

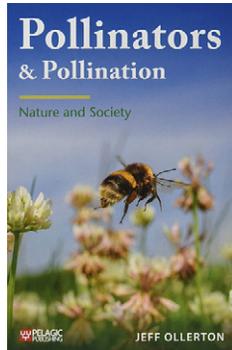
ENTOMOLOGY

Pollinators & Pollination: Nature and Society

By Jeff Ollerton. 2021. Pelagic Publishing. 300 pages and 78 colour illustrations, 43.54 CAD, Paper.

The title of this wonderful book has four key words—and author Jeff Ollerton nails them all. He achieves this in several ways: by outlining his four aims for the book; addressing those aims clearly; incorporating up-to-date research while providing historical insights; and communicating in a way that successfully bridges the all-too-frequent gulf between scientist and interested lay reader. As well, the book is studded with manageable graphs and charts as well as photographs, frequently based on Ollerton's own observations, whether taken during his international research trips or—appropriately in a book exploring community science—in his own backyard in Northampton, a town in England's East Midlands region.

Ollerton covers a lot of time and space (i.e., ground, literally!) in the exploration of these themes. The book has 14 chapters, beginning with an outline of The Importance of Pollinators and Pollination. Readers will tend to be people who already buy into the concept but, as he does throughout, Ollerton debunks—a process I took to calling 'myth-busting'—some of the commonly-held views on the topic. These include such oft-stated notions as honeybees are the most important pollinators, every species of orchid has its own specialized species of pollinator (pp. 87–88) and every fig its own specialized wasp (p. 100), "one third of all food [is] owing to pollinators" (p. 107), urban zones are bereft of nature, the overemphasis on the virtues of native plants as best for pollinators—and the list goes on. This is, by the way, one of the many things I enjoyed about the book. Ollerton looks at the research behind the claims (see p. 7 on percentage of flowering "plants needing pollinators") and exercises some valid scepticism about the political side of the debates around conservation. In a world inundated with 'information' via social media, proponents of conflicting views often aim for effective sound bites rather than trying to explain complexities. Ollerton admits readily the points at which the science parts company with the sound bites or is too incomplete to fully support one side or the other. In fact, his insights into the limitations of what we know, and the



vastness of the unknown, provide valuable and cautionary commentary throughout the book. Throughout, he inspires many questions and suggests research that needs to be done.

The 'nature' side of the book covers the evolution of the process of pollination, the rich diversity of pollinators—which include far more animals than bees—and natural factors affecting the process, "from daily cycles to climate change" (p. 90) to quote the subtitle of Chapter 6. The 'society' aspects receive increasing treatment in Chapters 7 through 10, beginning with modern Agricultural Perspectives (Chapter 7). Ollerton notes that diversity of pollinators is important for seed set and yield, but intensive agriculture results in a decline in both. He is critical of the acceptance of increasingly technological approaches to agriculture, which create problems requiring increasingly technical 'solutions'—robobees, to cite just one exotic example, are not the answer (p. 122). Urban Environments (Chapter 8) provide more hope than many of us might realize. Nature is everywhere in cities if we take the time to see it (p. 141). Managed well and imaginatively, urban settings such as brownfield sites and roadway verges can contribute greatly to the health of diverse populations of pollinators. Even the smallest gardens, planted for the purpose, contribute. Readers can glean techniques for increasing pollinator habitat at home (Chapter 9). And the plants do not need to be native—another myth busted! The key is to find plants that pollinators will use, native or not, and avoid those they cannot use, such as multi-floral cultivars so laden with petals as to be inaccessible. These points made, however, we still need to realize that while gardens are helpful, they are not sufficient—in the United Kingdom, for example, only 2% of the land is garden, 70% is agriculture (p. 157).

The "four main aims" (p. 228) that Ollerton set out to achieve are reiterated in the final chapter, Studying Pollinators and Pollination. Sharing his fascination with the topic is the first and the myth-busting noted above is the second. The third, to inform on how much there is to discover, motivates this chapter, full of tips, techniques, and resources—from apps, books, and the latest field guides to the vast information available online—for community scientists. If enough of us make the effort, then Ollerton's fourth aim—to encourage the preservation of pollinators and pollination—could yet be fulfilled. This is a book that deserves to be read by anyone interested

in the topic. Given the amount of research in the pipeline, it's easy to imagine a second edition someday. One little suggestion: add a fifth word—Science—to the title. In the meantime, we can always keep up

through his blog, <https://jeffollerton.co.uk/blog/>.

BARRY COTTAM
Cardigan, PE, Canada

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