

and Canada), but many guides are limited regionally (University of California IPM: Online Key to Identifying Common Household Ants of California) or outdated taxonomically (Smith's (1965) *House Infesting Ants of the Eastern United States*). Now a new publication provides the much needed link bridging art taxonomy and applied entomology. *Urban Ants of North America and Europe* combines identification tools, natural history description and management recommendations in a slim, easy-to-use volume, making it an extremely useful resource for pest-management personnel, quarantine officials, ecologists and natural historians interested in the ants that live in urban environments.

The authors state their intent clearly: to improve pest-control practices by tailoring management to species-specific biology. Throughout the book they emphasize that the most effective and least toxic control measures take advantage of ant nesting and foraging behaviours, which are described in detail. Lest the reader be tempted to dismiss *Urban Ants* as a technician's guide to exterminating ants, let me emphasize that this is not a book about eradicating pests, but rather is more akin to a field guide to ants that thrive in human-altered landscapes.

The book's organization is taxonomic (by subfamily) rather than by pest status. Following a brief introduction to ant biology, the book is dedicated largely to keys to genera and species, with descriptions of the biology of each. The final two chapters discuss medical implications and management strategies related to pest ant infestations. The taxonomy-focused format requires that the reader be comfortable with dichotomous keys, as species identifications often require working through three separate keys: first to subfamily, then to genus, and finally to species. Fortunately, the short and unambiguous keys feature couplets that are illustrated clearly with simple line drawings.

The book's ability to summarize an enormous amount of information and present it with ease and clarity far outweighs the few oversights that caught my attention. For example, readers may be confused by repeated references to the now defunct 'Homoptera' and by the use of an obsolete, morphologically incorrect term for the propodeum (the 'epinotum').

There are two aspects of *Urban Ants* that seem not to have taken advantage of the tremendous technological progress that both taxonomy and the publishing industry have experienced in the past few decades. The most unsatisfactory is the paucity of quality images accompanying the text. Beyond four colour plates at the front of the book, all the photographs in the text are reproduced in grainy black and white. Three genera (*Brachymyrmex*, *Dorymyrmex* and *Forelius*) are not illustrated in photos or even by a line drawing.

The second surprising omission is the lack of reference to the many new and useful ant-related resources on the web. Users of *Urban Ants* will probably want to complement the information in the book with high-resolution colour images, of which the web offers an abundance. Among the best sites is Antweb (www.antweb.org), the California Academy of Sciences' online repository of information about ants, and the premier site for high-resolution colour images of

Urb-ants

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Ants rank among the most economically important pests in the United States and Europe, yet identification of even common species can prove difficult for non-specialists. This is a problem for anyone involved in the control of established ant pests and also regarding the prevention of the spread of invasive ants, which pose a serious threat worldwide. Excellent identification materials do exist for specific ant taxa (e.g. Hansen & Klotz's (2005) *Carpenter Ants of the United States*

identified specimens, as well as distribution maps. Another outstanding online reference tool is the Pacific Invasive Ants Key, produced by Eli Sarnat in association with Biosecurity New Zealand and USDA/APHIS (www.lucidcentral.org/keys/v3/PIAkey). This richly illustrated and user-friendly site offers photographs, line drawings, comparison charts, video and natural history information to users wishing to identify invasive ants in the Pacific region (many species overlap with North America and Europe).

All in all, *Urban Ants* is an excellent example of taxonomy being distilled and delivered to a targeted user group. In producing a volume that focuses on the identification and control of the most commonly encountered and economically important ants in the United States and Europe, the authors have created a tool that fills a major gap in the resources available for the monitoring and control of ant pests on both the local and the global scale.

ANDREA LUCKY

Department of Entomology, University of California,
Davis, CA, U.S.A.

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