

110 YEARS SINCE THE BIRTH OF BOTANIST DR. EMILIAN TOPA (1900 – 1987)



Abstract: He was born on February 9th 1900, only son of a poor family in the Cuciurul Mic village from the old County named Chernivtsi (today in Ukraine). He did the primary classes in his native village, and the middle and high school in Chernivtsi. He graduated in 1925, the Department of Natural Sciences, University of Chernivtsi. After his graduation Emilian Topa enters into secondary education level, where he worked for the next years (between 1925 and 1943 - at the “Mihai Eminescu” girls High School, the Pedagogic Seminar of University and the School of health officers). Also in this period becomes botany assistant at the University of Chernivtsi, the Chair Professor Guşuleac, where he worked no more than 17 years. During this period he had the responsibility and leadership for the botanical garden from the same city. It then becomes Assistant Botany at Bucharest University (1940-1941), lecturer at Chernivtsi University (1942-1943), lecturer (delegation) for applied botany at the Polytechnic Institute “Gheorghe Asachi” of Iasi (1945-1946), conservator at the Museum of the Botanical Garden in Cluj (1946-1947). Between 1948 and 1953 is geobotany lecturer at University of Cluj and, simultaneously, an associate professor of pharmaceutical botany at the Medico-Pharmaceutical Institute in the same city (1948-

1951). From 1952 to 1959, we meet him as director of the Botanical Garden of the University of Cluj, and from 1963 until his retirement in 1970, is director of the Botanical Gardens of Iasi.

Emilian Topa held a prolific and sustainable scientific research, educational or cultural, national or social, during no less than 60 years. Thus, he has published over 200 books, articles, studies and scientific reviews in different areas: plant taxonomy, plant ecology and chorology, phytosociology, phylogeny, phytopathology, phytotherapy, ethnobotanical, nature protection, ornamental flora, Romanian or European botanical histories etc.

His doctoral thesis, titled “Halophile vegetation in northern Romania in relation to the rest of the country”, was published in the Bulletin of Faculty of Science from Chernivtsi, in 1939.

He was the main contributor to “Ethnobotanical dictionary”, written by Al. Borza, and published by the Romanian Academy in 1968. He participated, along with Eugen Ghisa and Ionel Pop, at the four volumes of “Romanian Encyclopedic Dictionary” (published between 1962 and 1966). He participated in all 10 national conferences of geobotany organized between 1960 and 1970.

In the field of botany has published numerous scientific articles who made valuable contributions to the chorology of vascular plants, first from Bukovina and then from the other parts of Romania. An important contribution is represented by the his collaboration to the monumental work “Flora of Romania”, initiated by Traian Savulescu, in his capacity as President of the Romanian Academy in that time (early 50's of last century). So, the botanist Emilian Topa has processed no more than 207 species in 91 genera and 38 botanical families and nine genera of the family *Leguminosae* (working as at 9 of the 13 volumes of the work previously cited).

He made notable contributions in the field of phytosociology, first by studying halophile vegetation in northern Romania (being consecrated as the first European monographer for halophile vegetation in the temperate zone), and then contribute to the knowledge of the other types of vegetation in our country. Thus, his name is linked to the description of some caenotaxa new to science, among which we mention here: Cl. *Puccinellio-Salicornietea* Topa 1939, and several plant associations.

He worked on “*Flora Romaniae Exsiccata*” published in Cluj-Napoca (with more than 5,000 sheets of Herbarium), and “*Herbarium Mycologicum*” (initiated by Traian Savulescu since 1928). His is due the resumption of publication of the prestigious publication “*Bulletin of the Botanical Garden from Cluj*” (founded by Al. Borza and discontinued in 1948), under the new name “*Botanical Contributions*”.

He died on February 10, 1987, and was buried beside his wife, Stefania, at the cemetery of „Sfinții Atanasie și Chiril” Church near Botanical Gardens of Iasi.

Born on February 9th 1900, the only son of a poor family in the Ciciurul Mic village of the former county Chernivtsi (now in Ukraine), Emilian Topa will discover in the world of the village since childhood years, the universe surrounding, the plant world, and especially love for nature [Mititelu D., Leocov M., 1987; Morariu I., 1979-1980; Resmerita I. 1980].

Primary school has made in his native village, and on the middle and high school in Chernivtsi. With all the privations imposed by the lowness of his family, especially following the outbreak of the First World War, the young Emilian Topa continue his studies and after military service, he enrolled at the Department of Natural Sciences, University of Chernivtsi. Here, leading teachers will be Eugen Botezat, Constantin Bratescu, Mihail Gusuleac, Fritz Netolitzky, Alfons Peneke, all being models, both for the respect required by their knowledge, but also for the force of conviction with which they expose the scientific ideas in the academic world for its time [Resmerita I., 1982].

