

BOOK REVIEW

by Marilyn S. Murphy

Harrier, Hawk of the Marshes: The Hawk That Is Ruled by a Mouse. Frances Hamerstrom, foreword by Roger Tory Peterson. Smithsonian Institution Press, Washington, D.C., 1986. 171 pages. Line drawings by Jonathan Wilde. Black and white photographs. \$24.95 clothbound; \$10.95 paperbound.

Hawkwatchers and birders who may have hoped that Frances Hamerstrom's recent book on the Northern Harrier would prove to be the North American equivalent of Donald Watson's valuable *The Hen Harrier* (1977) will be sorely disappointed in this publication. *Harrier, Hawk of the Marshes* is, as Frances Hamerstrom describes it, "a voyage of discovery," and it is a choppy one at that as she recounts her investigation of the question Do harriers mate for life? and her growing realization of the relationship between harrier mating systems and the rise and fall of vole populations. Hamerstrom spent over twenty-five years in a fifty-thousand-acre area of Wisconsin investigating harrier pair fidelity in what was a remarkably lengthy and perhaps unique opportunity to study this interesting raptor. Her brief book scratches the surface of these years; she imparts a disjointed and rather haphazard account of her experiences, not the rich tapestry of observations and developed ideas that one might expect from a long-term study.

Hamerstrom has organized her experiences into twenty-two short chapters with titles such as "We Resort to Paint, Dyes, and Jesses," "On the Care and Feeding of Gabboons," "Mice move into My Life," "Eco-Snooping," "A Mouse Leaves its Mark on Mating Systems," etc. The text has all the earmarks of a raconteur talking into a tape recorder. In these chatty chapters, studded with exclamation marks, Hamerstrom describes first the difficulties of locating nests, trapping and marking harriers, and directing her various assistants whom she calls "gabboons," for reasons never explained. A picture quickly emerges of a formidably energetic and undaunted woman, trudging through drainage ditches and nettles at dawn, armed with her tame Great Horned Owl Ambrose who was used as a lure to entrap harriers. There is an engaging photograph of Ambrose glaring from his perch in the mists of early morning waiting for his assignment. Also described are the use of telemetry in tracking harriers, hand-rearing young birds that had either been orphaned (occasionally as a result of Hamerstrom's research) or that had been taken from the nest for teaching purposes for the gabboons, and the effects of DDT on harriers in her study area. Hamerstrom was one of those invited to participate in the 1965 University of Wisconsin symposium on the population decline of the Peregrine Falcon and other raptors, the meeting that so persuasively documented the population crash of these birds.

Unlike the Peregrine, Hamerstrom's harriers reacted to DDT not by laying thin-shelled eggs but by displaying a peculiar state of listlessness; the sky dances of the mating season disappeared and breeding virtually stopped.

Editorial inattention is apparent in several of these chapters. At the outset, the reader discovers in Roger Tory Peterson's foreword a reference to "England, which boasts four kinds of harriers," only to find Hamerstrom writing on page 32 that "there are three different species of harriers in Britain," and again on page 35, "In Britain there are three species." An alert editor might have come to the aid of the confused reader by noting that, in addition to the Marsh, Montagu's, and Hen harriers, Peterson includes the Pallid Harrier as a vagrant to Britain in his *Field Guide to the Birds of Britain and Europe* (1967).

Other errors garble the account so as to make the meaning unintelligible. Describing her harrier population during the DDT period, Hamerstrom writes: "Plainly it *was* in trouble, not because they were failing to breed! In the worst year, 1968, we had enough females for twenty nests, yet only two nested; the study area, but because they were failing to breed!" (page 67). For this, Smithsonian Institution Press is asking us to pay twenty-five dollars?

More confusion occurs in Hamerstrom's explanation of harrier eye color. The dust jacket of the hardcover edition includes a beautiful color photograph by Frederick Hamerstrom of two harriers with the caption "grayish eye of male, chocolate eye of female." The ordinary observer, to whom this book sometimes seems to be addressed, might assume that if one was fortunate enough ever to come upon a harrier eyeball to eyeball, one would expect the male to always have gray eyes and the female to always have chocolate-colored eyes. Not so. The birds in the photo are young birds, and their eye color will change, as we learn later in scattered sections of the chapter "Identification of Harriers." Here the reader's confusion is compounded by the statement, "In 1963, I noticed that nestling males have grayish brown irises, whereas those of the nesting [*sic*] females are chocolate." One has to be careful to catch this typographical error since it alters the meaning of the sentence; "nesting female" should read "nestling female." Several pages later we learn that the adult male has bright lemon-colored eyes, and females over five years of age have yellow irises. In females, "gradually the percentage of brown flecks decreases at a fairly constant rate." A drawing, which should clarify the progression of changing eye color in female harriers, shows flecking in twelve irises and bears the caption, "proportions of eye spotting in iris of female harrier. Percentage (%) of flecking (dark) decreases with age." However, the drawing shows not a decrease in flecking with age but an increase; i.e., the drawing is *backwards*.

