

Kodak DX6490 with a 2+ close-up filter lens. Above: Zebra Heliconian adult. Right: Zebra Heliconian caterpillar.

A few negatives:

1. You cannot override the automatic focus. This causes problems when it wants to focus on the background and the subject is in the foreground. Also, in very dim light it will not focus at all.
2. As with most digitals, there is a slight delay while it calculates exposure, etc. On rare occasions, this can be a problem.
3. The rotary mode switch is a little awkward to use. The newer model has replaced this. Kodak now offers an update named Z7590. This model has 5.36 megapixels and a few refinements but is basically the same camera. The DX6490 was on sale at Costco a few months ago for \$239 including the dock. That is a steal! I have also seen them more recently for \$277 (less the dock).

I volunteer at the Okeehetee Nature Center in Palm Beach County and have used the digital images with Microsoft Movie
34 *American Butterflies*, Fall 2005



Maker and Power Point for great presentations. 🦋

BOOK REVIEWS

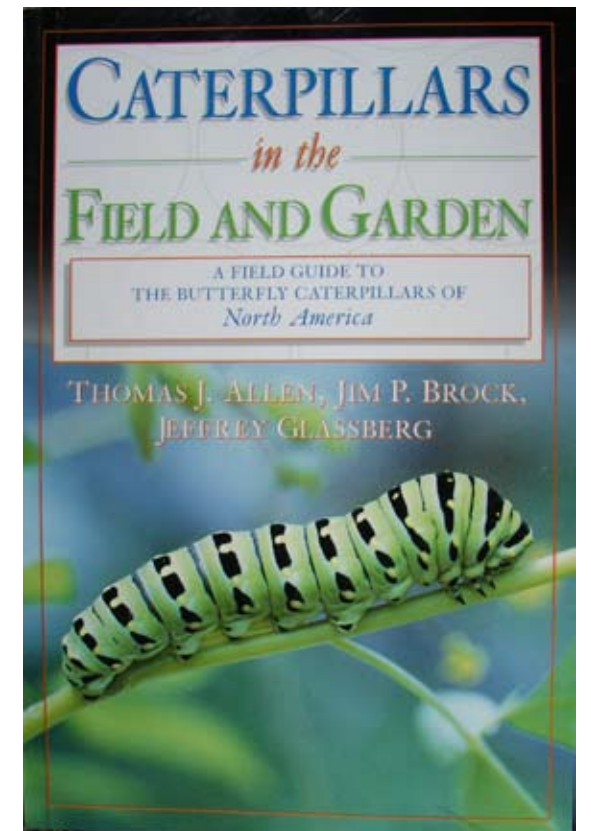
Caterpillars in the Field and Garden. A Field Guide to the Butterfly Caterpillars of North America. By Thomas J. Allen, Jim P. Brock, and Jeffrey Glassberg. 2005. Oxford University Press, New York. (ISBN#0-19-514987-4). Paperback. 5½ x 8 ¼ inches. 232pp. \$29.95

Review by David Wright

In his 13th century masterpiece *De Natura Animalium*, Dominican monk Albertus Magnus described butterflies merely as “flying worms.” Over time this allusion has been unfairly criticized for its misguided zoological understanding and lack of appreciation of Mother Nature’s beauty. To the contrary, Magnus was an excellent natural scientist and his remarks were a repudiation of medieval bestiary where dragons ruled terra firma, monsters the rivers, and giant birds the sky. Magnus brought these superstitions under close scrutiny and he refuted many claims about implausible animals, and often tried to supply some form of natural explanation. Regarding butterflies, he was right on the money.

What we think of as a butterfly is only one phase of a complex insect life cycle, each with a different blueprint for body structure and a different strategy for success. To fully comprehend the fabric of the world of butterflies the curious naturalist must extend his or her study to the “worms” (caterpillars). Say good-bye to the squeamishness and disdain for creepy crawling things, and welcome to the other half of butterflying.

In order to take your outdoor recreation to the next level, the “Compleat Butterflior” will need a field guide to caterpillars. In this regard, we have lagged behind our counterparts in Great Britain, Europe, and Japan. Now



there is help for North American enthusiasts in the latest addition to the Butterflies through Binocular series. *Caterpillars in the Field and Garden* by Allen et al. (2005) is the first comprehensive field guide devoted exclusively to caterpillars of North American butterflies. Its size is compact and portable; it is as easy to use in the field as it is in your easy chair. Don’t let the size fool you. It is lavishly illustrated with 65 plates containing 614 color photos, which enable the user to visually identify caterpillars in instances where we were previously clueless. Through this handbook the authors, each a well-known scientist and accomplished writer, inspire us to seek out and identify new caterpillars, to explore their enchanting life styles, to boldly enter into new habitats and to help solve some of the remaining mysteries of North American butterflies.

