Book Reviews - Recensioni

Publishers and Authors are invited to submit a copy of their books for a review in the journal. Books are to be sent to the CISO secretary (Tommaso La Mantia - Dipartimento SAF (Scienze agrarie e forestali), Università di Palermo - Viale delle Scienze, Ed. 4, Ingr. H - 90128 Palermo (Italy) – Editori e Autori sono invitati a sottoporre una copia dei loro volumi per una recensione. I volumi devono essere spediti alla segreteria CISO (Tommaso La Mantia - Dipartimento SAF (Scienze agrarie e forestali), Università di Palermo - Viale delle Scienze, Ed. 4, Ingr. H - 90128 Palermo (Italy).

Fozzi I. & De Rosa D., 2018. Where to watch birds in Sardinia. Pelagic Publ., Exeter, UK. £ 22.95.

Ilaria Fozzi and Davide De Rosa are two ornithologists with extensive experience on the birds of Sardinia. Ilaria has worked on different bird conservation projects in Sardinia, while Davide specializes on the ecology and migration of birds in southern Italy and Sardinia, where he also organizes birdwatching tours. Sardinia is very probably the best and interesting Mediterranean island for fauna, flora and landscapes. Whoever is planning a visit to Sardinia in search of birds needs to consult this book and to read the information on the 43 key birding Sardinian sites.

Sardinia has a diversity of habitats ranging from mountains (not very high really, but still rather inaccessible), mediterranean maquis, forests, gorges, wetlands, sandy beaches, rocky shores, all habitats still harboring many species of birds, this is also thanks to a limited human presence.

Key species of Sardinia, shortly presented by the authors, are the Greater Flamingo *Phoenicopterus roseus* (in summer you can observe them at Molentargius, Cagliari, 20-30 thousand individuals, including adults and young, "*the red people*", as Sardinian people call them), Eleonora's Falcon *Falco eleonorae* (four colonies with a total of 365-453 breeding pairs), Purple Swamphen *Porphyrio porphyrio* (it is rather easy to observe this magnificent bird, widespread in wetlands), Little Bustard *Tetrax terax* (Sardinia is the last Italian territory of this bird, about 350 males were counted few years ago), Audouin's Gull *Ichthyaetus audouinii* (about 600 breeding pairs, the second largest population after that of Spain), Marmora's Warbler *Sylvia sarda* (linked to maquis and garrigue of Sardinia, Corsica and Tuscan archipelago), Corsican Finch *Carduelis corsicana* (very similar to the Alpine *C. citrinella*, but endemic to Sardinia and Corsica), Griffon Vulture *Gyps fulvus* (currently there are only 30-32 breeding pairs but the entire population amounts to 100-120 ind., mainly in result to the conservation projects managed by the late Helmar Schenk), and Barbary Partridge *Alectoris barbara* (a typical Maghrebian partridge, probably introduced to Sardinia by the Romans, actually widespread in the maquis).

The authors have divided Sardinia in six parts and have treated accordingly the different chapters of the book. For each of these wide areas the 43 ornithological sites on the whole are described, with the list of species occurring throughout the seasons, the facilities and practical recommendations. The book concludes with suggested itineraries, the coast to coast in the north of Sardinia and from north to south along the west coast.

Interestingly, the ten pages of the index of species includes many other taxa other than birds; this shows that the authors, differently from writers of analogous books, accompanies the birdwatcher, by suggesting also to search for some interesting insects, reptiles, mammals and so on.

I recommend all birders to have this book in the library, ready to be used in one of the next trips.

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Birkhead T., 2012. Bird Sense. What it's like to be a bird. Bloomsbury, London. 288 pp. (also translated in Italian and published in 2017 by Ricca ed., Roma).

Most of us know and have appreciated Tim Birkhead for his fine and seminal papers and books on Magpies, Bird eggs, the Red Canary, Guillemots, the history of ornithology and so on. As the editor of this book wrote this is a "hugely engaging book about birds, their senses and behavior that is informed by an attractive blend of personal experience, entertaining stories and cutting-edge science". The author indeed accompanies the reader through the history of discoveries on the different senses of birds, citing a wide specialist bibliography and explaining some research methods. The reading of this book is really absorbing and its contents may be absorbed in a few of hours; but later you will find necessary to read again some pages!

I report here some passages that were of particular interest to me. The slightly thickening of the central part of the *macula lutea* in the retina of some birds, named *fovea*, is double; humming birds, kingfishers, swallows, raptors, shrikes have double *fovea*, probably helping a better vision. Shearwaters have a single linear *fovea*, probably evolved to detect the horizon. The retina in raptors contains a predominance of cones, with a density of about 1 million/mm^2 (only to understand, in the man they are 200 thousand/mm^2). This may explain the visual acuity of raptors. In addition, the cells of bird cones contain a coloured oil drop, that probably allows them to distinguish more colours than other vertebrates.

