



Curriculum Vitae

Personal Data:

Professor/ Coral Reef Specialist

Aquaculture of Coral Reef Organisms- Coral Reef Conservation -Marine Biology and Ecology

Name: Fuad A. Al-Horani

Date of Birth: 31, Aug. 1968

Place of Birth: Irbid-Jordan

Nationality: Jordanian

Contact address:

The University of Jordan-Aqaba

Faculty of Marine Sciences

Dept. of Marine Biology

and

Marine Science Station

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Google Scholar site

<https://scholar.google.com/citations?user=xibxeAoAAAAJ&hl=en&oi=sra&authuser=0>)

Scopus

<https://www.scopus.com/authid/detail.uri?authorId=55936334100>)

ORCID

<https://orcid.org/0000-0001-9717-6640>)

Research Gate site (https://www.researchgate.net/profile/Fuad_Al-Horani/publications?sorting=recentlyAdded)

Education:

1986 School leaving certificate
Irbid Secondary school, Irbid-Jordan.
Science section

- 1990 B.Sc. Biological Sciences
Yarmouk University, Irbid-Jordan.
- 1995 M.Sc. Biochemistry
Yarmouk University, Irbid-Jordan.
Thesis Title: “Comparative studies of Glutathione Cycle in livers of Camel, Cow, Sheep and Goat”.
- 2002 Ph.D. Coral Eco-Physiology
University of Bremen – Max Planck Institute for Marine Microbiology, Bremen-Germany.
Thesis Title: Study of the interactions among photosynthesis, respiration and calcification in the scleractinian coral, *Galaxea fascicularis*.

Teaching and Research Experience:

- 1992/93-1996 Teaching Assistant
Dept. of Biological Sciences
Yarmouk University, Irbid-Jordan
- 1995 Research Assistant
Dept. of Biological Sciences/ Soil Microbiology and Molecular Biology
Yarmouk University, Irbid-Jordan
- 1995-1998/99 Teaching Assistant
Dept. of Applied Biological Sciences
Jordan University of Science & Technology, Irbid-Jordan
- 2002-2003 Post doc
Max Planck Institute for Marine Microbiology, Bremen-Germany
- 2003-2008 Assistant Research Professor (Coral Eco-physiology/ Marine Biology)
Marine Science Station, Aqaba, Jordan
- 2008-2009 Associate Research Professor (Coral Eco-physiology/ Marine Biology)
Marine Science Station, Aqaba, Jordan
- 2009-2010 Associate Professor (Sabbatical Year)
Dept. of Biotechnology and Genetic Engineering
Philadelphia University, Amman, Jordan
- 2010-2013 Associate Professor
Dept. of Marine Biology, Faculty of Marine Science
University of Jordan, Aqaba, Jordan
- 2013- Full Professor
Dept. of Marine Biology, Faculty of Marine Science
University of Jordan, Aqaba, Jordan

Administrative Experience:

2020-	Dean/ School of Basic and Marine Sciences The University of Jordan, Aqaba, Jordan
2020-	Dean/ School of Nursing The University of Jordan, Aqaba, Jordan
2020-	Board of Deans/member The University of Jordan, Aqaba, Jordan
2020-	Marine Science Station Board/member The University of Jordan and Yarmouk University
2020-	Dean /School Board School of Basic and Marine Sciences/The University of Jordan, Aqaba, Jordan
2020-	Dean /School Board School of Nursing/The University of Jordan, Aqaba, Jordan
2016-2018	Acting Chair/ Dept. of Biology, Dept. of Marine Biology, Dept. of Coastal Environment
2014-2018	Faculty Board Member -Faculty of Marine Sciences The University of Jordan, Aqaba, Jordan
2012-2013	Acting Chair/ Dept. of Coastal Environment University of Jordan, Aqaba, Jordan
2012-2013	Member/Faculty Board -Faculty of Marine Sciences The University of Jordan, Aqaba, Jordan

Courses Taught:

General Biology 1 & 2, Biochemistry, Benthos and Coral Reef's , Cell Biology, Field Training, Special topics in Marine Biology, Marine Biotechnology, Research projects and scientific writing, Marine Physiology, Animal Physiology, Diving, Advanced Benthos and Coral Reef's, Advanced Research Methods

Current Research Interest:

1. Coral reproduction.
2. Coral plantation and restoration.
3. Cryopreservation of coral tissues.
4. Environmental observation of the coral reef health (benthic cover; corals and seagrass) in the Gulf of Aqaba-Jordan (Monitoring Programs).
5. Coral Eco-physiology studies.
6. Studies of stress response in corals.
7. Development of Artificial reefs and coral nurseries.
8. Coral mapping, transplantation, coral nursing and propagation.

