## **Prof. Youssef Halim** (1925 – 2015)



It is with great sadness that we communicate the passing of Prof. Youssef Halim (Oceanography Department, Alexandria University, Egypt) on Monday, 18 May, 2015. He is the longest serving Oceanographer in Egypt, a graduate of the first generation that received its two-year Diploma from Oceanography Department, Faculty of Science, Alexandria (formerly Farouk I) University in 1950. Prof. Halim was one of the key scientists to put Egyptian marine biology on the world map.

Having graduated as a B.Sc. in Chemistry and Zoology from the Faculty of Science, Fouad I (later Cairo) University in 1948, Prof. Halim moved to the newly opened Department of Oceanography, Faculty of Science, Alexandria University later the same year. There he attended the courses given by Prof. Hussein Faouzi in Biological Oceanography and by Prof. Abdel Fattah Mohamed in Physical and Chemical Oceanography.

He obtained the Diploma in Higher Studies in Oceanography in 1950, his dissertation being on "The Hydrography of the Mediterranean Sea." Appointed Teaching Assistant in the same department, his first published paper, as a junior co-author with Prof. A. Mohamed, was on "Agar from Egyptian sea-weeds" (1952).

In 1952, Prof. Halim was awarded a French scholarship and moved to the Station Zoologique of Villefranche-sur-Mer in the south of France. Under the supervision of Prof. G. Trégouboff and Prof. L. Fage, he worked on his doctorate entitled "A Quantitative and Qualitative Study of the Dinoflagellates of the Bay of Villefranche." He submitted his thesis to the Sorbonne in Paris in July 1956 and was awarded the degree of Docteur ès-sciences naturelles with the grade of "Très honorable avec félicitations du jury."

On returning to his home department in Alexandria, Prof. Halim immediately engaged in the study of a problem that had fascinated him since childhood, the impact of the Nile flood waters on the sea at Damietta. He published his first paper on this estuarine environment, "Observations on the Nile bloom of phytoplankton in the Mediterranean," in 1960. With the exception of a one-year fellowship from the Deutsche Forschungsgemeinschaft at the Institut für Meereskunde der Universität Kiel in Germany (1966-1967), he continued to teach and advise students at his

university until his passing.

Prof. Halim mentored several generations of oceanographers and supervised numerous MSc and PhD students. Devoted to his school of students, he was rigorous and supportive in his guidance. He would continue to advise his students as they became his colleagues by arranging for them to present their work at international conferences, commenting on their articles and directing them to publish in peer-reviewed journals. Prof. Halim served as Vice-Dean of the Faculty of Science for Graduate Studies, a post he occupied from 1976 to 1982.

His distinguished contributions to his field won him the UNEP's Global 500 Award in 1997.

Prof. Halim described several new species in his works. The most important one was isolated and described in 1960: *Alexandrium minutum* n. gen, n. sp., a dinoflagellate of worldwide concern as a Harmful Alga. Several other papers were to follow on the same subject.

Other species Prof. Halim isolated and described include: *Peridinium tergouboffi* (1955), *Histoneis imbricata*, *H. rampii* (1960), *Ceratium egyptiacum* (1963), *Amphisolenia sigma* (1965), *Peridinium symmetricum* (1968) and *Protoperidinium elipticum* (1969). His last work published during his lifetime was on the subject of benthic harmful dinoflagellates *Ostreopsis* spp. in the Egyptian Mediterranean waters (2012).

He was the first scientist to write a review article on the plankton of the Red Sea in 1969. Because of his publications about the Alien species, he was responsible for the Egyptian report in the "Initial Integrated Assessment of the Mediterranean Sea. Fulfilling Step3 of the Ecosystem Approach Processes," UNEP/MAP, Athens 2010. Prof. Halim also wrote more than 25 research papers concerning pollution monitoring and management.

In addition to his publications and conference participation, Prof. Halim played a prominent role in international activities related to marine environmental affairs. He was a member of the UNESCO Consultative Panel on Coastal Marine Ecosystems since 1978 (Biennial Workshops), and a member of the GOOS-HOTO (Global Ocean Observing System-Health of the Oceans) Panel. He served as UNESCO consultant to Yemen (1977), in which capacity he worked to identify the country's needs and activities in the field of marine affairs, and drafted a project proposal for the development of marine sciences.

He served as UNESCO/ECA (Economic commission for Africa) Consultant for field missions to Ivory Coast, Senegal and Morocco (1980), to be followed three years later by a UNESCO consultancy in Mozambique where he collected data on the coastal zone of the country and on the effects of the damming of the River Zambezi on the marine environment, as well as surveyed the existing infrastructure for marine research, including the development of the Marine Biology Center at Inhaca Island.

From 1980 to 1986, Prof. Halim was National Director for the UNDP/UNESCO/Alexandria University "Aquatic Environmental Pollution Project." He also served as consultant to UNEP's Mediterranean Coordination Unit in Athens, Greece (1990). He was a member of ISSHA (International Society for the Study of Harmful Algae) with many friends in the HAB (Harmful

Algal Bloom) community around the world.

In 2003, Prof. Halim proposed and worked indefatigably to establish a North African network for the study of Harmful Algae during the "Regional Training Course on Harmful Algae," organized by IOC of UNESCO in cooperation with the AECI, NAUTA, COPEMED and DANIDA at the INSTM, Salambo, Tunisia.

The network became one of the regional groups of IOC/UNESCO Intergovernmental Panel on Harmful Algal Blooms in March 2005, under the name IOC-HANA. He co-convened the first workshop in Casablanca, Morocco, in October 2007; this very successful meeting was to be followed by several others. Prof. Halim served as First Chair of the HANA Regional Group (2007-2011).

In later years, Prof. Halim was instrumental in collaborative work between oceanographers, historians and archaeologists for the management and protection of Alexandria's underwater archaeological heritage, in an endeavor coordinated by Alexandria University, Egypt's Supreme Council of Antiquities and UNESCO. His scientific expertise was also sought by the Egyptian government, including in the state-sponsored project to translate the *Description de l'Égypte*, of which he co-translated scientific volumes.

A cultivated man, Prof, Halim read widely in philosophy, literature and history, and had a passion for classical music. After the early passing of his wife, Amal Yassa, Head Teacher of English Language and Literature at El Nasr Girls College (EGC) in Alexandria, he single-handedly raised his two children.

Prof. Halim is survived by his son, Raouf, an electrical engineer in California, daughter, Hala, an Associate Professor of Comparative Literature and Middle Eastern Studies at New York University, and grandson, Alexander, a medical doctor.

By: Prof. Amany Ismael, former Chair of Oceanography Department, currently Vice-Dean for Education and Student Affairs, Faculty of Science, Alexandria University

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