book reviews

eties continues to provoke a lively debate among epidemiologists and students of infectious diseases.

So much can be gleaned from this map, but each of Burden's 409 other maps has its own corresponding context. Although the resulting book is expensive, it gives value for money with its large format (14 x 10 inches), length (568 pages), and lavish illustrations and referencing. Much of the information is unobtainable elsewhere.

Any large institution of knowledge, and individual scholars concerned with North American colonial history and Native American societies, will require the book. For nonspecialists it is fun to browse, beautiful to look at, and an inexhaustible source of interest.

The Mapping of North America would be a nice upmarket present to one of your treasured friends — or to yourself.

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Winged wonders

The Atlas of Southern African Birds

edited by J. A. Harrison, D. G. Allan, L. G. Underhill, M. Herremans, A. J. Tree, V. Parker and C. J. Brown BirdLife South Africa, PO Box 34046, Rhodes Gift, 7707, South Africa: 1997. Two volumes. Pp. 1,500. R648

Michael Cherry

This atlas is the result of the largest biodiversity project yet completed on the African continent. Covering 932 bird species, it represents the work of 5,000 field volunteers over a five-year period, with another five years for data-processing, writing and editing the contributions of 60 authors.

The result has been well worth the wait. For 775 species (all but those that are either vagrants or marginal for the subcontinent), there is a distribution map reflecting the reporting rate for every quarter-degree square of the surface area of six countries (South Africa, Botswana, Namibia, Zimbabwe, Lesotho and Swaziland) as well as a breakdown of the reporting rate for each vegetation type.

A particularly useful feature is a monthly graph of distribution and breeding for each of eight zones into which the subcontinent has been divided (albeit arbitrarily). This allows the reader to infer seasonal patterns, which in Africa are highly variable because of differing climatic conditions. For 51 species with marked seasonality in occurrence, an expanded format with six additional seasonal distribution maps is provided. The advantage of such analysis for migrant species is immediately obvious.

More importantly, the breeding season for a given species often differs between trop-



From a plate in *The Birds of Africa: Volume V* edited by E. K. Urban, C. H. Fry and S. Keith with illustrations by Martin Woodcock and Ian Willis. In a review in *Nature* of volume three, C. M. Perrins said that the project "continues on its way to becoming the standard work on African ornithology for the twenty-first century". Academic, \$145, £85.

ical and subtropical climates, or summer and winter rainfall areas, and these analyses provide revealing insight into these patterns. For biologists engaged in, or planning, studies on southern African birds, this work will prove indispensable.

There are some minor faults: the texts for each species, for example, are not similarly enlightening. Of necessity, reporting for all areas has not been uniformly regular, as the density of competent observers is not evenly distributed throughout the subcontinent. But rather than being disingenuous, the editors are at pains to point out, in a quantifiable way, exactly what the limitations of the data are, which provides a valuable insight into what remains to be done.

What is extraordinary about this achievement is that it could never have been accomplished even 25 years ago — there simply would not have been enough volunteers to complete the task of recording the data. The past quarter century has seen a surge of interest in birding in southern Africa, which has allowed this project to come to fruition.

There are two wishes on my list. The first is that someone has the drive to repeat the exercise before too long, so that the effects of development on the region's avifauna, as a flagship group, can be accurately monitored. The second is that it will inspire the production of atlases for other taxa, so that the extraordinary biodiversity of this corner of the Earth, currently experiencing an exponential increase in development, can be better documented.

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Classic writings

Galileo's Commandment: An Anthology of Great Science Writing

edited by Edmund Blair Bolles W. H. Freeman, \$26.95

A bumper collection that ranges widely across time and disciplines, from Herodotus on the Nile Valley to Isaac Asimov on death in the laboratory. The editor, who introduces each piece, divides the book into three parts: an opening section in which scientists try to understand science, a long middle section that shows how the scientific imagination attempts to understand nature, and a third section in which writers transform scientific efforts into literary achievements.

Great Essays in Science

edited by Martin Gardner OUP, £8.99 (pbk)

First published in 1957 and later reissued under the title *The Sacred Beetle and Other Great Essays in Science*, this anthology aims, in Gardner's words, "to spread before the reader, whether his or her interest in science be passionate or mild, a sumptuous feast of great writing — absorbing, thought-disturbing pieces that have something important to say about science and say it forcibly and well". "There are many pleasurable surprises in this highly individual selection", wrote *Nature*'s reviewer of an earlier edition.

Essential Classics in Science

CD-ROM edited by John Gribbin and Pat Coyne Electric Book Company, 20 Cambridge Drive, London SE12 8AJ, UK (tel./fax: +44 (0)181 488 3872; e-mail: pat-coyne@geo2.poptel.org.uk), £19.95

Complete and unabridged works by Darwin (Origin of Species), Einstein (The Meaning of Relativity), Faraday (The Chemical History of a Candle), Lyell (Elements of Geology), Malthus (Essay on the Principle of Population), Maxwell (Matter and Motion) and Wallace (The Malay Archipelago).

Darwin, second edition

CD-ROM

Lightbinders, 2325 3rd St, Suite 324, San Francisco, California 94107, USA (tel: +1 415 621 5746; fax: +1 415 621 5898; e-mail: darwin@lbin.com), \$49.95

Reproduces all of Darwin's major works, a selection of his lesser-known short papers and his 1,200-page monograph on barnacles. Also included are an extensive timeline, biographical dictionary and bibliography of 1,500 primary and secondary sources as well as the text of Michael T. Ghiselin's *Triumph of the Darwinian Method*.

New Journals

Next week's issue will contain *Nature*'s annual New Journals review supplement.