ANALYSE D'OUVRAGE

THE ANIMALS
Systematische Zoologie
by A. REMANE, V. STORCH, and U. WELSCH.

1986, Edition 3. Cloth and paperbound. Stuttgart and New York : Gustav Fischer Verlag.
xvi + 698 pp. DM 86. (Geb.) & DM 72 (kart.).

This is a moderate revision, by the second and third authors, of a book first published in 1976. It is a descriptive treatment in the good old style. The great bulk of the work is on structure, including some development, and on the various taxa. There are a few phylogenies and perhaps 2000 informative and usually (where I could judge) accurate figures, with an occasional nod to distribution and habits. Some attention is paid to economic and especially medical significance of relevant taxa, and usually approximate body lengths and numbers of extant species are given. A geologic time chart on the inside front cover is unchanged from the 1976 version except for one probably mistaken addition (land scorpions in the Silurian) and the idiosyncratic inclusion of the Silurian in the Ordovician..

Treatment is usually to the level of order, to family for a few groups, and includes the protozoans as a subkingdom Protozoa. The green alga *Chlamydomonas* and its relatives are included, as are, more reasonably, the slime molds. There is no general or broadly comparative treatment given except for a 1 1/2-page introduction; page 1 begins with the Protozoa. Each phylum or large class receives a general treatment, following which the subtaxa are discussed more briefly. The classification is mostly synthetic, although the Ctenophora and Cnidaria each seem to be given the same rank as the entire Bilateralia.

The emphasis is on animals now alive, although the fossil record does have a little presentation. There is more on extinct vertebrates than on extinct invertebrates, but even for vertebrates the treatment of fossils is less authoritative than for surviving forms. The only mention of the fascinating fossil record of the Priapulida, for instance, is «known fossil since the Cambrian».

A third of the book is on the vertebrates, with 60 pages on general vertebrate anatomy. With Storch as an author it is not surprising that this is well done. I was nevertheless a bit surprised to find the arcualia theory of vertebral structure presented in an unqualified way. It is good to see the Spiralia treated as a holophyletic group, although included here is the heterogeneous supposed taxon Aschelminthes. Sometimes more than one view is given on controversial issues; a striking exception is the lack of any mention of the possible relationship between the Entoprocta and (other) Bryozoa. Outdated phylogenies (by Remane) of fishes, tetrapods, and primates are still included. There is almost never any justification given for any phyletic relationships. It is perhaps worth noting that the Ancylopoda are given ordinal status separate from the Perissodactyla and that the Archosauria include the Chelonia. Some recent discoveries, such as *Riftia,* the Loricifera, and the Remipedia, are included, but the bumblebee-sized bat of the Craseonycteridídae was missed, as were various strange fossils like *Hallucigenia, Tullimonstrum,* and *Wiwaxia.* I did, though, find a possibly important animal (the primitive metazoan *Xenoturbella*) which I had not known before.

All in all this is a useful and more or less compact treatment of the kinds of animals. The collection of figures is unusually good, even though two of the three (unidentified) figures on the cover do not appear in the text and so will be lost in libraries. The book does not compare with the magnificent two-volume work edited by S.P. Parker (Synopsis and Classification of Living Organisms; New York : McGraw-Hill, 1982) except for its overall better figures and some attempt to include extinct animals. The book is a good choice for an overview of animals; I do not know of another book with a similar scope in any language.

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