

Daniela Soto Cabrera and Dr. Julie Murphree College of Integrative Sciences and Arts, Arizona State University

	Salt River Management Group (SRMG)	Wild Horse Fire Brigade (WHFB)
Management practice	State protected & on public land (partnership with Department of Agriculture)	Private group (possible partnership with an Oregon Wildfire Insurance Company)
Philosophical approach	Animal welfare - use of Porcine Zona Pellucida (PZP –a birth control vaccine) to reduce population growth (rather than culling the herds). → Animal welfare is the focus on the well- being and treatment of animals within human care. Use supplemental feeding to reduce starvation during drought periods	Animal rights - rescuing and rewilding rounded up wild horses → Animal rights advocates for the inherent rights of animals, asserts their own intrinsic value, and independence/free from exploitation of human use. Compassionate conservation - focus on how the herds effect the ecosystem → Compassionate conservation aims to minimize harm to individuals while pursuing conservation objectives.
Ethical concerns	Fertility control can affect herd structure/dynamics and supplemental feeding can affect forage behavior	Rewild horses are not completely staying 'wild' due to close contact with property owner and supplemental feeding

Literature references:

- Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward, pp 239-259. The National Academies Press. (2013).
- Bhattacharyya, Jonaki. et al. (2011). The "Wild" or "Feral" Distraction: Effects of Cultural Understandings on Management Controversy Over Free-Ranging Horses (Equus ferus caballus). Human Ecology.
- Boyce, P. N. et al. (2021). Causes and 0 consequences of lags in basic and applied research into feral wildlife ecology: the case for feral horses. Basic and Applied Ecology.



Salt River herd (Left – Eating eelgrass in Salt River // Right – Eating supplemental feed)

The Ethics and Philosophy of Wild Horse Management

U.S. Forest Service Apache-Sitgreaves Wild Horses (USFS)

Hands-off management (Federally protected by the Wild-Free roaming Horses and Burros Act/ Federal Land Policy management act)

Traditional conservation - focus on population ecology and how herds effect the ecosystem \rightarrow Traditional conservation prioritizes biodiversity conservation and ecosystem over welfare of individuals.

Multiple Use of Public Land -Adaptive management -(implementing decisions, monitoring, and reassessing with changes).

Abide by government policies for multiple use including all decisions affecting ecosystem/wildlife) can prolong management proposals that need quick decisions.

Methods:

Ecological and behavioral observatio Ο

- SRMG: Witnessed their da Ο methods for fertility control supplemental feeding prog and observed the wild hor eating eelgrass from the riverbank.
- WHFB: Witnessed the rele rescued BLM horses; Obse the private lands that the rewilded horses roamed a how they can serve as pos ecosystem engineers to rea fire fuel grasses.
- USFS: Observed and discus Ο their hands-off approach o managing the herds across **Apache-Sitgreaves** Nationa Forest and the dilemmas th have with different stakeho
- Ethnographic approach conducted Ο interviews with each management g manager and joined them on ride al



Heber herd – U.S. Forest Service

		Pictures were taken by Daniela Soto Cabrera
ons arting rol; gram rses	Results: • Ecosyste •	m engineers In all three management groups I witnessed how wild horses can serve as ecosystem engineers through reducing fire fuel invasive grasses - (VHFB), distributing mesquite beans - (SRVVG), and migrate to different watering holes to not compete with cattle (don't damage water banks
lease of erved and ssible educe ussed of s the al they olders. d open group's alongs.		(less soil erosion)) – (USFS) / Ride alongs Learned the responsibilities of each manager and the top-down processes when it comes to governance / management decisions of each group. Got an inside look at the ups and downs of managing the wild horse herds (politics, activist groups, and the debates of the terms 'wild' and 'feral').

ecosystem. Should manage herds on a case-by-case basis 0 due to different jurisdictions.



Wild Horse Fire Brigade herd (Left – Professor Murphree & I with Deb Ferns (President of WHFB group) // Right – Rewilded horses foraging)