

PROFESSOR DR. MARIAN-TRAIAN GOMOIU Member of the Romanian Academy - A LIFE PAYING COURT TO THE BLACK SEA -

Marine biologist, ecologist, oceanologist Editor-in-Chief of *Romanian Journal of Biology – Zoology* (August 15, 1936 Bazargic – February 25, 2021 Constanța)

Another Star fell on the Black Sea's shore!

We learned with particular sadness the death, after a long and unjust suffering, of Professor Marian-Traian Gomoiu, a full member of the Romanian Academy, a remarkable scientific figure in the field of oceanography and marine ecology, who established himself in the scientific community through his scientific work and teaching activity to the "Ovidius" University in Constanța. During the 60 years of activity dedicated to the knowledge of the Black Sea ecosystems, Professor

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Marian-Traian Gomoiu enjoyed unanimous respect and high esteem from the Romanian scientific community, both for his professional and human qualities. Academician Marian-Traian Gomoiu has dedicated most of his scientific activity to the research of the Black Sea, identifying with this environment, being one of the best connaisseurs and defenders of the marine ecosystems in recent decades. According to his own confessions, "Studying the living things from the depths as an ecologist, I set myself the motto of a principle according to which nothing that belongs to the sea should be foreign to me. I was always ready to make the Sea known and to remind people that we live on Earth which is actually the Planet of the Waters".

We lost a successful man, but also a man of value, a remarkable researcher, a good colleague for better or for worse from whom we would have had so much to learn, a keeper and ardent defender of the ancestral speech and of the Romanian language, a mentor appreciated by so many generations of marine students, biologists and ecologists.

But, above all, we have lost a great lover and defender of the treasures of Nature!

Born on August 15, 1936, in Bazargic (today Bulgaria), Marian-Traian Gomoiu spent his primary school years in Gura Dobrogei village, having as teachers his parents. As he himself confessed "these were the happiest years, with my teachers – my parents, years long ago from which I still keep untouched treasures: teachings, songs, poems, unique events".

Within the period 1950–1954 he attended high-school at the famous "Mircea cel Bătrân" National College in Constanța, where many graduates from previous years had a famous destiny. Marian-Traian Gomoiu spent the period 1954–1958 in the unique atmosphere of the "Victor Babeș" University of Cluj, where he attended the courses of the Faculty of Natural Sciences and Geography.

After graduating from college, he spent a short period (September – December 1958), teaching as internship at a Middle School near Horezu, Gorj County. Starting with January 1959 he left Horezu for another, more attractive school – of Oceanology, having as adviser "his master" – Academician Mihai C. Băcescu.

Marian-Traian Gomoiu always remembered with respect and admiration, Băcescu's scientific coordination and the magnificent feastly day of defending his PhD thesis in 1973, entitled "Contributions to the knowledge of the ecology of psamobiont mollusks from submerged beaches sandy beaches on the Romanian Black Sea coast", when he was devoted to the Biology-Oceanology field.

Together with several young enthusiasts, colleagues and friends, Marian-Traian Gomoiu was trained as scientific researcher at the first Oceanology Laboratory of the Romanian Academy in Constanța – under the auspices of the Center for Biological Research in Bucharest, which later became the "Traian Săvulescu" Institute of Biology (1959–1970). After that, from 1970 to 1990 he continued his research activities at the Romanian Institute of Marine Research in

Constanța, currently the "Grigore Antipa" National Institute for Marine Research-Development.

At the beginning of his career, the young researcher approached the study of benthic fauna (sponges and nudibranchian gastropods), after which he extended his research on bivalve mollusks, crustaceans, echinoderms, coelenterates and other groups of invertebrates from the Black Sea.

Between 1969–1970, Marian-Traian Gomoiu got a grant to Denmark (Zoological Museum, Institute of Physiology and Marine Research Station Helsingor), and in 1974 got another grant to the U.S.A. (Duke University Marine Laboratory Beaufort, North Carolina).

An important moment of his scientific career was the election as Governor of the Danube Delta Biosphere Reserve (1990–1993). From this position he was the initiator and supporter of decisions and practical solutions in developing strategies for landscape protection and biodiversity conservation of this wetland of international value.

