



Big Hole Watershed Committee

Monthly Meeting Minutes

October 18, 2023 – 7:00 pm at the Divide Grange
Zoom option also provided

In Attendance

In-person: Pedro Marques, BHWC; Tana (Nulph) Lynch, BHWC; Ben LaPorte, BHWC; Tom Bowler, Resident; Betty Bowler, Resident; Jenna Dohman, MBMG; Jesse Newby, MFWP; Vanna Boccadori, MFWP; Katelin Killoy, MFWP; Mark Kambich, Rancher/BHWC; Dan Kambich, Rancher; Liz Jones, Rancher/BHWC; Roy Morris, GGTU/BHWC; Cass Kohler, MFWP; Erik Kalsta, Rancher/BHWC; Dean Peterson, Rancher/BHWC; Jeff Wolk, Resident; Jim Hagenbarth, Rancher/BHWC; Craig Fellin, Big Hole Lodge; Steve Luebeck, Sportsman/BHWC; Kim Giannone, UM Western; Dave Duffy, Resident; Ed Scott; JM Peck, Rancher/BHWC; Valerie; Jim Magee, USFWS; Jim Griffin; Jacob Smith, Rancher; Jack Curren, Rep. Zinke; and Randy Smith, Rancher/BHWC.

Zoom: Jim Keenan, BSB Water; Shiloh Rainey; Peter Frick, Rancher/BHWC; and Josh Margolis, NBC Montana.

Meeting Minutes

BHWC monthly meetings are held at the Divide Grange with a virtual (Zoom) option provided thanks to Southern Montana Telephone Company, who donated the internet service. Meeting minutes and recordings are available at <https://bhwc.org/monthly-meetings/> (scroll down for meeting minutes archive). Printed copies are available during in-person meetings. Contact Tana Nulph, BHWC Associate Director, at tnulph@bhwc.org or (406) 267-3421 to suggest additions or corrections.

Reports

Streamflow and Snowpack Report – Kaitlin Boren, DNRC and Katelin Killoy, MFWP

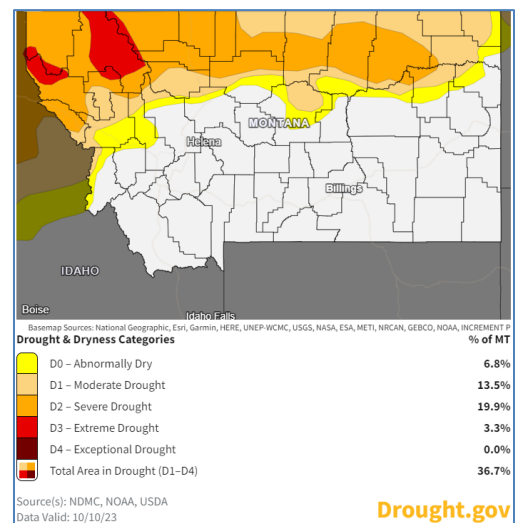
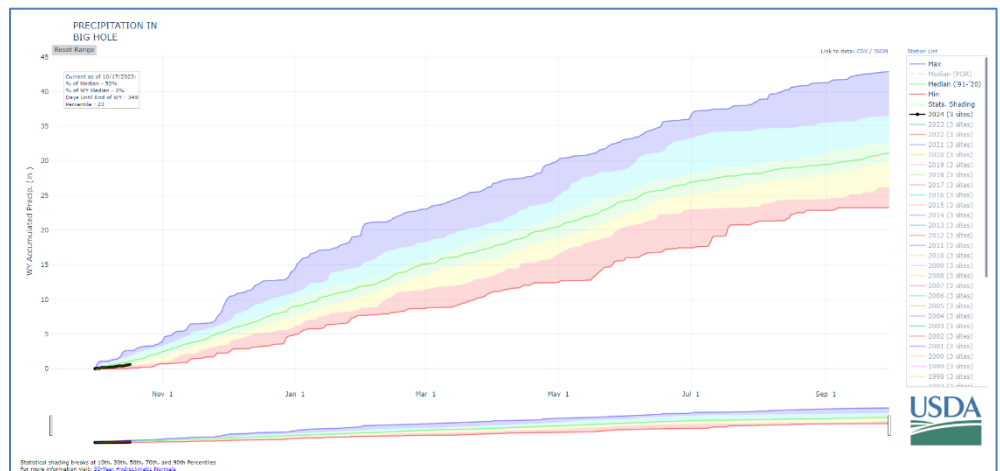
- Streamflows:*
Current
Discharges for the DMP sections are listed in the table to the right. Most are at median values for this time of year.

