

IN COMMEMORATION OF SÁNDOR JÁVORKA*

Like most of the younger botanists in Szeged, I was not destined either to be in a close connection with SÁNDOR JÁVORKA and to speak about him now from a close human intimacy. Instead of personal experiences, I am dependent on the experiences of others. Anyway, the rich literary remains of JÁVORKA are, of course, available for me too. I am attempting by means of these to speak about life and work of this great Hungarian botanist of the recent past.

SÁNDOR JÁVORKA is worthy of being commemorated in this festive meeting because even in one of the most turbulent periods of our history, with more than one turn of 180 degrees, he preserved his human dignity, remained faithful to his people and class, and raised the Hungarian botany, floristics and phytogeography to an international level.

He was born on March 12th 1883 in Hegybánya, in county Hont. His father, a village blacksmith, died young, leaving six orphans. SÁNDOR JÁVORKA had to work, teach, coach already as a little student of the grammar school in Selmecbánya, for enabling himself to finish his secondary school studies. In his student's days at the University in Budapest he also had to sustain himself alone.

Botany aroused his interest early. He published his first papers of botanical topics twenty years old. The way of his development was smoothed by his time spent as research student at the Botanical Gardens in Budapest, during the term of 1904/05. Then he was appointed to a job very convenient to his individuality to the Botanical Department of the National Museum. Here he took his doctor's degree, 23 years old, with his dissertation entitled "Hungarian species of *Onosma*". The Museum was an ideal working place for JÁVORKA. He could make long collecting journeys, prepare collections, compare and systematize. The huge collected material of the Museum and nearly the whole necessary literature were available for him. Besides these facilities he had excellent systematizing eyes, a capacity of analysing and synthesizing, and an extraordinary diligence. Until 1919 he published more than 50 papers, spent 530 days in the field, collected and pressed 2600 plants.

A date of his public role and scientific life known also by a larger public was the year 1919. The productive scientist of international reputation, coming from a working-class family was then appointed by the People's Commissariat of Education of the Hungarian Soviet Republic to Director-Curator of the Botanical Department of the Hungarian National Museum.

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After the Soviet Republic being suppressed, he worked retired mostly from public life, summarizing his own work of 20 years and that of his predecessors of 150 years in his principal work published in 1924—25. this work of his and the other ones acquired him world-reputation. In 1934 he was appointed Director of the Botanical Collection. In this sphere we worked until having retired in 1940. In the meantime he became in 1936 an associate and in 1943 an ordinary member of the Hungarian Academy of Sciences.

For us in Szeged, a remarkable date of JÁVORKA's life is 1939 when he was honoured by the University of Szeged with the title of a University professor.

After Liberation he had a considerable social role by taking part actively in creating the new Academy of Sciences, he was editor-in chief of the Hungarian botanical periodical of highest rank, the *Acta Botanica Hungarica*, and main organizer of a committee created for writing the culture flora series.

JÁVORKA was the most at home in our social medium. He was a member of several social, scientific and sciencepopularizing organizations, having an active function in TIT (Society of Scientific Popularization) and in the Hungarian Biological Society and was president of the latter from 1933 to 1936 and its honorary member after 1958.

For acknowledging his merits, the People's Republic rewarded him with the Kossuth prize in 1952, awarded him for his 70th birthday the fourth degree of the Order of the People's Republic in 1953, and the Labour Red-Flag Order in 1958.

His industrious life, so rich in results, ended on September 28th 1961.

Before discussing his scientific work and results, I am mentioning briefly the most important antecedents and problems he could build upon. He had to go beyond these for promoting the Hungarian floristic researches and preparing the right geobotanical division of the country.

The investigation of the flora in Hungary had at first culminated with Kitaibel at the beginning of the 19th century. KITAIBEL's multifold life, full of diseases was short for investigating entirely the Carpathian Basin but his principal work aroused the interest of the local and foreign nature-researchers of the Carpathian Basin containing many endemisms and, for the Western investigators, it meant also some exotica. As a result of that, in the middle of the 19th century the Carpathian Basin could be considered in bold outlines as floristically explored, the data would have been suitable for creating the first synthesizing work about the flora of the Carpathian Basin.

The Austrian oppression following the freedom-fight 1848/49 was, however, unsuitable for stimulating the Hungarian authors to write such a work demanding a highly concentrated and far-reaching activity.

