

Selkirk and Cabinet-Yaak Grizzly Bear Monitoring

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2022-08-15 4:06:22 PM M 4/10

72°F

- 2023 Recovery Plan Metrics, Females with young and Mortality
- Population trend
- 2022 genetics results
- 2023 genetics effort
- Bog Creek Monitoring
- 2024 Fieldwork Plans



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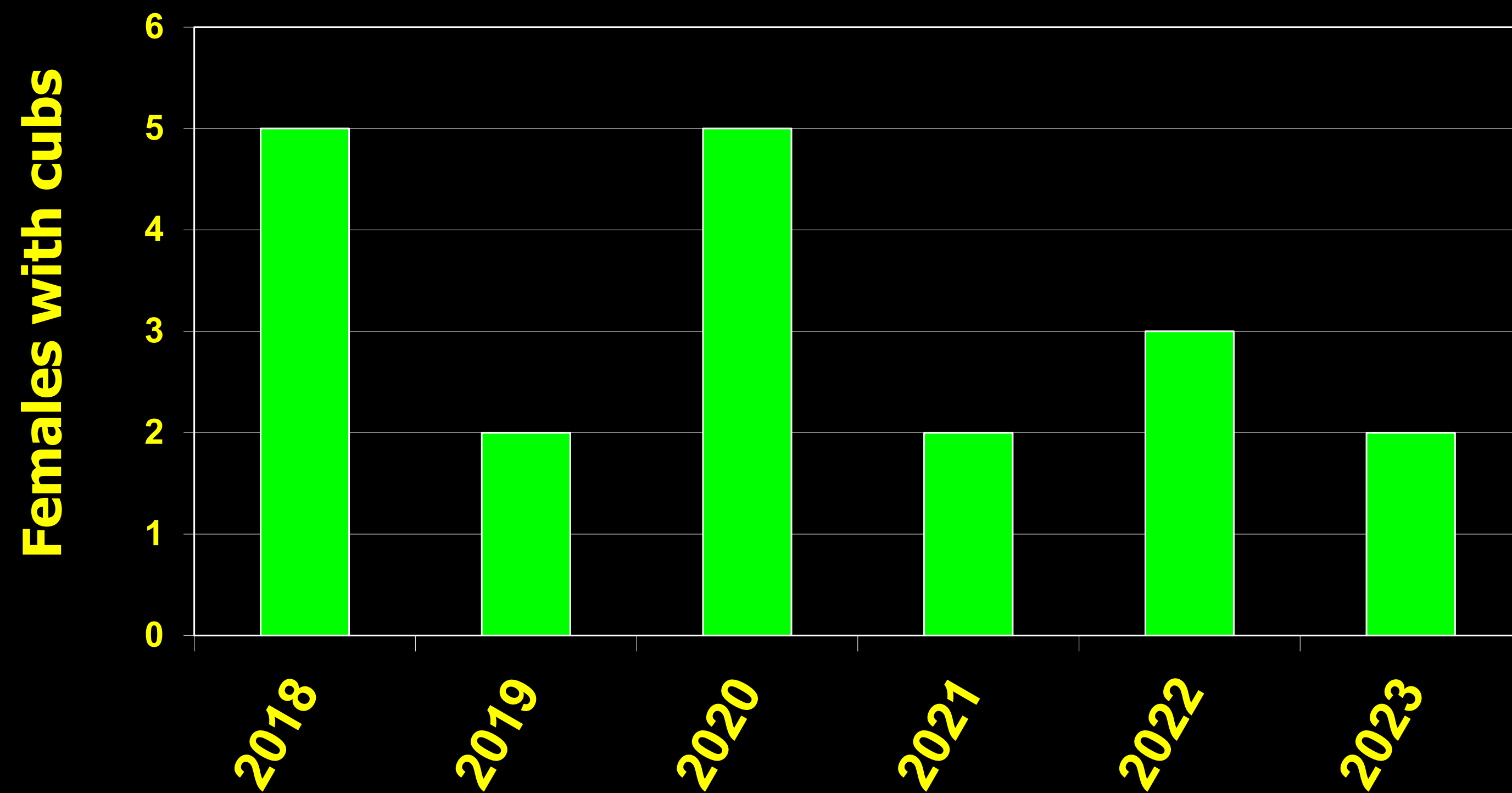
RECONYX

Recovery plan demographic targets

- Average 6 females with cubs (FWC) for last 6 years
- Females with young occupy 18 of 22 CY BMUs or 7 of 10 US Selkirk BMUs or in last 6 years
- 4% Mortality limit based on last 3 years FWC and a minimum population estimate (female sublimit 30% of total)
- Demographic targets based on populations with gene flow (not isolated)
- There is no recovery plan target for a specific population size
- Based on the female with cub target the expected population about 90-100 bears

