

Book reviews

Why do birds sing in such complex ways?

C. K. Catchpole & P. J. B. Slater 2008: *Bird Song. Biological Themes and Variations*. Second Edition. — Cambridge University Press. ISBN 978-0-521-87242-3.

When I studied the Sedge Warbler (*Acrocephalus schoenobaenus*) and Blyth's Reed Warbler (*A. dumetorum*) in south-eastern Finland in the 1970s and 1980s, I used to read scientific papers by Clive Catchpole with great interest. They provided me with a good model on how to study the singing behaviour of warblers, in which song is such an important and noticeable feature of their life.

With these memories in mind, it did not come as a surprise that the present book is an excellent compilation of over thousand scientific studies on aspects of song and singing behaviour of birds. This second edition contains updated information about research of bird song. The key message has remained the same: the two main functions of song are attracting a mate and defending the territory. The authors show in an easily digestible way how amazing and complex the variety of bird song all over the world can be, explained by evolutionary processes.

After introducing the history, basic theory and common study techniques, the book deals with sound production and the hearing ability of birds, and the neurobiological aspects of them. Chapter 3 explains how song develops in a bird, including mimicry which is a central feature in *Acrocephalus* warbler song, for example. The studies referred to show convincingly that a male with a complex song is able to obtain a higher-quality nest site and pair more rapidly than a male with a simpler song. One way to obtain a complex song is to mimic other species. The statement that the young cannot base their song learning on other members of their own species, as suggested by Dowsett-Lemaire's studies on the Marsh Warbler (*A. palustris*) in the

1970s, appears an oversimplification. Although single adult males may cease singing before their chicks hatch, the breeding phenology of neighbouring pairs varies, and there remain also unpaired males singing, every now and then, within hearing distance of the growing young in the nest.

Not only the properties of song but also those of the environment have a marked effect on the transmission and perception of bird song. Chapter 4 discusses how birds get their message across. Both many features of song structure and singing behaviour match those features that will give the best transmission in the species-specific habitat. A related problem, on when birds actually sing, is dealt with in Chapter 5.

Chapters 6–7 concentrate on basic functions of song, namely recognition and territorial defence, sexual selection, and female choice. Chapter 8 summarizes the development of song complexity by the evolutionary pressures for the song to carry out these main tasks. The authors conclude that sexual selection is strongly implicated in the evolution, but there may be also other pressures. “*If there is one broad theme in this book, it is that many different evolutionary constraints and pressures must be considered if one is to understand the form and function of song.*” The last chapter considers evolutionary processes in more detail by showing how songs have changed in space and time.

To summarize, *Bird Song* convincingly illustrates how research on bird song has helped to illuminate a wide variety of central biological themes in the last few decades. Only a century ago bird song was seen more as a subject for aesthetic appreciation and for poetry than for science. Research on song and other ways of communication in birds will intensify in forthcoming years, partly thanks to new field and laboratory techniques and clever experimental set-ups. It has benefited also from the progress of neuro-physiological research in other animals and man.

Bird Song is the textbook which should be the

first read by a novice before starting his or her own research on bird song. It describes song and singing with clarity in a wide ethological, ecological and evolutionary context. The reference list and summaries of the most important and innovative studies make *Bird Song* the best and up-to-date source of song in birds. It is primarily meant for students and researchers in ethology but suits equally well for anyone generally interested in bird and animal behaviour. A lucid and straightforward style, simple but demonstrative illustrations and citations to original studies make it easy to understand the contents. Conclusions in the end of some chapters make it possible for a busy reader to obtain key messages.

