



Big Hole Watershed Committee

Monthly Meeting Minutes

September 15th, 2021 – 7:00 pm at the Divide Grange
Zoom option also provided

In Attendance

In-person: Pedro Marques, BHWC; Tana Nulph, BHWC; Ben LaPorte, BHWC; Randy Smith, Rancher/BHWC; Vanna Boccadori, MFWP; Jarrett Payne, MFWP; Dean Peterson, Rancher/BHWC; Roy Morris, GGTU/BHWC; Tom Bates; Paul Cleary, Resident/BHWC; Sandy Cleary, Resident; Jim Hagenbarth, Rancher/BHWC; Jo Ellen Cleary, Resident; and Jim Dennehy, BSB Water Utility Dept./BHWC.

Zoom: Andy Suenram, BHWC; Matt Norberg, DNRC; Paul Hooper, USFS; Peter Frick, Rancher/BHWC; Brian Wheeler, Big Hole River Foundation/BHWC; and Pat Clayton aka “fisheyguy”.

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 BHWC at info@bhwc.org or (406) 267-3421 to suggest additions or corrections. Coffee for this meeting donated by Black Coffee Roasting Company in Missoula. Please note: All interested parties are welcome to join our meetings, but collaborative conservation works best when people show up, provide their names, and work together. ***We will not tolerate guests harassing or interrupting our speakers, and we will remove attendees who do not act courteously on Zoom.***

Reports

Streamflow/Snowpack Report as of September 15, 2021 – Matt Norberg, Montana Department of Natural Resources and Conservation

Big Hole River Stream Gages							
Station Number	Station name	Date/Time	Gage height, feet	Dis-charge, ft ³ /s	Long-term median flow 3/17	Temperature, deg C	
■ UPPER MISSOURI RIVER BASIN							
06024450	Big Hole River bl Big Lake Cr at Wisdom MT	09/15 14:45 MDT	1.72	3.04	34.0	12.2	
06024540	Big Hole River bl Mudd Cr nr Wisdom MT	09/15 15:30 MDT	2.40	41.3	107	--	
06025250	Big Hole River at Maiden Rock nr Divide MT	09/15 14:45 MDT	2.57	190	298	14.3	
06025500	Big Hole River near Melrose MT	09/15 15:15 MDT	1.05	140	290	15.3	
06026210	Big Hole River near Glen MT	09/15 15:30 MDT	1.95	129	280	17.3	
06026420	Big Hole R bl Hamilton Ditch nr Twin Bridges, MT	09/15 15:30 MDT	0.320	43.6	142	17.8	

Select a Location

Station Details

Sort By: Location

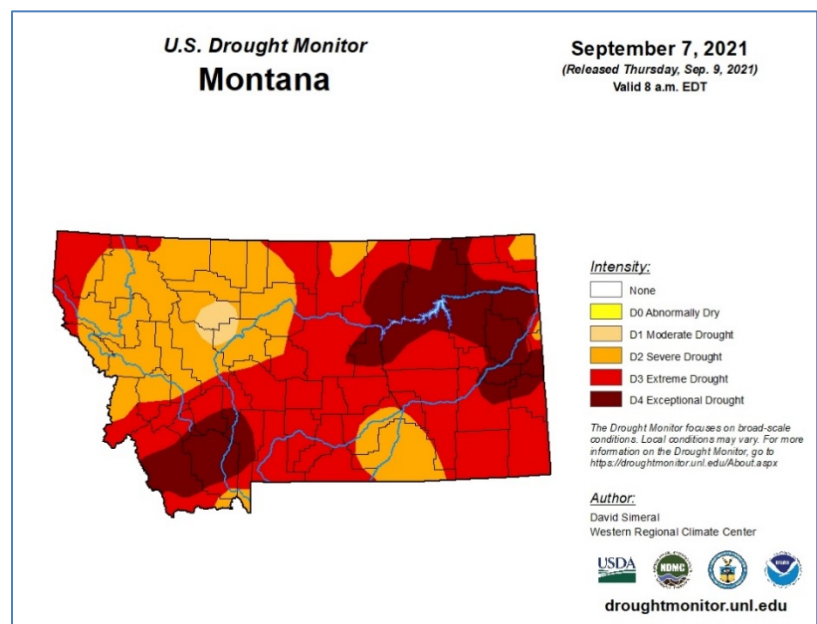
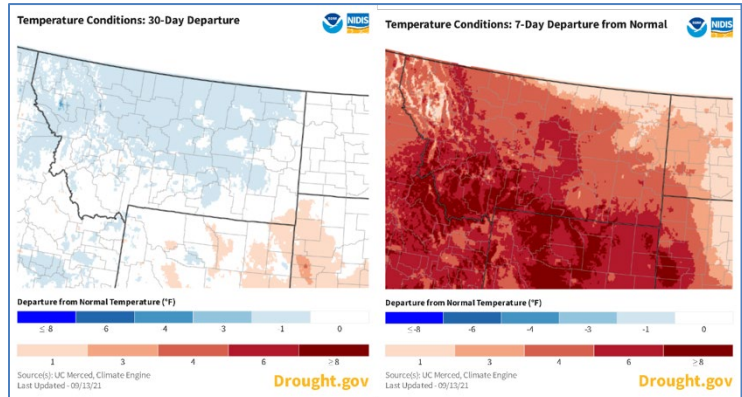
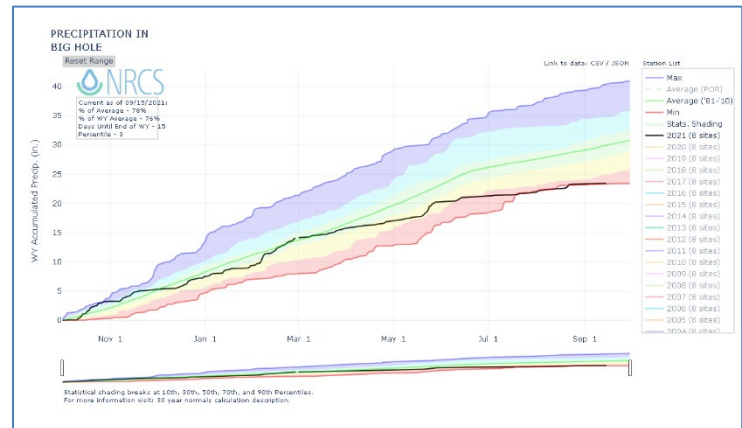
Real Time =

Seasonal =

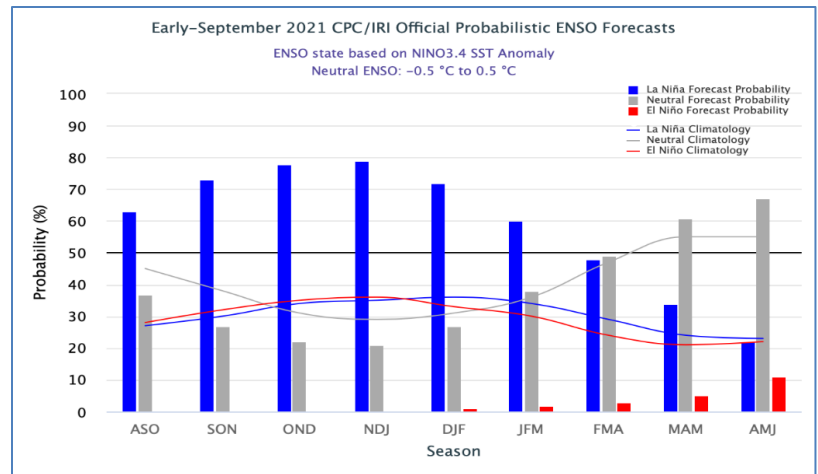
Discontinued =

Station Code	Station Name	Basin	Last Measured	Last Discharge ft ³ /s	Last Stage ft.	Last Temp °C
41D 08000	Big Hole near Wise River, MT	Upper Missouri Basin	9/15/2021, 2:45 PM	61.07	2.23	14.30
41D 02000	Big Hole River ab Spring Cr nr Jackson, MT	Upper Missouri Basin	9/15/2021, 2:45 PM	6.58	1.20	13.68
41D 05000	Big Hole River at Miner Creek nr Jackson, MT	Upper Missouri Basin	9/15/2021, 2:45 PM	14.24	0.58	15.62
41D 01000	Big Hole River near Jackson, MT	Upper Missouri Basin	9/15/2021, 2:45 PM	9.01	0.75	12.22

- Streamflows:** Streamflow's across the basin are still well below average. The Mudd Creek, Maiden Rock, Glen, and the Big Hole near Twin Bridges are currently reporting minimum stream flow values for the period of record. The upper Big Hole sites are all below the CCAA minimum target flows. The Wisdom and Melrose gages are close to minimum values which both occur in 1988, with Wisdom being 0.00 cfs and Melrose reporting a minimum value of 100 cfs for this date (Sept. 15). Fishing closures are still in effect for sections 1, 2, 4, and 5 with Section 3 updated to "Conservation" status.
- Snowpack/Precipitation:** YTD precipitation in the Big Hole basin is currently 78% of average. Based on 8 sites within the basin, the total precip. (WY 2021) is 23.4 inches for the year with the average for September 15 being 30.0 inches. PPT is currently tracking with the minimum values recorded in 1994. 1988 was the second lowest recorded year with 24.4 inches on this date. Since June 1, 2021 (20.2 in) the Big Hole (on average) has received approximately 3 inches of moisture.