After his graduation in 1925, Emilian Topa enters into the secondary school, where he worked for the next years (between 1925 and 1943 - at "Mihai Eminescu" High School girls, Pedagogic seminar of University and School for health officers). Also in this period becomes botanical assistant at the University of Chernivtsi, at the Department of Professor Gusuleac, where he worked no more than 17 years. During this period he also had the responsibility and leadership for the botanical garden in the same city.

The waves of life for the botanist Topa took him further by all the major university centers in Romania. Thus, he becomes Assistant for Botany at University Bucharest (1940-1941), lecturer at University Chernivtsi (1942-1943). Here is called director of the botanical garden (1944). Then he became a lecturer (by delegation) for applied botany at the Polytechnic Institute "Gheorghe Asachi" of Iasi (1945-1946), conservator at the Museum of the Botanical Garden in Cluj (1946-1947). Between 1948 and 1953 is lecturer for Geobotany at University Cluj and, simultaneously, an associate professor for pharmaceutical botany at the Medico-Pharmaceutical Institute from the same city (1948-1951). From 1952 to 1959, we meet him as director of the Botanical Garden of the University Cluj, and from 1963 until his retirement in 1970, is director of the Botanical Gardens of Iasi [Stefureac Tr. et al., 1979].

Emilian Topa held a prolific and sustainable scientific research, educational or cultural, national or social, during no less than 60 years. Thus, he has published over 200 books, articles, studies and scientific reviews in different areas: plant taxonomy, plant ecology and chorology, Phytosociology, sindinamics, phylogeny, phytopathology, phytotherapy, ethnobotanical, nature protection, ornamental flora, Romanian or European botanical histories etc. [Mititelu D. & Leocov M. 1987].

He had a great knowledge on plant use, and their popular names, and he was recruited as a main contributor to "*Ethnobotanical dictionary*", written by Al. Borza, and published by the Romanian Academy in 1968. He participated, along with Eugen Ghisa and Ionel Pop, to the publishing of the four volumes of "*Romanian Encyclopedic Dictionary*" (published between 1962 and 1966). He participated in all 10 national conferences of geobotany organized in country between 1960 and 1970 [Micle F. 1991].

His teaching and educational ideas was synthesized into a large conference with the suggestive title: "Nature as a factor in the formation of the unity of the Romanian nation" (Chernivtsi, 1934), held in several locations over time. He held over 100 conferences on various botanical topics, or apiculture, mineral water, salt and others in many cities in Romania, where he enjoyed a real appreciation of the audience informed.

He has published numerous scientific articles *in the field of botany* and made valuable contributions to chorology of vascular plants, first in Bukovina and then into the other parts of Romania. An important contribution is represented by the his collaboration to the monumental work “Flora of Romania”, initiated by Traian Savulescu, in his capacity as President of the Romanian Academy in that time (early 50's of last century). So, the botanist Emilian Topa has processed no more than 207 species in 91 genera and 38 botanical families and nine genera of the family *Leguminosae* (working as at 9 of the 13 volumes of the work previously cited) [Ștefureac Tr., 1979, 1982].

Families processed entirely by Emilian Topa include aquatic and marsh plants or ornamentals, or with other applied properties. Critical and responsible, Emilian Topa describes a number of taxonomic units new to science, all being found in the volumes of the work cited above (ex. *Aesculus x hemiacantha*, *Centaurea tenuiflora* DC. f. *fastigiata*, *Euonymus europaeus* f. *angustata*, *E. nanus ascendens* and *erecta* forms, *Euonymus radicans repens* and *vegeta* f. *robusta* varieties, *Iris pallida* „*Emil Racovitzae*” variety, *Potamogeton crispus* f. *ecornutus*, *Ribes heteromorphum* Topa = *R. spicatum* Robson, *Sparganium x tardivum*, *Arachys hypogea fastigiata* and *procumbens* varieties, *Elatine alsinastrum semipedunculata* and *sessiliflora* varieties, *Najas graminea f. intermedia* Topa et Zahar., *Rhododendron kotschyi* f. *oblonga*, *Scorzonera austriaca* var. *mucronata* etc.). In recognition of the value of the botanist Emilian Topa, the great botanist from Cluj I. Prodan dedicated to his name one species of plant, namely: *Centaurea x emilii-topae* Prod. (*C. pseudophrygia x stenolepis* ssp. *bansagensis*) (prevalent in HD county: Serel on Culmea Peak, IF county: Balteni to Scrovistea). In his itinerations along and across the country, Emilian Topa reported no fewer than 70 new phytotaxons for Romanian flora. From these, we mention here a few, namely: *Aesculus turbinata*, *Aspidium falcatum*, *Calystegia pubescens*, *Crocasmia x crocosmiflora*, *Helianthus decapetalus*, *Hosta japonica*, *Lagerstroemia indica*, *Nelumbo nucifera*, *Sagittaria latifolia* and others. Other studies refer of gymnosperms grown in Bucharest and in Oltenia, and a synthetic micromonograph of Romanian *Iris* genus (“*Iris species into the flora of Romania*”), a work published at Firenze in 1963.