Other Skills and Experiences:

1. Coral propagation and maintenance in captivity.

2. Excellent experimental design experience for field and laboratory studies.
3. Advanced diving license.
4. Computer skills.
5. Driving license.

Languages:

Arabic: native, English: excellent; communication and written, German: fair communication.

Publications:

- Khalaf, M. A., **Al-Horani, F. A.**, Manasrah, R.S., Arabeyyat, Z. H. (2020). Development of fish communities in artificial lagoons in the Gulf of Aqaba, Red Sea. *Fresenius Env. Bull.* ;4488-4496.
- Hussien, E., Juhmani, A., AlMasri, R., **Al-Horani, F.**, Al-Saghir, M. (2019). Metagenomic analysis of microbial community associated with coral mucus from the Gulf of Aqaba. *Heliyon*. 5; e02876
- Aljbour, S. M., Zimmer, M., **Al-Horani, F. A.**, Kunzmann, A., (2019). Metabolic and oxidative stress responses of the jellyfish *Cassiopea* sp. to changes in seawater temperature. *Journal of Sea Research*. 145; 1-7.
- Tilstra, A., van Hoytema, N., Cardini, U., Bednarz, V. N., Rix, L., Naumann, M.S., **Al-Horani, F. A.**, Wild, C. (2018). Effects of water column mixing and stratification on planktonic primary production and dinitrogen fixation on a northern Red Sea coral reef. *Frontiers in microbiology*. 9.
- Aljbour, S. M., **Al-Horani, F. A.**, Kunzmann, A., (2018). Metabolic and oxidative stress responses of the jellyfish *Cassiopea* to pollution in the Gulf of Aqaba, Jordan. *Marine Pollution Bulletin*. 130; 271-278.
- Rix, L., de Goeij, J. M., van Oevelen, D., Struck, U., **Al-Horani, F. A.**, Wild, C., Naumann, M. S. (2018). Reef sponges facilitate the transfer of coral-derived organic matter to their associated fauna via the sponge loop. *Marine Ecology Progress Series*, 589; 85-96.
- Kteifan, M., Wahsha, M., **Al-Horani, F. A.** (2017). Assessing stress response of *Stylophora pistillata* towards oil and phosphate pollution in the Gulf of Aqaba, using molecular and biochemical markers. *Chemistry and Ecology*, 33(4), 281-294.
- Al-Sawalmih, A., **Al-Horani, F. A.**, Al-Rousan, S. (2017). Elemental analysis of the coral *Stylophora pistillata* incubated along the Jordanian coast of the Gulf of Aqaba." *Fresenius Environmental Bulletin* 26.4: 3029-3036.
- Rix, L., de Goeij, J. M., van Oevelen, D., Struck, U., **Al-Horani, F. A.**, Wild, C., Naumann, M. S. (2016). Differential recycling of coral and algal dissolved organic matter via the sponge loop. . *Functional Ecology* (online DOI: 10.1111/1365-2435.12758).
- van Hoytema, N., Bednarz, V. N., Cardini, U., Naumann, M. S., **Al-Horani, F. A.**, Wild, C. (2016). The influence of seasonality on benthic primary production in a Red Sea coral reef. *Marine Biology* 163 (3), 1-14

