

BOOK REVIEW

**David L. Wagner, Dale F. Schweitzer, J. Bolling Sullivan, & Richard C. Reardon
(2011). OWLET CATERPILLARS OF EASTERN NORTH AMERICA**

Published by Princeton University Press, Princeton, NJ. 576 pp. 815 species treated, 2250 images by 100 photographers. ISBN 978-0-691-15042-0. Format 8X10 inches. Available on 10-01-2012 from Amazon.com for \$22

Some books are meant as doorstoppers. Others look good on shelves in the living room. Many are a good read; others are the ideal treatment for insomnia. And finally, there are (and such books are a great rarity) useful books. What Wagner *et al.* accomplished with the publication of their *opus magnum* on owlet moths is the latter.

It does not mean that this book is not thick enough to be a doorstopper, or designed well enough to be a shelf decorator, but it rests on my desk on top of the clutter, because I use it frequently. As a result, I use a doctoral dissertation of my good friend (who shall remain nameless) as a doorstopper and volumes of *Encyclopedia of Entomology* to decorate my shelves.

I first saw this book at a staff meeting when a colleague, Charlie Covell, brought it in to share. I managed to snatch it before anyone else reached it, and it made my meeting. Instead of listening or (God forbid) speaking, I was leafing through the book, admiring every page. This is the only time in my life (and I am pushing 44) that I was hoping a meeting would last longer.

First, the credit should go where it is really due - to the owlet moths themselves. Note that I am not using scientific names; taxonomists messed noctuids up so badly that nobody knows what they are anymore. But if one viewed, as I did, every page in Wagner *et al.*, one would quickly realize that these moths could easily be in separate families. The caterpillars are so different from each other that an opportunistic splitter could have, with no difficulty, broken up noctuids into a dozen different families based on the immature stages alone. As it is, however, the immatures for most of these species are poorly known, and unfortunately, are only now beginning to play a role in classification.

There is a great diversity of shapes and colors corresponding to the endless life styles described in the present book. One should especially mention the bacchanalia that can be found in some of the genera. Take *Acronicta*, for example: naked and



hairy, dull and colorful, spiny and not - they tried every style. Recently, I had the privilege to co-author a paper on caterpillar mimicry, and viewing photographs in Wagner *et al* made me realize how many caterpillar mimicry complexes might be out there waiting to be investigated. For people who study evolutionary ecology, this book can provide endless inspiration for new projects.

Finally, the host plant associations that are recorded in this volume are one of its main contributions to science. This particular area of human knowledge is probably more prone to error than any other. A reliable list of host plants for such an important and large group of insects is a tremendous help to both pure and applied entomology as well as to the botanical sciences and agricultural and horticultural specialists.

For some of the genera, such as *Catocala* and *Spodoptera*, one can find mug shots of the larval heads placed side-by-side. The latter genus, which contains such economically important species as the rice armyworm, the sweetpotato armyworm, the beet armyworm, and the fall armyworm, also enjoys a special treatment in the form of a field key to their mature larvae (p. 386).

While leafing through the book, I had multiple 'Ah!' moments, recognizing larvae that I had once collected or photographed, but had not reared through, or larvae that I had been unable to identify by the resulting drab-colored moths. I wholeheartedly recommend this book to anyone interested in entomology and botany, and I sincerely hope that the efforts of the authors will continue to expand our knowledge of caterpillars.

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