PENGUINS OF THE WORLD. By WAYNE LYNCH. Willowdale, Ontario: Firefly Books Ltd., 1997. 143 p., Colour illus., appendices, maps, bib., index. Hardbound. Cdn\$35.00.

Few animals elicit greater interest than penguins, and virtually everyone is captivated by these fascinating seabirds. Indeed, as the author accurately notes, penguins are addictive (no doubt a beneficial addiction), and countless people are true penguin fanatics. Even so, given the plethora of penguin books appearing on the market in recent years, can anything new be said about penguins? Yes, indeed! Increasingly sophisticated and miniaturized instruments and recent satellite telemetry have taught us more about the penguin lifestyle away from the colony during the past decade than was learned in all previous years.

The six chapters of varying lengths are each split into three to six interesting topics. Chapter 3 (Sex and the Single Penguin), for instance, is subdivided into The Breeding Season, Truth in Advertising, Fidelity: Divorce and the Penguin Kiss, and Crowd-Crazy Colonies. Appendix One features a small photo of each of the 17 penguin species, as well as a range map, population estimates, and current status for each species. Appendix Two (Penguins and People) essentially chronicles our inhumanity to penguins over the years.

As only to be expected from one of North America's preeminent wildlife photographers, the real strength of the volume lies in the exquisite images. The more than 100 pictures are of exceedingly high quality and mostly well reproduced. The captions are generally interesting and accurate. Most images obviously focus on penguins, but also included are penguin neighbors and predators, such as the leopard and elephant seals, South American sea lion, snowy sheathbill, brown skua, southern giant-petrel, and striated caracara. The book title is somewhat misleading, because over half the penguin species are barely represented pictorially. The major emphasis is on the Antarctic Peninsula, South Georgia, Falkland Islands, and southern South America, but this is hardly surprising given that penguins range widely throughout the Southern Hemisphere, with some species restricted to tiny, remote, often exceedingly difficult-to-reach islands. Outside Appendix One, the emperor, Snares Island, royal, macaroni, Humboldt, and little blue penguins are pictured but once, and fiordland, erect-crested, Galapagos, and black-footed penguins are illustrated solely in the appendix.

Informative and easy to read, the text is up to date and effectively covers most basic aspects of penguin natural history. While the book is generally accurate, a few statements require challenging. For example, the implication that penguin chick eyes are closed (sealed together?) for the initial 3–4 days after hatching does not apply to surface-nesting species. The statement that Adelie and chinstrap penguins are not plagued with ticks is also incorrect. While tick problems are not common, I have

seen both species so heavily tick-infested that eggs and chicks were abandoned, and adult mortality possibly transpired. Lynch states that four leopard seals at Cape Crozier killed 15 000 penguins (5% of the breeding population) in 15 weeks. This equates to about 35.7 penguins per day per seal for 105 days. I worked five seasons at Cape Crozier, where countless penguin kills were witnessed. It is unlikely that even a large half-ton seal could consume (or even merely kill) some 400 pounds of penguin daily for three and a half months. Equally implausible is the claim that more than 80% of all emperor penguin chicks hatched in the Cape Washington colony were killed within a month one season by unsuccessful breeders fighting for possession of them. Cape Washington is the largest of all colonies; up to 25 000 pairs breed there in some years.

If I had to quibble, it would be over the book design. Design admittedly is a matter of taste, and what is art to one eye may not please another. However, books should be designed for the consumer, not to impress other designers. Layouts are obviously supposed to be eye-pleasing, but must image size and presentation be sacrificed to achieve this? To me, the substantial amount of wasted white space in this book is somewhat offensive, especially considering that the layout compromises the illustrations, many of which are not shown to best advantage. Double-page spreads for animal pictures, in my opinion, are seldom effective, as the split normally spoils the image. A double-page split that does not even use the entire second page is even less effective. Why ruin a superior image to provide a super-abundance of white space?

Despite these few shortcomings, I can easily recommend this volume to anyone with even a passing interest in penguins, or in wildlife in general. Far more than simply a sumptuous coffee table photo essay, this book offers something for everyone. In this age of overly expensive books, this attractive volume is a real bargain.

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POLAR JOURNEYS: THE ROLE OF FOOD AND NUTRITION IN EARLY EXPLORATION. By ROBERT E. FEENEY. Fairbanks, Alaska: American Chemical Society and University of Alaska Press, 1998. 279 p., 13 maps, 15 illus., 22 tables, bib., index. Hardbound, US\$41.95; Softbound, US\$27.95.

Robert E. Feeney, a professor of chemistry and nutrition especially interested in the history of vitamins, is well qualified to write this book. He made six trips to Antarctica between 1964 and 1971 to study the biochemistry of the Adelie penguin, and six Arctic trips to study antifreeze proteins in polar fish. He spent a sabbatical at the Scott