

CURRICULUM VITAE

Personal details:

Name: Ahmad Hamed Abu Hilal
Date of birth: 15th October 1944
Nationality: Jordanian
Residential address: Al-Kawthari St. #36
Al Rawnaq, Al Bayader, Wadi Essir,
Amman, Jordan

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Present position, academic affiliation, and address:

Professor of (**Oceanography/Marine Chemistry**)
Dept. of Earth and Environmental Sciences
Faculty of Marine Sciences, University of Jordan/Aqaba
Aqaba –Jordan
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Marital status Married

Educational qualifications :

- **Ph.D.** Oceanography/ Chemical Oceanography Liverpool University/UK
1980
- **M.P.H.** Environmental Chemistry Alexandria
University/Egypt 1973
- **B.Sc.** Chemistry and Geology Cairo University/Egypt
1967

Titles of theses

- **Ph.D.:** *Studies on the Determination and Marine Chemistry of Antimony* 1980
- **Master's Degree:** *Pollution of Alexandria Beaches by Oil* 1973

Professional experience (in brief)

I have conducted, participated and lead research, many monitoring programmes, and surveys in the three Arab Region and four Arab Seas:

- *The Mediterranean – Alexandria, Egypt 1970 – 1973,*
- *Jordan Gulf of Aqaba – Red Sea, 1974 – 1986, and 1993-2000*
- *Arabian Gulf – U.A.E. and*
- *Gulf of Oman – U.A.E. 1989 – 1993*

1. in Jordan Universities

Contributed to the establishment, capacity building and development of the Marine Science Station (MSS), Aqaba, Jordan, which belong to the University of Jordan (in Amman) and Yarmouk University (in Irbid-North Jordan).

1974 – 1977: Lecturer MSS

1976 – 1977: Supervisor of MSS

1980 – 1983: Director, Marine Science Station(MSS)

1984 – 1986: Chairman of MSS Administration Committee

1993 – 2000: Director, MSS and

-Member of the Administrative Council, MSS

2009 – Now Executive Director, University of Jordan/Aqaba & Dean of Faculty of Marine Sciences, University of Jordan/Aqaba

- *Manager of many national environmental monitoring programmes and other consultancy surveys and monitoring programmes in the Gulf of Aqaba, Red Sea.*
- *National Coordinator and/or Scientific Manager of many international and regional scientific research and environmental monitoring programmes in the Gulf of Aqaba – Red Sea in cooperation with or support of the World Bank, EU, USAID, JEF and German Government.*
- *Represented Jordan, Yarmouk University, University of Jordan and Marine Science Station in many official teams, delegates, conferences, workshops and seminars, and meetings at national, regional and international levels.*
- *Contributed towards the efforts of the Government of Jordan, and Ministries, Marine Science Station, University of Jordan, Yarmouk University, Aqaba Region Authority, Aqaba Port Authority, Jordan Environment Society, Royal Society for Conservation of Nature and many other NGOs in education and public awareness and training programmes since 1974, through lectures, scientific paper presentation, slide shows, public environmental campaigns... etc.*
- *Worked as Research Assistant, Researcher, and University Staff,*
- *Participated in the teaching of many courses in environment at Yarmouk University.*

2. in the United Arab Emirates:

1989 – 1993: Desert and Marine Environment Research Center. United Arab Emirates University – Al Ain

- *Contributed towards the establishment, equipping capacity buildup and research in environmental monitoring programmes of the newly established Desert and Marine Research Center, Marine Section. Lead and conducted research and environmental monitoring programmes in coastal waters of the U.A.E. in the Arabian Gulf and the Gulf of Oman and published many scientific papers.*

3. in the Kingdom of Bahrain:

2000-2003: UNESCO – Cousteau Ecotechnie Chair of Environment and Sustainable Development.

At the Deanship of Scientific Research, University of Bahrain.