Emilian Topa made notable contributions in the field phytosociology, first by studying vegetation in northern Romania halophile vegetation (being consecrated as the first European monographer for halophile vegetation in the temperate zone), and then contribute to knowledge and other types of vegetation in our country. and then contribute to the knowledge of the other types of vegetation in our country. Thus, his name is linked to the description of some caenotaxa new to science, among which we mention here: Cl. *Puccinellio-Salicornietea* Topa 1939, and several plant associations: As. *Camphorosmetum monspeliacae* (Topa 1939) Serbănescu 1965, As. *Leuzeeto-Oenanthetum silaifoliae* (Borza 1931 n. n.) Topa 1939, As. *Triglochineto maritimae-Asteretum pannonicum* (Soó 1927) Topa 1939, As. *Staticeto-Artemisietum monogynae (santonicum)* Topa 1939, As. *Suaedeto-Kochietum hirsutae* (Br.-Bl. 1928) Topa 1939, As. *Obionetum verruciferae* (Keller 1923) Topa 1939, As. *Halocnemetum strobilacei* (Keller 1923) Topa 1939, As. *Heleochoetum schoenoidis* (Soo 1933) Topa 1939, As. *Lepidietum crasifolii* Topa 1939 etc.

He worked on “*Flora Romaniae Exsiccata*” published in Cluj-Napoca (with more than 5,000 sheets of Herbarium), and “*Herbarium Mycologicum*” (initiated by Traian Savulescu since 1928). His is due the resumption of publication of the prestigious publication “*Bulletin of the Botanical Garden from Cluj*” (founded by Al. Borza and discontinued in 1948), under the new name “*Botanical Contributions*” [Hodișan I., Micle F., 1988].

His work in Iasi. Although still called since 1962 by the leadership of the University of Iasi to organize the new botanical garden, Emilian Topa was appointed director in 1963. In the period while he ruled the destinies of this institution (1963 - 1970) that link the main achievements of his name in the botanical garden are: defining the perimeter of the botanical garden (including all the plans for the future), the distribution and organization of sectors, the complex study of subsoil, soil, climate and flora, administrative buildings and construction of a part of greenhouses, the water, gas, electricity supply, access roads and establishment of circulation, improve degraded lands, maintenance of some enclaves of spontaneous flora and vegetation, ensuring fences, setting plan, appointment of the first botanical garden's scientific council and approved by the Senate, but especially the development and approval of work plans on sectors of botanical garden, making development schemes for sectors etc. Under his leadership, the garden area increased from 8,85 to 67 ha, greenhouse area extends from 300 to 1200 m², the number of taxa increases from approx. 2000 to approx. 7500, increase the number of similar units for seeds exchange from approx. 150 to 678 in 130 countries, organize library of the institution (having at that time approx. 3,200 volumes and 655 periodicals), herbarium numbered over 13,200 sheets, many from other herbarium from country or other geographical areas. Also, he donated his full personal library to botanical garden, and even a part of his household furniture was brought into this institution.

During that period Emilian Topa continue the editing of Botanical Gardens seed catalog, enter the editing of an Exsiccate for Moldova and Dobrogea flora („*Flora Moldaviae et Dobrogeae Exsiccata*”), after the model of Cluj, and edited the first four Centuria (adding up to more than 15,000 sheets of Herbarium). He substantially enriches the collection of plants in greenhouses and outdoors in many taxa of spontaneous or brought under cultivation, from country or abroad [Lazăr Maria, 1982; Leocov M., 1979].

He died on 10 February, 1987, on St. Spiridon hospital beds after a brief suffering, and he was buried beside his wife, Stefania, at the cemetery of „Sfinții Atanasie și Chiril” Church near Botanical Gardens of Iasi.

The botanist Emilian Topa was one of the major Romanian leaders of Botany and he is an example of high professional commitment and attachment to all who knew him. He gained the respect of colleagues through the vastness of his botanical knowledge and the generosity with which provides all energy in the service of one or other ideas. He was treated respectfully by his contemporaries for his knowledge. He was Honorary Professor and Docent Doctor [Diaconescu Florita, 2008].