2023 Cabinet-Yaak Females with cubs of the year (COY)

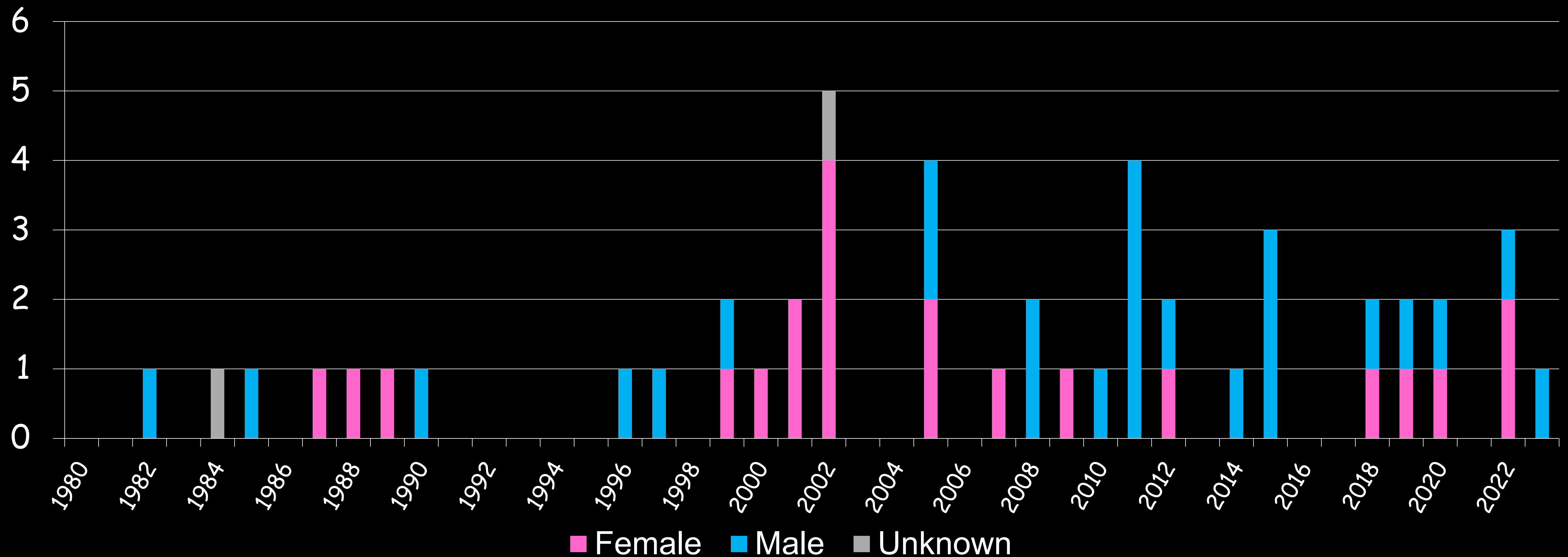
- Two unduplicated females with COY
- 3.2 females with cubs as 6-year average Recovery Goal = 6.0
- 7 additional females with 1-2 year-olds
- 16 of 22 BMUs occupied (Goal 18 of 22)





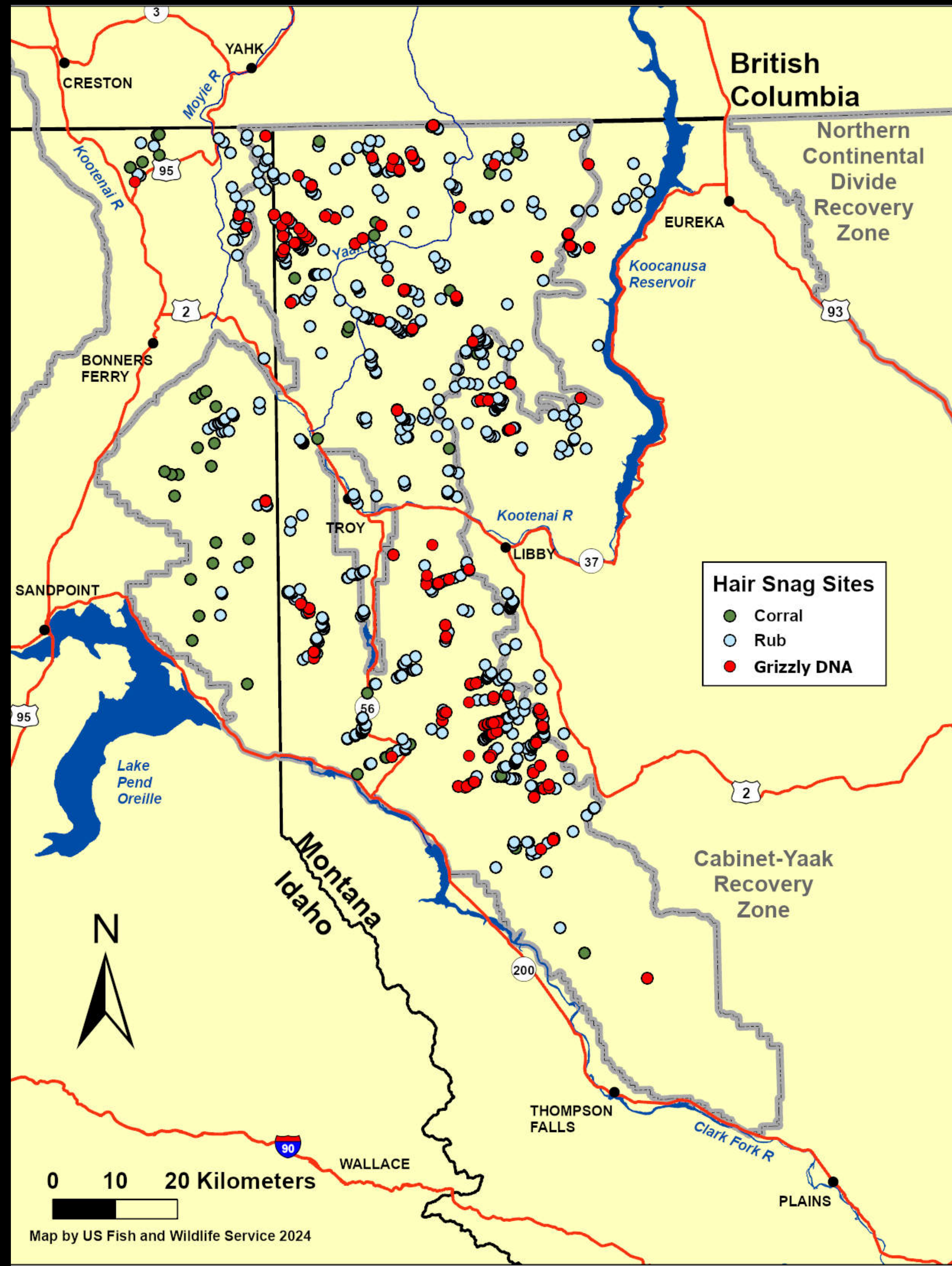
Cabinet-Yaak Human Caused Grizzly Bear Mortality