- *Established a Master's Degree Programme in Environment and Sustainable Development open to all University students of all colleges at the University within the capacity buildup project for the Environment in cooperation and support of the UNDP and UNESCO-Cousteau Ecotechnie Programme of UNESCO.*
- *Participated in many national, regional and international workshops, seminars, conferences and meetings and presented lectures, scientific papers and slide shows for various sectors.*
- *Prepared many scientific reports and documents related to the environment of Bahrain and other Gulf States (GCC states).*
- *Participated in and contributed to the efforts of development of the Deanship of Scientific Research, which included reviewing, amending and updating regulations, bylaws and instructions of the Deanship and the scientific research.*

Employment record:

- **Employment record after Ph.D.**

*1980 - 1986 Assistant Professor - University of Jordan, Amman, Jordan
Marine Science Station*

*1980 - 1984 * Director of the Marine Science Station*

*1984 – 1986 * Chairman - Administration Committee of the Marine
Science Station*

*1986 - 1989 Assistant Professor - Yarmouk University, Irbid, Jordan
Dept. of Earth and Environmental Sciences*

*1988(Sept.) Associate Professor - Yarmouk University, Irbid, Jordan
Dept. of Earth and Environmental Sciences*

*1989 – 1993 Associate Professor - Desert and Marine Research Center,
United Arab Emirates University, Al Ain, U.A.E*

*1993 – 1996 Associate Professor - Yarmouk University, Irbid, Jordan
* Director - Marine Science Station*

*1996 - 2000 Professor - Yarmouk University, Irbid, Jordan
* Director - Marine Science Station*

2000 –2003 **UNESCO-Cousteau Ecotechnie Chair** in Environment and Sustainable Development, Deanship of Scientific Research, University of Bahrain, State of Bahrain

2003 - Now **Professor** – Dept. of Earth and Environmental Sciences Yarmouk University, Irbid, Jordan

2009 – Now Executive Director, **University of Jordan/Aqaba & Dean of Faculty of Marine Sciences, University of Jordan/Aqaba**

- **Employment record after Master’s Degree**

1974 –1977 **Lecturer**-University of Jordan, Amman, Jordan. Marine Science Station.Aqaba, Jordan.

1976 –1977 **Supervisor** -Marine Science Station.

- **Employment record after B.Sc.**

196 –1970 **Teacher**-Ministry of Education, Saudi Arabia.

Teaching experience:

• **Courses taught**

1. *Environmental Problems in the Middle East Region (ES 680). Advanced course for M.Sc students, Yarmouk University, Since 2003.*
2. *Special Topics in Environmental Sciences (ES 692). Advanced course for M.Sc students, Yarmouk University, Since 2003.*
3. *Ecosystems of the Gulf of Aqaba (ES 615). Advanced course for M.Sc students, Yarmouk University, Since 2003.*
4. *Environmental Systems I (ES 601). Advanced course for M.Sc students, Yarmouk University, Since 2003.*
5. *Environmental Systems 2 (ES 602). Advanced course for M.Sc students, Yarmouk University. Since 2003.*
6. *Environmental Impact Assessment (ES 658). Advanced course for M.Sc students, Yarmouk University, Since 2003.*

7. *Environmental Science 1 (ESD 501). Advanced course for M.Sc students, University of Bahrain. 2003.*
8. *Environmental Science 1 (ESD 504). Advanced course for M.Sc students, University of Bahrain, 2003.*
9. *Environmental Impact Assessment (EIA). Advanced course for M.Sc students - Yarmouk University, Since 2007/2008*
10. *Chemical Oceanography and Pollution (Biology 575). Advanced course for M.Sc Students-Yarmouk University, 1983*
11. *Chemical Oceanography and Pollution (Biology 575), Advanced course for M.Sc students - Yarmouk University, (1985)*
12. *Environmental Pollution (Environment 261) Yarmouk University, (1986)*
13. *Principles of Environmental Protection and Conservation of Nature (Env. 371) Yarmouk University, 1980 and 1986 - 1989.*
14. *Man and Environment (Env. 321), Yarmouk University, 1986 -1989.*
15. *Chemistry of Water (Geology, 576), Advanced course for M.Sc students-Yarmouk University, 1986 – 1989*
16. *Environmental Science (ES. 102), Yarmouk University, 2008-2009*

Research interests:

