## Conversations with an Eagle

By Brenda Cox. 2002. Greystone Books, Douglas & McIntyre Publishing Group, 2323 Quebec Street, Vancouver, British Columbia V5T 4S7. 261 pages, paperback.

This is a story of dedication to an eagle rather than conversations with one. Brenda Cox was a volunteer worker at a raptor rehabilitation centre south of Vancouver (Orphaned Wild Life - OWL), and became enthralled with raptors of all kinds. Her special interest was a Bald Eagle, which was three months old when it arrived at the Centre, and her book describes the trials and tribulations of her efforts to train Ichabod so that she could be used in the OWL education programme.

In the course of the story there are passages describing the methods used to rehabilitate owls, hawks and eagles. When the eagle was still young its behaviour was typically fearful, but the bird became more and more aggressive towards Cox, such that she had to stand against a pillar armed with a household mop to protect herself if she was attacked. In spite of the danger, she persisted in training the bird to come to her gloved arm, and eventually it obeyed three commands: Up, Wait and Off. But it was always uncertain whether the bird would cooperate or not on any given day. She enlisted the help of expert falconers in the Vancouver area. They were doubtful whether a Bald Eagle could be reliably trained, though they helped and advised her. Bald Eagles have seldom been trained successfully, while Golden Eagles have been used by falconers in many parts of the world. Cox was able to train the eagle such that she could take her from her cage to a perch in a field, using jesses

owls and nearly doubled the number of references (although, contrary to convention, many of the recent references are not mentioned by name in the text!). Extremely few changes have been made to the excellent introductory chapters, but this leaves them less upto-date than the individual species accounts. Often he cites the authors of the Birds of North America account, rather than the original observers who merit the credit; an example is Gottfred and Gottfred's new information concerning courtship and copulation of the Great Horned Owl, published in Blue Jay in 1996.

The strengths of the first edition have been maintained: the introductory chapters and species accounts are neatly arranged; maps of each species' range are detailed; Johnsgard's pen-and-ink sketches of aspects of behaviour are delightful; the colour plates and photographs are superb. Johnsgard writes well, but in a few occasions new material has been interjected clumsily, marring the previous smooth flow of information in the first edition.

and a stout leash attached to her waist, but there were increasing dangerous attacks which inflicted talon wounds on Cox's head, arms and feet.

After several years, the OWL management decided that they would never be able to use the bird in their programme and asked Cox to remove it from the facility. In its new quarters, shortly afterwards the bird developed a lung disease and was euthanized. Cox's dedication to her volunteer job is remarkable since, in the course of the seven years, she did not have steady employment or reliable housing or transportation. Since Ichabod's death, she has now found a steady career: as a conductor with British Columbia Rail, and watches the wild raptors along the railway lines. Her story would appeal to someone interested in raptor rehabilitation methods and the lore of falconry.

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## North American Owls, Biology and Natural History, Second Edition

Paul A. Johnsgard. 2002. Smithsonian Institution Press, Washington. 298 pages, 42 colour plates, 69 multi-figured blackand-white maps and sketches, 10 tables, 2 graphs. \$46.25 Canadian, hardcover. US\$27.95.

Although Dr. Johnsgard's long history of producing books about birds is well known, his entry to the "owl-lover's camp" is more recent. The first edition of this book came out in 1988 and immediately became the standard reference book for owls of the United

States and Canada. For the second edition, 14 years later, Johnsgard has added twelve species of Mexican

Some compromises were necessary. To make room for the twelve Mexican species, detailed descriptions of plumage have been omitted in this second edition. This does not excuse three sloppy errors. Johnsgard tells of the Pygmy Owl range extending altitudinally to 37 000 meters in Mexico, whereas the quoted source gave a credible 3700 m. A paper by Jack Holt on Great Horned Owls in the Cincinnati region is credited to Denver Holt. Thirdly, when Johnsgard withdrew his overdrawn sketch of the "false eye-spots" on the back of the Northern Pygmy Owl's head from the first edition and substituted a more realistic sketch of the Ferruginous Pygmy Owl in the second edition, he failed to change the figure numbers in the text to comply with this change.

