



Big Hole Watershed Committee

Monthly Meeting Minutes

October 15, 2025 – 7:00 pm at the Divide Grange
Zoom option also provided

In Attendance

In-person: Tana Lynch, BHCW; Nolan Salix, BHCW; Karly Noetzel, BHCW; Tom Bowler, Butte Resident; Betty Bowler, Butte Resident; Dean Peterson, Rancher/BHCW; Luke Lutz, DNRC; Jim Hagenbarth, Rancher/BHCW; Katelin Killoy, MFWP; Jeff Wolk, Resident; Howard Varner, Resident; Dean Peterson, Rancher/BHCW; Dave Duffy, Resident; Tom Caddy, Resident; Jeanne Caddy Resident; Ian Moore, Big Sky Land Management; and John Jackson, Beaverhead County Commission/BHCW.

Zoom: Pedro Marques, BHCW; and Jim Griffin, Resident (Butte).

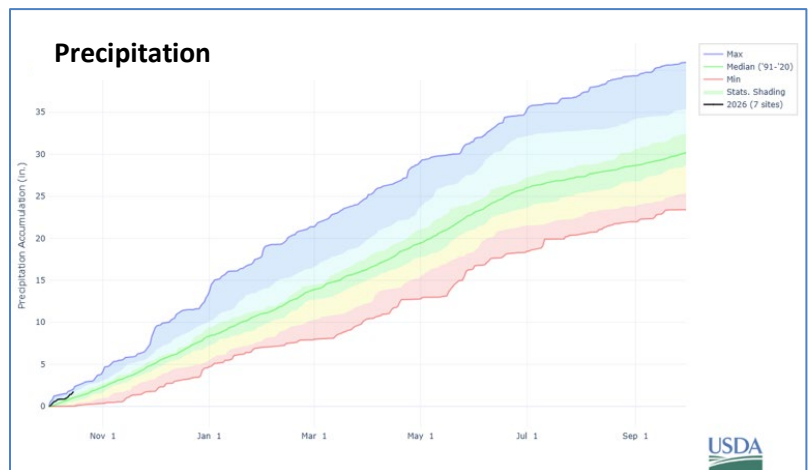
Meeting Minutes

BHCW 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 Lynch, BHCW Associate Director, at tlynch@bhwc.org or (406) 267-3421 to suggest additions or corrections.

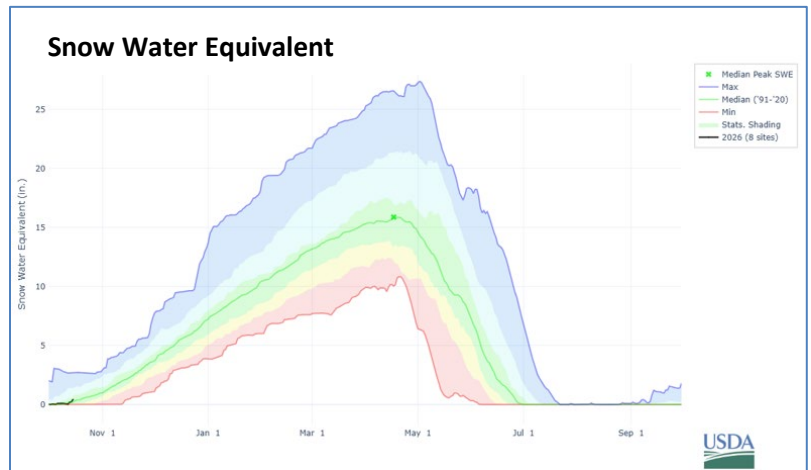
Reports

Streamflow and Snowpack Report – Luke Lutz, Montana Department of Natural Resources and Conservation

- *Streamflows: (October 15th, 2025)*
 - Wisdom (06024450): 46 cfs
 - Big Hole River near Wise River (41D 08000): 211 cfs
 - Maiden Rock (06025250): 300 cfs
 - Melrose (06025500): 311 cfs
 - Glen (06026210): 321 cfs
 - Hamilton Ditch (06026420): 306 cfs
- Stream And Gage Explorer (StAGE): <https://gis.dnrc.mt.gov/apps/stage/>