Concerning bird song, this may vary widely in decibel (the nightingale sings at about 90 dB); we may consider their songs and their variability like a language, but also one of the main sexual appeals for the other sex or a declaration of territory ownership. Some ornithologists with a good ear are able to recognize not only species, but also the geographical variety. Birds, differently from mammals, have only one ossicle, not three, in the middle ear, like reptiles, to which they are more related. No other animal can open and close the ear tympanum, like birds. The owls, nocturnal birds of prey, have below their wide facial plumes ears in an asymmetrical position; this allows them to detect the origin of any small noise by only turning the head and to discover with an incredible precision a mouse or another rodent inside the vegetation in complete darkness. The pioneer of studies on the sense of direction in the barn owl was the Italian zoologist Lazzaro Spallanzani, who also foresaw the echolocation in bats and nocturnal birds; many years later this ability was discovered in bats, and actually it is known only for few species of birds living in the dark.

The Herbst corpuscles, present in the palate and tongue of birds are sensible to the pressure and are able to detect any edible and inedible object. The sense of touch helps some birds to find food and young cuckoos to expel from the nest legitimate eggs or chicks. Very interestingly, the skin and feathers of pitoui species contain a toxin, more dangerous than strychnine, which they metabolize from their diet based on Melyridae beetles.

The sense of smell, once considered absent in the birds, is really active in many species; in 1600 the Italian naturalist Ulisse Aldrovandi (who coined the term ornithology) supposed the existence of smell in the woodcock. Seabirds are able to detect and are attracted by dimethylsulphide (DMS), a volatile compound naturally occurring over worldwide oceans in correspondence with productive feeding areas; DMS is released by phytoplankton when it is preyed upon zooplankton, thus it is a smell appeal to a food source.

This very fine book treats all the bird senses, including the attraction ability by birds to the magnetic terrestrial axis, which explains some kind of migration or orientation abilities in birds. And finally also emotions! Some people are convinced that only human being are able to feel emotions, but when you read what Tim Birkhead writes about a pair of gannets at Bempton Cliffs, certainly you will change opinion. After the absence of five weeks from the nest, where the gannet male attended alone the chick, Sarah Wanless indeed observed the female coming back to the nest; and what generally is the characteristic short greeting ceremony of gannets lasted seventeen minutes!

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Knaus P., Antoniazza S., Wechsler S., Guélat J., Kery M., Strebel N. & Sattler T., 2018. Atlante degli Uccelli nidificanti in Svizzera 2013-2016. Distribuzione ed evoluzione degli effettivi degli uccelli in Svizzera e nel Liechtenstein. Stazione Ornitologica Svizzera, Sempach, 648 pp.

This is much more than an atlas; it presents current bird populations breeding in Switzerland and in the Principality of Liechtenstein, their densities and altitudinal distribution, with a very high level of accuracy, and at the same time it shows changes to the avifauna in the last 20-60 years. Since 1950' important changes really took place, due to agriculture intensification in the plain areas; some species, like Little owl, Grey partridge, Hoopoe, Whinchat and Tree pipit disappeared from low altitudes. However, the protection of some humid zones allowed the renewed colonization by Tufted duck, Gadwall, Herring gull and Bearded tit, but it did not stop the local extinction of Snipe and Curlew. The halting of direct persecution allowed the increase of the Raptor populations.

Some common species, today are more common and widespread in Switzerland, while since 1990 rare and threatened species became rarer. Transaharian migrants are declining due to higher vulnerability compared to species wintering within the Palaearctic region.

1/3 out of 241 breeding species are linked to woodland; this is also due to the natural wood renewal and to the high availability of dead wood. Nevertheless, typical habitats for some species, like the Capercaillie, diminished dramatically; therefore, this species is on verge of local extinction. Between 1985 and 2009 urbanization grew by 23%, in particular close to farm areas; regrettably, most

new buildings do not allow the availability for nesting by some anthropophilic species, like Swifts and House martins, which in turn are also declining.

The Alps cover ca. 60% of Switzerland; while the Cuckoo and the Redstart disappeared in the lowland, they are still well represented in the Alps. However, the agriculture intensification caused some effects also at these high altitudes, where the Whinchat and the Skylark are facing a dramatic diminution. In the last 30 years Switzerland's climate became warmer, Mediterranean species increased and the altitudinal distribution moved on average 24 m upwards (for 22 species moved more than 50 m, only for 4 moved 50 m downwards), 20 species declined at lower and increased at higher altitudes.

