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## Review of *Practical Taxonomic Computing* by Richard J. Pankhurst (Cambridge University, 1991)

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Chapters 2, 4 and 5 serve as a very nice introduction to the world of databases and various approaches to automated identification keys. Here the author could have defended a preference for nonphylogenetic approaches by pointing out that efficient keys are symmetrical in structure, whereas phylogenetic reconstructions indicate an evolutionary bias towards asymmetrical divergence. Throughout Chapter 5 the author moves into progressively more sophisticated computerized identification methods, and I expected a discussion of expert systems to follow immediately. Unfortunately, the vestigial Chapters 6 and 7 intervened, and then it seems the author ran out of steam, because the discussion of expert systems (Chapter 8) is just over six pages long.

My advice to the author: Get a coauthor who works with expert systems, lose your professional bias about systematic methods, and write another edition aimed at encouraging the growth of taxonomic and systematic databases. The market is there.

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PRACTICAL TAXONOMIC COMPUTING.

By Richard J. Pankhurst. Cambridge University Press, Cambridge and New York. \$49.95. xi + 202 p.; ill.; index. ISBN: 0-521-41760-0. 1991.

Systematic biology has experienced a renaissance in recent years. One reason is the resurgence of interest in comparative studies in evolutionary biology. Growth of this exciting area is impeded by lack of explicit phylogenetic hypotheses for most groups, and by a paucity of databases summarizing phylogenetic information for large numbers of characters. A second reason is the impending biodiversity crisis, bringing with it a need for more basic taxonomic information. A theme common to both areas is the need for more and more readily available systematic information. The demands of new user groups from evolutionary biology and from conservation and biodiversity studies can be met only by increasing computerization of the special knowledge possessed by systematic biologists. This book does not serve the needs of the user groups as well as it might.

Chapter 1 (General introduction) should have included Chapters 6 and 7, although the overview of the history and purpose of classifications would still have been too cursory. Chapter 3 is a superficial treatment of various approaches to quantitative systematics ending with an anachronistic caricaturization of phylogenetic systematics. An objective description of various approaches, integrated into Chapter 1, would have served better.