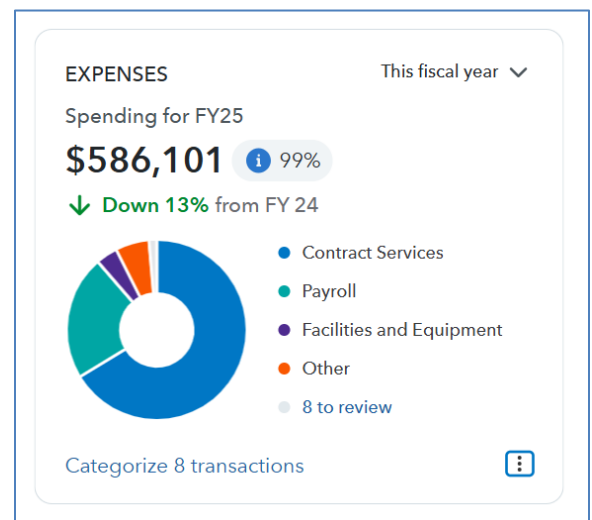


- *Precipitation*: 167% of average (1991-2020) – Note the new Water Year started October 1
- *Climate Outlook (NOAA)*:
 - *Outlook*: The 8-14 day outlook predicts slightly above normal temperatures and slightly above normal precipitation.
 - *Seasonal Outlook*: The seasonal outlook predicts slightly above normal temperatures and slightly above normal precipitation.
 - *NOAA Seasonal Forecast*: La Niña conditions are present and favored to persist through December 2025 - February 2026, with a transition to ENSO-neutral likely in January-March 2026 (55% chance), (9 Oct 2025).
- *U.S. Seasonal Drought Outlook*: Severe drought persists in our watershed.



Director's Report – Pedro Marques, Executive Director

- What does conservation leadership look like for BHCW?
 - Policy
 - Pooled funding
 - Resource needs?
 - Community needs?
 - Regional influence
 - Some quotes to think about:
 - *"If future generations are to remember us with gratitude rather than contempt, we must leave them something more than the miracles of technology. We must leave them a glimpse of the world as it was in the beginning, not just after we got through with it".* – Lyndon B. Johnson (upon signing the Wilderness Act 1964)
 - *"Native People were not scattered nomads hoping to find a berry to eat or a deer to hunt. Rather, (with some exceptions) Indigenous civilizations were living in highly manicured biomes, designed through extensive and sophisticated land management techniques to support complex and biodiverse life systems."* – Lyla June Johnston (Architects of Abundance, Doctoral Dissertation, 2022)
- Funding:
 - High Stakes Foundation (Funded- amount pending)
 - Charlotte Martin Foundation (Sent)
 - RDGP Planning: Continuation of storage investigations (Sent)
 - Ranching for Rivers- Fencing: Johnson Cr. Area (Nov.1)
 - Future Fisheries Program: Kamperschroer spawning channel (November 15)



- National Forest Foundation- Public engagement and high meadow restoration (April '26)
- BoR Water Storage: Continuation of MBMG feasibility (April '26)
- DEQ 319 program: Burma Road Sediment Project
- More Communications:
 - FWP Beaver Translocation EA
 - Moose Cr. Pilot Project
 - We need nuisance beaver!
 - Drought Plan discussions
 - HydroGreens
- Restoration Project Update
 - Projects underway:
 - High Meadow Storage Capacity – WGM Group
 - California Creek “demo area” design – W.E.T.
 - Beaverhead CD – Elkhorn Mine
 - Smith Springs ditch siphon design – Confluence Consulting
 - East Pioneers Conifer Encroachment
 - Funded by MDF, RMEF, USFS, BLM
 - 1,000 acres done – Star Forestry
 - 224 acres on private land North of Lost Creek
 - Thank you, Diane!
 - Projects completed:
 - Rock Creek Fish Barrier – R.E. Miller
 - Next-up/Projects to-be contracted:
 - Elkhorn Preserve/Lazy S Ranch: Landowner agreement complete
 - Smart Creek: Permits secured from Army Corps
 - Kamperschroer Riparian: negotiating with contractor for reduced scope
 - California Creek Designs: Low Intensity Option under design: FY '26 Contract Signed
 - Stock Tank Projects: Support for FWP to fund 2 tanks
 - Selway and Trail Creek Meadow – MCC
 - Projects in-design, scoping, funding:
 - Johnson Creek area fencing
 - Wise River headgate
 - Jerry Creek headgate
 - Moose Creek headwaters: TNC, USFS
 - Burma Road: Sediment project
 - Pennington Bridge Phase 2: Madison County
 - Melrose Diversion
 - Moose Creek Headwaters

Steering Committee Report – Jim Hagenbarth, Chairman; Dean Peterson, Vice-Chairman; Roy Morris, Secretary

- The steering committee met with Pedro in July. Planned for Pedro’s last few months in Brazil.

Communications and Wildlife Report – Tana Lynch, Associate Director

- Communications:
 - Karly Noetzel, BHWC’s new Communications Specialist (hired September 2025)
 - Contract work for BHWC summer 2025
 - Hired to do:

- Video production
- Social media
- Marketing
- Website management



shopify

- Check out BHWC's new Shopify store on our website

(bhwc.org/shop-to-support or scan the QR code to the right). Grab some BHWC gear (all purchases support the Big Hole Conservation Fund), and let us know if there is anything you'd to see in the store that's not currently there!



