

## Foreword

# The Bear: A Cultural and Natural Heritage

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Few animals evoke such a range of attitudes in people as bears do. As large iconic predators capable of competing with humans far back in time, their stature and behaviour places them as an alien culture, often in conflict with people's endeavours. The wonderfully exact drawings of bears in the Chauvet Caves of France suggest that worship and respect for bears goes back at least 30,000 years. While indigenous people in North America have co-existed with brown bears for millennia, the proprietorial mindset of trappers, settlers and colonists from Europe succeeded in almost extinguishing the species everywhere settlement occurred. Only in national parks and remote wilderness do grizzlies survive in the contiguous United States and Canada; even there, the ebb and flow of legal battles rages on.

Among the many regions on earth where the diminishing numbers of the eight species struggle to survive, bear habitat is being lost due to the activities of billions of humans. Even where wild country is adequate for the survival of residual populations, those formerly wilderness areas suffer from human intrusion. When, because of habitat loss, bears move out into human-occupied zones there is always the potential to create conflicts. Negative impacts can also be indirect on bears in remote areas, as with polar bears, where toxic chemicals in ocean and air currents are sterilising bears and global warming continues to shrink their habitat and seal diet.

The organisers of this volume invited authors to deliver topics that will appeal to a wide international audience. Unlike many proceedings of scientific conferences and symposia on specialised aspects of bear ecology, behaviour and management, the author-editors have mapped new avenues to advance solutions. It is a most propitious time to have scholars with broad experience contribute current results from many parts of the world. The reader cannot fail to recognise how many of the threats and conflicts in human-wildlife relations are similar around the globe. Concomitant benefits from this revelation of ideas for management applications are policies that preserve bears, such as engaging local people and integrating their needs along with those of the threatened bears. This is especially well done in the cooperative work in Peru for Andean or spectacled bears. The results are heartening, indeed.

Other work shows how forest destruction for firewood by indigenous people can be reduced, their health improved and labour saved by improvements in cooking methods such as adoption of simple efficient stoves that funnel smoke outside living spaces. This is an example of the breadth of scope of this volume and its attention to the growing acceptance of the human dimensions in bear conservation efforts. Bear biologists frequently lament that human-bear management is too often directed at victimised bears and too little at human behaviour management. This appears to be changing, but as we currently observe in North America, often good science and factual

evidence are overruled by misinformation and raw political power from special interests. In many ways, this compilation of expert scholarship stands as a call for rescue action.

A very rewarding part of my scientific career has been in field ethological studies of North America's three bear species, especially where human safety and disturbance impacts on bears were primary concerns. These studies varied from detection and deterrent techniques for polar bears in Churchill, Manitoba, aversion techniques to reduce black bear damage to Alberta bee-yards and later cooperative research in Yosemite National Park with my student, Bruce Hastings, which resulted in successful tests of a bear-resistant canister to deter food conditioning in bears. More recent and long-term studies with graduate students took us to bear viewing sites in Alaska and coastal British Columbia. Studying bears daily on salmon streams is very different from remote tracking of radio-collared bears, especially in learning about bear behaviour. Not only can observers identify individuals, but close observation of habituated animals leads to an appreciation of the differences in the temperaments of bears, their subtle communication and how their responses to people varies over time when longitudinal records are assembled. The perceptive field naturalist Charlie Russell<sup>1</sup> remarked that it is a matter of hearing what the bear has to say.

My experience with grizzly bears began over 40 years ago with a life-threatening encounter deep in the high-mountain backcountry of Yellowstone National Park, described in early chapters of my recent book *One of Us: A Biologist's Walk among Bears*. Despite this experience, I returned to what some might call an obsession with grizzlies, to see how we can improve our relationship with these animals. Oddly, I bore no ill will towards grizzlies after I realised my error in invading the bear's personal space in an area that I assumed bears rarely visited. In the back of my mind, at that time, was a Craighead brothers'<sup>2</sup> conclusion that only one in a million visitors to YNP is injured. But I had failed to factor in that most visitors to YNP never move beyond a few dozen feet from a road. If you are tracking grizzlies to study them, the statistics aren't as good, as I learned too late the hard way. Nevertheless, I had a determination to solve problems through close observation of bears.

Surviving a grizzly bear defensive attack caused me to focus on our need to understand what triggers such behaviour in an animal that generally prefers to avoid humans if given the opportunity. Our perception of grizzlies could be changed, it seemed to me, if we understood how our invasion of their personal space, defence of cubs or carcass ownership trigger aggression. Even now, with personal defence using capsaicin spray available, hiking safely in brown bear country requires special alertness. A surprised grizzly is an angry grizzly and an angry grizzly is a dangerous grizzly. It is still scary to stand and face a bear with spray at the ready, but it remains the best tactic in the experience of all the grizzly gurus that I know.

This multi-authored book has scholarly contributions ranging from valuable syntheses invoking human dimensions in bear management to a comprehensive treatment of worldwide accounts of man-bears variously referred to as Yeti, Sasquatch or forest people depending on the region. Initially I wondered how that bizarre topic could possibly relate to bears, as it might be perceived as a rhetorical conspiracy theory. However, the trenchant analysis of human-like tracks and sightings struck me as a wonderfully suitable case for any college course stressing critical thinking and hypothesis testing, even for law and medical students.

Another chapter suggests changing our attitudes to bears by promoting public understanding

1 Charles Marion Russell (1864–1926), American artist, author and naturalist.

2 Frank Cooper Craighead and John Johnson Craighead were twin brothers, American conservationists and naturalists who made important contributions to the study of grizzly bear biology.

and conservation of bear habitats in museums. Peter Davis recommends the adoption of new interpretive techniques to capitalise on modern technologies and social media to promote the need for bear habitat conservation. The number of museums in the UK alone featuring almost all of the world's extant bears as well as skulls of extinct species like cave bears is truly impressive and lends credence to Davis's optimism for enlightening the public. I was inspired to cross the pond to visit as many as I could.

How our attitudes about bears develop as children are described comprehensively with reference to some obvious sources: children's literature, toys, games and books, but the authors delve into intriguing issues of parent-child interactions in attitude formation. Further insights are given about the public's changing values with accounts of the role of ancient and aboriginal storytelling with bear lore in a central role. Another chapter explores more modern relationships of humans toward bears kept in captivity, highlighting the evolution from medieval bear-baiting and European bear gardens to circus acts, zoos and finally to more natural and humane captive collections stressing biology and conservation issues.

Much recent research on brown bears on salmon streams has verified the importance of bears to ecosystems. They are uniquely and irreplaceably important links in ecosystem function and biodiverse productivity. If we continue to lose parts out of nature's machinery both bears and humans will suffer in a wounded world. If we relate well to large carnivores so too can we revitalise our relationship to the remaining wild places on our blue planet.