

van den Berg, A. B. y The Sound Approach. 2020.
Morocco: sharing the birds. A Sound Approach guide to birds of the Maghreb.
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Years pass, and the works of The Sound Approach evolve. For the first time they publish a book with the usual format of their books, very rectangular, horizontally, but this time without the DVDs that were hooked inside the covers that never fully held them with use, so that the discs ended up coming off and more than once, when one took the book off the shelf, they rolled and ended up on the floor. Now they accompany the work with a bookmark in the form of a card, from which we extract a memory stick that contains all the recordings that are given with the work. Much more practical and elegant. The collection of sound recordings that accompany the book is of high quality and very extensive. The memory stick contains various folders, where we can find files to listen to on the mobile or on the computer, in high quality stereo, which includes both the numerous files of each species treated as a chapter in the work, as well as those of very characteristic species of the Maghreb that have not had their specific chapter, for example the Atlas Flycatcher *Ficedula speculigera*, to mention one of the most iconic. For each species we can listen to different recordings. Some of them are especially valuable: the original recording of the Slender-billed Curlew

Numenius tenuirostris by Adam Gretton at Merja Zerga in 1990, of minimal quality, is included, plus a reconstruction of it digitally produced by Magnus Robb.

The species discussed in each chapter are as follows, in this order:

Slender-billed Curlew *Numenius tenuirostris*; Bald Ibis *Geronticus eremita*; Houbara Bustard *Chlamydotis undulata*; Double-spurred Francolin *Pternistis bicalcaratus* and Barbary Partridge *Alectoris barbara*; Andalusian Hemipode *Turnix sylvaticus*; nightjars, including European Nightjar *Caprimulgus europaeus*, Red-necked Nightjar *Caprimulgus ruficollis*, Egyptian Nightjar *Caprimulgus aegyptius* and Golden Nightjar *Caprimulgus eximius*; sandgrouse, with Black-bellied Sandgrouse *Pterocles orientalis*, Pin-tailed Sandgrouse *Pterocles alchata*, Crowned Sandgrouse *Pterocles coronatus*, Spotted Sandgrouse *Pterocles senegallus*, and Lichtenstein's Sandgrouse *Pterocles lichtensteinii*; Zitting Cisticola *Cisticola juncidis*; Bonelli's Warbler *Phylloscopus bonelli*; Black-crowned Tchagra *Tchagra senegalus*; larks (which include a long list of species that encompasses all those present in Morocco, including those from the Western Sahara such as *Eremopterix nigriceps* or Dunn's lark *Eremalauda dunnii*); all Moroccan wheatears, with Northern Wheatear *Oenanthe oenanthe*, Seebohm's Wheatear *Oenanthe seebohmi*, Isabelline Wheatear *Oenanthe isabellina*, Desert Wheatear *Oenanthe deserti*, Black-eared Wheatear *Oenanthe hispanica*, Red-rumped Wheatear *Oenanthe moesta*, Black Wheatear *Oenanthe leucura*, White-crowned Wheatear *Oenanthe leucopyga* and North African Mourning Wheatear *Oenanthe*

halophila; Scrub Warbler *Scotocerca inquieta*; Cricket Warbler *Spiloptila clamans*; Chaffinch *Fringilla coelebs*; and finally the Saharan Desert Sparrow *Passer simplex*.

Each chapter contains a very personal discussion of the author, where he enters mainly taxonomic aspects related to the differences in voices, but also the natural history, as happens in the chapters on *Numenius tenuirostris* or *Geronticus eremita*. The book is illustrated with sonograms in which written notes are inserted, and high-quality photographic material, almost all by Arnoud himself. There are both historical photos and photos to illustrate plumages such as we those we can enjoy with nightjars, sandgrouse, or wheatears, to mention some of the most colorful. Some photos are especially attractive. Those of *Caprimulgus eximius* are especially interesting because of the behaviour it teaches us, explained in the text, as well as for the beauty of its golden colors against the background of grasses in the sandy desert of Western Sahara.

