Mohammed H. Abu-Dieyeh Professor in Environmental Botany/ Applied Plant Ecology



Acting Department Head Dept. of Biological and Environmental Sciences, Qatar University. Doha-Qatar

Dept. of Biology and Biotechnology, The Hashemite University, Zarqa-Jordan

PERSONAL INFORMATION

Full name:	Mohammed H. Abu-Dieyeh		
Date of birth:	14/02/1963		
Nationality:	Jordanian/ Canadian		
Academic Position:	Associate Professor/ Department Head		
Social Status	Married		
Contacts	Office +974 44036571		
	Cellular: +974 74018584 e-		
	mail: <u>dandelion@qu.edu.qa</u> ,		
	dandelion@hu.edu.jo		

EDUCATION

Period	University	Degree	Average
2002 -2006	McGill University, Plant Science Dept. Montreal- CANADA	PhD , Plant Science (Applied plant ecology)	(3.7/4) Thesis
1985-1988	Univ. of Jordan- Bio. Sci.	M.Sc. , Biological Sciences (Animal biology and ecology)	90.1% Honor degree
1981-1985	Univ. of Jordan- Bio. Sci. Dept, Amman- Jordan.	B.Sc. , Biological Sciences	80.9% Honor degree

THESES TITLES

- **Ph.D Thesis:** Population dynamics of dandelion, *Taraxacum officinale* as influenced by a biocontrol agent *Sclerotinia minor*.

- **M.SC. Thesis:** Ecology of some rodents in Wadi Araba, Jordan with a special reference to *Acomys cahirinus*

<u>RESEARCH INTEREST</u>

- (i) Main field: Applied Ecology/ Biocontrol/ Environmental Botany
- (ii) Other fields: Bio and Phytoremediation, Weed Biology and Biocontrol; Plant Microbial Interactions; Weed Biology & Ecology; Biocontrol; Bioherbicides; Allelopathic effects on plants; Aerobiology (airborne fungal spores and pollen grains); Medicinal plant bio-products (antimicrobials).

<u>SHORT BIOGRAPHY</u>

I achieved honor degrees in both B.Sc. and M.Sc. in biological sciences from Jordan University in Amman, Jordan in 1985 and 1988, respectively. From 1988 and up to 2002, I worked in teaching and research in several Universities in Jordan and Qatar. In 2002, I joined Plant Sciences Department at McGill University, Canada where I obtained my PhD degree in Plant Sciences. During my PhD study, I awarded several travel grants as well as the best "Pest Management Research Graduate Student Award" in 2006 from The Canadian Society of Agronomy. I joined The Hashemite University, Zarqa since 2006 as Assistant Professor and I chaired the Department of Biology and Biotechnology for three years and promoted to Associate Professor in 2012. I moved to Qatar University since September 2013 as Associate Professor in the Department of Biological and Environmental Sciences and from 2013 and up to September 2019, I appointed as an Acting Head of the Department. In October 2020, I have been promoted to Full professor at the Department of Biological and Environmental Sciences, Qatar University

In my PhD thesis research, I worked on the interactions of ecological factors with weed biocontrol project in Professor Alan Watson lab. I was able to publish six original articles from my thesis work in highly recognized journals. As I moved to Jordan in 2006 and worked in the Hashemite University, which is located in an arid land environment and weeds, are not a highlighted field for research. I decided to look at my expertise in other fields so I established two major research areas, one in plant allelopathy and the other on aerobiology (air-borne fungal spores and pollen grains) and again I was able to publish my research outcome in highly recognized journals in the assigned field of research. In 2013, I moved to department of biological and environmental sciences at Qatar University. Again, I faced a new challenge, as the priority of research in Qatar is more about environment pollutants, wastewater, water and food security and biodiversity with good opportunities to supervise graduate student research. Therefore, I joined multidisciplinary research projects about wastewater use and treatment, phyto- and bio-remediation of heavy metal pollutants in soil and wastewater and aerobiology. Recently I established new research projects about Plant microbial interactions (endophytes, mycorrhizae and rhizobacteria) for the sake of enhancing crop plant growth.

