

BOOK REVIEW

EDITED BY JEFFREY S. MARKS

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The Prairie Falcon. By Stanley H. Anderson and John R. Squires. 1997. University of Texas Press, Austin, TX. viii + 162 pp., 19 color photos, 10 figures, 5 tables. ISBN 0-292-70473-9. Cloth, \$29.95.—When I discovered that the cover of this book bears a photograph of my hunting companion of 10 years, I knew we were off to a good start. Like many people, I had been waiting for someone to amass under one cover much of the existing but disconnected information about the only falcon indigenous solely to North America. Finally, Anderson and Squires have shouldered the burden, creating a useful addition to the literature that focuses on the subject and broaches many of the topics one associates with the field of raptor biology. Because the Prairie Falcon (*Falco mexicanus*) is neither a glamour species nor ecologically endangered, this compilation has been a long time coming.

Stanley H. Anderson, Professor of Zoology and leader of the Wyoming Cooperative Wildlife Research Unit, and John R. Squires, Research Scientist for the U.S. Forest Service, bring strong academic credentials and a fresh approach to understanding this under-explored raptor. Those of us who have searched for in-depth information on the Prairie Falcon and struggled through the works of Bent, Gabrielson and Jewett, Brown and Amadon, and other dated sources, owe the authors a debt of gratitude. For those who seek information on the Prairie Falcon, this is the new starting point.

In format, the book is a hybrid between popular and scientific literature, one that may expose the reader to new topics without burying him or her in technical terminology. It is arranged in accessible, well-defined sections. As one might expect, *The Prairie Falcon* offers much natural history information and provides scientific documentation. I particularly liked the brief inserts that highlight vari-

ous topics. Some general, some specific, the inserts focus on many of the curious aspects of raptor biology. For compulsive readers, sources of information are conveniently listed by topic at the end of each chapter.

Starting with general life-history information, the book explores the Prairie Falcon's behavior, hunting and food habits, ecological and interspecific interactions, and its predatory nature. In addition to familiar topics like breeding distribution, territoriality, and reversed sexual size dimorphism, the unusual topic of tree nesting by Prairie Falcons is discussed.

Under Coloration (p. 5), the authors refer to several color morphs of the Prairie Falcon, which may be misleading. Prairie Falcon plumages vary between light and dark, but there are no distinct color morphs as found in Gyrfalcons (*F. rusticolus*) and some other raptors. In the next section (p. 15), the authors discuss nest-site fidelity, a strong characteristic in this species. Although this aspect of behavior is well documented, there is no evidence that Prairie Falcons mate with the same partner from year to year, a point that should have been included.

I particularly enjoyed the section on Hunting Techniques (p. 28), which includes information on foraging behavior, kleptoparasitism, and food caching. However, I should note a slight discrepancy in the interpretation of data from my study of foraging behavior. Although most of the attacks I observed were of the low coursing type at moderate speeds, some attacks were initiated from a soar and ended in an extremely fast, low-trajectory approach close to the ground. The phenomenon is described by the aeronautical term "ground effect." Clearly, these two methods were not the same. The soaring technique, when applied to prey spotted on the ground, gave the falcon great incoming speed and made it difficult for prey to detect the approaching falcon. I suspect that all large falcons use this soaring technique to some degree.

Table 2 describes the food habits of Prairie Falcons collected throughout the western United States. It clearly shows that these falcons are adaptable predators, able to glean whatever food resources the local environment has to offer.

Chapter 2 covers seasonal patterns of courtship, breeding, and nesting. Information on fledging activities and fall and winter dispersal patterns also are included. I wish Figure 6 (p. 82) had included a map of current band-recovery information for all age groups, as well as data from breeding populations in the southern part of the falcon's range. Data for this figure were collected in 1964. However, most of the information on the species has been collected since the 1970s. Jim Enderson was the first researcher to recognize the importance of the Great Plains to the wintering ecology of this species, including falcons from as far west as California and Oregon. Considering that most Prairie Falcons nest west of the Continental Divide, and that human-caused alterations in the Plains States have vastly changed the ecology of that region, there is still much to be learned by investigating the eastern movements during fall and winter. The authors' comments on the fragility of the Prairie Falcon's environment lead one to conclude that winter habitat may, in fact, be one of the most critical elements for the long-term survival of the species.

Early on, the authors mention that nestlings fledge at two months of age. But on p. 73, they correctly state that fledging age is between 33 and 35 days of age. It seemed curious that no mention was made of the adult male's role in incubation (p. 63). Although undoubtedly there is wide variation among pairs, it should be noted that males share this duty during daylight hours.

The third chapter concentrates on the juxtaposition of the Prairie Falcon in relation to other raptors found in North America and around the world. It serves primarily as a review of nomenclature, physiology, and evolution. The Taxonomy section (p. 100) seems to support the conclusion that Tom Cade reached in *The Falcons of the World*: that Prairie Falcons are part of the "desert falcon"

group that includes Gyrfalcons, Saker Falcons (*F. cherrug*), and Lanner Falcons (*F. biarmicus*). However, at the very end of the book (p. 138), the authors acknowledge that recent DNA studies show that Prairie Falcons are more closely related to Peregrine Falcons (*F. peregrinus*).

Chapter 4 begins with an overview of the Prairie Falcon's role in falconry and captive breeding. The authors state that stocks of Prairie Falcons can be managed to provide both viable populations of wild birds and a falconry harvest. Under Captive Breeding (p. 119), a method of semen collection is described that would be appropriate for large poultry, but not for raptors. (It should be noted that Prairie Falcons breed readily in captivity. Yet, since the initial flurry of captive-breeding technology two decades ago, little effort has been expended on breeding them in any number.) The authors then present current information on the effects of pesticides, human influences, and mitigation measures.

The book concludes by suggesting that the species be viewed holistically—as one important link in the food chain of its habitat—linking predator with prey, prey with habitat, and habitat with humanity. We must make this connection if Prairie Falcons, and indeed all raptors, are to have a future on this continent.

Finally, the Raptor Etiquette section in the Appendix offers sound suggestions on how to watch nesting falcons without disturbing them. Overall, I appreciated the high quality of the book, including good paper and a sturdy cover. Simple line drawings, augmented by striking photographs by LuRay Parker and Rick Kline, enhance its visual appeal. Although the angled layout of the photographs may be artistically appealing to some, I found them mildly distracting. The book comes complete with a well-stocked section of references. There were some minor typos, but these are hard to avoid. *The Prairie Falcon* belongs in the libraries of serious scholars, budding researchers, fans of western wildlife, and avid birders of all descriptions. At \$29.95, it is a bargain.—**Bruce Haak, Idaho Department of Fish and Game, 3101 South Powerline Road, Nampa, ID 83686 U.S.A.**