point" (p. 5), which is gratuitous in that once introduced the term never appears again. Mathematical usage of this type provides no new insights and does not buttress physical arguments. Despite these drawbacks, *Interplanetary Magnetohydrodynamics* is a detailed and useful compendium for the specialist and a rich guide to the literature.

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Lepidopterans

The Tent Caterpillars. TERRENCE D. FITZGERALD. Comstock (Cornell University Press), Ithaca, NY, 1995. xvi, 303 pp., illus., + plates. $37.95 or £29.95. Cornell Series in Arthropod Biology.

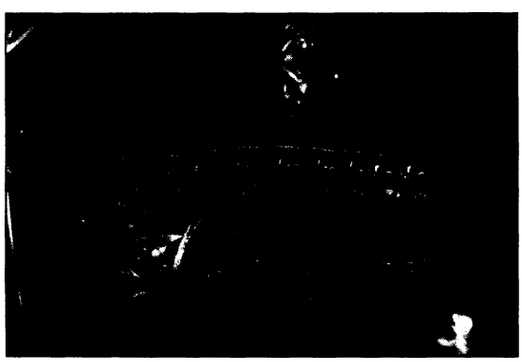
This book is a prodigious synthesis of a large and varied literature on the lives and times of tent caterpillars, lasiocampid moths in the genus *Malacosoma*. It expands upon and follows in the tradition of Dethier's popular treatise *The World of the Tent Makers* (1983) on the eastern tent caterpillar, *Malacosoma americanum*.

Fitzgerald focuses heavily on the two common and economically important species found in North America, the eastern and the forest (*M. disstria*) tent caterpillars. The body of published information on these two species is several orders of magnitude greater than that available for the other two dozen or so described species combined, but whenever possible Fitzgerald tempers the unavoidable attendant bias with comparative discussions launched from ecological and evolutionary perspectives. The result is a welcome and fresh approach to a subject that could easily have given rise to a daunting traversal and distillation of the expansive (and often colorless and parochial) applied entomological literature.

"Tents of the southwestern tent caterpillar, *M. incurvum*, on a tree defoliated by multiple colonies." [Terrence D. Fitzgerald]

The most interesting segment of the book is Fitzgerald's analysis of caterpillar sociality and its evolutionary history. This is a fairly new field of inquiry that he has successfully nurtured and championed during the last several decades, and he clearly finds his forte in the chapters on caterpillar aggregation, foraging behavior, tent-building, and thermoregulation. Many new and intriguing insights will be forthcoming from work in these areas, and Fitzgerald's apt final sentence (p. 272) in the book calls for "studies of the foraging behavior of a broad diversity of species, sufficiently detailed to allow us to begin to assess the range of communicative interactions that occur among social caterpillars." Indeed, this plea can and should be generalized further, as our ability to use Lepidoptera effectively as test organisms is limited by a worldwide lack of larval life-history data for the vast majority of nonpest species.

The Tent Caterpillars is also a literary treasure trove of citables—in a decidedly nonrandom survey of five comparable lepidopteran works in my office, it took first place, with 443 references and 161 tables or figures tucked into 272 pages. We should all be thankful that *Calasoma* beetle larvae (predators on *Malacosoma*) are only a few centimeters long, since we discover (p. 171) that they may move 2.9 kilometers in 72 hours and eat 41 full-grown caterpillars during their 14 days of hunting. And those who haven't previously observed the effectiveness of pheromonal communication can become converts by looking at the caterpillars shown (p. 129) marching dutifully in a "figure 8." Variants on this and related themes can be observed any springtime in North America and elsewhere, to the delight of grade-school children. Such opportunities are not lost on Fitzgerald, who devotes his last chapter to discussing simple ways in which tent caterpillars can be used to reveal the workings of biological principles. *The Tent Caterpillars* is thus a useful teaching tool at several levels of inquiry and should be welcome on the bookshelves of more than just lepidopterists.



"Nonpigmental coloration of the cuticle of the eastern tent caterpillar. The white middorsal stripe and the subdorsal blue areas are produced by the selective filtering of light by transparent microtubules." [Terrence D. Fitzgerald]

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Reprints and New Editions

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Air and Water. The Biology and Physics of Life's Media. Mark W. Denny. Princeton University Press, Princeton, NJ, 1995. xx, 341 pp., illus. Paper, $24.95 or £19.95. Reprint, 1993 ed.

The Anatomical Exercises. *De Motu Cordis* and *De Circulatione Sanguinis*, in English Translation. William Harvey. Geoffrey Keynes, Ed. Dover, New York, 1995. xvi, 202 pp., illus. Paper, $8.95. Reprint, 1953 ed.

Ancient Inventions. Peter James and Nick Thorpe. Ballantine, New York, 1995. xxiv, 675 pp., illus. Paper, $17.50. Reprint, 1994 ed.