AWARDS

1-King Hussein Award for outstanding students, Jordan, 1985.

2-Hashemite University PhD candidate scholarship, Zerqa-Jordan, 2002-2005. 3-Alma mater student travel grant, March 2005, McGill University. 4-FAES Agri-Food Travel Grant, March 2005, McGill University 5-Dow AgroSciences Canada Inc, 2005 Travel Award in Weed Science. 6-Pest Management Research Graduate Student Award, 2006, Pest Management Committee – Canadian Society of Agronomy, Canada.

- **7- International Weed Science Society travel grant.** 5Th International Weed Science Congress 23-27 June 2008. The Westin Bayshore, Vancouver, BC, Canada.
- 8- Outstanding UREP Research Project Award, QNRF. (March 6, 2017).
- **9- First Prize of Qatar National Research Funds** of the 10th QNRF annual undergraduate research experience program. QNRF, April 2018.

10- Academic Outstanding Performance 2017-2018, College of Arts and Sciences, Qatar University. (June 2018).

11- جائزة المركز الأول لأحسن فيلم مشارك في مبادرة "ديسمبر الأدعم" تحت شعار "مرابع الأجداد أمانه" لعام 2021. الفيلم بعنوان "النخيل عنوان أهل قطر". مركز جامعة قطر للعلماء الشباب. جامعة قطر.

PROFESSIONAL EMPLOYMENT

Period	Job title and academic duties		
1 st Sep 2019 – up to date	Acting Department Head		
	Dept. of Biological and Environmental Sciences, College of Arts and		
	Sciences, Qatar University).		
25 October 2020	Professor (Dept. of Biological and Environmental Sciences, College		
	of Arts and Sciences, Qatar University).		
	Graduate Program Coordinator: (M.Sc. Environmental		
Sep 10 2014 – August 2019	Sciences; PhD Biological and Environmental Sciences)		
	Dept. of Biological and Environmental Sciences, College of		
	Arts and Sciences, Qatar University).		
1 st Sep 2013 up to Oct	Associate professor (Dept. of Biological and Environmental		
2020	Sciences, College of Arts and Sciences, Qatar University).		
	Snice Fall 2013 and up to date, I am teaching the following		
	courses:		
	(1) Undergraduate level		
	BIOL 422, Environmental Management and conservation		
	BIOL 102, Biology-2		
	BIOL 100, Introduction to Life Science		
	BIOL 351, Plant Anatomy and Physiology		
	(2) Graduate level		
	BIOL 501, Earth systems (M.Sc. students)		
	BIOL 523, Biological Conservation and Biodiversity in Qatar		
	BIOL 616, Biodiversity (PhD students)		
	BIOL 602, Lab Rotation I		
	BIOL 603 Lab Rotation II.		
	(3) Supervision of 23 Capstone projects		
	(4) Supervision of (15 M.Sc., 3 PhD and 2 ongoing PhD Theses)		
Nov 25th 2012 Lip to	Associate professor (Dept. of Biology and Biotechnology, The		
Data (uppaid vacation)	Hashemite University, Zarqa-Jordan).		
Sop 10th 2006 Nov 25th	Aggistant Professor (Dant. of Pielogy and Pietochnology The		
2012	Assistant Fromessor (Dept. of Biology and Biolecinology, The Hashemite University Zaraa-Jordan) Teaching the following		
2012	courses: (1) B Sc. level: General Biology, Plant Biology, Ecology		
	Reproductive Plant Biology, Selected topics, Seminar, Phycology,		
	Animal Biology and Vertebrates (2) M.Sc. level: Applied		
	ecology. Ecosystem Management and Pest Integrated		
	Management, in addition to the supervision of six M. Sc.		
	students.		
Nov 25 th 2012 – Up to Date. (unpaid vacation) Sep 10 th 2006 – Nov 25 th 2012	 (3) Supervision of 23 Capstone projects (4) Supervision of (15 M.Sc., 3 PhD and 2 ongoing PhD Theses) Associate professor (Dept. of Biology and Biotechnology, The Hashemite University, Zarqa-Jordan). Assistant Professor (Dept. of Biology and Biotechnology, The Hashemite University, Zarqa-Jordan). Teaching the following courses: (1) B.Sc. level: General Biology, Plant Biology, Ecology, Reproductive Plant Biology, Selected topics, Seminar, Phycology, Animal Biology and Vertebrates. (2) M.Sc. level: Applied ecology, Ecosystem Management and Pest Integrated Management, in addition to the supervision of six M. Sc. students. 		