For those who want to understand this important topic in more detail I recommend especially the books by Donald Kroodsma and his co-workers. They include *The Singing Life of Birds*, *The Art and Science of Listening to Birdsong* (Houghton Mifflin, 2005) and *Ecology and Evolution of Acoustic Communication in Birds* (Comstock & Cornell UP, 1996). Two other compilations can also be recommended: Peter Marler and Hans Slabbekoorn's *Nature's Music, The Science of Birdsong* (Elsevier 2004), and Peter McGregor's *Animal Communication Networks* (Cambridge UP, 2005), which is a textbook on communication in nature. These titles deal partly with the same themes as *Bird Song* but provide other examples and give good descriptions of the progress of research. They also include information in many other themes, especially discussing bird song as a means of communication in wider contexts.

Pertti Koskimies

The unbearable lightness of twitching?

Linna, A. (ed.) 2010: *Bongauksen hurma*. — Kustannusosakeyhtiö Sammakko, Raamatutrükikoda, Tallinn. Publisher's (www.sammakko.com) price 24.90 EUR. ISBN 978-952-483-145-1

An academic ornithologist might consider twitching to have very little to do with science, and hence this review would better fit to a national amateur magazine rather than to *Ornis Fennica*. While I do not completely disagree with this view, two reasons justify this text here. Firstly, many of the jour-

nal readers are top bird identifiers, highly skilled in collecting field data, active conservationists – but also twitchers, interested in seeing, identifying and listing as many species as possible. Secondly, twitchers efficiently confirm and occasionally falsify reports about rare birds, and indeed find many if not most of these birds, hence serving in updating national species lists and in monitoring species abundances, movements and distributions.

Finnish layman's language does not have specific words for "to twitch" or "a twitcher". The term "bongata" (originally "to twitch") has been adopted within 10–20 years to mean any sort of (bird, celebrity, jet plane, special offer, and so on) watching, and likewise any ornithologist is often called "bongari" ("a twitcher"). In spoken Finnish these terms have commonly replaced the words "havainnoida" ("to observe") and "havainnoitsija" ("an observer"). Many Finnish ornithologists, however, have been using the term "bongata" in a rather strict sense since the 1960s: to go to a particular place to see/hear a particular bird individual according to a priori information about the individual's presence (to twitch), and hence "bongari" is a person who carries out this action, nothing more, nothing less (a twitcher). Obtaining information, going, observing and collecting (listing) are key features here. Ornithologists themselves are partly responsible for this confusion and linguistic impoverishment. BirdLife Finland, for instance, organizes yearly "Pihabongaus" ("backyard count") events, which have nothing to do with twitching. Below I will use the term twitching in the strict sense.

Linna's book reflects the current state of affairs: many contributions celebrate rare birds independent of how they were observed (twitched or not) rather than twitching *sensu stricto*. The book's texts are nevertheless enjoyable to read, assuming the reader understands Finnish (two texts are in Swedish). Linna collected these by requesting voluntary texts in various internet discussion groups, and succeeded well in obtaining many viewpoints. However, certain more or less obvious ones are missing. For example, twitching involves certain conflicts of interest, but these are only briefly covered. Many twitchers may take a car, plane or helicopter to travel hundreds of kilometers to briefly see just one bird, but simultaneously they may be concerned about climate change, loss of non-re-

newable resources, declines of species and habitat, and so on. Another example on how to widen perspectives might have been comparisons with other hobbies that too involve near-fanatic attitudes, such as soccer or hockey.

From the point of view of twitching culture, a truly significant contribution in the present book is Karno Mikkola's essay "Harvinaisuudet ja bongaus" ("Rarities and twitching"), which is an overview about Finnish twitching tradition, twitchers' behavior, and the development of related (tele-) technology since 1949. Other cornerstones are Pekka Loivaranta's "Turun Bongarikilta 1981–1999" and Tapani Veistola's "Turun undergroundia lintumailmassa – Bongarikilta Musta Lista" essays. Bongarikilta ("Twitcher Guild") was a Turku-based, elitist twitching society, intended for "experienced and mature" ornithologists interested in identification and twitching. Musta Lista ("Black List") was also a Turku-based society, which became a powerful counterpoise for Bongarikilta in the late 1980s. I also appreciate reprinting the classic "Balladi pinojen vaiheilta", written by the pseudonym Avustaja and originally published in the journal *Ukuli* in 1980. This four-chapter contribution describes twitchers' feelings, passion, envy, and up- and down-sides in an exceptionally understanding and humane yet enjoyably sarcastic way. Finally, Esa Lehikoinen, Mia Rönkä and Timo Vuorisalo attempt to link twitching and observations of rare birds with science in their essay "Bongaus ja harvinaisuushavainnot tuottavat tieteellistä tietoa". This text includes interesting predictions on species that may establish viable populations in Finland in the near future, and also – based on cumulative curves – the future rate of finding new species.

