Prof. MUDr Jan Šmarda, DrSc – 80 years

In the modern scientific word, there are only few specialists, who have substantially contributed to the history of several branches of difficult scientific disciplines, such as experimental biology, genetics, microbiology, molecular biology and phycology. One of such rare personalities is Professor MUDr Jan Šmarda, DrSc, emerited professor at the Faculty of Medicine of the Masaryk University, Brno. He has worked there since his study years in 1949–1955 up to now. On August 29th 2010, we will celebrate his 80th birthday. His scientific interests are very wide and unusual, touching all mentioned disciplines. Šmarda´s main scientific orientation concerned, of course, problems closely connected with medicinal biology. But also his studies on the biology and ecology of cyanobacteria have been relevant to and important for the progress of phycological research. I am therefore happy that I can point out his important contribution to phycology and cyanobacteriology.

Jan Šmarda worked at the Biological Institute of the Faculty of Medicine for his whole scientific career. His favourite long–term topics were the lysogeny of staphylococci, exploitation of membrane ultrafilters for studing the macromolecules and submicroscopic particles. His important experimental model was *Escherichia coli*, and Jan Šmarda has worked on the broadly conceived problems of colicins up to the present days. He has published over 200 scientific papers, 8 monographs, and has participated in more than 80 international meetings. He also lectured in Canada and the USA and spent 11 long–term visits to scientific institutes abroad. He is a member of editorial boards of several scientific journals. He has educated several tens of students, many at the PhD level, of whom several were awarded with well–known scientific prizes. For many years he worked in various grant agencies and is an honorary member of the Czechoslovak Biological Society and the Czech Microbiological Society. Jan Šmarda is also experienced in propagating and popularizing science (he is the author of 135 popular scientific articles, also on cyanobacteria). One should also mention his beletristic and cultural activities. It is a pity that lack of space does not allow for a more detailed review of all these merits. But here we must emphasize particularly Šmarda's important contribution to phycological research.

One important methodological tool which Jan Šmarda fully exploited in his studies, is electron microscopy. Comparison between the structures of heterotrophic and phototrophic bacterial cells was probably one of the most important motivations of his interest in the inner structure of cyanobacteria and later also of eucaryotic cells of such plant organisms as unicellular algae. The fact that Jan had a very professional and devoted botanical education in his family surely also played a role. His father was an eminent bryologist and professor of botany at the Brno University, and his uncle was an excellent mycologist. However, Šmarda's cytological studies were always only a means aimed at solving other important biological and ecological problems. He studied, e.g., the structural differences and peculiarities of cells, filaments and planktic communities of the cyanobacterium *Nodularia* forming massive "water–blooms" in the eutrophicated Baltic Sea and in Uruguayan coastal lakes. He also studied and explained the relationship of the main Baltic *Nodularia*–species (*N. spumigena*) to other epiphytic and

associated phytoplankters. His studies of the planktic communities by electron microscopic techniques are quite unique. He described special bacteria of the genus *Seliberia* with a strange spiral cell form, living epiphytically on the filaments of *Nodularia*. His most important studies concerned the structure of the cyanobacterial cell wall and explained particularly the structure and functioning of the so called crystalline S–layers. He contributed substantially also to our understanding of the structure and frequency of gas vesicles in cells in planktic "water–bloom"–forming cyanobacteria (esp. *Microcystis* during the life cycle), to the cytology of picoplanktic types, or to the phenomenon of widening of thylakoids in cyanobacterial cells. Mentioned should also be his studies on the structure of cells of the primitive and simple unicellular Rhodophytes, important for explanation the evolution of eucaryotic rhodophycean cells.

Now, on the occasion of Jan Šmarda's important anniversary, we wish to him good health, an optimistic spirit, and a lot of pleasure with all his numerous friends, his family, and also with cyanobacteria. All the best!