- 2018-23 = 10 (5M:5F) Human Caused (1.7 per year) 4.9% total mortality (Recovery Goal $\leq 4\%$)
- 2018-23 = 5 Female Mortalities (0.8 per year) 2.4% Female mortality (Recovery Goal $\leq 1.2\%$)



2022 Cabinet-Yaak Hair Snagging for Genetic Monitoring

- 821 Rub sites visited 3-4 times
 - 127 Corrals sampled
 - Opportunistic samples
 - Trail camera photos
 - 55 individuals identified
 - 29 Cabinets (13 F, 11 M, 5 Unk)
 - 28 Yaak (9 F, 15 M, 4 Unk)
-
- 2021 - 49 individuals
 - 2020 – 45 individuals
 - 2019 – 50 individuals



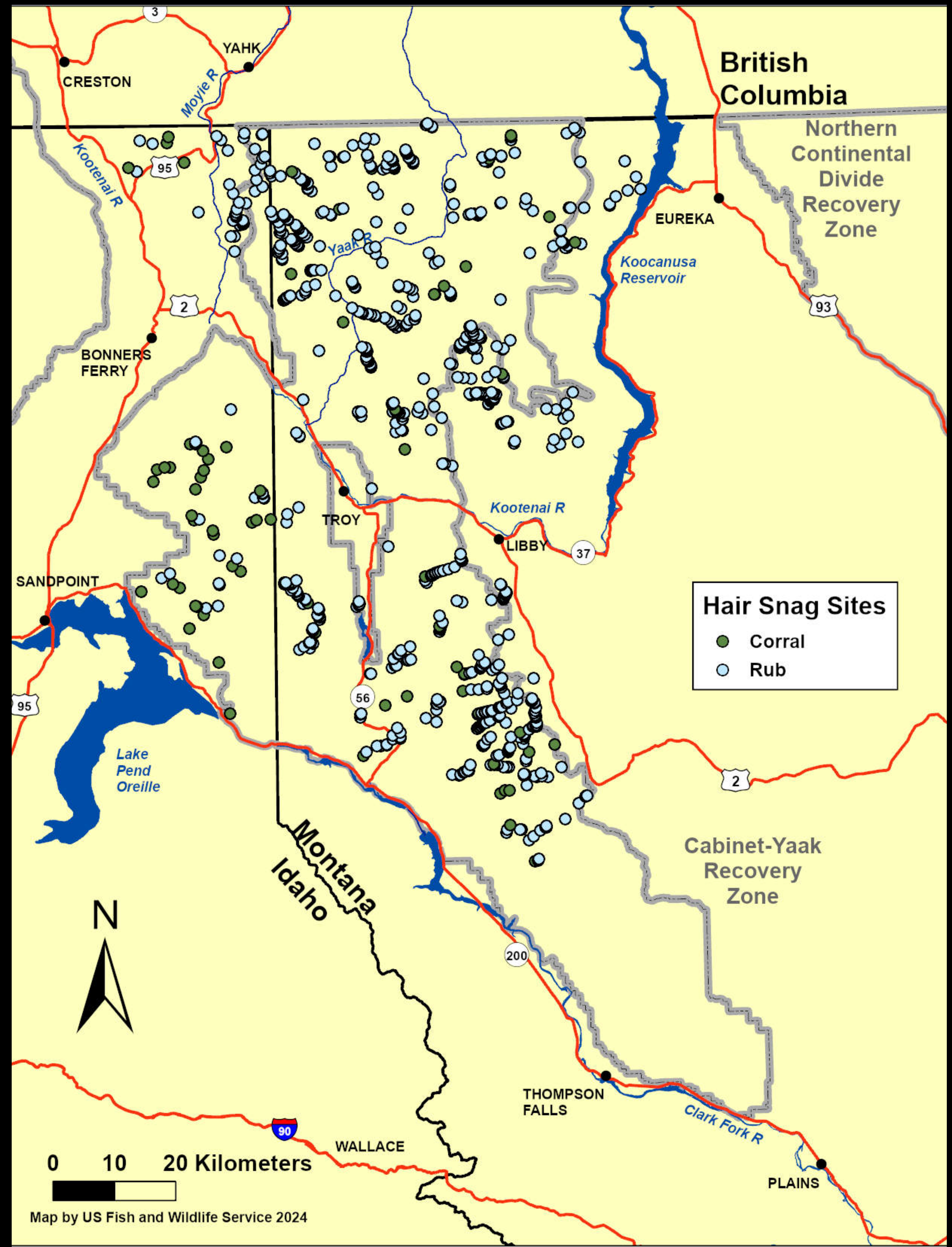
CYE Vital Rates from collared bears

Adult female survival = 0.924
Subadult female survival = 0.874
Yearling survival = 0.946
Cub survival = 0.652
First Age of reproduction = 6.3
Mean litter size = 2.16
Mean inter-birth interval = 2.89 years
Reproductive rate = 0.380 females /
year
Annual Growth rate = 2.7%
(77% probability stable to increasing)



