

Birds in European Cities

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Birds in European Cities.—John G. Kelcey and Goetz Rheinwald [editors]. 2005. Ginster Verlag, St. Katharinen. 452 pp., 30 maps, 48 photographs, 30 tables, and 16 graphs. ISBN 3-9806817-2-6. €29.5 (cloth).

When you travel do you take your binoculars far afield to search new wildlands for interesting birds? Or do you start at the airport and comb the city streets, parks, and subdivisions? Reading *Birds in European Cities* will convince you to do the latter. Not only can you sight most of a country's birds within its largest cities, but you can spot increasingly common flocks of parakeets and mynas. The patient visitor to Hamburg might even get a glimpse of an Eagle Owl—attacking a dachshund. The 24 authors who describe the rich birdlife of 16 cities from 11 continental European countries will tell you about all of this and much more.

The book is organized with individual chapters on each city's birds. All the major cities from Lisbon and Sofia (Bulgaria) in the south to Hamburg, Moscow, and St. Petersburg in the north are discussed by native ornithologists. The cities vary in size, human density, history, and the amount and arrangement of land occupied by human structures. Chapters start with a short and interesting history of the city. Americans will be impressed by the age of European cities, their modern (and all too familiar) sprawling nature, and the long duration of urban ornithology. The various policies, perspectives, and edicts that have provided for birds and their habitats are touched upon. The past importance of royalty, industrialists, and especially World War II to birds stands out. After this brief introduction, each author describes the basic biotopes (vegetation assemblages) of the city. A city map with important green spaces accompanies the text. Historical ornithological surveys and the basic natural history of birds by biotope and season (breeding, wintering, roosting, and migration) are reviewed, with important insights and references to formerly inaccessible literature. Where available, quantitative assessments of species abundance and distribution are provided, mostly from recent "atlas" projects. Considerable effort is spent by each author to document the historical changes in their city's avifauna. This is a real strength of the book, as we learn not only what but also *when* species have colonized, adapted, and been extirpated from each city. Discussion of why such changes have occurred is minimal, but included. A list or brief discussion of where to find birds in the city, references, and lists of birds known from the city conclude each chapter. In addition to chapters on each city, the book contains very brief Foreword, Preface, Introduction, and Concluding chapters. There is a summary appendix of breeding birds by city, a glossary of terms, and appendices of English and scientific bird names.

Because each author has taken a similar look at their city's avifauna, readers will be stimulated to look for general themes. Five such themes jumped

out at me. First, European cities hold substantial stores of avian diversity. Breeding diversity rarely dips below 150 species. Italian cities harbor 30% of the country's breeding bird diversity, while Prague contains 70% of the Czech Republic's birds. Wintering diversity is substantial and many rare and regionally threatened species stop briefly in cities during migration. The authors make the consistent claim that high bird diversity derives from high habitat heterogeneity, so future researchers might consider how variation in heterogeneity accounts for variation in the richness of city avifaunas. Planners and conservationists could work together to maintain general habitat heterogeneity and enhance stopover sites. Second, overall bird density in urban areas can be dramatically high. This appears to result simply from the domination of city center avifaunas by Feral Pigeons (*Columba livia*), House Sparrows (*Passer domesticus*), and Starlings (*Sturnus vulgaris*). In contrast to this finding, the authors make the important point that the density of most birds in cities is considerably less than in surrounding less developed areas. In fact, they point out that declines in sensitive species are often most dramatic in cities. Therefore, cities may be crucial barometers of change. Third, birds adapt rapidly and in dramatic fashion to urban environments. The process of adaptation, dubbed "synurbanisation," is illustrated in nearly every chapter as we learn of changes in nesting behavior, diet, foraging style, activity periods, density, timing of breeding, tameness, and movements in species from Kestrels (*Falco tinnunculus*) to Blackbirds (*Turdus merula*), Swifts (*Apus apus*), and Collared Doves (*Streptopelia decaocto*). Fourth, colonization and extirpation are evident in nearly every city (St. Petersburg has had no extirpations). In most cases these two processes have balanced each other through the last century, so that overall diversity has remained stable despite considerable turnover. Consistently, aquatic, large, and open-land species are lost (e.g., Osprey [*Pandion haliaetus*], Redshank [*Tringa tetanus*], Black Stork [*Ciconia nigra*], Great Bustard [*Otis tarda*], Capercaillie [*Tetrao urogallus*], Eagle Owl [*Bubo bubo*], Imperial Eagle [*Aquila heliaca*], Short-toed Eagle [*Circus gallicus*], Roller [*Coracias garrulus*], Crested Lark [*Galerida cristata*], Hoopoe [*Upupa epops*], Corncrake [*Crex crex*], and several shrikes). Just as consistently, Collared Doves, Syrian Woodpeckers (*Dendrocopos syriacus*), and Stonechats (*Saxicola torquata*) have expanded their ranges to include cities, a host of waterfowl and parrots have escaped captivity or been purposefully released into cities (e.g., Ring-necked Parakeet [*Psittacula krameri*], Monk Parakeet [*Myiopsitta monachus*], Alexandrine Parakeet [*Psittacula eupatria*], Mute Swan [*Cygnus olor*], Whooper Swan [*Cygnus Cygnus*], Black Swan [*Cygnus atratus*], Canada Goose [*Branta Canadensis*], Egyptian Goose [*Alopochen aegyptiacus*], Mandarin Duck [*Aix galericulata*], and Ring-necked Pheasant [*Phasianus colchicus*]), and once-extirpated species have been reintroduced into cities (e.g., Peregrine Falcon [*Falco peregrinus*], Northern Goshawk [*Accipiter gentiles*], Eagle Owl, Common Raven [*Corvus corax*], and Black Tern [*Chlidonias niger*]). The proportion of the