- *Environmental Management*
- *Coastal Area Management*
- *Environmental Pollution, particularly problems related to:*
 - *Sewage Pollution*
 - *Phosphate Pollution*
 - *Oil and Hydrocarbons Pollution*
 - *Trace elements (heavy metals) pollution*
 - *Industrial Pollution*

Grants and contracts

- Most research projects were financed by the Marine Science Station (University of Jordan - Yarmouk University).
- Projects after 1989 were financed by The Desert and Marine Environment Research Center - United Arab Emirates University.
- Projects before 1993 and 1997 were financed by Yarmouk University and Marine Science Station.
- Additional projects between 1996 and 2000, were financed by international, national and local institutions e.g. : World Bank, GEF, USAID through NOAA and Middle East Regional Cooperation Program (MERC), Aqaba Region Authority, Phosphate Mines Company,-Industrial Complex- Aqaba, and private institutions.
- Red Sea Program was financed by the Government of Germany, Ministry of Science and Education.

Honours and awards

Al-Istiqlal Order-Third degree-Awarded by His Majesty Late King Hussein of Jordan (1995).

Committees

- **International**

1. *Arab Association of Oceanography. Representative of Jordan, 1985 – 1994.*
2. *Arab Council for the Marine Environment ALECSO. Representative of Jordan, 1982.*
3. *German-Jordan Aqaba Project. National Coordinator of Jordan and Member of the Steering Committee, 1997 – 2000.*
4. *Red Sea Program (RSP - II), Regional Scientific Project. National Coordinator and Member of the Steering Committee, 1999 – 2000.*
5. *Monitoring and Research Project Gulf of Aqaba. USAID - NOAA-MERC*
6. *Project, Regional Scientific Project. National Scientific Coordinator of Jordan and Member of the Steering Committee, 1999-2000.*
7. *Monitoring of the Gulf of Aqaba Environment: World Bank. Global Environment Facility (GEF)- Aqaba Region, Authority (ARA). (GEF Project). Scientific*
8. *Manager of the Project. 1998 – 2000*
9. *Member of the Executive Council, Inter-Islamic Science and Technology Network on Oceanography (INOC), Izmir, Turkey, 1994 – 2000.*

- **National**

1. *Expert/Consultant on Marine Environment, Jordan Delegates for the Peace Negotiation between Jordan and Israel, 1994.*
2. *Member of the Environment Committee, Jordan Government, for the Implementation of the Peace Treaty between Jordan and Israel, 1994.*
3. *Member of a Jordanian Official Team, Tri-lateral level, visit to the National Parks in the US, 1994-1995.*
4. *Member of the Biodiversity Committee representing Jordan. Biodiversity in the Rift Valley. Tri-lateral level. Higher Council for Science and Technology, 1995.*
5. *Member of the Marine Peace Park Sub-Committee. Aqaba Region Authority. Jordan, 1995.*
6. *Aqaba Committee - The Royal Society for the Conservation of Nature. Since 1982*
7. *Jordanian Biologists Society.*
8. *Phosphate Committee- University of Jordan.*
9. *Aqaba South Coast Committee - Ministry of Municipal, Rural and Environmental Affairs (1983).*
10. *Jordan Environment Society.*
11. *National (IOC) Committee (Jordan)*

- **Universities:**

- **University of Jordan & Yarmouk University**

1. *Council of Marine Science Station – Aqaba, 1981 - 1986*
2. *Committee of the Environment - 1987 - 1989*
3. *Council of Scientific Research - Deanship of Research and Graduate Studies, 1988-1989*
4. *Council of the Marine Science Station – Aqaba, 1993 – 2000*
5. *Committee of Higher Studies- Dept Earth and Environmental Sciences, Yarmouk University. 2003-2008.*

- **University of Bahrain 2000 – 2003**

1. *Steering Committee for UNDP-UNESCO – University of Bahrain Project of Capacity Building of Environment Research Center. (Member), 2000 – 2002.*

2. *Committee for Reviewing the Master's Degree Programme in Environment and Sustainable Development (Chairman), 2000 – 2002.*
3. *Administrative Committee of the Master's Degree Programme in Environmental and Sustainable Development (Programme Coordinator), 2002 – 2003.*