Jiří Komárek

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Fifty years of workshops of the Czech Phycological Society

The Phycological Section of the Czechoslovak Botanical Society was established in 1956. Regional floristic research was of prominent importance during the first years of the Section's work. This concept was based especially on the collaboration in the preparation of The Flora of the Czechoslovak Republic. Soon appeared the request for the necessary rules of formal issues such as bibliography, unified citations, consistent abbreviations of journal titles and other matters connected with the elaboration of the Flora. Insufficient soon became individual meetings and discussions on these topics as well as problems concerning regional floristic research and excursions. It became necessary to organize numerous meetings in a broader circle of researchers and others interested. These activities led to the 1st Workshop of the Phycological Section at Lednice na Moravě in 1959 (6th–9th May). In the same year, the Phycological Section organized also a two-day phycological symposium at Vranov nad Dyjí (11th–12th September) as a part of the 5th Czechoslovak Hydrobiological Conference.

In 1963, two workshops took place on the occasion of excursions to Lednice and Studenec as well as a regular conference at Tupadly (near Mělník). This conference was held in a building of the Czechoslovak Academy of Sciences, which was to become the venue of conferences of the Phycological Section for many years to come.

At the beginning, especially those scientists were at the centre of the workshops, which had been active in phycology just before Word War II, such as Prof. S. Prát, Doc. B. Fott, Drs Záviš and Bohumil Cyrus, Dr. K. Rosa, J. Bílý and Dr. S. Lhotský. After the war and at the beginning of the 1950s, Dr. J. Růžička and the first students of Phycology such as M. Toman, J., Komárek, P. Marvan, H. Ettl, A. Vinniková-Sládečková and M. Hanušová-Bejrová started their intensive work in phycology.

The structure and focus of the workshops soon took their shape. From the very beginning, it was upheld that not only more experienced scientists should be involved in the Conferences, but an active role should also belong to younger phycologists from the universities and Academy of Sciences as well as scientists from applied research, experts from practical fields related to water supply, fishery, water technology and public health. Students participated commonly in the workshops, thus often getting the first opportunity to present and discuss their results in the scientific community.

As concerns the contents and main topics of the workshops, papers were presented that contained data on particular groups of algae, or special studies in algal cytology, anatomy or ecology. An important feature of the Conferences was the presentation of still unfinished research projects or problems presented for discussion and exposed to criticism. Such discussions often helped to find a solution, elaborate special methods, etc. This approach was successful, for example, in the solution of problems of water blooms, or in the elaboration of the principles of bioassays.

One example of a useful result of teamwork at the workshops was the elaboration of a coding system for phycological literature, which would replace key words by a combination of two letters and two or three numbers. This system (Phycological Documentation Code – PDC) could be used in written form or as a card system, and the code structure also enabled to use the codes for computer processing. The new code system was originally published in 1973 in Algological Studies and later, in 1981, in a special paper by Prof. Soeder of Dortmund, who joined the project. This system was used in all papers published in Algological Studies for many years. It was later used by Prof. Soeder in the form of documentary cards and sent to all interested persons or institutes in many countries.

In the 1960s, two important events occurred in Czech phycology. A specialized phycological department was founded in Třeboň as a part of the Institute of Microbiology of the Czechoslovak Academy of Sciences. At the end of the 1960s, the international scientific journal Algological Studies was launched at the same institution. Both these events had a great effect on the Section's activities.

The workshops were not organized as international meetings, nevertheless, numerous guests from different countries occasionally took part in them, such as Prof. Lund (UK), Prof. Soeder (Germany), Prof. Starmach, Prof. Wysocka–Bujalska, Prof. Kadlubowska, Prof. Wojciechowski, Prof. Wolowski,

Prof. Czernasz, Dr. Sokolowska (Poland), Prof. Vodeničarov, Dr. Ilkov, Dr. Furnadzieva (Bulgaria), Dr. Comas (Cuba), Prof. Shaaban-Dessouki (Egypt), Prof. Zaneveld (USA), Prof. Pelicarić (Yugoslavia), Prof. Anagnostidis (Greece), Prof. Kiss, Dr. A. Schmidt (Hungary), Dr. Barica (Canada) and others, some of whom participated repeatedly. In connection with this matter, I do not mention our Slovak colleagues, who became foreign guests at the Conferences, or foreign members of the Section, only in 1993. All these contacts were most useful and valuable from both the scientific and the personal points of view. They acquired an even greater importance at the time when contacts with foreign countries were severely restricted in the Communist Czechoslovakia.

