



## **Wheatears of Palearctic: Ecology, Behaviour and Evolution of the Genus Oenanthe**

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**Wheatears of Palearctic: Ecology, Behaviour and Evolution of the Genus *Oenanthe*.**—Evgeniy N. Panov. 2005. Pensoft, Sofia-Moscow. 439 pp. ISBN 954-642-226-6. \$58.80 (cloth).

Wheatears are small but conspicuous birds that evolved on the African continent. They are birds of open landscapes, distributed predominantly in semi-arid or arid regions of Africa, the Middle East, and the western parts of central Asia. One species also spread above the Arctic Circle, and expanded its distribution into southeastern Canada and Alaska. The greatest diversity of *Oenanthe* species is found in the Mediterranean region. *The Howard and Moore Complete Checklist of the Birds of the World* (Dickinson 2003) lists 22 species of wheatears, and the *Handbook of the Birds of the World* (del Hoyo et al. 2005) recognizes 21 species. Panov concludes that there are “about 20 species” of wheatears, and he describes 12 species and 2 superspecies in this monograph.

Evgeniy Panov has been studying wheatears across the Palearctic region for 40 years, although most of his studies were conducted in several republics of the former Soviet Union. Previously, Panov published a monograph on wheatears of the northern Palearctic in German (1974) and in Russian (1999). He has also produced a number of articles on wheatears, almost all of them published in Russian journals and hence not readily available in the West. The current monograph in English is certainly welcomed by everyone who is interested in the genus *Oenanthe*.

Although wheatears were covered recently in the *Handbook of the Birds of the World* (del Hoyo et al. 2005), Panov’s book is the first monograph in English providing a detailed overview of ecology, behavior, and evolution for the majority of the *Oenanthe* species.

The book is divided into 15 chapters, with the first chapter describing the general biology of wheatears, and all remaining chapters devoted to individual species or superspecies. Seven early pages are used to introduce the genus *Oenanthe*. The author compares systematic views of the genus proposed by various researchers during the past half-century, and also proposes his own phylogeny. Panov utilizes “hybridogenous polymorphism,” a concept he introduced in the early 1990s that refers to: “a consequence of

a long-term process of hybridization between three subspecies, originally monomorphic in respect of the male (and female) coloration, found mainly in populations inhabiting ancient zones of the subspecies' secondary contact. Such hybrid populations have in some cases extended their ranges with time, replacing pure parent forms" (Panov 1992:240–247).

The first 66-page chapter describes the following general features of wheatear biology: geographical distribution and history of origin and expansion, some features of external morphology, habitat selection, movements and wintering, food and feeding habits, diurnal activity rhythms, social behavior and the breeding cycle, signal behavior and communication, nests and eggs, general features of nestling behavior, interspecific relationships, predators and parasites, and practical importance. Most of the information in this chapter comes from the author's own field studies. Based on extensive field experience, some new concepts are introduced, like 'elementary motive acts' (EMA), referring to source components of structurally complex visual signals, which are "in essence nothing but different combinations of comparatively few rather simple elements" (p. 61). Signal behavior and communication and interspecific relationships are described in particular detail. It is not always clear when author is citing his own results or those of others. Nevertheless, this chapter provides a comprehensive introduction to *Oenanthe*.

The depth of treatment of each individual species or superspecies of wheatear in the remaining chapters reflects the available amount of information. Most is known about Isabelline and Northern Wheatears, and least about Hume's and Hooded Wheatears. Organization of all the chapters follows the same pattern: systematic notes, distribution and habitat, annual cycle and timing of breeding, social behavior, nest, eggs and young, molt and autumn departure, and biological notes. The following wheatears are discussed in these chapters: Isabelline (*Oenanthe isabellina*), Northern (*O. oenanthe*), Red-rumped (*O. moesta*), Finsch's (*O. finschii*), Eastern Pied (*O. epicata*), Hume's (*O. ealboniger*), White-crowned Black (*O. leucopyga*), Black (*O. leucura*), Black-eared (*O. hispanica*), Pied (*O. pleschanka*), Hooded (*O. monacha*), Desert (*O. deserti*), and the superspecies Red-tailed (*O. xanthoprimum* including *O. chrysopygia*), and Mourning (*O. lugens*). One chapter focuses on hybrid populations in secondary contact zones of Black-eared and Pied Wheatears.

It is obvious from examining recent literature that different researchers have quite diverse views of the *Oenanthe* genus. The challenge of *Oenanthe* systematics can be demonstrated by the following example. Panov recognizes the Cyprus population of Pied Wheatears as a subspecies (*O. pleschanka cypriaca*), because its "poorly pronounced sexual dichromatism and particular features of the song" (p. 299) are traits not sufficient for distinguishing it from the nominate race *pleschanka*. On the other hand, Nigel Collar (in del Hoyo et al. 2005) treats both as separate species, *O. pleschanka* and *O. cypriaca*. The same holds for Red-tailed Wheatears, which Panov treats as a superspecies comprising *O. xanthoprimum* and *O. chryso-*

*pygia*. Collar treats the two forms separately, as the Chestnut-rumped Wheatear *O. xanthoprimum* and the Rusty-tailed Wheatear *O. chrysopygia*. Mitochondrial DNA studies certainly would shed light on these controversies.

Most of the data on behavior and ecology presented here come from original field research published in Russian. The data also include materials from several of Panov's students or associates who studied wheatears independently, and from Western European sources. The majority of figures in these chapters relate to courtship behavior, now available for the first time in an English publication. Most of the drawings must be the author's own because no credit is given, except for a few cases where the author's name and year of publication are provided. For most species one or more sonograms are present, but most do not provide a place and date of recording.

There are 40 pages of mostly color photographs (about 110 photos) depicting sexual differences and the various plumages of described species, behavior (e.g., Ravengier's whip snake seizing a fledgling Isabelline Wheatear), nesting sites, and most importantly, habitats of each species. Most of the sites are in areas that were inaccessible to foreigners during the Soviet Union era; now these areas are in newly formed central Asian countries.

Results of Panov's extensive field comparative studies and findings on wheatears are summarized in general form in the conclusion. He regards wheatears as having certain prognostic value, possibly applicable to other avian taxa. The references section has about 250 entries, of which about 110 are papers and monographs published in Russian. Several major papers on behavioral ecology of Wheatears published in Western Europe in 1970s and 1980s are listed. However, some from the second half of the 1990s are notably missing and only one of the cited works was published after 2000. A subject index and an index of Latin and English names for all species referred to in the text close the book.

This book will appeal not only to ornithologists, but also to taxonomists and students of animal behavior, all of whom should benefit from Panov's findings and ideas. Although each chapter provides interesting reading about this fascinating group of birds, it is also very technical and complex reading, possibly discouraging the average reader. The book is packed with detailed field observations of wheatear behavior, providing a wealth of information not previously available because of language barriers. My criticisms are only minor, focusing on technical details of this monograph, and should not deter one from purchasing this book.—JOSEF KREN, Midland Lutheran College, 900 N. Clarkson St., Fremont, NE 68025. E-mail: josefkren@yahoo.com

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