalist 66(4):338-342.

Smith, JB, AR Greenleaf, and JR Oakleaf. 2023. <u>Kill rates on native ungulates by Mexican gray wolves</u> in Arizona and New Mexico. Journal of Wildlife Management 87(8):22491.

Lundgren, EJ et al. 2022. <u>A novel trophic cascade between cougars and feral donkeys shapes desert</u> wetlands. Journal of Animal Ecology 91:2348-2357.

<sup>\$BLM\$</sup> Folt, B, KA Schoenecker, and LS Ekernas. 2022. <u>Multi-objective modeling as a decision-support</u> tool for free-roaming horse management. Human Wildlife Interactions 16(2):233-250.

Scasta, JD, E. Thacker, JD Hennig, and K Hoopes. 2022. <u>Dehydration and mortality of feral horses and burros: a systematic review of reported deaths</u>. Human Wildlife Interactions 16(2):251-261.

Rödel, HG, B Ibler, K Ozogány, and V Kerekes. 2023. <u>Age-specific effects of density and weather on</u> <u>body condition and birth rates in a large herbivore, the Przewalski's horse</u>. Oecologia (2023). https://doi.org/10.1007/s00442-023-05477-9

# Ecology, and Climate

<sup>\$BLM\$</sup> Hennig, JD, JD Scasta, AC Pratt, CP Wanner, and JL Beck. 2022. <u>Habitat selection and space use</u> overlap between feral horses, pronghorn, and greater sage-grouse in cold arid steppe. Journal of Wildlife Management 87(1):e22329.

<sup>\$BLM\$</sup> McNew LB, DK Dahlgren, and JL Beck. 2023. <u>Rangeland wildlife ecology and conservation</u>. Springer. Cham, Switzerland. <sup>\$BLM\$</sup> Schoenecker, KA, S Esmaeili, and SRB King. 2023. <u>Seasonal resource selection and movement</u> <u>ecology of free-ranging horses in the western United States.</u> Journal of Wildlife Management 87(2):e22341.

<sup>\$BLM\$</sup> Esmaeili S, SRB King, and KA Schoenecker. 2023. <u>Browsers or grazers? New insights into feral</u> <u>burro diet using a non-invasive sampling and plant DNA metabarcoding approach</u>. Animals 2023, *13*(16), 2683.

Karish, T, GW Roemer, DK Delaney, CD Reddell, and JW Cain III. 2023. <u>Habitat selection and water</u> <u>dependency of feral burros in the Mojave desert</u>, California, USA. Journal of Wildlife Management (2023): e22429.

Morra, BM, WC Richardson, TK Stringham, and BW Sullivan. 2023. <u>Carbon stocks and total</u> <u>belowground carbon flux respond to weather and grazing in semiarid montane meadows</u>. Ecosystems. doi.org/10.1007/s10021-023-00843-3

McGinn, MR, SL Petersen, MS Chelak, RT Larsen, L Apphin, BR MacMilan, D. Eggert, and TA Messmer. 2022. <u>Nonnative ungulate impacts on greater sage-grouse late brood-rearing habitat in the Great Basin, USA</u>. Human Wildlife Interactions 16(2):262-279.