- Press & Publications:

- [Report: Anglers spent \\$1.3B fishing in Montana in 2024, supporting thousands of jobs](#)
 - Montana Standard – October 9
- [FWP reopens one stretch of the Big Hole River to fishing](#)
 - Montana Standard – October 8
- [‘Dead, dry rivers’: Lawsuit says state isn’t managing rivers for the benefit of all](#)
 - Montana Free Press – October 6
- [Project aims to lure back beavers with flattery](#)
 - Montana Standard – October 2
- [Montana’s water future depends on cooperation, not conflict | Opinion](#)
 - Montana Standard – September 4
 - Pedro Marques, BHWC, and Seth Wilson, Blackfoot Challenge
- [Groups Sue to Force FWP to Enforce River Flow Minimums](#)
 - Missoula Current – August 14

- Weekly drought updates:

- Current streamflow
- Temperature
- River status by section
- Long-term average flows
- Text DROUGHT to 26989 & register
 - Also sent via email
 - Sign up at bhwc.org

- Wildlife:

- Carcass Removal & Composting

- Compost site ready for winter
- Carcass removal spring 2026

- Range Rider

- July 1 – September 30
- Purchased used 4-wheeler for program
- Accepting donations to offset cost at bhwc.org/#donate or by mail (send checks to BHWC at PO Box 21, Divide, MT 59727. Write “4-wheeler” in memo.)
- 2025 Range Rider Program Summary:
 - The 2025 Range Rider season in the Big Hole Valley was marked by steady fieldwork, challenging weather, and valuable wildlife observations.

- Range Rider Chet Robertson and his canine companion, Finn McCool, spent 52 days in the field monitoring livestock allotments and documenting predator activity (and a few days on reporting and equipment repairs):
 - Their reports describe encounters with wolves, bears, and mountain lions, as well as the conditions affecting cattle and wildlife movement across the summer season.
 - Notably, wolf activity was consistent throughout the reporting period, with multiple sets of tracks found in recurring locations, suggesting a single or small group maintaining a local range between Hamby, Englehard, and Little Lake Creek.
 - While no livestock losses were confirmed or reimbursed by Wildlife Services, several interactions between predators and the environment provided valuable insight.
 - A memorable highlight included a close encounter with a black bear sow and her three cubs climbing a fir tree—an event the rider described as both exhilarating and peaceful, given his long familiarity with the same sow over several years.

New Business

- None

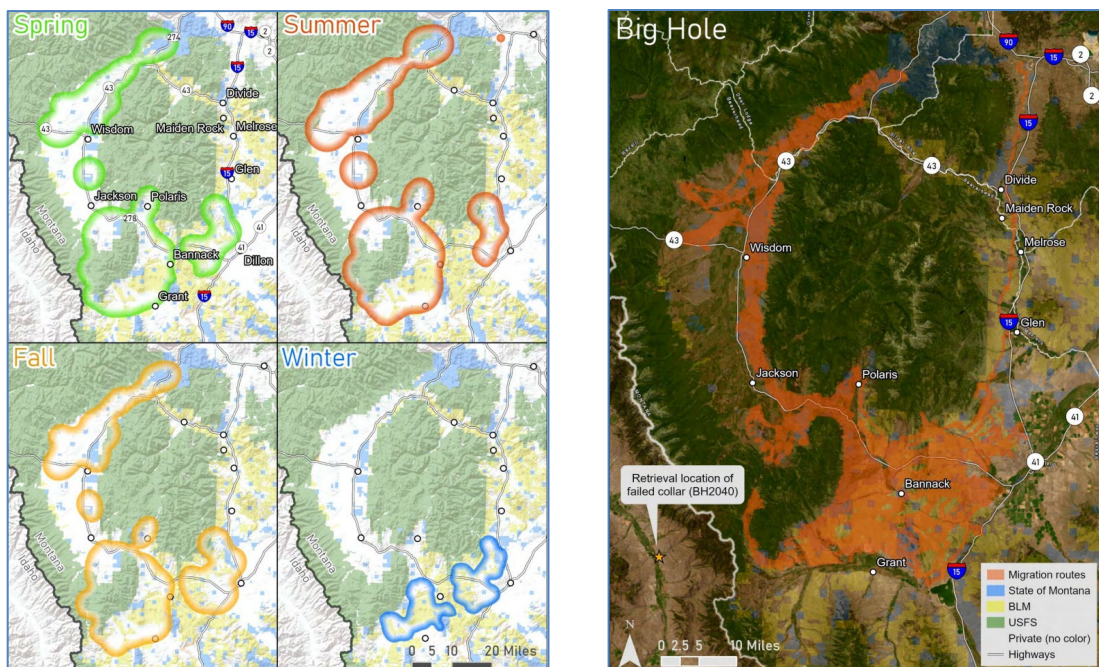
Break – 10 minutes

Meeting Topic:

