

THE LOTTERY OF BIBLIOGRAPHICAL DATABASES:
A REPLY TO EDWARDS & THORNE

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We understand that our finding that over 20% of new molluscan genus-group names are omitted by *Zoological Record* (ZR) has caused surprise to the editors of this journal, as it has surprised us and many of our colleagues, all of us being regular users of this inescapable and valuable bibliographical tool. Indeed, the prevailing intuitive opinion is that approximately 5–7% of the names are omitted. In our answer to Edwards & Thorne (*Malacologia*, 35: 153–154), we want to emphasize two points:

(1) Omission affects all sorts of journals, including high-profile international journals;

(2) the high rate of omission and other nomenclatural defects highlight the risks and problems of establishing a "List of Available Generic Names in Zoology" based on Neave's *Nomenclator Zoologicus* and ZR, as is being currently considered by the International Commission on Zoological Nomenclature (ICZN).

Which Names Get Omitted?

Most of the taxonomists with whom we have discussed this question seemed to believe that names that escape ZR were originally published in very obscure sources. In discussions, these scientists often frankly suggest that omission from ZR and nomenclatural oblivion are, after all, probably deserved and that the authors of such names are themselves responsible for the ill fate of their names. These beliefs are wrong, as we show below.

To supplement the data provided in our paper (*Malacologia*, 34: 75–86), we have analyzed the place of publication of 370 genus-group names omitted from *Nomenclator Zoologicus* and ZR. These are names starting with the letters A–K, mostly published between 1940 and 1975. Places of publication were divided into three categories:

- (a) books and collections of books,
- (b) main-stream scientific journals,
- (c) little-known and obscure journals.

Admittedly, it is a matter of personal opinion whether one should rank a journal as main-stream or little-known. Our appreciation

is best explained by a series of examples. Among main-stream journals, we have ranked: *Memoir of the Geological Society of America*; *Mémoires de l'Institut Royal des Sciences Naturelles de Belgique*; *Trudy Zoologicheskogo Instituta*; *Sarsia*; *Malacologia* (the very journal where this paper is published! Omitted names: *Globicarina* Waterhouse, 1965, *Malacologia*, 3(3): 374; *Calibasis* and *Idabasis* Taylor, 1966, *Malacologia*, 4: 41, 42); *Oceanologia et Limnologia Sinica*; etc.

Among little-known and obscure journals, we have ranked: *Science Reports of the Tohoku University*; *Bulletin du Muséum d'Histoire Naturelle de Marseille*; *Vestnik Moskovskogo Universiteta*; *Gastropodia*; *Leaflets in Malacology*; *Bulletin of the Department of Geological Sciences, University of California Publications*; etc.

The first category, books and collections of books, is itself a mixed category, and includes both main-stream and little-known titles. Examples are Habe, 1961, *Coloured illustrations of the shells of Japan*; *Fossils of central southern China*; Nordsieck, 1972, *Die miozäne Molluskenfauna von Miste-Winterswijk*; *Das Tierreich*; *Galathea Report*; Starobogatov, 1970, *Fauna molliuskov i zoogeografiskoe rajonirovanie kontinentalnits vo doemov zemnogo shara*; etc.

Our results show that 141 omitted names (38%) were published in books and series; 153 names (41%) were published in main-stream journals; 76 names (21%) were published in little-known or obscure journals. If country of publication is considered, 98 names (26%) were published in books or journals of the former USSR; 91 names (25%) in USA; 48 names (13%) in Japan. Only 9 names (2%) were published in China, but this is because Chinese output did not start until after the end of the cultural revolution (1976), that is, later than the time span of our study. These results demonstrate that there is no correlation between omission from *Nomenclator Zoologicus* and circulation of a journal or book.

Most, if not all, of the journals, main-stream or obscure, cited above are in principle covered by *ZR*. Hence, obscurity is not the main reason for omission. On a number of occasions, we have found that four new names published in a paper are correctly gazetted in *ZR*, whereas a fifth name published in the same paper has been omitted. Or a whole paper published in a normally recorded journal has been omitted. We regret to say that carelessness seems to be a not infrequent source of omission. As our results show, names published in books constitute a major proportion of omitted names. Taxonomists have also noticed that many books and irregular series are recorded in *ZR* only several years after their publication, when most practicing scientists know of these books within a few weeks or months after their publication; often, book reviews have also been published in main-stream journals. We believe that the main reason for this regrettable situation is that there are few, if any, personal contacts between the recorders and bibliographers, on one side, and the people that write the books and monographs, that is, the malacologists and taxonomists, on the other side. In our era of frequent and easy travel, we regret that, to our knowledge, the staff of *ZR* has attended only once (in Edinburgh, 1986) an International Malacological Congress, which are held every three years in Europe. We believe that attendance of such and other similar congresses in USA and Russia would greatly enhance the efficiency of *ZR*, when malacologists could identify the Mollusca section of *ZR* with the face of a person whom they have personally met.

The Risks of a "List of Available Generic Names in Zoology" Based on *Nomenclator Zoologicus* and *ZR*

Stability of names has become a much debated topic, both in botanical (Hawksworth, 1991) and zoological (Ng, 1991) nomenclature. The International Commission on Zoological Nomenclature resolved at its University of Maryland meeting "to enter into negotiations with Biosis with a view to developing a data base of generic names as a list of available names" (Anonymous, 1990). The report (Anonymous, 1991) of the Amsterdam meeting of the Commission further stated that "Biosis has made good progress in the preparation of a draft list of generic names published between 1758 and 1990, based on

Neave's Nomenclator Zoologicus and *Zoological Record*."

Indeed, all taxonomists including ourselves would dearly like to have a complete nomenclator of generic names under a single cover, and it was precisely for lack of such a catalogue that we started compiling our own, albeit limited to Mollusca. However, we seriously question the value of the Biosis nomenclator when up to 23% of recently published names are omitted.

