

BOOK REVIEW

Urban ecology Patterns, processes and applications

Niemela J., eds. 2011. Oxford UP.
ISBN 978-0-19-956356-2

Urban ecology research is booming. A Web of Knowledge search with urbanisat* and excluding non-ecological fields indicated 2408 items, and 1009 of these were from 2009-2012. With more than half of humanity now living in urbanised areas, does that perhaps include a good proportion of ecologists who do not want to venture outside cities?

Before dipping into the content, I spare a few words for the cover design. I am a reading type, a self-confessed lover of books, in their physical reality. Give me a book any day, instead of a Kindle. I do believe that the role of the cover is more than protecting the pages. I am afraid I cannot be content with this cover: the colours are grey, olive-green, black, white and various shades of hallucinogenic pink-to-red. The forms suggest a decaying city and a dead bush, with two forlorn butterflies with tattered wings. The typography, announcing the title and the editors, breaks communication rules by a cacophony of letter sizes, appearances and colours. They code nothing, apparently the designer thought the title “should be visually exciting”. Did anyone think that the would-be buyers were deterred by a more conventional typography? Grammatical rules are also broken by liberally mixing all capitals and lower case, displaying even the chief editor’s name in totally lower case. Well, in Ferenc Molnar’s famous book about boys in early 20th century Budapest, “The boys from the Pál Street”, the supposed traitor, Erno Nemecek, had his name recorded in all lower case as a mark of shame. Hope this does not hold for ecologist Jari Niemela, who chief-edited this volume.

The editorial team includes five people, and the author team is no smaller: 49 co-authors (plus the editors) wrote chapters. As the book is 320 pages long without references and index, this is hardly more than 6 pages per author. The average length of individual chapters is ca. 12 pages. Consider the tables and figures, and the task looks even more daunting: what summary is possible within those limits? The editorial team is already numerous enough in themselves to write a book – why was it necessary to include so many people? And in spite of this, eminent and often cited urban ecologists are missing – from the author group as well as, surprisingly, from the cited works.

The book is organised into 5 sections, with 4-6 chapters in each. They cover a range of topics: physical conditions, patterns and process of urban biodiversity, ecosystem services and social systems, and urban design. Not all of these involve ecology, and only one chapter (3.3., by Kotze *et al.*) deals with arthropods. This also shows the research bias: more research efforts was spent on plants and vertebrates living in urban areas than on studies of invertebrates. In the supposed theoretical chapter, I was often baffled by hazy, often grandiose claims, with little intellectual rigour behind them. Might this be a sign of an emerging field, I wondered, when the theories are not yet solid, and there are a lot of well-meaning but not well thought-through ideas?

The chapter on arthropods often refers to the results of the Globenet Project, which is the largest in terms of using the same experimental design, and thus has the potential to

say more about generality of biodiversity changes than other papers. This project applies the gradient approach, which is often used in urban studies. However, it repeats the error of considering this as an “urban-rural gradient” – when Magura *et al.* (2010) argued that more correct is to view this as a rural-urban gradient. Other chapters do the same. However, looking at the gradient from the city, we risk not appreciating that urbanisation often entails a loss of biodiversity, or, if there is an increase in alpha diversity, a decrease in beta diversity is inevitable. We ought to minimise loss, and if we consider the city our starting point, we risk losing the proper perspective. The published results are not easy to generalise, apart from the easily deduced trend of disappearing specialists and appearing generalists. The authors could give more detail, but given the page limit of the chapters, they decided to limit the details. The idea of the various “islands” is an interesting one, although I suspect that edges and between-island transitions will also serve up some surprises.

Considering the geographical origin of the information, it is dominated by North American conditions (a few authors write as if they were writing for an exclusively North American readership), and readers from the developing countries will find little information from their areas. There is virtually nothing about urban ecology in Asia, Africa, of South America. Many do not even mention this, so I suspect there is a world view to be altered here. Alas, not even the final remarks, trying to suggest a “way forward” mentions anything about cities in developing countries, but they rightly emphasise the importance of social systems for urban environmental conditions.

The appearance of the inside of the book is well crafted, with few typographical errors, and good quality figures. I think there is a little too much text, and too few figures and tables – a slightly different balance, I feel, would have benefited the book.

All in all, the many editors inevitably mean too many midwives – and the baby is dropped. It is a pity – it had some nice features. Perhaps a smaller team, each of them taking a bigger share, could have handled this task better. Overall, the book is a useful summary of the main approaches to urban ecology, and can serve as an initiation into the topic. The broad range of topics covered, and the short individual chapters do not allow to achieve anything more. I will keep the book on my shelf, and I expect I will dip into it for morsels of information, especially background information on aspects of urbanisation not related to arthropods.

References

MAGURA T., LÖVEI G. L., TÓTHMÉRÉSZ B., 2010.- Does urbanisation decrease diversity in ground beetle (Carabidae) assemblages?- *Global Ecology and Biogeography*, 19: 16-26.

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