Grizzly Bears in Wapusk National Park, Northeastern Manitoba

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Grizzly Bear photographed in Wapusk National Park on 9 August 2008 by Linda Gormezano. Image to appear on the cover of Canadian Field-Naturalist

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We report on nine sightings of Grizzly Bears (*Ursus arctos*) in northeastern Manitoba in what is now Wapusk National Park. Although biological research in the region has been conducted regularly since 1965, all sightings have been made since 1996. The Grizzly Bears were seen either along rivers known to harbor fish or in an area known for berries.

Key Words: Grizzly Bear, *Ursus arctos*, Wapusk National Park

Grizzly Bears (*Ursus arctos*) are reported to have been absent from Manitoba historically at least through 1989 (Banfield 1959, 1974; Harington et al. 1962; Banci 1991, McLellan And Binci 1999). Some recent accounts and range maps have included Manitoba in the Grizzly Bear's regular range (e.g. Schwartz et al. 2003) while others indicate that the regular range ends north of the Manitoba border but list rare, extra-limital observations for at least two sites along the Hudson Bay coast of Manitoba (e.g., Ross 2002). Increased encounters of Grizzly Bears in northern Manitoba could be the result of increased observational effort or to expansion of the species' range. The latter could indicate a geographic shift related to habitat changes or food availability in the core areas and/or the newly occupied territory or to growth or other changes in the demographic structure of the core population followed by dispersal into unoccupied habitat.

In this paper, we extend the work of Clark (2000) and update confirmed observations of Grizzly Bears in the coastal sections of the Hudson Bay Lowlands east and south of Churchill, Manitoba (in what is now Wapusk National Park). We confine our primary efforts to this region since research there has been ongoing since 1965 and at a consistent level since 1993. As such, any recent increase in the frequency of Grizzly Bear encounters is more likely related to increased presence of the animals than increased efforts to find them. Because this new National Park is in the process of developing its status and mission plans, we also speculate on how regular occupation of the Park by Grizzly Bears could influence some of the other species that have historically occupied the area.

While there have been occasional reports of Grizzly Bears or their signs since the onset of research in this area (e.g. Figure 1), we have limited the observations for this paper to confirmed sightings, as suggested by Clark (2000). Confirmed sightings require that either the large hump of muscle over the scapulae or the concave face typical of Grizzly Bears was clearly seen by individuals familiar with the species. Nine encounters are summarized in Table 1 and to our knowledge they are the only confirmed sightings for this region since research began in 1965. Seven of the nine have been made since 2003 and the locations of all nine are depicted in Figure 2. The photograph of the most recent observation appears on the cover of this issue of the Canadian Field-Naturalist and the animal clearly shows the diagnostic scapular hump and concave face of a Grizzly Bear.

Comparisons of photographs from the three 2008 observations (Table 1) suggest that the animal seen near Rupert Creek may not have been the same animal as the ones seen near Thompson Point since it appears to be substantially larger. In contrast, the individuals in the latter two sightings (that were made less than a week and less than 10 km apart) could not be distinguished. We suggest at least two different Grizzly Bears may have been present in Wapusk National Park in 2008.

Given their enormous home ranges (11,400 km^2, Gau et al. 2004) and flexible habitat requirements (Schwartz et al. 2003), it is not surprising that Grizzly Bears have extended into areas such as Wapusk National Park that are only a few hundred kilometres south of their regular range. Three confirmed observations of Grizzly Bears since 1990 north of Churchill, Manitoba further support that interpretation. The dates and locations of those encounters are: 27 July 1990 at 59.56667N 94.86667W (in Clark 2000); 13 September 2005 at 59.89944N 97.03889W and 28 June 2007 at 59.39383N 94.77224W (both D. Hedman, unpublished data).

Wapusk National Park contains ample supplies of animal and plant resources known to be used by Grizzly Bears (Barry 1967; Gau et al. 2002; Ross 2002; Schwartz et al. 2003). Of particular note are the more than 50,000 pairs of nesting Lesser Snow Geese (*Chen caerulescens caerulescens*), a potential food source already being exploited by Polar Bears (Rockwell and Gormezano 2009). Nesting Snow Geese are found within the Grizzly Bear's range in Nunavut but are absent between there and Wapusk National Park. The Park also contains substantial populations of Canada Geese (*Branta canadensis*) and both Caribou (*Rangifer tarandus*) and Moose (*Alces alces*). The Park is rich in various arctic berries, especially cloudberries (*Rubus chamaemorus*) and blueberries (*Vaccinium uliginosum*) (R.L. Jefferies, personal communication). The streams associated with five of the nine sightings (Figure 2) contain fish (R.F. Rockwell, unpublished data) and the Thompson Point area, where the other four sightings occurred, was traditionally used by local Cree First Nation communities for berry harvests (Flora Beardy, personal communication). The inland portions of the Park include extensive peat plateaus and outcroppings used for winter denning by Polar Bears (*Ursus maritimus*) (e.g. Clark et al. 1997). These could certainly provide Grizzly Bears with winter haven.

