

## Fireflies, Glow-worms, and Lightning Bugs: Identification and Natural History of the Fireflies of the Eastern and Central United States and Canada

By Lynn Frierson Faust. 2017. University of Georgia Press. 376 pages, 32.95 USD, Paper.

This book has a cool cover (a firefly courting in the dark, leaving a glow-trail), reflecting the overall cool of this book (go ahead, read the book and judge for yourself). Second impression: the front cover and opening end paper both unfold to reveal a key to flash/glow patterns and colours of more than 60 species (who knew there were that many?). Very cool.

This book is set up very much like many other family-level monographs; that is, several introductory chapters precede the species accounts. Terminating this book is not only an extensive references section (as in other monographs), but a glossary (not rare, but sadly not universal) and, uniquely in this book, The Selangor Declaration, which briefly explains the issues fireflies (and other species) face, and proposes to governments to encourage more understanding of fireflies and to take steps to protect them.

The first introductory chapter is an introduction to the genera. This is useful, but in my mind, should have ended with a key. The target audience of this book seems to be serious naturalists who may want to explore the fireflies more deeply, and to them a key to specimens would be necessary. In this chapter, we are also introduced to the railroad-worm, *Phengodes*: another glowing insect, but not a firefly. Yes, we are told what it is not, but never told what it is. (Just so you know, it is part of the glow-worm beetle family, Phenogidae, and they are closely related to the fireflies, Lampyridae.)

Further introductory chapters cover diversity, development, survival, predation and parasites, and research advice. There was also a “Frequently Asked Questions” chapter: I’ve never seen such a treatment outside the internet. I found it an odd collection of miscellanea and, as with similarly-named internet pages, I wonder if all these questions truly are “frequently asked”, or if the information presented just didn’t fit nicely anywhere else.

The “Species Accounts” are the meat of this book. They are organized by genus, well-described, and profusely illustrated. Just as I lamented the lack of a key to genera, keys to the species are notably absent. I do realize that there are species groups of uncertain compo-

sition, but a key could then justifiably end in, for example, “*Photuris versicolor* group” or “*Pyractomena linearis* complex”. That aside, all the classic sub-headings are here: appearance, range (maps would have been better than text), habitat, similar species, a synopsis of some of the key research, and other notes. The flash pattern is reproduced here, which is convenient despite the patterns being on the front pullouts. Reproducing them meant that no continuous flipping back and forth was required.

As with the great majority of insects, most fireflies do not have common names. However, Faust has included names for each species, most coined by her, a few by others. Some I can live with (e.g., Shadow Ghost, Little Gray) whereas some just seem silly, perhaps intended to catch the attention of children (e.g., Loopy 5, Mr. Mac, Low Slow Glows). I just can’t imagine saying some of those names out loud in front of other adults. However, giving a creature a common name brings it an important step closer to being cared about by the general public, so I do applaud that this has been done.

It is conventional in scientific writing to write the formal species name in full (e.g., *Homo sapiens*) the first time it’s used, thereafter abbreviating the genus (*H. sapiens*). A problem arises when one deals with two genera, each starting with the same letter. In this book, there are seven genera of fireflies beginning with the letter ‘P’ (as well as the railroad-worm, *Phengodes*). Despite this, Faust abbreviates the genera in the text, leaving the non-expert unsure of the genus.

Within the “Species Accounts” is a section, “Similar Species”. Perhaps just a minor point, but when a similar species is mentioned, the reader will likely want to have a quick look, so a page reference would have been convenient.

Many personal anecdotes describe interactions with dangerous wildlife, traipsing through marshes, the discovery of a new population; all of these should intrigue the novice and bring a sense of déjà vu to those of us who engage in such pursuits. “If you think you can remember everything [that happened in the field], well you can’t, and you won’t” (p. 66). Truer words

were never spoken about a field biologist, one that bears repeating over and over (Randy, are you listening?).

Despite there being a glossary of over 100 terms (which is great!), words are routinely parenthetically defined (and not infrequently redefined over and over) within the text of the book, creating annoying speed bumps in one's reading. Also, the author ignores some standard anatomical terminology and uses alternates that are confusing. For example, Faust uses the phrase "lower margin" of a sternite (a ventral body plate) to mean the "posterior margin". She does this because the photos for which this term is used show a ventral aspect of the specimens with heads pointing to the top of the book, thus making the posterior margin low in the photograph. Why not just use the standards that many read-

ers know, and not introduce non-standard terminology to the new folks?

Despite my few critiques, I enjoyed the book and, more importantly, was inspired by it. I will go to my museum and find out more about our local species, their phenologies, and develop a stronger appreciation for them. Everyone who's seen fireflies aglow is pleased, comforted, or amazed with what they've seen. Who dislikes fireflies? This book will be with you outside at night, with your book light attached, while you try to identify your first flashing firefly to species.

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