These minor caveats aside, this masterful second edition will be welcomed by owl enthusiasts around the world, and should be purchased even by those owning the first edition. It is written more for the scientist than the amateur, but, by identifying deficiencies in our current knowledge, this book should offer possibilities for future study by graduate students and others who love our night-time friends.

Johnsgard's exquisite sketches, 10 coloured paintings of owls by Louis Agassiz Fuertes, and 31 fine colour photographs, including nine of Mexican owls, make this an unusually attractive book. Buy it!

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## The Mountain White-Crowned Sparrow: Migration and Reproduction at High Altitude

By Martin L. Morton. 2002. Studies in Avian Biology Number 24. Cooper Ornithological Society, Camarillo, California. 236 pages, 8 colour plates, pencil illustrations heading each chapter. U.S.\$27.

The northern limit of the distribution of the Mountain White-Crowned Sparrow (*Zonotrichia leucophrys oriantha*) extends slightly into southern British Columbia, Alberta and Saskatchewan. Its main breeding range

book's pages). The dynamics of arrival of oriantha

amount of remaining snowpack and the frequency of spring storms, as well as by age and sex. By trapping and colour-marking individuals, the researchers found that older males (age 2+ years) generally arrive earliest, followed by one-year-old males, older females and one-year-old females. Throughout the monograph, Morton does an excellent job of analysing observed data in terms of costs and benefits, and ecological factors, in this case, suggesting that older, experienced birds knew the migration route and recognized the breeding area once they reached it, even it if was snow-covered.

Morton's efforts over many reproductive seasons made it possible to measure mate fidelity, age of mates, frequency of polygamous pairings, agressive behaviours, and the functions of vocalizations, in addition to the usual study of territory establishment, pairing, and between-year breeding dispersal.

Although I expected the chapters on Gonadal Condition, and Body Size and Body Condition, to be of less personal interest, Morton's explanations of the connections between physiology and behaviour, and description of the role of environmental cues in annual cycles made these sections much more interesting than anticipated. Environmental factors are either ultimate (e.g., availability of an adequate food supply, predation pressure, weather patterns) or proximate (e.g., photoperiod, ambient temperature) in their effects on the timing of reproduction.

Nest history (chapters 7, 8, 9 and 10 on Nests and Eggs, Nestlings and Fledglings, Nest Failure and

is in mountainous regions of the western U.S. Here in Waterton Lakes National Park we're at the contact zone between *oriantha* and *Z. l. gambelii*.

Morton's 25-year study of *oriantha* in the Tioga Pass area of California's Sierra Nevada ranks with P. J. Greenwood's lengthy study of the Great Tit (*Parus major*) in Europe and G. E. Woofenden's work with the Florida Scrub Jay (*Aphelocoma coerulescens*) in showing the value of continuous long-term field investigations in advancing a broad spectrum of ideas and hypotheses in avian biology. Morton's focus is different, however, in emphasizing physiology more than behaviour or ecology. In 1968, Morton recognized that there were significant gaps in knowledge of migratory passerines on their summering grounds, especially in mountains where large variations in environmental conditions occur.

As my interests lie more with natural history, life history data (age at maturity, number, size and sex ratio of offspring, dispersal and survival rates) and ecological factors than with physiology, I found Morton's first three chapters on Migration Arrival, Social System and Behavior, and Demography of most interest (although a bit disappointing at only one-quarter of the varied greatly from year-to-year depending upon the

Reproductive Success, respectively) provided reliable information on physiological and behavioural responses of breeding birds to environmental variation, often to the level of individuals because of Morton's use of marked birds. And the researchers determined that the snowpack, because of its effects on nesting schedules and nest locations, was a stronger environmental factor on reproductive success than sub-freezing temperatures or summer storms. *Oriantha* exhibited plasticity in responding to snow conditions by abandoning ground-nesting and building their nests in elevated sites when there was more snow, as opposed to Hermit Thrushes (*Catharus guttatus*) or Dark-eyed Juncos (*Junco hyemalis*), which nested on the ground no matter what the environmental conditions.

Morton's study shows that challenges posed by environmental variation often can be met with existing behavioural and physiological responses; adaptation occurs through flexibility rather than through acquisition of new abilities or mechanisms.

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