Drought Management Plan Section	Discharge (ft ³ /sec)
Section I (Saginaw Bridge on Skinner Meadows Road to North Fork Big Hole River mouth)	62.1
Section II (North Fork Big Hole River mouth to Dickie Bridge)	268.5
Section III (Dickie Bridge to MFWP Maiden Rock FAS)	418
Section IV (MFWP Maiden Rock FAS to Tony Schoonen FAS)	Melrose- 490 Glen- 508
Section V (Tony Schoonen FAS to confluence with the Jefferson River)	404

Station Number	Station name	Date/Time	Gage height, feet	Dis-charge, ft ³ /s	Long-term median flow 10/18	Temperature, water, deg C
■ UPPER MISSOURI RIVER BASIN						
06024450	Big Hole River bl Big Lake Cr at Wisdom MT	10/18 06:45 MDT	2.26	62.1	69.0	6.2
06024540	Big Hole River bl Mudd Cr nr Wisdom MT	10/18 07:30 MDT	2.74	125	202	--
06024580	Big Hole River near Wise River MT	10/18 06:45 MDT	--	--	---	4.5
06025250	Big Hole River at Maiden Rock nr Divide MT	10/18 06:45 MDT	3.01	418	457	7.3
06025500	Big Hole River near Melrose MT	10/18 07:15 MDT	1.76	490	456	7.4
06026210	Big Hole River near Glen MT	10/18 07:30 MDT	2.52	508	546	Ssn
06026420	Big Hole R bl Hamilton Ditch nr Twin Bridges, MT	10/18 07:30 MDT	1.380	404	425	8.5

Station Code	Station Name	Basin	Last Measured	Last Discharge ft ³ /s	Last Stage ft	Last Temp °C
41D 01900	Big Hole River abv Jackson, MT	Upper Missouri Basin	10/18/2023, 5:45 AM	22.74	1.13	4.50
41D 02900	Big Hole River abv Spring Cr nr Jackson, MT	Upper Missouri Basin	10/18/2023, 5:45 AM	27.47	1.68	4.87
41D 05000	Big Hole River at Miner Creek nr Jackson, MT	Upper Missouri Basin	10/18/2023, 5:45 AM	83.42	1.07	5.31
41D 08000	Big Hole River near Wise River, MT	Upper Missouri Basin	10/18/2023, 5:45 AM	268.52	2.76	4.52

- **Precipitation:** 53% of median. 2023 Water Year ended at 104% of Median, over 32 inches of precipitation accumulation.
- **Outlook:** The 8-14-day outlook predicts below average temperatures, above average precip.
- **Seasonal Outlook:** The three-month outlook (Oct–Nov–Dec) predicts equal chances to above average temps, equal chances precip.
 - **ENSO Alert System Status (from NOAA):** El Niño Advisory
 - **Synopsis:** El Niño is anticipated to continue through the Northern Hemisphere spring (with an 80% chance during March-May 2024).
- **Drought:** Big Hole is currently not in drought, but northern reaches of the watershed may be abnormally dry.



Director's Report – Pedro Marques, Executive Director

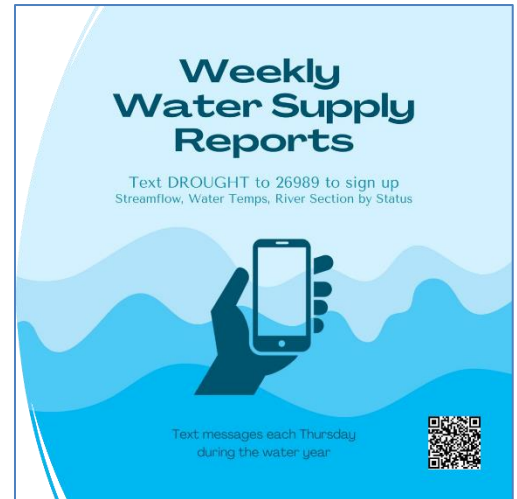
- Billing and Reporting in full swing- nearly \$200K in last month
- Irrigation projects: Survey complete Wise River, Jerry Cr., S. of Melrose
- Forest Service Supervisor at Elkhorn- Game on!
- USFWS Conservation Area out for Scoping
- Water Storage subcommittee: proposal for storage planning to BoR Watershed Capacity
- Endangered Species Act 50 year Anniversary

Steering Committee Report – Randy Smith, Chair; Jim Hagenbarth, Vice-Chair; Steve Luebeck, Treasurer; Roy Morris, Secretary

- The steering committee had nothing to report. They met recently, and everything is going well.