This book touched me in a unique way. I derived exaggerated enjoyment staring at row upon row of caterpillars aligned in perfect order. The plates are like a textbook of comparative anatomy of immature stages. Out of

the chaos of a myriad of immatures, emerges an insight. The caterpillars of each butterfly family share a common body plan. The book lays out the distinguishing features of the caterpillars of swallowtails, whites, sulphurs, gossamer-wings, metalmarks, brushfoots, and skippers.

Being able to classify an unidentified caterpillar to the family level is a first step and a worthy goal for the beginner. For those seeking more the book supplies ample aids to further classify your nameless discovery to subfamily, tribe, genus and species level. Some species have unique caterpillars with very little variation; in such instances an exact identification is possible.

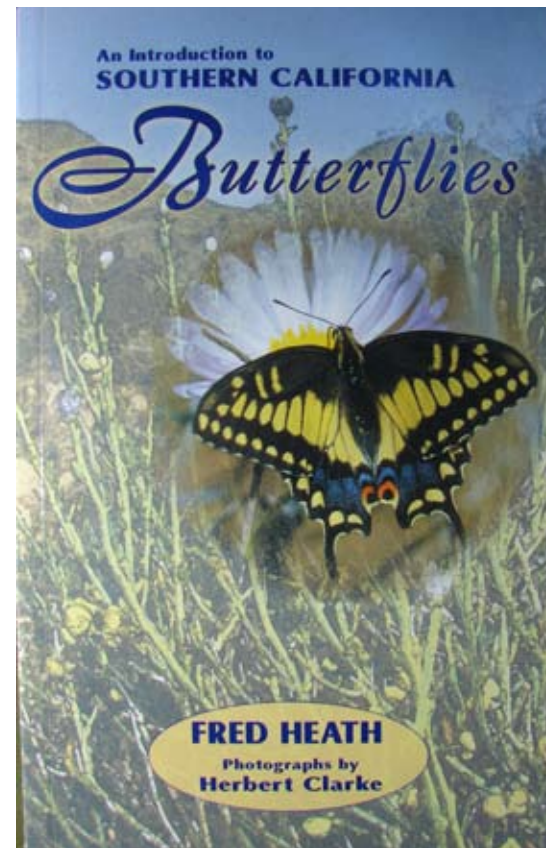
Yet this is often not the case and the authors correctly point out “you may want to raise them.” An inevitable limitation in a field guide with such broad coverage is adequate space to include photos of all the morphs, varieties, and local renditions of the caterpillars of each species. The plain fact is they are not known. Rearing caterpillars can be immensely satisfying and is a sure way to identify your unknown caterpillar. It also allows an extended length of time to observe behavior, assess food preference, note pupation sites, and every once in a while watch an internal parasitoid (fly, wasp) emerge from your subject. The authors urge that documenting a butterfly’s life history is critical to understanding its requirements and to its conservation, a major environmental challenge for the new century.

The book also contains a special section on butterfly gardening with many tips on how to attract adults to your garden and what to plant in order to get them to lay eggs.

The information in this practical guide is exceptionally accurate. The color plates are superior in quality and sufficient in overall size. Some of the photographic insets, which depict a color morph or an isolated key feature (like head capsule or spine), are on the small side but still useful. It takes patience getting used to the two types of range maps. The first type is the familiar single species map with the number of broods color-coded, which

is essential information when looking for caterpillars. The second type combines the ranges of two or more species (without their broods) in a different set of colors. Reference numbers refer to the species accounts, but unfortunately the same numbers do not always represent the species number on the color plate. In a few maps the numbers are omitted (Gray and Oreas Commas) and some species are not mapped (Scudder’s Duskywing). In the color plates some inset photos are not fully explained (Gulf and Variegated Fritillaries); the reddish-brown Summer Azure caterpillar is an Appalachian Azure as it appeared in the senior author’s *The Butterflies of West Virginia and Their Caterpillars* (1997); and there exists a taxonomic anomaly with Oak and Ilavia Hairstreaks, which are both depicted from the same spot (Hualapai Mtns., AZ) where only one taxon exists and is given explanation in a junior author’s previous work *Butterflies of Southeastern Arizona* (1991). Misspellings are minimal; subfamily “Meletinae” should be Miletinae, and the ant-loving adjective “myrmecophilus” ends in -ous.

These minor quibbles aside this field guide is an extraordinary accomplishment. It is highly recommended (a must) for your reference library or field toolkit. As a groundbreaking work it will go a long way toward changing people’s attitudes about the “hairy cats” that plunder our gardens and startle us when we turn over a leaf. They remind us we still have a lot to learn about North American butterflies and they stir our curiosity for exploration. A personal Enlightenment awaits those who enter their world.



