

# Global change: The Arabian Gulf ecosystem – An introduction

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The Arabian Gulf is a main source of wealth and food for the people of the Gulf countries. For hundreds of years, the Gulf used to be the main source for some of the finest pearls in the world. It harbors highly diverse and productive habitats including coral reefs, mangroves, intertidal marshes, and seagrass. Another feature of the Arabian Gulf is that it hosts the second largest population of dugongs in the world's oceans. The Gulf is a shallow basin (avg. depth = 35 m) that has some of the most radical environmental conditions in the world's oceans including extreme temperature, high UV irradiance, high evaporations and limited fresh water influx, resulting in salinities that ranges from 40 up to 70 psu in some bays. On the top of the aforementioned extreme natural hydrographic conditions, there are tremendous environmental stresses exerted by the unprecedented industrialization, fossil hydrocarbon exploration and production, shipping tankers introducing non-indigenous species, power and desalination plants, and coastal development activities as well as any remnants from the largest oil spills in history, during the Gulf war in 1991. Qatar University Life Science Symposium (QULSS) is an annual event where local and world leader academics address the research priorities for the state of Qatar and the Gulf region. As headlines worldwide emphasize climatic changes, ocean acidification, eutrophication, loss of habitats, marine pollution, and toxic algal blooms as the top environmental issues threatening the health of the world's oceans and the Gulf, the QULSS of 2015 is tackling the effects of the local and global changes on the Arabian Gulf ecosystem. In QULSS-2015, marine scientists in Qatar University, along with collaborators from local, regional and international leading institutes, communicate and exchange their most recent research findings on impacts of different stressors including extreme natural conditions on the structures and functions of different species and habitats in the Gulf, to the fellow scientists, public, and policymakers. Objectives of the symposium are to increase the awareness on the ecological value of the Arabian Gulf, to initiate activities that foster marine science education, to promote interests in marine and environmental sciences among young people, to encourage young generations to pursue a career in marine environmental science/research, and to provide opportunities for networking and collaboration among scientists at the national, regional and international level as well as to strengthen scientific and research collaboration between academia, industry, and decision makers.

## Scientific Program Organizers:

**Chair:** Yousria Soliman, Ph.D.  
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