Communications and Wildlife Report – Tana Nulph, Associate Director

- Communications:
 - YouTube channel – September updates:
 - 2487 new subscribers
 - 68,916 total views
 - 231,420 minutes watched
 - Signage @ Fishing Access Sites
 - BLM approval
 - Installation in progress (BLM, private)
 - FWP sites – spring
 - Funders:
 - BoR
 - Beaverhead County United Way
 - DNRC WMG
 - Weekly drought updates via text message: text DROUGHT to 26989 to sign up
- Wildlife:
 - Range Rider:
 - July 1st – September 30th
 - 2023 highlights
 - Lion, wolves and (curious) bears
 - No confirmed depredations
 - Journalist joined Chet, awaiting publication
 - At the request of WLA, Dean will speak to the Holy Cross Cattlemen’s Association in Colorado about our wildlife conflict reduction programs, because they’re introducing wolves in Colorado.
 - Kim Johnston, People and Carnivores and Jim Magee, USFWS have 24 bear-resistant garbage cans to distribute to Big Hole residents – reach out if you need one



Restoration Report – Ben LaPorte, Program Manager

- Smith Sage Springs Restoration Project
 - Construction COMPLETE (10/6)!!
 - Project outreach film filming
- Upper French Gulch Fish Passage
 - Step pool maintenance and adjustments
- Beaver Conflict Mitigation
 - Installed 2 pond levelers in Mudd Creek
- Trail Creek Conifer Encroachment and Riparian Enhancement
 - 507 acres of conifer removal-COMplete
 - Future stream enhancements
- Other happenings
 - USFS leadership Elkhorn visit

New Business

- Proposed Missouri Headwaters Conservation Area – Jim Magee, USFWS
 - Publicly announced proposal September 27th
 - Proposal is to get approval to use Land and Water Conservation Fund (LWCF) dollars to get conservation easements on private land for landowners who want them.
 - LWCF dollars are offshore oil tax revenues put into a pot to be used for the conservation of land and water.
 - Map has created some confusion, because it had to have a boundary and the boundary as drawn included public lands. But nothing will be done on public lands – only private lands for willing landowners.
 - Easements can be really good tools for rural landscapes to keep working lands working, and working lands are incredibly important for wildlife habitat and corridors.
 - Had 2-week public scoping period with scoping meetings in Dillon, Alder, and Wisdom.
 - Senator Daines asked USFWS to extend scoping period.
 - Extended it 60 days to November 27th
 - Next meeting in Butte on Monday the 23rd at the archives building (6:00-8:00 pm).
 - Please reach out to Jim with any questions: James.Magee@fws.gov or (406) 865-0181.
 - Next step: If this is approved, USFWS will produce a land protection plan. Would love to come back and share another update with BHWC is it gets that far.



Break – 10 minutes

Special Topic Presentation

• Big Hole Pronghorn Project

- Presented by: Vanna Boccadori and Jesse Newby,
Montana Fish, Wildlife and Parks