- Megdadi, J. M., Khalaf, M., **Al-Horani**, F. A., Manasrah, R. (2017). Community structure of coral reef fishes in relation to habitat and depth in the northern Gulf of Aqaba, Red Sea. *Fresenius Environmental Bulletin* 26(2a):1824-1834.
- Rix, L., Naumann, M. S., Mueller, C. E., de Goeij, J. M., Struck, U., Middelburg, J. J., van Duy, F. C., **Al-Horani**, F. A., Wild, C., van Oevelen, D. (2016). Coral mucus fuels the sponge loop in warm- and cold-water coral reef ecosystems. *Scientific Reports*. 6:18715 | DOI: 10.1038/srep187151
- Naumann, M. S., Rix, L., **Al-Horani**, F. A., & Wild, C. (2016). Indications of mutual functional benefits within a polychaete-sponge association in the northern Red Sea. *Bulletin of Marine Science*.
- Al-Horani**, F. A. (2015) Physiology of Skeletogenesis in Scleractinian Coral, in *Diseases of Coral* (eds C. M. Woodley, C. A. Downs, A. W. Bruckner, J. W. Porter and S. B. Galloway), John Wiley & Sons, Inc, Hoboken, NJ. doi: 10.1002/9781118828502.ch12
- Rix, L., Bednarz, V. N., Cardini, U., van Hoytema, N., **Al-Horani** F.A., Wild, C., Naumann M.S. (2015). Seasonality in dinitrogen fixation and primary productivity by coral reef framework substrates from the northern Red Sea. *MEPS* 533; 79–92.
- Bargiela, R., Mapelli, F., Rojo, D., Chouaia, B., Tornés, J., Borin, S., Richter, M., Del Pozo, M.V., Cappello, S., Gertler, C., Genovese, M., Denaro, R., Martínez-Martínez, M., Fodelianakis, S., Amer, R.A., Bigazzi, D., Xifang, H., Chen, J., Chernikova, T.N., Golyshina, O.V., Mahjoubi, M., Jaouani, A., Benzha, F., Magagnini, M., Hussein, E., Al-Horani, F., Cherif, A., Blaghen, M., Abdel-Fattah, Y.R., Kalogerakis, N., Barbas, C., Malkawi, H.I., Golyshin, P.N., Yakimov, M.M., Daffonchio, D., Ferrer, M. (2015). Bacterial population and biodegradation potential in chronically crude oil-contaminated marine sediments are strongly linked to temperature. *Scientific Reports* 5:11651 DOI: 10.1038/srep11651.
- Fodelianakis, S., Antoniou, E., Mapelli, F., Magagnini, M., Nikolopoulou, M., Marasco, R., Barbato, M., Tsiola, A., Tsikopoulou, I., Giaccaglia, L., Mahjoubi, M., Jaouani, A., Amer, R., Hussein, E., Al-Horani, F.A., Benzha, F., Blaghen, M., Malkawi, H.I., Abdel-Fattah, Y., Cherif, A., Daffonchio, D., Kalogerakis, N. (2015). Allochthonous bioaugmentation in ex situ treatment of crude oil-polluted sediments in the presence of an effective degrading indigenous microbiome. *J. Haz. Mat.* 287; 78–86.
- Dixon, A. K., Needham, D., **Al-Horani**, F. A., Chadwick, N. E. (2014). Microhabitat use and photoacclimation in the clownfish sea anemone *Entacmaea quadricolor*. *J. Mar. Biol. Ass. United Kingdom*. 94;473-480.
- Al-Horani**, F. A. (2013). Sustainable resources of corals for the restoration of damaged coral reefs in the Gulf of Aqaba, Red Sea. *Life Science Journal* 10(3); 352-360.
- Al-Horani**, F. A., Khalaf, M. (2013). Developing Artificial Reefs for the mitigation of Man-Made Coral Reef Damages in the Gulf of Aqaba-Red Sea; Coral recruitment after 3.5 years of deployment. *Mar. Biol. Res.* 9; 749-757.