The presence of Grizzly Bears raises interesting potential issues for other species in Wapusk National Park. Grizzly Bears are known to be exceptionally efficient predators of both Caribou and Moose (Ross 2002) and would place new predation pressure on those species. Such predation would provide competition for both Wolves (*Canis lupus*) and Polar Bears, although Grizzly Bears are known to provide scavenging opportunities for other such species (Ross 2002). Female Polar Bears and their new cubs become active in the early spring in the interior portions of the Park and if Grizzly Bears were also to den there, encounters between the two species would be likely but the outcomes uncertain. There are reports and speculation that Grizzly Bears kill and consume female Polar Bears and their cubs but also that Polar Bears may prey on denning Grizzly Bears (Taylor 1995; Doupé et al. 2007). Although such events might be rare, informed management plans for interior portions of Wapusk National Park should consider them. Finally, there are several reports of natural hybridization between Grizzly and Polar Bears, the most recent being the well-publicized hybrid harvested in 2006 near Sachs Harbor on Banks Island (Taylor 1995, Schliebe et al. 2006). Such hybridization could potentially complicate issues related to genetic integrity and identification of the two species and their hybrids.

The observations presented here are consistent with the range map presented in Schwartz et al (2003) that includes northeastern Manitoba in the range of Grizzly Bears. It is not yet clear whether the individuals encountered are transients, perhaps making use of higher levels of seasonally available food, or are more permanent residents. Continued and especially consistent monitoring will help resolve the Grizzly Bear's status and establish whether their abundance is increasing in northeastern Manitoba.

Table 1. Confirmed sightings of grizzly bears in Wapusk National Park.

Encounter	Date	Location	Details	Authority[1]
1	15 June 1996	58.23333N 93.06667W; Approximately 7km inland near Thompson Point	Seen from fixed-wing survey plane and photographs were taken. Hump and concave face were clearly seen and are obvious in photograph.	Dale Humburg[a]
2	5 June 1998	58.33333N 93.03333W; Coastal beach ridge near Thompson Point	Seen from helicopter. Hump and concave face were seen clearly.	Doug Clark[b]
3	Summer 2003	Near the coast at the Owl River	Seen from helicopter and photographs were taken. Hump and concave face clearly visible.	Robert Rockwell[c]
4	Summer 2004	Near the coast at the Broad River	Seen from helicopter and photographs were taken. Hump and concave face are clearly visible.	Bob Reside[d]
5	6 July 2004	58.13515N 92.86322; Broad River cabin	Seen 3 metres from cabin door. Concave face clearly seen.	Melissa Gibbons[e]
6	Summer 2005	Near the coast at Rupert Creek	Seen from helicopter. Hump and concave face were clearly seen.	Bob Reside[d]
7	22 July 2008	57.56758N 92.55860W; Near coast north of Rupert Creek	Seen from fixed-wing aircraft and photographs were taken. Hump and concave face were clearly seen.	Shaun Bobier[f]
8	1 August 2008	58.28953N 93.00608; Near coast south of Thompson Point.	Seen from helicopter and photographs were taken. Hump and concave face were clearly seen.	Daryll Hedman[g]
9	9 August 2008	58.36613N 93.08047W; 2km inland and 9km northwest of Thompson Point	Seen from helicopter and photographs were taken. Hump and concave face clearly seen.	Robert Rockwell and Linda Gormezano[c]

[1] Individuals who saw the animal or examined the pictures and confirmed it was a Grizzly Bear. [a]Ducks Unlimited, Memphis, TN; [b]University of Alberta, Edmonton, AB; [c]American Museum of Natural History, New York, NY; [d]Riding Mountain National Park, Wasagaming, MB; [e]Wapusk National Park, Churchill, MB; [f]Manitoba Conservation, Churchill, MB; [g]Manitoba Conservation, Thompson MB.