- **Temperatures:** The 30-day departure from normal conditions reflect near average temperatures for the Big Hole, however the 7-day departure reflects well above average temperatures in the Big Hole and Montana in general.
- **Drought Status:** Southwest Montana including most of the Big Hole is classified as D4 status (Exceptional Drought).
- **7-day forecast:** Hopefully the 7-day forecast comes true and produces cooler temperatures and some much-needed precipitation to the watershed. Sunday into Monday is predicted to produce chances of rain throughout the valley and the possibility of snow for the upper Big Hole.
- From NOAA: ENSO Alert System Status: La Niña Watch
- **Synopsis:** A transition from ENSO-neutral to La Niña is favored in the next couple of months, with a 70-80% chance of La Niña during the Northern Hemisphere winter 2021-22.



Director's Report –Pedro Marques, Executive Director

- Hang in there. This is what's important (engineers, local ranchers, county commissioners, and BHWCV working together to identify issues and brainstorm solutions for irrigation and sedimentation issues on the lower Big Hole River.
- Get the message out: collaborative conservation works!
 - MTPR Shared State: pitch accepted
 - Stories for Action: in production
- Compliance phase Anaconda Uplands
- Permitting, contracting, budgeting
- Call for irrigation projects – have irrigation projects/upgrades you need done? Get in touch.
- Big Hole River Conservation Fund:
 - Learn more here:
 - Text "BigHole" to 26989



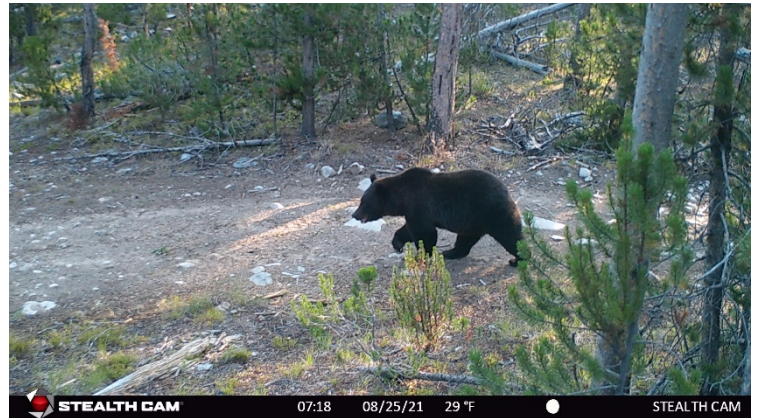
Steering Committee Report – Randy Smith, Chairman; Jim Hagenbarth, Vice-Chairman; Roy Morris, Secretary

- Steering Committee is pleased with the progress BHWCV is making.

Wildlife Report – Tana Nulph, Associate Director

- Range Rider Program:
 - Wildlife/Livestock Monitoring Program
 - July 1 – September 30
 - 6 USFS grazing allotments, 7 producers
 - Monitoring for carnivore (wolf) activity, dead/injured livestock
 - Helps livestock producers and large carnivores share the landscape

- Find & report carcasses FAST to secure reimbursement for losses to depredation
- Keeps wolves moving
- Informs producers of carnivore locations & activity
- 2021 Funding
 - NRCS Conservation Innovation Grant
 - Livestock Loss Board?
- 2021: Wildfire Prevention
 - Chet stumbled upon lightning strike, August
 - Called USFS and ranchers
 - Used chainsaw to contain fire until help could arrive and put it out
 - Fire small, thanks to Chet, didn't have the chance to grow!
 - A new and unintended impact of our Range Rider program.
- 2021: Wolves
 - Located 2 wolf dens, monitoring closely.
 - Several wolves tracked, photographed by game cameras.
 - Served as "eyes and ears" on grazing allotments – notified producers of open gates, livestock on wrong sides of fences, presence of wolves, etc.
- 2021: Grizzly Bears
 - Sept 1 – Chet found grizzly tracks
 - Little Lake Creek
 - Later confirmed by MFWP and P&C
 - Took hair sample to submit for DNA testing
 - Game camera produced photos
 - Yesterday tracking what he thought were 2 grizzly bears in same area.
 - Two grizzly bears also spotted in the Eastern Pioneers (confirmed?)
 - Many more unconfirmed reports of grizzlies
 - So, what does this mean?
 - Be bear aware!
 - Working or recreating
 - Carry bear spray
 - Make noise
 - Travel in groups when possible
 - Be careful hunting, especially careful bow-hunting
 - Secure bear attractants like livestock feed and trash
 - May help BHWc secure grizzly-specific funding sources
 - Contact BHWc if you need a bear-resistant trash can or want to borrow scare devices, bear spray, practice bear spray, books about grizzlies, temporary electric fencing, etc.



Restoration Report – Ben LaPorte, Program Manager

- Elkhorn Mine and Mill
 - QAPP/SAP for soils characterization finalized
 - “Plan B” for fall field work
 - MTech test drone flight
- Anaconda Uplands
 - MCC hitch-weed spraying and hand work
- East Pioneer Partnership (TNC and BLM)
 - Project scouting and planning
- Fall Project Planning
 - Upper and Lower Big Hole Bank Stabilization Projects
 - Melrose Bank Planting
 - Upper Oregon Creek BDA installation
- Finally Contracted for Upper French Gulch Fish Passage Project!



New Business

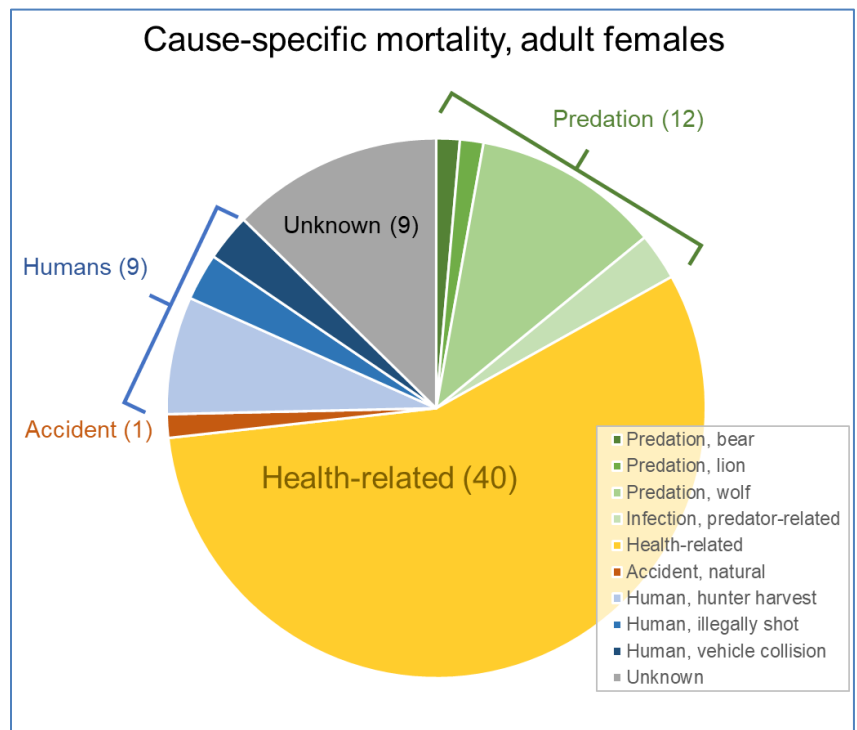
- Discussion:
 - Why doesn't BHWC support minimum in-stream flow legislation?
 - Could you give us some more details please and tell us who's speaking?
 - *I don't know, I don't need to. It would be Joe Gutkoski's proposal that has been on the board for decades. We all know why the Big Hole is dewatered and it's because of the Ag industry. You guys are putting a Band-Aid on a broken bone when we all know that the reason the Big Hole, the Jefferson, and the Beaverhead are dying is because of severe dewatering. It's kinda time to maybe tackle the Ag industry.*
 - Well, our drought plan ... (interrupted)
 - Your drought plan is voluntary and it doesn't work.
 - Well, when a draft bill regarding minimum in-stream flow legislation comes forward, we will be happy to review it and provide comment but it would take a huge lift to get that kind of thing passed through the Legislature.
 - What's happening right now is exactly what happened in '88 and '95, and that's why this group was started. There are many potential methods to try to get more water in the watershed, including:
 - Invest in the yield of the watershed
 - Cloud seeding

- Off-stream storage
- Groundwater recharge & storage
- A historic drought happens every once in a while, and this is a historic drought level. There is simply no more water coming into the watershed right now. In 1988, with similar flow conditions, the river at Wisdom went dry for 32 days. So, 3 cfs isn't great, but it's a whole lot better than dry for 32 days. And that's science-based and based on a lot of work to get measurement devices in and get ranchers doing voluntary conservation and calling each other, and that's really where the spirit of where we go needs to be.
- To listen to the whole conversation, watch the YouTube recording at <https://youtu.be/2HJZsmxIUrc>.

