

1 This is a post-peer-review, pre-copyedit version of an article published in Biological Conservation.
2 The final version is available online at: <https://doi.org/10.1016/j.biocon.2019.108207>
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7 **Book review**

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9 **Urban Raptors. Ecology and Conservation of Birds of Prey in Cities**, edited by **Clint W. Boal**
10 **and Cheryl R. Dykstra 2018. Island Press, Washington. ISBN 978-1-61091-840-4, xvi + 304**
11 **pp., \$40.00 (paperback)**
12

13 **Urban Ornithology. 150 Years of Birds in New York City**, by **P.A. Buckley, Walter Sedwitz,**
14 **William J. Norse, and John Kieran 2018. Cornell University Press, Ithaca. ISBN 978-1-5017-**
15 **1961-5, xviii + 514 pp., \$75.00 (hardcover)**
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18 Birds are a prominent component of urban wildlife. Urban areas host large numbers of bird species
19 worldwide and a recent study (Fattorini et al., 2018) demonstrated that towns and cities have
20 species richness similar to those of natural areas of equal size. In addition to a few anthropophilous
21 or introduced species, which can have extremely dense populations in urban environments, cities
22 can host many species of relevant conservation interest. Some of them are remnants of the bird
23 communities that predated the urbanization process, others benefitted from the landscape
24 transformation and human presence.
25

26 Humans and raptors have coexisted in towns and cities for thousands of years and urban areas offer
27 exceptional opportunities for their study and conservation. The book edited by C. W. Boal and C. R.
28 Dykstra presents a timely summary of raptor ecology and conservation in urban areas. The book is
29 organized into three parts. The first part includes five chapters dedicated to various aspects of
30 raptors' urban ecology. The first chapter presents an historical account of human-raptor associations
31 in urban areas and explores the reasons why some raptors like cities so much. The second chapter is
32 a summary of the behavioral ecology of urban raptors, with a special focus on their habitat and nest
33 selection and trophic ecology. This chapter is extremely useful to understand how raptors adapt to
34 urban areas, which aspects of the urban habitats make them more or less favorable to raptors and
35 how some species changed their habits to exploit the new resources offered or to cope with the new
36 challenges imposed by urbanization. As not all species are equally successful in exploiting urban
37 habitats, the third chapter analyzes (with unpublished data) which factors increase the likelihood of
38 a given raptor species using urban areas. The fourth chapter discusses demographic aspects of
39 raptor population in urban environments with some details on two species: the Cooper's hawk and
40 the peregrine falcon. The last (fifth) chapter of this part is a brief summary of the main aspects of
41 raptor life in urban areas and the methods used to investigate raptor responses to urbanization.
42

43 The second part of this book is composed of eight chapters, dedicated to as many species: the
44 Mississippi kite, the Cooper's hawk, the Red-shouldered hawk, the Harris's hawk, the barred owl,
45 the powerful owl, the burrowing owl, and the peregrine falcon. Chapter structure and contents vary
46 species-by-species, which is, in part, a reflection of the different available information. Thus, some
47 chapters present more extensive discussions of raptors' ecology in urban environments, others are
48 more focused on human-raptor relationships, others deal in more detail with conservation
49 implications, etc. Perhaps, a more homogeneous organization would have made easier comparisons
50 among species and facilitate understanding of which aspects are best known and which are still
51 poorly explored. Except for the powerful owl, which is an Australian species, and the peregrine

52 falcon, which is cosmopolitan, all other species are American. Thus, while the first part of the book
53 presents reviews based on studies conducted worldwide, in the second part a North American bias is
54 apparent. This is a pity, because there is abundant literature on other urban raptor species, which
55 would have permitted a broader geographic coverage. For example, the ecology and behavior of
56 the Eurasian kestrel and the little owl has been investigated in various urban contexts in Europe and
57 these species would have represented useful additions.
58

