Handbook of the Birds of the World. Special Volume: New Species and Global Index. del Hoyo, J., Elliot, A., Sargatal, J. and Christie, D.A. (eds). 2013. Lynx Edicions, Barcelona. 812 pages, including 200 photos in the HBW Photo Gallery. ISBN-978-84-96553-88-0

When the Handbook of the Birds of the World (HBW) started, Volume 16 was to have been the last volume of this magnificent series. As the series was getting close to finishing, however, the editors decided to publish an additional Special Volume, for three main reasons: to provide (1) an overview of how avian systematics has developed over the 20-year lifetime of the HBW project, (2) species accounts for those new bird species described subsequent to publication of their respective volumes, and (3) an overall index to the entire series. Yet what they have produced is something much more than this, and perhaps unexpectedly, an altogether wonderfully illustrated and fascinating book to end the series.

The Special Volume starts with a Foreword on "The world's largest civil society Partnership for Nature", an informative chapter by Nick Langley on the history and other important aspects of the BirdLife International organization http://www.birdlife.org/, which commemorates the 20th anniversary of the BirdLife Partnership and the 90th anniversary of its predecessor, the International Council for Bird Preservation (ICBP). The essay charts the development and outlines some of the major programmes and achievements of this organisation from its very modest beginnings as ICBP, to its present-day partnership with national representatives in 116 countries and territories, and activities and influences on a planetary scale. In total, there are now around ten million personal members and supporters of the BirdLife Partnership - sufficient to have considerable influence on government policy-making in some countries. This Partnership coordinates and implements an impressive, diverse global programme of targeted research and conservation action, varying from single-species conservation initiatives, to a Global Seabird Programme, aimed at reducing seabird bycatch across the world's major fisheries, to the identification of the world's Important Bird Areas, and a much lesser-known but hugely important and pioneering project to restore a forest logging concession in Sumatra http://www.birdlife.org/action/ground/sumatra/.

Following the Foreword on BirdLife International, Jon Fjeldså has contributed two chapters, the first being a 70-page essay entitled *Avian classification in flux*, followed by a 39-page treatise on *The discovery of new bird species*. Both of these chapters make fascinating reading (though you will need to set aside a whole day!) and are beautifully illustrated with photos, paintings and diagrams. The first of these essays provides a comprehensive introduction to the changes in avian macrosystematics over the past two decades. During this period, many relationships have been significantly revised, most often on the basis of results provided by improved molecular techniques. These are particularly useful and informative at higher taxonomic levels - Fjeldså elegantly describes, for example, how molecular data revealed that "flycatchers" and "warblers" etc. are functional assemblages of species that contain groupings of species with different evolutionary origins despite their morphological resemblance to one another.

Large numbers of very well-preserved fossil terrestrial birds have been found and described the last two decades, and Fjeldså explains how study of these new fossils, along with the advent of sophisticated genetic analyses, has led to revolutionary thinking about the evolution, origins and relationships of many of the birds we know today. The review could not leave out an account of ancestral birds but, as might be anticipated, the bulk of this essay describes our present understanding of the relationships amongst modern, extant birds. This chapter is packed with succinct sections on species and groups of birds for which recent research have led to changes in our understanding of their taxonomic relationships, and there is so much information in this chapter that it is only possible to hint at its contents here. For example, it is here that we can read about how the Broad-billed Sapayoa Sapayoa aenigma has been shown to be the only (known) New World representative of the Old World Suboscine passerines (broadbills and pittas); that the flycatcher-shrikes and woodshrikes (genera Hemipus and Tephrodornis) of Asia are related to the helmet-shrikes (Prionopidae) and vangas (Vangidae) of Africa and Madagascar, respectively, rather than to the cuckoo-shrikes (Campephagidae) to which they have traditionally been associated; how the Pteruthius shrike-babblers of the Oriental region are in fact vireos (Vireonidae); and how our understanding of the relationships of birds traditionally treated as white-eyes, babblers and Old World warblers have been completely revised in the last decade.

The second of Fjeldså's essays is an engaging account of the continuing discovery of species new to science. It analyses in depth the how, why and where of many of these discoveries, as well as providing a useful overview. After the mid-1900s, and a period of intensive collection and description of new birds, ornithologists thought that the period of discovery was nearing its end, and by 1946, Ernst Mayr doubted that there were more than 100 undescribed bird species. At that time there was an average of about three new species being described per year. Surprisingly, to Mayr at least, more than 350 new bird species have been described since 1946, and the rate of discovery of new species has steadily increased during the last 75 years but now seems fairly stable at 5-7 species per year, leaving aside all the "splits" (see below) that are continually being proposed. In the final part of his essay, Fjeldså postulates the most likely localities and habitats in which new bird species await discovery, as well as guessing what kinds of new bird species we can expect to be found.

