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# The making of a mega-journal in taxonomy

We live in an era of elevated rates of extinction, yet about 90% of the Earth's species of animals, plants and micro-organisms remain undescribed (Wilson, 2004). Although there are many journals that may publish taxonomic papers, it is increasingly difficult to publish papers on descriptive taxonomy in a timely and cost-effective manner. It is common for a taxonomist to wait for eight to ten months and sometimes years to get a paper published. And unless there is access to an institutional monograph series, it is even more difficult to publish a large taxonomic revision or monograph, not only because of costs, but the fact that most journals are of a fixed size and have limits on the length of papers. This impediment in publishing has a huge negative impact on taxonomy—the delay and difficulty in getting works published can discourage taxonomists who worked for years and unpublished works are a huge waste of talent and resources (often publicly funded). Large monographs are particularly important to the study of complex species-rich taxa, as taxonomy is about comparison, and closely related species must be compared together. Much needed is a rapid and efficient journal for descriptive papers and monographs in taxonomy.

Published concurrently in print and online, *Zootaxa* was established as a rapid journal at the start of this century to remove these impediments in taxonomy. It has received overwhelming support from zoological taxonomists around the world, despite the fact that this diverse group of specialists are often perceived as too individualistic and fragmented into diverse subdisciplines to come together as a community. *Zootaxa* rapidly transformed itself from a small journal publishing 20 papers totalling 302 pages on 15 occasions in 2001 to a mega-journal publishing 1,020 papers in 22,052 pages as frequently as twice each week in 2006 (Fig. 1)—a pattern of rapid growth that is unprecedented for any scholarly journal, in both the sciences and humanities. This is indeed a very promising sign for the rejuvenation of zoological branch of one of world's oldest science (that of naming and describing nature) in a new era when its services are most needed.

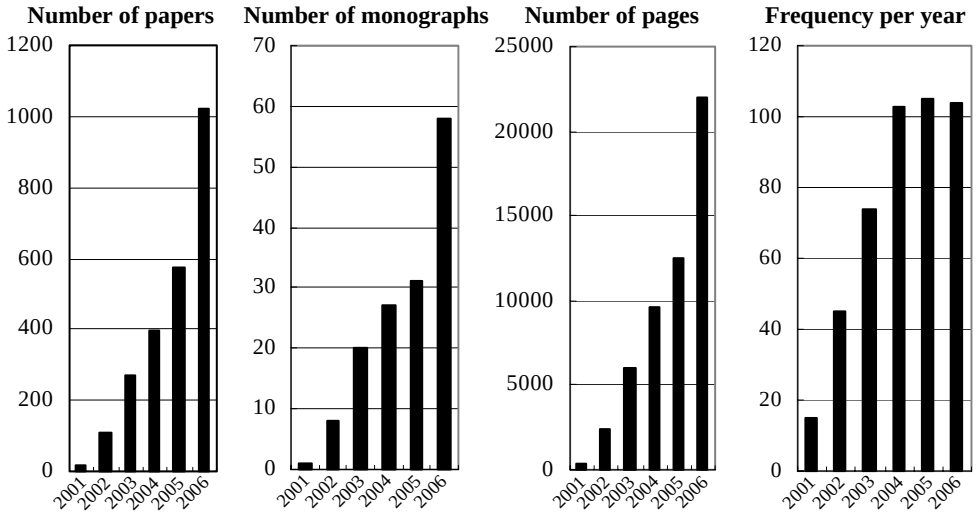


**FIGURE 1.** Growth of Zootaxa in size and frequency from 2001 to 2006.

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A mega-journal must be a magnitude larger than an average journal in a particular field. In 2004, *Zootaxa* published almost twice each week and produced much more pages than the combined total published in ten core journals in systematic zoology (Zhang, 2006). Despite this, in 2004 *Zootaxa* still only qualified as a major journal, not a mega-journal. It became a mega-journal in 2006 with over 1,000 papers in more than 20,000 pages—thus a magnitude larger than an average journal that produce no more 100 papers in fewer than 1000 pages. Few other peer-reviewed scientific journals are of this magnitude in size.

A mega-journal should also represent and involve the majority of scientists working in the discipline. Wilson (2004) estimated that there are about 6,000 taxonomists at work worldwide on all groups of organisms combined. During 2001–2006, over 2700 authors have published in Zootaxa and this should account for the majority of zoological taxonomists at work in the present. Because Zootaxa does not require page charges for publication, authors from the biodiversity-rich developing countries are very well represented. For example, over 1,200 authors of the Americas have published in Zootaxa and there is almost an equal split between authors from South-Central America and North America (USA, Canada, Mexico); over 450 of these are from the top mega-biodiversity country Brazil.

A mega-journal should publish a significant number of the most important works in the subject area. Taxonomic inventories, revisions and monographs represent the pillars of taxonomy. In 2006, Zootaxa has published many such important works, including 58 monographs (papers of 60+ pages)—more than a monograph each week! Over the six years, 145 monographs were published in Zootaxa, the longest being a 1295-page monograph of Recent and fossil turrids (Mollusca: Gastropoda), which includes a world inventory of 11,350 species group taxa (Tucker, 2004). Most of the 2,388 Zootaxa papers reported biodiversity discoveries and over 4500 new taxa were described.

One major benefit of *Zootaxa* is the concentration of a vast body of papers in a single easy-access journal that otherwise would be scattered in hundreds of small journals, many of which are expensive, difficult to access, and/or are only available in large research libraries in developed countries. The new model presented by *Zootaxa* is nothing short of revolutionary. For example, an open access paper describing a new species of monkey from Brazil (Pontes et al., 2006) was downloaded 7254 times in the first 20 days of its publication (many downloads from developing countries) and the story was reported in many international news media such as CNN.

Compared to many journals of taxonomy, *Zootaxa* is still in its infancy, yet it has made a remarkable impact. It is a tribute to all the editors, authors, reviewers and the publisher who have made Zootaxa a success. It is hoped it can be a prelude to the global renaissance of taxonomy.

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