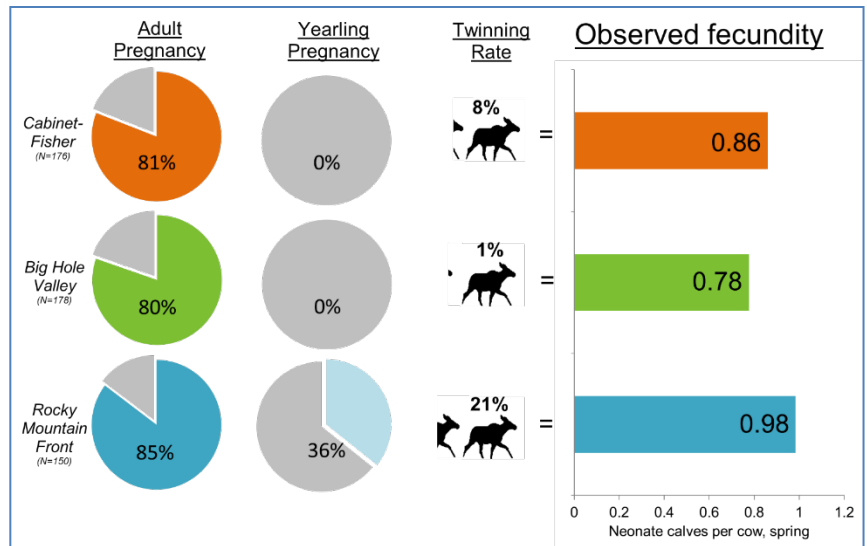
Meeting Topic: Wildlife Updates along the Big Hole River

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

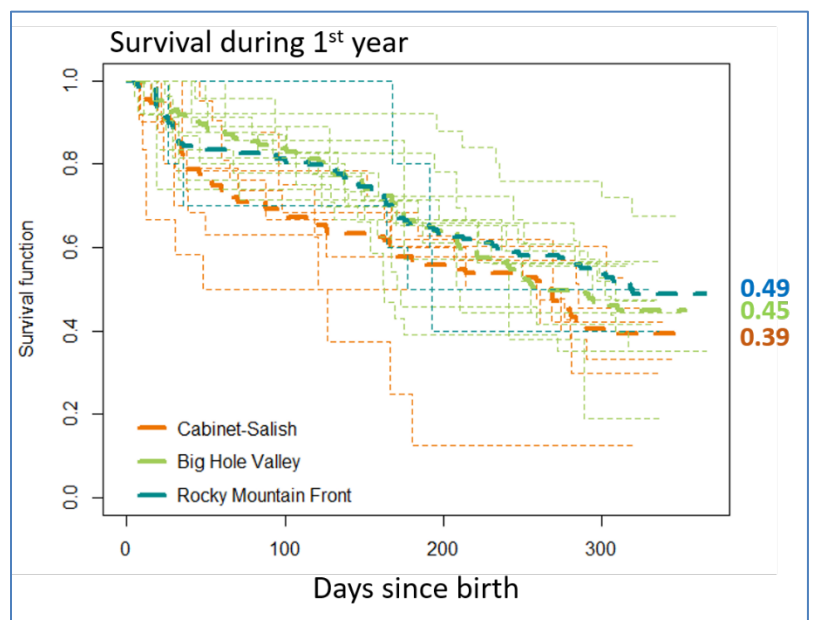
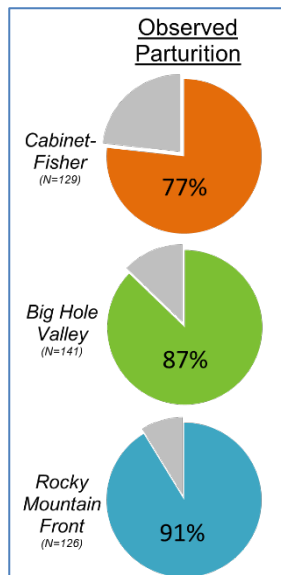
- Moose Study Update – 2021
 - Ten-year study: 2013-2023
 - Monitoring
 - Calibrate existing date
 - Evaluate alternate monitoring strategies
 - Research: vital rates and limiting factors
 - Fecundity
 - Calf survival
 - Adult female survival
 - Limiting factors: predation, disease, nutrition, temperature, harvest
 - Detailed work in 3 study areas:



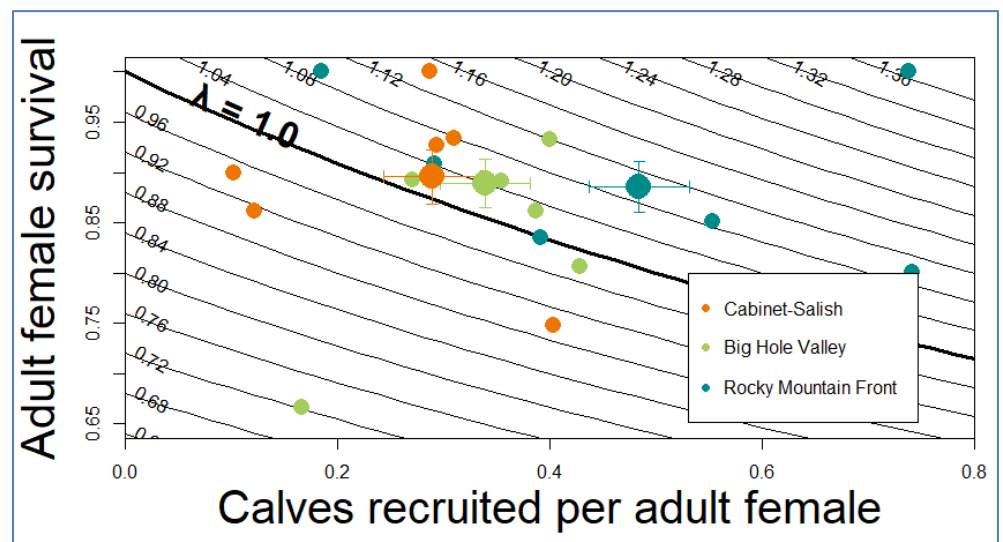
- R1: Cabinet Mountains
- R2: Rocky Mountain Front
- R3: Big Hole Valley
- Focus on adult females (30/area):
 - N=193 individuals
 - The study comes with many thanks to private landowners who have allowed researchers access to habitats used by moose.



- Calf survival:

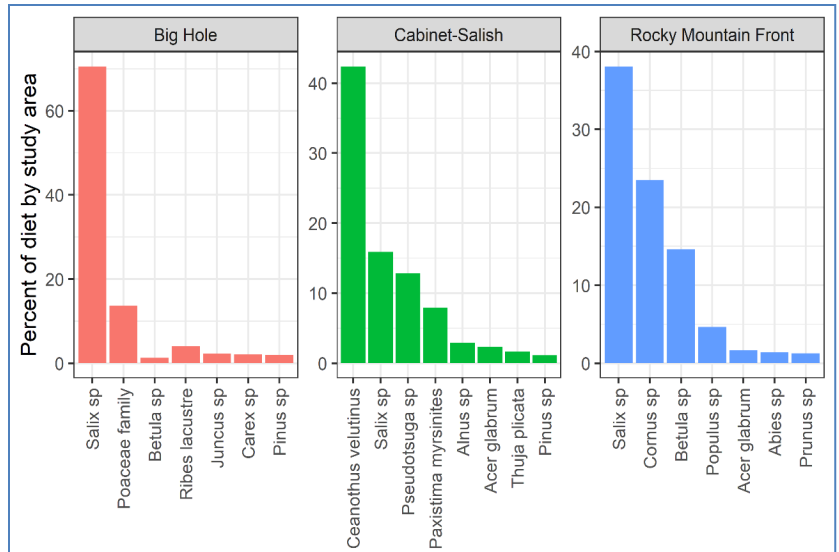


- Winter diet (summer results on the way)
- Take home messages:



- Populations different, but all stable to increasing
- Several components to maintaining numbers

- nutritional conditions
- adult female survival
- adult female reproduction,
- calf survival.
- Impacted by:
human harvest, predation, forage and habitat, parasites and disease, heat stress/snow