Sep 5 th 2008 up to Sep 6 th	
2011	Head of Biology and Biotechnology Dept. The Hashemite University, Zarqa-Jordan. (I chaired the department for three consecutive years working with 22 faculty member, 5 Teaching and research assistants, 5 technicians, ~600 students; 2 B.Sc. programs (Biological Sciences and Biotechnology) and one M.Sc. program (Biological Sciences).
Jun 5 2007- Sep 5 2007 Jun 15 2008 – Sep 1 st 2008	 Visiting Scientist (Dr. Alan K. Watson Lab., Plant Science Dept., McGill University, Montreal–Canada) working on the projects (1) Improving the efficacy of the mycoherbicide Sclerotinia minor on broadleaf weeds (2) Effect of host plant age and competition on the efficacy of Sclerotinia minor on broadleaf plantain and knotweed. (3) Biocontrol of Pythium diseases in tomato using rhizobacteria (Dr. Donald Smith lab., Plant Science Dept., McGill University, Montreal–Canada).
Sep 2003 - 31 Aug 2006	Research and Teaching Assistant (Plant Science Dept., McGill University , Montreal – Canada). Teaching the practical part of the following two courses: Agricultural Botany and Principles of Plant Sciences
Oct 1994 - Sep. 2002	Instructor (Applied Sci. Dept., Qatar college Of Technology, Doha-Qatar). I taught the following courses: General biology, Functional anatomy, General Microbiology, Microtecniques, Laboratory Analysis, Ecosystem processes, Breeding of laboratory organisms and Parasitology & animal pests. - During the work, I supervised six graduation projects and three field-training courses for Applied biology, and health inspection students.
Sep 1985- Sep 1994	Lecturer in several colleges and universities in Jordan (Intermediate University College, Amman-Jordan; Mu'atah University, Karak-Jordan; Jordan University, Amman-Jordan; Applied Science University, Amman-Jordan).

THESES SUPERVISION

Supervision of M.Sc theses in Biological and Environmental Sciences

1) A study of airborne pollen grains in the atmosphere of Zarqa area, Jordan/ Hashemite University/ 2008-2010. **Main Supervisor**

2) A study of Air-borne fungal spores in the atmosphere of Zarqa area, Jordan/ Hashemite University Hashemite University/ 2008-2011. **Main Supervisor**

3) Antimicrobial activities of different crude extracts of the white wall rocket, *Diplotaxis erucoides/* Hashemite University/ 2009- 2011. Main Supervisor

- 4) Screening of Rhizobacteria for their antagonistic activities against certain plant pathogens/ Hashemite University/ 2010- 2013. Main Supervisor
- 5) Ecological Impacts of Waste Water Drained from Yeast Industry on Weed communities in Al-Russiefa Area, Jordan/ Hashemite University/ 2010- 2013. Main Supervisor

6) The effect of olive oil mill wastewater (OMW) on certain plant pathogens/ Hashemite University/ 2008-2010. **Co-supervisor**

7) Evaluation of Salt Tolerance in Selected Qatari Halophytes at the Two Initial Growth Stages/ Qatar University/ 2014-2015. **Main Supervisor** **8**) Dynamics (Seasonal and Intra-diurnal) of air-borne fungal spore population of Doha Area, Qatar/ Qatar University/ 2015-2016. **Main Supervisor**

