BIRDERS' BOOKSHELF

Biographies for Birdwatchers The Lives of Those Commemorated in Western Palearctic Bird Names Barbara and Richard Mearns. 1988. *Academic Press, New York. xx+490 pp., approximately 100 black and white illustrations by Darren Rees, approximately 85 black and white historical portraits. \$35.00 clothbound.*

IF YOU HAVE WONDERED WHOM BARrow's Goldeneye, Sabine's Gull, and Forster's Tern were named for, or if Ross' Goose and Ross' Gull were named for the same person (they were not), or who was Canute, Kittlitz, or Lichtenstein, then you will enjoy reading this book. It is chock-full of interesting tidbits about 91 people that have had birds named for them in the western Palearctic, meaning that most species discussed will not be familiar to many North America birdwatchers.

The text starts with Edward Adams (Gavia adamsii) and ends with the Father of American Ornithology, Alexander Wilson (Wilson's Stormpetrel, Wilson's Phalarope, and Hooded Warbler, Wilsonia citrina). In between, we learn a fascinating amount about many individuals. For example, John Barrow's life was dominated by the quest for the northwest passage; Thomas Bewick was an accomplished artist; Charles Corv appeared more interested in "birdies" that he got on the golf course than in birds he collected; Gustav Radde was chair of the first Ornithological Congress held in Vienna in 1884: George Steller's research was concerned with determining if Asia and North America actually were connected; William Swainson first suggested that birds be stored as skins, as opposed to mounts, and that tags be placed on bird skins giving basic information about the specimen; and Alexander Wilson named Clark's Crow (now Nutcracker) and Lewis' Woodpecker after the famous explorers of the Pacific Northwest.

It is pleasant to find out that many bird names are derived from famous ornithologists of their time, such as Edward Blyth, Franco Fonelli, Fried-

rick Finsch, Theobald Kruper, and Martin Lichtenstein, and particularly Peter Simon Pallas, who has 6 species of birds named after him. Also, many individuals immortalized in bird names were very prominent in the British armed forces, a group that has always been interested in natural history. Many also were involved with the exploration of the Arctic, such as Barrow, Franklin, Ross, Sabine, and Steller. However, it is equally interesting to discover that some bird names are of people that had little, if anything, to do with ornithology, such as James Bulwer, Jens Hornemann, and Ernesto Mauri. I also found a few surprises. For example, Bonaparte's Gull is not named for the great French emperor, but his nephew, Charles, who also was responsible for naming a genus of doves after his wife (Zenaida), and Steller's great discoveries were before Linnaeus' classification scheme, so that most of his animals



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have been reclassified and renamed without credit to him. Alexander von Nordmann submitted a description of a new species of pratincole for publi-

cation, and the editor of the journal changed the name of the species to *Glareola nordmanni*, so, strangely, the name commemorates both the discoverer and the describer. Equally confusing is the fact that Sabine's Gull was described by Sabine, but this refers to a specimen collected by Edward, sent to his elder brother, Joseph, who named the species for his younger brother.

The accounts are well-written and they all attempt to trace the professional career of each individual involved. The majority deal with 19th Century people, with the most recent account concerning Jean-Paul Ledant (born 1951), who discovered a new nuthatch (*Sitta Ledanti*) in Algeria in 1975. A certain amount of mystery surrounds some species, but the authors appear to have left no stone unturned in their attempts to find the true identity of each individual. For example, they had to examine the type



Box 110, Dept. AAB1, Marietta, OH 45750 Visa/MC call 1-800-879-2473 SUBSCRIBE...TODAY! AAB1 specimen of Dunn's Lark to find out exactly which Dunn collected that bird since the names are different on the original and the museum tags. Nonetheless, it is not clear whom Dupont's Lark and Richard's Pipit were named for, nor is much known of Moussier (Moussier's Redstart) or of Neumayer (*Sitta neumayer*).

I highly recommend this book to anyone who is interested in the history of ornithology or who is curious about how the birds of the western palearctic got their names.

-Kimberly G. Smith

Avian Genetics A Population and Ecological Approach

Edited by F. Cooke and P. A. Buckley. 1989. *Academic Press. New York, NY.* 488 pp. \$35.00 paperback.

CTUDYING GENES OF BIRDS HISTORI-**J**cally has been a very difficult prospect. In addition to macrochromosomes, which are relatively easy to study, most birds have many microchromosomes that are barely detectable under a light microscope. That makes them difficult to count, and morphologies of those tiny chromosomes are often obscure. They usually can only be studied by examining cells that are in the process of metaphase spread during mitosis. Moreover, virtually identical karyotypes have been found in distantly related species, and very different karyotypes have been found in species closely related using other criteria. (Only about 6% of the birds of the world have been karyotyped.) Nor do the sex chromosomes (called Z and W in birds) behave like X and Y chromosomes found in mammals. Often times the W chromosome is greatly reduced in females, which are the heterogametic sex in birds (the opposite of mammals), so that it is hard to distinguish it among the microchromosomes, making sex determination difficult.

If you understand those problems, then you might enjoy browsing through this book, originally published in 1987 and recently released in paperback. Scientists who want to learn more about avian genetics studies are the stated audience, and a basic knowledge of genetics, statistics, and population biology is necessary to understand much of what is presented. The editors state that the book is intentionally eclectic, emphasizing areas of research on populations of wild birds that they feel are important.

The theme of the book is that bird studies have the potential to directly examine the effects of natural selection in wild populations and to contribute greatly to the synthesis of evolutionary theory, if ways can be found to follow changes in genetic structure of bird populations. Bird taxonomy is well understood compared to other vertebrate groups, and many bird species have already had extensive behavioral and ecological studies conducted on them. What now remains is to unravel the mysteries of the avian genome—but this may not be an easy task. In addition to the problems mentioned earlier, several authors point to the high intrafemale variation in aspects such as clutch size, the potential influence of nongenetic factors, the possibility that mechanisms contributing to reproductive isolation are different for birds, and the potential for high levels of gene flow among populations due to long distance movement of individuals.

The book is divided into 3 sections, with a closing chapter by Buckley. The first section, which is about one-half of the book, covers basic genetics and analytical techniques. Population genetic processes such as inbreeding, gene flow, non-random mating, and geographic variation are discussed in the second section. Interesting reviews of studies of the Great Tit, House Sparrows, Lesser Snow Geese, and Arctic Skuas are presented in the third section.

If you are interested in avian population genetics, you probably already own this book, as it is the first comprehensive treatment of the subject. I would also highly recommend it to anyone who is contemplating avian field research, since the authors give many suggestions for directions of futures studies.

-Kimberly G. Smith