István Andrássy (1927-2012)

István Andrássy, one of the most outstanding fathers of modern nematology, passed away from pneumonia in his family home in Budapest on 4 August, 2012. Prof. Andrássy was born on 5 May, 1927 in Szolnok, Hungary, a small town on the river Tisza. He was born into an old and noble, but by that time, not rich, Hungarian family; moreover, his parents lost nearly all of their property after the Second World War. István Andrássy attended most of his school and university courses in Budapest where, in 1950, he obtained a diploma as a museologist, subsequently working for 2 years at the Museum of Natural Sciences of Budapest. In 1952 he started his work at the Institute of Systematic Zoology of the Eötvös Loránd University of Sciences, in Budapest, where he became a Doctor of the University in 1960, a Doctor in Biological Sciences in 1973 and a full Professor of Zoology in 1974. From 1979 until the end of 1998, when he officially retired, he worked as a Scientific Councillor for the University. In the following years he continued his scientific work with the same intensity as before, maintaining contact with his Department but using a well equipped home laboratory where he had his microscope and kept his collection of slides and nematological literature.

His teaching activity, especially in the last decades, was mostly dedicated to senior students working on their degree theses and post-graduate students from different parts of the world who applied to study for a Ph.D. in nematology.

His first paper, on the nematode fauna of Mount Bükk in Hungary, was published in 1952. From then on he produced several papers each year, this pace continuing even after his official retirement. His publications total about 230, among which are various books and numerous important monographic studies. With very rare exceptions, he was the sole author on these publications.

His knowledge of free-living nematodes was vast and covered not only faunas from every part of the world, to the knowledge of which he made a major contribution, but also included practically all taxa of terrestrial and freshwater nematodes. He received samples with nematodes from all regions of the world and, in the 1960s, took part in an important expedition to South America with other zoologists from his University. His research on nematodes included European countries (Hungary being pre-eminent, but also Bulgaria, Italy, Romania, Scandinavia and Yugoslavia), Israel, several African countries (Angola, Congo, Egypt, Ghana, Ivory Coast, Kenya, South Africa, Tanzania and Uganda), Central and South America (Argentina, Brazil, Chile, Costa Rica, Cuba, Ecuador and Paraguay), Asia (China, Mongolia, Nepal and Vietnam), Antarctica, Alaska and the Seychelles. He also studied the fauna of particular environments, such as caves and the psammon.

Prof. Andrássy described an extraordinary number of taxa (about 715, amongst which are 56 families and higher taxa, 138 genera and 521 species), but despite this prodigious output, his major contribution to the taxonomy of nematodes is related to numerous revisions of taxa of any rank, the updating of existing classifications, compiling checklists of the studied taxa with indication of their removal to another taxon or synonymy, identification keys, and information on the geographical distribution of each species. His drawings, although not very elaborate, were elegant and clear, characterised by an unmistakable style, and provided the reader with a realistic image of the subject pictured. In nematological taxonomy, a
field where the number of taxa was and is increasing exponentially, sometimes due to descriptions by authors not well known or in barely accessible journals, his work was a rich and complete source of reliable information for all taxonomists. His first important revision goes back to 1959 and constituted the starting point of the modern taxonomy of Dorylaimida, a very large and widespread taxon which was among those most analytically studied by Andrássy in the course of his scientific life, the current classification system of Dorylaimida being mainly due to him.

In his first book, *Evolution as a basis for the systematization of nematodes* (1976), Prof. Andrássy gave a complete and innovative review of the classification of free-living nematodes based on the analysis of their major diagnostic characters and of their possible evolution, and he was the first to propose the partition of the Nematoda (which he considered to be a class) into three branches, instead of the usual two. Such a proposal was not accepted by many taxonomists but it was successively proposed, although with modifications, by Inglis (1983) and Malakhov (1986). Another book, *A taxonomic review of the suborder Rhabditina (Nematoda: Secernentia)* was published in 1983 and was in turn followed by *Klasse Nematoda* (1984), an immensely important work that rapidly became a precious tool for people who needed to identify nematodes for faunistic or ecological purposes, since within its covers were schematic drafts of all the genera of free-living nematodes (except for Dorylaimida and Tylenchida) and identification keys to species level. Together with Eyualem-Abebe and Walter Traunspurger, Andrássy (2006) was co-editor of the book *Freshwater nematodes: ecology and taxonomy*. Recently, he published a three volume book entitled *Free-living nematodes of Hungary* (2005, 2007, 2009) which, although focusing on the Hungarian nematode fauna, actually furnishes a complete taxonomic update of the status of all the taxa of terrestrial nematodes of the European fauna with a complete list of their species, including those not European; indeed, practically an almost complete review of all the taxa described so far in the world and a true bible for any nematologist concerned with taxonomy. In the present age, which is characterised by increasing specialisation, no other taxonomist would have been able to, nor likely will in the future, sustain such a general overview of a large taxon like the nematodes and, at the same time, go down to species detail in such a comprehensive manner.

His early scientific production was not limited to nematodes but concerned other invertebrates, mainly Annelida. In 1969, he also published a monograph on Platyhelminthes, Nematodes, Nemertina, Camptozoa, Aschelminthes and Annelida. Though not an ecologist, he provided a formula for calculating the volume of a nematode using easily obtained morphometrics, a formula that is still commonly used in ecological papers where determinations of nematode biomass are made.

Though he devoted most of his life to nematode taxonomy, Prof. Andrássy never attended international meetings and very few nematologists had the privilege of meeting him personally. For this reason his figure appeared somewhat legendary. Notwithstanding this, he was in continuous contact with virtually all the taxonomists of the world, people who appreciated his great kindness and helpful attitude. He was especially ready to help young people and scientists who worked in difficult situations. His reputation became so great that many authors named new taxa after him, this total including a genus and 49 species of nematodes, and seven species of arthropods. Prof. Andrássy’s achievements have also been recognised with many awards: the *Skrjabin Medal and Prize* by the Soviet Academy of Sciences (1983), the *Academic Prize* by the Hungarian Academy of Sciences (1987), the prestigious *Huzella Prize* (1987) and the *Gelei Prize* (1998) by the Hungarian Biological Society and the *American Medal of Honor* (2002) by the American Biographical Institute. Honorary Memberships of the Heminthological Society of the Soviet Union (1980) and of the Society of Nematologists (2007) were conferred on Prof. Andrássy for his outstanding world-wide contribution to Nematology.

For 40 years Prof. Andrássy was Editor-in-Chief of the Hungarian scientific journal *Állattani Közlemények*. He was also editor of the journals *Opuscula Zoologica* and *Acta Zoologica Academiae Scientiarum Hungaricae*. Moreover, he was a much consulted reviewer of taxonomic papers for many scientific journals.

Despite his great devotion to nematological work, Prof. Andrássy spent much time with his family and also, in recent years, liked to travel with his dear wife Eta around Hungary, his beloved country. His life had brought him great pain (such as the loss of his young son István), but he was a very serene and good humoured man, completely satisfied with his daily life, which was filled by his “little companions”, as he liked to say, and by the love of his family. Despite his age and the weakness of his body, he maintained a very acute mind and was master of an incredible quantity of nematological information. Even in his last days he was still in continuous contact with