city avifauna that is alien varies from 0% (St. Petersburg) to 10% (València), but the authors rarely discuss the positive or negative effects these species have on people or other birds. Finally, biotic homogenization, while not directly discussed by the authors, is evident to a lesser degree than I expected. Consistent domination of the most built portions of cities by Feral Pigeons, House Sparrows, Starlings, Swifts, Black Redstarts (*Phoenicurus ochruros*), and Collared Doves indicates the reality of homogenization. But there is variation (e.g., Pallid [*Apus pallidus*] and Alpine Swifts [*Tachymarptis melba*] coexist with Swifts in southern cities) in the inner city and especially in the parks, wastelands, and suburbs, which are clearly not homogenized. Moreover, the similarity in avian diversity and dominance of European cities to North American cities is limited to the top three species (pigeons, sparrows, and starlings). At present, significant diversity still exists among cities, which is simply a reflection of the variety and differences in bird habitats included in each city.

Taken together, these generalities highlight the importance of cities to birds over a large and long-settled part of the world. Reading this book will change your view of cities—no longer will you see them as avian deserts filled only with pigeons, sparrows, and starlings. Rather, you will see them through the eyes of ornithologists who know their cities to host rich and rapidly evolving assemblages of birds that interact closely with people and need our professional attention.

There are some more personal aspects of this book that I found quite unique. Petar Iankov's detention by the Bulgarian secret police is a common hazard of backyard ecology. Enrique Murgui's writing inspires readers to wonder about urban nature—its beauty, its dynamic, and its fragility. Maciej Luniak's description of Warsaw's destruction into a "ruined desert without people" (p. 389) during the uprising against Nazi occupation in 1944 adds perspective that only native writers can bring to a page. These poignant insights help one digest the drier discussions of birds in urban habitats.

Despite the important themes made evident by this book, I have several thoughts that would improve future versions. Urban ecosystems are characterized by the interaction of human and nonhuman processes. Unfortunately, this book rarely addresses the interactions between birds and people. We learn about some of the ways that people impact birds (positively and negatively), but we do not learn how people can enhance cities for the benefit of birds. In addition, the authors have taken a small-scale view of birds in urban areas—they focus on the local habitat elements in cities and the birds that are found therein. There is no quantitative assessment of resource use by urban birds, nor any consideration of how larger-scale arrangement of built and unbuilt aspects of the city might affect birds. Collaborative chapters between ornithologists and urban planners or managers would address these concerns. Planners would quickly point out their need to know how to arrange green space for birds or how to construct buildings to facilitate bird use. By excluding a planning perspective, the authors

have resorted to simply claiming that urban birds need more, and less disturbed, green space. The additional, and possibly important, role of how to arrange green space for the benefit of birds and the consequences of this arrangement to people is missing.

The basic data reviewed in each chapter are extensive and of impressive duration. But they are based on coarse studies of occurrence. This informs us about species diversity, distribution, and in some cases density. It does not allow us to understand the demographic mechanisms that allow birds to colonize cities, nor does it allow us to understand the decline and extirpation of urban birds. The synthesis chapter mentions the possibility of source-sink dynamics linking urban and wildland populations, but this is not addressed by any of the careful studies in the book. The present work sets a good baseline, but future research will need to go beyond pure description of colonization, extinction, and evolution and show readers how reproduction, survival, dispersal, drift, selection, and mutation are affected by city life.

A few annoying production issues, while deriving somewhat from the vast cultural differences among the international cast of authors, also make reading the book tedious. The maps of each city that allow the reader to gain important context are of varying detail and often completely lacking in keys to their shading schemes. Translation to English, while much appreciated and generally quite good, is of variable quality. There is no proper index that allows easy searching within or among chapters.

I recommend all traveling ornithologists to take a look at this book before their next trip to Europe. The lists of where to watch birds in the major cities will enrich your birding experience, but the unusual heft of the book will keep it out of your suitcase. Urban ecologists should regularly consult the book and use it to develop new insights into the evolution and ecology of urban birds. Conservation biologists will also find much useful data and discussion about alien species and extirpation here. In general, this is a reference book for large public and academic libraries more than a necessity for your private collection.—JOHN M. MARZLUFF, College of Forest Resources, University of Washington, Seattle, WA 98195. E-mail: corvid@u.washington.edu