Pronghorn: Fun Facts and Management of the Upper Big hole Population

Presented by: Vanna Boccadori, Montana Fish, Wildlife and Parks

Pronghorn Use and Movement in the Big Hole

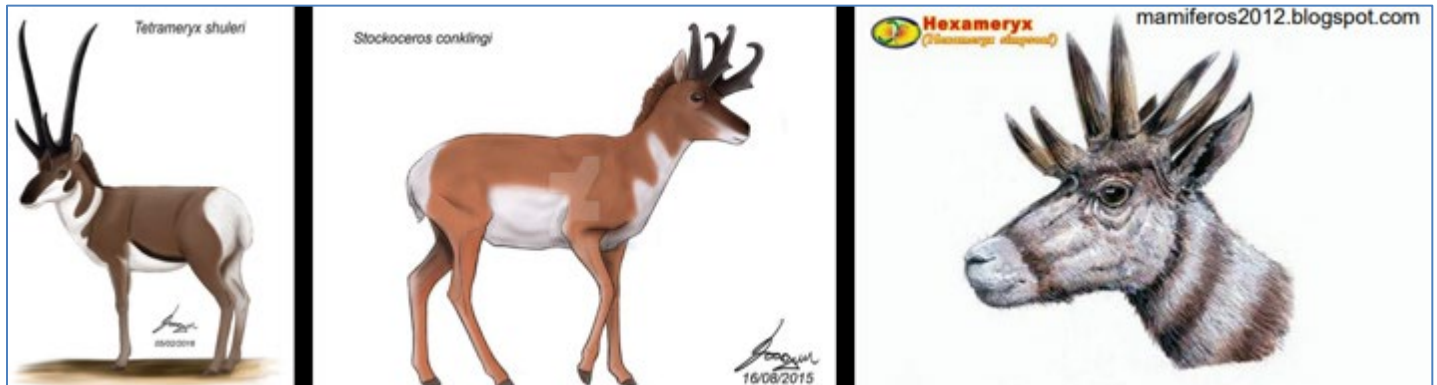
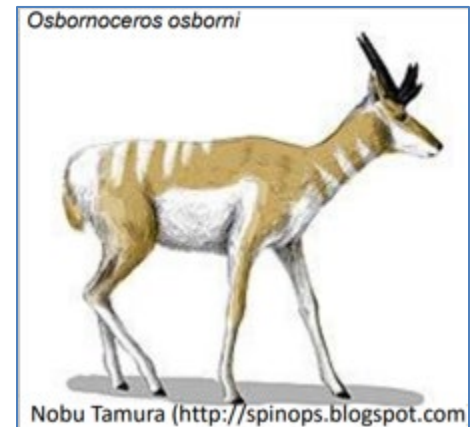
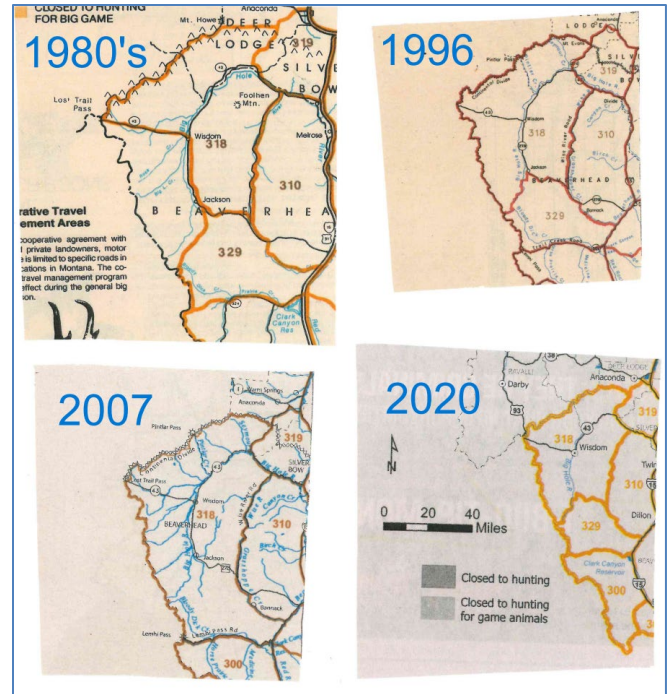


Management of the Upper Big Hole Pronghorn

- Summer aerial survey every other year
 - Total count
 - Herd composition
- Either-sex and does/fawn licenses issued

Pronghorn Biology

- Our local pronghorn are relics of a once-diverse family
- *Antilocapra Americana* is the sole survivor of its family. And only found on North America!
 - Greek for “brightness of eye”
 - It’s nearest relative is the giraffe!
 - Taxonomy:
 - Order: *Artiodactyla*
 - Family: *Antilocapridae*
 - Genus: *Antilocapra*
 - Species: *Americana*
 - Subspecies:
 - *americana*
 - *mexicana*
 - *oregona*
 - *peninsularis*
 - *sonoriensis*
- The world of ancient pronghorn was very different from today
 - Present-day predators include golden eagle, mountain lion, coyote
- And they are NOT antelopes – true antelopes are in the family Bovidae



