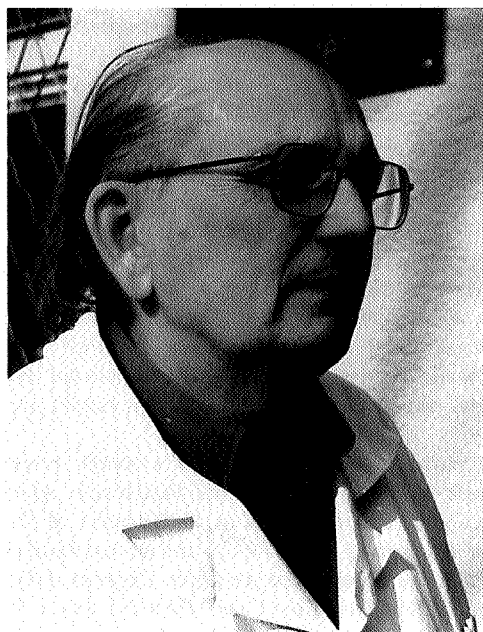


Zdeněk Šesták Septuagenarian !



Dr. Zdeněk Šesták, DrSc., associate editor of Biologia Plantarum and Editor-in-Chief of the journal Photosynthetica, my colleague in science and also co-worker in the laboratory, my co-author and co-editor, and - last but not least - my close friend, will soon join us, septuagenarians.

*Zdeněk was born on 4 August 1932 in Prague, as the only son of František and Marie. In 1964, he married Milada Vojtková (1939-1994), a scientist in foodstuff chemistry and later a journalist. The couple has three children, Jana (*1965), Jiří (*1966), and Alena (*1970) and four grandchildren, Maximiliane (nicknamed Joy), Marie, Jiří, and Sára.*

Zdeněk's interests began to form very early: Biology, namely Botany and Biochemistry, and all forms of Art competed for his attention from the very beginning of secondary-school years, and, I can say, continue to compete today. In 1951, biology won (partly because of the strong Communist regime which at that time made the study of art history a not very acceptable occupation), and Zdeněk began his studies in the Faculty of Biology at the Charles University in Prague. In a short time, he began experimental work in the Department of Plant Physiology that led to his dissertation, Determination of Contents of Organic Carbon and Chlorophyll in Natural Waters. Under the supervision of Professor Silvestr Prát and Dr. Ivan Šetlík, Ph.D., Zdeněk graduated in plant physiology and anatomy in 1956.

After a short period of employment (1956-1957) in the documentation service of the former Czechoslovak Academy of Agricultural Sciences, Zdeněk transferred to the Institute of Biology of the Czechoslovak Academy of Sciences as a post-graduate student, supervised by Professor Rudolf Řetovský. In 1961 he completed and defended his thesis, Chlorophyll Amount and Photosynthetic Rate, and obtained the degree of Ph.D. in Plant Physiology. Zdeněk then joined the staff of the newly established Institute of Experimental Botany as a research scientist in the laboratory led by Dr. Bohdan Slavík, DrSc. There, he continued his studies on the relationship between chlorophyll amount and photosynthetic rate, developing the hypothesis of chlorophyll compensation concentration in 1964, and in 1965 was promoted to Senior Scientist.

With the advent of new people into the newly established Department of Water Relations and Photosynthesis in the late sixties, our research expanded into the biological and ecological limitations to leaf and plant photosynthesis. Zdeněk headed a small team of young scientists and post-graduate students, mostly graduates in plant biochemistry and biophysics, and directed their Ph.D. studies centred on photosynthetic activities during leaf and plant development. In the years 1966-1975, and again in 1994, he gave a specialised course of lectures on photosynthesis at the Faculty of Science of the Charles University, and in 1971 he published a textbook for this course, the first one to be written in the Czech language.

Surprisingly, the sixties to eighties were the best years of our scientific careers, notwithstanding the political pressures. Some of Zdeněk's investigations on limitations to photosynthesis were largely initiated during brief stays at the Department of Plant Biology of the Carnegie Institution of Washington in Stanford, California (1968), the Laboratoire de Photosynthèse of CNRS in Gif-sur-Yvette, France (1969), and in the Biological Research Centre of the Hungarian Academy of Sciences in Szeged (1974). In the last few years his studies have also focussed on the classical genetics of photosynthesis and biotechnology. Original scientific papers, review articles, books and chapters in books, written by Zdeněk, add up to more than 110 items.

Here, I would like to stress one important feature of our collaborative interactions. Zdeněk always tried his hardest to change even small stresses or disagreements amongst members of the team into positive thinking that stimulated new ideas and findings.

In the eighties, Zdeněk edited a comprehensive book written by seven scientists of our department, Photosynthesis During Leaf Development (Academia, Praha; Dr W. Junk Publishers, Dordrecht - Boston - Lancaster 1985) summarising recent knowledge of ontogenetic changes in photosynthesis and growth traits. This book defined our leading position in this research area, and presented our main findings. Partly on the basis of his results published later in this book and after defence of his thesis, Chlorophyll and Photosynthetic Activity During Leaf Ontogenesis, Zdeněk received his DrSc. degree (1981), and subsequently was promoted to Chief Scientist, a post he still holds today.