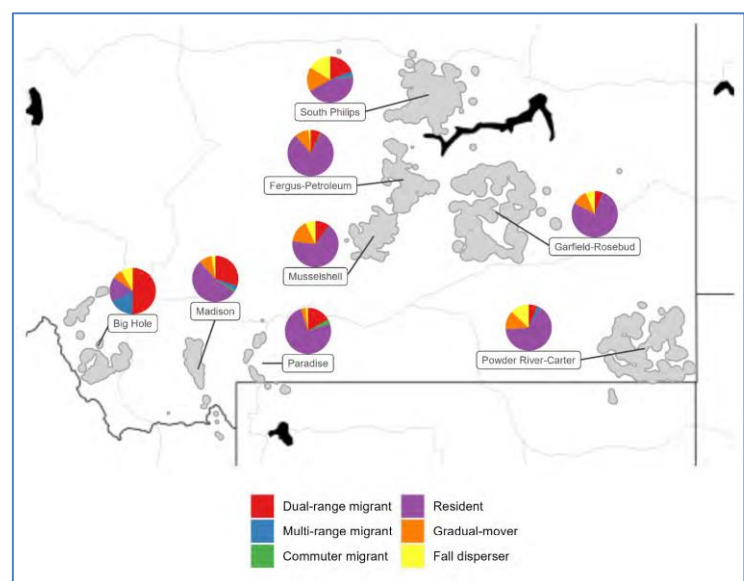
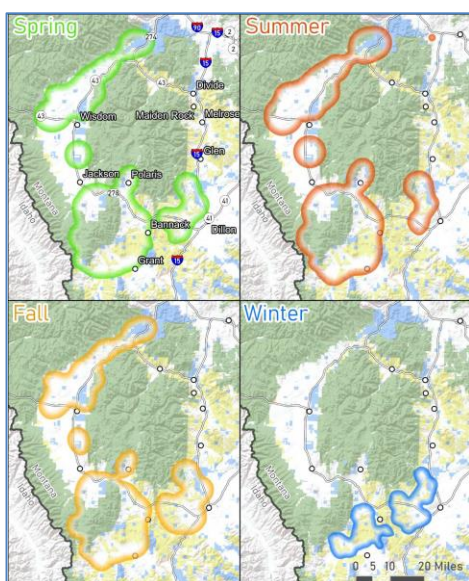
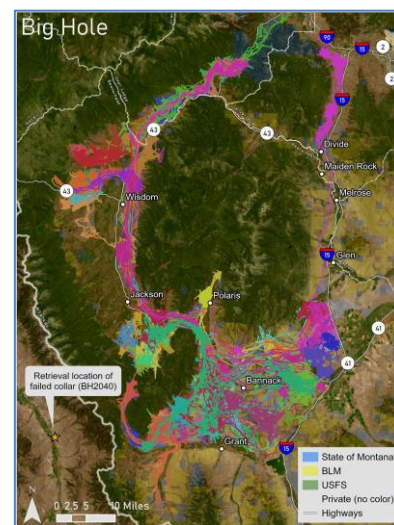
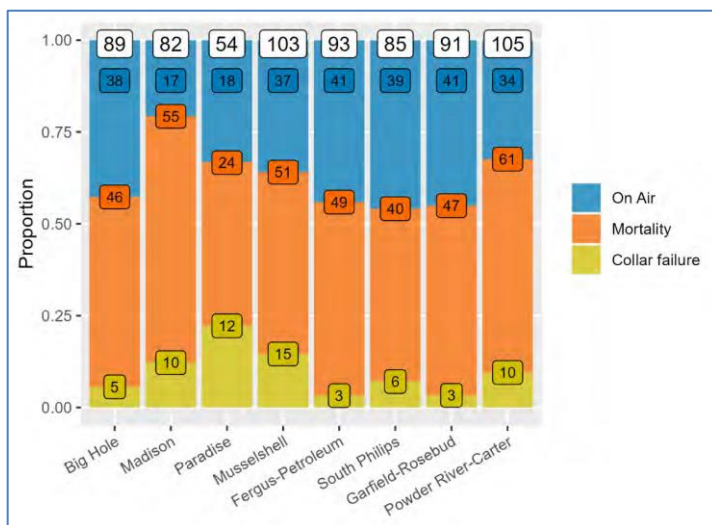
Big Hole Pronghorn Project – Vanna Boccadori, Butte area wildlife biologist

Project Background

- Part of MT Pronghorn Movement and Population Ecology Study
- Maintain 60 collared does per year, January 2020 – June 2023
- Funded by Federal Aid in Wildlife Restoration grant
- Made possible by private landowners that allowed us to capture on their land.
- Jesse DeVoe and Kelly Proffitt, FWP Research Biologists

Objectives

- Better understand movement ecology.
- Delineate seasonal ranges and movement routes.
- Use this information to identify habitat projects and potential barriers to movement.

