

After he had become bachelor of natural science in Sorbonne in 1891, Emil-George Racoviță (1868—1947) continued to work at the Sea Research Station on Banyuls-sur-Mer, under the guidance of H. de Lacaze-Duthiers and Georges Pruvot. There he wrote his doctoral thesis, defended in 1896, *Le lobe céphalique et l'encéphale des Annélides polychètes*, in which he set forth his historical conception on comparative morphology.

In 1897 he went aboard "La Belgique" ship on a two-year journey to Antarctica. During the journey he made valuable ethological observations on penguins, seals, and especially on whales and collected an immense flora and fauna material.

In 1900, Racoviță became deputy director of the Banyuls station and the following year, co-director, of the review "Archives de zoologie expérimentale et générale".

During his expedition to the Balearic Islands, he discovered the blind crustacean *Typhlocyrolana moraguesi* in a cave, on the occasion he realized the importance of the study of underground animals for clearing up a series of evolutionist mechanisms. In 1907 he published his famous *Essai sur les problèmes biospéologiques*, a true birth certificate and programme for speology, a new branch of biology. Together with René Jeannel and other collaborators, Racoviță had visited over 1400 caves in different continents by 1924, collecting over 150,000 specimens of cavernous animals.

In 1920 he came back to his homeland, being appointed professor of general biology at the Cluj Faculty of Science and was entrusted the directorship of a speology institute, the first of the kind in the world. Racoviță played an important part in the organization of scientific life in Romania, being among others, rector of the Cluj University and president of the Romanian Academy. In 1928 he chaired the first Congress of the Romanian naturalists, where he proposed to endorse a law on nature protection.

In the book *Evoluția și problemele ei* (1929) (Evolution and Its Questions) he set forth his biological conceptions of neo-Lamarckist filiation, based on the acknowledgement of the heredity of acquired features and the stress on the very important change in the environment conditions in the production of variability.

On the initiative of Ion Cantacuzino and I. Athanasiu "La Reunion roumaine de Biologie" was set up in 1906 in Bucharest, as a branch of the Biology Society of Paris. Before long the most outstanding Romanian naturalists and physicians taking scientific and creative concerns joined this group which benefitted from the dissemination of its members' works of the prestigious periodical issued in French "Comptes rendus des séances de la Société de Biologie et de ses filiales."

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Engaged in complex pursuits as a zoologist, cytologist, theoretician and historian of biology was Radu Codreanu (1904—1987), a bachelor of the Bucharest Faculty of Science (1927) and doctor of biology at Sorbonne with the thesis *Recherches biologiques sur un Chironomide Symbiocladius rhithrogenae (Zavr) ectoparasite cancerigène des Ephémères torrenticoles* (1939), a work which evidences a neoplastic malign process induced by an ectoparasite.

In 1930—1940 he worked at the Cluj Speleological Institute founded by Emil Racoviță and in 1941 he became head of the department of general biology, a position held until that time by the great scientist. After 1945 he was professor of general biology and then of invertebrate zoology at the Bucharest Faculty of Science.

He discovered new genera and species of invertebrates and studied by electronic microscopy the inner structure of a series of protozoa, kept track of the evolution cycle and geographical distribution of a number of protozoological formations, and approached problems on invertebrate pathology. In the critical debates on the methodology of general biology he was in favour of the complementarity of experimental research and historical-comparative one. Together with M. Băcescu, he worked out the general classification of the animal realm for *Îndrumătorul* (1951) (Guide Book) which prepared the editing of *Fauna României* (Romania's Fauna).

The competence in the field of oligochaetae histology of Victor Pop (1903—1976), professor of vertebrates zoology at the Cluj University (1962—1973), enjoyed a worldwide recognition. He graduated from the Cluj Faculty of Science (1928) and was doctor of science (1945) with the thesis *Lumbricidele din România* (Lumbricidae of Romania). He had started the in-depth study of oligochaetae as early as 1929 during his specialization at Modena under Daniele Rosa. In his work published in Jena in 1941 *Zur Phylogenie und Systematik der Lumbriciden*, he revised the systematics of oligochaetae using as a criterion the histological structure of parietal muscles.

Entomologist Mihail Andrei Ionescu (b. 1900) described two genera and 50 new species and carried on ecological studies on the insects in Romania. He coordinated the editing of the team work *Fauna de la Porțile de Fier* (1975) (Fauna of the Iron Gates Area). Constantin Manolache (1906—1977) was concerned with morphology, taxonomy and techniques for pest control in agriculture and silviculture, the ecology of pest fauna, the dynamics of pest populations following the application of insecticides.

Zoologist, ecologist and historian of biology Nicolae Botnariuc (b. 1915), doctor of science in Bucharest with the thesis *Contributions à la connaissance des Phyllopodes conchostacés de Roumanie* (1947) was appointed as early as 1949, from the very start of the collection, editor-in-change of *Fauna României* (Romania's Fauna). In 1962 he was appointed professor of general biology and ecology at the University of Bucharest.

He discovered new species of Crustaceae and Diptera. He studied the ecology of fresh water biotypes developing a series of Gr. Antipa's researches on the ecosystems in the Danube's flooded area and in its Delta. He initiated studies of the biochemistry of breathing pigments and of chemical biology. In the work *Principii de biologie* (1967) (Principles of Biology) he tracked the application of the general theory of systems in the organization of living beings.

He headed the Romanian trans-African expedition in 1970—1971; on the basis of the observations made on the occasion, he wrote the work *Rolul ecologic al focului* (1976) (The Ecological Role of Fire).