way and presents a wealth of information not easily available elsewhere.

Those who want to know more about Sherpas and mountaineering will want to read both *Tenzing Norgay and the Sherpas of Everest* and *Sherpas: The Himalayan Legends*.

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The Nature Handbook: A Guide to Observing the Great Outdoors

Ernest H. Williams Jr
New York, NY: Oxford University Press, 2005
US \$26.00, 263 pages, softcover

Ernest H. Williams Jr, the Leonard C. Ferguson Professor of Biology at Hamilton College, Clinton, NY, has written a new and interesting book to help the lay reader understand and recognize patterns in nature. He is careful to point out in the preface that this is not an identification manual in the class of the *Peterson Field Guides*. He describes plants, animals, and insects according to 5 different themes: relationship of size and shape, adaptation, distributional pattern, behavior, and diversity of life. By describing nature in this way, he hopes that the observer will focus on what he or she sees and look at patterns and shapes rather than individual species. This approach does not diminish the need to identify a species but encourages an understanding of the function behind the shape and size. Why is a sparrow's wing shaped differently from that of a tern? Why do flowers have different colors and shapes? Why are moths attracted to light? (No one seems to know, for sure.)

This summer, while hiking in Colorado, I became intrigued by the markings on some of the aspen trees. I was familiar with the tooth marks of elk and porcupine, but I did not understand the multiple, regular, small horizontal cuts low on the tree that looked as though an obsessive gnome had been picking at the bark with a penknife. A photo on page 181 of this book provided me with the answer: they were the peck marks of the yellow-bellied sapsucker, a small woodpecker that is common in some parts of the mountains. This finding is a good example of how the book should be used. It is not a book to be read from cover to cover; instead, the reader should refer to it for pleasure or when trying to find an answer to an intriguing question.

The book is divided into 3 main sections—plants, animals, and habitats—and contains more than 500 explanatory photographs. Each section has shorter sections dealing with such subjects as “showy flowers,” “solar-tracking leaves,” “salt licks,” and “monarch migration.” Most of these sections are clear and avoid language that is too technical, but occasionally the biology professor comes out in the writing. In the section on plants, for instance, there is a heading on “Flowering phenology.” (My spell-checker underlined *phenology* as an unknown word. It is the science dealing with climate and periodic biological phenomena.) Later in the same paragraph, Williams has written, “But a plant's flowering depends on other factors, too, including the seasonal timing of herbivory and seed predation that beset it.” I suppose this means that flowers time the production of blooms to avoid being eaten by cows, deer, or chipmunks, but I am not sure.

This book contains a lot of fascinating information in many branches of natural science—information that makes you want to know more about the marvels of nature. It is well organized and has cross-references among chapters. Most of the photographs are good, and the print is clear with well-marked, color-coded page numbers relating to the plant, animal, and insect sections.

However, this book also has its weak points. Some of the subsections contain just enough information to stimulate interest but not enough to answer all the questions. Some of the photographs are either too small or poorly printed (3 photos of a montane environment at different seasons superficially look remarkably the same until you look very closely), and a few are not typical of the species (the photo of a red-tailed hawk on page 111 is of an unusual dark-phase morph and does not show the red tail, which is easily seen with the sun shining through it). Also, Williams uses some technical terms that could have been explained or written in nonbiological language.

The Nature Handbook: A Guide to Observing the Great Outdoors is a good book for the person who wants to come home after a walk or a hike and find an explanation for something seen. It is not a book to carry in your pack, but it is certainly one to keep in your mountain cabin (if you are lucky enough to have one). You will find yourself dipping into it and saying to your spouse or children, “Do you know why. . . ?” The answers will expand your enjoyment of the outdoors.

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