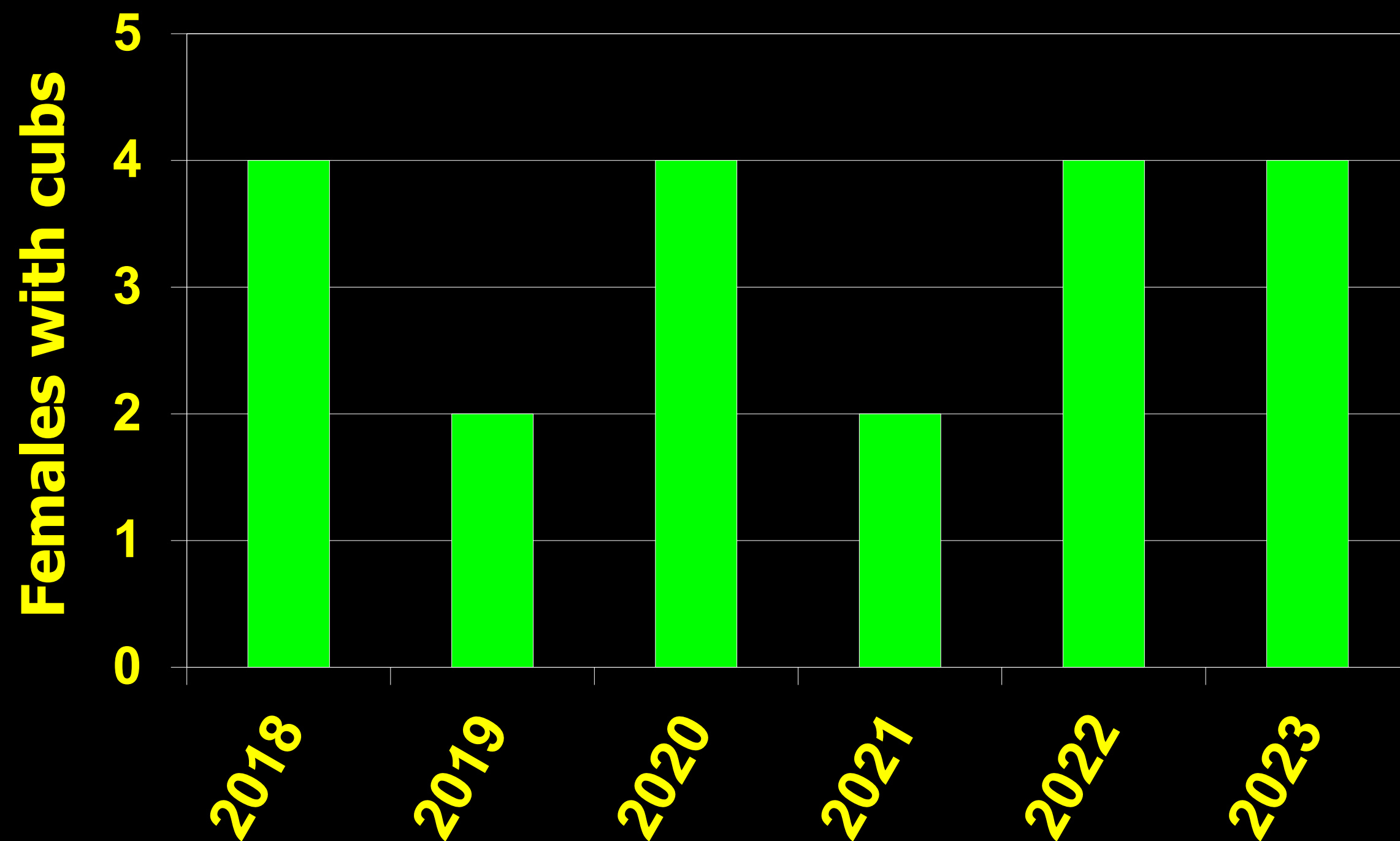
Cabinet-Yaak Hair snagging for Genetic Monitoring

- 814 Rub sites visited 3-4 times
- 171 Corrals sampled, but several left in place for multiple sessions
- 2023 Genetics results still at Lab