Aquatic Chemistry. Chemical Equilibria and Rates in Natural Waters. Werner Stumm and James J. Morgan. 3rd ed. Wiley, New York, 1995. xvi, 1022 pp., illus. $79.95; paper, $59.95. Environmental Science and Technology.

The Archaeology of Disease. Charlotte Roberts and Keith Manchester. 2nd ed. Cornell University Press, Ithaca, NY, 1995. xii, 243 pp., illus. $39.95.

Aurora. The Mysterious Northern Lights. Candace Savage. Sierra Club, San Francisco, 1995. 144 pp., illus. Paper, $20. Reprint, 1994 ed.

Bioorganic Chemistry. A Chemical Approach to Enzyme Action. Hermann Dugas. 3rd ed. Springer-Verlag, New York, 1996. xviii, 699 pp., illus., + plates. $49.95. Springer Advanced Texts in Chemistry.

Cancer Biology. Raymond W. Ruddon. 3rd ed. Oxford University Press, New York, 1959. xiv, 520 pp., illus. $75; paper, $47.95.

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Chaos in Wonderland. Visual Adventures in a Fractal World. Clifford A. Pickover. St. Martin's Griffin, New York, 1995. xvi, 303 pp., illus. Paper, $18.95. Reprint, 1994 ed.

Chemistry in the Laboratory. A Study of Chemical and Physical Changes. J. A. Beran. 2nd ed. Wiley, New York, 1995. xiv, 402 pp., illus. $42.95.

Chromatin. Structure and Function. A. Wolffe. 2nd ed. Academic Press, San Diego, 1995. xii, 299 pp., illus. $50.

Computers and Thought. Edward A. Feigenbaum and Julian Feldman, Eds. AAAI Press, Menlo Park, CA, and MIT Press, Cambridge, MA, 1995. xiv, 535 pp., illus. Paper, $18. Reprint, 1963 ed.

Descartes' Error. Emotion, Reason, and the Human Brain. Antonio R. Damasio. Avon, New York, 1995. xx, 313 pp., illus. Paper, $12.50 or C$16. Reprint, 1994 ed.

Diabetes in America. National Diabetes Data Group. 2nd ed. National Institutes of Health, Bethesda, MD, 1995 (distributor, National Diabetes Information Clearinghouse, Bethesda, MD). xvi, 782 pp., illus. Paper, $20. NIH Publication no. 95-1468.

Vignettes: Dinomania

The blissful act of categorizing may help explain why children are fascinated with dinosaurs. Given all the possible living and fossil animals available to the minds of eight-year-olds, why is there so much enthusiasm for a group of extinct reptiles? . . . Bigness is indeed exhilarating . . . , but moose and elephants do not receive the same degree of devotion. . . . The answer is perhaps in the genesis of speech as nomenclature, the tasks of order making, names as conjuring images. . . . The great array of dinosaurs is somewhat like a garden of great riches, a kindergarten of the intellect. Minding them is a sugarplum pie in the naming process, which is ordinarily meat and potatoes, too easy among farm animals, too hard among beetles or birds, too limited among mammals.

—*Paul Shepard*, in *The Others: How Animals Made Us Human* (Island Press)

Control over the powerful and threatening external elements of life is not the only sort of power kids typically derive from their wealth of dino lore. They also gain something of an upper hand over their parents at the same time. Kids can tell you the true scientific name of *Brontosaurus* (it's *Apatosaurus*—an arcane piece of information their parents are unlikely to know). There is power in knowing things.

—*Niles Eldredge*, in *Dominion: Can Nature and Culture Co-exist?* (Holt)

The Dictionary of Immunology. W. John Herbert, Peter C. Wilkinson, and David I. Stott, Eds. 4th ed. Academic Press, San Diego, 1995. xiv, 173 pp., illus. Paper, $15.

Electrochemistry for Chemists. Donald T. Sawyer, Andrzej Sobkowiak, and Julian L. Roberts, Jr. 2nd ed. Wiley, New York, 1995. xvi, 505 pp., illus. $69.95.

Evolution. Monroe W. Strickberger. 2nd ed. Jones and Bartlett, Boston, 1995. xiv, 670 pp., illus. $56.25. Jones and Bartlett Series in Biology.

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From Newton to Mandelbrot. A Primer in Theoretical Physics with Fractals for the Macintosh. Dietrich Stauffer and H. Eugene Stanley. 2nd ed. Springer-Verlag, New York, 1995. xii, 209 pp., illus., + plates + diskette. Paper, $34.50. Translated from the German, in part, by A. H. Armstrong.

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Group Theory and Physics. S. Sternberg. Cambridge University Press, New York, 1995. xiv, 429 pp., illus. Paper, $29.95. Reprint, 1994 ed.

A Guide to Quantum Groups. Vyjayanthi Chari and Andrew Pressley. Cambridge University Press, New York, 1995. xvi, 651 pp., illus. Paper, $34.95. Reprint, 1994 ed.

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