

THE PEREGRINE FALCON IN GREENLAND: OBSERVING AN ENDANGERED SPECIES. By JAMES T. HARRIS. 1979. Columbia, Missouri: University of Missouri Press, 1979. 255 pp., photographs, index. U.S. \$15.95.

In the last 15 years there have appeared a massive number of research papers, popular articles, and at least seven books dealing largely or entirely with Peregrine falcons. This flood of information was brought on, in large part, by the biocide-caused decline of this indicator species. *The Peregrine Falcon in Greenland* is very different from previous Peregrine publications. It is a highly personal account of the events, people, terrain, wildlife, and research results of part of the 1972 Greenland falcon expedition, interspersed with discussions of Peregrine biology summarized from the research literature.

Jim Harris, a newcomer to Peregrines and raptor field studies, swiftly became a Peregrine devotee. He joined with W. G. Mattox, R. A. Graham, W. A. Burnham, and D. M. Clement on the 1972 and 1973 falcon expeditions to central west Greenland. Results of these and other investigations in that study area have been summarized for readers of *Arctic* (Mattox *et al.*, 1972, *Arctic* 25(4):308-311; Burnham *et al.*, 1974, *Arctic* 27(1):71-74; Walker *et al.*, 1973, *Arctic* 26(3):255-256). In this account, Harris takes us into conversations with colleagues and acquaintances. He describes the sensations of the Greenland wilderness experience and their effects upon him. His writing captures some of the paranoia and frustration found in many who work with the Peregrine and its environmental and political problems. Throughout his story he inserts salient points of Peregrine biology from the literature; for example, he summarizes a number of the high points and low points associated with the pesticide - thin eggshell syndrome and its discovery (p. 8-22). Later he discusses the three North American subspecies of the Peregrine, territoriality, migration, mortality, food habits, captive breeding, efforts to reintroduce Peregrines into areas where they have been eradicated, and other research and management topics. There are many introspections about falcons and researchers. He notes how those who visit many Peregrine nests (on survey or banding work) may miss the uniqueness of each nest and its owners. Also, he suggests some of the advantages and joys of behavioral studies (p. 88): "Not only did we see them at their most active moments . . . but we slowly learned how they spent all their hours. Humans seldom understand how a

day passes for wild bird or mammal, because we're too impatient to sit quietly, and what time means for a different mind somehow eludes our imagination. How long an hour must be for creatures unburdened by possessions, a hundred tasks, or dreams."

A substantial part of the book relates the observations of falcon behavior which Harris and David Clement made during the incubation and nestling phase in 1972. (Their scientific report on nesting behavior in 1972 and 1973 is found in *Meddelelser om Grønland* 205(3):1-28, 1975.) The book tells us much about the way of life of Greenland Peregrines and includes many precious nuggets of information throughout those observations and interpretations. Harris and Clement observed unusual or rarely seen events, such as "hop hunting", in which a falcon lands, hops about on the ground and captures a recently fledged or a parent songbird skulking about in low tundra vegetation; they recorded hunting flights right at the nest cliff, and observed the male's activities through the Greenland summer "night." The narrative gives an accurate "feel" for the daily events at a Peregrine eyrie.

The book is attractively produced. Pages are 14.0 x 23.4 cm with unjustified right margins. There is an adequate index. On the soft tan-gray dust jacket the pale gold lettering shows poorly, and so when trying to find this book on the shelf one has to rely on detecting the sketch of a nestling which shows on the spine. The beige cover proper and dark brown print are easily spotted, however. The 40 photographs, by Harris, Clement, Mattox, and M. A. Jenkins, are fine visual additions which show us the Greenland terrain, nest cliffs, nest ledges, and Peregrines and gyrfalcons at their eyries. Only one photo occupies a full page and most are less than half a page; this reader regretted that some of the terrain pictures, and especially some of the falcon pictures, were not reproduced much larger. The text has about a dozen typographical errors. Some errors of interpretation appear; a few examples are given herewith. P. 50: "Branchers" are, in fact, young raptors which hop and flutter about the nest tree or cliff before they make their first flight. P. 51: The plumage of adult Peregrines is *not* identical for the sexes, and the subtle differences (especially on the breast) often allow us to distinguish the sexes accurately with binoculars in the field. P. 51: The female Peregrine (in this observer's experience) is slower, not swifter, than her mate; Harris was not able to observe courtship flying, when the difference in speed is most evident. P. 70: Perhaps in Greenland most cliffs do have good potential nest ledges, but in many areas most cliffs do not. P. 234:

Peregrine eggs begin to break accidentally well *before* they have 20% thinning of their shells; at an average of 20% thinning of eggshells, populations are in severe decline. Finally, Harris apparently sought to study Peregrine behaviour without previous immersion in the available literature. This approach can lead to new and important interpretations because the researcher is not biased by previous writers' conclusions. There is evidence of this in Harris' work. However, this approach can lead to confusion, as with naming behavior patterns. In this book we are offered (without explanation) several new names for standard vocalizations, and some apparently standard vocalizations are described from apparently unusual circumstances.

In 1972 this Greenland Peregrine population provided several addled eggs and shell fragments which averaged 14% thinner than pre-DDT shell thicknesses. In 1973 nine pairs raised young, in 1974 and 1975 only five pairs were successful, in 1976 three pairs, and in

1977 four pairs. A shortage of adults is suggested as the proximate cause of the decline and pesticides in Central or South American wintering grounds may be the ultimate factors. The Greenland population obviously merits long-term monitoring.

In the preface Harris states, "This book will provide readers with all the scientific information necessary for a thorough understanding of the peregrine's present status and its biological value." This is an overstatement, though certainly the book is a significant effort toward that admirable goal.

The Peregrine Falcon in Greenland is informative and enjoyable reading for Peregrine biologists, interested students, well-informed laymen, and others who are interested in environmental problems, endangered species, raptors, or the North.

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CROWN OF THE WORLD. By CORA CHENEY AND BEN PARTRIDGE. New York: Dodd, Mead & Company, 1979. 194 pp., maps, appendix, bibliography, index. \$7.95.

CROWN OF THE WORLD is subtitled "A View of the Inner Arctic", but I think I would term it rather a mental smorgasbord. There are too many dishes to be sampled, and one's appetite is left vaguely dissatisfied. Good black-and-white photographs by the authors, as well as reproductions of old prints and maps, provide the seasoning. There are, however, many statements and conclusions which are not justified, such as: "To find better hunting than Asia offered, and to avoid the pressure of the Mongoloid tribes, the Caucasoid people followed the animals to this new territory" (p. 28), an allusion to the land bridge between Siberia and Alaska. Another: "One of the most controversial roads in the north is the hastily constructed 'haul road' from Fairbanks to Prudhoe Bay in Alaska, built for trucks to service the Alyeska pipeline construction. When the road turned into a sea

of mud as summer came it proved conclusively that permafrost was the natural enemy of arctic roads" (p. 111). In fact, there were two roads: the first, commonly known as the "Hickel Highway", was a winter road hastily and badly constructed, which was not intended to be open in the summer. The "haul road", constructed later, was and is an all-season road to service the pipeline; it was built in a different location altogether.

The foreword states in part that this is a book about "the land, water, and people within the Arctic Circle, and is intended for the general reader", and so it is. I judge the statement on the dust jacket to be correct in saying that such a comprehensive geopolitical survey has never before been gathered into a single brief volume. My reservations stem from my feeling that "survey" is a more accurate description than "comprehensive."

A good partial bibliography is included, for the reader who wishes to satisfy his appetite more completely.

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