

Nature's Night Life

By Robert Burton. 1982. Blandford Press (Canadian distributor Oak Tree Press, Toronto). 160 pp., illus. \$22.95.

"... Animals have several options for organizing their activities. Nocturnal activity is just one possibility which has its peculiar advantages and disadvantages, and requires certain adaptations in the structure of the animal to become practicable." That is an admirably clear statement of an important concept, for any audience. It sets the tone for this survey of nocturnal animals (no sleeping leaves or night-scented orchids) from many parts of the world.

Not all of the book is as good as that first quotation suggests. Much effort is spent addressing an ill-posed question, namely what single, obvious factor accounts for this animal being nocturnal? The pages of just-so stories given in response are interesting but unsatisfying, because "there are so few instances where it is possible to point to a clearcut reason for nocturnal behaviour or to clinch an argument with observations or experiments which demonstrate the advantage accruing to the animal. All too often, there are exceptions. . . ." The author says this often and eloquently, but does not desist from looking for the quick fix. In the end, though, his willingness to be critical of his

own ideas, as well as those of others, is appealing, and makes up for his occasional overenthusiasm in milking meagre data.

A similar freshness of outlook is apparent in other matters as well. For example, he has a section on the plains of East Africa. Signs of death are everywhere obvious on these plains at night, from the roar of the lions to the spider webs that carpet the ground. It is not a Disney paradise. The author treats this system with the touch of respect it deserves, without being stuffy about it. On the other hand, I think it is a bit much for him to speak only of "the Africa of tourists and scientists" — there are a few other people involved.

There are many nice pictures, a good range of examples from invertebrates and vertebrates, and a reasonable underpinning of biological theory. It is quite a good example of how to popularize science.

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Caribbean Fish Life: Index to the local and scientific names of the marine fishes and fishlike invertebrates of the Caribbean area (tropical western central Atlantic Ocean)

By Jacques S. Zaneveld. 1983. E. J. Brill/Dr. W. Backhuys, Leiden, Netherlands. xviii + 163 pp., 1 map. D.Gld.56.

This small paper-backed publication lists vernacular and scientific names for common marine fishes and lancelets (hence the fishlike invertebrates in the title) for the Caribbean. About 760 species are included in 143 families. For the purposes of the book the Caribbean is defined as the Caribbean proper as well as the areas around the Bermudas, the Bahamas, and the south Atlantic coast of United States. Fishes of the Gulf of Mexico and those for which no common name has been mentioned in the literature are stated to be omitted, as are fishes seaward of the 200 metre depth line. For higher classification Leo S. Berg's 1958 classification of fishes is followed; J. S. Nelson's (1976, John Wiley & Sons, now in second edition, 1984) *Fishes of the world* would have been a better choice.

The book is divided into Introduction, References, and Additional Literature, Table 1 (abbreviations for languages), Table 2 (abbreviations for islands, countries and references), the List (comprising the body of the text), Indices to scientific names, and vernacular

names. A map of the principal Caribbean islands and nations is included.

In the list at the family level and above usually only the scientific and English common names are given. Within the families the species are listed in alphabetical order by scientific name. The genus and species name is printed in boldface which makes it easier to pick out. Following the scientific species name is the name of the author, and sometimes, in parentheses, a synonym. A check of 20 scientific names against my own manuscript list of fishes of Canada showed agreement in all cases but one where Zaneveld appeared to have the more up-to-date usage. Under the scientific name are one or more letters, abbreviation for one of the seven languages covered. Following each letter is one or more vernaculars whose source is indicated by abbreviations for islands/nations and references. It is valuable to have the source documents indicated.

The accepted English vernacular for the American Fisheries Society list of common names generally seems to be included, but one may also find addition-

ally out-of-date or imprecise vernaculars listed, e.g. nine eyes and lamprey eel for the sea lamprey, *Petromyzon marinus*, for USA. An English vernacular is given for most species but the French vernacular names seem to be less complete. For the first 110 species in the Caribbean list I was able to add French names for 14 species which lacked them, and 9 French synonyms from my manuscript list of fishes of Canada. Of course it might be argued that these French vernaculars are not prevalent in the Caribbean, but this criticism might also be applied to some of the FAO "book" French names included. It is unfortunate that FAO translators have often overlooked the prior existence of French-Canadian vernaculars and have introduced newly coined "book" vernaculars. I am unable to comment on vernaculars from the other five languages. The last item under each species is a one sentence statement of the world range of that species.

An index to scientific names is provided. Species are indexed under genus but not under the species

name. All higher level taxa are indexed. In the vernacular index *little tuna* and *tunas* are indexed, but not *tuna*, *little*. The inclusion of these indices makes this publication really much more worthwhile, but I am prejudiced in favour of united indices with both common and scientific names — this saves the reader from first having to find the appropriate index.

Lists of common and scientific names are useful to editors, fisheries management, ichthyologists, and translators. They are especially useful in an area, such as the Caribbean, where the fauna and linguistic heritage is rich. Zaneveld is to be complimented for accepting the difficult challenge of assembling this list, which will be valuable to all those interested in studying and managing Caribbean fishes.

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The American Darters

By Robert A. Kuehne and Roger W. Barbour. 1983. The University Press of Kentucky, Lexington. 177 pp., illus. U.S. \$45.

Darters are small, often colorful, fishes of the perch family (Percidae) that live mostly on the bottoms of streams from which they dart (hence their name) to seize their minute prey. The three larger North American species of the perch family, the yellow perch, the walleye and the sauger, are well known. The (at least) 140 species of darters comprising the subfamily Etheostomatinae are poorly known to the public or even the angler or naturalist. This is a pity because many have beautiful colors, interesting courtship and parental behavior, and varied adaptations to their environment. The authors describe this as a book about darters, not a treatise on them.

The book covers all named and some un-named species of darters including those of United States, Canada (12 species), and Mexico. The book is divided into the following sections: Acknowledgements, Introduction, Glossary, Keys, and sections on the following genera and their species: *Percina*, *Ammocrypta* and *Etheostoma*, References and an index. Treated in this book are 31 species of *Percina* (4 Canadian), 7 of *Ammocrypta* (1), and 94 *Etheostoma* (7).

The Introduction describes the distinctions between the darters and their relatives, the layout of the book,

the photographic techniques, and the laws and ethics of collecting. The three-page glossary covers anatomical, ecological and other technical terms. Branchiostegal ray is defined as gill ray; this is incorrect (gill rays are cartilaginous rods in the interbranchial septa).

The key to the species of darters occupies 14 pages and uses 68 photos (to illustrate characters). Most of the key characters are distinctive and many are illustrated. Some key couplets use only a single character.

The body of the text consists of one to three pages describing each of the genera and their subgenera, and species accounts which vary from one-half to one and one-half pages.

The species accounts have the following headings: Description, Distribution, Natural History, Abundance, and Name. The descriptions are quite detailed and describe scalation, colour, fin ray, scale and vertebral counts, and sexual dimorphism. The concise paragraph on distribution is supplemented by a small 8.5 cm standard base map of the United States, southern Canada and northern Mexico with the native range shown by shading. Notes on habitat, species associates, life history, behavior and hybridization are presented under Natural History. This will be the most readable and interesting section for the average reader, and is usually the longest section after Description. The presence of many short Natural History



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