- Szczebak, J. T., Henry, R. P., **Al-Horani, F. A.**, Chadwick, N. E. (2013). Anemonefish oxygenate their anemone hosts at night. *J. Exp. Biol.* 216; 970-976.
- Hussein, E. I., **Al-Horani, F. A.**, Malkawi, H. I. (2012). Bioremediation capabilities of Oil-Degrading Bacterial Consortia Isolated from Oil-contaminated Sites at the Gulf of Aqaba (Jordan). *Biotechnology* 11; 189-198.
- Khalaf, M. A., Al-Rousan, S., **Al-Horani, F. A.** (2012). Fish assemblages in seagrass habitat along the Jordanian coast of the Gulf of Aqaba. *Nat. Sci.* 4; 517-525.
- Al-Rousan, S., Al-Shloul, R., **Al-Horani, F.**, Abu-Hilal, A. (2012). Heavy metals signature of human activities recorded in coral skeletons along the Jordanian coast of the Gulf of Aqaba, Red Sea. *Environ Earth Sci.* 67; 2003-2013.
- Al-Horani, F. A.**, Hamdi, M., Al-Rousan, S. (2011). Study of *Drupella cornus* prey selection and grazing on corals from the Jordanian coast of the Gulf of Aqaba-Red Sea. *Jor. J. Biol. Sc.*, 4; 191-198.
- Duris, Z., Horka, I., **Al-Horani, F.** (2011). *Periclimenaeus echinimanus* sp. nov. (Crustacea: Decapoda: Pontoniinae), a new species from the Gulf of Aqaba, Red Sea. *Zootaxa*, 2983: 57–68.
- Al-Rousan, S., **Al-Horani, F.**, Eid, E., Khalaf, M. (2011) Assessment of seagrass communities along the Jordanian coast of the Gulf of Aqaba, Red Sea. *Marine Biology Research*, 7; 93-99.
- Malkawi, H. I., Jahmani, M. Y., Hussein, E. H., **Al-Horani, F. A.**, Al-Deeb, T. M. (2009). Investigation on the ability of soil bacterial isolates to degrade petroleum hydrocarbons. *Int. J. Integ. Biol.* 7 (2); 93-99.
- Cragg, S. M., Jumel, M. C., **Al-Horani, F. A.**, Hendy, I. W. (2009). The life history characteristics of the wood-boring bivalve *Teredo bartschi* are suited to the elevated salinity, oligotrophic circulation in the Gulf of Aqaba, Red Sea. *J. Exp. Mar. Biol.Ecol.*, 375; 99-105.
- Kotb, M. M. A., Hanafy, M. H., Rirache, H., Matsumura, S., Al-Sofyani, A. A., Ahmed, A. G., Bawazir, S., **Al-Horani, F. A.** (2008). Status of coral reefs in the Red Sea and Gulf of Aden region. In *Status of coral reefs of the world*. Wilkinson, C. (Ed.), Global Coral Reef Network, Australia. pp. 67-78.
- Al-Horani, F. A.**, Tambutte, E., Allemand, D. (2007). Study of dark calcification and daily rhythm of calcification in the scleractinian coral, *Galaxea fascicularis*. *Coral Reefs* 26: 531-538.
- Al-Rousan, S., Al-Shloul, R., **Al-Horani, F.**, Abu-Hilal, A. (2007). Heavy metal contents in growth bands of *Porites* corals: Record of anthropogenic and human developments from the Jordanian Gulf of Aqaba. *Marine Pollution Bulletin* 54 (12): 1912–1922.
- Al-Rousan, S., Felis, T., Manasrah R., **Al-Horani F.** (2007). Seasonal variations in the stable oxygen isotopic composition in *Porites* corals from the northern Gulf of Aqaba, Red Sea. *Geochemical Journal* 41: 333-340.
- Al-Horani, F. A.**, Al-Rousan, S. A., Al-Zibdeh, M., Khalaf, M. A. (2006). Status of coral reefs in the Jordanian coast of the Gulf of Aqaba- Red Sea. *Zoology in the Middle East* 38: 99-110.
- Al-Rousan, S. A., Rasheed, M. Y., **Al-Horani, F. A.**, Manasrah, R. S. (2006). Geochemical and textural properties of carbonate and terrigenous sediments along the Jordanian coast of the Gulf of Aqaba. *J. Oceanography* 62: 839-849.