- So why does FWP still call them antelope?
 - Basically, because it’s people are used to and it’s the term that has been used for decades.
- Pronghorn can run >50 mph
 - They are the 2nd fastest land mammal!
- More fun facts:
 - Sheaths shed

- Hollow hair
- Fused leg bones, no dew claws
- Padded hooves
- Large lungs/trachea and heart
- Teeth erupt whole lives
- Horns:
 - Made of keratin
 - Shed every year as opposed to true horns (like on a bighorn sheep) that stay on for life
 - Cover a bony core
- Pronghorn diet:
 - Winter – sagebrush
 - Spring – grasses
 - Summer – forbs

Pronghorn Behavior

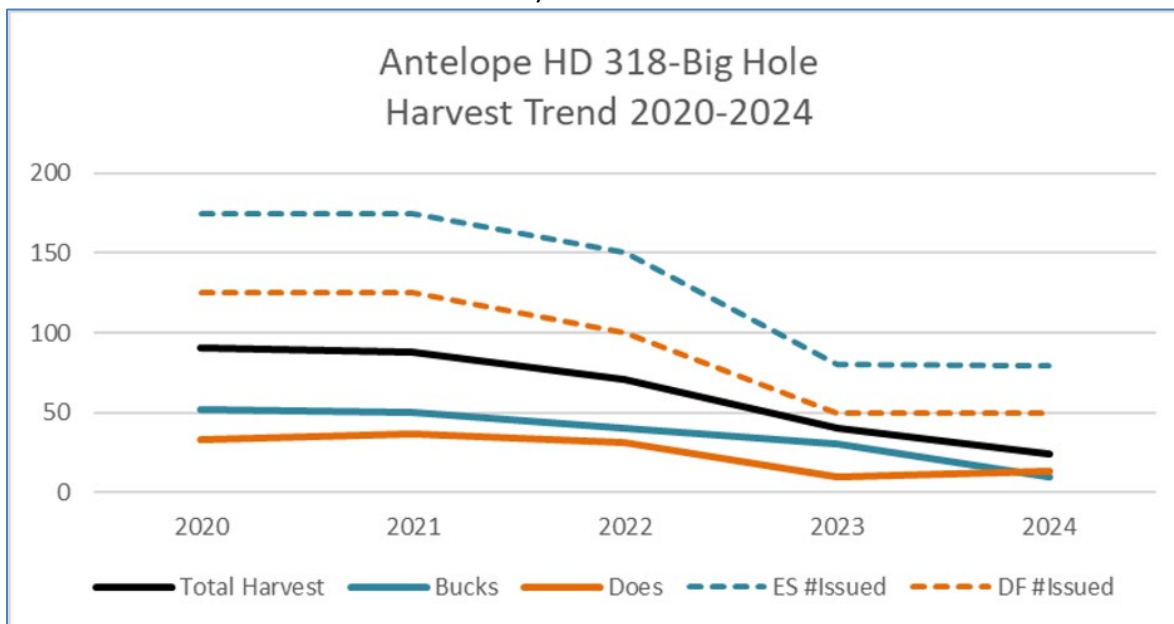
- Selfish herd
- Reproduction:
 - Breed in September/October
 - Long gestation (250 days)
 - Typically twins (98% of pregnancies)
 - Newborns are precocial
 - Newborn twins are 20% mom's weight (human twins 10%) [5-9 lbs., 75-100 lbs.]
 - Super-ovulators!
 - Double-horned uterus
 - 4 implantation sites
 - 2 inner embryos will push out the outer 2, so pronghorn have twins, not quadruplets (although they can occasionally have triplets)
 - Battle in the uterus
 - Sex ratios
 - In utero or at birth NOT older fawns
 - 1:1 Male to Female
 - Social rank affects birth sex ratio (Byers 1997)
 - Subordinate does – daughters
 - Dominant does – sons
 - Susceptibility of pregnant females to winter malnutrition
 - Greatly influenced by prior summer and fall vegetation
 - Catabolize their own fat and protein
 - Abort or resorb fetuses
 - Bones, teeth, hooves might be retained, act as IUD