2023 Selkirk Females with cubs of the year (COY)

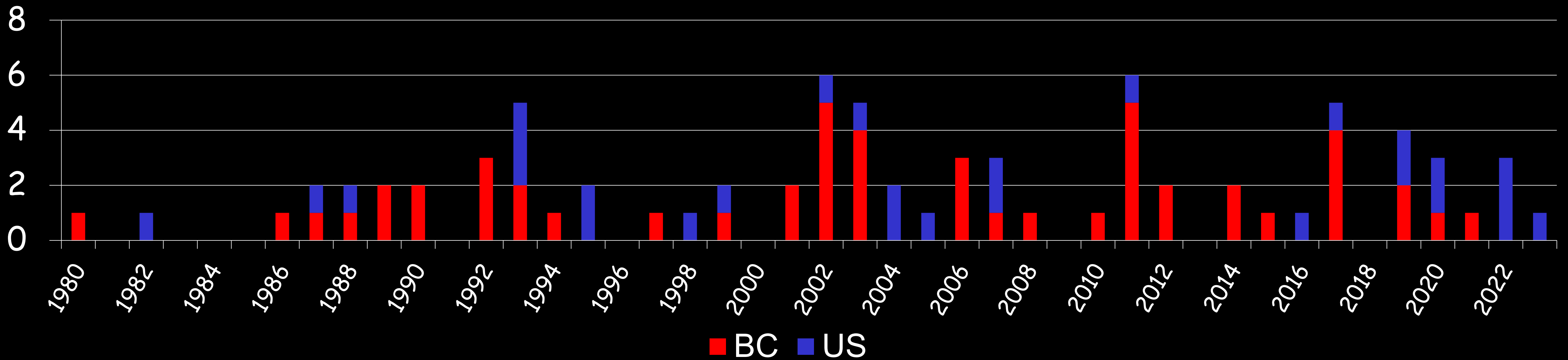
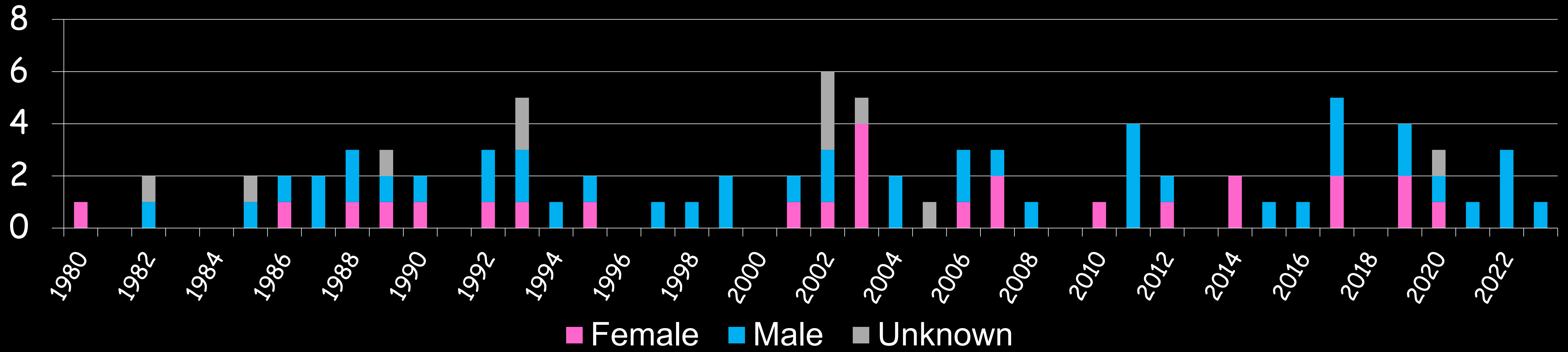
- Four unduplicated females with COY
- 3.3 females with cubs as 6-year average Recovery Goal = 6.0
- 9 of 10 BMUs occupied (Goal 7 of 10)
4 additional females with 1-2 year-olds





Selkirk Human Caused Grizzly Bear Mortality

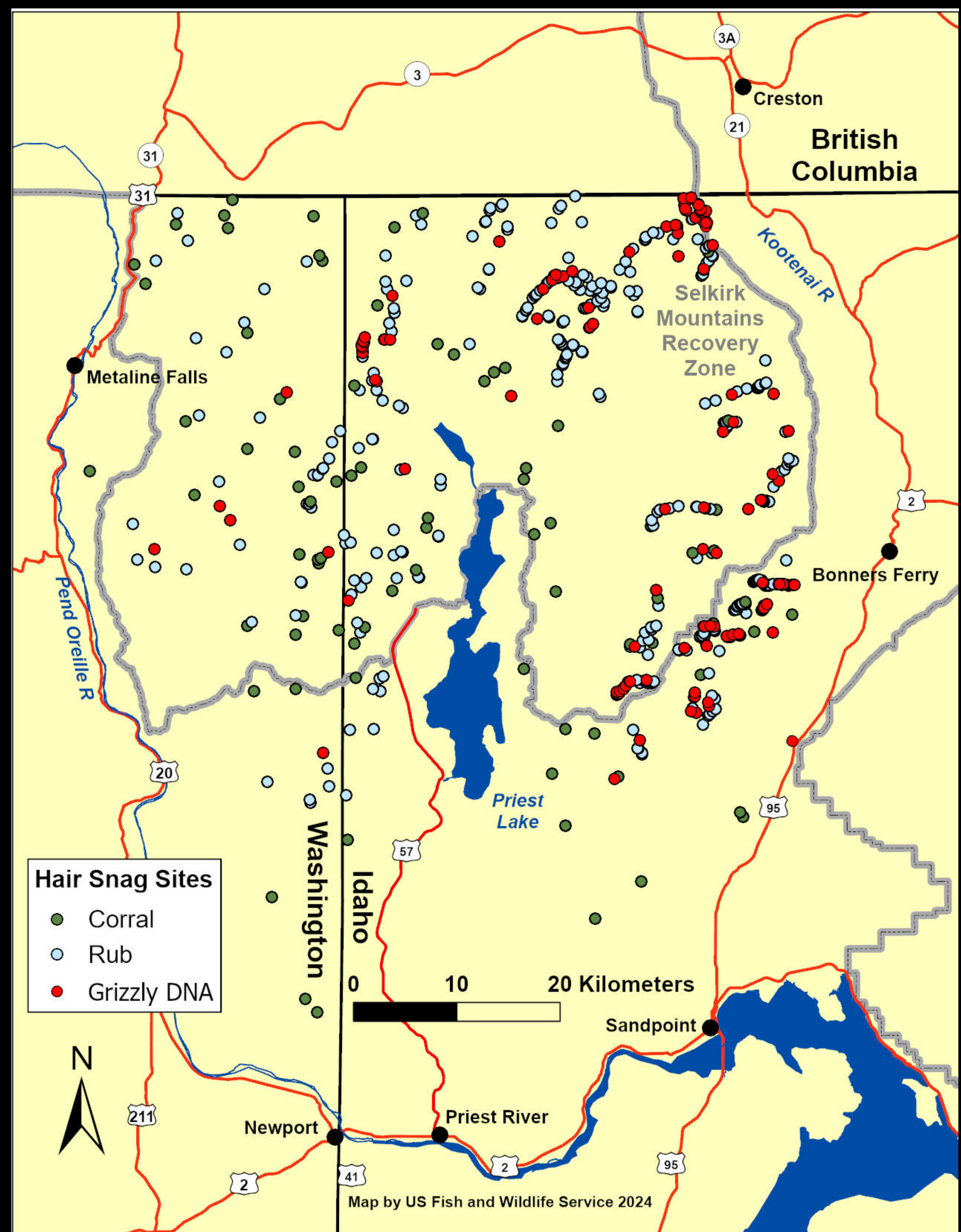
- 2018-23 = 12 (8M:3F:1U) Human Caused (2.0 per year)
4.0% total mortality (Recovery Goal \leq 4%)
- 2018-23 = 3 Female Mortalities (0.5 per year)
1.0% Female mortality (Recovery Goal \leq 1.2%)