The botanists from Iasi have entered the name of Professor Emilian Topa on the frontispiece of botanical garden and honor his memory with all gratitude, as otherwise it is necessary for the other great personalities of Romanian science.

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PROFESSOR CONSTANTIN TOMA AT HIS 75TH ANNIVERSARY



On November 19th, Iasi academic community, which is joined by leading personalities of the Romanian biology, celebrates and pays tribute to Professor Dr. **Constantin Toma**, member of the Romanian Academy, member of the Moldova Academy of Ecology, Professor Emeritus of the “Alexandru Ioan Cuza” University, Doctor Honoris Causa of the Universities from Arad, Bacau and Oradea, member of prestigious scientific societies in the country and abroad.

No doubt that the illustrious name of the professor is among those of the emblematic teachers of the Faculty of Biology, “Alexandru Ioan Cuza” University from Iasi. Testify for this is the results of 52 years of tirelessly toil in the service of plant biology and beyond. The extremely fruitful work of professor includes teaching, science and administrative-management.

Teaching innate talent was constantly enriched through all academic career stages: preparator (1958), assistant (1953), lecturer (1966, 1972), professor (1978), consulting professor (2005). During this time he fully contributed to the preparation of several generations of biologists, shaping their professional destiny, contributing to the edification of students and teachers. Teaching activity was supported by 15 courses, textbooks and academic work (alone or jointly) published by the central and local publishers, totaling over 6300 pages containing over 3500 original images. Three of these volumes are crowned with the “Emanoil Teodorescu” award of the Romanian Academy.

The scientific activity took place mainly in plant morphology and anatomy, drawing with his mentor and then strengthening the foundations of a genuine “school” from Iasi. Among the many directions of research include: blastogeny, morphology, histology, anatomy, xylotomy, phytochemistry, medicinal plants etc. His extensive scientific research has resulted in more than 400 original articles (over 3850 pages) published in specialized journals in the country, 15 foreign journals and volumes of international scientific meetings (29 articles, 184 pages). Testimony for the value of his research is the over 80 references in the international literature.

A special place is occupied by the remembering of contributions of his ancestors, whom he has dedicated over 220 pages in 53 articles of history of biology. He also made over 25 reviews and numerous presentations for papers and books from different specialties of plant biology.

His scientific and teaching work totaling over 10800 pages that have investigated only the morpho-anatomical point of view over 600 species, 200 varieties and hybrids and more than 40 ecotypes of food, fodder, medicinal, honey, textile, toxic, ornamental plants, holoparasite, hemiparasite, carnivores plant, indigenous and exotic plants, useful and harmful, endangered and endemic in Romanian flora.

In the past 15 years has contributed to 11 research projects, at 5 of them being responsible.

At the age of 35 years was named director of the Botanic Garden “Anastasiu Fatu” from Iasi, during which time he greatly contributed, along with the young and enthusiastic team, in building the garden sectors on current location, a process that started in 1963 and completed in 1978. Here makes known its managerial values, and he was invested in leadership positions and was appointed as dean of the Faculty of Biology (1975-1977), Head of Department (1977-1985, 1990-1996), Dean (1989-1990, 1996-2001), general chancellor of the University “Alexandru Ioan Cuza” from Iasi (1990-1992), where he worked hard to enhance the prestige of this institution from Iasi.

In the period 1986-1990 has led the Institute of Biological Research as a director. He actively participated in raising the professional prestige, allowing particular attention to broadening the research teams, initiation and training of young researchers.

Over the years he played an important role in various areas related to its basic activities. Thus, since 1992 he is chairman of the Subcommittee of Natural Monuments branch of the Romanian Academy in Iasi, since 2008 he is the honorary president of the Society of Biological Sciences from Romania, since 2001 is secretary of the branch from Iasi of the Romanian Academy.

His work is still tireless, being a member of the editorial board of specialty journals, editor of the *Romanian Journal of Biology - Plant Biology*, *Scientific Annals of “Alexandru Ioan Cuza” University from Iasi - Plant Biology Series*.

His work is still rich as we know it as always, which is underlined by the six articles in press, the daily presence in the laboratory with young researchers, and doctoral students whom he leads.

For all the remarkable achievements mentioned or not, for all the exceptional qualities of teacher and mentor, distinguished, exacting and open, for the strength and firmness with which you have done everything so far, yesterday's students and today colleagues expressing their admiration and gratitude, and heartfelt wishes you a “Happy birthday, Professor!”

We wish for the seventy-fifth anniversary of our distinguished Professor to be a beginning of a long series of fruitful years as those who have passed.

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