EMIL RACOVIȚĂ[1]

Emil Racoviță, (15 November 1868 – 19 November 1947, Cluj) was a Romanian biologist, zoologist, speleologist, explorer of Antarctica and the first biologist in the world to study the arctic life. He was elected academician in 1920 and was president of Romanian Academy between 1926-1929.

Together with Grigore Antipa, he was one of the most noted promoters of natural sciences in Romania. Racoviță was the first Romanian to have gone on a scientific research expedition to the Antarctic, as well as an influential professor, scholar and researcher.

Early life

Emil Racoviță was born in Iași, to the Racoviță family of Moldavian boyars, whose ancestors had ascended the throne of the country during the 18th century.

Racoviță spent his childhood on the family estate, in Șurănești, Vaslui County. He started his education in Iași, where he had Ion Creangă as a teacher, and continued his secondary education at the Institutele Unite, a private high school for boys in Iași, taking his baccalauréat in 1886. He then studied law at the University of Paris, obtaining a law degree in 1889. But he did not pursue a law career, instead turning to the natural sciences. His mentor was zoologist and biologist Henri de Lacaze-Duthiers, a professor at the Sorbonne and at the Muséum national d'histoire naturelle. Racoviță earned a B.S. degree in 1891, and a Ph.D. degree in 1896, for a thesis on Le lobe cephalique et l'encéphale des Annélides Polychète ("The cephalous lobe and the encephalon of polychaetous annelids").

The "Belgica" expedition

As a promising young scientist, Racoviță was selected to be part of an international team that started out on a research expedition to Antarctica, aboard the ship _Belgica_. The expedition was led by the Belgian officer Adrien de Gerlache, who was also the ship's owner.

The Belgica navigating the de Gerlache straits

Ship and crew

On 16 August 1897, under the aegis of the Royal Society of Geography in Brussels, Belgium, the Belgica, a former Norwegian wooden whaler, left the port of Antwerp, setting sail for the South. It was the ship that gave its name to the whole expedition. The three-mast ship was equipped with a 160 horse-power engine.

The 19 members of the team were of various nationalities, a rare thing for that time. The first mate of the vessel was Roald Amundsen (who was to conquer the South Pole in 1911). Apart from Racoviță, the team was made up of Belgian physicist Émile Danco, Polish geologist and oceanographer Henryk Arctowski with his assistant Antoni Bolesław Dobrowolski and American physician Frederick Cook.

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[1] material taken from the wikipedia site

Scientific work

Emil Racoviță on board of Belgica at the end of the polar winter, Antarctica.

The team left the deck of the ship 22 times, in order to collect scientific data, to conduct investigations and experiments. Racoviță was the first researcher to collect botanical and zoological samples from areas beyond the Antarctic Circle.

Belgica made the first daily meteorological recordings and measurements in Antarctica, every hour, for a whole year. The scientists also collected information on oceanic currents and terrestrial magnetism, with as many as 10 volumes of scientific conclusions being published at the end of the expedition, which was considered a success.

The 1898 obstacles

The expedition encountered several hardships. Between 10 March 1898 and 14 March 1899, Belgica was caught between ice blocks, making it impossible to sail any further. It was a difficult year for the whole team. For instance, the crew had to carve a 75-meter-long canal through a 6 meter-thick layer of ice, in order to generate a waterway by which to sail to a navigable body of water.

Belgica returned to Europe in 1899 without two team-members, who had died during the expedition: a young Belgian mariner and Émile Danco.

Racoviță's diary, published in 1899, makes mention of the difficulties that the team-members had to endure. Photos of the time show that he was hardly recognisable after returning from the expedition.

The results of his research were published in 1900, under the title La vie des animaux et des plantes dans l'Antarctique ("The life of animals and plants in Antarctica"). A year after his return, Racoviță was appointed director of the Banyuls-sur-Mer resort and editor of the review Archives de zoologie expérimentale et générale.

Later life

Emil Racoviță continued his research, contributing to speleology and exploring over 1,400 caves in France, Spain, Algeria, Italy, and Slovenia. He is considered to be, together with René Jeannel, one of the founders of biospeleology. He was particularly interested in isopoda, of which he discovered many.

In 1919, Racoviță became head of the Biology Department at the Upper Dacia University (now the Babeș-Bolyai University) in Cluj. He founded the world's first Speleological Institute in 26 April 1920 there, first as a section which was, however, to function independently since 1956, with professor Constantin Motas. ISER (Institutul Speologic Emil Racoviță — Romanian for The Emil Racoviță Speleologic Institute), a branch of the Cluj institute was open in Bucharest. In 1920, he became a member of the Romanian Academy, and remained a major figure of scientific life in

Statue of Emil Racoviță in Palma de Mallorca

Romania until his death.

In 2006, the first Romanian Antarctic exploration station was named Law-Racoviță.

Major works

- Essai sur les problèmes biospéologiques ("Essay on biospeleological problems"; 1907)
- Cétacés. Voyage du S. Y. Belgica en 1897-1899. Résultats scientifiques. Zoologie. J. E. Buschmann, Anvers, 1903.
- Énumération des grottes visitées, series 1-7. Archives de Zoologie expérimentale et générale, Paris, 1907-1929 (in collaboration with R. Jeannel) ("Enumeration of visited caves")
- Speologia: O știință nouă a străvechilor taine subpământești. Astra, Secția Științelor naturale, Biblioteca populară, Cluj, 1927. ("Speleology: A new science of the old underworld misteries"; 1927)
- Evoluția și problemele ei ("Evolution and its problems"; 1929)