2022 Selkirk Hair Snagging for Genetic Monitoring

- 466 Rub sites visited 3-4 times
- 117 Corrals sampled, typically moved every month
- Opportunistic samples
- Trail camera photos
- 51 US Selkirks (17 F, 24 M, 10 Unk)

- 2021 – 49 individuals
- 2020 – 44 individuals
- 2019 – 44 individuals



Selkirk Vital Rates from collared bears

Adult female survival = 0.916
Subadult female survival = 0.874
Yearling survival = 0.865
Cub survival = 0.886
First Age of reproduction = 6.3
Mean litter size = 2.19
Mean inter-birth interval = 3.46 years
Reproductive rate = 0.320 females /
year
Annual growth rate = 2.5% (80%
probability stable to increasing)



2021-07-23 7:10:53 AM M 4/5 ● 53°F

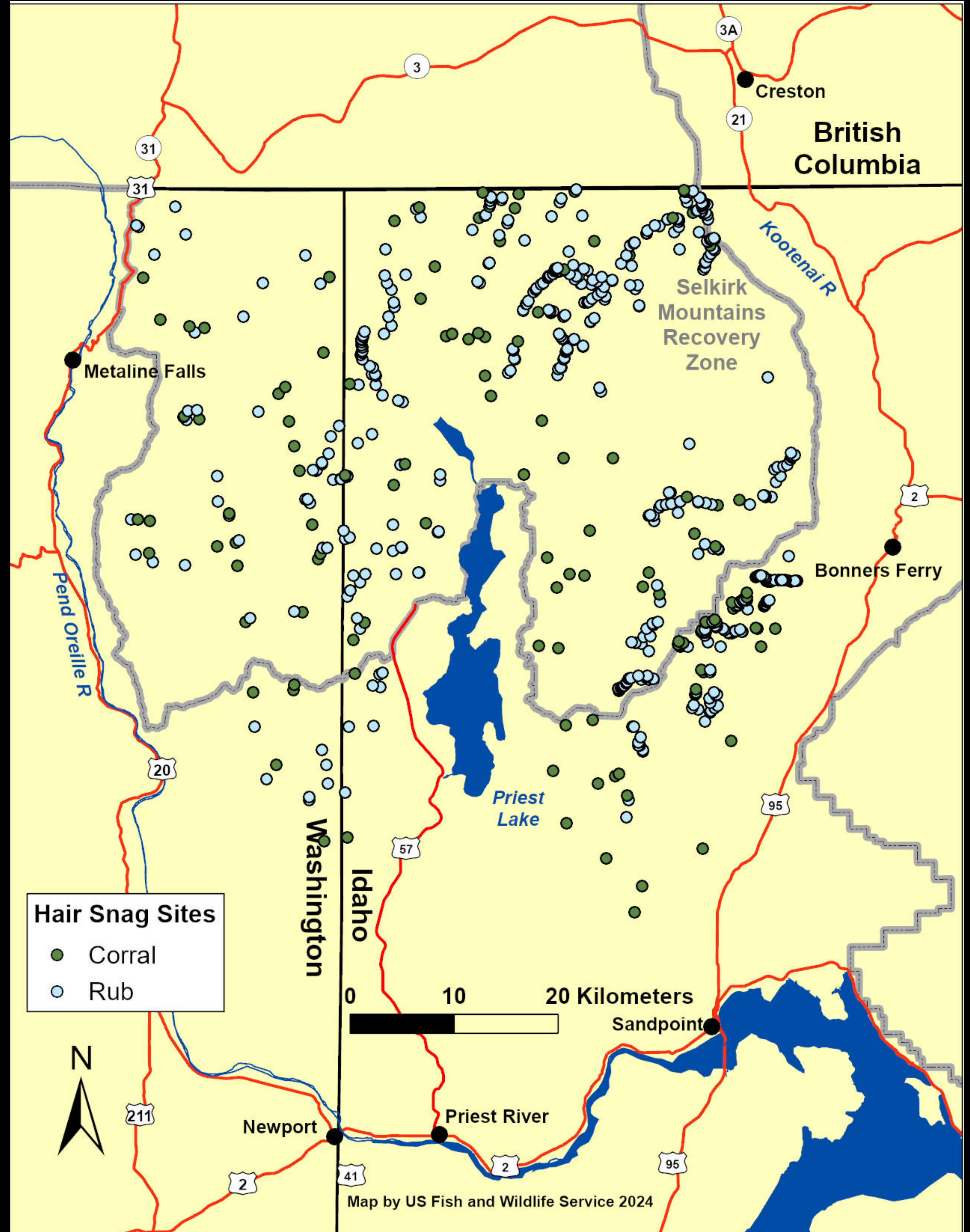


HC600 HYPERFIRE

RECONYA

2023 Selkirk Hair Snagging for Genetic Monitoring

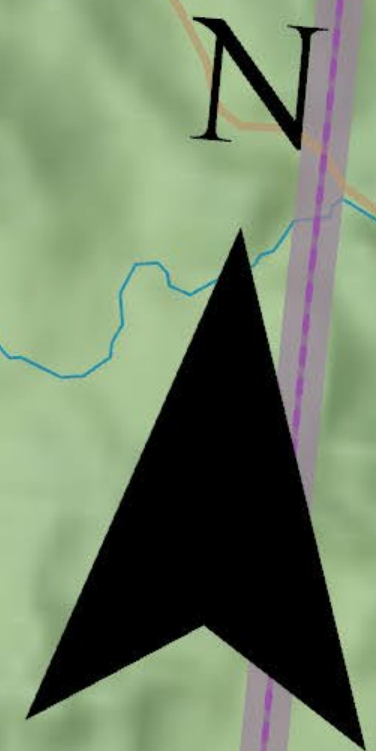
- 491 Rub sites visited 3-4 times
- 132 Corrals sampled, typically moved every month
- 2023 Genetics results still at Lab



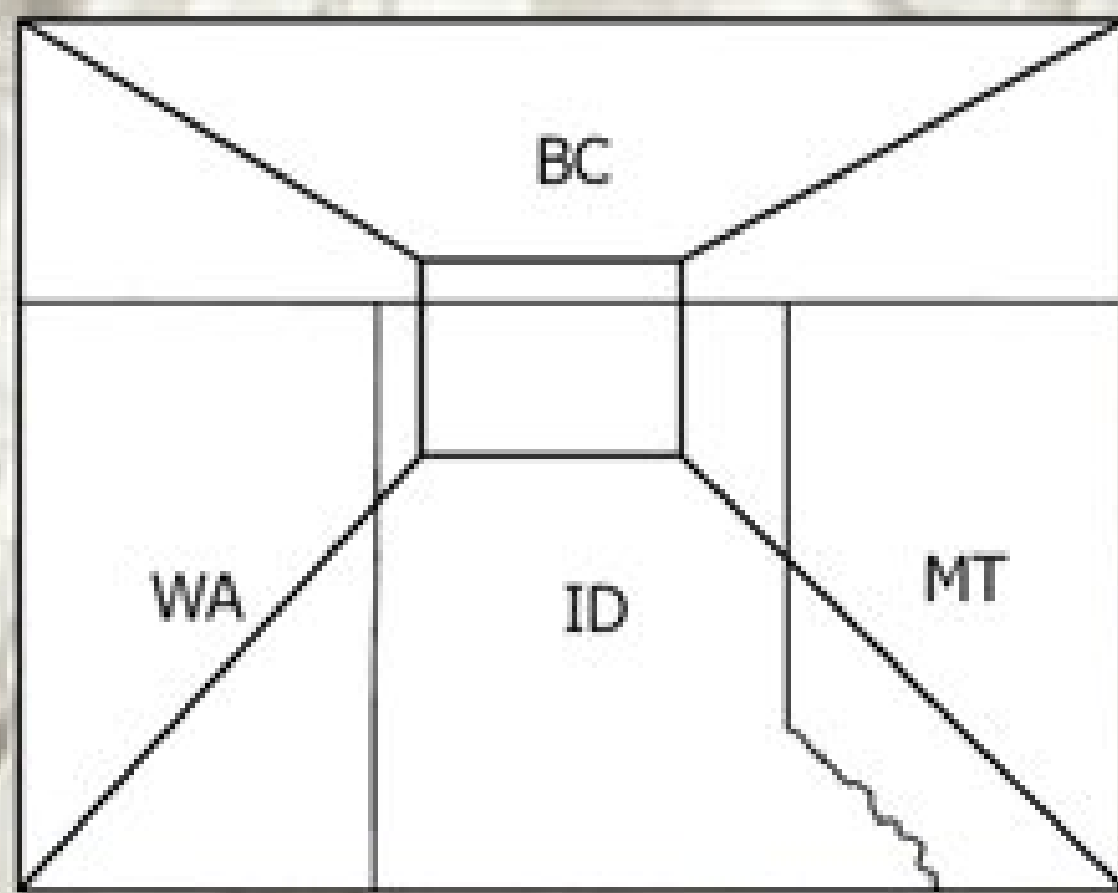
Bog Creek Monitoring

Blue-Grass BMU

**Border Patrol rebuilt
5.5 miles of closed
road in Bog Creek to
allow access to the
Priest Lake Basin from
Boundary Creek**