In addition to the discussions about the voices in the texts, and the photos, it should also be noted that two plates of original drawings by Killian Mullarney are included: a first on page 203, dedicated to *Eremalauda dunni*, in comparison with *Eremalauda eremodites*, *Eremopterix nigriceps* and *Ammomanes cinctura*; and a second, on page 212, dedicated to *Oenanthe seebohmi*, with the different plumages of the species.

Arnoud van den Berg has been traveling to Morocco for many years, since 1973. The first photo in the introduction, with that snapshot of a Citroen 2CV at a road junction in the desert, from his first trip, is a sentimental postcard from when traveling was done in a very different way than today. Since then, the author has returned practically every year, becoming an expert on the country's birdlife. He has been a member of the Moroccan rarities committee for many years, and in addition he guided groups for the Limosa company, several trips a year.

Arnoud also participated in the first follow-ups of *Numenius tenuirostris* in Merja Zerga since the end of the 1980s. For this reason, several photos in the book are of historical value, showing young Dutch and English people searching the grasslands bordering that great blue lagoon trying to locate the Slender-billed Curlews, and in the case of Arnoud, also, trying to record their voice. It should be remembered here that Arnoud, along with Cecilia Bosman, his partner, were already engaged in sound recording at the time, with the analog equipment available at the time, in the years that Ted Parker in the cloud forests of the Andes carried about his heavy but indestructible Nagra, to record all possible voices for sound archives of institutions. Arnoud was doing the same, also in North Africa. His collection of recordings is very voluminous.

But aside of such a long history, he managed to make recordings for the book relatively recently. To mention a few, we must highlight the recordings of *Turnix sylvaticus*, for which I was able to help him in a telephone conversation while he was in Morocco, and I along with Emin Yoğurtcuoğlu and Dani López-Velasco at the same time in Turkey. He was searching the Andalusian Hemipodes which we knew where they were singing in 2009, and we wanted to see the Turkish Fish Owl *Ketupa zeylonensis* that had been discovered just the same year by Arnoud and Cecilia in an undisclosed place in Turkey. We reached an agreement to exchange information, as we were both armed with recording equipment and we both needed cooperation. I commented to Arnoud about a couple of places where that spring female Andalusian

Hemipodes were singing, while Arnoud, without being all too precise, told me by which mountain river they found the owl. We were already at the river that Arnoud commented, not by chance, so following our instincts a little we managed to find in the middle of the night an ideal place for the owl, where we could see it, record it (doing a duet, something that at that time was new), while Arnoud the next day got some very good recordings of the Andalusian Hemipode. In the Doukkala region, where hemipodes still occur in Morocco, wind is a constant enemy for sound-recording, especially after mid-morning. Not long after our late-night success with Fish Owl, a 'new' site was found closer to the coast in the now famous Oymapinar Baraji reservoir, near Manavgat, where all European birders go to see it. It relieved us from feeling guilty about keeping secret the exact place of the first pair, where we watched a fledgling, singing, fishing, and even the young male standing on the ground.

Another species of great interest for which the book offers good recordings is *Caprimulgus eximius*, which was discovered just a few years ago in the Ausserd region of Western Sahara. In addition to these recordings, and the high-quality photos, Arnoud rightly comments that the species was found before anyone else by José Antonio Valverde in Oued Ad-Deheb on June 6, 1955. The publication of the book is especially timely, with all the sounds and those magnificent photos, given the fact that at the time of finalizing these chapters a political turbulence has started in Western Sahara, with the declaration of war by the Polisario Front and claims of bombing the Moroccan military

detachment of Ausserd (denied by the Moroccan authorities). It suggests that it will be impossible to visit this interesting region in the nearby future, or even not at all in 2021. We will have to follow the events.

