

SUEZ CANAL UNIVERSITY

Application of the photocatalytic remediation system in Gilthead seabream nursery rearing

(RAS seawater system)


Marine Science Department at Suez Canal University is a leading oceanography department in Egypt with very unique location centered on Suez Canal at Ismailia city.

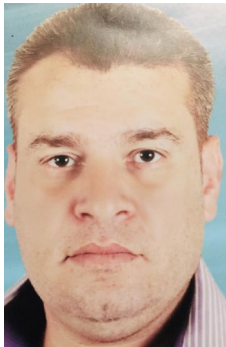
The Marine Science Department established in 1986 through an European Projects between Suez Canal University in Egypt and Liverpool University in UK. The department run a field station located on the Red Sea at Sharm Elshiekh with wet laboratory facilities, accommodation and various laboratories. All of this, in addition to field surveying and sampling zodiacs, boats and diving center.


The department is located at the Biology building on the Faculty of sciences in Ismailia with facilities of sampling and surveying at the Suez Canal by generous support and arrangements by Suez Canal Authority.

The department is led by a galaxy of professors covering the entire marine sciences specialties from ecology to molecular biology in addition to marine geology, physics and chemistry. The research activities within the department are covering all the matrices at Suez Canal, Red and Mediterranean seas. Furthermore, the research focuses on Coral reefs, mangroves, sea grasses and other communities and ecosystems. The research groups included aquaculture and fisheries beside fish biology at Red Sea, Suez Canal and Mediterranean sea for fin fish and invertebrates.

The team working at the current biology includes the following staff:

NAME / Photo	DEPARTMENT	BRIEF DESCRIPTION
<p data-bbox="203 647 613 679">Prof. Tarek Ahmed Temraz</p> 	<p data-bbox="645 647 882 735">Marine Science Department</p>	<p data-bbox="958 647 2018 1262">Temraz, is a marine chemical ecologist with experience on chemical ecology of various habitats including coral reefs, mangroves and coastal waters of Mediterranean and Suez canal areas. Temraz, is focusing on water qualities and pollution impacts on marine habitats and the organisms responses both on molecular and physiological levels. Temraz won various projects funded by ERASMUS+, PRIMA, ASRT and other agencies. Temraz, got his MSc through a scholarship to study Applied Marine Sciences at Plymouth University. His PhD spanned over the entire Egyptian coast of the Red sea to study the coral chemical ecology, including chemical taxonomy, pollution and coral distribution. His current research is focusing on climate changes impacts on marine ecosystems including emissions, dioxins and furan.</p>

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<p>Dr Dia abdelrahman</p> 	Marine Science Department	<p>Dr Dia abdelrahman is Associate Professor of invertebrates and aquaculture. His research interests are aquaculture and nutrition of marine and fresh water fish in addition to using of meio-fauna and other microorganisms for feeding of fishes.</p> <p>Dia_meiobenthos@yahoo.com</p>
Prof Dr Rafat Afifi Khatib	Marine Science Department	<p>Prof. Afifi obtained B.Sc. in Biology from the University of Suez Canal, M.Sc. from the University of Suez Canal, Ismailia, Egypt and Ph.D. in 2006 from the University of Hull, Hull, UK. Has 2 years Postdoctoral research experience at the University of Hull and Kent-in many disciplines i.e. Biomedical Sciences & Bioprospecting, Bio discovery of secondary metabolites from marine invertebrates. Prof. Afifi has more than 25 recognised international publications. I have a broad background in undergraduate and postgraduate teaching in biology, ecology, environmental pollution, environmental sciences, biodiversity, conservation and ecotoxicology. I currently teach on a number of undergraduate and MSc courses.</p>

		<p>To support my work, I have developed an international network of collaborators and have strong links with academics in the ARE, UK, Korea, India, Sweden, Jordon and KSA.</p> <p>My research falls into two main themes: Biodiversity conservation and chemical ecology, Environmental Pollution and Biodegradation.</p> <p>rafat_khattab@science.suez.edu.eg</p>
<p>Dr. Mahmoud sami abosreea</p>	<p>Marine science department</p>	<p>I am an assistant professor of fisheries and aquaculture, department of Marine Science, Faculty of science, Suez Canal University, I Have a 8 years of experience in hatchery management (rearing.,nutrition, hatching). In my Ph. D, I used some environmental and biological parameters to accelerate the depuration process of heavy metals from the common bivalves and a new techniques (probiotics and biofloc technology) in feeding & nutrition of bivalves .</p> <p>In my Master’s degree, I studied some biological aspects of three commercial bivalve species from the Lake Timsah, one of the lakes of the Suez Canal. My study included the assessment of the meat yields</p>



of the bivalves as well as their biochemical compositions. On the other hand, I have tried several methods for the induced spawning of *Ruditapes decussatus*. I also studied the impact of density and temperature on its growth performance and survival rate.