- Khalaf, M. A., **Al-Horani, F. A.**, Al-Rousan, S. A., Manasrah, R. S. (2006). Community structure of the family Pomacentridae along the Jordanian coast, Gulf of Aqaba, Red Sea. *Zoology in the Middle East* 37: 47-62.
- Rasheed, M., Al-Rousan, S., Manasrah, R., **Al-Horani, F.** (2006). Nutrient fluxes from deep sediment support nutrient budget in the oligotrophic waters of the Gulf of Aqaba. *J. Oceanogr.* 62: 83-89.
- Manasrah, R. S., **Al-Horani, F. A.**, Rasheed, M. Y., Al-Rousan, S. A., Khalaf, M. A. (2006). Patterns of summer vertical and horizontal currents in coastal waters of the northern Gulf of Aqaba, Red Sea. *Estuarine Coastal and Shelf Science* 69: 567-579.
- Al-Horani, F. A.**, Al-Rousan, S. A., Manasrah, R. S., Rasheed, M. (2005). Coral calcification: use of radioactive isotopes and metabolic inhibitors to study the interactions with photosynthesis and respiration. *Chem. and Ecol.* 21: 325-335.
- Al-Horani, F. A.** (2005). Effects of changing seawater temperature on photosynthesis and calcification in the scleractinian coral *Galaxea fascicularis*, measured with O₂, Ca²⁺ and pH microsensors. *Sci. Mar.* 69: 347-354.
- Al-Horani, F. A.**, Ferdelman, T. Al-Moghrabi, S. M., De Beer, D. (2005). Spatial distribution of calcification and photosynthesis in the scleractinian coral *Galaxea fascicularis*. *Coral Reefs* 24:173-180.
- Ludwig, R., **Al-Horani, F. A.**, De Beer, D., Jonkers, H. M. (2005). Photosynthesis-controlled calcification in a hypersaline microbial mat. *Limnol. Oceanogr.*, 50: 1836–1843.
- Khalaf, M. A., **Al-Horani, F.** , Manasrah, R., Al-Rousan, S. (2005). Community structure of the family Labridae along the Jordanian coast, Gulf of Aqaba, Red Sea. *Lebanese Science Journal* 6: 3-10.
- Al-Horani, F. A.** (2005). National action plan for the conservation of coral reefs in Jordan. PERSGA, Jeddah- Saudi Arabia.
- Garcia-Pichel, F., **Al-Horani, F. A.**, Farmer, J. D., Ludwig, R., Wade, B. D. (2004). Balance between microbial calcification and metazoan bioerosion in modern stromatolitic oncolites. *Geobiology* 2 (1), 49-57.
- De Beer, D., **Al-Horani F.** (2004). Marine Calcification and decalcification studied with microsensors for calcium, pH and oxygen. *Water-Rock Interactions, Wanty & Seal II* (eds). 1107-1111.
- Al-Horani, F. A.**, Al-Moghrabi, S. M., De Beer, D. (2003). The mechanism of calcification and its relation to photosynthesis and respiration in the scleractinian coral, *Galaxea fascicularis*. *Mar. Biol.* 142:419-426.
- Al-Horani, F. A.**, Al-Moghrabi, S. M., De Beer, D. (2003). Microsensor study of photosynthesis and calcification in the scleractinian coral, *Galaxea fascicularis*; active internal carbon cycle. *J. Exp. Mar. Biol. Ecol.* 288: 1-15.
- Hunaiti, A., **Al-Horani, F.** (1997). Camel glutathione based Detoxification System. *Trends in Comp. Biochem. & Physiol.* 3: 49-55.

Reports

1. Ayla resort benthic habitat study...annual report (2011-)
2. Baseline study of Saraya resort seafront area (2014)
3. Baseline study of new industrial jetty (2013)
4. Baseline study of new LNG jetty (2011)

5. Baseline study of new phosphate jetty (2012)
6. Environmental impact assessment for the ports relocation project (2007).
7. Coral mapping at the southern and middle ports areas in Aqaba (2007)
8. Coral mapping at the southern and middle ports areas in Aqaba (2007)
9. Coral mapping at the middle ports areas in Aqaba (2007).
10. Environmental appraisal of the Jordanian coast of the Gulf of Aqaba, Red Sea. Jordan's national monitoring program. Annual reports 2004-2014.
11. Environmental quality of the coastal water, bottom sediments, nekton and benthos in front of the industrial complex, prepared for the Jordan's Phosphate Mines Company, Aqaba-Jordan. Reviewer for several scientific papers and proposals for international journals and funding agencies. Annual reports 2004-2010.
12. Identifying the long-term Environmental Impacts of the Proposed Red Sea-Dead Sea Conduit (RDC); Environmental Impact Assessment for physical and marine biological components. Prepared for Royal Scientific Society, Amman-Jordan.
13. Ayla Lagoon Tourism Development; Master Plan Environmental Impact Assessment. Assessment of existing marine environment. Prepared for ECO Consult Company-Wahat Ayla for Development Company. Aqaba-Jordan.
14. National action plan for the conservation of coral reefs. Prepared for PERSGA Jeddah-Saudi Arabia.
15. Many progress reports for the research projects.

