

# A Rebuttal to “Reinterpreting the 1882 Bison Population Collapse”



By and Barry Irving

## On the Ground

- The historical North American bison harvest in the 1800s was not sustainable.
- Bison harvest was not sustainable in two eras: the wave of bison harvest in front of European civilization (before 1830) and in what has been called the era of systematic destruction (1830–1883).

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One would think that history is a conclusive thing, “X” happened, end of story. But, so often, history is not documented in a solid form by someone who is both trained and unbiased. Events such as the extirpation of the North American bison occurred over a broad geography, often in times of virtual war, and in the almost complete absence of unbiased recording of important historical events. Most of us must rely on reading the writing of others when trying to formulate our own opinions on history. Such is the case for the recent article in *Rangelands*, “Reinterpreting the 1882 Bison Population Collapse.”<sup>1</sup> In this brief rebuttal, prepared by a reader of history, I would like to point to some glaring omissions in the reference list, and thus an error in one of the central conclusions of the paper, the claim that bison were sustainably harvested in the 1800s period and their extirpation was not because of over-harvest. One significant missing reference is best described as a life’s work by an amateur but talented historian, 15 years in the making. It is Frank Gilbert Roe’s classic work on bison.<sup>2</sup> Where appropriate, Roe’s seminal treatise will be supplemented by recent historical works by professional historians.

Bison were numerous in North America before expansion of European culture; that fact is not in dispute. It is the way the bison found their demise as claimed by Holt<sup>1</sup> that is not supported by history. Roe is full of references to the wastefulness of the bison hunt. Page 418, “thousands and thousands were killed for their tongues alone, and it was common for a man to

arrive in town with barrels full of salted buffalo tongues, but without a single other piece of meat.” William Blackmore, an English sportsman, is quoted in 1873 as observing for 40 miles along the north bank of the Arkansas River “there was a continual line of putrescent carcasses, so that the air was rendered pestilential and offensive to the last degree.”<sup>2</sup> These statements are only a sample to indicate the waste of the bison hunt. Some further specifics are discussed below.

Holt<sup>1</sup> cites 1872 to 1874 as the peak years of the bison hunt, which is true, but only for the central herd. There were three bison herds or at least three definable zones of mass slaughter. If you only look at one locale for the slaughter, and then juxtapose that slaughter on the ability of the entire herd to reproduce, one might conclude the slaughter was within natural reproduction. But, of course, slaughters of lesser extent were proceeding in the other areas of the bison range, at the same time as the final bits of the central herd was being eliminated.<sup>2</sup> There is little doubt the bison was a victim of a complex array of factors. In the southern two-thirds of the bison range, there was a relentless wave of “civilization” that proceeded from the eastern United States that eliminated bison in its path, first as a source of wild meat, and finally as a finger connecting to a vast trade network. Chittenden (quoted from Roe) states “it is a common saying in the era of the fur trade that the buffalo was retreating before the white man at the rate of ten miles per year, and this is perhaps not an exaggerated measure of this certain and continuous disappearance.”<sup>2</sup> Hornaday dates their disappearance from eastern Kansas at 1840. Hornaday uses the term “systematic destruction” as being the final phase of bison extirpation, and the starting date was about 1830. Before 1830, the bison were extirpated in front of the wave of European invasion. It was thought that in 1830, about half the bison population had already been slaughtered and the species was extirpated from its range east of the Mississippi; it would be halved again by about 1870.<sup>2</sup> When the slaughter of the central herd was finalized in the period of 1872 to 1874 when 3.6 million were slaughtered,<sup>1</sup> there were perhaps 10 million (no definitive number can be obtained or estimated) remaining on the continent, and this slaughter represented at most a third of the bison range. The southern herd, in what was called Comancheria, was somewhat protected from European

slaughter by a group of Native Americans that stymied both settlement and industrial harvest.<sup>3</sup> But that protection was waning, as the combination of a new rail spur to Fort Worth, the continuous pressure of “civilization,” and the declining numbers of Comanche (owing to disease, warfare, and declining bison herds) enabled the mass of bison hunters to penetrate central Texas after the slaughter of the central herd was complete.<sup>3</sup> Roe, quoting Hornaday, “by the close of the hunting season of 1875, the great southern herd had ceased to exist.”<sup>2</sup>