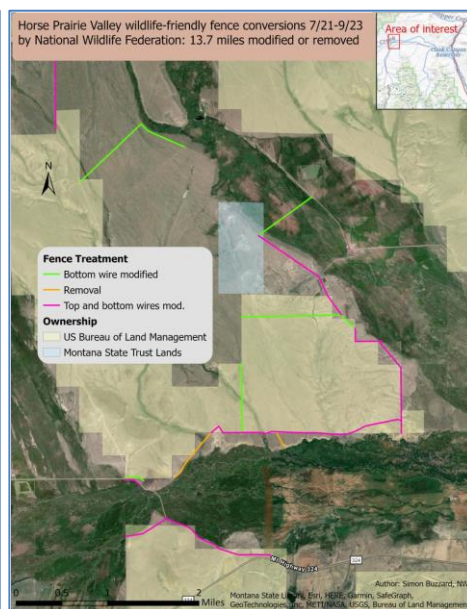
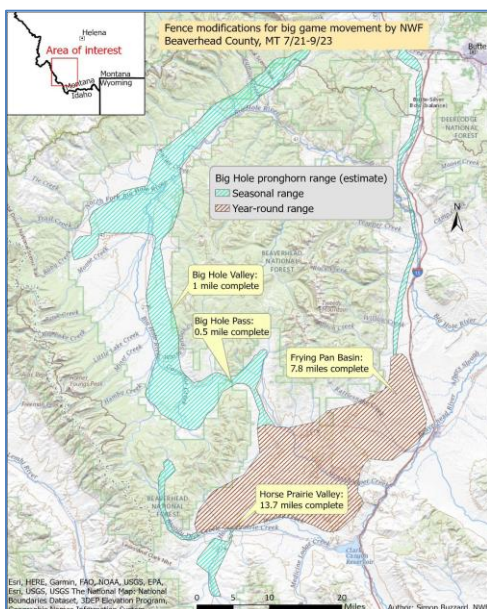
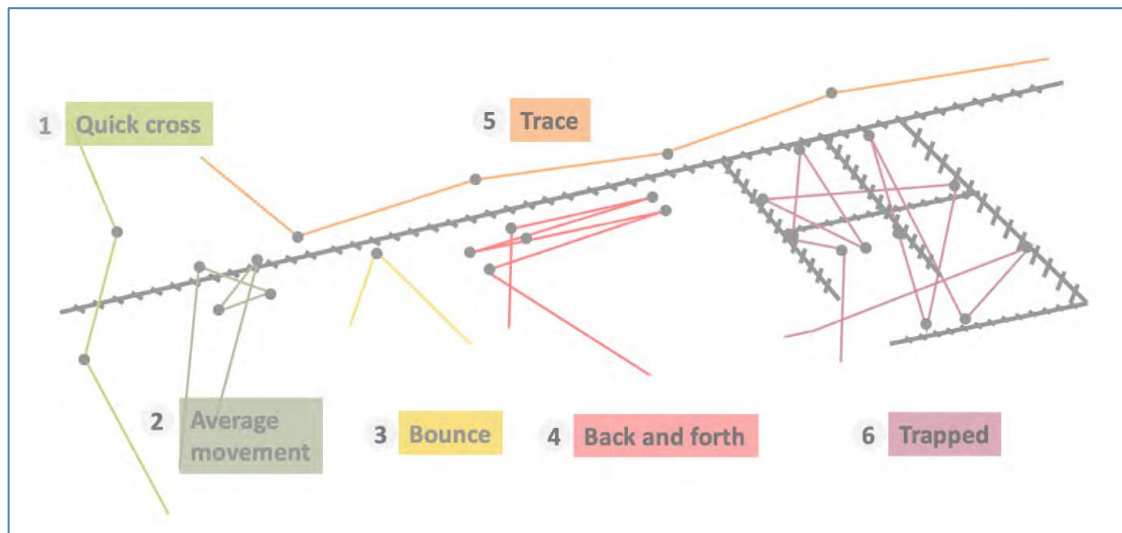
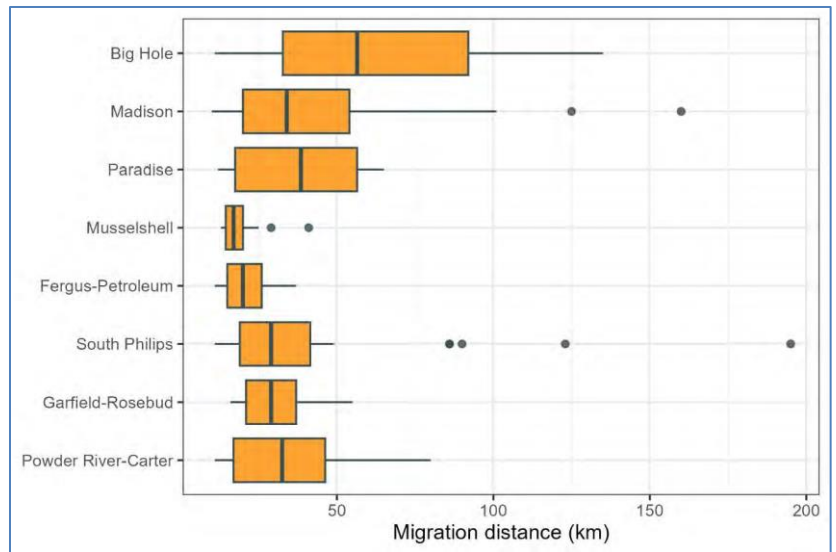


