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Encyclopedia of life: should species description equal gene sequence?

Donat Agosti

American Museum of Natural History and Smithsonian Institution, Eidmattstr. 54, 8032 Zürich, Switzerland

E.O. Wilson's article in *TREE*, arguing for an encyclopedia of life [1], and his recent monumental revision of the ant genus *Pheidole* [2] illustrate that a main obstacle to developing a global taxonomy network could be the taxonomists themselves: after all, it is their provision of taxonomic information, rather than technology *per se*, that such a network will depend upon. The aim of an encyclopedia of life is to make species descriptions freely available online; however, the adherence of Wilson and his publisher to copyright law prevents this. The wonderful images of *Pheidole* type-specimens have either not been posted or have been removed from the Entomology Primary Type Specimen Database produced by the Museum of Comparative Zoology at Harvard (http://mcz-28168.oeb.harvard.edu/mcztypedb.htm), suggesting that this initiative supports a commercial entity rather than the research community. Publishers do need to cover their publication costs; but they have still to show that they lose revenue by making content freely available online to the research community.

It is also clear that Wilson's vision for an encyclopedia of life, and that of its closest embodiment, the Global Biodiversity Information Facility (http://www.gbif.org/), will not be realized without the collaboration of all taxonomists. When Antbase (http://www.antbase.org) attempted in a collaborative effort to make all ~3800 ant systematics publications (*c.* 80 000 pages) accessible online, four out of the 130 active scientists refused to allow their recent monographs to be included. These scientists were all from developed countries and their refusal to provide open access to all or some of their articles meant that up-to-date descriptions of over 10% of the currently known ant species could not be included. The Antbase website [3] receives ~200 000 hits per month, demonstrating that there is a demand for this kind of information. Indeed, such a demand was previously voiced by participants at the Invertebrate Conservation Meeting, organized by the World Conservation Union in Washington DC in 2001, when they concluded that the lack of identification tools is the single most important stumbling block to including invertebrates in conservation programs.

Unless we adhere to such principles as the 'Biodiversity Commons' [4], and descriptions, including images and keys, are given the same status as gene sequences, and are deposited in freely available public data bases (the equivalent of GenBank, perhaps), the web-based tools outlined by Wilson [1] are doomed to failure. Rio + 10 has now passed, and little has been done by systematists to increase the number of species recorded. Perhaps it is time to adopt the same data-sharing standards that our colleagues in molecular systematics already use to their great benefit.

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Corresponding author: Donat Agosti (agosti@amnh.org).