Readers who like their raptor studies straight as well as accurate may have lost patience even before this. However, the chapter on identification of harriers includes several pages which should be read by everyone who has wanted to sex

brown harriers in the field and didn't know how. Hamerstrom points out that the rufous tawny breast of the immature is a characteristic of fall birds only; by spring, the immatures' deep rufous breast feathers have faded to the color of the adult female. How then to differentiate between spring immatures and adult females? Hamerstrom describes two fieldmarks: (1) a dark area on the underside of the trailing edge of the innerwing, which is characteristic of the immature (this mark was pointed out to Hamerstrom by Bill Clark whose photograph is included); and (2) gaps near the center of both wings caused by the molt of primaries one through three that occurs in adult females before mid-June. Spring hawkwatchers will have a good test of their powers of observation searching for these marks.

What has Hamerstrom learned after twenty-five years? Between 1959 and 1983, she studied 330 nests. Because of her persistence in color-marking birds, she was able to identify many individuals and not only answer her initial question "Do harriers mate for life?" with a resounding "No" but to document the occurrence of polygyny in her study area. Pair fidelity was virtually nonexistent, but bigamy was recorded in 54 nests and trigamy in 24. Tables showing the percentage of successful nests and of young fledged per mating system are included in an appendix. Hamerstrom suggests several possible explanations for the occurrence of polygyny: a large vole population (she



Immature Northern Harrier

Photo by Bill Clark

"A dark patch under the wings characterizes the immatures."

*Reprinted with permission from Frances Hamerstrom's
Harrier, Hawk of the Marshes.*

believes that voles act as an aphrodisiac to harriers), shrinking habitat, and an abundance of females that occurred during the DDT period when the sex ratio went from equal numbers of both sexes to a ratio of 34 females to 8 males. An abundance of females was also suggested as a possible reason for polygyny by Balfour and Cadbury in the Orkney Islands, where polygyny among Hen Harriers has been observed since 1931. Considering the documentation of polygyny among harriers in both Wisconsin and Orkney and other scattered reports, it is unfortunate that Hamerstrom did not include in this book sex ratio statistics accrued during her twenty-five-year study. If polygyny is an aberrant response of this species to an imbalanced sex ratio and if stress results in a diminution of the male harrier population, then monitoring harrier sex ratios assumes a greater significance in assessing the health of this increasingly troubled species. *American Birds* has included the Northern Harrier on its Blue List every year since 1972 with numbers reported as "down or greatly down nearly everywhere." Is it true, as I heard suggested at a hawkwatch conference some years ago that there really are as many male adult harriers as females; that there are simply fewer birders out when the males migrate? Would it help in the assessment of the harrier population if birders and hawkwatchers made more of an effort to tackle the difficult problem of sexing brown harriers? Such questions are neither raised nor answered in this book.

Is *Harrier, Hawk of the Marshes* with all its editorial and authorial lapses worth the hardcover price of \$24.95? Not with only 136 pages of text, a brief bibliography and appendix, muddy black-and-white photographs and an erratic index (for example, eye color is not listed). Although Jonathan Wilde's illustrations are charming, it is regrettable that his color illustration of harrier food transfer on the cover is so overwhelmed with blue tints. Serious raptor students will probably opt for Hamerstrom's journal articles, but others who do not want to overlook what may be the only book written about our North American harrier may want the paperback edition, warts and all, for occasional reference (\$10.95). Someday, perhaps one of Hamerstrom's gabboons will write the book this could have been.

MARILYN S. MURPHY is a Senior Information Specialist at the Houghton Mifflin Corporate Library in Boston. Her articles and photographs have appeared in *Aquasphere: Journal of the New England Aquarium*. She has birded in Africa, Australia, New Guinea, Hawaii, and Great Cranberry Island, Maine.

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