Localities of the workshops are also worth to mention. After the first meetings at Lednice na Moravě and Vranov nad Dyjí, the Conference Centre of the Academy of Sciences at Tupadly near Mělník became the regular venue for the Conferences for many years. At the end of the 1970s, the Academy handed over this Centre to another organization, and the Phycologial Section had to find new refuges. They were a building of the Institute of Microbiology at Jáchymov and a station of the Institute of Botany at Lužnice near Třeboň in 1971 and 1972, respectively. In the next years, the Conferences were held at various places: Studnice near Žďár nad Sázavou, Sněžné–Milovy, Volmanec near Počátky and Jaroměřice nad Rokytnou. After that, the Conferences took place in a mountain chalet on the hill of Čeřínek near Jihlava for a few years, and then once at Blansko, twice at Chýnov near Tábor and several times at the Conference Centre on the hill of Vlčí Kopec near Náměšť nad Oslavou. The Rožmberk Castle in South Bohemia has become the final venue of the Conferences since 1997.

The workshops always included short field excursions with sampling and microscoping. Apart from the Conferences, the Section also organized annual phycological determination courses for applied hydrobiologists working in the field of water supply, water technology and public health. Later, these courses were organized in collaboration with the Czechoslovak Limnological Society. Other courses were designated for both undergraduate and graduate students specializing in phycology. This series of annual phycological courses named "Chantransia" has been organized since 1989.

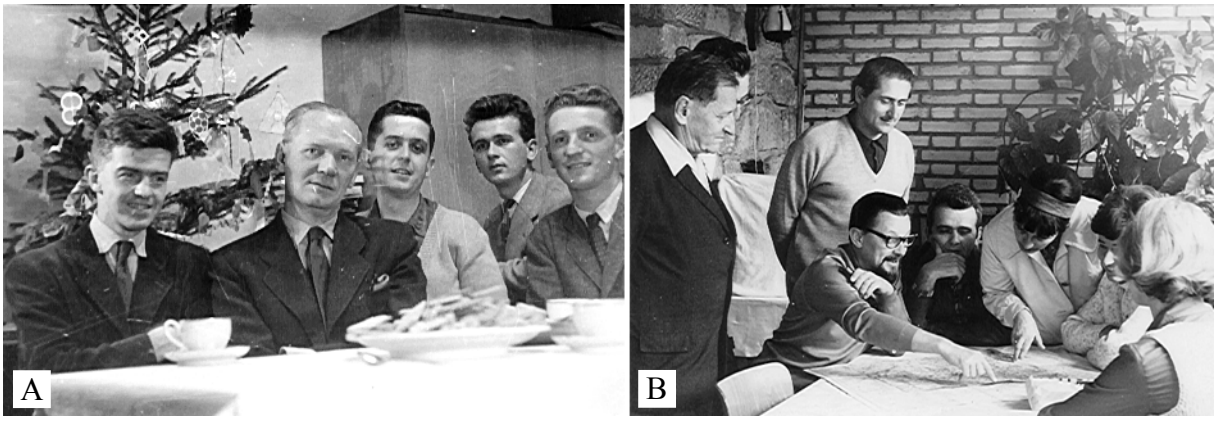
A comprehensive evaluation of 50 years of organizing the workshops shows that the Conferences belonged to the main activities of the Phycological Section (Phycological Society since 2002). Each Conference represents a meeting place and discussion forum where both the members and guests are informed about new scientific results and new research projects. Here, both undergraduate and graduate students can present their research projects, and young phycologists can gain their first experience in presenting and discussing their results. Information on new scientific literature was also always presented at the Conferences. In evening lectures and discussions, information was spread on international conferences and symposia. This is one of the reasons for which the tradition of our workshops was unique within the former Czechoslovak Botanical Society and why the members and guests of the Phycological Society continue in this tradition.

Finally, I would like to commemorate those who were active either in the first years of the Phycological Section's existence or until recently, but are not any more among us. Each of these names represents a part of the history and development of the Phycological Section, and participation in the development of Czech and Slovak phycology. The names are listed in alphabetical order:

M. Árpová, J. Bílý, B. Cyrus, Z. Cyrus, Š. Černochová, H. Ettl, B. Fott, L. Hanuška, M. Hanušová–Bejrová, J. Helan, Š. Juriš, F. Lederer, V. Lenský, S. Lhotský, J. Perman, S. Prát, S. Přibil, M. Punčochářová, K. Rosa, J. Růžička, R. Řetovský, J. Sulek and M. Toman.