Great Pronghorn References to Learn More

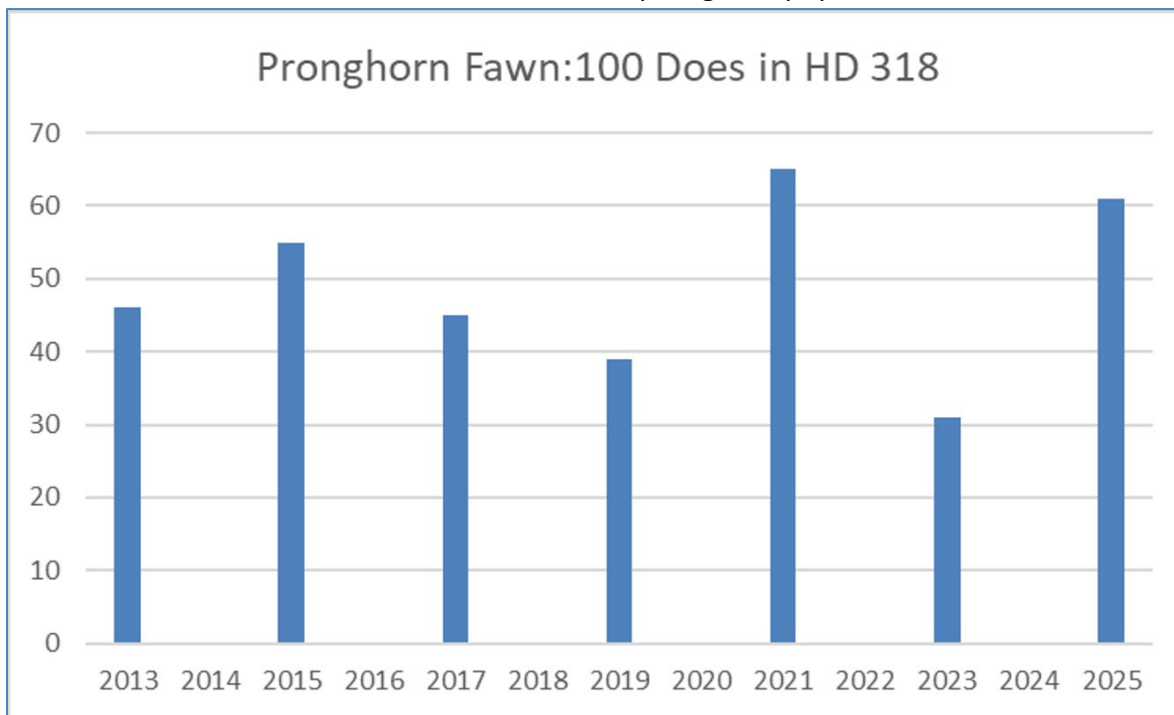
- *American Pronghorn: Social Adaptations and the Ghosts of Predators Past* – John Beyers (1997)
- *Pronghorn Ecology and Management* – Bart W. O'Gara and Jim D. Yoakum (2004)
- *Where the Pronghorns Play* – Dan Flores (2016)

What's driving the downward trend in the HD 318 pronghorn population?

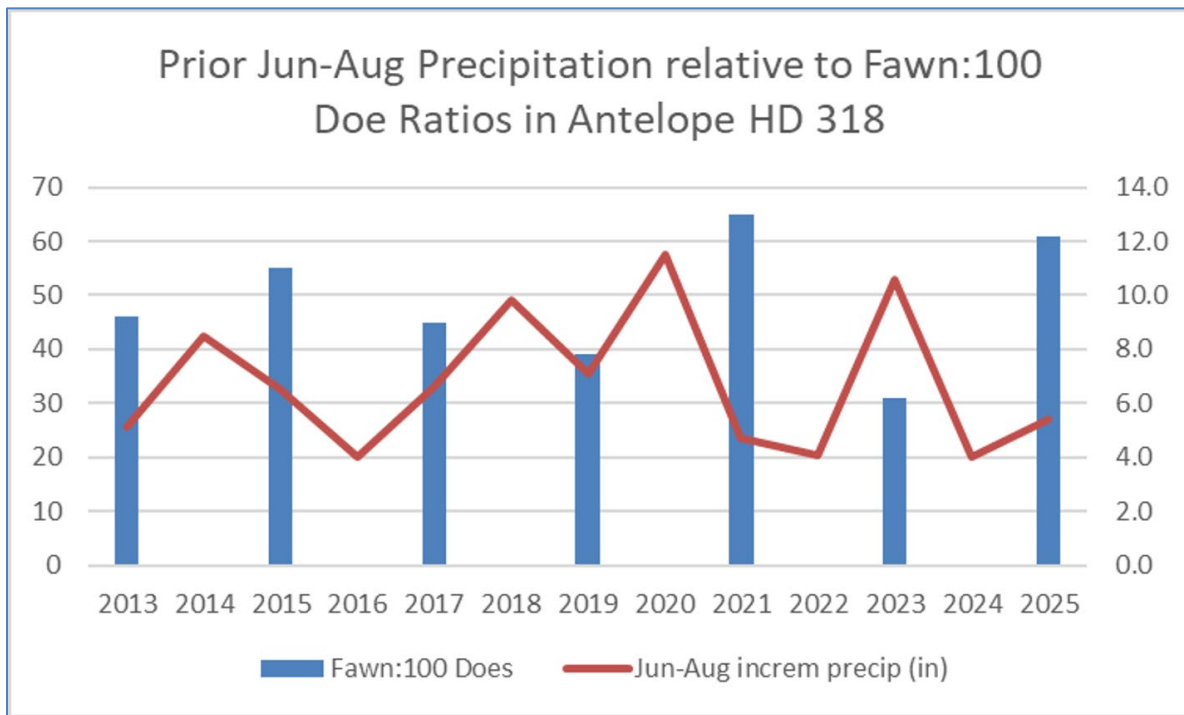
- Harvest:
 - Long-term average success:
 - 27% Either-sex and 21% Doe/Fawn