Throughout, our research has continuously been associated with methodology, construction of new apparatus, and development of procedures. Zdeněk initiated and co-ordinated the first manual on methods used in photosynthesis research, published firstly in Czech [Šesták, Z., Čatský, J. (ed.): Metody Studia Fotosyntetické Produkce Rostlin (Methods of Studying

Photosynthetic Production of Plants.) - Academia, Praha 1966] and then, fully revised and expanded, in English [Šesták, Z., Čatský, J., Jarvis, P.G. (ed.): Plant Photosynthetic Production. Manual of Methods. - Dr W. Junk N.V. Publ., The Hague 1971].

Zdeněk's research activities also included participation, as Co-ordinator, in an international co-operation amongst six Middle- and East-European countries (Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and the USSR) on research in photosynthesis (1962-1987). This co-operation - besides stimulating mutual exchange of information - led to the introduction of digital techniques to our laboratories, and resulted in intensive improvement of laboratory equipment and also some useful joint publications.

Zdeněk has always been enthusiastic with respect to scientific communication both directly through the literature and through the initiation of bibliographies, preparation of review articles, and editing papers and books, etc. As a result, in 1967 he launched *Photosynthetica*, the first specialised international journal dedicated to all fields of photosynthesis research, - and published at our Institute of Experimental Botany. In 1991, Zdeněk also joined the editorial board of *Biologia Plantarum* as Associate Editor and is a very active reviewer of submitted manuscripts.

Over a quarter of a century, we have launched a 25-volume series of books providing a classified bibliography of photosynthesis research [Šesták, Z., Čatský, J. (ed.): *Photosynthesis Bibliography* (1974-1998)] and we have participated in the bibliography of plant water relations, also co-ordinated in our institute [Pospíšilová, J., Solárová, J. (ed.): *Water-in-Plants Bibliography* (1977-1993)], published in the Netherlands and later in the Czech Republic. The 25 volumes of the *Photosynthesis Bibliography* contain 104 874 references to literature in all fields of photosynthesis research and are accompanied by detailed author, subject, and plant indexes. A more specialised bibliographic series published in the journal *Photosynthetica*, produced by Z. Šesták and J. Čatský, *Bibliography of Reviews and Methods of Photosynthesis* has 85 parts to date.

Zdeněk has also made an impact in many other ways. He has participated in arranging several scientific meetings, probably the most important being the symposium *Photosynthesis and Stress*, held in 1991 at České Budějovice. After the velvet revolution he was a member of some organs of the Czechoslovak Academy of Sciences, such as the Chamber of Elected Representatives (1989-1992) and the Scientific Board of Theoretical Bases of Agriculture (1990-1992), and he was head of the Commission for Evaluating Scientific Qualification of Researchers (1991-1992), the Commission for DrSc. Degrees in Botany and Plant Physiology (1991-2001), and the Editorial Council of the Academy of Sciences of the Czech Republic (since 1994), etc. In the eighties, Zdeněk also had some functions in the former State Plan of Research and in 1995-1999 was a member of one of the sub-committees of the Grant Agency of the Czech Republic. He functioned as a peer reviewer for the Research Support Scheme (1993-2000), as a member of the European Academy of Environmental Affairs (1988-1999), and as a member of Editorial Boards of the journals *Přehled zahraniční zemědělské literatury* (1958-1960), *Tree Physiology* (1994-1997) and the thirteen-volume agricultural encyclopaedia *Naučný slovník zemědělský* (1966-1992), etc. From 1990 till 1999 he was Head of the Laboratory of Photosynthesis of the Institute of Experimental Botany and from 1990 till 1994 Deputy Director of the Institute.

He has always been interested in improving scientific communication. His first text in this direction was published as far back as 1959; he taught this subject to biological technicians in 1969-1972, and since 1969 he has belonged to the international association of editors EASE. In recent years his interest has centred on teaching scientific communication at the Charles University in Prague, the Masaryk University in Brno, the South-Bohemian University in České Budějovice, and in courses organised by the Grant Agency of the Czech Republic. In 1999, Zdeněk published a book in Czech that is very useful for Czech and Slovak scientists and students, *Jak psát a přednášet o vědě* [How to Write and Lecture on Science. - Academia, Praha 1999].

For all of these activities, Zdeněk was awarded a prize by the Czechoslovak Academy of Sciences (1980, together with Ingrid Tichá) and the G. Mendel Gold Medal for Merit in the Biological Sciences (1992).

At the outset, I referred to Zdeněk's interests in Arts and History. He has played puppet theatre to his children and grandchildren and has an interesting collection of marionettes and scenery, and of the related literature. Recently he wrote introductory chapters to the book *Kašpárek stále aktuální* [Punch is Always Actual, Academia, Praha 2000] which he edited and for which he selected god-forsaken puppet plays by seven Czech authors of the twenties and thirties. He also continues to write articles dealing with Art and History in popular scientific journals (*Res Musei Pragensis*) and newspapers (*Lidové noviny*, *Literární noviny*, *Radniční noviny*). From its very beginning he has been a member and official of the Club of Friends of Art and head of the Editorial Board of its bulletin *Panorama*. Zdeněk is also member of the Club for Old Prague and the Club of Friends of Antiquities. He has greatly enhanced the visits of almost all our foreign guests, by guiding them through Prague with enormous knowledge and enthusiasm and a string of historical anecdotes to see the great monuments, gardens and historic cemeteries, and he often also functions as a guide for the art-oriented tourist agency *Ars Viva*.

Zdeněk, we wish you health and full activity for the years to come! Your colleagues, your friends around the world, your family, and above all, your beloved journal *Photosynthetica*, continue to need you as much today as ever!

Jiří ČATSKÝ (Praha)