Students' supervision:

PhD Students

1. Nanne van Hoytema (ZMT-Bremen, Germany).
2. Laura Rix (ZMT-Bremen, Germany).
3. Samir AlJbour (ZMT-Bremen, Germany).

Master Students

1. Feras Rahahleh(The University of Jordan, Aqaba-Jordan).
2. Jafar Meqdadi (The University of Jordan, Aqaba-Jordan).
3. Farah AlWakid (Yarmouk University, Irbid - Jordan).
4. Ruba AlMasri (Yarmouk University, Irbid - Jordan).
5. Sewar Telfah (Yarmouk University, Irbid - Jordan).
6. Katrina AbdelKader (Yarmouk University, Irbid - Jordan).
7. Maysoon Qtefan (The University of Jordan, Amman-Jordan).
8. Shayma Ahmed Zaidan (Yarmouk University, Irbid - Jordan).
9. Fadi Mohammad Jaber (Yarmouk University, Irbid - Jordan).
10. Mahmoud Telfah (Yarmouk University, Irbid - Jordan).
11. Safa Ata Nazzal (Yarmouk University, Irbid - Jordan).
12. Samar Al-Khatib (Yarmouk University, Irbid - Jordan).
13. Sulidad Lona (ZMT, Bremen-Germany).
14. Malik Hamdi (The University of Jordan, Amman - Jordan).
15. Abdul Wahab Al-Shiyyab (Yarmouk University, Irbid - Jordan).
16. Rasheed Al-Shlul (Yarmouk University, Irbid - Jordan).
17. Marie Jumiel (University West of England- Britain).

18. Nicola Taylor (Britain).

National and International Trainees

Semir Kuklo (Turkey), Carinne Hutchinson (Australia), Casey Hawkey (Australia), Laura Colgan (USA), Hulya Keles (Turkey), Chiara Franco (Italy), Monica Zagali (Ramsar, Geneva-Switzerland), Salam Labadi (JEREDS, Aqaba- Jordan), Sinan Abu Mosa (The Hashemite University, Zarqa-Jordan), Arthur Wainwright (University West of England-Britain).

Funded Projects:

1. Using Nanostructure investigating techniques for studying proxies of climate change and ocean acidification in corals in the Gulf of Aqaba. Total amount JD 61,214 Role: Co-PI
2. Developing an applied tool box for sustainable ‘reefs of tomorrow’ in the Red Sea. Total amount \$650,000. Role: Principal Investigator at MSS.
3. Developing novel methodologies for maintenance of coral biodiversity in shallow and mesophotic reefs. Total amount \$460,000. Role: Principal Investigator at MSS.
4. Innovative Approach of Bioremediation of the Oil Spills Contaminating Gulf of Aqaba and the Surrounding Region Using Naturally Isolated Oil-Degrading Bacterial Consortia. Total amount 220,000 JD's. Role: Co-investigator of the project.
5. Strategies for mitigating anthropogenic stress effects on Gulf of Aqaba reefs. Total amount US\$420,000, Duration 2 years (2007-2008). Role: principal investigator of the project.
6. Development of resource management oriented research and novel monitoring techniques. Total amount US\$250,000, Duration 3 years (2004-2007). Role: Principal Investigator, leader of coral team.
7. Environmental assimilative capacity of coastal habitats and green mariculture of high revenue low environmental burden species on the Jordanian sector of the Gulf of Aqaba, Red Sea. Funded by the Higher Council for Science and Technology-Jordan. Total amount US\$143,000, Duration 3 years (2004-2007). Role: Principal Investigator, leader of coral team.
8. Developing the Marine Aquarium and establishment of Marine Museum at Marine Science Station, Aqaba-Jordan. Funded by Global Environmental facility (GEF). Total amount US\$50,000, Duration 2 years (2006-2008). Role: Coordinator.
9. Rehabilitation of natural and artificial coral reefs in the Gulf of Aqaba. Funded by Whitley Fund for Nature-UK. Total amount US\$19,900, Duration 1 year (2006). Role: Principal Investigator and coordinator at MSS.
10. Artificial reefs for environmental management in the Gulf of Aqaba. Funded by MERC-USA. Total amount US\$ 347,300, Duration 3 year (2006-2008). Role: Principal Investigator and coordinator at MSS.

