Online naming of species opens digital age for taxonomy

Henry Gee, London

The ancient art of taxonomy — the classification of organisms — will take a leap into the twenty-first century this month with the first publication of zoological names in an online journal. The move has radical implications for standards of access to archive material that taxonomists have accepted for almost 250 years.

The recipients of the new names are three species of fossil protists called foraminifera. They appear in a paper by David B. Scott of Dalhousie University in Halifax, Nova Scotia, and colleagues, to be published in *Palaeontologia Electronica*.

Taxonomy relies on access to archive material stretching back decades or even centuries. By convention, names created after 1758 — when the tenth edition of Linnaeus' *Systema Naturae* was published — must use the binomial nomenclature established in that work. They must also follow the principle of priority of publication enshrined in the International Code of Zoological Nomenclature — known in the trade simply as 'the Code'.

Until recently, the Code gave no quarter to the electronic age — to be valid, formal names had to be printed on paper. But its 1999 edition conceded that names created after 1999 may be valid if published "by a method that does not employ printing on paper", provided that numerous identical and durable copies are obtainable and that copies are deposited in at least five named libraries.

As well as library distribution, *Palaeontologia Electronica* will make 200 CD-ROM copies of the issue containing the paper available for a fee. The new name will become valid when the disks, are distributed, although it is intended that both versions will be issued simultaneously.

Despite the concession, the Code still emphasizes the "desirability of works on paper". The reason is clear — even if CD-ROMs were to last for centuries, hardware developments might make it difficult to find machines that can read them.

But Norman MacLeod of the Natural History Museum in London, who edits *Palaeontologia Electronica*, believes that electronic taxonomy will be "very much the rule" within a decade. "I would be severely depressed if in ten years I walk into an office and find a series of bound volumes of *PE* printouts," he says.