



Bighorn Updates

March 2009



Herd Count

Winter count: January 2008 – 144 sheep

- 19 young-of-year, 3 female yearlings, 67 ewes, 55 male yearlings and rams

Fall count: December 2008 – 146 sheep

- 39 young-of-year, 9 female yearlings, 60 ewes, 42 male yearlings and rams

Since 1990 the highest herd count has been **213 sheep** in 2003

Radio-telemetry Monitoring

In January 2008, ten sheep were fitted with GPS radio collars as part of a long-term study monitoring bighorn sheep movement, habitat selection, and response to habitat restoration. Over a year later, radio collars still remain on six of these sheep allowing Parks Canada to collect data about the winter range of the Radium-Stoddart herd. For example, one of the collared animals has spent most of his winter around the Mt. Swansea area, and may have traveled as far south as Fairmount.

These sheep will have their collars removed in the spring, and no new sheep will be collared this year. After collaring more than seventy sheep over the past seven years, Parks Canada will not be using radio-telemetry to monitor the Radium-Stoddart bighorn sheep herd this year. Instead, Parks Canada will use remote digital photography and field observations to continue monitoring research. Radio-telemetry may be used to monitor the herd again in the future.



The Redstreak Benches

Restoration of the grassland ecosystem on the Redstreak benches continued this winter, increasing the area and quality of suitable winter habitat for bighorn sheep. Hand thinning and mechanical removal of trees occurred from November '08 - March '09. A prescribed burn will occur in the spring to complete this year's restoration treatment. Sheep are using newly cleared areas, and have been observed very close to working crews and machinery and foraging amongst the cut tree branches!

Remote Camera Monitoring

This winter cameras have been set-up in the Redstreak restoration area to monitor bighorn sheep response to grassland restoration work. The cameras use both a motion sensor and time lapse function to collect images of sheep in the restoration area.

The cameras will collect data for multiple years to detect changes in frequency and location of bighorn sheep use of the restoration area. This data will hopefully provide a quantitative measure of success of restoration treatments on the Redstreak Benches.



A remote digital camera set up in the Redstreak restoration area.

NEW Signs on Highway #95



Four new flashing Bighorn sheep signs have been erected on Hwy # 95 through the town of Radium Hot Springs. A silhouetted image of a Bighorn ram on a bright yellow sign equipped with flashing LED lights alert motorists to the possibility of sheep on the highway. Traffic is slowing down and staying more alert!



Changing use of winter habitat

In the last two decades the Radium-Stoddart herd has favored human-dominated areas of the valley bottom for their winter range, such as the Springs golf course and highway road allowances.

Surprisingly, this winter, sheep have spent less time in human-dominated areas and more time in their traditional winter ranges, such as the Redstreak benches, Stoddart bluffs and Swansea bluffs. For example, this winter sheep were observed weekly utilizing restored habitat on the Redstreak Benches in contrast to no observations of sheep on the Redstreak benches the previous January and February.

Many factors could be influencing the observed shift in winter habitat use, and therefore it is challenging to analyze this change in habitat use until it has been observed over multiple years. Data gathered from remote cameras set up in the Redstreak restoration area over the following years will help quantify observed changes in winter range.