The first attempt to compile the Hungarian flora is connected with the name of a jurist-official in Vienna, August NEILREICH (1866) but he didn't know Hungary and was too conservative for being able to make his mark as a scientist. His main merit has been to have collected conscientiously the scattered literary data, like a precise official, without which the further investigation would have been impossible.

Another attempt came also from an Austrian, ANTON KERNER who gave in his work entitled "Pflanzenleben der Donauländer" (1863), among others, the first phytogeographic outline of the Carpathian Basin, particularly that of the Hungarian Plain, with extremely bright colours, in an excellent belletristic style. For KERNER the Hungarian Plain meant an exoticum, the Orient and, accordingly, he considered it erroneously, as an area of the Pontian flora kingdom.

A prominent representative and elaborator of the floristics and phytogeographical idea in this country, V. BORBÁS (1844—1905), broke with KERNER's concept and recognized correctly what is particular in the Carpathian Basin. He created the so-called Ancient-Mátra theory in which he derives the heath-vegetation from the slopes of the mountain and not from the Orient. At the same time, however, the species were in his work too mobile, plastically difficult to catch.

JÁVORKA could rely upon L. SIMONKAI (1855—1910), a similarly excellent botanist. His most important merit was, according to GOMBOCZ (1936), to have carried out the "house-cleaning" in the literature of the Transylvanian flora. At the beginning he accepted KERNER's geobotanical ideas but later on he came near to the classification of BORBÁS and with regard to the Carpathians, to that of Pax. His error was to consider the Carpathian Basin in his patriotic enthusiasm as a too isolated geobotanical unit differing from anything else.

In addition we have to mention, among others, JÁVORKA's somewhat older contemporary, a prominent investigator of the Velebit and East-Balkans, Á. DEGEN (1866—1934) whose works and extremely rich private collection laid also the foundations for writing a modern Hungarian flora monograph.

Apart from the floristic and microsystematic works and from the early papers of living authors, these were the most important predecessors and antecedents that JÁVORKA could rely upon, anyway after selecting them very critically. For that, however, JÁVORKA had to have a through knowledge of the flora of the Carpathian Basin.

In the history of the Hungarian botany we speak often of P. KITAIBEL as a scientist collecting in an exemplary way, making about 20.200 km mostly on foot under the primitive traffic conditions of the end of the 18th century and the beginning of the 19th century, and as a result of his collecting journeys there are approximately 15.000 herbarium-pages in the Botanical Collection. In case of JÁVORKA it would be meaningless to reckon in kms at the modern traffic conditions. The number of his herbarium-pages in more than 22.000, he spent in the field approximately 2.200 days, more than seven years if calculated in working-days.

The foundations for writing the highly expected Hungarian flora monograph were partly these collecting journeys and his own collection, partly the critical investigation of the extremely rich plant material of the Botanical Collection, including the collections of KITAIBEL, HAYNALD, the palatine family, Á. DEGEN and many others.

The "Hungarian Flora" published in 1925, named simply "Big JÁVORKA" for domestic use, was the great flora work looked forward to by the animating atmosphere of the reform period already 100 years ago. "Although the work was made on the model of a plant identification handbook" — writes E. GOMBOCZ (1936) — "in view of its content it is going far beyond the framework of that. Its author had both the capacity of analysing in details and that of making a comprehensive synthesis. In this way, he could create even in the form of an identification handbook a critical work, clearing the uncermain data piled up during the decades, elaborating some difficult genera like *Poa*, *Festuca*, *Carex*, *Quercus*, *Tilia*, *Hieracium* in a way that it was acknowledged as exemplary everywhere. In addition, he fulfilled the wish of a century and a half, giving us finally a work showing a true picture of the exceedingly rich Hungarian flora". In "Hungarian Flora" included the first geobotanical classification giving the first clear picture of the Carpathian Basin, being mostly reliable even to-day.

This work is connected with his work: „The Hungarian Flora in Pictures”, surnamed generally the “Illustrated JÁVORKA” (1929—1934) that “was born from the synthesis of S. JÁVORKA’s scientific and V. CSAPODY’s artistic capacities and is one of the most valuable product of the whole European botanical literature from the point of view of the true plant pictures” (GOMBÓCZ, 1936).

A flora work can, of course, never be accomplished. JÁVORKA was referring in the foreword to the Hungarian Flora to the compromises, uncertainties, the temporary character of species and their areas he had to reckon with, as the data were missing or contradictory. These have already come to a rest as a result of his later work carried on till his death and that of other florists and geobotanists.