Membership of scientific Committees and professional societies:

- *Member of the Jordan National Intergovernmental Oceanographic Commission (IOC) Committee.*
- *Member of the World Innovation Foundation, U.K.*
- *Member of the National Committee/Environment Sector. National Information Centre, Higher Council for Science and Technology. Amman- Jordan. Since 2004.*
- *Member of the Jordanian Biologists Society of Jordan, Amman, Jordan.*
- *Member of the Arab Society of Oceanography. (1986 – 1994).*
- *Member of the Royal Society for the Conservation of Nature (RSCN).*
- *Member of the Jordan Environment Society*
- *Member of the National Scientific Supervision Committee for Editing of Scientific Educational Books. Ministry of Education. Amman-Jordan (Since 2005)*

Membership of editorial board of scientific journals

- *Journal of the Association of Arab Universities for Basic and Applied Sciences. Refereed Journal, Published by the College of Science, University of Bahrain. Kingdom of Bahrain.*
- *International Journal of Applied Environmental Sciences. Research India Publications. India*
- *Jordan Journal of Earth and Environmental Sciences. Higher Scientific Committee, Ministry of Higher Education and Scientific Research and the Hashemite University. Amman - Jordan*

Professional and scientific meetings

- 1981 *Seminar on Prevention of Marine Pollution, 10 -12 December 1981.*
Inter - Governmental Maritime Consultative Organization (IMO) and The Arab Shipping Federation, Baghdad, Iraq. Held in Amman, Jordan.

- 1982 *Conference on "Man and the Ocean Resources and Development. "Ocean Projects", 12 -14 May, 1982. Tunisia.*
- 1983 *The Indian Scientific Congress, Seventieth Session, 3-8 January 1983, Sri Venkatewara University, Tirupati, India.*
- 1985 *UNESCO Meeting on Development of Marine Sciences in Arab Universities. The Preparatory Committed, Held in Alexandria University, 24 - 27 June, 1985 Alexandria, Egypt.*
- 1985 *Meeting of Experts on Development of Marine Sciences in Arab Universities, UNESCO, 1 - 5 December 1985. Marine Science Station, Aqaba, Jordan. UNESCO Report on Marine Sciences No. 39*
- * **Rapporteur.**
 - * **Paper: Abu-Hilal, A.H. (1985). "Present Situation of Marine Sciences in Arab Universities" (in Arabic).**
- 1985 *The Scientific Conference of Oceanography Departments in Arab Universities, 5 - 7 December, 1985. Marine Science Station - The Union of Arab Universities. Held in Marine Science Station, Aqaba, Jordan.*
- * **Chaired a Session**
 - * **Paper: Abu-Hilal, A.H. (1985). "Distribution and forms of sedimentary phosphorus near a phosphate- polluted coral reef area in the Jordan Gulf of Aqaba, Red Sea".**
- 1986 *University Meeting on "Planning for Scientific Research Programmes in the Marine Science Station, 10-12 December, 1986. Marine Science Station, Aqaba, Jordan.*
- 1987 *The Environmental Education Workshop-UNESCO-Yarmouk University, 10-15 October 1987. Yarmouk University, Irbid, Jordan.*
- * **Paper: Abu-Hilal, A.H. (1987). "Major environmental problems - the water pollution. (In Arabic).**
- 1988 *Environmental Education Workshop "Inclusion of*

Environmental Aspects in Teaching Courses for School Students- Ministry of Education, 1988. Yarmouk University, Irbid – Jordan.

* **Paper: Abu-Hilal, A.H. (1988).** "Effects of environmental pollution on human health (in Arabic).

1991 *The Ecological and Social Systems in the countries of the Gulf Cooperation Council. Faculty of Arts, United Arab Emirates University, 10 -12 March 1990. Al- Ain-UAE.*

* **Paper: Abu-Hilal, A.H. (1991).** "Effect of pollution sources on levels and distribution of nutrients and other pollution indicators in Dubai and Abu Dhabi Creeks (United Arab Emirates).