Mortality

There were 17 recorded sheep mortalities in 2008

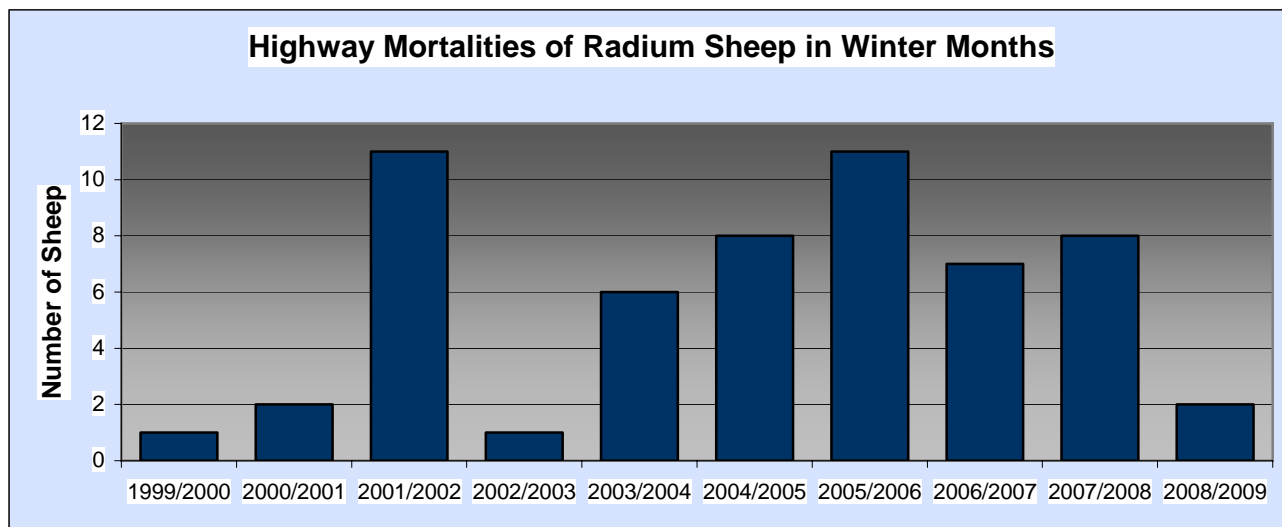
- 6 mortalities from motor vehicle collisions
- 4 mortalities from predation
- 3 mortalities from railways
- 1 mortality from hunting
- 3 unknown mortalities

Drive slow and watch for wildlife!



Two rams and a ewe in Redstreak in February.

The majority of sheep mortalities from motor vehicle collisions occur between November and February near the Radium Village. Although there have been fewer highway sheep mortalities recorded this year than usual, this decline cannot be attributed to the new signs.



What to watch for this Spring

In spring sheep spend less time in Radium Village and begin to move eastward. During these months, sheep often use habitat in the Redstreak restoration area and Sinclair Canyon.

In May ewes start their migration to summer habitat in the Brisco and Stanford ranges. By June, pregnant ewes move to lambing sites located on the steep sections of the southern Brisco Range. The ewes remain alone with their lambs in a secure site for up to a week after birth. Then ewes join other females and lambs in a nursery band for a month before moving to their summer range.



Rams migrate to their summer habitat in the Brisco and Stanford ranges later than ewes, often starting their migration in June. Rams summer range is usually larger than ewes, moving farther from their winter range and dispersing into smaller groups.



Deb Griffith, Wendy Bennett and Rod Conklin are working on the Bighorn Sheep book.

Bighorn Photo contest

The Friends of Kootenay are excited about a new 2009 initiative to publishing a *Big Horn Sheep Photo Book* depicting how Sheep interact with the Village of Radium and surrounding areas.

DO YOU have any wild, funny, dramatic, crazy head banging, or cute Bighorn sheep photos!! Email us with your photos and stories. bighornbook@gmail.com

We would love to include your photos and stories in our book. Prizes to be announced on our Friends of Kootenay website: www.friendsofkootenay.ca

Gifts for Everyone!

The Friends of Kootenay operate the *Nature's Gifts & Bookstore*, year round in the Radium Information Centre with an excellent selection of gifts, books, and maps. The gift shop is open year round.



Redstreak Restoration Prescribed Fire

Burning conditions were optimal... fire crews and equipment were in place... mid-day the signal was given to IGNITE! Jamie Kroeger, Ignition Team Crew Leader, lit her drip torch to the dry grasses.

This set into flame the 100 ha Redstreak Restoration Area, on the lower bench of Redstreak Mountain above Radium. With winds from the NE fanning the flames, the fire moved progressively through this open forest and grassland area.

This Restoration Area will be burned again every five years to maintain Bighorn Sheep habitat and reduce the risk of wildfire to the Village of Radium. The upper slopes of Redstreak Mountain are also planned for prescribed fire in future with planning and fireguard placement work currently being done.



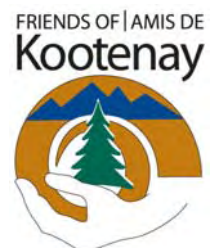
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Friends of Kootenay National Park, Box 512, Radium Hot Springs, B.C. V0A 1M0
ph: 250 347 6525 Email: friendsofkootenay@gmail.com

www.friendsofkootenay.ca