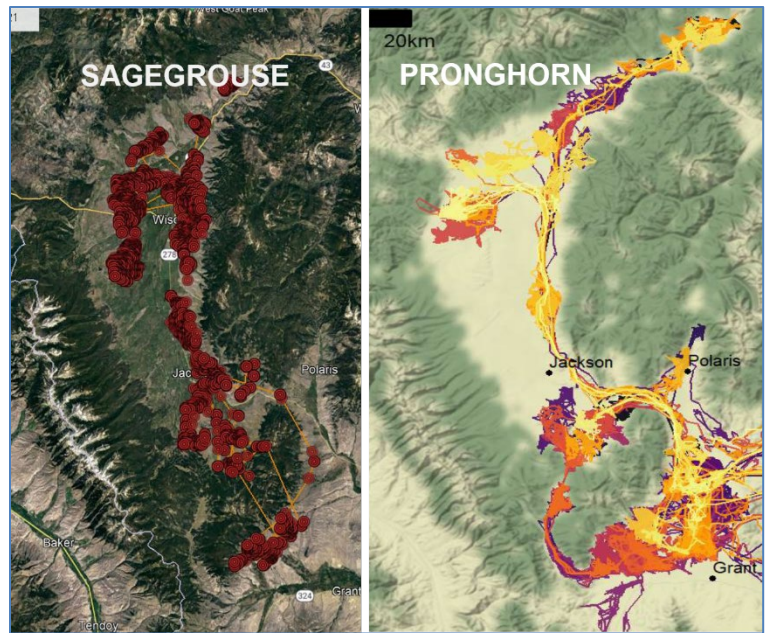


- Parasites, predation, nutrition all at play
- Upper Big Hole Sage Grouse Study
 - MISSION: Proactive collaborative approach to sage grouse conservation in a sustainable working landscape.
 - USFWS + FWP + many partners: BHWC, Big Hole landowners, Vigilante Coop, BLM, USFS, DNRC, TNC
 - Results:
 - 39 hens captured 2018-2021
 - 25 mortalities
 - 2 dropped units
 - 6 unit failures
 - Currently 6 hens on the air
 - 2021 Nesting
 - 12 nest attempts, including 1 re-nest
 - 1 successful nest, 3 hen mortalities, 4 nest depredations, 4 unknown fates
 - Currently collecting wings from hunter harvest to better determine production and chick survival.
 - Projects resulting from data:
 - 120 acres of sagebrush conservation
 - Big Hole fence improvement – removed 11 miles of woven wire and 5-strand fence and replaced with wildlife-friendly fencing
 - Smith Springs mesic restoration
 - Conifer removal from sagebrush habitat
- FWP Pronghorn Movement and Population Ecology Study
 - OBJECTIVE: Monitor location data to identify potential conservation concerns within seasonal ranges or along movement corridors.
 - 77 GPS Collared Does

- 18 mortalities
- 3 collar malfunctions
- 56 still on air
- 28% Nonmigratory
- 75% of Migratory go to Big Hole

○ Results:

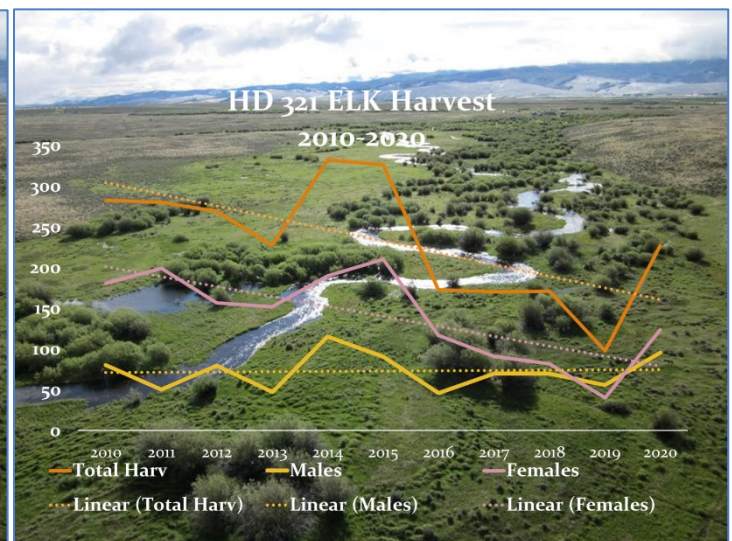
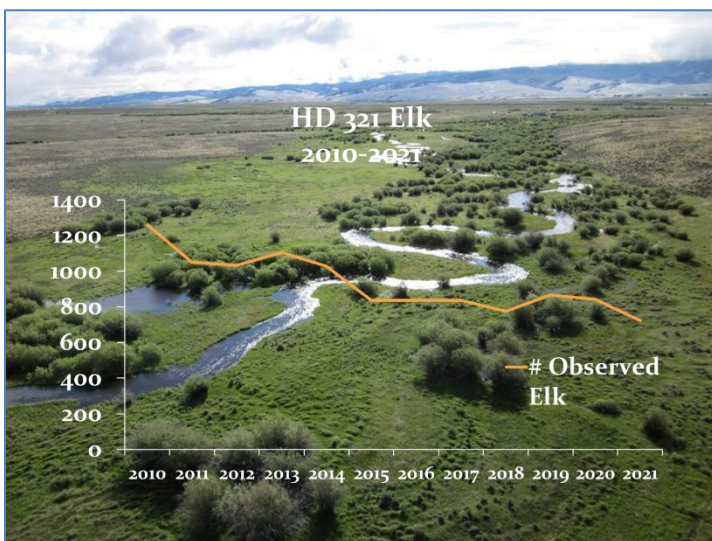
- 21 miles
- 67 volunteers
- 13 days
- 5.6 more miles of modified or removed fencing!
- Many thanks to project partners: Horse Prairie Landowners, National Wildlife Federation, 2% for Conservation Affiliates, USFWS, BLM, TNC, RMEF, MDF, and many volunteers!
- Vanna and Emma Cayer hiked about 50 miles, checking fences through migration corridor identified using radio collars. Identified areas where fencing needed further improvements.
- Pronghorn and sage grouse utilize a lot of the same habitat in the Big Hole.

