

This volumen is dedicated to our college Prof. Adam BENOVIĆ who devated to research of zooplankton ecology, in particular hydromedusae.



Prof. Adam BENOVIĆ
1943 - 2011

Tribute to Adam BENOVIĆ

Professor Adam Benović, marine researcher and teacher, passionate sea-lover passed away on December 6, 2011. Marine ecology, in particular zooplankton ecology, was his beloved research field for the past fifty years. His work and activities greatly expanded knowledge of plankton ecology and contributed to environmental protection in the Mediterranean.

Adam had an infectious personality with a firm conviction for the paramount role biodiversity studies play in the future of our sea. In his case, he dedicated his effort to study plankton, paying particular attention to the hydromedusae, their vertical distributions and migration patterns. In the process, Adam helped to provide the foundation and benchmark for studying biological oceanography in the Adriatic Sea. Adam's life as a working scientist spanned the particular period when traditional marine science involved long periods at sea. For those who were fortunate enough to share ship time with him, it is easy to remember him operating the winch used for sending plankton nets into the deep, while smoking a cigarette, drinking a glass of wine and reading a book.

Adam was also a devoted teacher and mentor, selflessly sharing his immense knowledge with students while allowing them the freedom to develop and express their own ideas and encouraging them to think big. His former students, some of who are leaders in marine science, are the legacy of his labours.

Adam was an authority on the history of marine biology. His life was a reflection of his profound respect for tradition and high standards. His house was built before Christopher Columbus discovered America's coasts, for which he was proud. At the same time, he was completely devoted to expanding international collaboration and introducing new technologies to make discoveries in his beloved part of sea.

Prof. Benović was an outstanding scientist, a leader in the research community, an excellent communicator and a strong proponent of environmental conservation. He was a colleague, a teacher, a friend and an inspiration to all. For this, we owe him our deep gratitude and profound thanks. We are going to miss him.

On behalf of Global Jellyfish Working Group and
NCEAS (National Center for Ecological Analysis and Synthesis):

Alenka Malej, Hermes Mianzan, William Graham, Michael Dawson, Jennifer Purcell, Shin-ichi Uye, Carlos Duarte, Rob Condon, Lucas Brotz, Kelly Sutherland, Kylie Pitt, Cathy Lucas, Mary Beth Decker, Richard Brodeur, Larry Madin.

In Memoriam to Prof. Adam BENOVIĆ

The prominent Croatian scientist, Professor Adam Benović, passed away on December 6, 2011. Adam's passion for the marine world fueled a wide range of contributions to scientific as well as social and political arenas. Although Adam's first and continuing interest was with planktonic cnidarians, his work spanned a wide spectrum of topics and, more recently, encompassed protecting the marine environment.

His description of mechanisms underlying declining hydromedusan diversity in the northern Adriatic Sea was one of his most widely recognized scholarly contributions, but he also addressed secondary production estimates for the Adriatic Sea, open-water planktonic diversity, community ecology of marine lakes on Mljet Island, eutrophication and coastal fisheries ecology, and aquaculture design in coastal Croatian communities.

Adam BENOVIĆ was born on April 28, 1943 in Osijek (Croatia). His elementary and high school studies were in Dubrovnik and he completed undergraduate studies in biology at the Faculty of Science, University of Zagreb in 1967. From 1969 forward, he worked at the Dubrovnik Biological Institute, which evolved into the Institute for Fishery and Oceanography and eventually the Institute for Marine and Coastal Research of the University of Dubrovnik. From 1969 to 1970 he visited the Stazione Zoologica Anton Dohrn in Napoli where he compared plankton from nearby waters with that from the southern Adriatic. Those results were the basis of his Master's thesis entitled, "Contribution to comparison of hydromedusa fauna of the southern Adriatic Sea and the Bay of Naples". His interest in planktonic organisms continued as he focused on the Adriatic Sea through a series of research expeditions during the 1970's that culminated in his doctoral dissertation entitled, "Net zooplankton biomass of the Adriatic Sea" completed in 1977 at the Faculty of Science in Zagreb.

The scientific contribution of Adam Benović reflected in a significant achievement in research

of marine biology and ecology, especially planktonic cnidarians. He published more than 100 papers ranging from the most important scientific journals (such as, for example, *Nature*, London) to the professional and popular journals. Furthermore, he was a participant and leader of successful environmental studies, projects, and professional studies. His most appreciable scientific achievements were estimating of the total secondary production of the Adriatic Sea, finding new jellyfish species in the Adriatic Sea, a new approach to the ecology of coastal ecosystems through the example of salt marine lakes on Mljet island, the definition of biological diversity and ecological conditions in a vertical column of the deep sea, and the relationships between jellyfish, eutrophication and fisheries in coastal ecosystems. His remarkable accomplishments were the discovery of the causal mechanism the disappearance of many species of jellyfish in the shallow northern Adriatic ecosystem, the progressive extension of the process and the disappearance of some other biological species in the marine ecosystem, and confirmation of the hypothesis of jellyfish as an indicator of the stability of oligotrophic pelagic ecosystems. These results were well recognized in the international scientific community.

In addition to basic research, prof. BENOVIĆ considerably contributed improving the ecology and applying results of scientific research. His research on zooplankton biomass, methodological papers and articles in field of shellfish aquaculture have contributed to improving the assessment of the biological resources of the Adriatic Sea, as well as improving practices in the cultivation of shellfish in the coastal area.

Adam participated in numerous scientific and professional meetings, engaged in public and professional activities through various media, contributed to the creation of new knowledge about the ecology of the sea, and spread awareness about the necessity of effectively protecting the marine environment. He was a conspicuous marine investigator, leading expert

on planktonic cnidarians, a scientific manager, a popularizer and nature protector, and an authority on the history of marine biology. He was also an excellent pedagogue and teacher, selflessly transmitting his immensely knowledge to students and fellowship.

Adam believed that scientists had a responsibility to contribute to social development and he placed himself in positions to make important social contributions. He devoted himself to translating scientific understanding into educational and environmental development. As director of the Biological Institute in Dubrovnik, his vision was sought frequently on numerous international and Croatian advisory boards and advising councils.

The essential trait that Adam carried to all his roles was his humanity. He brought together people with a spirit of generosity and humor that helped people to work together to find new ways to see our shared world. The sense of fellowship that accompanied his expertise left those he worked with knowing a wiser way to be a scientist. We mourn Adam BENOVIĆ's passing and we are grateful for the gifts he left our community.

Davor Lučić
Jack Costello
Vladimir Onofri

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