

ORNITOLOGÍA NEOTROPICAL

(2016) 27: 105–107

BOOK REVIEW

Sub-Antarctic Magellanic Ornithology. The First Decade of Bird Studies at Omora Ethnobotanical Park, Cape Horn Biosphere Reserve. Edited by Ricardo Rozzi and Jaime E. Jimenez (2014) Ediciones Universidad de Magallanes & University of North Texas Press, Santiago, Chile. Softcover, 400 pp, 85 color illustrations, 36 color maps, 132 tables. Print-ISBN-13: 9781574415315, E-ISBN-13: 9781574415438. Costs: from US \$50,-.

Patagonia hosts a series of archipelagoes located on its western and southern coast. With the exception of Tierra del Fuego (largest island), these islands lie entirely in Chile, on the Pacific Ocean. The southernmost (Fuegian and Magellanic) archipelagoes (> 47° south) are made up of a jigsaw of channels and islands. These islands are the tips of underwater mountains – the continuation of the Andes range that has sunk into the sea-, and contain the world's southernmost forests. Such is the scenery for one of the world's most important wilderness areas (Anderson et al. 2006). *Sub-Antarctic Magellanic Ornithology* deals with the birds that inhabit these forested archipelagoes.

This multi-authored book is a first synthesis of the knowledge of birds (mostly forest, but also some wetland and high-Andean species) in the southernmost tip of South America. It compiles the results of long-term research and education conducted by foreign and Chilean specialists for over a decade (2000–2010) at the Omora Park and other study sites in the Cape Horn Biosphere Reserve. The editors, who are co-directors of the Sub-Antarctic Biocultural Conservation Program (www.chile.unt.edu), are both South American ornithologists with extensive careers including other fields of biology and philosophy.

What kind of book it is? First, it is a large book (about 21 x 27.5 cm) written in English with large font size on good quality paper. Second, it is not a book only on birds, but also on the threats they face (mostly due to the recently introduced American mink, *Neovison vison*), and on the importance of embracing a biocultural approach to sustain the co-existence of humans and nature in Cape Horn region. This is based on expertise of one of the editors (R. Rozzi), who, along with collaborators, has run a long-term program on biocultural research in the region.

General contents. The book includes a combination of published and unpublished research. First, it includes several published articles on biocultural research carried out in Cape Horn region authored by R. Rozzi and collaborators. Second, it brings together a set of articles on birds (e.g., on diet, migration, molting, breeding behavior) previously published in local/regional or international journals, sometimes only in Spanish. This volume gathers this information and provides English translations of Spanish-only texts. Third, and more interesting, a large part of the information on birds that is contained in the book, has hitherto never been published. This information is, in my opinion, the most substantial contribution of the volume, and consists of morphometric data of the land bird species (26, mostly passerines) that were captured during a long-term banding program, plus information on their residence patterns in different habitats derived from both mist-nets and census data. The unpublished data are presented in the first section of the book (part one) and correspond mostly to forest birds, plus a few Andean, and introduced species.

Book structure and contents. The book is structured in six thematic parts, each with two-level subtitles. The first part presents the methods and results of studies, censuses, and banding of birds species captured with mist-nets within forests. Additionally, mist-netting and censuses were conducted above the tree-line (high Andean steppes) at Róbaló Mountain, Navarino Island. The information is given in two pages for each species, with English, Spanish, and scientific names, as well as a full-color photographs, distribution maps, a table with original morphological information, and notes on migration, habitat, and ecology. This first part of the book ends with a few articles originally published in regional (i.e., Chilean and Colombian) journals; two of them focus on ornithological methods (originally in English), and the third one reports on the history of the local banding/biocultural program (originally in Spanish).

The second part is based on published work on the Magellanic avifauna. The topics are varied, from specific behaviors or diet of particular species, to blood parasites of several bird species at different sites along Chile. Although the original publications were in English, several (4/7) appeared in national or local journals that are of little access to international audiences. The third part focuses on the seasonal dynamics of the sub-Antarctic bird communities, and is also based on published work. These studies were conducted in forest ecosystems (two papers, one of them methodological), and wetlands (two articles). All papers were originally published in English,

and two of them appeared in *Ornitología Neotropical*, while the other appeared in national journals. Part four deals with the impact of the introduced mink on native wildlife, mostly on waterbirds. Five papers are included in this section, with three of them originally published in international journals, and the other two (in Spanish) in regional journals. These papers report on several aspects of the mink invasion process in the southern archipelagoes, and constitute a warning note on the devastating effects of this carnivore on local wildlife (not only birds).

