

PROF. UNIV. DR. PETRE GÂȘTESCU, AT 90 YEARS OLD.



Prof. univ. Dr. Petre Gâștescu was born in the village of Soci, Miroslăvești commune, Iași county. He attended primary school in his native village (1939-1943), high school in Iași (Veniamin Costachi Seminar, 1943-1946, and Theoretical High School in Pașcani, 1946-1951), university studies at the Faculty of Geology-Geography, Department of Geography, University of Bucharest graduated with a diploma of merit (1955); had his doctoral thesis *Lakes in Romania-gensis and hydrological regime* presented at the University from Cluj (1960) and that for doctoral professor - *Lakes in Romania - regional limnology* at the same university (1971), for which he received the Romanian Academy Award "Gheorghe Murgoci", both works being published in the Romanian Academy Publishing House.

Research activity: he started it at the **General Hydrometeorological Directorate** (1955-1958), continuing it at the **Institute of Geography of the Romanian Academy** (1958-2001), where he still works as an associate researcher.

Teaching activity: he carried out it at the **University of Valahia, Târgoviște** where he became a tenured professor in 1994, at the **Hyperion**

University of Bucharest in 2004, and at **the University of Bucharest** as an associate professor since 1994.

Professor Dr. Petre Giştescu has a significant contribution to the development of Romanian geography. In the **field of waters**: he promoted and developed an authentic **limnological school (lake study)**, being considered **the founder of the Romanian limnological school (founding member and president of the Romanian Association of Limnogeography since 2008) and promoting the hydrogeographic research direction** in Romania.

He has devoted his activity, for **over 60 years**, to investigating lakes in Romania, especially those in the Danube Delta, the Romanian Black Sea Coast, the Romanian Plain, the glacial lakes in the Southern Carpathians. He participated as a good connoisseur of the Danube Delta in **substantiating the selection and delimitation of strictly protected areas in the Danube Delta Biosphere Reserve**, publishing in addition many articles, thematic and tourist maps, guides and synthesis work - **Danube Delta Biosphere Reserve**, co-editor with Eng. Romulus Ştiucă, in two editions (2006, 2008).

He has participated in numerous symposiums, conferences and international congresses of hydrology, geography, being a member of the specialized commissions of the **International Union of Geography and the International Scientific Association of Hydrology (IHS)**.

He has published **over 320 scientific papers** (books, articles, maps) at prestigious publishing houses and specialized magazines in the country and abroad. He coordinated within **the Institute of Geography** the elaboration of some fundamental works: **Geography of the Romanian Danube Valley** (1969), **Atlas of Romania** (1972-1978), **Geography of Romania** (1983-1992), **a collection of books describing each county of Romania – Judeţele Patriei** (41 volumes) and other works published in the Romanian Academy Publishing House.

For university geographic education he has published several courses - **Limnology and Oceanography**, Edit. H.G.A. Bucharest, Tempus Program, 1998; **Hydrology**, Edit. Roza Vânturilor, Târgovişte, 1998, **Continental Hydrology and Oceanography**, Edit. Transversal, 2009, 2019, in collaboration with Petre Breţcan; **Ecology of human settlements**, Edit. Univ. Bucharest, 1998; **Limnology and Oceanography**, Edit. H.G.A., 1998, **Dictionary of Limnology**, Edit. H.G.A. Bucharest; 2001; **Oceanography**, Edit. SFINX 2000, Târgovişte (in collaboration with Rădiţa Alexe), 2000, **Environmental Management**, Edit. SFINX 2000, Târgovişte, 2001.

Some of the works, such as **Lacurile Terrei**, in several editions (1979, 2002, 2006, 2008), **Fluviile Terrei** (1990, 2002, 2009), **Insulele Terrei** (1989, 2003, 2013), the last in collaboration with **A. Cioaca**, having a high audience geographic information message. To these are added 5 editions of the **tourist**

map of the Danube Delta and the Visitor's Guide to the Danube Delta Biosphere Reserve (2011), the latter in collaboration with **Dr. Ing. Gr. Baboianu** (2011).