Figure Legends

Figure 1. Claw marks assumed to be made by a Grizzly Bear were observed in the tundra along the north coast of Wapusk National Park 29 May 2006.

Figure 2. Locations of the nine confirmed Grizzly Bear sightings in Wapusk National Park.

Figure 1.

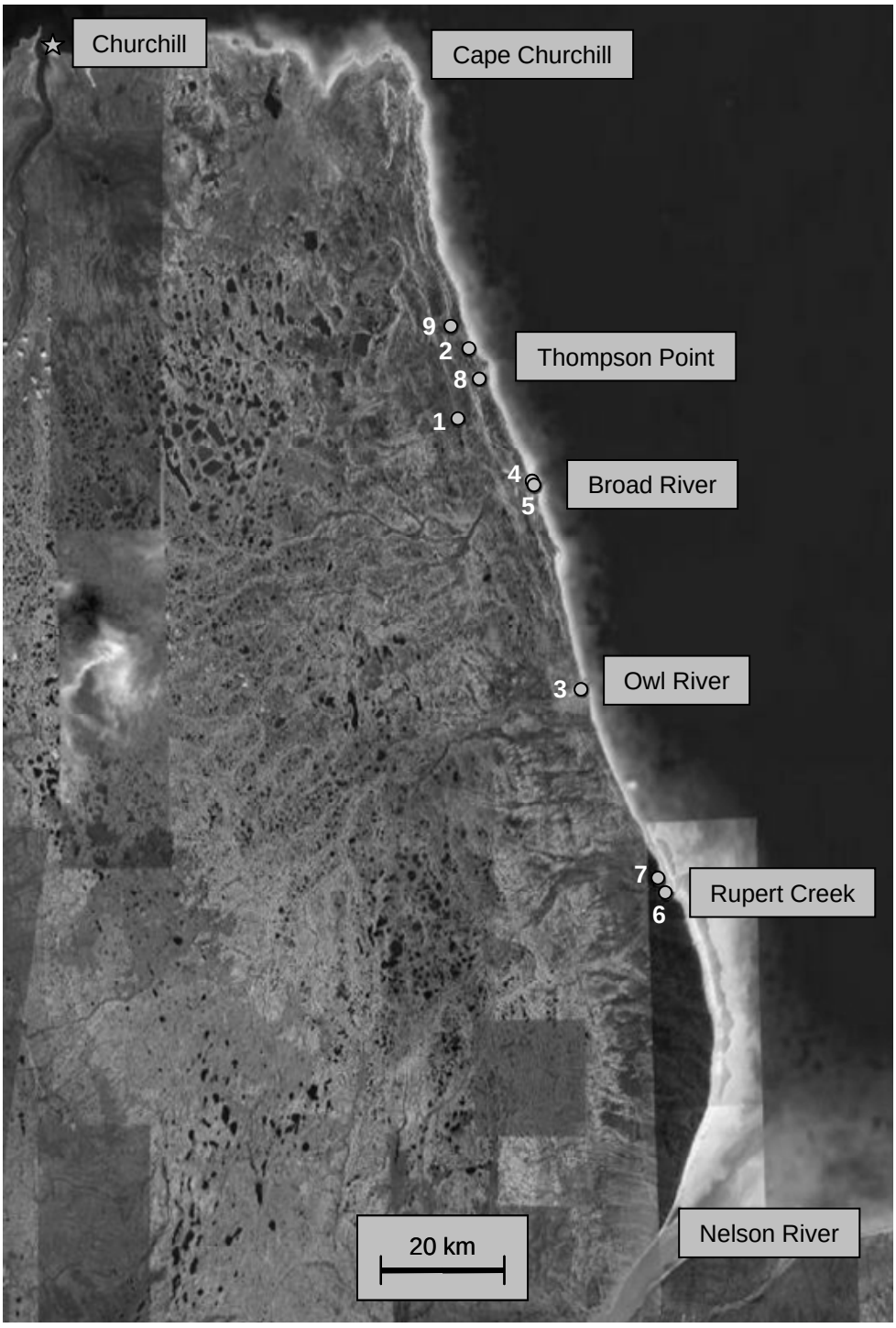
Churchill
Cape Churchill
9
2
8
Thompson Point
1
4
5
Broad River
3
Owl River
7
6
Rupert Creek
20 km
Nelson River

Figure 2.

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