59 The third part is more focused on raptor management and conservation in urban areas. The six
60 chapters that compose this parts deal with: (1) the main factors of mortality in urban landscapes, (2)
61 the multifaced raptor-human relationships, with special attention to the resolution of human-raptor
62 conflicts; (3) raptor rehabilitation, professional education in veterinary, and public outreach; (4)
63 case histories regarding conservation of three raptor species (the peregrine falcon, the Cooper's
64 hawk and the burrowing owl); and (5) perspectives for future directions. All in all, this book is
65 extremely interesting, useful and recommended not only for ornithologists involved in raptor
66 ecology and conservation, but for all people interested in urban ecology.
67

68 The volume by Buckley et al. is another interesting book in urban ornithology. Here the authors
69 present an account of the avifauna of New York City by synthesizing an immense amount of data
70 spanning a century and half, from 1872 to 2016. This book not only updates the avifaunas of
71 Manhattan's Central and Brooklyn's Prospect Parks (for which there were some lists, not revised
72 since 1967), but includes data from the Bronx and other New York City boroughs. With an analysis
73 of 301 bird species known to occur in the study area, plus 70 potential additions (it is important to
74 note that, contrary to many bird studies that consider only breeding species, all species are
75 discussed here), this book is the first quantitative historical analysis of New York birdlife and its
76 first modern complete literature revision (the last book dealing with the avifauna of the entire city is
77 now more than fifty years old).
78

79 The book can be ideally divided into three main parts. The first part contains a long Introduction
80 about the landscape transformation of the Bronx area, from the precontact environment to the 20th
81 Century, with a detailed description of its main green spaces from which bird data have been
82 gathered. A chapter entitled "Avifauna Overview" explains terminology and data sources (which
83 include a complete scrutiny of available literature, observers' notes, museum specimens, bird
84 banding, and databases). This overview also includes: (1) a comparison of Van Cortland Park
85 (which preserves remnants of the original environments) with Central and Prospect Parks (which
86 are man-made green spaces); (2) a detailed historical discussion of the breeding species, an analysis
87 of New York State breeding bird atlases, and a discussion of bird censuses; (3) a discussion of
88 winter species; (4) an analysis of the role of migration in shaping the New York avifauna; (5) a
89 description of the main aspects of wildlife status and management of Van Cortlandt Park; and (6) a
90 list of questions for future research and actions. Finally, an "Introduction to the Species Accounts"
91 helps the reader to interpret species treatment.
92

93 The second part is the core of the book. In more than 300 pages, all species are presented using the
94 same format, which includes: (1) short descriptions of the species' current status in the New York
95 City area; (2) a short description of the historical status in the Bronx region; (3) a short description
96 of the historical status in the New York City area; (4) details on the historical and current status in
97 the study areas and subareas (with population information if available), and (5) comments dedicated
98 to a variety of topics, such as closely related species that have occurred near but not in the study
99 area, taxonomy, identification, banding and specimens, etc.
100

101 The third part is a collection of appendices that represent an invaluable mine of data. Appendix 1
102 includes 38 tables, where the reader can find, among other information, data on the size of

103 important study area components, distances from Van Cortlandt Lake to locations cited in the text,
104 cumulative lists for Van Cortlandt, Central and Prospect Parks, lists of museum specimens, history
105 of species breeding from 1872 to 2015, numbers of breeding pairs in Van Cortland Swamp from
106 1937 to 2013, numbers of occupied territories found on bird censuses in a Van Cortland's forest
107 plot in 1991 and 1992, number of individuals per species estimated for Van Cortland in the 60s,
108 spring dates for migrant land birds, at risk species, and the like.

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110 Overall, these two books not only constitute essential reading for ornithologists dealing with the
111 North American birdlife, but they represent stimulating works for anyone interested in urban birds.

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113 Fattorini, S., Lin, G., Mnatoni, C. 2018. Avian species–area relationships indicate that towns are not
114 different from natural areas. *Environ. Conserv.* 45(4), 419-424.

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