1991 *Symposium / Workshop on Marine Chemistry in the Arab Region. Suez, Egypt, UNESCO-National Institute of Oceanography and Fisheries (NIOF. 20-23 April, 1990. Suez, Egypt.*

* **Paper: Abu-Hilal, A.H. (1991).** "Observations on the status of the creek waters of the United Arab Emirates: 1 - Nutrients.

1994 *Expert/Consultant on Marine Environment, Jordan Delegates for the Peace Negotiation Between Jordan and Israel.*

1994 *Member of the Environment Committee, Jordan Government, for the Implementation of the Peace Treaty Between Jordan and Israel.*

1994 / 1995 *Member of a Jordanian Official Team, Tri-lateral level, visit to the National Parks in the US.*

1995 *Member of the Biodiversity Committee representing Jordan. Biodiversity in the Rift Valley. Tri-lateral level. Higher Council for Science and Technology.*

1995 *Member of the Marine Peace Park Sub-Committee. Aqaba Region Authority. Jordan.*

1995 *Member of the Jordan National Intergovernmental*

Oceanographic Commission (IOC) Committee.

- 1995 *Workshop on Impact of War on Development and Environment. Jordan Environment Society and Fredrich Nauman Corporation May 24, 1995.*
- Presentation: Abu-Hilal, A.H. (1995). Impact of the Gulf War on development and environment.***
- 1995 *Workshop on Oceanographic Inputs to Integrated Coastal Zone Management in the Red Sea and Gulf of Aden. IOC/UNEP/ PERSGA/ACOPS. Jeddah, Saudi Arabia, October 8, 1995.*
- * ***Paper: Abu-Hilal, A.H. (1995). "The Problem of phosphate pollution in the northern Gulf of Aqaba".***
- 1995 *"Sea to Sea" Regional Conference on Sustainable Use of Marine Resources of the Red Sea and Gulf of Aden and the ROPME Sea Area. Programme for the Environment of the Red Sea and Gulf of Aden (PERSGA). Regional Organization for the Protection of the Marine Environment (ROPME). ACOPS, UNEP, UNDP (Saudi Arabia). October 9-12, 1995.*
- 1995 *Workshop on Environmental Education and Case Studies. Jordan Environment Society and Fredrich Nauman Corporation. Nov. 19-23, 1995.*
- 1995 *Regional Seminar on Integrated Coastal Zone Management in the Middle East. Aqaba, Jordan, October 21-24. Ministry of Water and Irrigation of the H.K. Jordan, The Jordan Environment Society and Economic Development Institute: Environ. Dept. and the Middle East and North Africa Technical Departments, Environment Division of the World Bank. Aqaba, Jordan, October 21 -24.*
- 1996 *Member of the Jordan- French, Joint Committee. July 4, 1996.*
- 1996 *Scientific Steering Committee of Red Sea Program. RSP Meeting. Taba- Egypt. July 15-16, 1996. Represent Jordan.*
- 1996 *Workshop on Environmental Education. Jordan Environment Society and Fredrich Nauman Corporation. Main-Jordan,*

December, 3-6,1996.

Presentation: Abu-Hilal, A.H. (1996). *The marine environment: facts and figures.*

- 1996 *1996 Special Conference: Twenty-Five Years Research in the Gulf of Aqaba - Essen University Germany. June 1996. Represented the Marine Science Station - Jordan.*
- 1997 *Jordan National Specialized Committee on Designing Pollution Monitoring System for Jordan. The Higher Council for Science and Technology- Amman -Jordan, July, 1997.*
- 1997 *National Committee for Putting Environmental Standards. The Higher Council for Science and Technology. Amman-Jordan April 27, 1997.*
- 1997 *Member of the Executive Council, Inter-Islamic Science and Technology Network on Oceanography (INOC), Izmir, Turkey. Since 1994.*
- 1997 *Fourth General Body Meeting of INOC Izmir - Turkey,*
- 1997 *Fifth General Body Meeting of INOC, Izmir-Turkey, October 223-29, 1997.*
- 1998 *Member of the Protection of Marine Environment Act Drafting Committee.*
- 1999 *Proceedings; Conference on “The 1999 Maritime Safety Coloquim. Pendragon Applied Research”, Lawrencetown, Nova Scotia, Canada, Aqaba-Jordan, November 1999.*
- * **Paper: Abu-Hilal, A.H. (2000).** *Environmental issues in the Gulf of Aqaba. Jordan perspective. Topic 12, 1-8.*
- 2000 *Sixth General Body Meeting of INOC, Izmir, Turkey, July 2000*
- 2000 *Workshop MED 2000. Education, Research and Technology for Fisheries and Aquaculture in the Eastern and Southern Mediterranean. Organized by: INOC-IMST-IDB. Izmir, Turkey 4-6 July, 2000. Institute of Marine Science and Technology. Izmir – Turkey.*