An Introduction to Southern California Butterflies, 8.4" x 5.4" Paperback, 240 pages. By Fred Heath. 2004. Photos by Herbert and Olga Clarke. Mountain Press Publishing Company, Missoula, Montana. ISBN: 087842475X. \$22.00.

Review by Bob Barnes

BOTTOM LINE: Whoever you are, wherever you live, whatever your level of expertise or interest in butterflies ... Buy this book! “How do I love thee? Let me count the ways!” — Thanks to Fred Heath’s words, along with the wonderful format and layout, *An Introduction to Southern California Butterflies* is the most clearly written and easily understood natural history reference book I have come across. This book may serve as a model for those to follow, regardless of geographic region.

Herb Clarke’s photos are of very high quality and are happily large. His “Overwintering Monarchs, Ellwood, California” photo in itself makes this book worth owning, let alone the other 250

plus outstanding photos that grace this book. His concise, “A Note from the Photographer” shares his philosophy, equipment, and techniques.

Similar to other butterfly books, *An Introduction to Southern California Butterflies* has an excellent map, plus sections on what a butterfly is and its parts, life cycle, behavior, color and scales, predation, scientific versus common names, watching butterflies, organizations and counts, gardening, species accounts, books and publications, associations, plus a Southern California Butterfly Checklist (including subspecies), Southern California natural history museums, publicly-accessible places to watch butterflies in Southern California including federal, state, and local forests, gardens, parks, preserves, recreation areas, refuges, and zoos.

So, what separates this book from others?

The layout and format used for each species account is key. The print is large. The use of bold print, habitat and life cycle icons, white space, and page portioning opposite a full page of two to four photos is an artful and user-friendly blend that has to be seen to be appreciated.

Each species account has clearly presented common English names using NABA names and taxonomy, scientific names, habitat, overwintering status, flight time, broods, food plant, nectar plant (where applicable), an introductory paragraph, and a box with identification information including size range. Once again, this information is wonderfully concise and laid out like no other book.

There are written accounts with photos for ninety-six species and subspecies of the one hundred seventy-eight listed in the book’s “Southern California Butterfly Checklist.” There are photos only for fifteen other species and one subspecies. Once again, the photos are large.

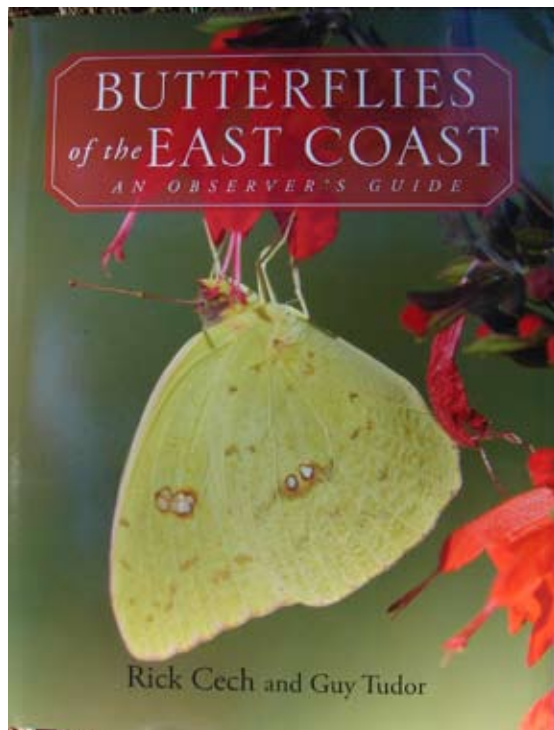
When reviewing a book, I always look to see if it has a detailed index, as a comprehensive index adds great value to a reference book. Therefore, I was more than pleasantly surprised when I found not one, but two such indexes in this book. The first is a “Butterfly Index” with common and scientific names of butterflies. The second is a “Food Plant Index” with common and scientific names.

Lest you think I live only in a world inhabited by Pollyannas, a negative did cross my mind as I reviewed this book in depth. It took me an unpleasant amount of time to figure out what the bold print, plain print, and asterisks meant in the Southern California Butterfly Checklist section. This is because the key for their use in the checklist is at its end. I am a firm believer that keys should be at the head of a section where applied so the reader knows right off what is meant for the usage to follow.

And, as Fred Heath cautions, this book is an INTRODUCTION to Southern California butterflies. Recognizing the limitations of an introductory book, he states on page 40 in the "Other Books" section, "...Southern California has been blessed with a number of more recent books that can help you identify local butterflies. The best book, however, is probably the more general *Butterflies through Binoculars: The West* by Jeffrey Glassberg, published in 2001."

So, secure and study your Heath and Glassberg books, and whatever other references catch your fancy, and come to southern California to enjoy butterflies.

BOTTOM LINE: See above.



