

crowned Warbler as compared with that in Godfrey's "Birds of Canada").

One of the most critical omissions is that of a recognizable order. In the absence of the established A.O.U. order (with which every beginning birder should become familiar), one is forced to make constant reference to the index. In the field, much precious time would be lost.

All this is not to say that the book is useless. There are several worthwhile points in its favour. The method of denoting important field marks by the use of titled pointers (à la Peterson—but improved upon) is very successful. The descriptive paragraph concluding each species account is well done—light, readable and generally informative. The General Appearance sections are good, and further, I find the whole treatment of the Winter Wren a positive delight.

However, the image remains one of a generally unimaginative inconsistent effort. I find it ill-planned, poorly executed and rather vague. Nevertheless, MacKay has shown considerable potential in this work. Perhaps unburdened by the confines of continuing a series he did not originate, he will be able to draw on this talent more successfully next time.

Regretfully, I find it impossible to recommend "Eighty More Land Birds to Know" to the beginning or casual birder.

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### **The Sockeye Salmon, *Oncorhynchus nerka***

By R. E. FOERSTER. 1968. Fisheries Research Board of Canada Bulletin 162: xv + 422 pp., 6 plates (2 colored), 96 text-figures. \$8.00 from Queen's Printer, Ottawa.

Since the original description over 150 years ago and particularly during the last 50 years, biologists around the periphery

of the North Pacific have been contributing information on the sockeye salmon, *Oncorhynchus nerka*. Foerster has integrated these contributions with his own life-time studies to produce a monograph of the first order.

The sockeye has an intriguing life history. Generally the eggs are deposited in redds during late summer and autumn in tributaries or outlets of lakes. After hatching in early spring, the young spend a year or more in the lake before descending to the sea. One to five years are spent in the sea, with some sockeye migrating as far as the Aleutians. The mature adults return to their natal stream, spawn, and die. In some populations the young may omit the period of lake residence and go directly to sea. Other populations remain permanently in fresh-water and are called kokanee. The unravelling of this story has taken many years and there are still problems unsolved. Problems that are discussed include: How do sockeye fry find their way through large lakes on their way to the sea? How does the adult sockeye navigate from mid-ocean to the estuary and recognize its natal stream?

Following an introductory chapter with a useful summary of the life history, origin and evolution, are chapters on the fishery, escapement, reproductive success, upstream migration, spawning, lake residence, marine phase, stock identification, artificial propagation, and hybridization.

The style is terse because of the high density of information, but always clear. Quotations from original papers enrich the text and give fresh vignettes of fry migration, spawning, etc.

Although material is drawn from many sources (over 300 references are included), there is a real unity to the text, a tribute to the author's knowledge and grasp of the material. Many references up to 1962 and a few to 1966 are included. Literature of other countries is not ignored and American,



Japanese, Russian as well as Canadian (a not unimportant segment is Canadian) sources are used. The author further draws upon several unpublished manuscripts. The material from these sources is not simply compiled, but is critically evaluated and integrated.

The volume tries to bring together all that is presently known about the sockeye. A useful addition would have been a section outlining what is not known about the sockeye. From the absence of sections on anatomy, embryology, behavior and physiology, *per se*, one infers that little is known of these aspects. The author notes the absence of winter observations in the North Pacific. Much of the information collected relates to reproduction, survival, growth, and stock identification, management-oriented aspects of biology. These sections, comprising the bulk of the book, are masterfully done. Surprisingly little mention is made of dams and fish ladders. The section on origin and evolution is not as strong as the others. Rounsefell (1962, *Relationships among North American Salmonidae*. Fish Bull., U.S. Fish Wildl. Serv. 62) might have been referred to here. The reviewer would like to have seen included an overall distribution map of the species. Although the table of contents is detailed, an index would have been useful because the text is so packed with information.

For the zoologist this book will be a mine of information, to the fishery biologist an indispensable tool, and to the interested naturalist a storehouse of fascinating facts. It is a work of which the author and the Board may well be proud.

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### A Place for Everything

By DAVID MUNRO. Canadian Broadcasting Corporation, Toronto. iv + 108 pp., 304 photos (19 in color), 1968. \$3.95, from CBC Publications, Box 500, Terminal A, Toronto 1, Ont.

This is a picture book for adults. The excellent text and the carefully planned relationship between text and photographs give a comprehensive introduction to ecology with particular reference to Canada. The author succeeds in making easily understood the complex ideas of environment, of the relation of environment to man's population explosion and what that explosion means in terms of environmental pollution.

The name of the book derives from the tidy housekeeper. The pictures and text explain why there is a place for everything and why man should be very careful that his actions do not upset the housekeeping arrangements of an area, a country, or the world. If he is not careful, everything will not have a place and some things will be lost forever, with far-reaching effects on man's world. At the worst he, himself, will have no place.

For those Canadians who tend to forget the basic importance of good soil and clean water, the book will be a forcible reminder. For all others, it will recall the pleasantness of nature and the need to ensure its preservation for all time, for our own good.

The paragraph on hunting illustrates the author's philosophy:

Hunting does no harm to animal populations so long as it helps keep the numbers of the hunted at a level their habitat can support. If no animals were killed by hunters, most would soon die by some other cause. To hunt is a reason to learn about the lives of the hunted and the areas they frequent. To hunt is to become alert and observant, to learn to move carefully and quietly, and to become truly aware of the out-of-doors. But to hunt without respect for and knowledge of





McAllister, Don E. 1969. "The Sockeye Salmon, *Oncorhynchus nerka*, by R. E. Foerster [Review]." *The Canadian field-naturalist* 83(4), 414–415.  
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