After the central and southern herds were extirpated, only the northern herd remained and those who had known only bison slaughter as an occupation, turned their attention to Montana. The story of the exploitation of the northern herd starts earlier; at least it was recorded earlier through the journals of the Hudson’s Bay Company and the missionaries that followed into the hinterland of the plains and forests of the northern bison range.<sup>2,4-6</sup> Once again Roe relies extensively on the writings of Hornaday, but Hornaday was limited to the herd as it existed in the United States. Roe quotes Hornaday as considering the final intensive slaughter of the northern herd as beginning in 1880 and suggests that it started a few years earlier. Hornaday describes 100,000 hides as being shipped out of the Yellowstone country (no boundaries indicated) in 1881. If there was indeed as few as 10 million bison left on the continent in 1870, before the central and southern slaughter, by 1880 the northern herd would be a remnant of the original total bison population. In 1881 Hornaday estimated the entire northern herd at a mere 1 million.<sup>2</sup> The northern herd had been protected, in a similar fashion as the Comanche gave respite to the southern herd, by the plains aboriginal people.<sup>2,5,6</sup> But pre-1880, a hide trade out of Canada developed, and the shipping point was Fort Benton, Montana. About 40,000 Canadian bison hides per year were shipped through Fort Benton. The general rule of thumb, as in all hide hunting, was that for every hide that made it to shipping, up to five animals died in the field. From two corners of the northern herd (Yellowstone and western Canada), 140,000 hides could have required the annual slaughter of 700,000 bison, hardly a sustainable harvest using any simple math. It was to get worse. In 1882 there was an estimated 5,000 bison hunters pursuing the northern herd. The Battle of the Little Bighorn (1876) marked the end of protection afforded by the northern US Plains aboriginal people as large numbers either fled to exile or were forced to confinement on reservations. The northern plains, within the confines of the United States, was open territory and the bison slaughter proceeded unfettered. Hornaday, as quoted by Roe (roughly), “in the fall of 1883 the bison hunters outfitted themselves and waited for the great herds to come south from Canada for the winter, but none came.”<sup>2</sup> The Canadian bison had been effectively extirpated in 1880.<sup>2,4-6</sup>

The extirpation of the Canadian bison follows a different and unique path that is worth exploring.<sup>2,4-6</sup> Although hide hunting in Canada did not occur much before 1870, there was a significant meat trade that required an annual bison hunt. Bison fueled the Canadian fur trade; the epicenter of the fur

trade was the rendezvous point located near present-day Winnipeg in southern Manitoba on the far northwest edge of the bison domain.<sup>6</sup> The annual Red River Hunt gradually extirpated the bison in concentric semi-circles from the settlement. The hunt was conducted mainly by the Metis, who were the cultural and physical intermediaries between the fur trade (European culture) and the aboriginal people who supplied the fur trade.<sup>4</sup> By 1870 the northern bison had been extirpated from much of Minnesota, the northern Dakotas, northeast Montana, Manitoba, and much of southern Saskatchewan; by 1870, the annual hunt had to travel to near the Cypress Hills in southwest Saskatchewan to harvest bison.<sup>2,6</sup> After the Battle of the Little Bighorn in 1876, the Sioux fled to southern Canada, at a time when the Canadian bison was already in serious decline. Even if the bison population was unaffected by hide hunting and the vestiges of the Red River Hunt (both of which were still in play), the addition of 5,000 mouths to feed (requiring estimates of 100–200 bison a day) quickly pushed the remnant of the Canadian herd to extirpation.

The Red River Hunt was a pseudo-military organized event, complete with record keeping. Between 1841 and 1874 the hunt harvested 3,419,819 bison.<sup>2</sup> Taken at face value, one could argue this was a sustainable harvest; it was a harvest of an average of 103,631 bison per year (compare this to a total harvest as quoted from Holt at 100,000 per year for the entire bison herd<sup>1</sup>) over the northern herd that was perhaps 4 million head (this is a guess, but it is roughly 20% of the generally accepted 20 million that remained in the 1840 time frame for the entire bison herd, so does not seem unreasonable). Surely a herd of 4 million producing a minimum of 1 million calves yearly (bison do not calve every year and rarely calve before 2 years of age) could withstand an annual harvest of 104,000, and in fact even increase? But, and the big but in the case of the Red River Hunt and in the rest of the North American bison herd, was *the harvest was not spread across the entire herd*; harvest was concentrated on the edge. Records convincingly show the Red River hunters had to go further afield each year, because the previous hunts had extirpated the bison in a wave of harvest.<sup>2,6</sup> The entire population of 4 million head might have supported an annual harvest of 104,000, but when that same harvest was applied at only one edge, the edge was extirpated in waves, and there was insufficient time for the herd to backfill before the next harvest ensued. It is reasonable to conclude that “civilization” would have done the same thing all along the eastern and southern side of the bison domain in the United States. The Red River Hunt as analyzed and presented yields evidence, complete with formal records, that supports the statements made by Chittenden that the bison were extirpated in a wave of 10 miles per year.<sup>2</sup>

There is an absolute wealth of written records to contradict the statement in Holt<sup>1</sup> that the extirpation of the bison was not because of overhunting and was sustainable. Holt is missing perhaps the single most important treatise on the North American bison: *The North American Buffalo, A Critical Study of the Species in its Wild State* by Frank Gilbert

Roe.<sup>2</sup> I have simply paraphrased the writings of Roe (supported by others) that deal with bison harvest. Bison were extirpated by a burgeoning society of European origin. The harvest was wasteful, wonton, and without control and was carried out, or at the very least enabled, by a society bent on expansion. Holt<sup>1</sup> provides an unsubstantiated alternate interpretation on the demise of the North American bison. Roe's classic work is now out of print, but copies are readily available on used books sites (other references cited can be purchased new). North American settlement era historians of all creeds are encouraged to formulate their own opinions.

### Acknowledgments

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