Butterflies of the East Coast : An Observer's Guide by Rick Cech and Guy Tudor; xii+345 pages; approximately 900 color photographs; 234 color range maps; figures; tables; Princeton University Press, Princeton. \$49.50

Review by Brian Cassie

I have my copy of Cech and Tudor's *Butterflies of the East Coast : An Observer's Guide* in hand and splashed across the dust jacket are remarks of praise from some of North America's most eminent scientists, including Paul Ehrlich, Joanna Burger, and Edward O. Wilson. I wish to add my own praise. This volume is one of the best books on American natural history to appear in recent years.

The book begins with a short preface, including rationales for why people like butterflies as much as they do (their beauty, flight style, and harmlessness) and why the authors chose to write about the East Coast states (they are ecologically self-contained and seldom written about as a unit).

Next is a beautifully thought out and well presented 58-page introduction to butterfly ecology, biology, field observation, and conservation. Here you will find discussions, short and lengthy, on such topics as climate, hostplants, habitats (with their characteristic butterflies), broods and brood timing, seasonal movements, overwintering, butterfly senses, wings and flight, display, defense, reproduction, observation techniques, and conservation efforts, among many others. This is all very good, up-to-date stuff and much more thought provoking and thorough than most "introductions."

Following the introduction are the family and species accounts, which make up the bulk of the book. Each of the six chapters covers a separate family - swallowtails, pierids, lycaenids, metalmarks, nymphalids, and skippers. A family account includes information on family range, numbers of species, typical behaviors and "look," and other pertinent data, ecologi-

cal and biological. Characteristics of sub-families and tribes are also noted, as appropriate.

There are 234 full-page species accounts, each complemented with photos of the adults and generally of the prime larval foodplant (sometimes a habitat photo is substituted for the foodplant; sometimes both foodplant and habitat are shown). Included in the accounts is expected information on identification, range, habitat, abundance, flight period, caterpillar foodplants, egg-laying, and overwintering stage. What is extra, and extremely good, are several paragraphs for each species covering all sorts of things, from taxonomy to history to ecology to the authors' field experiences. I really enjoy the personal accounts in the text, such as an adventure with a *Polixenes* Arctic on Mt. Katahdin, Maine:

"Some writers suggest that arctics loft into the wind when disturbed to avoid capture. Our experience, while very brief, suggests essentially the opposite : as the air warmed at midday, we saw a single *Polixenes* venture forth, flying low and rapidly over alpine tussocks. When a burst of wind arose, the butterfly was pinned, allowing a brief photo session (about 45 seconds). As soon as the wind quieted, it picked up again and darted over a precipice, out of sight forever."

Another superb feature of this book are the photographically illustrated essays that pop up here and there. They are great food for thought. Here are their titles :

Rueful Behavior : Dietary Themes in the Giant Swallowtail Group

"Waste" Areas : An Overlooked Resource
Occasional Pierid Strays to Southern Florida

Blue Palate Special : Varied Food Selections of Neotropical Blues

The *Celastrina ladon* Complex - Complex Indeed

Transient Blues of Northern Maine : Road Trippers on Curious Journeys

Passionflowers and Butterflies : A Tangled Web

Mountaintop Removal: The Price of Coal? Eastern "Prairies" in Decline : Implica-

tions for Grassland Butterflies

Violets & Fritillaries : A Close Association
Fall Skipper "Migration": A New Pursuit
"Seaside" Dusted-Skipper : Good Species?

Who stops to write essays for a regional nature guide, to butterflies or anything else? I really appreciate the effort.

Finally, the book includes a 14-page "Sources List," which is mainly a bibliography but which also lists a number of relevant websites.

There are inevitably mistakes and omissions that sneak into even the best books and it is a reviewer's duty to note them. There are a small number I (or one of the authors, personal communication) have found here (you'll have to find the few typos yourself). First, the photo entitled Dwarf Huckleberry in the Brown Elfin account is actually leatherleaf, *Chamaedaphne calyculata*. Second, both male and female *Diana* Fritillaries on page 158 are labeled as male. Third, for several species, including the Cabbage White and Monarch, the text states that females lay their eggs on the undersides of leaves. They do, but they lay them on the topsides as well.

Quite obviously I recommend this book in the highest terms – but to whom? Certainly to all avid butterfly observers in the East, seasoned and neophyte, amateur and professional alike. I recommend it equally to all municipal, university, and high school libraries in the 17 states and one district included in the book's geographical range. And I have a thought about how this book could get into lots of libraries. We NABA members, individually and at the chapter level, should get involved. Donate a copy to your high school, college, or town library or ask someone to donate a copy in your family's name or your chapter's name. There are really a lot of outdated butterfly books on library shelves (believe me, I've looked) and here we have a single volume that will go a long way toward educating older students and adults. It needs to be read. 