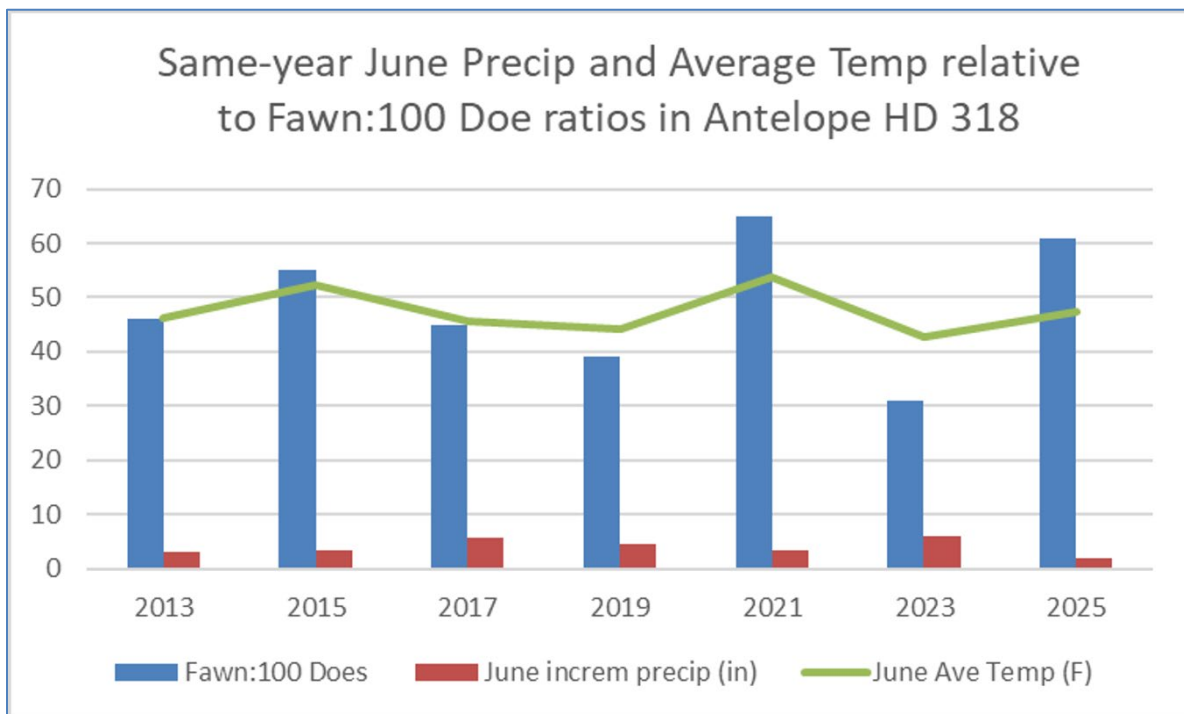
- Harvest on Either-Sex license: 79% bucks
- Malnourishment:
 - Winter 2022-23 malnourishment in HD 318 pronghorn population?