Finally, another species that I would like to highlight is *Eremalauda dunni*, of which Arnoud also obtained recordings in recent years, in the same Ausserd region. It is a species for which there was practically no decent sound recording - in xeno-canto.com there are only two recordings of the song, very edited and of short duration - because in this area there is a problem: the permanent presence of an intense wind, which makes it impossible to get any guarantee of recording this species' sounds. I myself have tried to record them, obtaining poor results in 2007 and 2009; these were small parts of the bird's song, clean, when it sang hovering in the air, between gusts of wind that destroyed the magical moment of successfully recording the trill. The wind pollutes everything. Arnoud, however, has managed to remarkably improve the available material, with recordings of a high quality and of a fairly long duration.

The profusion of sonograms, with notes written in the sonogram to show where we must pay attention, are especially educational. Reading the sonograms while listening to the recording is a very healthy exercise for all ornithologists who visit Morocco before they travel there. The differences in some cases, such as in the crested larks, are of special value to separate them in the field as they are otherwise hard to separate. It is never easy in Morocco to separate *theklae* from *cristata* and *macrorhyncha* larks, both because of differences in structure of Moroccan *theklae* in comparison with our Spanish Thekla's Larks, and because of the variety of imitations that can be added to their song repertoire, including imitations of other lark species such as Dupont's Lark *Chersophilus duponti*. Be careful with concluding too quickly that if

a Thekla's imitates the Dupont's song, that Dupont's breeds in the area, as Dupont's can make winter movements.

The book also discusses vocal differences between taxa, many not previously studied in such detail. For example, it is comparing the slight vocal differences between the *ruficollis* and *desertorum* subspecies of *Caprimulgus ruficollis*; between the western (*targius*) and eastern (*arabicus*) subspecies of *Pterocles lichtensteinii*; *Tchagra senegalus cucullatus* (Morocco) is compared with *Tchagra percivali* (Arabia), which is published in the book as a separate species of *Tchagra senegalus* although this split hasn't been accepted by any of the four great world taxonomic lists (see the most recent *All the Birds of the World* edited by Lynx Edicions); between *Eremophila bilopha* and *Eremophila atlas* (again they give species' status to the latter taxon, separating it from *Eremophila alpestris*), and in this case sonagram comparisons with other taxa of the *alpestris* complex would have been interesting, in order to comment on this split; between *payni* (Morocco) and *taimuri* (Arabia) subspecies of *Ammomanes deserti* as well as *Ammomanes cinctura*; also between the *albifrons* (Western Sahara) and *melanauchen* (Arabia) subspecies of *Eremopterix nigriceps*; and in *Scotocerca inquieta* between *saharae* and *striata* scrub warblers. Just to mention some of the most interesting cases shown in the sonogram comparisons.

As a recurring objection in the magnificent books of *The Sound Approach*, I find that many of the conclusions or interpretations they make about the differences in voices between different taxa are illustrated by concrete examples for which - although it is true that the reader can verify that what they say is correct - you never know to what extent it is only individual variation. Comparing a recording of one example with only one other example of the other taxon seems too speculative an approach. An approximation by means of a considerable sample and using statistics in the analysis of sonograms would be necessary, beyond the sample of $n = 1$ so typical of these books. Today there is specific software to make these comparisons that allows us to obtain concrete measurable values and then perform a principal component analysis to quantitatively assess the different parameters of the different recordings of the same taxon. See for example some of Jason Weir's work published in recent years.

Altogether, this is a highly recommendable work, full of information of great interest, which addresses different aspects: taxonomy, identification and history of the avifauna in general of Morocco, which

should encourage any ornithologist who is interested in that country to buy it. Sooner or later the book will be sold out and, as it is an editorial gem, this means that whoever considers the subject as interesting, should not hesitate: buy it now. Just turning the pages of the book, looking at the photos, reading excerpts, is in itself of great interest. Huge congratulations to Arnoud van den Berg, and to everyone involved in this book from The Sound Approach. —José Luis Copete.