The competencies of Professor Marian-Traian Gomoiu included a wide range of aspects, with remarkable scientific results:

- Qualitative and quantitative structure and distribution of benthic populations in the Black Sea:
- Taxonomy of marine animal groups (especially sponges and mollusks), describing new species for the Romanian fauna;
- The evolution of the settlement of invasive alien species populations in the Black Sea and their ecological effects;
- Formation of epibiosis on solid immersed substrates in the sea and testing methods to reduce and combat fouling;
- Causes, consequences and prospects of eutrophication of the Black Sea waters:
- Monitoring the oxygen regime in the Black Sea waters, especially at the oxic/anoxic interface;
- Ecological recovery of marine ecosystems in the conditions of climate change and capitalization of resources;
 - Research on epibiontic fauna on ships and submerged constructions;
- Ecological management of the marine environment and sustainable development;
 - International collaboration in the field of biological oceanology.

Marian-Traian Gomoiu has been responsible for numerous international and national research projects that have focused on Black Sea ecosystems, on biological knowledge of the Danube River and the Danube Delta to whom the research directions addressed are: environmental protection and nature conservation, ecological reconstruction of shallow marine areas, the biology of invasive species on the Romanian coast, the eutrophication phenomenon of the Black Sea, being the author of the concept of "marine eutrophication syndrome", etc.

Among these projects, the following stand out: PERSEUS – Policy-oriented marine Environmental Research in the Southern European Seas; Climate water – bridging the gap between adaptation strategies of climate change impacts and European water policies; HYPOX – In situ monitoring of oxygen depletion in hypoxic ecosystems of coastal and open seas, and land-locked water bodies; CoCoNET – Towards Coast to Coast NETworks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential; Initial environmental examination study for the study on protection and rehabilitation of the southern Romanian Black Sea shore in Romania; The study on protection and rehabilitation of southern Romanian Black Sea shore in Romania; Black Sea ecosystems recovery program – TDA (transboundary diagnostic analysis) project.

As an expedition leader or member of research teams, Academician Marian-Traian Gomoiu actively participated in expeditions on sea "without number in the Black Sea counted and too few in other seas", with various Romanian and foreign ships, in collaboration with Cuban, Norwegian, Russian, Bulgarian specialists.

Throughout his scientific career he had significant results regarding:

- Knowledge of marine biodiversity on the Romanian continental shelf and its evolution trends;
 - Mapping the distribution of habitats and biocenosis on the Romanian coast;
- Establishing the causes and consequences of natural or man-made ecological events;
- Development and application of new marine research methodologies platforms for monitoring ecosystem state parameters, use of underwater vehicles for observation and photographic recording;
- Assessing the state of ecosystems, exploitable resources, the admissible level of capitalization, conducting impact studies;
- Management of protected areas and implementation of ecological management plans, etc.

Academician Marian-Traian Gomoiu elaborated, for the first time in Romania, the construction of artificial reefs in the areas affected by the hydrotechnical constructions on the Black Sea coast. Among his concerns, there were: ecological research of descriptive and comparative synecological nature regarding the dynamics of all benthic or autecologycal biocenosis, making significant contributions to improving the research methodology of marine benthic biocenosis, being the first researcher in our country using the diving technique and making direct observations on the marine benthos.

Besides the scientific research, Dr. Marian-Traian Gomoiu also carried out an intense teaching activity at the Department of Ecology of the "Ovidius" University of Constanța. There he went through all the stages of the university career, being the professor of over 20 generations of students, young people to whom he wanted "to give at least the spark from the flame transmitted from the forerunners – Prof. Ion Borcea, Dr. Gr. Antipa, Acad. Mihai Băcescu and so many other teachers – and to light the sacred fire of knowledge".

Since 1990 he has taught the General Ecology course, focussed on Marine Ecology, and has been qualified as a Doctoral Supervisor in the specialty of Ecology, coordinating the activity of over 25 PhD students, most of them currently holding academic positions in higher education or research, in country and abroad. The main lectures given to students and masters were: ecology, population and ecosystem, marine ecosystems, biodiversity and sustainable development, methods of scientific research, oceanology, sustainability, ecological monitoring, methodology of impact studies.

