



April 26, 2010

Mr. Chas Cartwright  
Superintendent, Glacier National Park  
P.O. Box 128, West Glacier, Montana 59936

Dear Mr. Cartwright,

We are writing concerning the tragedy that befell the Old Man Lake grizzly female and her young: a tragedy not only because of two grizzly deaths and the loss of a third to captivity, but because the action was unnecessary and the situation could have been avoided. Present-day policy on grizzly bears is based on three main assumptions: (1) grizzlies are unpredictable; (2) habituation with humans makes grizzlies more dangerous; (3) grizzlies are wild. Science advises that all three assumptions are erroneous and do not inform policy correctly. It is imperative to revise grizzly policy to accurately reflect scientific knowledge and experience so that these incidents are not repeated.

First, grizzly behaviour, and for that matter any other wildlife including most humans, is quite predictable if their psychology and natural history are understood. This premise underlies the success of hunting and tracking traditions the world over. There are a number of individuals, including myself (CR), who have lived for decades in proximity to grizzlies and other bears under a wide range of conditions without any mishap for the sole reason that we have each undertaken long and serious study of bear psychology and behaviour. In fact, my own experiences include interacting with bears under what are commonly considered to be the most “dangerous” circumstances: rearing grizzly cubs amidst adult male grizzlies and female grizzlies with their young during salmon season. Historical records, such as cited in my book describing Siberian indigenous women and children who literally picked blueberries side by side with grizzlies, substantiate these observations.<sup>1</sup> Our collective experiences demonstrate that even under potentially charged conditions, it is possible to avoid physical conflict with bears.

Wildlife policy based on the assertion of grizzly unpredictability, therefore, is ill-founded. Instead, the perception of grizzly unpredictability reflects ignorance on the part of park personnel. Understanding grizzlies correctly is necessary to train staff how to behave appropriately and effectively with grizzlies and to be able to teach the public how to do so as well to avoid mishap. A disregard of bear ethology and psychology only acts to increase probability of conflict and injury. This point leads to the second myth, namely that habituation and extended interactions with humans increase the likelihood of human-bear conflict.

Once again, it is important to pay attention to definitions. In general terms, habituation describes gradual adaptation by an individual to a novel set of conditions. In

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<sup>1</sup> Charles Russell and Maureen Enns. 2002. *Grizzly Heart: Living Without Fear Among the Brown Bears of Kamchatka*. Random House.

the Siberian example above, people and animals were, by definition, (*positively*) habituated to each other, as were other human cultures where grizzlies lived in North America. The majority of subsistence indigene human societies viewed themselves as part of the ecosystem and developed ways of living sustainably with other species. This is evinced from the rich and diverse biota that early European colonizers encountered upon arrival in North America. Again, in my own experience and that of others who live day in and day out with grizzlies, bears generally avoid people.

In contrast to ecocentric cultures, modern humans are habituating bears *negatively*. Western European culture is based on models of competition and aggression, and considers humans distinct from and superior to animals and the rest of nature. Further, until recently, animals have not been accorded the same psychological, social, and neurobiological capacities afforded to humans. These ideas shaped the dramatic environmental changes in North American landscapes that have occurred with colonization and industrialization. Since European occupation, grizzlies have had to learn how to live under increasingly adverse conditions that deviate from those from which they evolved and lived for centuries, if not millenia.

Today, bears must survive in landscapes and alongside humans that are radically different from the historical past. Environmental alterations have profoundly affected animal societies and resource-use patterns to the extent that many species are near extirpation. The grizzly-human relationship has shifted from one of relative peaceful co-existence to one marked by human aggression and violence. Here is where current science sheds critical and disturbing light.

All vertebrates, and in the case of altricial species this point has been well-documented, are vulnerable to stress.<sup>2</sup> This has been shown rigourously and most vividly in the analysis of African elephant hyper-aggressive behaviour. In one case, bull elephants who had sustained trauma killed over 100 rhinoceroses. Hyper-aggression has become increasingly common among diverse species including coyotes, cougars, dolphins, and other species including deer.<sup>3</sup> Reports of widespread aberrant behavior are unprecedented.