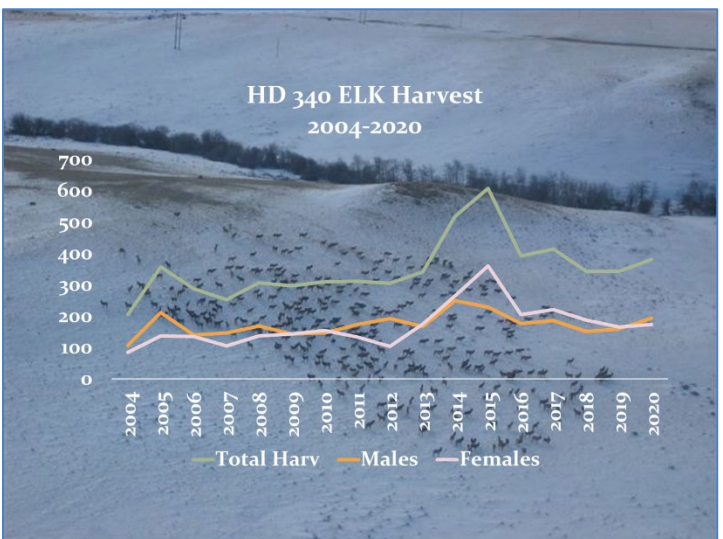
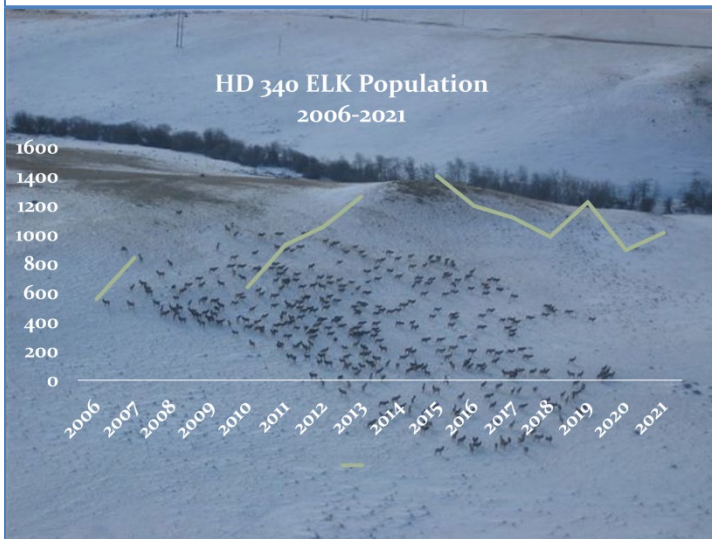
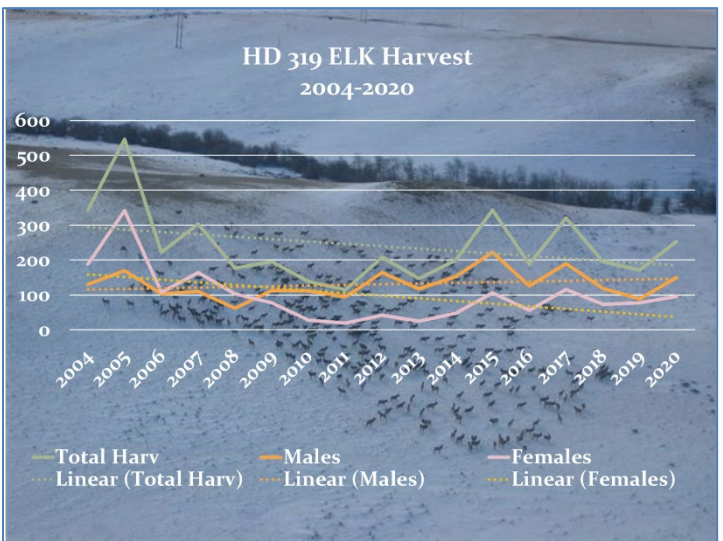
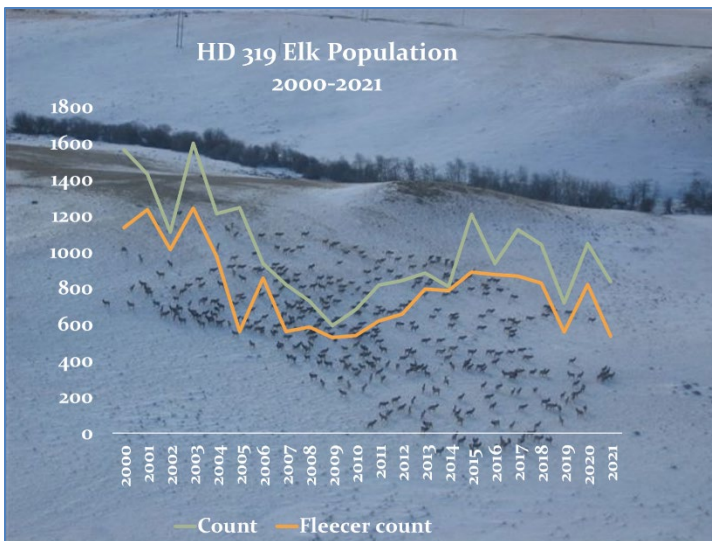
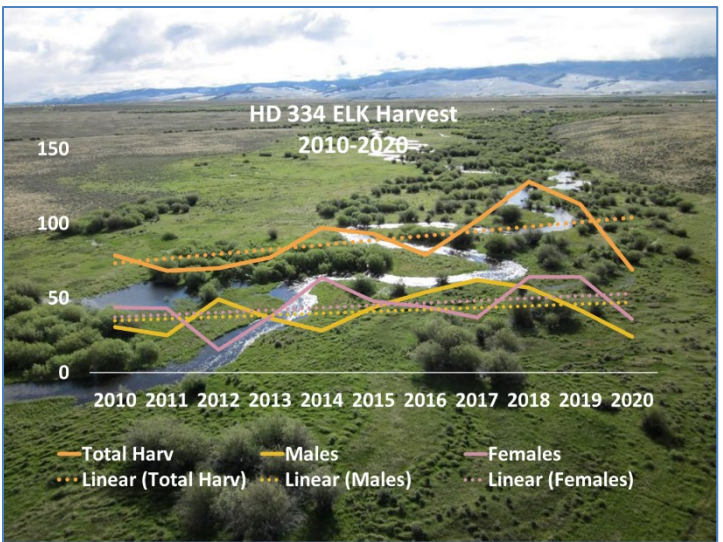
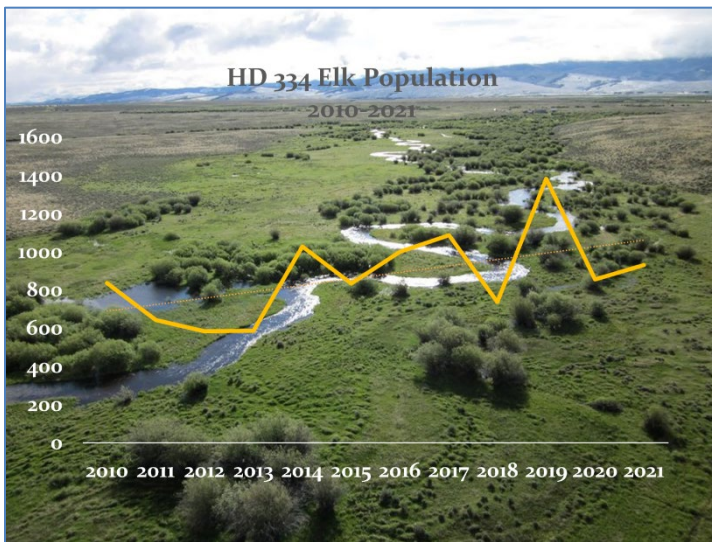


• Other events:

- PAST: August 13, 2021: MFWP and BHCW hosted a mesic restoration volunteer day on Mount Haggin, during which 22 volunteers built 37 structures to hold water on the landscape. What is now dry will soon be a wet meadow! It will provide habitat for several wildlife species! A huge thanks from MFWP to Ben, BHCW, Sean Claffey, and all of our volunteers!
- UPCOMING: October 14, 2021: Big Hole Grizzly DNA Study Update, 7:00 pm at the Masonic Temple in Wisdom.

• Hunting District Updates:

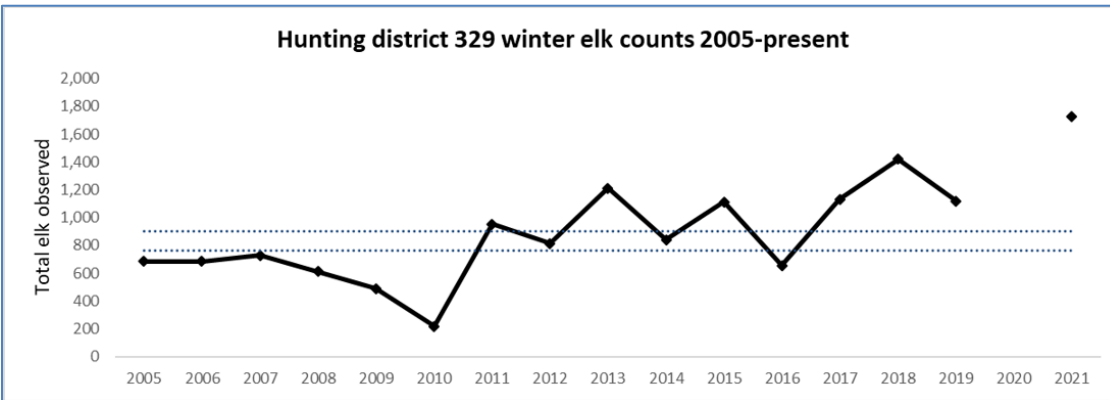




- Pioneer Elk Management Unit Survey, March 2021

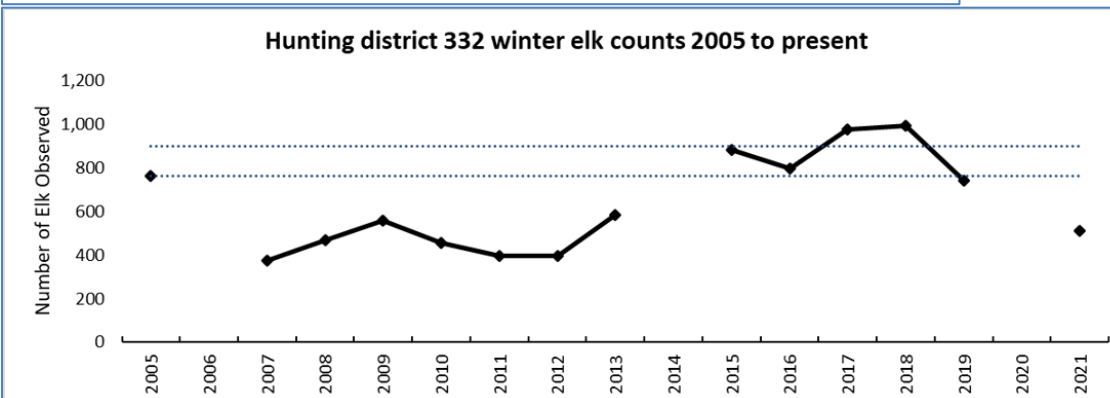
○ HD 329

Year	Total elk	Calf:100 cow	Yrlg bull:100 cow	BTB bull:100 cow	TBull:100 cow
2012	815	24	9	10	19
2013	1210	25	12	4	16
2014	841	47	31	16	47
2015	1110	25	14	6	21
2016	653	33	12	9	21
2017	1133	26	11	9	20
2018	998	23	9	20	29
2019	513	31	20	7	27
2021	1728	28	16	10	26
Average	1000	29	15	10	25
Std Dev.	336.8	7.1	6.5	4.6	8.8