In addition to the research and didactic activity, Professor Marian-Traian Gomoiu had a series of institutional and social-professional responsibilities, among which we mention:

- Deputy General Manager Director of the Constanța Branch of GeoEcoMar Institute (until 2012, upon retirement) and Advisor to the General Manager of the same Institute (2012–2015);
- President of the Romanian National Committee of the International Association for the Study of the Danube (IAD) and member of the IAD International Bureau;
- President of the Romanian National Committee IUBS (International Union of Biological Sciences of the Romanian Academy);
- President of the Commission of Oceanology and Limmnology of the Romanian Academy (COLAR);
 - Vice President of the Romanian Society of Ecology;
- Member of the editorial boards of some scientific publications (Romanian Journal of Biology-Zoology Editor-in-Chief since 2006, FAUNA Academic Series Editor-in-Chief since 2011, GeoEcoMarina, Scientific Annals of "Ovidius" University Biology Ecology Series, Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", Annals of the University of Oradea, Fascicule Biology etc.);
- Member of professional associations and societies (Romanian Association for the Club of Rome ARCoR; American Association for the Advancement of Science AAAS; North American Society of Benthologists NASB; Romanian Society of Ornithology SOR; Romanian Society of Ichthyology, International Commission for the Scientific Exploration of the Mediterranean Sea, Italian Society of Malacology, etc.);
- Member of the Scientific Councils of several academic institutions in Romania and abroad (GeoEcoMar, INCDM "Grigore Antipa" Constanța, Eco-Museum Research Institute Tulcea, Danube Delta Biosphere Reserve, National Coastal Area Commission, etc.);
- Expert evaluator in the field of Ecology, within the National Council of Scientific Research in Higher Education (CNCSIS).

In 1987 he was awarded the "Emanoil Teodorescu" Award of the Romanian Academy. As a recognition of his entire scientific activity and involvement in public life, Academician Marian-Traian Gomoiu was elected corresponding member

of the Romanian Academy in 1993 and full member in 2015, being the representative of marine ecology and biological oceanography in the Romanian Academy. Marian-Traian Gomoiu will remain in everyone's consciousness and as a tireless servant of the values and principles of this institution, through verticality and morality, a Man of integrity and character, who did not hesitate to support his point of view.

The signatories of these lines, we intended to write an homage article for the 85th anniversary of Professor Gomoiu this year. But the God Chronos was impatient.

And how much more could be said.... many of the ones he wanted to write in a book.

We are honored to have had the privilege to be colleagues and collaborators for a long time with Professor Gomoiu, getting to know him better in terms of collaboration on various topics, in the context of the editorial activity of the *Romanian Journal of Biology-Zoology* and to the *Academic Collection FAUNA*, participation in various scientific events or doctoral theses developed in the Institute of Biology of the Romanian Academy. And these were just as many opportunities to share in His Majesty's "book science"!

We admired (and perhaps envied?) our distinguished professor, researcher and colleague for his will and his ability to work late in the night or up to the morning, for the sense of humor that did not leave him even in the most difficult moments. How many times have we heard him in recent years making a "laugh of trouble" at the precarious state of his health, striving to live his Life that was endowed with stoicism, optimism and confidence in his own strength, but also in dear people who stood close to him.

Going through the hours and days full of suffering, at the other "end of the thread", Professor **Marian-Traian Gomoiu** always had at hand a good word or a word of encouragement, a few verses, a reference to an incident or a funny one that he witnessed long ago...

We also met the professor in less comfortable situations, which demanded a sharp verdict, not exactly pleasant to those around him, but necessary, when he preffered to choose the harder path, that of being impartial. He did not hesitate to support his views, with perseverance and solid arguments, getting to the heart of things and taking a stand where he felt things needed to be straightened out.

At the hour of his passing into eternity, Professor Marian-Traian Gomoiu leaves in the ranks of the scientific community in Romania and in the souls of those who knew him, the memory and deeds of a remarkable Man, Professor and Researcher, who served with high devotion the science in Romania, fulfilling this sacred duty, as long as his health and strength allowed it. And during his lifetime he amply proves this fact.

He was not spared from difficulties in his life and especially he lacked the working conditions in laboratories analogous to those he visited abroad. At one point in the balance, he rhetorically asked himself: "What have I done all these

years? Very much compared to the conditions we had, very little of what could have been achieved if our spiritual and physical power had been provided with laboratories, research ships, equipment, materials, libraries — modern facilities which our colleagues from abroad, neither more gifted, nor more sensible, nor more beautiful, had fully".

Following Professor Marian-Traian Gomoiu remains a remarkable scientific work, including over 200 papers and articles published in national and international journals, chapters of volumes and books, but also the experience and knowledge gained and shared with his younger collaborators.

And from him we also have the exhortation addressed to us, the inhabitants of this Earth: "Regardless of your star, of your roads, do not forget the NATURE of which you are members and citizens. Look at her and treat her with deep respect and gratitude. We are part of nature, having a common destiny. We are a valuable species, but not superior to other species. We have a duty to protect and conserve nature in order to survive with it and pass it on to future generations, as our grandparents had".

Smooth way, dear Professor GOMOIU! May God take care of you!

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