

Willem Vervoort as a copepodologist: the impact of his scientific oeuvre

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The merits of Em. Prof. Dr W. Vervoort in the field of systematic copepodology are evaluated, such within the context of his personal approach towards science as well as towards his students. It is concluded that Vervoort's work continues to exert a major influence on the study of taxonomy and of biogeography of free-living copepods up to the present day.

On the occasion of his 80th birthday, the general merits of Prof. Dr Willem Vervoort have been phrased very aptly by Van Bruggen (1998, this volume), while his hydroid work has been dealt with by Cornelius (1998, this volume). Next, the copepodological aspects of Vervoort's work deserve to be singled out. For years in succession, Vervoort has been actively carrying out taxonomic research on (mostly) free-living Copepoda, "... always standing with one foot in Dr Holthuis' department ...", as he himself used to describe the situation. Dating back from the very start of his career, Vervoort's involvement with copepods extended well into the 1980s, thus spanning a period of roughly 40 years.

Personally, I met Willem Vervoort just after having made my acquaintance with copepod crustaceans while on an undergraduate marine field trip to Scandinavia, in 1967. The group intrigued me and I was anxious to devote my very first research project in Marine Biology to a subject in Systematic Zoology, especially working on that order of the Crustacea. While elaborating the material Vervoort had entrusted me with for a fair nine months, I only met my mentor half a dozen times. He decidedly had a habit of letting one do one's work undisturbedly, and would then solve in about 30 minutes the taxonomic problems I had been struggling with during the past 30 days ... I vividly remember the book he gave me as a primary source of literature on the northeastern Pacific samples I was dealing with: Brodskii (1950), *in Russian*! Only after I had finished my investigations, the English translation by the Israel Program for Scientific Translations became available in Leiden ... Having graduated at Leiden University, I had the good fortune that Willem Vervoort secured a grant for me from the Netherlands Organization for Pure Research (formerly known as ZWO, now BION/SLW), to proceed with my studies under his guidance and to prepare a Ph.D. thesis on copepod taxonomy. His high standards and sound approach have ever since inspired me to try and reach that same level of perfection. Over the years, Wim Vervoort has become a valued colleague: one without whims, always to-the-point, and always, following any social intermezzo, immediately ready to resume his (scientific) work without unnecessary delay.

Copepod research having started in 1770 with the description of *Monoculus fin-*

marchicus by Gunnerus, many excellent contributions to the systematics of this group of small (up to 10 mm long), planktonic crustaceans, by a variety of distinguished authors, have followed. Nevertheless, in my opinion, three names are truly outstanding: Wilhelm Giesbrecht (cf., e.g., 1892), Georg Ossian Sars (cf., e.g., 1901-1921), and, indeed, Willem Vervoort. In the years between 1946 and 1965, when publishing his major treatises (Vervoort, 1946; 1951; 1957; 1963; 1964; 1965) the level and amount of detail both in Vervoort's extremely precise verbal descriptions and in his highly accurate drawings, remained unparalleled. In retrospect, they even appear to constitute the sole match for Giesbrecht's unprecedented taxonomic work (Giesbrecht, 1892). Vervoort's impressing standards in meticulously accounting for anatomical details undoubtedly set the scene for new generations of copepodologists, and one of the true impacts of his work certainly comprises a revival of the classical way of fully dismembering and next painstakingly describing all features observed on the organisms. An invaluable enhancement of the current practice in those days, taking into consideration the irreplaceable character of reliable descriptions in establishing the true identity of species and of specimens, as well as the nature of their phylogenetic relationships.

As regards literature retrieval and documentation, this realm surely figures prominently as the second field in which Vervoort's papers haven't failed to make a tremendous impact on copepod research over the last 50-odd years. Starting already by including extensive synonymies in all his (re-)descriptions, Vervoort began to compile a personal catalogue in simple school exercise-books. Soon realizing the actual exhaustiveness of his deep-probing endeavours (he once claimed only 50% of his entries were covered by *The Zoological Record*), he carried on to compose a literally complete system of literature on copepods up to and including 1980, which, again, he extended to comprise the years 1981-85 as well (Vervoort, 1986a; 1986b; 1988). This bibliography, published in all modesty in a standardized type-script in the now discontinued series *Supplements to Crustaceana* by Messrs. E.J. Brill (now Koninklijke Brill N.V.) of Leiden, to date fulfills the role of a primary database for any research project in whatever branch of copepodology. Already, various colleagues from abroad have been approaching the publisher to obtain a second three-volume set, their first one having been entirely worn out through intensive use!

Not surprisingly, at the International Conferences on Copepoda, organized since 1981 (from 1984 onward under the auspices of the World Association of Copepodologists), Vervoort's name is still being pronounced with due respect. His detail in description as well as his exhaustive search for literature have made him famous among colleagues world-wide. "He is my hero!" the late Frederico Campaner (1945-1989) put it at the 2nd Conference in Ottawa, back in 1984. And so it is: without doubt that kind Brazilian truthfully put into words the feelings of the legion of scientific workers on copepods. Willem Vervoort is one of the rare (though, fortunately, not few!) heroes in copepodology: and he will remain so for as long as this scientific sub-discipline will exist.

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