

## Book Reviews

### ZOOLOGY

#### Polygyny and Sexual Selection in Red-winged Blackbirds

By William A. Searcy and Ken Yasukawa. 1995. Princeton University Press, Princeton. xviii + 312 pp., illus. Cloth U.S. \$55; paper U.S. \$29.95.

The August Krogh Principle states that for every question in biological research, there is at least one species that is ideally suited to study. When it comes to polygyny and sexual selection in birds, few species can rival the Red-winged Blackbird as an "August Krogh" species. Not only is it one of the most polygynous of all bird species, it is also widespread in North America and it breeds in open habitats where capture, nest finding, and direct observations are easy. Consequently, "redwing" behaviour has been studied in many places by many people (a good proportion of which are Canadian). This book is an excellent review of the extensive body of research carried out so far on redwing reproductive behaviour, with a discussion of how results fit with current views of polygyny and sexual selection.

Chapter 1 is an introduction to mating systems and sexual selection. Chapter 2, on parental care, tells us that males are mostly responsible for defence against predators, while females do most of the food provisioning. Chapter 3 describes the male territorial behaviour. Chapter 4 examines the various factors that affect female reproductive success. Avoidance of predation, by means of strategic nest location or guarding by the male, seems paramount. Chapter 5 shows where females choose to settle, based on various territory attributes; surprisingly, the number of females already present on the territory does not seem to matter. Chapter 6 collates the previous chapters in a test of various models to explain the maintenance of polygyny in redwing populations. It wisely uses an approach where alternative models are first falsified before support for the remaining model is provided. Here as in the rest of the book, more weight is given to experimental, rather than correlational, evidence.

Chapter 7 turns to sexual selection and the extent to which we can see it operating in present populations (not very much, it turns out). Sexual selection was still a potent force in the past, and chapter 8 presents the evidence that many male traits, most notably epaulets and song, are the adaptive result of sexual selection. Chapter 9 extends this adaptationist treatment to females and their behaviour in a polygynous system. Chapter 10 recapitulates the conclusions from the different chapters, and compares redwings with other polygynous birds.

The writing style is clear, with precise wording. Topics are presented in a smooth logical order, and in a cogent way. In places where evidence is ambiguous, the authors give their opinion about the most valid interpretation, but they never fail to present the alternatives. Each chapter ends in a conclusion that summarizes the main findings while pointing to future research. (There is still room for research in this busy field, if only because some interpretations are based on negative results, which need to be replicated to increase statistical power.) The authors are both very active in redwing research, and they seem to benefit from regular contact with other heavy hitters, as evidenced by the inclusion of some unpublished results and personal communications. An impressive 435 references are listed.

This book may be too specialized for the field naturalist, notwithstanding the fact that almost all studies on redwings are conducted in the field. However, the book is a must for students of polygyny and sexual selection; in fact, every professional ornithologist should have it, given that redwings have provided many of the textbook examples on which our views of polygyny and sexual selection in birds are based. August Krogh would approve.

STÉPHAN REEBES

Département de biologie, Université de Moncton, Moncton, New Brunswick E1A 3E9

#### Artificial Nest Structures for Ospreys: A Construction Manual

By P. J. Ewins. 1994. (Aussi disponible en français). Canadian Wildlife Service, Toronto. 39 pp., illus. Free.

This is a publication of potential interest to hand-skilled field naturalists. Indeed, this concise and well-illustrated construction manual was written primarily to encourage and help people construct,

install, and maintain artificial nest platforms for Ospreys. Designs presented are those deemed best suited to habitats found in Canada but are by no means restricted to those, as evidenced by the large proportion of the designs depicted that were developed for habitats found in the United States.

FRANCIS R. COOK

FRANCIS R. COOK