

much more of a community venture than the author suggests, and people like Hugh Jones, the late Bishop Robidoux, and the Erikssons deserved a mention.

The quality of the photographs is occasionally less good than one might hope, particularly in portraying the magnificent scenery of the area, but this does not detract from the quality of the book, which I can most wholeheartedly recommend. It is a good read, not only for amateur and professional ornithologists, but for all those whose studies and inclinations take them north to the shores of the vast Hudson Bay.

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THE WORLD OF THE POLAR BEAR. By NORBERT ROSING. Richmond Hill, Ontario: Firefly Books, 2006. ISBN-13: 978-1-55407-155-5. 204 p., map, large format colour plates, bib., index. Hardbound. Cdn\$45.00.

One of the most serene (and now famous) images ever taken of a polar bear graces the cover of the new book by photographer-author Norbert Rosing, *The World of the Polar Bear*. Rosing has emerged as a superb polar bear photographer, and with this new volume, he is likely to delight those that seek a glimpse into the life of one of the world's most charismatic species. One could imagine that the world of the polar bear consists of sea ice, seals, and little else. Taking a broader view, Rosing uses the polar bear as the central theme of his photographic journey.

Although this photographic essay includes a variety of Arctic and Subarctic species, the selection is limited. We are offered numerous impressive images of male polar bears play-fighting, mothers cuddling young cubs, and bears lounging about. Polar bears are clearly the focus of the book, but we are led off into vignettes of other species. The logic behind the selection of species is unclear and seems opportunistic rather than planned. Of the three main Arctic whales, belugas are shown in numerous images, but bowheads are restricted to a single image and narwhal are entirely lacking. Caribou and muskoxen, arguably uncommon neighbours of most polar bears, are given vastly different treatment: caribou are seen only from the air, while muskoxen are prominently featured. Painfully absent are any images of the main prey of polar bears: ringed seals and bearded seals. This leaves a rather large gap in the bear's "world."

Much of the book centres around Churchill, Manitoba, and nearby Wapusk National Park, thus the images of polar bears are somewhat restricted to the summer-autumn period when bears are on land and to females emerging from dens with young cubs in early spring. The area provides a fantastic venue for photography, but the limited

geographic coverage leaves a two-dimensional element to *The World of the Polar Bear*. Images from Foxe Basin showing walrus and polar bears only hint at the broader texture of a polar bear's life, and greater geographic and ecological coverage would have been welcome.

There is little doubt that one would seek this new volume largely for its images: they are beautiful and well presented. The text contains interesting insights into individual photos, anecdotes from photo expeditions, and short natural history sketches. The natural history notes are broadly factual, but they lack the depth and nuances that a dedicated naturalist might wish for. We are told that "Twins and, less frequently, triplets make up the typical polar bear family; only one litter of four has ever been documented" (p. 23). However, the text fails to mention that single-cub litters are very common and represent over 30% of litters at den emergence. Other slight inaccuracies are misleading. The text states that polar bear courtship takes place on the sea ice during April and May and that the partners remain together for an entire week. Field studies are clear that the mating season extends from March to June; that mated pairs can remain together for over two weeks; and that in some populations, mating often occurs on land. Again, from a layperson's perspective, one might find the statement "Conveniently, the polar bear's favourite prey gives birth on the ice in the early spring" (p. 35) reasonable. However, most scientists would cast doubt on the "convenience" issue and invoke a process of natural selection and evolution. Few scientists would be so bold as to imply that ringed seals are the "favourite" prey of polar bears. There is no doubt that the bears eat them in great numbers, but determining favourites is an impossible task. Further, stating that a polar bear "can detect prey more than 20 miles (32 kilometers) away" (p. 198) reflects information gleaned from other sources and perpetuates a myth. Despite these niggling details, readers would not be led too far astray by the text. Those well versed in polar bear ecology will note omissions in detail or generalities that detract from what is known about the species. The inaccuracies, however, are largely inconsequential to the intent of the book because the text is just the matrix for the photos.

Rosing published a book by the same title in 1996, which was a translation of the work from German. Most of the photographs in the latest version (considered a first printing) are new, but some images have been carried over from his earlier work. The images in the latest version are vastly superior to the earlier ones and most are crystal clear. Some images are taken from aircraft and supply a perspective that could not be obtained by other means. The photographs are most powerful when Rosing sits across from a bear and invokes his obviously substantial patience to capture an enduring image. The notes he provides on the cameras and lenses used may be useful for aspiring photographers. The text is mostly new, but favourite themes are carried over from the earlier book.

