

Avian Ecology in Latin American Cityscapes

Ian MacGregor-Fors • Juan F. Escobar-Ibáñez
Editors

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 Springer

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To my muses, Nina, Alicia, and Gloria

Ian MacGregor-Fors

To my parents, Gabriela and Fernando

Juan F. Escobar-Ibáñez

*Guacamaya, guacamaya, no vayas a la ciudad;
no vayas a la ciudad, guacamaya, guacamaya.
¿Qué buscas allá malhaya?, la vida te costará;
sólo por unas pitayas, que en ese monte no
hay ya.¹*

Son Jarocho

¹Mexican regional song that picturesquely adverts macaws of urban threats, regardless of the presence of feeding resources in the city.

Foreword

Creating Cities Where the Pines Flourish and Jays Still Scream

Latin America is rapidly becoming urbanized. It includes two of the world's largest cities, Mexico City and São Paulo, as well as some 60 cities with populations over one million inhabitants and growing. The growth and expansion of cities globally is stressing existing social, economic, and ecological systems. Latin American cities currently face a number of formidable challenges related to increasing energy demands, lack of public transportation, increasing air and water pollution, poor waste management, poor food quality and quantity, and housing shortages. Separately or in combination, these challenges have a significant impact on the health and well-being of Latin American urbanites. The creation of this book was motivated, in part, by the fact that this region is home to some of the most biodiversity-rich ecosystems in the world, especially in regard to bird diversity. The ensuing land-use and land-cover changes, alterations to biogeochemical cycles, and biological invasions resulting from rapid urbanization of the region also have the potential to significantly reduce the local, regional, and global avian diversity in the future.

The loss of avian diversity in Latin America due to urbanization will result in cultural, economic, and ecological consequences that will likely produce negative local and global impacts. This is because birds have intrinsic value as components of complex natural ecosystems as well as ethical, moral, and aesthetic values. In addition, as described in the 2005 Millennium Ecosystem Assessment, they provide a variety of supporting, provisioning, regulating, and cultural ecosystem services. Recent research has provided growing evidence that maintaining biodiversity in cities, especially plants, birds, and mammals, increases the well-being of urban dwellers. This research supports E.O. Wilson's 1984 'biophilia hypothesis' that contends people to have an innate desire to have contact with nature. It is interesting to note that as early as 1849 Henry David Thoreau understood the value of maintaining plants and animals in human settlements:

“Even the oldest villages are indebted to the border of wild wood which surrounds them, more than to the gardens of men. There is something indescribably inspiring and beautiful in the aspect of the forest skirting and occasionally jutting into the midst of new towns, which, like the sand-heaps of fresh fox-burrows, have sprung up in their midst. The very

uprightness of the pines and maples asserts the ancient rectitude and vigor of nature. Our lives need the relief of such a background, where the pine flourishes and the jay still screams.”

Henry David Thoreau, 1849. *A Week on the Concord and Merrimack Rivers*

In order to create Latin American cities “where the pine flourishes and the jay still screams,” we need to incorporate evidence-based urban ecological research into the design, construction, and management of cities in the future. Ian MacGregor-Fors and Juan F. Escobar-Ibáñez have assembled an impressive group of ornithologists and have compiled the first comprehensive assessment of the current state of knowledge of urban birds in Latin America. One of the earliest assessments of the ecology of urban birds by Marzluff, Bowman, and Donnelly published in 2001, entitled *Avian Ecology and Conservation in an Urbanizing World*, and the recently (2017) edited book by Murgui and Hedblom, entitled *Ecology and Conservation of Birds in Urban Environments*, provide global assessments of urban avian ecology research but include relatively little information from Latin American cities. The current volume effectively adds critical new information about the avian ecology of Latin American cities which will provide researchers the ability to evaluate whether research results and conservation strategies obtained from studies from cities in Northern America, Europe, and Australia apply to Latin America.

Ecological studies of Latin American cities were commenced only about 30 years ago but have been increasing in number over the last five years. Interestingly, the ecology of urban birds is one of the most common research subjects. The authors readily admit there are more studies of urban birds in North America and Europe, but there are enough existing Latin American bird studies to make appropriate global comparisons. All of the chapters in the book provide important information regarding the ecology of birds in Latin American cities including topics such as species richness, composition and abundance, demography and population dynamics, behavioral responses, the influence of vegetation cover and built surfaces on bird distribution and abundance, urban threats to birds, and the conservation of birds in urban environments. The editors have done an excellent job of synthesizing the key messages, and they have provided useful insights into the current gaps in knowledge and methodologies which will facilitate the identification of new research directions as well as management and conservation practices. In conclusion, the authors have produced an important compilation of information that greatly enhances our knowledge of the avian ecology of Latin American cities. This is a critical first step in developing the designs, tools, and conservation strategies for creating bird-friendly cities in the future.

Mark J. McDonnell, Editor-in-Chief,
Journal of Urban Ecology,
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Oxford, UK

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Firstly, we would like to thank our colleagues that made this book possible. All contributors worked closely with us to develop an interconnected piece that weaves through urban bird studies in our beloved Latin America, *¡Infinitas gracias a todos! Muito obrigado a todos!*

We were very fortunate to have an international expert panel of peer reviewers – to whom we are deeply grateful – who provided open, detailed, and constructive comments and suggestions that undoubtedly enhanced the structure, quality, and clarity of all chapters (see list of reviewers below).

We are highly honored to have Mark J. McDonnell frame our book with such an eloquent Foreword. We hope that this book encourages not only ecologists in Latin America to explore urban systems but also colleagues from understudied regions where urbanization and economic inequality or poverty meet megadiversity.

We are also greatly thankful to the many people that were involved in figure making, proofreading, and reference checking, as well as providing insightful recommendations for the book, in particular, Rafael Rueda Hernández, Ina Falfán, Michelle García Arroyo, Jeffrey H. Lee, Julian Avila Campos, Miguel A. Gómez Martínez, Oscar H. Marín Gómez, and Carlos M. Trujillo Torres.

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