Part five is very short and based on two articles originally published in Spanish in regional journals. It focuses on the usefulness of first-hand experience with nature and flagship bird species in promoting conservation, ecotourism, education and environmental ethics at a regional level. Part six is devoted to ethno-ornithology. It summarizes research on the traditional views on birds and their environments held by the Mapuche and Yahgan indigenous cultures. This part is based on three papers published in Spanish in a special issue of *Ornitología Neotropical* (Vol. 15, Suppl., 2004), and also shares contents with previously published books which are specific on the matter (Rozzi 2010). Closing the book, the epilogue deals with the many aspects still unknown about the birds in the area that deserve a second decade of ornithological studies. As the research program at Omora Park is still underway, editors promise readers new ornithological advances from the far south in future years.

What contribution does the book make to the field?

Coastal, steppe, and seabirds aside, the Magellanic Sub-Antarctic avifauna is not very diverse, and does not contain endemics. It is an impoverished version of the forest birds in the temperate South American forests. What is then unique about the Magellanic forest avifauna? The strong oceanic influence, along with high rainfall levels, buffer the typical extreme seasonality of similar continental forests found further north (cold winters and warm-dry summers), leading to more stable climatic conditions year round. These conditions are the cause of patterns of reproductive, foraging, and migratory behaviors that depart from those exhibited by the same species at more northern latitudes, a peculiarity that was already noticed by pioneering ornithologists (e.g. Humphrey et al. 1970). These include the peculiar (and little studied) seasonal movements of the southernmost Bar-winged Cinclodes (*Cinclodes fuscus*) populations, the diurnal activity and consumption of small bird prey by Rufous-legged Owls (*Strix rufipes*), Magellanic Woodpecker (*Campephilus magellanicus*) sap feeding, and essentially insectivorous species (including two Tyrannidae) eating seeds and fruits in the fall. In addition, the scarcity of terrestrial mammals in these archipelagoes, plus the absence of reptiles, place birds at the top of the terrestrial food chain. Due to the historical absence of native terrestrial predators (e.g., fox, weasel or skunk, which are

present in continental Patagonia) from most islands, several bird species nest at or near ground level in these archipelagoes, which makes them especially vulnerable to predation by the mink, muskrat, and other introduced carnivores.

Under the Long-Term Ornithological Research (LTOR) Program in Omora Park (to date, running for > 15 years), a variety of studies on different species and topics, as well as uninterrupted mist-netting and banding of forest birds have been carried out. With almost 9000 birds captured during the first 10 years, this is the longest mist-netting program of temperate and sub-Antarctic forest bird assemblages in Latin America. But *Sub-Antarctic Magellanic Ornithology* is not just relevant among the ornithological literature of South America. This book is also notable in the field of ethnobiology, an emerging science that is gaining relevance in American south temperate biomes, which increases the legacy of *Sub-Antarctic Magellanic Ornithology*.

Who should buy this book? *Sub-Antarctic Magellanic Ornithology* is not necessarily a cheap book for South American residents, in particular if the costs of delivery are factored in. As far as I was able to determine, the book is not available in South American book stores, and must be purchased from the UNORCH (Unión de Ornitólogos de Chile, info@aveschile.cl, http://aveschile.cl/web/?page_id=287), or from online sellers in the USA, some of which do not deliver internationally. This makes it less attractive for those South American ornithologists that can access most of the published articles compiled in this book, especially if they do not have a particular interest on morphometric and migratory data. On the other hand, this book constitutes an essential resource for those of us doing fieldwork on passerine birds from the Austral (i.e., Patagonian and Valdivian) forests. The unpublished data contained in part one are, in my opinion, the main reason for purchasing the book as a reference text to keep at hand. It should also attract researchers interested in Austral Neotropical ornithology that are not comfortable reading Spanish, since it contains translations of several articles that were until now only available in Spanish (both ornithological and biocultural material).

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