He is a member of some **scientific societies (Geography - Romania and Italy, Ecology), commissions, editorial committees of academic journals.**

Doctoral supervisor since 1972 at the **Institute of Geography of the Romanian Academy** (under his guidance obtaining the title of **doctor in geography a number of 40 people - geographers, engineers**).

He received numerous distinctions, namely - the Medal of Scientific Merit (1966), the award of the Romanian Academy "Gheorghe Murgoci" (1971), member of the "Research Board Advisors of The American Biographical Institute" (2000), the title of honorary professor of the Univ. „Alexandru Ioan Cuza” Iași (2001) and the diploma of excellence and the medal of the same university on the occasion of the Centenary of geographical higher education (2004), Doctor Honoris Causa of the Univ. „Ștefan cel Mare” Suceava (2002) and of the University „Valahia” Târgoviște (2007), the diploma of excellence and the medal „Simion Mehedinți” - Faculty of Geography of Univ. Bucharest, Professor Emeritus of Hyperion University, Honorary Citizen of his native village, other diplomas of excellence of universities and research institutes in the country, including the Institute of Geography of the Romanian Academy on its anniversaries.

The field of limnology was the most important to which he channeled his intellectual efforts from the first years of scientific research, at the beginning of the research this field was very little studied in Romania. The investigation and interpretation of the results in the field was from the beginning a success both in terms of how to approach the issue and in the research methodology, appreciated by reviews of some articles and synthesis papers.

The major concerns in scientific research in the field of geographical limnology are grouped as follows: genetic types of lake depressions and classification of lakes, was a major problem in Romanian geographical limnological research, not systematically addressed at the time and based on the synthesis works mentioned above; **the balance and the water regime** analyzed as a basic element of the existence of the lakes in which they were followed both as a temporal variation, at monthly, seasonal, annual and multiannual level and in space from glacial lakes to those in the Romanian Plain and Danube Delta; **the thermal regime** of the lake water, another element an important characteristic of the lake ecosystem has also been meticulously studied with all aspects related to the variation in time and space; **the hydrochemical characteristics** of the lakes, sporadically studied previously, were systematically followed according to the variation of the degree of mineralization, the type and processes of hydrochemical metamorphosis according to the seasonal variation of climatic conditions, lithological substrate and food sources; **the water recovery index**, which is an

indicator to see to what extent the lakes meet the conditions of a **lake ecosystem** defined as physical environment (biotope) and organic environment (biocenosis), in a close unit based on energy storage processes (by photosynthesis) and degradation (by exothermic reactions) and as a result a certain amount of biomass; **the limnological type** as a reflection of the lake ecosystem, its content and the evolution phase of the lake as such, the limnological type reflecting the degree of development (evolution) and dynamics of the phenomena, all these being expressed by a certain **biohydrocenosis**.

In this conception, **limnology has two sub-branches: one called Physical limnology (limnogeography) which studies the lake biotope (lake depression and water) and biological limnology (limnobiology) which studies biohydrocenosis (lake biocenoses). Since the biotope and biocenosis of a lake make up a whole, the lake is an open system, also called the limnosystem, a true microcosmos**, as compared to the American biologist St. A. Forbes, 1887 (P. Gâştescu - Lakes of the Earth, Albatros Publishing House, 1979, P. Gâştescu - Limnology and Oceanography, Edit. H.G.A., 1998, P. Gâştescu, Dictionary of Limnology, Edit. H.G.A.)

The terminology issues were in the attention of **Prof. Univ. Dr. Doc. Petre Gâştescu** from his doctoral dissertation, continued later through articles, synthesis papers, in university courses, in the limnology dictionary. In essence, these works posed the following questions - **what is a lake, a pond, a swamp**, if there is a connection or a succession in the evolution of a lake, what dimensions are required for stagnant water to be considered a lake, etc., imposing the following definition of the *lake* - **a relatively stagnant body of water, located in a depression on the land surface, which is not directly related to the planetary ocean, including all such water surfaces, from pools of tens of m² to water bodies of hundreds or thousands of km² (eg. Caspian Sea, etc.).**

Hydrogeography, defined as a branch of hydrology, which deals **with the distribution of water resources in time and space and their relationship with other natural and socio-economic factors**, has been a field of research promoted through debates in scientific meetings, articles and maps included in synthesis papers, doctoral theses.

