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In memoriam Dr. Zsuzsanna P.-Komáromy (1942—1985)

by K. Buczkó, Budapest

Dr. Zsuzsanna P. Komáromy, soil algologist of the Botanical Department of the Hungarian Natural History Museum died after a long illness on 17 August, 1985.

Born in Veszprém on 20 March, 1942, she attended secondary school in Veszprém and continued her studies at the Eötvös Loránd University in Budapest. She graduated in 1965 and became a teacher of biology and geography. She started studying algae during her university years under the guidance of Dr. L. Felföldy in the Biological Research Institute of the Hungarian Academy of Sciences in Tihany, where she worked on the problems of algal production. She was successful in producing synchronous culture of *Scenedesmus obtusiusculus* Chod., and summarized her results in a Scientific Student Society paper.

She started to work in the Botanical Department of the Hungarian Natural History Museum as a museologist in 1966, and it was then that she began to focus her attention on

soil algae. This was an enormous task since soil algae had hardly been studied before in Hungary, and very few publications and hardly any floristical data were available from this country. Handbooks and floras dealt mainly with water algae. There were also many methodological problems to be solved. She set about her task with boundless energy. She became familiar with the literature and she applied the most recent research methods as far as the financial possibilities of the Botanical Department allowed. At the beginning of her scientific activity she carried out comparative algological analysis of forest soils. In her first publications she reported data on the soil algae of the Buda Mountains, and wrote about their life cycles. At the same time she started the soil algological description of the Mátra Mountains. In her doctorate thesis she compared the algal flora of different soils of the Mátra Mountains, for which she received her doctorate degree in 1975. In her work (due to the difficulties of the topic) she encountered numerous taxonomical difficulties. She clarified these problems in a thorough study of two genera; she conducted laboratory experiments with the genera *Chlorhormidium* and *Scotiella* and applied the most modern numerical taxonomical tools. After the algological analysis of forest soils, she spent years studying algae living on sandy soils. She found that the soil algal flora of woodlands and limy and salt-affected grasslands differed fundamentally. The soil algal flora of woodlands has *Chlorophyta-Xanthophyta* dominance, while in the case of limy and salt-affected grasslands *Cyanophyta* predominance is characteristic. These results coincide with other observations in Central Europe and Asia. She also showed scientific interest in the algae living in caves. In 1977 she described the algal flora of the "Ördöglyuk" cave. Later her attention returned to caves and pot-holes. During the last years of her life carried out an intensive study of the algae of cave entries and lamp floras. She co-authored four papers about this topic. During her work she established many international connections, she corresponded with many leading soil algologists of the world. These contacts were made and developed at international conferences, where she often delivered lectures. She also devoted time to the pesticide sensitivity of algae. With characteristic thoroughness, she conducted investigations both in the laboratory and in the field. She found that there are great differences in the pesticide sensitivity of different algal species. She also examined the growth inhibiting and algicide effects of different pesticides in limy and saltaffected grasslands.

Besides floristics, she considered ecological questions to be of vital importance. In this field of research she applied methods of study and analysis that were new even by international standards. Above all, the fundamental ecological concepts (such as dominance, frequency, diversity) had to be applied to soil algology. Sparing no effort, she always worked with large sample collections to obtain statistically reliable results. She sought the reason why different algae live on different types of soil and showed that it has physical, chemical and biological causes. One of the physical reasons is soil texture which determines to a considerable extent the growth type of the algae living in a particular area. She collected the growth forms and described them in a comprehensive system. Wherever she could, she measured the chemical properties of the soil and studied its relation to the flora. As for the biological effects, she found that the interspecific interactions between algae are less determinant. She intended to summarize her findings in her candidate dissertation but she was not given the time to complete this work...

As a museologist she was untiring, precise and thorough. In 1968, together with E. KOL, she rearranged the fixed algal collection of the Botanical Department according to G. M. SMITH's system. From 1975 she was in charge of the "Algotheca" established by E. KOL and extended by the cultures of L. FELFÖLDY. Besides grafting the one-species cultures yearly, she always planned to extend the collection with soil algae. She started the isolation work but her illness and later her death prevented her from finishing this work. She founded

a soil algal raw culture collection of more than 2800 items which she maintained and expanded with devotion, even during her illness.

From 1977 she was assistant head of the Botanical Department and from 1977 to 1984 she edited the scientific journal "Studia botanica hungarica". In recognition of her professional activity she was awarded the medal "For Socialist Culture" in 1979, and in 1980 the Academic Committee of Pécs awarded first prize to her competition essay written with co-authors in which she reported on the algae in the sodic leaching solution of uranium ores.

Besides her scientific activity she lived a full life. She was mother of two children.

She died at a young age in the middle of her work. Consequently, her oeuvre is not comlete, but her results, her fundamentally new thoughts are valuable contributions to the scientific life of our country, and represent an important contribution to the modern study of soil algae at international level. Thirty-six scientific publications, and *Chlorocardion salinarum* KOMÁROMY remind us of her short but active life.

LIST OF SCIENTIFIC PUBLICATIONS OF ZS. P.-KOMÁROMY

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