The alarming news is that stress can be transmitted neurobiologically, neuropsychologically and culturally; affect and stress dysregulation passes to successive generations. From the perspective of natural selection, hyper-aggression and other seemingly maladaptive behaviours may in actuality reflect *adaptive* development, that is, appropriate for survival in the current, chronically threatening environment where humans have become the dominant agent of change. Grizzlies may be acquiring and/or

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<sup>2</sup> Bradshaw, G.A. & B. L. Finlay. 2005. Natural Symmetry. *Nature* 435: 149; Bradshaw, G.A., & R. M. Sapolsky. 2007. Mirror, Mirror. *American Scientist*. 94(6). 487-489.

<sup>3</sup> Bradshaw, G.A. 2009. *Elephants on the Edge: What animals teach us about humanity. breakdown*. Yale University Press; Bradshaw, G.A. & A.N. Schore. 2007. How elephants are opening doors: developmental neuroethology, attachment, and social context. *Ethology*, 113: 426-436; Bradshaw, G.A , Schore, A.N., Brown, J Poole, J. & Moss, C.J. 2005. Elephant breakdown. *Nature*. 433: 807.

pressed to learn to compete with humans using new strategies that permit their survival. Increased aggression is one outcome in response to human pressures.

Subsequently, scientific theory and data predict that aversive-based management policies (e.g., fear aversion methods, translocations, killing, darting) will increase the probability of negative behaviour in grizzlies. Added to the accumulating pressures of habitat, food, and other resource shortages from human encroachment and climate change, environmental conditions will likely become more volatile.

Finally, the use of “wild” is no longer a viable term in its current limited usage. Human-animal comparability in brains, minds, and behaviour translates species differences more accurately as cultural differences. In this framing, there is no “wild” grizzly no more than we would consider its use appropriate in describing other human cultures. Science and observation give us reason to suspect that by changing grizzly bear environment and society so drastically, humans are demanding grizzly culture, values, beliefs, behaviour, and minds to change.

Human behaviour and attitudes are driving wildlife to do things they never did. It is essential that we stop exporting the violence that burdens humanity today to other species and learn how to live with mutual respect, not fear, with grizzlies and other wildlife. There are ample examples to show how.

Sincerely,

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### **Attached Appendix I: B**

**Charlie Russell** is the founding director of the Pacific Rim Grizzly Bear Co-Existence Study and faculty at Kerulos Center. Charlie has spent the better part of 48 years closely observing the nature of grizzly bears in Canada and Russia in their natural habitat. A former rancher and guide, Charlie is also an author, photographer, and self-taught pilot. His experience includes an 18 year exploration of how grizzlies used and shared his ranch situated on the boundary of Waterton / Glacier International Park near the border between Alberta and Montana. During this time he developed systems that allowed his cattle and the bears to co-exist. In 1992-93, Charlie lived on Princess Royal Island to create a film about the Spirit Bear with wildlife filmmakers Jeff and Sue Turner. His first book, *Spirit Bear—Encounters with the White Bear of the Western Rainforest*, chronicles the two years spent living with and filming grizzlies. He is also the author of *Grizzly Heart – Living Without Fear Among the Brown Bears Of Kamchatka*, chronicling his work with grizzlies.

**G.A. Bradshaw PhD, PhD** is Executive Director of The Kerulos Center ([www.kerulos.org](http://www.kerulos.org)). She holds doctorate degrees in ecology and psychology, and has published, taught, and lectured widely in these fields both in the U.S. and internationally. She is the author of *Elephants on the Edge: What Animals Teach Us about Humanity*, published by Yale University Press (2009), an in-depth psychological portrait of elephants in captivity and in the wild, and author of numerous scientific articles on the subject of animal psychology and traumatology. From 1992-2002, Dr. Bradshaw was a research mathematician with the USDA Forest Service, holding faculty positions at Oregon State University (Departments of Computer and Electrical Engineering; Environmental Sciences Graduate Program) and at Pacifica Graduate Institute. In 2000, she was a Fellow at the National Science Foundation National Center for Ecological Analysis and Synthesis (NCEAS), Santa Barbara, California, USA.

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