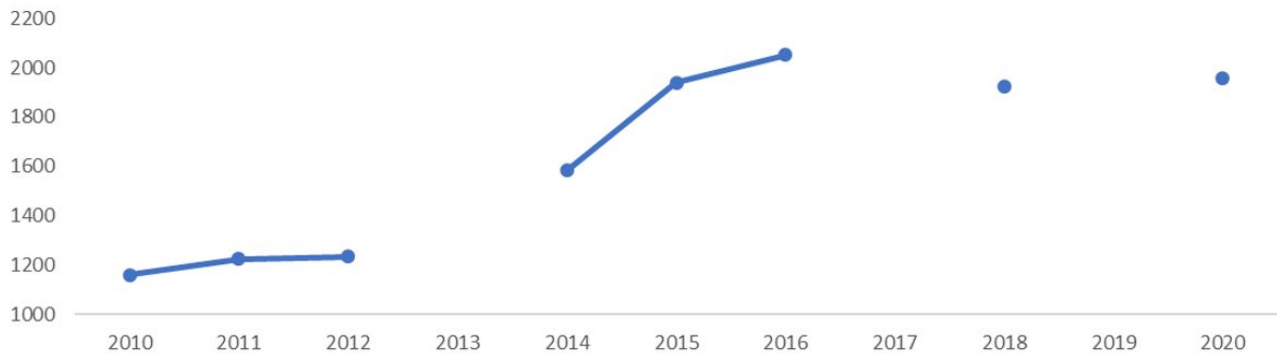


○ HD 332

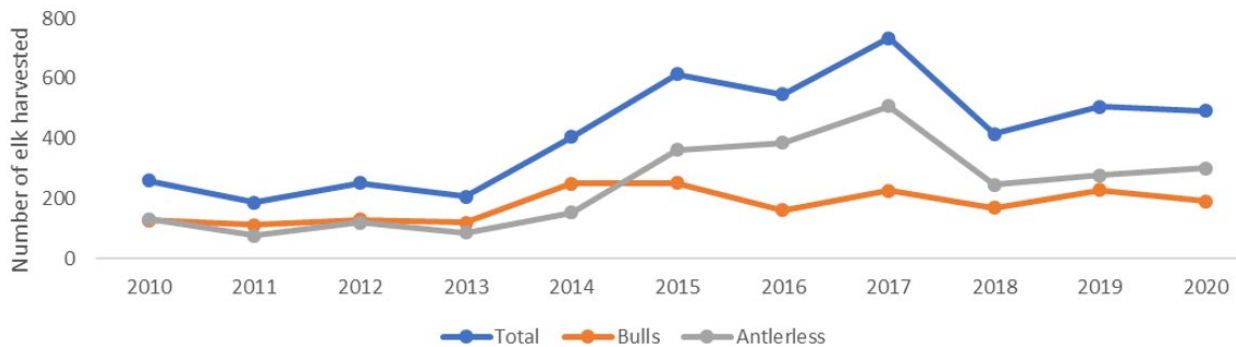
Year	Total elk	Calf: 100 cow	Yrlg bull: 100 cow	BTB bull: 100 cow	TBull: 100 cow
2012	396	19	2	0	2
2013	582	26	6	0	7
2014		33	4	1	6
2015	882	24	7	5	13
2016	796	17	5	3	8
2017	976	29	5	6	12
2018	994	31	8	7	15
2019	742	35	1	6	7
2021	511	37	9	6	16
Average	735	28	5	4	9
Std Dev.	205.9	6.5	2.6	2.6	4.3



Elk Hunt District 329 Estimated Hunter Numbers



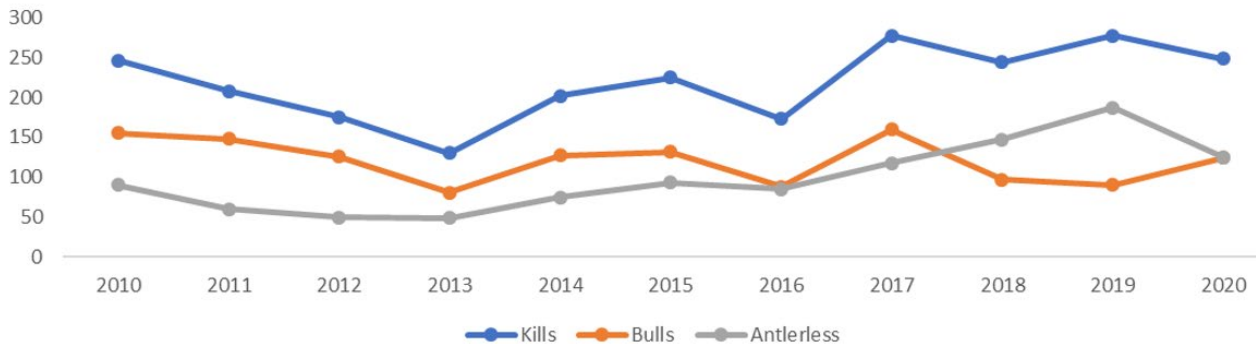
Elk Hunt District 329 Estimated Annual Harvest



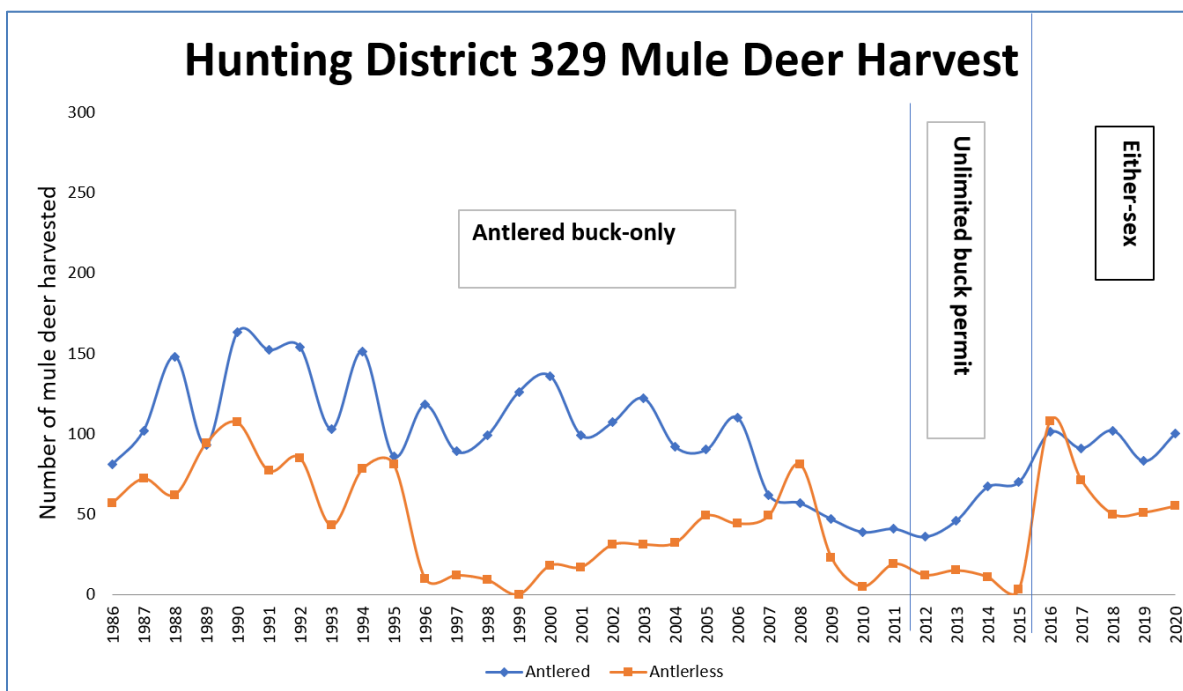
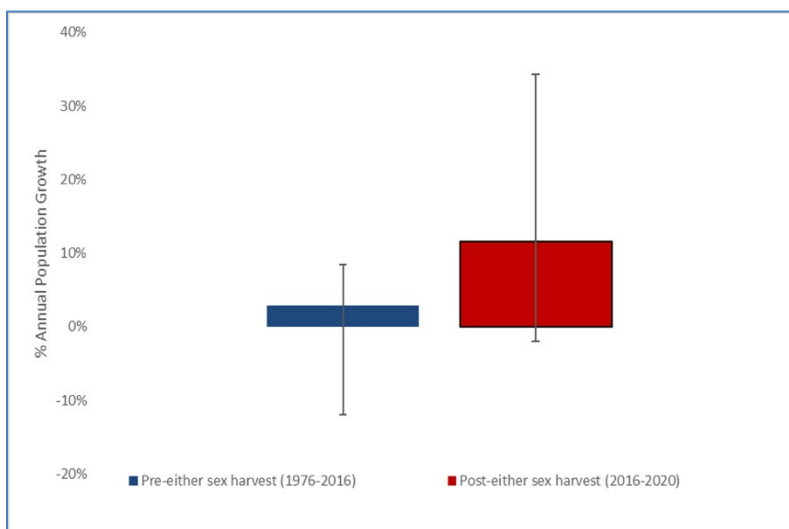
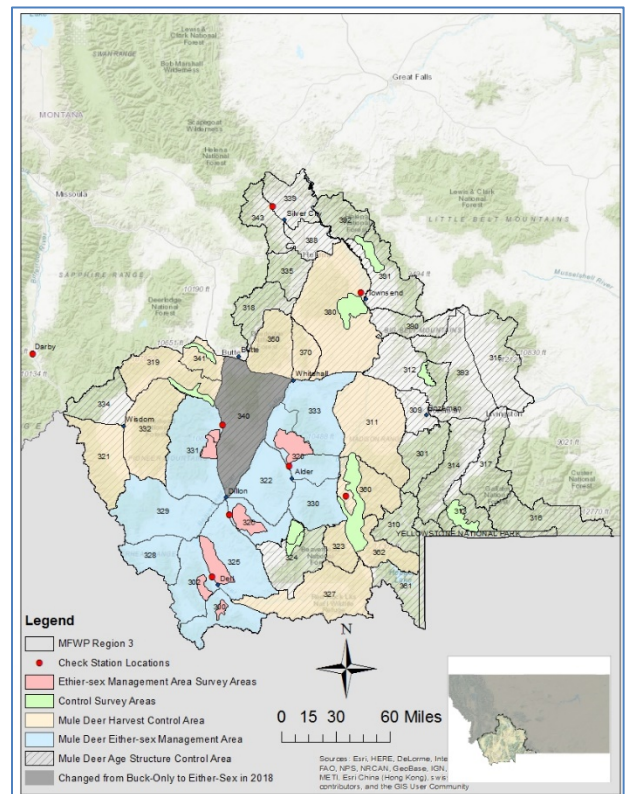
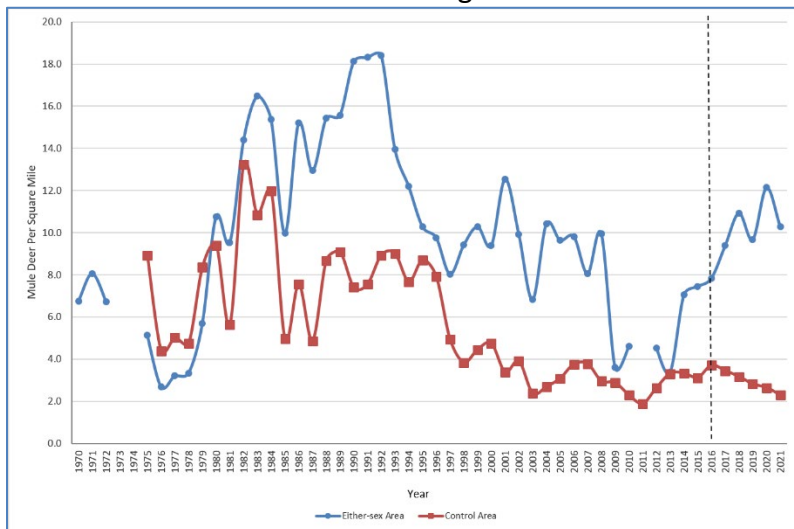
Elk Hunt District 332 Estimated Hunter Numbers