Partnering to improve wildlife passage and habitat connectivity

- Fence modification and removal to support wildlife movement in southwest Montana
- Simon Buzzard, Project Coordinator
 - 23 miles of fence
 - 8 landowners
 - 143 volunteers from 12 organizations
 - 973 volunteer hours

Merging Fencing and Habitat

- Smith Sage Springs Mesic Restoration
 - Pronghorn fawning range



Objective 4: Develop a population model to identify important vital rates affecting population growth rates and describe important demographic differences between populations that are growing or stable, versus those that are limited in their population performance – Jesse Newby, Dillon area wildlife biologist

Big Hole pronghorn vital rate information

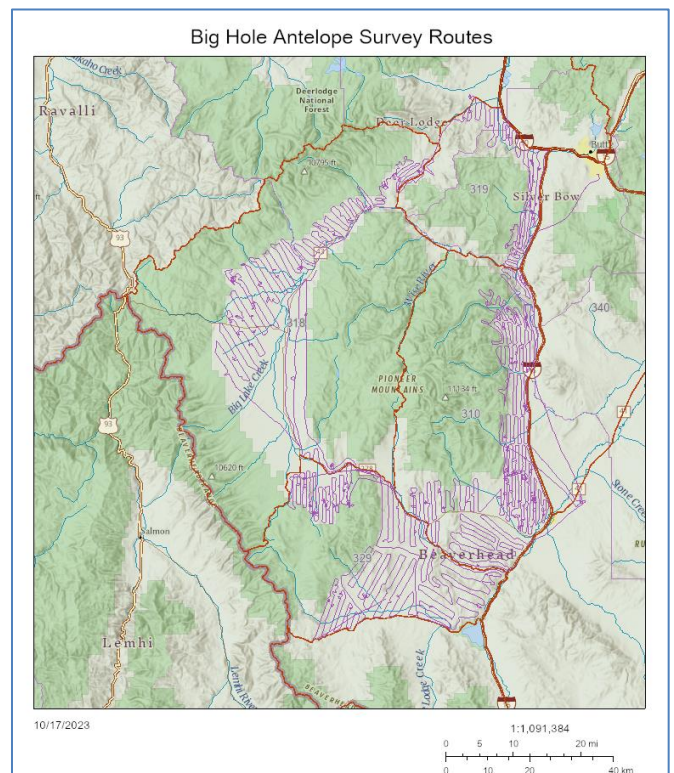
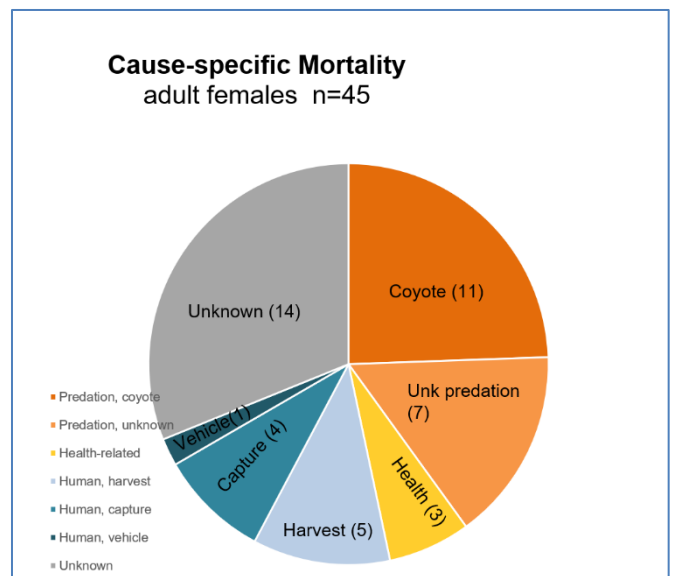
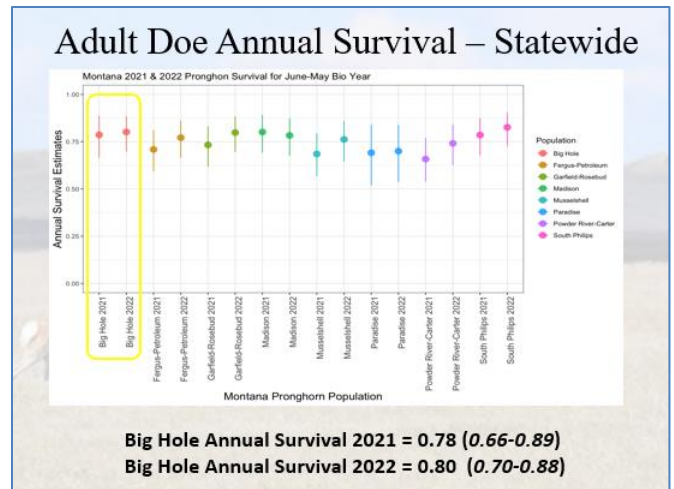
- Methods
 - Adult doe survival
 - GPS collar
 - Fawn production: fecundity x neonate survival
 - Aerial surveys