The research material has been presented over time at numerous conferences and congresses both in the country and abroad (Sweden, France, Ukraine, UK, Russian Federation, Finland, Slovakia, Bulgaria, USA, Italy, Armenia, Netherlands, Israel, Germany, Poland, etc.).

Selective list of works

Books, treatises, monographs, encyclopedias, atlases, maps

1960 – *Monografia geografică a R.P. România*, Edit. Academiei, 783 pag. + Anexa de hărți (coautor la capitolul Hidrografia).

1963 – *Lacurile din R.P. Română, geneză și regim hidrologic*, Edit. Academiei, 293 pag., 162 fig., 34 tab.

1969 – *Geografia Văii Dunării românești*, Edit. Academiei R. S. România, București, 783 pag. + anexă hărți color (autor la mai multe capitole privind apele).

1967 – *Dunărea între Baziaș și Ceatal Izmail - monografie hidrologică, CSA, ISCH, 369 pag. (coautor la capitolul de lacuri cu Ariadna Breier).*

1971 – *Lacurile din România - limnologie regională*, Edit. Academiei, 372 pag., 95 fig., 31 tab., 60 foto.

1979 – *Excesul de umiditate din Câmpia Română de nord-est (1969-1973)*, Edit. Academiei, 176 pag., 48 fig., 42 tab., hartă color (coordonator, în colab. I. Zăvoianu, Octavia Bogdan, B. Driga, Ariadna Breier).

1972-1979 – *Atlas R.S. România*, Edit. Academiei (coautor la hărțile apelor).

1983 – *Geografia României, vol. I Geografie fizică*, Edit. Acad. R.S. România, 662 pag. (autor la mai multe capitole).

1992 – *Atlasul cadastrului apelor din România*, Ministerul Mediului, Aquaproiect (autor și coautor cu B. Driga la lacurile naturale, deltă și litoral).

1997 – *Ecosystem map of the Danube Delta Biosphere Reserve*, sc. 1:175 000, printed by RIZA, Lelystad, The Netherlands (în colaborare).

1998 – *Encyclopedia of Hydrology and Water Resources*, edited by Reginald W. Herschy and Rhodes W. Fairbridge, Academic Publisher, Dordrecht-Boston-London (articolele: *Danube River – hydrology and geography, Lakes, lake waters, Limnology definition, Razim-Sinoie lake complex*).

2005 – *Geografia României, Vol. V, Câmpia Română, Dunărea, Podișul Dobrogei, Litoralul românesc al Mării Negre și Platforma Continentală*, Edit. Acad. Române, (autor și coautor la mai multe capitole)

2006 – *Romania. Space, Society, Environment*, Edit. Acad. Române, (co-author, Waters)

2008 – *Delta Dunării – Rezervație a Biosferei*, Edit. CD Press, București (co-editor Petre Găștescu, Romulus Știucă)

Limnology articles

1961 – Tipuri genetice de lacuri în R.P.R., după originea cuvetei lacustre, *Probl. geogr.*, VIII, pag. 301-323, 6 fig., 3 tab.

1962 – Zonele lacustre pe teritoriul RPR, *Com. Acad. Rom.*, XIII, 11, pag. 1 247-1 253.

1964 – Problèmes concernant le bilan hydrologique des lacs avec des exemples de Roumanie, RRGGG - Géogr., **8**, pag. 79-87, 3 fig., 1 tab.

1966 – Limnologia și problemele actuale în cercetarea lacurilor din România, SCGGG - Geogr., **XIII**, 2, pag. 187-192.

- Quelques aspects du bilan hydrologique des lacs de la Plaine inondable du Danube, RRGGG-Geogr., **10**, 1966, pag. 187-196 (în colab. cu Ariadna Breier).

1968 – *La zonalité géographique verticale réfléctée dans le régime hydrologique des lacs de Roumanie*, RRGGG-Géogr., **12**, 1-2, pag. 101-106, 1 fig. (în colab. cu Ariadna Breier).