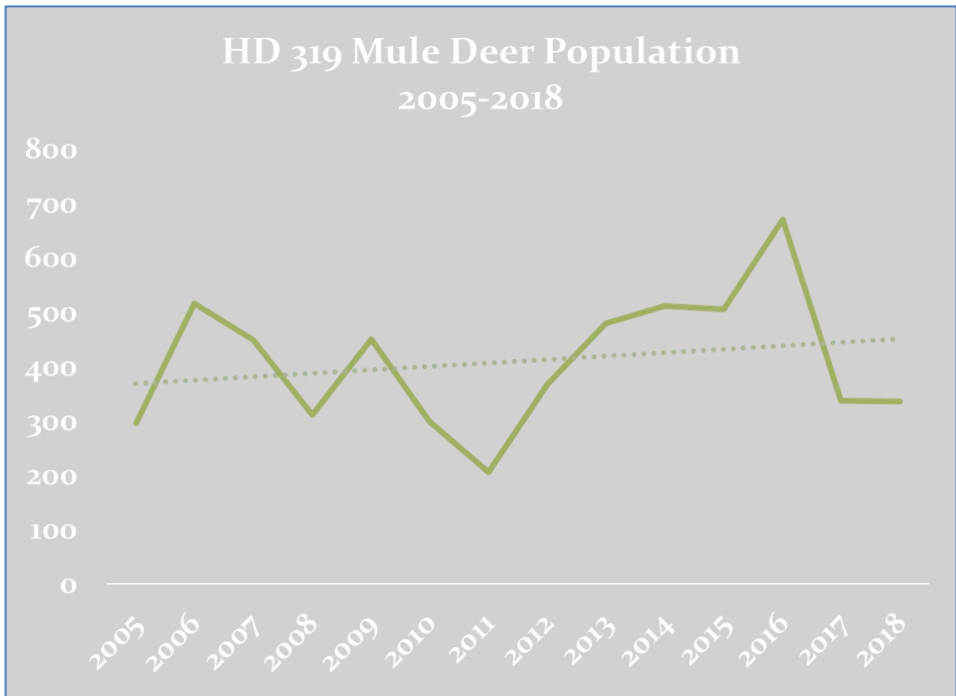
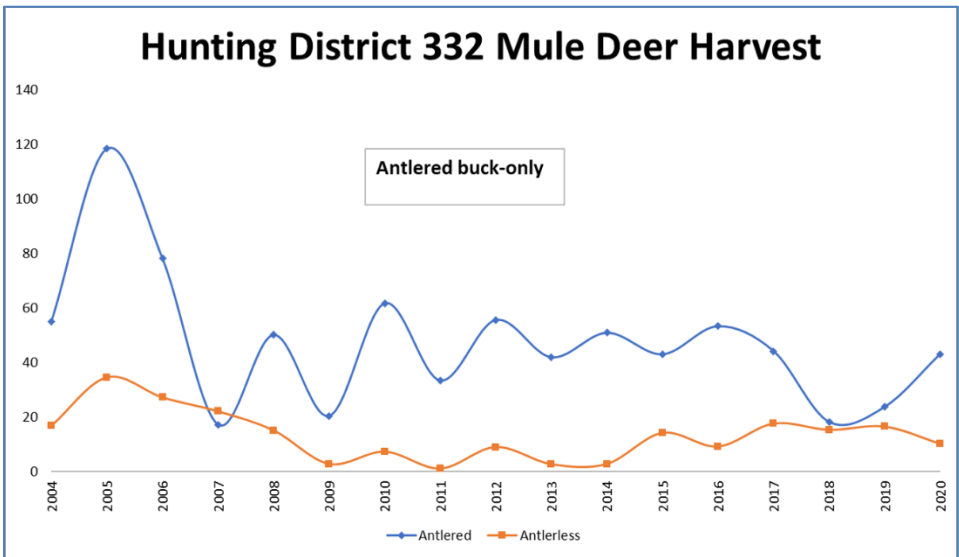
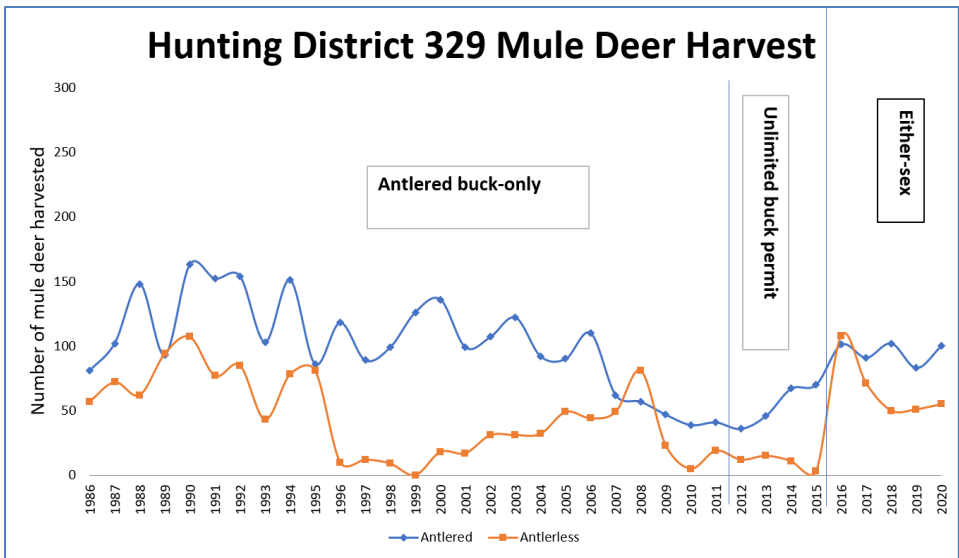