Most other texts describe various styles and sub-cultures of twitching and listing birds, and reflect personal, varying motivations for twitching: excitement, speed, numerical achievements, completion, expectations, fear for not observing the bird, immediate or long-awaited success, meeting friends, seeing or hearing a seldom-observed beauty. A contrasting view is provided by Risto Nevanlinna who describes an anti-climax due to a successful (sic!) twitch of a first-for-Finland Black-winged Stilt. Yet another thoughtful contri-

bution is "Pistebongari, seitsemän kuolemansyntiä ja vaimo" written by the pseudonym Listaajakuninkaan vaimo ("the wife of the king of listers"). According to this text, twitchers face a big risk of becoming self-sufficient, self-righteous, greedy, envious, elitist, bitter and unreliable – not necessarily as observers, although that too may happen if new species do not add fast enough to the twitcher's list, but toward the twitcher's spouse, relatives, employer, and so on. Listaajakuninkaan vaimo also importantly notes that twitching should not, in any circumstances, be compared with family, work or other issues of life. The same probably holds for many professional scientists too: just replace twitching with your favorite research topic.

Ari Karhilahti's nice black-and-white figures add necessary spice. Most artworks are good (my favorite is the Wilson's Phalarope on page 57), though a few appear sub-optimal (e.g., the Azure Tit on page 73).

Twitching is like booze, cigarette, caffeine, you name it: something you crave, a drug. Failures make the successes: a twitcher needs both to carry on. Fast action and a priori preparations make the likelihood of failures to approach (but never reach) zero. The philosophy is difficult to briefly explain to a person who is not "inside". This book intends to do that. It belongs to the book shelf of every Finnish ornithologist, twitcher or not, as it nicely describes motivations that force ornithologists to the field, year after year. Although this has previously been done by, e.g., Oddie (1980) and Koivula and Södersved (1996), the present book provides an up-to-date, many-sided viewpoint on the Finnish twitching culture. All texts, and particularly those that I have highlighted above, also serve as valuable pieces of information for anyone interested in human cultures, habits and behavior.

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References

- Koivula, M. & Södersved, J. 1996: Ornimisen sietämätön keveys. — Kirjayhtymä, Gummerus Kirjapaino, Jyväskylä. (In Finnish)
- Oddie, B. 1980: Bill Oddie's little black bird book. — Methuen Paperbacks Ltd., London.

The history of amateur ornithology in southern Finland

Aula, K. 2011: *Linnut – elämäni harrastus. Lintuharrastuksen historiaa.* — Kustantaja Laaksonen (www.kustantajalaaksonen.fi), Karisto, Hämeenlinna. Price 39 EUR. ISBN 978-952-5805-31-4

Bird watching continues to increase in popularity in Finland and elsewhere Europe. Finnish Forest Research Institute (FFRI) has been collecting data about ways of using nature in Finland since 2000 (www.metla.fi/metinfo/monikaytto/lvvi/index.htm). According to these data, in 2000, approximately 14% of all Finns identified themselves as bird watchers, whereas in 2009 the percentage was 21, based on interviewing 4,500 randomly-selected Finns (Tuija Sievänen, FFRI, pers. comm.). This increase is not a recent phenomenon (see below). Along with this trend, books about birds have become abundant. One of these is the book at hand, written by Kimmo Aula.

