

hand. Resolution of the species problem will be one of its most important results.

The problems inherent in bioinformatics are also formidable. As electronic search engines are developed, they must be made interoperable within and between phylogenetic groups. They must have quality control, exercised most probably by publication committees comparable to boards of editors of journals. They need to be created, as in the case of GenBank, to provide free public access. In joining the bioinformatics nation, taxonomists and encyclopedists need to address and overcome the growing problem of information overload already bedeviling those managing DNA microarray analyses, airline schedules and bank accounts. And finally, with current floppy disks starting to lose data within a decade and even optical disks in less than a century, improvement in longevity and format transfer methods will be a priority in the technologies adopted.

These obstacles are daunting, but they are of a technical nature eminently vulnerable to human ingenuity. To overcome them, and thereby complete the great Linnæan enterprise, creating the base of the all-species encyclopedia,

will secure the rightful place of comparative biology with mainstream science.

References

- 1 Heywood, V.H. and Watson, R.T. (1995) *Global Biodiversity Assessment*, Cambridge University Press
- 2 Raven, P.H. and Wilson, E.O. (1992) A fifty-year plan for biodiversity surveys. *Science* 258, 1099–1100
- 3 Edwards, M. and Morse, D.R. (1995) The potential for computer-aided identification in biodiversity research. *Trends Ecol. Evol.* 10, 153–158
- 4 Wilson, E.O. (2000) A global biodiversity map. *Science* 289, 2279
- 5 Wilson, E.O. (2000) On the future of conservation biology. *Conserv. Biol.* 14, 1–3
- 6 Kelly, K. (2000) All species inventory: a call for the discovery of all life forms on Earth. *Whole Earth Fall*, 4–9
- 7 Warshall, P. (2000) Bioinformatics: the master list and virtual museum. *Whole Earth Fall*, 50
- 8 Lawler, A. (2001) Up for the count? *Science* 294, 769–770
- 9 Godfray, C.J. (2002) Challenges for taxonomy. *Nature* 417, 17–19
- 10 Gerwin, V. (2002) All living things, online. *Nature* 418, 362–363
- 11 Bisby, F.A. *et al.* (2002) Taxonomy, at the click of a mouse. *Nature* 417, 367
- 12 Moritz, T. (2002) Building the biodiversity commons. *D-Lib Magazine* <http://www.dlib.org/dlib/june02/moritz/06moritz.html>
- 13 Stein, L. (2002) Creating a bioinformatics nation. *Nature* 417, 119–

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