1969 – *The synoptic profile of lake water temperatures relative to altitude*, RRGGG-Géogr., **13**, 1, pag. 53-61 (în colab. cu Ariadna Breier și B. Driga).

1970 – *Problèmes concernant la typologie limnologique*, RRGGG-Géogr., **14**, 2, pag. 209-216.

1972 – *Limnologia – știință de graniță între geografie, hidrologie și biologie*, Progr. șt., **3**, pag. 116-118.

- *Les limans et les lagunes de Roumanie*, Verb. Internat. Verein. Limol. **18**, Stuttgart, pag. 505-516, 6 fig., 2 tab. (în colab. cu Ariadna Breier, B. Driga și Tatiana Nicolae).

1973 – *Artificial lakes of Romania* - în vol. Man - made lakes - their problems and environmental effects, published by American Geophysical Union, Washington, pag. 50-55, 3 fig., 1 tab. (în colab. cu Ariadna Breier).

- *Some aspects of the hydric balance of lakes in the eastern Romanian plain in the years 1956-1970*, Hydrological Sciences Bulletin, **3**, **18**, London, pag. 283-293, 9 fig., 1 tab. (în colab. cu B. Driga).

1977 – *Relations hydrochimiques entre les lacs et les eaux souterraines de la plaine Roumaine de nord-est*, RRGGG - Géogr., **21**, pag. 111-117.

1982 – *Les lacs littoraux roumains-particularités hydriques, modifications anthropiques et leur utilisation*, RRGGG-Géogr., **26**, pag. 61-70, 1 fig., 3 tab. (în colab. cu Ariadna Breier).

1993 – *Heliotermy - a peculiarity of some lakes in Romania*, RRG, **37**, 3 fig., 2 tab. (în colab. cu Camelia Anghel).

1996 – *Lacul de baraj antropoc – un ecosistem lacustru aparte*, Rev. geogr., **II-III**, pag. 70-73, 2 fig., 1 tab. (în colab. cu B. Driga).

2003 – *Lacurile de baraj antropoc- între necesitate și modificări ale mediului*, în vol. II, Riscuri și catastrofe, Edit. Casa cărții de știință, Cluj-Napoca (în colab. Maria Sandu, B. Driga)

2008 – *Limnology, the science of lakes?*, în Lakes, reservoirs and ponds, Romanian Journal of Limnology, no. 1-2

– *Limnology, lake basin, lake waters*, Bul. Societății de Geografie din România, Tom XIII (XXCIII-XXCIV)

2015, *The clastoclastic(crov) lakes in Brăila plain.Genesis,hydrological features,present conditions*, Riscuri și catastrofe An XIV, vol.17,nr.2/2015,editor Victor Sorocovschi,Edit.Casa cărții de știință, Cluj-Napoca

2016-*The lakes of the Romanian Black Sea coast.Man-induced changes, water regime,present state*,Revue Roumaine de Géographie/Romaine Journal of Geography, vol 60,Nr 1(în colab.Brețcan,P., Teodorescu, D)

Articles on hydrogeography and water resources

1967 – *Légende des cartes hidrogéographiques*, RRGGG-Géogr., 11, 2, pag. 149-157, 2 pl. color (în colab. cu I. Zăvoianu și B. Driga).

1970 – *L'Hydrogéographie et la carte hidrogéographique*, RRGGG-Géogr., 14, 1, pag. 43-48, 1 pl. color.

1974 – *L'exces d'humidité dans la portion nord-ouest de la Plaine Roumaine (causes et conséquences)*, RRGGG - Géogr., 18, 2, pag. 121-135, 4 fig., 1 pl. color (în colab.).

1975 – *The hydro-climatic particularities of Romania*, Geoforum, 6, pag. 29-37, Pergamon Press, Printed in Great Britain, 4 fig. (în colab.).

- *Les particularités hydrogéologiques de la Plaine Roumaine nord- est et le régime de variation du niveau piézométrique pendant la période d'excès d'humidité 1969-1973*, RRGGG-Géogr., 19, 2, pag. 163-174, 6 fig., 1 tab., 2 pl. (în colab.).

