

## In Memoriam

### Professor Andrzej Orłowski



1947 – 2020

It is with great sadness and regret that we have received the news that Professor Andrzej Orłowski, a long-time employee of National Marine Fisheries Research Institute, passed away on October 27, 2020.

He was born on June 10, 1947, in Sopot. In 1970, he graduated from the Gdańsk University of Technology and started working at the Sea Fisheries Institute in Gdynia, where he concentrated on the development of the hydroacoustic system, especially on research methods for estimating fish resources. In the following years, Professor Orłowski worked on the expansion of the several hydroacoustic systems, focusing on research methods for assessing marine fish stocks. He developed the first Polish outstanding method of “Application of multiple echoes energy measurements for evaluation of bottom type”.

He participated in numerous cruises on research vessels all over the world (Argentine Shelf, Kerguelen Islands, North Atlantic, West Coast of the United States, Indian Ocean, Alaska, Azores, Baltic Sea), where he not only performed ordinary hydroacoustic studies, but also organized and coordinated hydroacoustic intercalibration for international research vessels.

In 1981 he defended his PhD dissertation at the Gdańsk University of Technology entitled *The use of*

*multiple echo measurements to assess the type of the seabed*, which received the scientific award of the Polish Scientific Committee on Oceanic Research (Polish SCOR). Since then, his approach has been used by the various research institutes around the world and is called the *Orłowski Method*.

In 1989, he obtained the Doctor of Sciences degree after submitting the dissertation *Application of acoustic methods for studying the distribution of fish and scattering layers against the background of the marine environment* at the Agricultural Academy in Szczecin.

During his career, Professor Orłowski lectured on hydroacoustic methods of studying marine ecosystems for students of Biological Oceanography at the University of Gdańsk. In 1990, he took the post of associate professor at the Institute of Ichthyology. In the years 1990–1991 Professor Orłowski went to Yemen as part of the FAO/UNDP/UNESCO Marine Science Project, where he was involved in the launch of the hydroacoustic system on the ship “Ibn Magid” and the implementation of acoustic methods for the study of pelagic fish stocks of the Red Sea and the Arabian Sea. He also gave lectures to the staff of the Institute of Marine Research in Aden.

During his successful scientific life, Professor Andrzej Orłowski, performed a number of distinguished

functions. He was a member of the Physics Section of the SCOR, a member of the NMFRI Scientific Council in 2004–2007, a member of the board of the Polish Acoustical Society, a member of ICES Fishery Acoustic Science and Technology Group, ICES Fish Technology and Fish Behaviour Working Group, ICES SG Acoustic Seabed Classification and ICES SG Fish Avoidance of Research Vessels.

Professor Orłowski's recent research concerned the study of acoustic dispersing layers, the use of macro-

sounding and acoustic classification of the seabed. In his studies he used proprietary computer programs.

Professor Andrzej Orłowski published more than 80 scientific papers and was the author of 4 patents.

Professor Orłowski's death is a great loss for acoustics and oceanography. He will remain in our memory.

*Editorial Staff  
of the Archives of Acoustics  
and Prof. Andrzej Stepnowski*