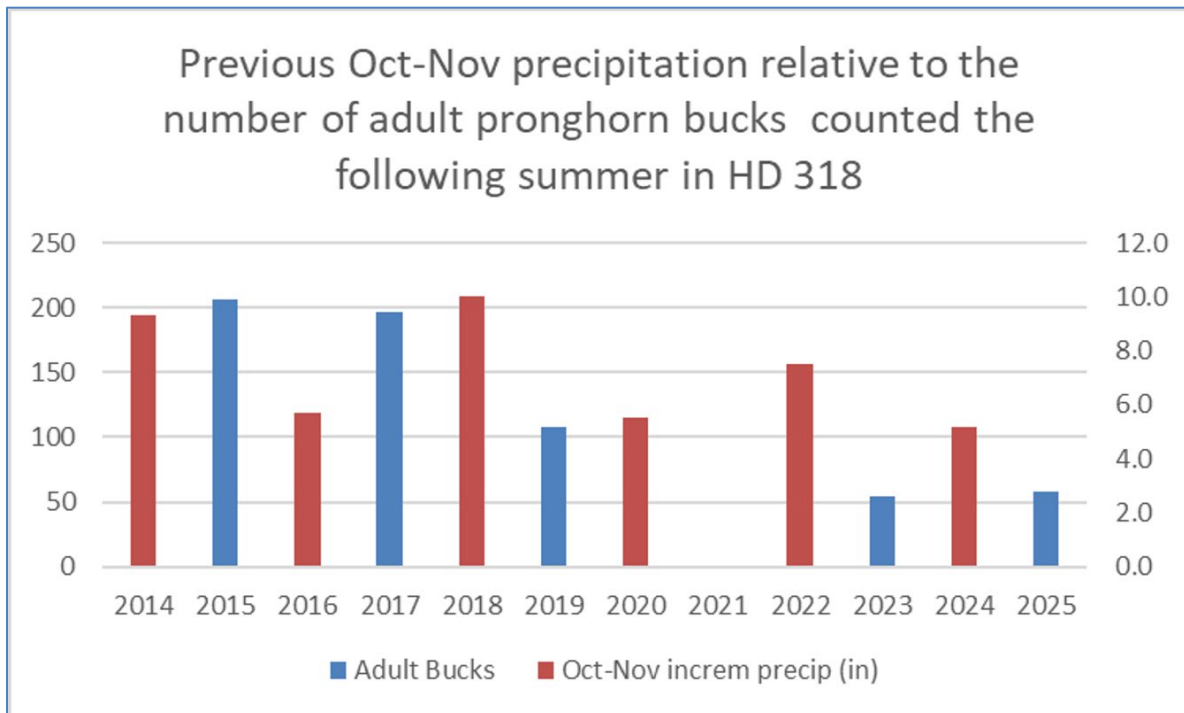
- Forage availability:
 - Do good growing conditions the prior summer increase fawn production the next year?



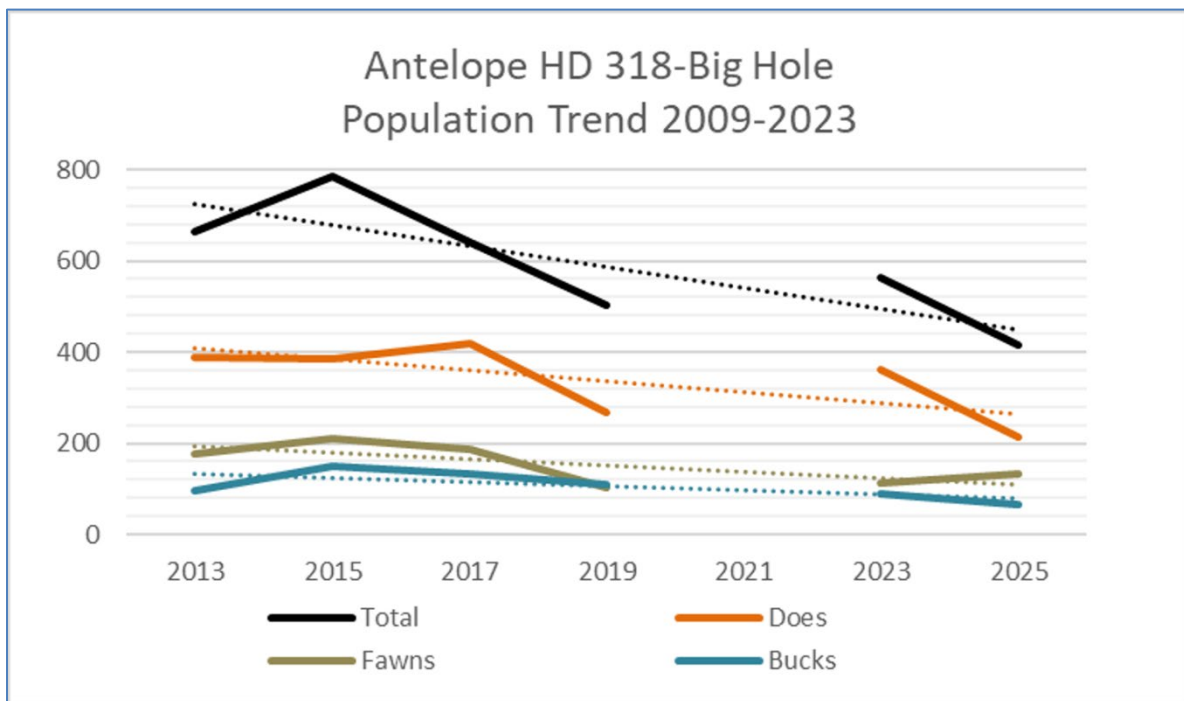
- Precipitation:
 - Do cold, wet Junes negatively impact the number of fawns counted in July?



- Does Fall green-up help bucks recuperate from the rut and survive winter?



- In summary, there are many factors influencing the downward trend in the HD 318 pronghorn population and no single identifiable cause.



Upcoming Meetings

- Wednesday, November 19, 2025: BHWC Monthly Meeting
 - 6:00 PM at the Divide Grange Hall – Topic: Archaeology and Cultural Resources at Elkhorn Mine and Mill

Adjourn