- * **Paper:** (Abstract). **Abu-Hilal, A.H.** and Zibdeh, M. (2000). *Marine science research, teaching and training at Marine Science Station (University of Jordan and Yarmouk University).*

- 2000 28th *Pacem in Maribus Conference and Workshop on “Subtropical to tropical seas, with particular consideration for the needs of developing countries”.* 3-6 December 2000, BLG Consult. Hamburg, Germany.

- * **Paper:** **Abu-Hilal, A.H.** (2000). *Hot issues for coastal zone management in the Middle East.*

- 2001 3rd *Workshop of the Arab Regional Ecotechnie Network (AREN). “Education for Sustainable Development” Rabat, April 21 – 25, 2001. Organized by the Faculty of Education Science, UNESCO Cairo Office, UNESCO Rabat Office, The UNESCO-Natural Gas Chair on Sustainable Development, Faculty of Arts and Human Sciences, Univ. Mohamed, V, Souissi, Rabat and Dept. of Environ., Ministry of Land Management and Urbanization. Rabat, Morocco.*

- * **Paper:** **Abu-Hilal, A.H.** (2001). *Master’s degree programme in environment and sustainable development at the University of Bahrain.*

- * **Paper:** **Abu-Hilal, A.H.** and Abbas, J.A. (2001). *Education and research for the promotion and application of the concept of environment and sustainable development in Bahrain: The University of Bahrain approach.*

- 2001 *Seminar on “Our Marine Environment is a Renewable Natural Resource”.* Third National Day of Bahrain, on the Protection of Wildlife. 27th February 2001.

- * **Paper:** **Abu-Hilal, A.H.** (2001). *Solid waste in the marine environment is an international problem – with special reference to the Arabian Gulf region.*

- 2001 *Seminar on “The State of Tourism in Bahrain and Future Prospects”.* Department of Information, Tourism and Arts, University of Bahrain, 6-7 January 2001, Manama, Bahrain.

- * **Paper: Abu-Hilal, A.H.** (2001). *Impact of tourism on society and the environment – with special reference to marine environment*
- 2001 *Scientific Committee on Problems of the Environment (SCOPE) of the International Council for Science – ICSU XIth General Assembly and Scientific Symposia. SCOPE, Center for Tropical Marine Ecology (ZMT), Bremen, DFG and Bremen University. Bremen - Germany, 24 – 28 September 2001.*
- 2002 *The First Quest Conference: Quest 2002 for the Middle East and North Africa (Qatar United for the Environment, Science and Tehcnology. Expoline, The Supreme Council for the Environment and Natural Reserves, and UNESCO, Doha – Qatar. 27 – 30 January 2002.*
- * **Paper: Abu-Hilal, A.H.** (2002). *A New higher educational programme in environment and sustainable development at the University of Bahrain suitable for students of the GCC countries.*
- 2002 *International Ecotechnie Chairs Workshop, UNESCO-Cousteau Ecotechnie Programme (UCEP). UNESCO headquarters, Paris, France, 25 – 27 March 2002.*
- * **Paper : Abu-Hilal, A.H.** (2002). *The Master’s degree programme in environment and sustainable development at the University of Bahrain.*
- 2002 *International Symposium on Science and Technology: A New Vision for Bahrain, Ministry of Education, The Kingdom of Bahrain and UNESCO. Bahrain 20 – 22 April 2002.*
- 2003 *Planning Meeting on the Development of a UNEP Module for the Assessment of the Coastal and Marine Environment. Nairobi, Kenya, 19-21 November 2003.*
- 2004 *UNEP Workshop on Integrated coastal Management: Control of Pollution from Land Based activities. 5-7 April, 2004, Amman, Jordan.*
- Paper: Abu-Hilal, A.H.** (2004). *Concept, approaches and principles of integrated coastal area management with*