I don’t think necessary to give here full details about JÁVORKA’s activity completing his Hungarian flora work. I am mentioning only that he described on the basis of his own collection more than 120 new taxons exclusively from the *Angiospermae*. It has been only JÁVORKA’s great flora work and his activity before and after the appearance of that work that created a foundation for analysing the flora of the Carpathian Basin and preparing its more and more perfect geobotanical classification.

I would like to emphasize two more aspects of his activity. One of them is the respect for the predecessors and collaborators. JÁVORKA often met in the Botanical Collection excellent early experts of the Hungarian flora, plants collected by them and hall-marked by their names. His Humanity has required of him, apart from the pressed plant species being systematically interesting, to look behind these pages in several senses, looking, among others, for botany and the man serving his country. He publishes a lot of articles about the rose expert A. KMET, the prominent Transylvanian florist J. CSAPÓ the remarkable botanist and Maecenas Archbishop L. HAYNALD, Professor S. MÁGOCSI—DIETZ, Á. DEGEN, R. RAPAICS, J. BERNÁTSKY, the nature-lover L. KOSSUTH, F. HOLLENDONNER and others, so for instance about one of the amateur botanists who played a considerable role in the Hungarian flora investigation, the prominent art historian, K. LYKA.

The most remarkable of his biographical works is that written about P. KITAIBEL. In its introduction we can read: “This paper wants to throw light upon the period in the development of natural sciences as the waking Hungarian research spirit integrated efficiently with the contemporary European progressive movements and began to explore the natural resources of the Hungarian soil.” From these words we can gather his scientific credo and desire: the results of the national science have to move on the same level as the international results of science. The first example was given by himself.

The other aspect to be emphasized is his role in the popularization of science. His books entitled Flowering Nature, Flowers of Wood and Meadow, Our Garden Flowers are proving that if somebody knows, he does teach, too. The three description of nature, and even any wide-spread circulation of a material of knowledge means a step forward to a man released from delusions and prejudices. And in this field we have still much to do in Hungary. JÁVORKA gave again a good example in this respect.

S. JÁVORKA was known, respected and liked, of course, not only by the whole botanical world in this country. He had a very large circle of friends abroad, too. He was in standing correspondence mainly with his Czechoslovak, Rumanian, Yugoslav, Polish, Austrian, Bulgarian colleagues, too, and was in friendly relation also with Russian and later Soviet botanists. A friend of his was the great Russian-

Soviet botanist Boris Fetchenko and later also the president of the Soviet Academy of Sciences, VLADIMIR KOMAROV. Between the two world wars, when a correspondence with Soviet researchers was dangerous to life, JÁVORKA was not prevented from maintaining the scientific relations by any prejudice in this country.

Finally, beyond the scientist, I would like to say one word or two about the man himself, as well. ZÓLYOMI writes about him (1962): "He was not only outstanding individuality of a period of the history of science but also a true man, a warm-hearted humanist: quiet, modest, contempting appearances, free from vanity and false glamour, taciturn and charitable. He was fond of his colleagues, had a great regard for any assiduous fellow-creature of good will and evaluated them on the basis of their inner values and work. He felt particularly attracted by youth, supporting their desire for knowledge. If somebody appealed to him for his advice in a special question, he endeavoured with the greatest patience to give him an exact, precise answer. We performed the tasks given him or undertaken conscientiously, exactly, and with the greatest persistence. He condemned superficiality and negligence, disapproving them nevertheless only kindly. But he could never support silently any unlawfulness."

One of JÁVORKA's characteristics was his patriotism. His love for his country scene, for the lowlands of the great Hungarian plain, the "puszta", for the Transdanubian downs is apparent in every work of his. This patriotism, however, is sober without the romantic exaggeration of the last century nor participating in the chauvinism of the pre-war period. JÁVORKA has not only the love of the landscape, of the earth creating woods and fields but also that of man, of our people, of our whole culture, as well. He was fond of the creating man who has something to give to his country: a scientific result, an industrial or agricultural product or a political act forming the new country. S. JÁVORKA was placed by his fate and qualities to take the lead of the researchers of the Hungarian flora. His scientific results have gained him the respect of his contemporaries and of posterity, as well. And his human behaviour ensured him a general respect and affection.

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