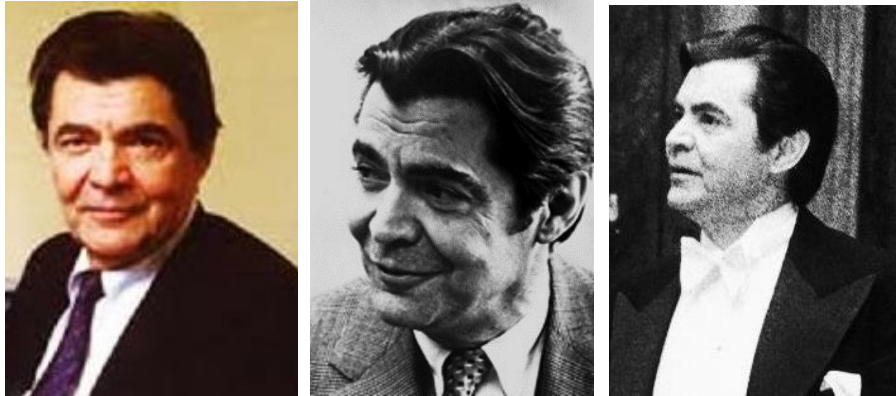


Famous Romanian Biologists

By prof. univ. dr. Gogu Ghiorghia



GEORGE EMIL PALADE
(1912 – 2008)

Romanian biologist, specialized in cell biology, recipient of the Nobel Prize in 1974. He was born in Iași in a family of teachers, on November the 19th 1912. He was an outstanding pupil and student. He attended the classes of the Faculty of Medicine in the University of Bucharest, that he graduated in 1936. He obtained a doctorate degree in medicine at the same university, related to the research on the urinifer tubes in dolphins in 1940. In 1946 he married Irina Malaxa, the daughter of a prominent businessman. The couple established in the USA. George Emil Palade was invited by Albert Claude to work at the Rockefeller Institute of Medical Research in New York. His early work involved the combined use of biochemistry, subcellular fractions and electron microscopy, whereas he deciphered the subcellular architecture and function. Together with some of his co-workers, Palade established the role of mitochondria as cell organelles that generate energy. The ribosomes (also known as the particles of Palade) are cell organelles rich in RNA - a site for protein synthesis, are his major scientific breakthrough. In 1961 he was elected a member of the Academy of Sciences of the USA. In 1973 he transferred to the Yale University in New Haven, where he became the first scientist to be elected Head of the new Cell Biology Department. George Emil Palade, together with Albert Claude and Christian de Duve, were awarded the Nobel Prize for Physiology and Medicine in 1974, for their '*discoveries regarding the cell architecture and functions, that were quintessential for the development of modern cell biology*'. He is an honorary member of the Romanian Academy since 1975. He was a professor at the San Diego University in California since 1990 until the end of his life. His scientific research in cell biology was acknowledged his entire life. George Emil Palade was awarded many distinctions, titles, medals and orders. He passed away on October the 7th 2008.



GRIGORE ANTIPA
(1867 - 1944)

The illustrious Romanian zoologist, naturalist, marine biologist, hydrobiologist, ichthyologist, and expert in bioeconomy was born on December 7th 1867 in Botoșani. An orphan since childhood and tutored by his mother's side uncle, he attended primary school in Botoșani, and the secondary school and college at the Institute for Education in Iași. He became a student and a PhD student, as well, at the University of Jena (Germany) in 1895. He graduated his PhD (*summa cum laudae*), elaborating a thorough research study on some fixed jellyfish species (Lucernaride) under the supervision of the founding father of Ecology – the famous naturalist Ernst Haeckel. His post-doctoral one-year stage was accomplished at the Zoological Institute of Naples (Italy), that acknowledged him as a marine fauna expert (mainly in fish). He returned to his native country in 1892, and was allowed to visit King Carol I, to whom he displayed a memoir concerning the practice of scientific pisciculture in Romania. He was appointed Inspector-general of the Fisheries of Romania by the succeeding monarchs (1893-1914, and 1929-1944). That position completely highlighted his abilities. His scientific papers on the Black Sea ichthyofauna and on the sustainable fishing, as well, remained cardinal points in his research field. In 1893 he was appointed Manager of the Zoology Museum (founded in 1834), that he will master for the rest of his life. He reorganized the museum on new bases, he continuously expanded and enriched it with new exhibits and new collections, he invented the dioramas – a new efficient way to display the exhibits. His activity at the museum paid off, therefore the authorities granted him funds for a new museum building, following his own blueprints. The building stands tall even nowadays: the 'Grigore Antipa' National Museum of Natural History (on the Kiseleff street in Bucharest). During the first decade of the last century, Grigore Antipa was already a huge personality of the world's Marine Biology, therefore he became a member of the Romanian Academy in 1912. His acceptance speech was entitled 'Hydrobiology Research in Romania and its scientific and economic importance'. He founded the Piscicultural Institute of the Danube Delta (in Tulcea) in 1924 (nowadays the Danube Delta National Institute for Research and Development), and the Institute of Oceanography and Biology in Constanța in 1932 (the actual 'Gr. Antipa' National Institute for Marine Research). He studied and published several monographies on the topics of the Danube, the Black Sea, and the Danube Delta. His scientific, professional and management skills were praised with many Romanian and foreign titles, orders and medals. He passed away due to a heart attack on the 9th of March, 1944.