More importantly, we want to stress the risks of making this list a formal List of Available Generic Names in Zoology. In an unofficial report of the 1990 ICZN meeting, Savage (1990) suggested that "most importantly, only the generic names on this list would be available for use. Any other names, subsequently discovered or not, would not exist for nomenclatural purposes." This is what Savage calls "the statute of limitations for the resurrection of old names." We call it a recipe for injustice and chaos. By using such expressions as "resurrection of old names," Savage tends to suggest that names omitted by *Nomenclator Zoologicus* and *ZR* belong to the very obscure category, and that those zoologists discovering them are merely book archeologists that disrupt the work of real taxonomists. We have amply demonstrated that in malacology, and probably many branches of invertebrate (paleo)zoology and vertebrate paleozoology as well, there are literally thousands of nomenclaturally available names that get omitted by *ZR*. When, for example, *Aliomacra* Stephenson, 1952 (U. S. Geological Survey Professional Paper, 242: 125) or *Dancea* Zilch, 1960 (*Handbuch der Paläozoologie*, 6(2): 730) are omitted by *ZR*, should Stephenson and Zilch be blamed for that? Should *Aliomacra* and *Dancea* be deemed not to exist for nomenclatural purposes? We strongly reject this idea, as we reject the idea that an Official List of Available Generic Names in Zoology should be compiled on a commercial basis.

In his report of the ICZN 1990 meeting, Savage (1990) further suggested that "at the time of publication (e.g., 1996), the dates in the list (regardless of any subsequent findings) would be the final determinants of priority." Again, the rationale behind this point is probably to avoid changes of names as a result of bibliographical subtleties, an opinion that many taxonomists would defend. However, there are again hidden sides that have apparently been overlooked: we refer to the

listing of generic names by *Nomenclator Zoologicus* whereas some of these names are unavailable under ICZN Art. 13, which rules that genus-group names published after 1930 must have a diagnosis and a type species.

We will give two examples:

Hennocquia is listed in Neave and credited to Haber, 1932, *Fossilium Catalogus*, pars 53, 220. However, Haber designated a type species but omitted a diagnosis, and *Hennocquia* is unavailable under Art. 13a(i). Wenz, 1938, *Handbuch der Paläozoologie*, 6(1): 219, first provided a diagnosis and type species. *Hennocquia* should thus be credited to Wenz (1938). *Pseudohelenaconcha* is listed in Neave and credited to Germain, 1932, *C.R. Congr. Soc. Sav. Sci.*, 1929, 7 (sic, should be 6). Germain failed to designate a type species, and the name is unavailable under Art. 13b. Zilch, 1959, *Handbuch der Paläozoologie*, 6(2): 215, provided a diagnosis and type species designation, and is the author of *Pseudohelenaconcha*. These examples should suffice to demonstrate the risks of binding too strongly the *Code of Zoological Nomenclature* and the databases operated and marketed by Biosis.

In conclusion, we want to outline briefly our suggestion to introduce a mandatory system of registration of new zoological names. We have proposed that the next edition of the *Code* adds a new article:

"A copy of every work containing the introduction of a new zoological name must be sent, by its author or publisher, to the International Commission on Zoological Nomenclature. Receipt of the publication by the Secretariat of ICZN is necessary to validate a new name.

When all other relevant provisions of the *Code* are satisfied, the date of validity of a new name is the date (day, month, year) when the publication containing its introduction is formally received by the Commission.

The International Commission on Zoologi-

cal Nomenclature publishes every year a list of the new taxa received at its offices, together with complete bibliographical reference, and the date (day, month, year) of their availability."

When this proposal was submitted to ICZN by the senior author, he recommended that the *Zoological Record/Nomenclator Zoologicus* be associated with the compilation of these annual lists, which do not duplicate the current contents of the *Zoological Record*.

This proposal would clearly benefit the more professional journals over the more locally produced, unedited ones, or with editors not even aware that there exists a *Code of Nomenclature*. With time the authors will know their interest is to seek publication in those professional journals that offer a better service with regard to this provision of the *Code*. Those that do not comply can be ignored. But this will be the result of their own carelessness, not the result of the lottery of bibliographical databases.

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NOTE BY A CO-EDITOR

While I find convincing the argument by Bouchet & Rocroi for a greatly improved system to capture and publicly recognize valid new taxa, I find one aspect of the methodology they propose for doing so particularly troubling.

At the same time they call for improvement of the capture of new taxa by the laudable expedient of having journal editors (and authors) send all of them to a central repository for official recognition, they surrender the entire process and leave the dates of recognition in the hands of the most inefficient and frequently careless bureaucracy in the world, the postal authorities.

A name would, they propose, only be official when it arrives in the hands of the central authority and is suitably blessed. Even assuming that the costs of sending all issues of all journals and other works to the central authority is borne by the publishers and editors and the costs thus saved put into staff to do the extraction and blessing, this is bound to be a time-consuming and tedious task that will require much staff time. Perhaps this is a price that must be paid.

The weak link, however, is the postal system. I estimate that about a third of the things mailed from Latin America never reach their destinations. An "airmail" package from South America can take two months. I esti-

mate based on recent experience that well over half of the materials going back and forth between the Far East of the Soviet Union and the West never reach their destinations at all. So, must we leave important taxonomic decisions and the all-important dating of taxonomic works in the hands of the Russian, Italian, or Colombian postal authorities? Are these bureaucrats to be new arbiters of priority and validity?

I would suggest that instead we rely upon the real dates of publication, and then make every effort to get the materials into the hands of the Commission of whatever central repository is chosen.

Eugene Coan, Co-Editor

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