This book, available also in French and German languages, represents today the maximum source of ornithological data from Switzerland. It is more than an atlas, because it presents the evolution of populations within a temporal time of a sixty-year period and treats other than the species also some relevant subjects, like those concerning conservation politics, citing very accurate bibliographic references (just less than 40 pp.). It is a good piece of ornithology that only the collaboration of a huge number of ornithologists (3517, the list occupies 9 pp.) made possible to carry out. They are a particular variety of *Homo sapiens*, that authors define "*ornithologicus*", to whom the collection of this high amount of data is due. It is important to highlight that, as it occurs in other European countries, the knowledge of the status of birds is due to these volunteers and nearly for nothing to offices in charge for the nature conservation or hunting management, that in the majority of cases take advantage of data collected by ornithologists.

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Brichetti P. & Fracasso G., 2018. The birds of Italy. 1. Anatidae-Alcidae. Ed. Belvedere, Latina, historia naturae (6), 512 pp., € 48,00.

Three years after the publication of the last volume of the "Ornitologia Italiana" by Pierandrea Brichetti and Giancarlo Fracasso, which brought to a conclusion a twelve-year effort (the first volume was released in 2003), they have just released the first of two volumes, written in English, dedicated to Italian ornithology. Due to the tumultuous growth of Italian ornithology with hundreds of birdwatchers submitting their observations, making syntheses of all this data has become very difficult and above all a work such as a major publication risks being immediately outdated by new data. As the authors write "In Italy, as in the rest of Europe, there is a dramatic increase in ornithological data collected by research institutions and the birdwatching community over the past two decades". In the term "dramatic" this difficulty is implied but it is overcome by the known curiosity and passion of Brichetti who, for many years has collected and catalogued observations and data.

The volume begins with a valuable synthesis of the natural characteristics of our country with a chapter on "Geography, Bioclimate and vegetation of Italy" written by Stefano Ammiraglio, Elia Lipreri and Marco Caccianiga, that achieves the purpose of making a foreign ornithologist understand without recourse to other works (which one can in any case consult the bibliography of the chapter) the ornithological richness of Italy (because Italy is a country rich in ornithological diversity as we shall see!). This is followed by a chapter penned by Stefano Semenzato on "A brief history of ornithology in Italy", a valuable summary subdivided into paragraphs corresponding to the different historical periods with the last (Contemporary Ornithology: museum, institutes, associations) that reaches our days. Unlike other histories of ornithology, the chapter also included the contemporaries, devoting space to Italian ornithologists whose role and activities have actual repercussions, such as Sergio Frugis and "his" CISO and Avocetta. This is a continuing work that is today being carried out for the growth of Italian ornithology. The chapter is not accompanied by a bibliography but in the text, published papers or books by the authors are mentioned, it is therefore possible, in this case, to deepen one's knowledge. The chapter "Introduction to the species accounts" clarifies various methodological aspects and the sources used.

The heart of the volume is however made up of the 276 (!) species accounts that deal with the different species and subspecies. Each account presents the Italian name and is divided into the following paragraphs (Distribution, Population, Movements and Wintering) in the case of widespread species in Italy, these are also accompanied with graphs showing variations, for example, of the wintering populations. For rare or accidental species the accounts are very synthetic and report individual observations. Unfortunately, for some species their decline is certified and alas in some cases even stronger than it appears in the distribution maps. This is the case of the Red Kite, whose current distribution in Sicily must be negatively revised.

The volume also presents three appendices. In the Appendix 1 (Additional species) the authors have made the effort to separate into two lists (accompanied by data) "Introduced or escaped non-established species" and "Species recorded as escaped from captivity or falconers, ship-assisted transportees, as well as species of uncertain origin, caught abroad or incorrectly determined".

The second appendix "Breeding species of conservation concern" (Anatidae-Alcidae) also shows the Italian name of the species. Appendix 3 is very useful for Italian ornithologists because it summarizes the bibliographic references of the "Reports of the Italian Rarities Committee (COI - Italian Ornithological Commission)". The volume is completed by a very rich bibliography (10 pages). The species indexes for scientific, English and Italian names, makes it easier to consult.

As can be expected in today's digital era, the volume is enriched with beautiful photos, although they do not represent all the species treated and that have an important "aesthetic" role, particularly beautiful are the photos of landscapes that complete the first chapter.

The work has another and perhaps very important aspect, the fact that it is written in English, as Mauro Fasola wrote in the preface to the book; this will allow access to Italian ornithological data "to the widest audience". Finally we now have an exhaustive volume on Italian ornithology that can be consulted by non-Italians, we Italians have always rightly complained about the underestimation of research carried out in our country, now there are no longer any excuses!

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