EMIL RACOVIȚĂ

(1868 – 1947)

Emil Racoviță was a remarkable personality in Romania and worldwide, the father of Biospeleology, and the first Romanian who laid foot in Antarctica. He was born on August 10th 1868 in Iași, in a famous aristocratic family. His father was a man of law, and his mother a pianist. His primary education and college were completed in Iași, afterwards he attended the courses of the Sorbona University in Paris (first the Law School, followed by the Faculty of Sciences). After graduation (1891), he worked in oceanography at the Marine Biology Institute in Banyuls-sur-Mer (France). He presented his doctoral thesis in Sorbona, a research entitled "*Le lobe céphalique et l'encéphale des annélides polychètes*". He was a crew member (a naturalist) of the Belgic ship during the Antarctica expedition between 1897-1899. He carried out a great number of thorough observations on the flora and the fauna from Chile, and on the shores of the Magellan's strait, he studied the life of whales (he discovered the beaked whale) and of the penguins in Antarctica. He published the work „*Essai sur les problèmes biospéologiques*” in 1907, and subsequently started an international programme of the cave fauna research called "Biospeologica". Emil Racoviță returned to Romania as a professor of Sciences (University of Cluj-Napoca) in 1920. That year he founded the first institute of speleology in the world in Cluj-Napoca, and he was elected in the Romanian Academy. He explored more than 1200 caves in Europe and in Africa, he made a collection comprising more than 5000 underground animals, he published over 60 scientific papers in this domain. Emil Racoviță served in many major positions: senator (1922 -1926), rector of the Cluj-Napoca University (1929-1930), president of the Romanian Academy (1926-1929), manager of the Institute of Speleology (1920-1947). He passed away in Cluj-Napoca on November the 17th 1947.



ION BORCEA
(1879 – 1936)

Ion Borcea was born on 13 January 1879 at Buhoci, Bacau County. He studied biology at the Science Faculty of the "Al. I. Cuza" University, in Iași. Later he specialized at Sorbona University, in Paris, and in 1905 he became doctor of biology with the thesis entitled "*Research on the urogenital system on Elasmobranchi*". He was professor at the Iasi University (1912 - 1936), where he founded the Zoology Laboratory.

Ion Borcea is known as the founder of Romanian oceanology. He also founded Agigea Maritime Research Institute. Committed evolutionist, Ion Borcea also initiated the applied entomology school in Romania and made the first step in the process of biological control of pests in agriculture, giving in this way an early start for the modern ecology in our country. Ion Borcea published over 100 scientific articles that cover several biology domains as: morphology, entomology and the fauna of fishes from the Black Sea, marine fauna and ponto-caspic relicts from the sides and the Razelm Complex.

He was director of the Natural History Museum of Iași (1912-1936), the founder and director of the Agigea Zoological Marine Station (1926 – 1936), Dean of Science Faculty of Iasi University, Minister of Cults and Public Instructions (1919-1920), head of the "Scientific Annals of the Iasi University" and "V. Adamachi" Scientific Journal. Ion Borcea was corresponding member of the Romanian Academy, *doctor honoris causa* (1936) of the Montpellier University from France, member (1904) and president of Zoological Society from France (1932), corresponding member of the Natural History Museum from Paris (1909) and correspondent member of the Natural History Museum from New York (1935). He passed away on July the 30th 1936 at Agigea (Constanța County).



TRAIAN SĂVULESCU
(1889 – 1963)

Traian Săvulescu was born on the 2nd of February 1889 in Râmnicu Sărat. He was the third child of his family. His father, Petrache, was a merchant, and his mother, Maria, was a house wife. He attended the primary and secondary school in his native town, followed by the 'C. Negruzzi' boarding school in Iași and the 'B. P. Hașdeu' in Buzău (the senior year). In 1907 became a student of the Medical School of the University of Bucharest. During that period of time he attended the classes of the Faculty of Sciences, that he graduated in 1912, leaving the Medical School. After graduation, he joined the Laboratory of Vegetal Morphology and Taxonomy of the Botany Institute in Bucharest. He started the doctoral programme under professor M. Vlădescu's scientific guidance. In 1916 he presented his PhD thesis entitled '*Study on the Campanula L. species of the Heterophyllae that grow in Romania*', and became a doctor in Botany. Traian Săvulescu was appointed a full professor within the Department of Vegetal Taxonomy and Pathology in the Superior School of Agriculture from Herăstrău in 1919, therefore he gave a thorough approach to agricultural matters. Traian Săvulescu is considered the founder of the Phytopathology School in Romania. He was appointed Head of the Vegetal Pathology Department of the Faculty of Sciences (University of Bucharest) in 1928, and the Head of the Phytopathology Unit of the Romanian Institute for Agricultural Sciences in 1929 (RIAS, founded in în 1927). During 1948 and 1961 he was the manager of this institute. His remarkable contributions to Botany and Phytopathology, to the structuring and promoting plant preservation in Romania, highly recommended him to be elected a corresponding member (in 1936), and a full member and Executive Secretary of the Romanian Academy in 1948. He was the President of the Romanian Academy between 1948 and 1959. He served as a deputy in the Parliament, then as a minister, and a member of many foreign scientific associations. He published an impressive number of articles, books and treaties. He was a pioneer and subsequently a Chief Editor of the monumental work 'Flora of the Popular Republic of Romania' (13 volumes issued between 1952 and 1976). The Romanian Academy was restructured in 1948, as the Academy of Sciences was dissolved and included in the former one. A large number of illustrious scholars were excluded therefore from the new academic institution. To make ammends for all the excluded scholars, Traian Săvulescu founded the Association (the Academy, nowadays) of the Romanian Scientists in March 1956. The great scientist passed away on the 29th of March 1963.