- **9**) Grass establishment, weed populations and soil microbial succession in turf grass system as influenced by produced water irrigation/ Qatar University 2016- 2017. **Main Supervisor.**
- **10**) Screening and Evaluation of Collected Rhizobacteria Isolated from Qatari Soil against Common Plant Pathogens. Qatar University 2017- 2018. **Main Supervisor**.
- **11**) Mobile epifauna associated to artificial substrates in offshore Qatari waters. Qatar University 2017- 2018. **Co-Supervisor.**
- **12**) Effective Methodologies for Isolation and Evaluation of Endophytes from Qatari halophytes. Qatar University 2017- 2018. **Main Supervisor.**
- 13) Antimicrobial and Cytotoxic Activities of Selected Qatari Flora. Qatar University 2017- 2018.
 Co- Supervisor.
- 14) Screening and Evaluation of Rhizobacteria Isolated from Qatari Soil against Common Plant Pathogen. Qatar University 2017- 2018. Main Supervisor.
- **15**) Application of biochar produced from *Prosopis juliflora* for the removal of heavy metal pollutants from contaminated soil and wastewater. Qatar University 2021- current. **Main Supervisor.**

Supervision of PhD theses in Biological and Environmental Sciences

1) Heavy metals hyper-accumulation and the role of stress induced proteins in plants phytoremediation mechanism/ Qatar University 2016- 2019. **Main Supervisor**

Ongoing PhD theses supervision

1) Isolation and Applications of Endophytes from Qatari halophytes. Qatar University 2017current. **Main Supervisor.**

2) Influence of AMF isolated from arid zones on plant growth, protein concentrations and response to salinity conditions with a special reference of Alfalfa (*Medicago sativa*). Qatar University 2019- current. **Main Supervisor.**

3) *Prosopis juliflora* extracts as anti-spoiling agent, *in-vitro* and *in-vivo* effects of crude extracts and active ingredients. Qatar University 2019- current. **Main Supervisor.**

SUPERVISION of Undergraduate Research senior Projects

- 1) Detoxification of mercury pollutant extracted from spent fluorescent lamps by bacterial strains. Qatar University/ 2014-2015
- 2) Antifungal activities of leaf extracts of *Prosopis juliflora* (Sw.) DC. on post-harvest fungal pathogens. Qatar University/ 2015-2016
- **3)** Allelopathic effects of the invasive *Prosopis juliflora* (Sw.) DC. on germination potential of seeds of selected Qatari native plant species/ Qatar University/ 2015-2016
- **4)** Effect of salinity gradient and soil type on vegetation of Qatari coastal areas/ Qatar University/ 2015-2016.
- 5) Bioremediation of Mercury Extracted from Discarded Fluorescent Lamps Using Bacterial
- Strains from Qatari Environment. Qatar University/ 2015-2016
- 6) Investigating allelopathic potential of selected Qatari plants with shrubby-trees and trees growth habit. Qatar University/ 2016-2017
- 7) Dynamics of fungal populations in the indoor air environment of library and student activities' dwellings at Qatar University Campus. Qatar University/ 2016-2017
- 8) Dynamics of Fungal Populations in the Indoor Air Environment of Selected Dwellings (Class Rooms) at Qatar University's Campus. Qatar University/ 2016-2017
- 9) Investigating Allelopathic Potential of Selected Qatari Plants with Bushy Growth Habit. Qatar University/ 2016-2017