- special reference to land-based sources of pollution.*
- 2004 **Paper: Abu-Hilal, A.H. (2004).** Hot issues for coastal zone management in the Arab countries
Jordan Third Environmental Conference on Resources, Environment, and Sustainable Development. Yarmouk University in Association with Jordan Geologists Association and Ministry of Water and Irrigation. 14-15 December, 2004, Irbid, Jordan.
- 2005 **Paper: Abu-Hilal, A.H. (2005).** Recent trends in environmental education.
Regional Training Course on Beach Water, Pools, Water Quality Guidelines and Surveillance. WHO, CEHA Office. Amman, Jordan, 20-21 June 2005.
- 2005 *Youth and Environment Workshop. Al Ahliyya Amman University. Amman, Jordan, 13 July 2005.*
- Youth and Environment Conference/ A Sector in the National Strategy for Youth (Jordan). Al Ahliyya Amman University in Cooperation with the Higher Council for Youth. . Amman, Jordan, 22 December 2005.*
- 2006 **Paper in Arabic: Abu-Hilal, A.H. (2005).** The concept of environment and sustainable development
Conference on the Importance of Scientific Research for The Private and Public Sectors and Increase of their Productivity. Deanship of Scientific Research and Higher Studies, Yarmouk University, Irbid, Jordan, 30 May 2006.
- 2007 **Paper: Abu-Hilal, A.H. (2007).** Environmental education and research for sustainable development.
International Conference on Rapid Urbanization and Land Use Conflicts in Coastal Cities. Marine Science Station (University of Jordan and Yarmouk University), Aqaba, Jordan and Inter Islamic Science and Technology Network on Oceanography, Izmir, Turkey. Aqaba, Jordan 30 October- 01 November 2007.
- Paper: Abu-Hilal, A.H. (2007).** Contributions of scientific workshops to the issue of coastal zone management in the

2008 *Middle East countries.*

2008 Seminar “Scientific Research and Society”. The Deanship of Scientific Research, Yarmouk University, Irbid- Jordan. April 2008.

Presentation: Abu-Hilal, A.H. (2008). Role of scientific research in understanding and solving environmental problems facing the society

Middle Eastern Biodiversity Congress. Middle Eastern Biodiversity Network. Aqaba, Jordan, 20-23 October 2008.

Keynote presentation: Abu-Hilal, A.H. (2008). Jordan efforts to protect and manage the marine environment and biodiversity in the Gulf of Aqaba.

Master’s theses supervision:

1. *Sources, Characteristics and Environmental Impact of Sand for Beach Nourishment along the Jordanians Shores of the Gulf of Aqaba. Entisar Al-Hihi.*
2. *Algae and Seagrass as Bioindicators for Trace Metals Pollution along the Jordanian Coasts of the Gulf of Aqaba. Yousef Abu-Kharma.*
3. *Zooplankton as Possible Bioindicator of Trace Metals in the Gulf of Aqaba, Red Sea. Jamal Bani-Fawaz.*
4. *Metal Contents of Recent and Fossil Corals: First Record from the Jordan Gulf of Aqaba Red Sea. Rashid Nazzal AL-Shloul.*
5. *Sea Urchin *Diadem setosum* as a Possible Bioindicator for Trace Metal Pollution in the Gulf of Aqaba, Red Sea. Mohammad Tawaha.*
6. *Zooplankton and Chlorophyll a Relation to other Environmental Pollution Parameters in Gulf of Aqaba and King Talal Dam, Jordan. Rai'd Issa Jawasreh.*
7. *Nutrients and Selected Heavy Metals in Water, Suspended Matter, and Sediments of King Talal Dam. Mahmoud Abu Al-Haija.*
8. *Heavy Metals in Gastropods from the Intertidal Zone along the Jordanian Coast of the Gulf of Aqaba. Ahmad Hamdan Al-Qatamin.*
9. *Transportation and Accumulation of Raw Phosphate Dust Particles in Coastal Water Around a Phosphate Loading Berth on the Gulf of Aqaba-Red Sea. Mabrouk Mohammed Al-Rawajfeh.*
10. *Dissolution of Jordanian Raw Phosphate (Apatite) in Sea Water of the Gulf of Aqaba Under the Effect of Different Values of Temperature, pH and Reduced Sedimentary Environment. Ayman Hamdan Jammal.*

