

The hydrozoan work of Prof. Wim Vervoort

P.F.S. Cornelius

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Paul F.S. Cornelius, Department of Zoology, The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

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The merits of Prof. Wim Vervoort in the field of hydrozoan taxonomy are evaluated. His solid scientific approach, productivity, encyclopedic knowledge, modesty and other virtues are noted. Thanks to his work and efforts, the Nationaal Natuurhistorisch Museum at Leiden now accommodates by far the most important modern collection of hydroids in the world.

"Show me the evidence, and I shall examine it and form a conclusion." (Wim Vervoort).

Most of Wim Vervoort's scientific research has been taxonomic, and roughly half of this has been on the taxonomy of thecate hydroids. His work has been characterised by integrity, thoroughness, accurate perception, and a readiness to change his mind immediately in the light of fresh evidence. His manifestation of these talents has been a shining example to my own scientific struggles for the past 35 years. I am one of the many who have directly benefited from his quiet reiteration, by example, of these fundamental tenets of scientific procedure. Add to this a continuous and unfailing friendliness and scientific *esprit de corps*, and we have the most valuable of colleagues. Although Wim and I are about 25 years apart in age, I have never for one moment felt shy of talking with him on scientific matters or on any other. Like many who have reached the top of their profession, he reaches down to those just starting.

Someone must have recognised Vervoort's talent when he was at the very start of his career, for while he was working towards his Master's and Doctorate theses on copepods he was also curator of invertebrates other than molluscs and arthropods at the Rijksmuseum van Natuurlijke Historie. As if this wasn't enough, he simultaneously embarked on the hydroid volume in the 'Fauna van Nederland' series (Vervoort, 1946). Such treatises are typically written following a lifetime's experience in a group, but Wim did his at the very start. All these substantial works were pursued during the very difficult war years (1940-1945), and during an occupation which is rightly seen as one of the most terrible in the history of warfare. Let us recall that not just working facilities in the Museum, but food supply and personal safety themselves, were severely compromised. Indeed, the battle the staff had with the authorities over the protection of Jewish staff members culminated in the ultimate dismissal of the latter. Quite probably these appalling vicissitudes contributed to the death in 1946, for example, of poor Gustav Stiasny: Wim was among those who helped him survive this long, and he later wrote his obituary in 'Zoologische Mededelingen'. The story of what went on in and around the Rijksmuseum during the war years, when Wim Vervoort was approximately 23-28 years of age, is largely untold. Wim himself, I suspect through modesty, has always been reticent to talk about it.

Vervoort's 'Fauna van Nederland' volume was only his third publication on the group. Nevertheless, it stood out among existing North-West European one-country hydroid works of the period, both before and after, in the depth of its taxonomic analysis and in its accuracy (cf. Broch, 1928; Kramp, 1935; Leloup, 1952). Sweden, Norway, UK, and France had essentially had no hydroid guides for the previous 50 years or more, and only one was near Vervoort's in quality (Linko, 1911; 1912). One would have considered Vervoort's worthy of a man 50 years older, working in a peaceful environment. Its excellence presaged two major achievements in Wim Vervoort's life: the high quality of his subsequent taxonomic work, and his eventually becoming director of the Dutch 'Rijksmuseum van Natuurlijke Historie'.

A list of Vervoort's hydroid papers to the end of 1986 is already available (Vervoort, 1987). A recent list of them appears elsewhere in this volume (van Bruggen); and another in Vervoort's (1995) own bibliography of hydroid literature, mentioned again below. Strangely, following the 'Fauna van Nederland' volume he produced rather few synoptic works on hydroids. There have been some, and they have been major contributions; but almost all his subsequent papers have been reports on expedition and regional collections. These have included innumerable novel observations on a multitude of species from a great range of marine habitats and regions world-wide. During the process he has gradually accumulated, in Leiden, by far the best reference collection of modern hydroid material in the world. It will be a treasure for future generations, being both authoritatively identified and clearly documented. The devotion and excellent assistance of his assistant Machiel Slierings, who has carefully curated the collection as Vervoort has built it up, has been of paramount importance: these things are not automatic.

During these extensive studies Wim Vervoort has acquired by far the most detailed and authoritative knowledge of hydroid species world-wide that there has yet been. Not only this: he has documented and published his findings, so that they are available for the world to see. It goes almost without saying that nearly all his publications have been in English: but then, he is Dutch! His English varies between extremely good to absolutely perfect. Of all the foreigners I have met who speak my own language, his English is undoubtedly the best. Yet he has never lived, or even studied, in an English-speaking country except on trips of just a few weeks. Even among a nation of linguists, he stands head and shoulders above the crowd.

In hydroid taxonomy Wim Vervoort has been in a class of his own. Though many have worked with him on the fauna of single areas no-one has come close to his supreme knowledge of the species-level taxonomy of hydroids world-wide. His knowledge of the literature is encyclopedic. His 1995 bibliography of all publications mentioning hydroids and hydromedusae listed approximately 8500 publications! I was fortunate to be given by Wim a pre-publication draft of his bibliography on disk when preparing my own regional hydroid work in the early 1990s. Thus I know its great value, and I hope it will remain available on disk.

There is not space for a detailed analysis of Vervoort's hydroid works. Van Bruggen (this volume) has enumerated the species and genera he has proposed, so that only some general comment need be made. His taxonomic accounts are characterised by large, clear, unequivocal drawings made directly from specimens by camera lucida, the clearest that there are of this group of animals. His descriptions are accurate and detailed, and comprise by far the greatest bulk of his papers: he has

included little embellishment gleaned from mere literature lists and the like. Yet their discussion sections have been exhaustive when necessary. It is rare indeed for Vervoort to miss a published article on a topic, or to misconceive a point. Despite this, he would be the first to say that one should not automatically rely on his published opinion; and rightly so of course. Yet in more than 20 years working on the same group I have found far fewer points to criticise in Wim's work than in that of any other colleague. There have, in fact, been very few indeed.

Wim is a powerful yet kindly man. On my first visit to Leiden in the 1970s, on entering his office, I was offered a choice of three kinds of cigarette or, if I wished, a small cigar: but, like me, Wim thoroughly detested the habit of smoking! He kept this varied supply just for visitors. This kind of attention to the detailed needs of guests entirely characterises him. He senses what you need, whether trivial or not; quietly ensures that you have it; and as soon as possible gets down to the scientific business in hand.

But it is his approach to science that is so impressive. I once suggested to him that what he had described as three species, in line with all opinion of the previous 100 years or so, was in fact one. He was already about 58 and Director of the Museum, whereas I was only 32 and had just published my first two papers on hydroids. I was challenging established opinion in a way that many might have seen as incautious. But his immediate, and honestly meant, reply was "Well, show me the evidence, and I shall examine it and form a conclusion". I have heard this phrase from his lips several times since. Sometimes he has been wrong, more often I have been wrong. But if he has been wrong, he has instantly changed his view, and readily said so. Always, assessment of the issue before him is unfettered by pride. With Wim, pursuit of truth completely obliterates any desire to be personally seen as correct. His readiness to change his mind is not a weakness, as some might see it in themselves: it is a towering strength. This, the most valuable of scientific faculties, is the aspect of Wim which I admire the most.

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