

## **Dr Miljenko Buljan**

(1911—1980)

Dr. Miljenko Buljan was born in Sinj on November 1, 1911. He was educated at Grammar School in Sinj and then at the University of Zagreb where he received his BSc degree in 1935 and PhD in 1942. The years 1935—1942 were spent as a high school teacher in Zagreb and Slavonski Brod. He joined the partisans in 1943 and the end of war brought him back to Split. He entered the Institute of Oceanography and Fisheries in Split in 1944 and remained there for 33 years. He was appointed executive director of the Institute on two occasions (1955—1956 and 1960—1966). He was the head of the section for physiography for 22 years.

Dr. Buljan was the founder of the Laboratory for Hydrochemistry. He received his expert training in hydrochemistry at notable British laboratory in Plymouth.

Dr. Buljan was a keen worker and his work was original particularly in approaching and solving the problems. During his life he wrote more than 150 articles. Three different fields of his scientific concern may be clearly distinguished in his work: marine hydrology, geochemistry and marine organic production.

His contribution to marine hydrology is evidenced by his establishment and interpretation of the long-term periodic changes of salinity in the Adriatic due to different volumes of water entering the Adriatic from the Ionian Sea. He named this phenomenon »Adriatic ingressions«. He also observed the connection between salinity changes and temperature variations of the Adriatic waters.

His work in geochemistry was focused on the studies of the frequency of occurrence of elements in the sea water and in the earth's crust in relation to the periodic system of elements. He was first to establish that the occurrence of elements in the sea water was similar to that in the earth's crust. This was later proved by many other records. He constructed a scheme of biogeochemical circulation of nutrients in the sea which he afterwards applied to the artificial fertilization of marine basins, later proved as practically very good approach. His geochemical studies were also concerned with the effects of submarine volcanisms on the chemistry of sea water which is another valuable contribution.

As to the organic production in the sea this keen worker studied the effects of artificial fertilization and natural nutrient fluctuations in the sea on biota. It was him who initiated, among the others, the long-term data collection in the middle Adriatic. Regularity of the relationship between chemical factors and productivity of the sea could be observed owing to these collections.

Dr. Buljan was active as a lecturer at the undergraduate studies in oceanology. He wrote two books in oceanography, as well.

He was a member of a number of home and international scientific associations: The Croatian Chemical Society, Zagreb; The Chemical Society, London; American Geophysical Union, Washington; Marine biological Association of India, Madras; Association for Maritime Investigations of Yugoslavia. From 1954—1977 he was the chairman of the National Committee for the Scientific Exploration of the Mediterranean and vice-president of the International Commission for the Scientific Exploration of the Mediterranean Sea. His greatest contribution in this field was the organization of the General Assembly of ICSEM in Split in 1976 attended by more than 500 participants.

For his keen scientific work he received the Award of the town of Split in 1967 and the Award of the Republic of Croatia in 1979.

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