Mahmoud_Sami@science.suez.edu.eg

Our collaborator partner in this project is the National research center represented by Centre of Excellence for Research and Applied Studies on Climate Change and Sustainable Development at the National Research Center (C³SD-NRC).


The biotechnology and biodiversity conservation group, C³SD-NRC Consists of 2 laboratories:


1st Laboratory (Wet lab.):



- Seabass fish rearing will take place
- Growth parameters and well-being state of fish


2nd Laboratory (parameters assessment):

- Water parameters: characterization of Physical, chemical, and microbiological state.
- Metagenomics of bacterial isolates.
- Ammonia, nitrite, and nitrate concentrations to verify the system efficiency.

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Prof. Fagr Abdel Gawad 	Water pollution Research Department, Institute of	She is a professor of Biotechnology and Marine Biodiversity, Head of water pollution Dept, Environmental Research Division, National Research Center (NRC), Deputy Director of Centre of Excellence for Research and Applied Studies on Climate Change and Sustainable Development, National Research Center (C3SD-NRC), Director of

	Environment and Climate change, National Research Centre (NRC)	Accreditation and Quality Assurance Bureau and Head of Biotechnology & Biodiversity Conservation group, Centre of Excellence for Advanced Science (CEAS). Over 20 years of research in the field of aquaculture and molecular genetics, marine biodiversity and connectivity, life-history traits, molecular and genomic evaluation marine pollution, next-generation sequencing applied to ecosystem monitoring in the Mediterranean and Red Seas. E-mail: fagrabdlgawad@gmail.com fagrabdlgawad@nrc.sci.eg fagrabdlgawad@yahoo.com
Prof. Wagdy Khalil 	Department of Cell Biology, Biotechnology Research Institute, National Research Centre, Giza, Egypt	His research interests are aquaculture and nutrition of marine and fresh water fish in the tropics and subtropics. He works on a genome basis using molecular biology techniques to improve fish production. Moreover, evaluation of the oxidative stress and apoptosis caused by several pollutants to aquatic organisms is a primary concern. E-mail: wagdykh@yahoo.com
Dr. Samah M. Bassem	Water pollution Research Department, Institute of Environment and Climate change,	She is Associate Professor, Water pollution Research Dept, Environmental Sciences Research Division, Biotechnology & Biodiversity Conservation group, Centre of Excellence for Advanced Technologies (CEAS), National Research Centre (NRC). Also she is member in the Accreditation and Quality Assurance Office, NRC. Egypt. Current research interests include: Biodiversity conservation especially for our native fish and other aquatic

	National Research Centre (NRC)	biota, impact of climate change on the aquatic environment. Moreover, she is interested in marine and fresh water fish beside effect of pollution on aquatic biota. Her research corresponds to Egypt's key production and services sectors through the research conducted to decrease deleterious effects of pollution on our life. E-mail: Samahbassem7@gmail.com , sm.bassem@nrc.sci.eg .
Dr. Noha M. Sabry 	Water pollution Research Department, Institute of Environment and Climate change, National Research Centre (NRC)	Graduated in Plant chemistry. MSC and PhD in Microbiology. Researcher, Her research interests in antibacterial activity of fish bacterial pathogenic against nanoparticles, marine biodiversity, Also, environmental impact by fish farming and the application of new techniques for the adaption and mitigation of the environmental impact. E-Mail: nohamsabry3@gmail.com
Dr. Marwa Abdel Tawab	Water pollution Research Department, Institute of Environment and Climate change,	Gradated in international Agriculture. MSC and Ph.D in Agricultural Microbiology. Her research interest in marine biodiversity, probiotics and the assessment of animal welfare using gene expression. e.mail: marwaabdtawab@gmail.com

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