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the present volume to address more directly the marine phytoplankton, I have set out to construct a new perspective on the expanded knowledge base. I have to say at once that the omission of 'freshwater' from the new title does not imply that the book covers the ecology of marine plankton in equivalent detail. It does, however, signify a genuine attempt to bridge the deep but wholly artificial chasm that exists between marine and freshwater science, which political organisation and science funding have perpetuated.

At a personal level, this wider view is a satisfying thing to develop, being almost a plea for absolute not to feel a humble guided, polished to shine but a 'notion' - 'I am sorry for getting it wrong before, this is what I should have said!' At a wider level, I am conscious that many people still use and frequently cite my 1984 book. I would like them to know that I no longer believe everything, or even very much, of what I wrote then. As if to emphasise this, I have adopted a very similar approach to the subject, again using eight chapters (albeit with altered titles). These are developed according to a similar sequence of topics, through morphology, suspension, ecophysiology and dynamics to the structuring of communities and their functions within ecosystems. This arrangement allows me to contrast the new knowledge and the understanding it has rendered redundant.

So just what are these mould-breaking findings? In truth, they impinge upon the subject matter in each of the chapters. Advances in molecular biology have allowed ultrastructural details of planktic organisms to be revealed for the first time. The advances in molecular biology, in particular the introduction of techniques for isolating chromosomes and ribosomes, fingerprinting them by restriction enzymes and reading genetic sequences, have totally altered perceptions about phylogenetic relationships among planktic taxa and summarised about their evolution. The classification

of species, this is the way of science. There is no scientific text that can be closed with a final 'So that's it, then'. There are always more questions. I actually have rather more now than I had at the same stage of finishing the 1984 volume. No, the best that can be expected, or even hoped for, is a periodic stocktake. This is what we have learned, this is how we think we can explain things and this is where it fits into what we thought we knew already; this will stand until we learn something else. This is truly the way of science. Taking observations, verifying them by experimentation, moving from hypothesis to fact, we are able to formulate progressively closer approximations to the truth.

In fact, the second volume of my 1984 work has a more powerful and less high-principled defence. It is that the progress in plankton

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