11. Establishment of a Middle Eastern Biodiversity Research, Training and Conservation Network. Funded by DAAD-Germany. Total amount Euro 100,000, Duration 3 year (2006-2008). Role: Principal Investigator.
12. Coral mapping at the south ports area in the Gulf of Aqaba. Funded by Aqaba Development Corporation (ADC)-Jordan. Total amount US\$ 86,000, Duration 1 year. Role: Project Leader.
13. Coral mapping at the Middle ports area in the Gulf of Aqaba. Funded by Aqaba Development Corporation (ADC)-Jordan. Total amount US\$ 46,000, Duration 1 year. Role: Project Leader.
14. Coral mapping at the Ferry Terminal area in the Gulf of Aqaba. Funded by Aqaba Development Corporation (ADC)-Jordan. Total amount JD's 13,600, Duration 1 month. Role: Project Leader.

Workshops and conferences Attended:

1. International Symposium on "Marine Ecosystem, Natural Products, and their Bioactive Metabolites". Bogor, Indonesia 25-27, Oct., 2011.
2. 5th European Bioremediation Conference. Chania-Greece, July 4-7, 2011.
3. Winter School in Water Quality and Testing. Aqaba –Jordan April 2-9, 2011. Invited Key Note Speaker.
4. International Summit on Marine and Coastal Engineering. Aqaba –Jordan 12-14, 12, 2010. Invited Key Note Speaker.
5. The first international work on the biogeochemistry of the Persian Gulf. Qeshm Island-Iran 24-28, 10, 2010. Invited Key Note Speaker.
6. Ecological Risk Characterization of Coral Reefs course in Hawaii-USA, October 2-7, 2005.
7. Regional training Workshop on the coral transplantation in the Gulf of Aqaba (Invited speaker). Aqaba, Jordan 27th -29th September, 2004.
8. 10th International Coral Reef Symposium (June 28 to July 2, 2004, Okinawa, Japan).
9. The Red Sea Marine Peace Park International Symposium: Integration of Marine Science and Resource Management (Dec.2-4, 2003, Aqaba-Jordan).
10. NATO Advanced Research Workshop; Past and Present Water Column Anoxia (Oct. 4-8, 2003, Crimea-Eukraine).
11. Jordanian-German Scientific day (Aqaba-Jordan).
12. The 8th International Symposium on Biomineralization, (Sep. 25-28, 2001, Nigata-Japan).
13. 36th European Marine Biology Symposium (Sep. 17-22, 2001, Menorca-Spain).
14. Red Sea Program Junior Course on marine Sciences (Feb. 27th -Mar. 8th, 2000, Aqaba-Jordan).

15. Workshops and conferences Organized:

1. Biodiversity workshop Aqaba-Jordan, June, 2007 Lecturer and co-organizer.
2. Middle Eastern Biodiversity Congress, Aqaba-Jordan, 20-23 Nov., 2008 Lecturer and co-organizer. Steering Committee.
3. Sea anemone workshop Aqaba-Jordan, 1-30 June, 2008 Lecturer and co-organizer.

4. Sea anemone workshop Aqaba-Jordan, 1-30 June, 2009 Lecturer and co-organizer.
5. Sea anemone workshop Aqaba-Jordan, 1-30 June, 2010 Lecturer and co-organizer.

Other scientific activities

1. Several TV appearances, Radio and Newspapers interviews in both Arabic and English languages.
2. Reviewer for several scientific articles and proposals for international journals and funding agencies.

Consultations

- Benthic survey study for the new Industrial Jetty
- Benthic survey study for the new Phosphate Jetty- phase 1 and 2.
- Red Sea-Dead Sea Conduit World Bank project; team leader ecology group.
- Environmental Impact Assessment and mitigation of the relocation of ports to the south industrial complex.
- Consultant for the New Phosphate re-location project (coral mapping project).
- Consultant for the impacts of phosphate on the coral reefs at the south industrial complex.
- Consultant in Ayla lagoon project for the Marine Biological component.
- Consultant in Red-Dead Sea conduit project for the Marine Biological component.
- Coral mapping at the southern and middle ports areas in Aqaba, Project Leader.
- Coral mapping at the middle ports areas in Aqaba, Project Leader.
- Consultant in PERSGA National Action Plan for the conservation of coral reefs, Jeddah-Saudi Arabia.
- National monitoring program: Team Leader of Coral reef and benthic Habitat.
- JFI monitoring program: Team Leader of Coral reef and benthic Habitat.
- MERC monitoring program project: Team Leader of Coral reef and benthic Habitat.
- Environmental assimilative capacity of coastal habitats and green mariculture of high revenue low environmental burden species on the Jordanian sector of the Gulf of Aqaba Project: Team Leader of Coral reef and benthic Habitat.