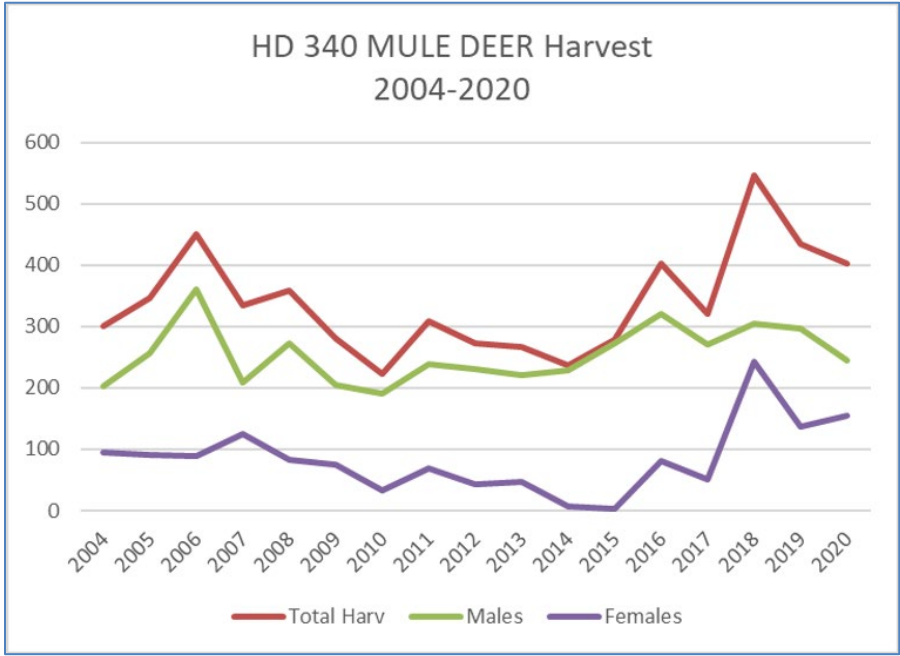
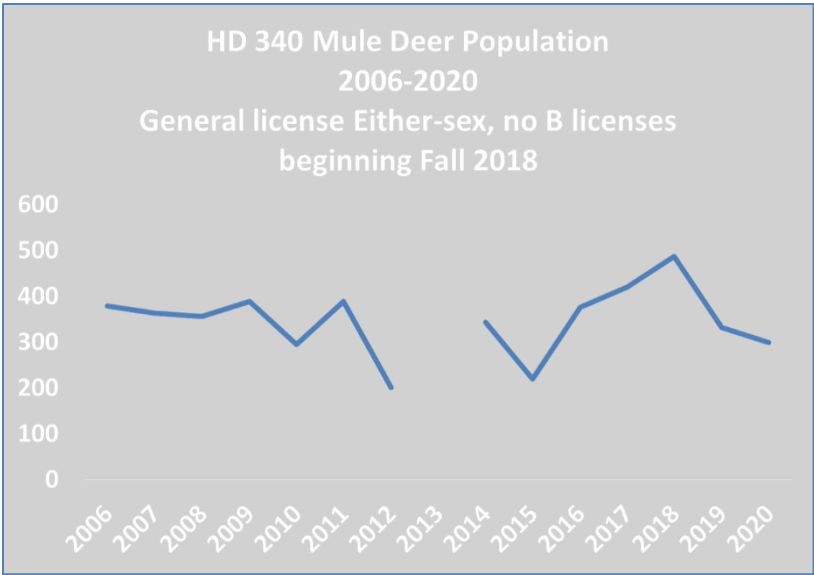
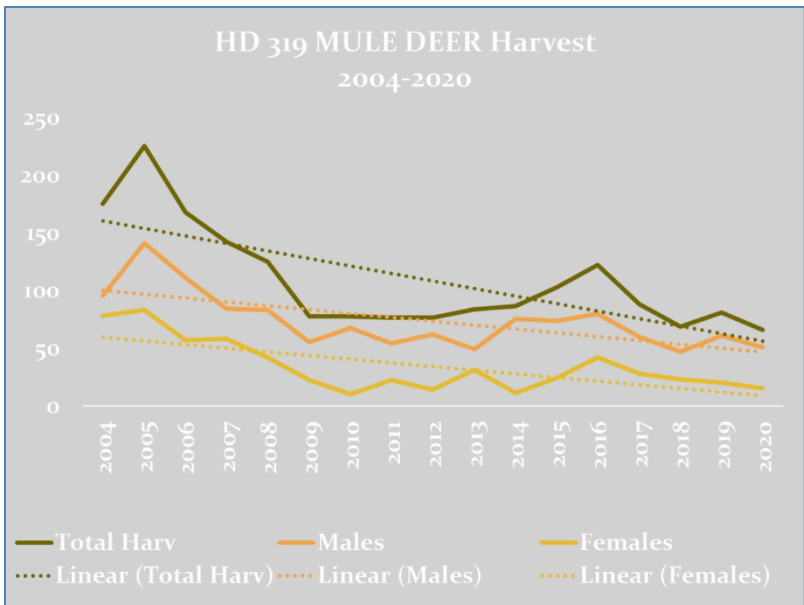
Elk Hunt District 332 Estimated Annual Harvest

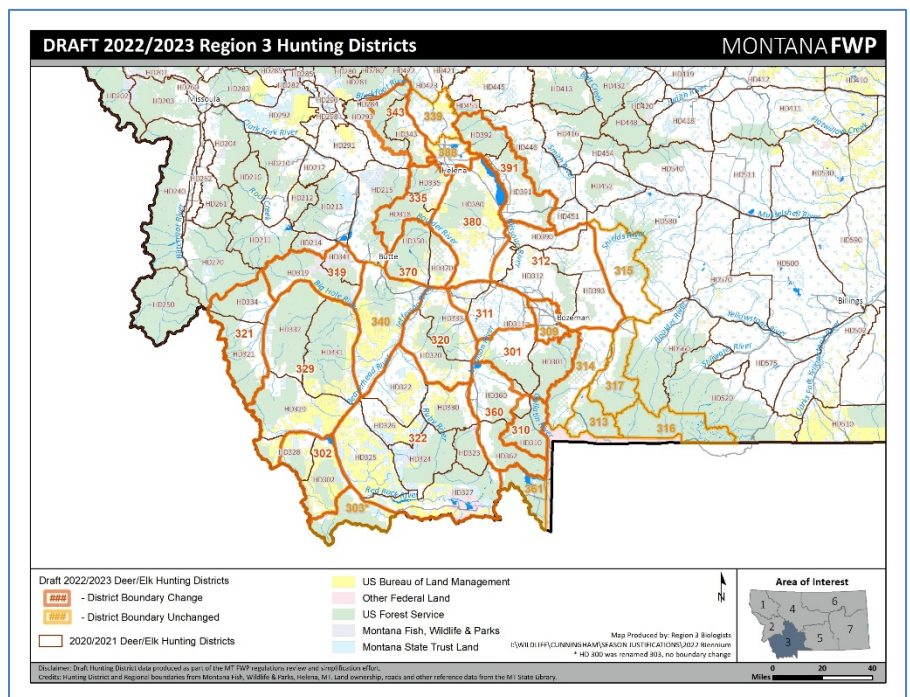
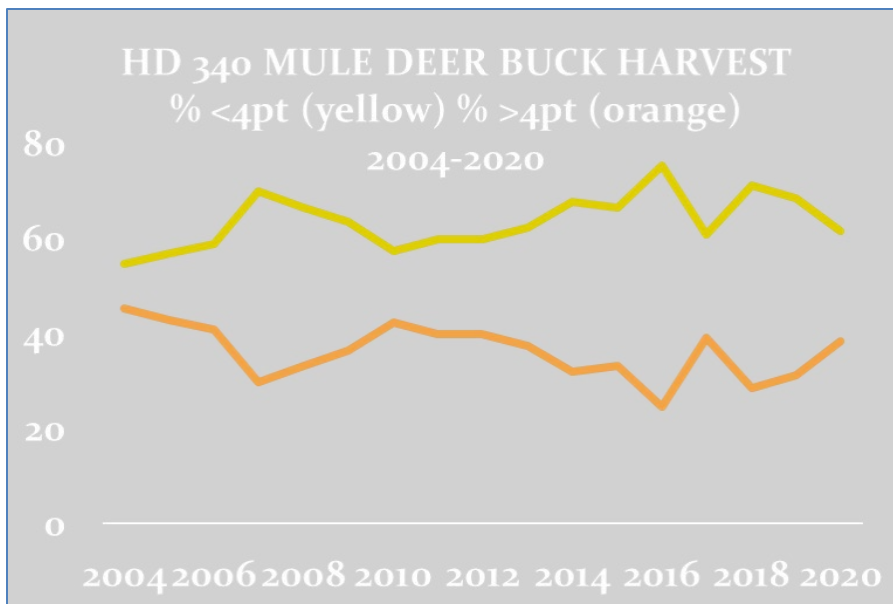


- Mule Deer Either-Sex Management









Upcoming Meetings

- October 14, 2021: **MFWP Meeting. Topic: Big Hole Grizzly DNA Study Update**
 - 7:00 pm at the Masonic Temple in Wisdom
- October 20, 2021: **BHWC Monthly Meeting. Topic: Butte-Silver Bow Big Hole River Water Use and Conservation by the Municipality of Butte**
 - 7:00 pm at the Divide Grange/Zoom
- November 17, 2021: **BHWC Monthly Meeting. Topic: Big Hole River Foundation Water Quality Monitoring Program**
 - 7:00 pm at the Divide Grange/Zoom

Adjourn