

Book review

ELLISON, A.M., GOTELLI, N.J., FARNSWORTH, E.J. & ALPERT, G.D. 2012: A field guide to the ants of New England

Yale University Press, New Haven, CT, USA, 416 pp; ISBN: 9780300169300, Price: USD 29.95

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Apparently the secret ingredients for creating a one-of-a-kind field guide for ants includes New England citizenship, two ecologists, a botanist, a myrmecologist, a dash of artistry, a spritz of photography, writing acumen, and a healthy measure of taxonomic expertise. In *A field guide to the ants of New England*, ELLISON & al. have established a gold standard for field, forest, home, or garden identification of ants that can now stand beside similar regional field guides for birds, bees, and butterflies. This is the first user-friendly guide for identifying ants to species for an entire region. The emphasis from these reviewers is on *user-friendly*, a term rarely associated with ant species identification by non-experts. The most likely source of this outcome is that these authors are unburdened by the yoke of traditional taxonomic training, but have consulted ant taxonomists for valuable help, and have thus succeeded in producing a practical, usable guide.

The book is visually attractive, from the cover image by the incomparable Alex Wild, to the illustrations and photographs throughout the book, and the simple distribution maps for each species. Some of the best features of the book are to be found in the early and end chapters where explanations of ant morphology, specimen collecting and curation, basic ant ecology, and an outstanding description of the various forms of rarity that may vex a regular collector of ants or other insects are all found. Collectively, this information is invaluable to beginning collectors. This approach, including detailed relevant information on the technical and analytical aspects of collecting and measuring biodiversity, is standard for any field guide, yet we found this treatment to be especially effective.

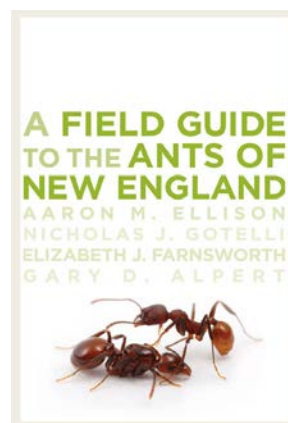
The greatest strength of this book, however, is the descriptions and keys to subfamilies, genera, and species. Once one learns to classify and put species names on ants covered in this book, the reader should be able relatively easily to advance to the use of less "friendly" ant identification resources. The multiple points of view that are presented for ant identification – matrix keys, illustrated dichotomous keys with bold-font primary features and non-bold additional features, size bars, and lucid text introductions to each group – virtually ensure that anyone truly wanting to recognize the species of New England ants will be able to do so. The book is applicable beyond

the limits of New England to include most ant species of the northeastern US and the US-Canadian Great Lakes Region, except for those Prairie Region species that appear in states bordering Lake Michigan.

A novel feature of this guide is the inclusion of not yet formally described or named species, based on the authors' consultations with taxonomists such as Andre Francoeur, Stefan Cover and James Trager, who are working on revisions of relevant genera. Each is given a code name, or the qualifier "cf." before the name of a closely related, described species. As the book includes all known species of ants in the region, and a few presumed to occur there by their occurrence in adjacent states or provinces, future printings of the book will no doubt include important updates and corrections on the taxonomy, but the inclusion of these unknowns and "uncertains" is instructive to amateur entomologists / naturalists that taxonomy continues to offer many opportunities for its advancement, and for their discoveries to play a part in this.

The book is not without its flaws, including some that may be either publisher or author errors, but none are "fatal," and blank space on most of the species pages, perhaps left intentionally, allow for later printings to include corrected, expanded, and updated information. Our primary criticism of the book has to do with some of the illustrations. A few of the photographic images are incorrect, e.g., a picture of a *Lasius* species (with pupae in cocoons!) on the upper left of the *Tapinoma sessile* page. Also, the reproduction of the ant images in the matrix keys is rather small, even at four or more times natural size, but more importantly the color reproduction seems poor, or not true to the ants themselves. Furthermore, the key anatomical features mentioned in the text are sometimes not depicted in the matrix keys or other illustrations. For example, the uniquely abundant propodeal pilosity of *Lasius murphyi* is not shown, although a primary identification characteristic for this species. Particularly disturbing to us are the drawings of *Crematogaster*, said to represent the dorsal thorax, but which are simply not recognizable as parts of any ant we can think of. In our view, lateral drawings would serve better for illustrating the intended characters of those two species, in any case.

There are minor flaws, too. There are a few cases of incorrect terminology. For example, "nantic" workers (page 14, first paragraph) should be "nanitic" workers. "The Evolution of Ants" section seems misplaced and is lacking detail of the current understanding of the evolutionary patterns in the Formicidae. The treatment of "tropical and subtropical" tramp species is similarly vague. The use of com-



mon names (southern fire ant and South American fire ant are presumably both *Solenopsis invicta*?) and sweeping generalizations (page 341, first paragraph) add nothing except misinformation and confusion about exotic ants. We are also uncertain of the value of the repeated mention of climate change despite the scientific and societal importance of the issue. We contend that land-use change is a more important and relevant subject for the general collector, as it directly impacts ant communities in profound and obvious ways on shorter time scales. The natural history treatments of the species are generally sketchy, but we recognize this is the "state of the art" for most ants. The brief accounts might better constitute opportunities to stress the many unknowns of the ants' biology.

To end on a positive note, we return to our earlier declaration that this book sets a gold standard for ant field guides. It is a ground-breaking, intelligent, and innovative field guide for which we commend the authors. The breakdown of all the genera, and especially the larger genera, *Lasius*, *Myrmica* and *Formica*, into tractable groups of relatively easily identifiable species is, in general, brilliantly presented. Especially valuable is the first really useful treatment of the eastern North American species of the notoriously difficult genus *Myrmica*. This field guide will undoubtedly serve both amateur and professional ant collectors for decades to come and will inspire similar works for other regions around the world.