Malcolm Robertson of CSIRO Entomology pays tribute to Dr Ebbe Nielson, director of the Australian National Insect Collection since 1990.

Ebbe Nielson
A voice for the silent majority

Ebbe Nielsen had a passion for life, a passion that drove him to be the most successful advocate globally for the science of systematics, especially insect taxonomy.

Thanks to his efforts, systematics, and the emerging discipline of biodiversity informatics, have become enshrined in the Global Biodiversity Information Facility, instituted in March this year. The OECD initiative owes much to Nielsen's drive, vision and personal contact with politicians, bureaucrats and scientists worldwide.

Nielsen was born in Denmark in 1950. At the age of 14, a booklet by Langer on collecting Lepidoptera (moths and butterflies), and Bishop Hoffmeyer's books on the Danish macromoths, caught his imagination. He began collecting moths in the garden, and joined the Entomology Club in Århus.

He attended university in Århus, and worked at the local museum where the Zoology Institute was involved with a study of the Danish beech forest ecosystem. Since Nielsen could identify all Danish Lepidoptera to species level, he was invited to conduct his masters research on the phenology and distribution of moths and neuropterans in the beech forest.

In 1978, Nielsen joined a six-month expedition to Patagonia, Tierra del Fuego and the Andes. The trip yielded valuable material for his PhD, and was the most comprehensive biodiversity survey of Andean Patagonia.

Three years later, he came to CSIRO to work on primitive Lepidoptera and inventories of Lepidoptera. He was appointed director of the Australian National Insect Collection in 1990 and began promoting the importance of systematics, (the management of biodiversity data), and the communication of scientific results through publishing.

'Nielsen saw the need to seek and share knowledge about biodiversity at all levels, from molecule to biosphere.'

Nielsen's passion for communication is evident in his prolific publication record. He edited and wrote for Scandinavian science journals, and helped to found CSIRO Publishing and the journal Invertebrate Taxonomy. He authored or co-authored eight books and monographs and more than 80 other scientific publications, and was the founding editor of two major series dealing with Australian Lepidoptera and invertebrates.

Nielsen was widely acclaimed by the scientific community, receiving numerous awards and medals, and was a Foreign Associate of the US National Academy of Science and a Foreign Fellow of the Royal Danish Academy of Science and Letters. He held many key positions in the international entomological community, including secretary to the International Congress of Entomology at the time of his death.

During the 1990s, a new word gained global popularity: biodiversity. As the rest of us caught up with its meaning and importance, Nielsen saw the need to seek and share knowledge about biodiversity at all levels, from molecule to biosphere. He became concerned that the growth of the world's great biological collections was outpacing the efficient handling of the data they contained.

A Global Biodiversity Information Facility (GBIF), incorporating state-of-the-art informatics software, was urgently needed. The facility would link biodiversity databases in a one-stop global information resource that catalogued plant, animal and microbial distribution and physiology, genomic maps, and the behaviour and function of species in ecosystems.

Australia was a leading proponent for the Global Biodiversity Information Facility and, with Nielsen as part of the Australian team, helped persuade the OECD science ministers to agree, in 1999, to its establishment. Nielsen was ecstatic when the facility was officially instituted. He was enroute for Montreal to help present the Australian bid to host the GBIF Secretariat when he died.

Nielsen lived life at a furious pace. In 50 years he accomplished more than most of us could ever hope to achieve. His legacy to future generations cannot be overestimated.