Oldřich Lhotský

Phycological meeting in Tupadly (October 1961). Bottom left: P. Javornický and his wife, B. Fott, H. Řeháková, M. Nováková-Punčochářová, M. Sodomková, Z. Řeháková, J. Růžička, J. Čeřovský, Š. Juriš
Upper row: J. Perman, J. Sulek, Z. Cyrus, Š. Černochová, F. Hindák, K. Rosa, B. Cyrus.



A (Christmas 1964). Left: J. Komárek, B. Fott, H. Ettl, F. Hindák, J. Sulek. B (Phycological meeting in Čeřínek). Left: J. Růžička, J. Popovsky, O. Lhotský, F. Hindák, A. Sládečková, B. Desortová.

50th workshop of Czech Phycological Society

Czech Phycological Society (CPS) and Centre for Bioindication and Revitalization organized in Rožmberk n.Vlt. its 50th traditional workshop.

Thirty one participants, included 2 from Slovakia, presented 25 lectures incl. memory lecture about origin of Algological Society of Czech Republic. The following lectures were presented:

Březina, V. & Sajdlová : Temperature, light intensity and oxygen in study of phototrophic organisms.
Červenková, L.: Phytoplankton of lakes in High Tatra Mts.
Elster, J. & Nedbalová, L.: Stromatoliths of lakes of deglaciated parts of island James Ross, Antarktica.
Fidlerová, D.: Evaluation of ecological status of selected streams of Bosna nsa Hercegovina with using benthic diatoms. Poster.
Hauer, T.: Database of samples.
Hauer, T.: Phototrophic biofilms in cooling towers.
Hindák, F.: Conjugation in *Cylindrocystis brebissonii* and *Zygnemopsis desmidioides* (Zygnematophyceae).
Hindák, F.: Ulotrichacean algae *Ulothrix tenerrima* f. *dentatospora*, *Pearsoniella variabilis* and *Schizomeris leibleinii*.
Kaufnerová V.: Contribution to systematics of the family Scenedesmaceae.
Komárek, J., Zapomelová, R., Hindák, F.: *Cronbergia* – a new genus of heterocytous cyanobacteria.
Kvíderová, J.: Snow algae and their environment.
Kvíderová, J.: Ice nucleation activity in extremophilic algae.
Lhotský, O.: Origin of Phycology Society of Czech Botanical Society.
Lhotský, O.: New literature.
Lukavský, J., Furnadzhieva, S. & Pilarski, P.: Cyanobacteria of thermal spring Pancharevo, Sofia, Bulgaria.
Lukešová, A.: Cyanobacteria and algae in frost–heaved soils in the surrounding of Abisko.
Lukešová, A: Interactions between soil algae and invertebrates.
Masojídek, J.: Microalgae Biotechnology at the Turn of the Millennium.
Němcová, Y.: Synurophytes in pH gradient – how does the scale shape reflect environmental changes.
Pichrtová, M.: Shape dynamics of silicate structures in experimental populations of chrysophytes (Synurophyceae).
Pumann, P.: If you afraid of Cyanobacteria, do not go into water.
Řeháková, K.: Pilot study of phototrophic microorganisms in Laddak, India.
Skácelová, O.: Phytobentos of streems in Jizerské hory Mts during recovery from acidification.
Zapomnělová, E.: Phenotypic and genotypic diversity within the genus *Dolichospermum* (= planctonic Anabaena).
Vojtěch, V.: Sací bargry, TV.
Znachor, P.: Effect of flood and extreme rainfall events on phytoplankton succesion and composition in the Římov Reservoir.
Žáková, Z., Pum, M., Sedláček, P.: Occurrence of the Red Alga (Rhodophyta) genus Compsopogon in Pulkava (Austria) – tributary of the Dyje/Thaya River (Czech Republic).

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Jaromír Lukavský

Meeting of Czech Phycological Society in Rožmberk, September 2009.