11. *Environmental and Socioeconomic Factors Affecting Quality of Water in Roof Storage Tanks and Point-of-Use in Three Human Settlements Within Jerash Governorate. Dana Ali Salem Bani Mustafa.*
12. *Sea Cucumber as a Possible Bioindicator for Trace Metal Pollution in the Gulf of Aqaba, Red Sea. Mustafa Al Shabi.*

Publications

Published:

- i.
2. *Hakim, K.M., Abu-Hilal, A.H. (1973). Water pollution by oil in Alexandria. First Sci. Conf. Environ. Pollut. 8-10 May, pp. 35-42. Alexandria, Egypt.*
3. *Abu-Hilal, A.H., Riley, J.P. (1981). The spectrophotometric determination of Antimony in water, effluents, marine plants and silicates. Analyt. Chim. Acta. 131:175-186.*
4. *Hulings, N.C., Abu-Hilal, A.H. (1983). The temporal distribution of nutrients in the surface waters of the Jordan Gulf of Aqaba. Dirasat. 10:91-105. University of Jordan, Deanship of Research, Amman, Jordan.*
5. *Abu-Hilal, A.A. (1985). Phosphate pollution in the Jordan Gulf of Aqaba. Mar. Pollut. Bull. 16:281-285.*
6. *Abu-Hilal, A.H. (1986). Fluoride distribution in the Jordan Gulf Aqaba (Red Sea). Sci.Total Environ. 49: 227-234.*
7. *Abu-Hilal, A.H. (1987). Distribution of trace elements in near shore surface sediments from the Jordan Gulf of Aqaba (Red Sea). Mar. Pollut. Bull. 18: 190-193.*
8. *Abu-Hilal, A.H. (1987). Distribution and forms of phosphorus in a phosphate polluted coral reef area in the Jordan Gulf of Aqaba. Dirasat. 14:137-150. University of Jordan, Deanship of Research, Amman, Jordan.*
9. *Grelet, Y., Falconetti, C., Thomassin, B.A., Vitiello, P., Abu-Hilal, A.H. (1987). Distribution of the macro and meiobenthic assemblages in the littoral soft bottoms of the Gulf of Aqaba (Jordan). Atoll Res. Bull. 308: 1-27.*
10. *Leger, G., Millot, C., Mahasneh, D., Vaugelas, J., Abu-Hilal, A.H., Jaubert, J. (1985). Measurements of currents in a nearshore area of the*

Jordan coast of the Gulf of Aqaba. Oceanographic Mission Reports.
pp.1-17.

11. **Abu-Hilal, A. H.**, Badran, M.I., Vaugelas, J. (1988). Distribution of trace elements in **Callichirus lauræ** burrows and nearby sediments in the Gulf of Aqaba, Jordan (Red Sea). *Mar. Environ. Res.* 25: 233-248.
12. **Abu-Hilal, A .H.**, Badran M.I. (1990). Effect of pollution sources on metal concentration in sediment cores from the Gulf of Aqaba (Red Sea). *Mar. Pollut. Bull.* 21: 190 -197.
13. **Abu-Hilal, A .H.**, AL Qasimi, R.A .A., Adam, A.B. (1991). Observations on the status of the creek waters of the United Arab Emirates: 1- Nutrients. *J. Nat. Inst. Oceanogr. Fisheries (NIOF). Alexandria-Egypt.*
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