Norbert Rosing is a superb photographer and one who can capture the essence of a polar bear in a diversity of

situations. Is this the “world” of the polar bear? In my view, there are three crown jewels in the polar bear world: Wapusk National Park, Manitoba; Kong Karls Land in Svalbard, Norway; and Wrangel Island in Russia. Rosing exposes us to exquisite images from one of these areas, but dedicated polar bear enthusiasts may want to see the rawer side of the species. Given that the polar bear is the most carnivorous of the bears, the book is sorely lacking in images of polar bears hunting, killing, and consuming seals.

Overall, this is a coffee table book intended to showcase some of the most captivating photographs of polar bears. A series of fold-out pages provides a larger format for photos that is applied with varying success. The book is not intended for an audience seeking details, but it should have a broad appeal to those interested in Arctic wildlife and particularly in polar bears.

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HILLS OF SILVER: THE YUKON'S MIGHTY KENO HILL MINE. By DR. AARO E. AHO. Madeira Park, British Columbia: Harbour Publishing, 2006. ISBN 1-55017-394-4. 336 p., b&w illus., selected references, glossary, index. Softbound. Cdn\$26.95.

Hills of Silver is a comprehensive history of 70 years of prospecting and development in the Stewart River basin of the Yukon Territory. Written by a prominent Yukon geologist who was personally involved in the last two decades of that activity, the book is suffused with the rugged personalities that made it all happen. Above all this is a people book, with over 500 named individuals derived from the author's personal contacts and his talent for collecting story and report.

In general terms, Dr. Aho describes four periods of mining history. The first is 1900–15, when prospectors by the hundreds spread though the Yukon in the aftermath of the Klondike gold rush. They engaged in placer mining on the tributaries of the Stewart River and established the town of Mayo. The author pursues the story of these operations chronologically to their conclusion, when hydraulic sluicing and dredging became important end products of development. During the second period (1915–20), miners increasingly devoted their attention to hard rock prospecting, in search of the mother lode. The Silver King mine was developed on a four-foot-wide galena vein rich in silver (300 oz per ton), which proved to be characteristic of the district spreading 15 miles eastward to Keno Hill. Its high-grade ore was bagged and hauled to Mayo on horse-drawn sleighs for transfer to Stewart River steamboats. In the third period (1920–41), extensive silver prospecting

swept eastward, yielding many mines. Many capable prospector/miner individuals, such as Louis Bouvette and Charlie Brefalt, are described. Aiding and abetting the prospectors were geologist Livingston Wernecke, acting for the Treadwell Yukon interests of Seattle, and Alfred Schellinger, for the Guggenheim interests of New York. The gross production of Treadwell Yukon up to 1942, after 17 years, was 44 million ounces of silver and 96 million pounds of lead. In the final, post-war period (1945–72), the properties were bought by Canadian interests, Ventures Limited and Conwest Exploration. Their principals, Thayer Lindsley and Fred Connell, collaborated to form United Keno Hill Mines Limited. The author describes how the best geological minds and sophisticated new methods made United Keno Hill into the largest silver mine in Canada. By 1972, the district's production over 59 years was about 175 million ounces.

The author describes anecdotally the character of the communities and the evolving transportation systems that served the mines and opened up the Yukon. But his most interesting accounts portray the development of actual creeks for placer gold and actual veins for silver and lead. He always delineates interesting technical plots using non-technical language, and he provides a valuable glossary for the general reader. The serious reader wanting to follow the progression closely should refer to Gleeson and Boyle (1980), in which the maps have a convenient scale (2 miles to the inch) and display topography and the locations of mines and prospects (72 of them), giving descriptions of vein mineralogy and geology.

Telling the mining history of the Yukon plateau through the personality of its participants is the key nature and value of this book. One might even call it a folksy compendium on the subject. But the reader could equally interpret it thematically, as *Hills of Silver* is an authoritative record covering a long period and contains many embedded themes. The book should therefore appeal to resource legislators, environmentalists, engineers, and exploration technologists, although regretfully the index does not have the topical content needed to facilitate the pursuit of the various themes.

One such theme is how the free-entry system for the acquisition of Crown lands has been a fixture in the Yukon since the beginning of prospector interest. This system was consolidated by the Dominion Lands Act of 1898. The prospector could go anywhere and stake a claim, enjoying exclusive rights to explore and develop. (Readers interested in the legal aspects of staking claims can consult Barton, 1993.) It is clear from Dr. Aho's account why the Yukon has been the perfect nurturing ground for the free-entry system. It has waterway access, ubiquitous forests (for fuel, cabin building, and mine timbers), abundant fish and game resources for living off the land, and fur species to provide prospectors with winter earnings. In the early days, when only a single claim on a creek or vein was the rule, there was tremendous emphasis on the individual—the system promoted individualism, which was such a