

Book Reviews

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Department Editor

EVOLUTION

The Beak of the Finch, A Story of Evolution in Our Time. 1994. By Jonathan Weiner. Alfred A. Knopf (201 East Fiftieth St., New York, NY 10022). 332 pp. Cloth \$25.



This book should be titled something like THE BEST NON-TEXTBOOK BOOK ON MODERN EVOLUTIONARY THEORY or NEO-DARWINIAN THINKING FOR EVEN THE MOST SCIENTIFICALLY-ILLITERATE READER. I started this book thinking I would have a little entertaining reading about Peter and Rosemary Grant's ongoing 20-year study of the Galapagos finches that every biologist knows were crucial in Charles Darwin's development of his theory of evolution by natural selection. I thought I would simply be substituting my regular bedtime science fiction for a moderately entertaining scientific travelogue. Boy, was I wrong!

I have yet to encounter a more enjoyable, readable, informative book about modern evolutionary thinking and the many biologists, in addition to the Grants, who are currently engaged in evolutionary research. This textbook is clearly no dry treatment of evolution. What Weiner does is de-

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scribe the Grants' and their students' long-term study of the Galapagos finches to illustrate and explain almost every aspect of Darwinian theory. Weiner discusses natural and sexual selection, hybridization, the principle of divergence and character displacement, adaptive landscapes, gradualism and the evolution of complex organs, the role of isolation in speciation, and the definition of species.

When treating each of these evolutionary concepts and others, Weiner moves from Darwin's original writings and thoughts (including vignettes about the importance of different incidents in his life) to 20th-century scholars who have been both critical and supportive of Darwin. He then goes to the details of the many specific finch studies that the Grants and their students have produced that bear on the concept. Weiner also writes of studies of song sparrows, crossbill finches, and stickleback fish in British Columbia; guppies in Trinidad; fruitflies in Hawaii; and gray moths from across the southern U.S., to mention just a few. Weiner's descriptions of these studies and the thinking of the biologists responsible for them convey the vitality of evolutionary research today. They also provide multiple real-life models of scientists at work in the field and in the laboratory to which students can relate.

The Grants have demonstrated that it is indeed possible to study the dynamics of evolutionary processes at work in the modern world and, perhaps more importantly, within the lifetimes of scientists. This is no trivial achievement; it is a significant improvement over the predominantly theoretical and hypothetical study of evolution that dominated the field in the early part of this century. Weiner's achievement is no less impressive from a teacher's perspective. He has written an exceedingly entertaining, informative and accessible book about evolutionary thinking. High school biology teachers and students: Read this book! You will enjoy it immensely

(and learn a lot of evolutionary biology in the process).

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BIOGRAPHY

Epitaph for a Desert Anarchist. 1994. By James Bishop Jr. Atheneum Pubs. (597 Fifth Avenue, New York, NY 10017). 254 pp. Hardback \$22.



Edward Abbey has been described as a curmudgeon, an anarchist, a hero, a provocateur, a rebel. In his relationships and his public behaviors he displayed both passion and paradox, yet he has become a charismatic figure and an icon in the search for personal freedom and in the pursuit to preserve the wilderness. Opposites attract, and this green Appalachian boy, born and raised in the verdant rural rolling hills of Pennsylvania, later developed a fierce love affair with the parched sculpture that marks time's imprint on the Southwest.

I first became acquainted with Abbey through his captivating essays in *Desert Solitaire* and later through his reputation as the author of *The Monkey Wrench Gang*. Though Abbey frequently been listed as an environmentalist, or as a naturalist and social critic, James Bishop reveals him to have been a disciplined writer who complied with his conviction that the role of the writer obliges him/her to be a "critic of his own country, his own government, his own culture." Towards this objective, Abbey authored 21 books. Concerned with the shrinking natural world and the intrusion of technology in our lives, his anguished outcries depicting the suppression of personal freedom by progressive technocracy, and its subsequent contamination and erosion of the natural world, remain part of his legacy. Abbey, as an individual and as a writer, impressed the American public with