1978 – Hidrogeografia – direcții noi în cercetarea geografică, SCGGG-Geogr., XXV, pag. 13-17. 1983),

1983 – *Les caractéristiques du régime hydrique du Danube a son embouchure dans la Mer Noire*, RRGGG-Géogr., 27, p. 55-60, 4 fig., rez. germ. (în colab.B.Driga)

1990 – *Water resources in the romanian Carpathians and their economic management*, RRGGG-Géogr., 34, 1 fig., 1 tab.

1998 – *Bucharest Municipality – its peri-urban zone water supply, function*, în vol. Socio-economic changes in the suburban areas of larges cities in Romania and Poland, Romanian – Polish Geographical Seminar, Institutul de Geografie – Geographical International Seminars, 4, București, pag. 41-50, 3 fig.

1998 – *On the genesis and time-space distribution of water resources in Romania. Geographical aspects*, RRG, 42, 2 fig., 2 tab. (în colab. cu I. Zăvoianu).

2003-2004 – *Territorial distribution of water resources in Romania in terms of social-economic demand*, Rev. roum.de géographie, Tomes 47-48.

2006 – *Water resources in Romania-categories and spatial configuration*, Bul. Societății de Geografie din România, serie nouă Tom XII (XXCII).

2007 – *Wetlands- categories, functions, ecological reconstruction and management with special reference to Romania*, Annals, Geographical series, tome IV-V, Hyperion University of Bucharest (în colab. D. Ciupitu).

2009-*The Danube Delta Biosphere Reserve. Geography, Biodiversity Protection, Management*, Rev. Rom. Geographie/ Journal Geography, vol. 53, nr. 2, pag. 139-152

2010 – *Resursele de apă din România. Potențial, calitate, distribuție teritorială, management*, în vol. Resursele de apă din România – vulnerabilitate la presiunile antropice, Lucrările primului simpozion 11-13 iunie național, 2010, Târgoviște, organizat de Asociația Română de Limnogeografie

2012 – *The Danube river in the lower sector in two hydrological hypostases-high and low waters*, Riscuri și catastrofe, vol. 10 nr. 1/2012, editor Victor Sorocovski, Casa cărții de știință, Cluj-Napoca (în colab. Elena Țuchiu).

2014 – *Morphological changes on the Danube Delta Biosphere Reserve coast-actual synthesis*, Rev. Rom. Geographie/ Journal Geography, vol. 58, nr. 2, p. 135-144 (în colab. Grigoraș, I.)

2017 – *The Danube-hydrographic polarization european axis. State-of-the-art*, Riscuri și catastrofe An XVI, vol 20, nr. 1, editor Victor Sorocovski, Edit. Casa cărții de știință, Cluj-Napoca

2018 – *The floodplain in the pontic sector-Ecosystem services, anthropic modifications and ecological reconstruction*, în Riscuri și Catastrofe, An XVI, vol 20, nr. 1, editor Victor Sorocovski, Edit. Casa cărții de știință, Cluj-Napoca

2019 – *Danube Delta Biosphere Reserve. Tourist potential, turning to good account, impact*, Riscuri și catastrofe, an XIX, vol. 25 nr. 2/2019, editor Victor Sorocovski Edit. Casa cărții de știință, Cluj-Napoca (în colab. Elena Toma).

2020 – *Danube. Hydrogeographical, hydrological and qualitative characteristics water with references on the pontic sector* (în colab. Elena Țuchiu) în Riscuri și Catastrofe, An XX, vol 27, nr. 2, editor Victor Sorocovski, Edit. Casa cărții de știință, Cluj-Napoca

2021 – *The Ecosystems of the Danube Delta Biosphere*, în Riscuri și Catastrofe, An XXI, vol 28, nr. 1, editor Victor Sorocovski, Edit. Casa cărții de știință, Cluj-Napoca.

On the occasion of the 90th anniversary, we wish to Prof. Dr. Petre Gâstescu, good health, hard work and new achievements in the field of geographical research.

Cluj-Napoca, November 15, 2021

Prof. dr. Victor Sorocovski