Adult doe survival

- Sample size
 - Number of antelope captured
 - 2020 = 46 antelope
 - 2021 = 31 antelope
 - 2022 = 12 antelope
 - Antelope Sample Size January 2023:
 - On air: 47 antelope
 - Dead: 38 antelope
 - Collar failure: 5 antelope
- Cause-Specific Mortality
 - Coyote predation: 13%
 - Total predation: 21%
 - Harvest: 6%
 - Capture: 4% (accidental deaths that occur during capture to count/collar/study animals)
 - Total human caused: 11%

Fawn Production

- Fecundity X neonate survival
- Aerial surveys
 - Biennial survey routes
 - Provide minimum counts, buck: doe ratios, and fawn: doe ratios, which give an idea of production.
- Note PSPB levels in 2020 suggested 86-89% of 35 does pregnant. Some unknown proportion with twins. Note this is in winter/not full term.
- See table, below right:



- In 2015, we have coverage for HDs 310, 318 and 329 all in same year.
- Minimum counts have declined since 2015, especially in 2021 and this year.
- Note that for does, the count hasn't changed much (excepting 2021 which may be due to displacement). Females are more resilient. Some decline in bucks though. Also, very noticeable decline in fawn production. Particularly this year.
- Drought and long winter have impacted fawn survival.
- Generally fawn production has declined since 2015, which was a banner year for pronghorn production. Clearly highly variable. More concerning is some of what appears to be longer term declines in fawn production. This will take time to bounce back from. Though this year is probably a good start.

Vital rate information

- Adult doe survival ~ 0.79
- Fawn production ~ 44 fawn: 100 doe
 - (Fecundity X neonate survival)
- Stable Population ↔ Assuming
- Adult doe survival = 0.79 &
- Recruitment = 42 fawn: 100 doe
- (Fecundity X annual fawn survival)

Year	Total Minimum Count	Bucks	Does	Fawns	Bucks : 100 Does	Fawns : 100 Does
2015	2,695	579	1,270	806	46	63
2017	2,150	447	1,154	519	39	45
2019	1,946	419	1,052	443	40	42
2021	1,441	264	792	366	33	46
2023	1,633	300	1,058	251	28	24
Average	1973	402	1065	477	37	44
standard deviation	436.34	112.33	157.92	186.85	5.88	12.64

Upcoming Meetings

- November 15, 2023: **Deep Aquifer Pumping by Montana Bureau of Mines and Geology**
 - 6:00* pm at the Divide Grange/Zoom
 - *Note the time change from 7:00 to 6:00 pm to account for Daylight Saving Time!*

Adjourn

Happy Halloween!

