

## Past futures

Andrew H. Knoll

**Historical Biology: An International Journal of Paleobiology.** Editor E. Buffetaut. Harwood. \$186 (institutional); \$122 (university library); \$48 (personal) per volume.

PALAEONTOLOGISTS seem to enjoy two sports — predicting the imminent demise of their discipline and starting new journals. Despite numerous Cassandras, it is the second pursuit that better indicates the field's state of health. In science's modified oral tradition, palaeontologists are increasingly the keepers of systematic and morphological knowledge; the fossil record continues to provide new insights into and challenges for evolutionary biology; and as concern over global change grows, the sensitive responses of organisms to past environmental changes provide the basis for a vigorous new partnership between palaeontology and geology. To accommodate expanding research, new journals have arisen regularly over the past dozen years. The latest is *Historical Biology*.

In his prefatory remarks to the first issue, Eric Buffetaut states that *Historical Biology* will publish papers on "paleobiology, paleoecology, evolution and functional morphology, phylogeny, historical biogeography, evolutionary processes and patterns, and extinction phenomena, as well as molecular paleontology". Given that aim, one might well wonder whether the journal is to be all things to all palaeontologists (with consequently limited chances of success), or whether it will settle into a niche that differentiates it from existing outlets.

Initial results are unclear. *Historical Biology* shares several features with established English-language journals: its contents are generally if not invariably of a good standard; authors are drawn principally but not exclusively from North America and Western Europe; and its subject organisms are predominantly marine invertebrates, with a healthy admixture of vertebrate palaeontology, a few papers on skeletonized protists and plants, and virtually nothing on organic-walled microfossils. Among established journals, character displacement occurs mainly in disciplinary approach. The *Journal of Paleontology* and *Palaeontology* concentrate principally on systematics and morphology. *Paleobiology* features quantitative analyses informed by evolutionary theory. *Lethaia* also looks to biology, but in this case it is functional biology and ecology. *Palaios*, in contrast, draws its inspiration from sedimentary geology, publishing mainly on palaeoecology, taphonomy and stratigraphy.

One might well argue that palaeontological studies of evolution should embrace all these methodologies, and true to its editorial claim, *Historical Biology* has taken a catholic approach. Its first issues contain such (now) standard fare as a functional analysis of pterosaur locomotion, conodont biogeography, and an essay on trilobite monophyly, as well as more unusual offerings such as a curious but interesting account of the Great Auk, an eclectic essay on plant evolution, and data on the metabolic flexibility and ecological tolerance of brachiopods. A special issue has also been devoted to mass extinctions. Although the journal as a whole includes diverse perspectives, most

individual papers still follow a single approach, much as in established journals.

It will be interesting to watch the evolution of this journal. If *Historical Biology* can encourage rigorous, multidimensional analyses of palaeontological pattern interpreted in the context of continuing changes in both the physical and biological environment, it will become a significant voice in palaeontology. As an old but newly revitalized discipline looks to the future, this, as much as anywhere, is where palaeontology's unique contributions to geology and biology will be made.

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## Not so shaky

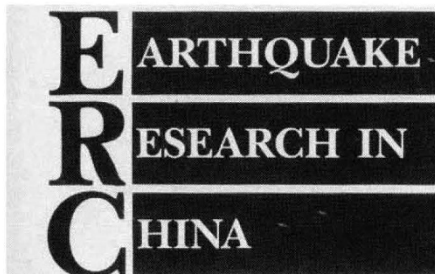
Peter D. Marshall

**Earthquake Research in China.** Editor-in-chief Chen Yong. Allerton, New York. 4/yr. North America \$280; elsewhere \$295.

**Acta Seismologica Sinica.** Editor-in-chief Chen Yuntai. Pergamon. 4/yr. DM550.

CHINA has a remarkable record on earthquake prediction, so the appearance of two new journals consisting entirely of papers in English on the nation's earthquake phenomenology and seismological research should be of interest to seismologists throughout the world. Both *Earthquake Research in China* and *Acta Seismologica Sinica* consist of papers which have been translated by their authors from Chinese into English and made widely available by the distribution resources of Western publishing houses. From the look of the journals, it appears that they are printed and bound in China.

*Earthquake Research in China* is a totally new publication, the first volume of which appeared in 1987. Like *Acta Seismologica Sinica* it is run by a large editorial board, most of whom are employed by the State Seismological Bureau and are



probably responsible for peer review of the contributions. In a statement on publishing policy, Chen Yong, the editor-in-chief, says that although Chinese scientists have kept abreast of research elsewhere, the observational data and research results of Chinese scientists are rarely seen by their foreign counterparts simply

because of the language problem. By selecting and publishing translations of papers from almost 30 Chinese-language journals, the editors hope to go at least some way towards rectifying this situation. The journal plans to take contributions on long- and short-term earthquake prediction, risk and hazard estimation and earthquake sociology (a subject which the Chinese naturally regard as very important).

*Acta Seismologica Sinica* is the journal of the Seismological Society of China and is in many ways similar in publishing policy to the *Bulletin of the Seismological Society of America*. It tends to contain more papers than *Earthquake Research in China* and also includes research notes. In both journals the emphasis is on seismology (though reports on other geophysical aspects of earthquake phenomenology are accepted), and both contain a mixture of theoretical and observational papers, some of which are co-authored by eminent Western seismologists. Westerners should probably not submit papers, however, because this would defeat the objectives of the publishers.

As far as I can make out it can take up to three years from acceptance for a paper to appear in *Acta Seismologica Sinica* and probably a similar time for papers in *Earthquake Research in China*, given the publishing policy. But this time lag doesn't matter too much, because the research results would probably otherwise remain unseen by non-Chinese investigators. The time taken to publish may explain why there is little evidence of use being made of the high-quality digital data from the nine seismograph stations operated as part of a vigorous co-operative programme with the US Geological Survey — it will be interesting to see how long it is before results from these stations percolate through to the journals. China operates over 400 seismograph stations and has over 15,000 technical staff employed on earthquake research, so it is not surprising that the country supports so many seismological journals.