

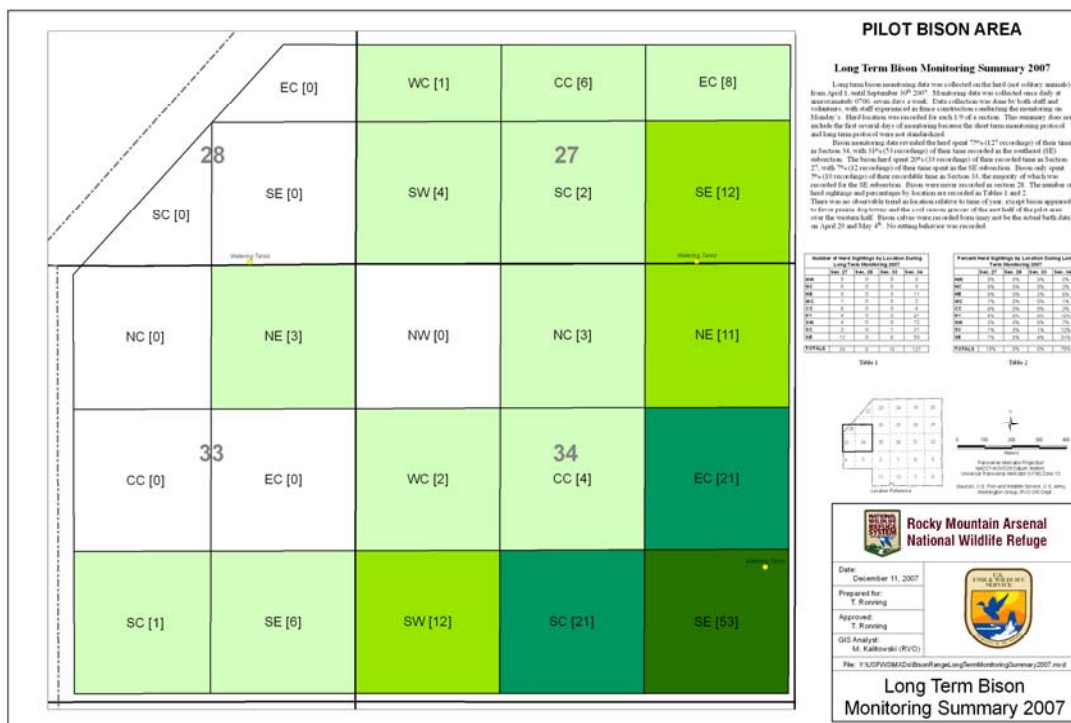
# Bison Monitoring Summary 2007

## Rocky Mountain Arsenal National Wildlife Refuge

Bison were reintroduced to Rocky Mountain Arsenal National Wildlife Refuge on March 17, 2007. While a fence surrounds the entire refuge, an additional bison fence was constructed around the 1469-acre Bison Pilot Area (see map below) in the east-central portion of the refuge prior to their arrival.

Bison monitoring data were collected on the herd (not solitary animals) from April 1 until September 30, 2007. Monitoring data were collected once daily at approximately 0700, seven days a week. Data collection was conducted by both staff and volunteers. Herd location was recorded for each 1/9 of a section.

Monitoring data revealed that the herd spent 73% (127 recordings) of its time in Section 34, with 31% recorded in the southeastern (SE) subsection. The bison herd spent 19% (33 recordings) of its recorded time in Section 27, with 7% (12 recordings) spent in the SE subsection. Bison only spent 7% (10 recordings) of the recordable time in Section 33, the majority of which was recorded for the SE subsection. Bison were never recorded in Section 28.



There was no observable trend in location relative to time of year, except bison appeared to favor prairie dog towns and the cool season grasses of the eastern half of the pilot area over the western half. Bison calves were born approximately on April 29 to May 4. No mating was observed.

After their arrival on March 17, 2007, the bison acclimated quickly to the pilot pasture on the Arsenal. The bison did in fact spend most of their recorded time on the eastern portion of the pasture, but were seen in all sections, and evidence (tracks and scat) demonstrated that they have at least traveled through all portions of those sections. When unimpeded, bison may travel several miles in a day during their many feedings. They will start feeding and begin walking so that by the time they are full they may be miles away from where they started. We believe the reason bison at Rocky Mountain Arsenal spent most of their time in the eastern portion of their range is due to the amount of traffic and construction work being conducted outside the western boundary of the Arsenal. They may spend more time in the west as they become more accustomed to the activity.

The fence has not been challenged by the bison and is holding up extremely well. During the observation period, the fence was checked every day in conjunction with the bison observation. The observers reported minimal interaction with the fence and no challenges. Occasionally an animal would lie down against the fence, but after they left, the fence was checked and no damage had occurred.

Most of the pasture is dominated by cool season grasses; however, the bison seemed to prefer warm season grasses as the primary component of their diet. At this time (late fall 2007), all of the bison seem to be doing very well and are in good if not excellent condition. The three calves born on the Arsenal in late April and early May are doing very well. The estimated weight of these animals is between 450 and 550 pounds.

There was relatively little rutting behavior noticed by staff and volunteers. We did notice that at one point during the time of the rut, the bull that was dominant during the beginning of the rut was not in the herd, and the bull that had been subordinate was tending the cows. The original dominant bull was later found to be limping due to an injury. He showed no obvious evidence of being gored by another bull and has since recovered, but is still subordinate to the other bull. The third bull showed signs of injury when he came off the trailer. We watched this animal often as he was segregated from the herd. By early summer he was in poor body condition and still showed signs of a limp. By late summer he had recovered enough to get back with the herd, but was not a factor during the rut.

Bison like to take dust baths, and this behavior was observed most often in prairie dog towns. An animal would approach the mound of dirt around the burrow entrance and dig it up with its horns and hooves. It would then drop into the fresh soil and roll and throw the dirt on itself. We did notice that whenever a bison stood up, it "threw" some dust into the air. We have not noticed a specific wallow where they prefer to take their dust baths.

We have been conducting mowing and prescribed fire operations within the pilot area this fall to adversely impact non-native grasses, and have noticed that the bison have been spending time in these areas, although they were also using these areas prior to burning. We are hopeful that the bison will graze the re-growth from these non-native grasses throughout the winter thus negatively impacting the grass. We will continue to perform management activities within the pasture that will have a negative impact on the non-native grasses.

We expect more calves to be born during spring of 2008, but we will not know how many until after the calving season. Reproduction will be the main way we increase our herd here at the Arsenal in the foreseeable future.

Bus tours around the pasture will be the primary way the public will observe the bison. These tours have been very successful over the past several months and will continue to be a popular way to get people to the bison. As always public safety is our primary concern. A buffer fence 250 feet from the main perimeter fence on the western boundary of the pilot area is in place to prevent bison from escaping if a vehicle were to strike the outer fence. All gates into the bison pilot area are locked, and access is only allowed after certain conditions have been met. The gate is immediately locked after entry or exit from the pasture. There is a contingency plan in place in the unlikely event that an animal does escape from the pasture or from the Arsenal.