

## Guest editorial

### Systematic palaeontology and biostratigraphy: are they “dated”?

There is probably something buried deeply within the human genome that urges man to collect, sort, and classify. How else is it possible to explain a child's collection of matchbook covers or Mendeleev's periodic classification of the elements? Systematic palaeontology and biostratigraphy turn this natural urge to very practical purposes, for the geologist and the evolutionist are dependent on the results. However, anyone reading the pages of certain palaeobiological journals, or a certain type of article on extinction, might be forgiven for concluding that we now have reached the point where further systematic description of fossils and further refining of our biostratigraphic classification had reached the point of diminishing returns.

Nothing could be further from the truth! Anyone with a first-hand familiarity of fossils and biostratigraphy is well aware that each generation, during the past two centuries, has revised the systematics and biostratigraphy provided by previous generations in addition to exploring the possibilities provided by little known groups of organisms. One hardly needs to emphasize this last point in a volume devoted to palynology, where so many major microfossil groups are just barely beginning to have their systematics and biostratigraphy worked out for the first time.

As a student of articulate brachiopods, a classical group first dealt with in depth by Linnaeus, I can testify from personal experience that the basic systematics of the group are in dire need of careful revision (being involved with the *Treatise on Invertebrate Paleontology* revision I speak authoritatively). This last statement applies with force to previously described taxa. Consider further, that for large parts of the world we are only now beginning to get comprehensive, basic, first descriptions of the brachiopods. I'm thinking here of such areas as China, northern Asia, South America, much of Africa, Arctic North America, and so forth; we are still discovering many new taxa from the “well known” areas of Europe and eastern North America!

Those “palaeobiologists” who delude themselves into thinking that the fossil record is well known, that few evolutionarily significant advances in systematic palaeontology and basic biostratigraphy remain to be made only reveal their own basic ignorance of the topic. For example, the known, published stratigraphic ranges of most genera and species, the uncommon to rare taxa, commonly endemic, are obviously minimal and most unsatisfactory for many “palaeobiologic” purposes, despite the child-like trust placed in them by some workers. One can almost support the view that we have just begun to fight.

Finally, a plea to the funding agencies to be more receptive to solid proposals for systematic and biostratigraphic activities. Don't let our enthusiasm for the newest fads and gimmicks in palaeontology blind us to the true value of strongly supporting the fundamentals without which all else fails. Let's not throw the baby out with the bath water.

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