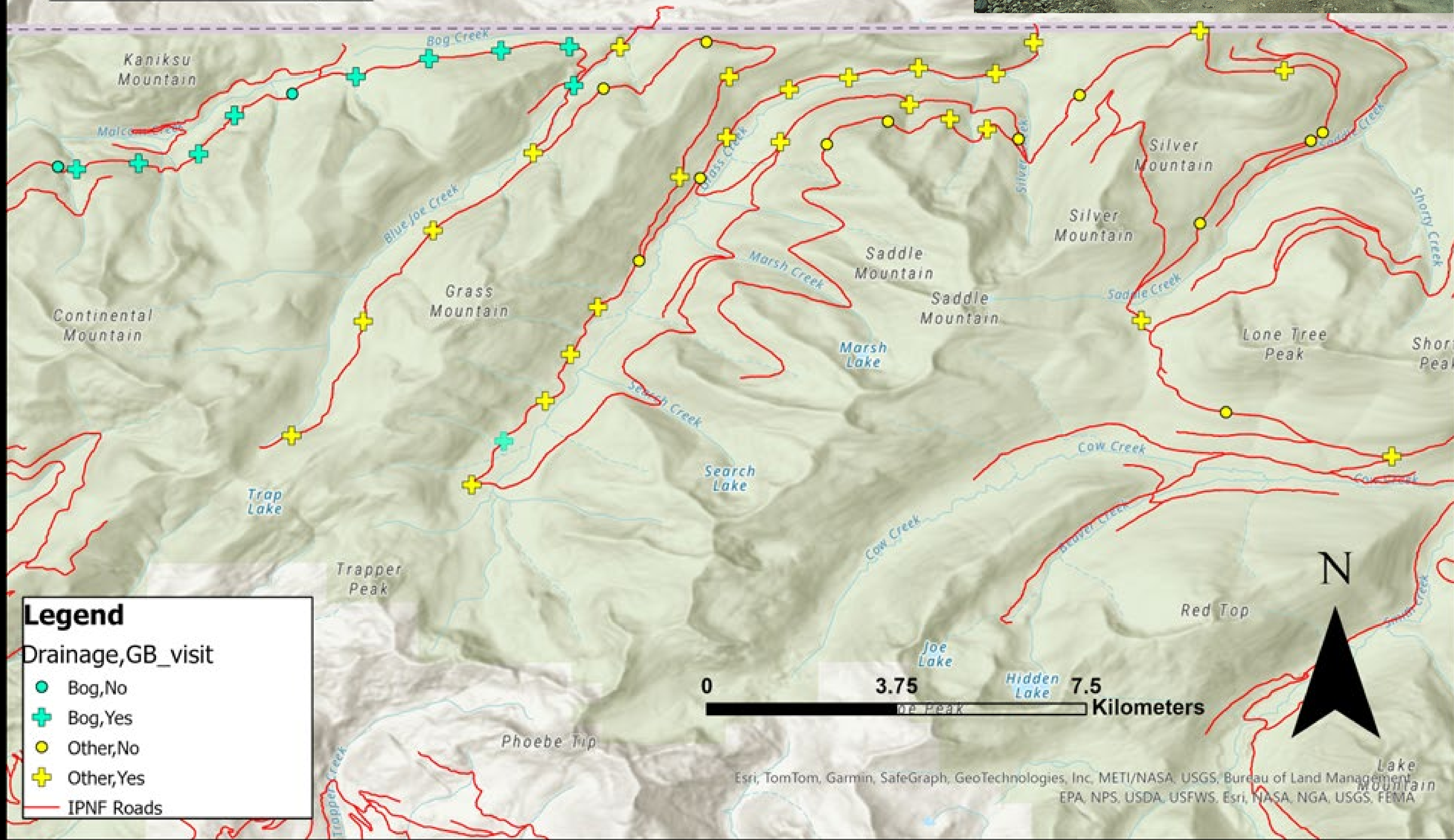


Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, Esri, NASA, NGA, USGS, Sources: Esri, USGS



2023 Bog Creek Trail Camera Sites

55 cameras Approx 75,000 photos
4 Females with cubs in Bluegrass BMU



Funding issues for 2024

- We expect major increases in salaries for employees during 2024 to keep pace with other agencies
- This will increase costs by 25%
- Thanks to USFS and USFWS Idaho Office for additional funding to maintain this level of effort

2024 Field work Plans

- Four trap teams: Yaak, Cabinets, WA June-July, ID July- August, Bog –Boundary in ID
- Four DNA teams: Yaak, Cabinets, Priest Lake, West Cabinets/East Selkirks



Other Projects

- Huckleberry mapping and production
- Bear Genetics U. Of Idaho Graduate Student Megan Turnock
- Habitat mapping U. Of Idaho Graduate Student Nate Rice
- Selkirk Transboundary population estimate with Michael Proctor
- Occupied Range Mapping



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Thank you. Questions???

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