The species described during the 20 years since the first HBW went to press comprise one kiwi, 10 tube-nosed seabirds, three raptors, two wildfowl, four rails, a snipe, seven parrots, 15 owls, three nightjars, five hummingbirds, one hornbill, two barbets, 46 suboscine passerines and at least 43 oscine passerines (songbirds). Most of these, being passerines, were described in time for inclusion in the relevant volumes of HBW, but 69 new species were not discovered in time, and are thus included in the species accounts for *New bird species* in the present volume. Of these, 8 species (11.6%) are from Indonesia – Talaud Rail *Gymnocrex talaudensis*, Talaud Bush-hen *Amaurornis magnirostris*, Seram Masked-owl *Tyto almae*, Rinjani Scops-owl *Otus jolandae*, Togian Hawk-owl *Ninox burnhani*, Cinnabar Boobook *Ninox ios*, Little Sumba Hawk-owl *Ninox sumbaensis*, Mees's Nightjar *Caprimulgus meesi*, and the data show how Indonesia is amongst the top countries where new

birds are still being regularly discovered. The subsequent section of this Special Volume has been devoted to the formal description of 15 new species of Amazonian birds from Brazil. This is highly unusual, since new species are typically described in journals, but what better place to describe these species than in a HBW volume whose prime purpose is to include new species to science that had not been included in the 16-volume series.

One thing that is not included in the Special Volume is a list of proposed and accepted "splits" of former single species into two or more species. But such splitting is producing many "new" species in Indonesia. For example, based primarily on genetic evidence, Irestedt *et al.* (2013) suggest that the Red-bellied Pitta *Erythropitta erythrogaster* should be split into 17 species, of which ten occur in Indonesia: Talaud Pitta *E. inspeculata*, Sula Pitta *E. dohertyi*, Siao Pitta *E. palliceps*, Sangihe Pitta *E. caeruleitorques*, Sulawesi Pitta *E. celebensis*, Buru Pitta *E. rubrinucha*, Seram Pitta *E. piroensis*, Moluccan Pitta *E. rufiventris*, Habenicht's Pitta *E. habenichti* and Papuan Pitta *E. macklotii*.

The centre of the Special Volume contains the most astounding collection of bird photos I have ever seen - here simply called the HBW photo gallery. These photos were judged to be the very best of 10,754 photos that were submitted to the HBW World Bird Photo Contest 2012, (see http://ibc.lynxeds.com/news/hbw-worldbird-photo-contest-winners-announced) and some of the photos have to be seen to be believed - many are outstanding as pieces of art, rather than just photographs of birds doing something unusual. All of the photos are stunning but my favourites include a European Roller Coracias garrulous trying to catch a rodent, European Goldfinches Carduelis carduelis taking flight and two male Golden Pheasants Chrysolophus pictus facing off over a female. It should be noted, however, that some of these photos would probably be deemed illegal in a country like the UK because of the proximity of the camera to nests and the potential disturbance that that causes. Certainly in Southeast Asia, where I live, there have been several recent instances of over-zealous bird photographers getting too close to nesting birds, and taking thousands of flash photographs of individual birds at or near their nests – this is something of growing concern, and perhaps the photographic editors of HBW Alive and Lynx Edicion's Internet Bird Collection http://ibc.lynxeds.com/ should establish clear rules about the conditions under which they will accept new photos, perhaps even banning those photographers who are known to disturb birds at or near their nests.

The last part of the Special Volume is a Global Index to the entire series which is designed to enable readers to rapidly find what they are looking for in the 16 HBW volumes. The 310-page index can be searched by scientific name, or by common names in English, French, German and Spanish. In addition, the inside covers of this volume contain a pictorial family index that indicates which volume to consult to find the text on a particular family or species.

Publication of the Special Volume of HBW marks the end of what is the only comprehensive encyclopedia to the world's birds, but it is not the last word. Our knowledge of bird taxonomy, distribution and behaviour is constantly improving, and new species are still being described. Since publication of the Special Volume, just in the Oriental region, several new species have been discovered or described,

including Cambodian Tailorbird *Orthotomus chaktomuk* which can be found just outside Phnom Penh, the Cambodian capital city (Mahood *et al.* 2013); the Sierra Madre Ground-warbler *Robsonius thompsoni*, discovered in the mountains of Luzon, Philippines (Hosner *et al.* 2013), and in Indonesia there are several novel species awaiting formal description, including a parrot-finch (a photograph of which can be seen at. http://www.birdtourasia.com), a warbler and an owl.

To deal with these discoveries and our ever expanding knowledge, Lynx Edicions has now launched "HBW Alive" http://www.lynxeds.com/content/hbw-alive-entire-contents-hbw-your-fingertips. Subscription to this website will provide the user with the contents of the 17-volume HBW series, consisting of around 15 million words, 20,617 bird figures, 10,200 maps, and around 100,000 bibliographical references. In addition, thousands of videos, photographs and sounds are conveniently linked to HBW Alive for quick and easy access. The HBW Alive texts will be continuously updated by a team of ornithologists, so that when new species are discovered, or when new taxonomic relationships are revealed, or when new aspects of behaviour or distribution are discovered, the text of HBW Alive will be changed to reflect this. The taxonomy followed will be that of the forthcoming HBW and BirdLife International Checklist of the Birds of the World. This is surely a fantastic resource for any keen birder, especially since the format can be customised to meet personal needs and interests, with the possibility of geographical filtering and inclusion of personal notes.

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