Kimmo Aula is a southern Finnish bird watcher with an admirably long and many-sided birding career. In this book he summarizes the history of amateur bird watching in Finland, with a bold Helsinki-centered view. According to Aula's text, bird watchers were mostly professional biologists and painters before the World War II. Along with the general increase in wealth and income, bird watching has since then quickly become a hobby of almost anybody.

The book consists of two parts: Aula's own text about bird watching history in the Helsinki region, and personal texts by over 50 bird watchers. The historical section is largely based on historical note books and essays, and is enjoyable to read. Old and more recent photographs and maps support the text and show how some well-known birding areas used to look like several decades ago. Some chapters were written by persons other than Aula: for example, Kari Raulos describes the history of optics, and Matti Nieminen summarizes his Master's thesis about bird watchers. Personally I feel that Raulos' text, albeit highly informative, is in stark contrast with the rest of the content in being overwhelmingly rich in technical details. Nieminen's text is informative, but I was missing a similar analysis for the 50+ personal writings.

These personal writings describe how each writer begun seriously interested in birds, and what have thus far been the most significant bird-related experiences in their birding careers. These have been embedded in the historical review roughly so that when Aula writes about bird watching in the 1950s, the personal texts are by persons who were active bird watchers already at that time: the oldest writers were born in 1930s, and several authors were born after 1970. I consider this "spreading over" a nice decision; I begun to read from page 1 until the end of the book and only occasionally felt that the text was not running very smoothly.

However, technically these personal texts are the weakest entity, as there has been hardly any technical editing, and probably also the guidelines for writers had varied considerably. Three essays with very different ways of compiling the text serve as an example. Tuomas Manninen writes about the beginning and highlights of his bird watching career as nicely as only a professional journalist can. Pertti Uusivuori describes the same two elements, but his highlights are only listed without complete sentences. Both of these fit within a couple of pages, whereas Heikki Lokki's text takes several pages and describes various occasions since the 1970s to present time – at a single site! I must underline that these are no criticism toward the authors; these texts are all enjoyable to read. Rather, detailed instructions for authors, and linguistic editing by publishers or editors, would be essential for even better future works.

Not surprisingly, most of the texts are written by males. This is partly a result of the book's perspective: women have significantly entered the Finnish bird watching scene only relatively recently, since the 1980s. Perhaps future editions will contain more female points-of-view. Still, this book is a "must buy" for any Finnish birder, as it provides plenty of interesting details and viewpoints about our beloved hobby. I particularly enjoyed the essays written by the true ornithological "old skool"; these texts vividly describe the many-sided difficulties in going out for birding in a country that was slowly recovering after the World War II.

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Raptors calling

Dingler, K.-H., Fackelmann, C. & Schultze, A. 2010: The sounds of raptors and falcons. — Musikverlag Edition Ample (www.ample.de). 2 Audio-CDs + a booklet. Price 27 EUR (NHBS). ISBN 978-3-938147-17-7

Raptors belong to bird groups which calls are relatively seldom heard, and consequently these are often poorly known by bird watchers. Do these birds really sound all the same, as many seem to believe? This compilation by Dingler and his colleagues proves that they do not.

This compilation presents calls and other sounds of 58 raptor and 45 falcon species, with 311 recordings and 156 minutes of total playing time.

Several very rare or poorly-known species are included from five continents. A particularly nice feature is the inclusion of ten tracks of Red-footed Falcon (*Falco vespertinus*): these altogether make up the complete breeding cycle of this species, recorded in western Romania.

The downside of this compilation is the lack of sufficient recording details: when and where a given recording was made (location is given occasionally) in the booklet. This makes the CDs sometimes useless for sophisticated users, such as members of national rarities committees. Nevertheless, it provides enjoyable moments for any raptor enthusiast, and can be recommended for almost anybody interested in learning more about these fascinating birds.

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