- 10) DETERMINATION OF AFLATOXINS IN COFFEE. Qatar University/ 2016-2017.
- 11) Antifungal activities of Qatari halophytes. Qatar University/ 2017-2018.
- 12) Indoor Mycoflora in the Library and Bookstore of Qatar University Campus. Qatar University/ 2017-2018.
- **13)** Antimicrobial Activities of Root Extracts of Selected Qatari Halophytes (*Avicennia marina* and *Tetraena qatarensis*). Qatar University/ 2018-2019.
- 14) Anti-microbial & Anti-fungal activities of selected halophytic plant (*Suaeda vermiculata* and *Halopeplis perfoliata*) roots in Qatar. Qatar University/ 2018-2019.
- **15)** Antimicrobial Activity of crude extracts of *Aeluropus lagopides* and *Heliotropium bacciferum*. Qatar University/ 2018-2019.
- **16)** Antimicrobial activities of root crude extracts of Qatari halophytes *Arthrocnemum macrostachym*, and *Caroxylon imricatum*. Qatar University/ 2018-2019.
- **17)** EVALUATING INDOOR AIR-BORNE FUNGAL SPORE POPULATIONS IN THE ATMOSPHERE OF QATAR UNIVERSITY CAMPUS USING SETTLE PLATE TECHNIQUE. Qatar University/ 2018-2019.
- **18)** Chromium metal (Cr) bioconcentration and effect on seed germination and seedlings development in *Calotropis procera*. Qatar University/ 2019-2020.
- **19)** Effect of crude extracts of *Prosopis Juliflora* on sporulation of selected fungal species. Qatar University/ 2019-2020.
- 20) DNA Fingerprinting of *Prosopis juliflora* in Qatar. Qatar University/ 2019-2020.
- **21**) Effect of leaf extracts of three *Prosopis* sp. on the sporulation of fungal spoiling agents isolated from locally produced fresh fruits. Qatar University/ 2020-2021.
- **22**) *Prosopis juliflora* extracts as anti-spoiling agent, in-vitro and in-vivo effects of crude extracts". Qatar University/ 2020-2021.
- 23) ISOLATION OF ENDOPHYTES FROM A SELECTED QATARI HALOPHYTE AND THEIR BIOCONTROL APPLICATIONS. Qatar University/ 2020-2021.

CURRENT RESEARCH

- 1. Effect of salinity and temperature on seed germination of Qatari Halophytes
- 2. Isolation and characterization of Rhizobacteriae collected from arid land habitat to be used as antagonists on selected plant pathogens.
- 3. Anti-microbial (bacterial, fungal and algal) effects of Diplotaxis erucoides
- 4. Aerobiology (fungal spores and pollen grains) of Doha, Qatar.
- 5. Bioremediation of Hg extracted from fluorescent lambs using bacteria isolated from Qatari soil.
- 6. Ecology of saline vegetation in Qatar.
- 7. Effect of plant extracts as antifungal for post-harvest diseases.
- 8. Indoor mycoflora in classrooms and student service dwellings at Qatar University Campus
- 9. Endophytes of Qatari halophytes
- 10. IN-vitro assessments of Anti-fungal agents from Qatari halophytes
- 11. Phytoremediation of heavy metals from polluted soil and water

PUBLICATIONS (in peer reviewed International journals)

- 1. Alrajhei, K., Saleh, I., & Abu-Dieyeh, M. H. (2022). Biodiversity of arbuscular mycorrhizal fungi in plant roots and rhizosphere soil from different arid land environment of Qatar. *Plant Direct*, 6(1), e369. <u>https://doi.org/10.1002/pld3.369</u>
- Iman Saleh, Mohammed Abu-Dieyeh (2022) Novel *Prosopis juliflora* leaf ethanolic extract coating for extending postharvest shelf-life of strawberries, Food Control, Volume 133, Part B, 2022, 108641,ISSN 0956-7135, https://doi.org/10.1016/j.foodcont.2021.108641
- 3. Saleh, I., & Abu-Dieyeh, M. (2022). Evaluation of novel *Prosopis juliflora* water soluble leaf ethanolic extract as preservation coating material of cucumber. *Journal of Food Processing and Preservation*, 00, e16352. https://doi.org/10.1111/jfpp.16352
- 4. Alhaddad, F.A., **Abu-Dieyeh, M.H***., ElAzazi, ES.M. *et al.* (2021) Salt tolerance of selected halophytes at the two initial growth stages for future management options. *Sci Rep* **11**, 10194 (2021). <u>https://doi.org/10.1038/s41598-021-89462-3</u>.
- Ali, M.; Ahmed, T.; Abu-Dieyeh, M.; Al-Ghouti, M. Environmental Impacts of Using Municipal Biosolids on Soil, Plant and Groundwater Qualities. *Sustainability* 2021, 13, 8368. <u>https://doi.org/10.3390/su13158368</u>
- Da'ana, D.A., Zouari, N., Ashfaq, M.Y., Abu-Dieyeh, M.H., et al. (2021) Removal of Toxic Elements and Microbial Contaminants from Groundwater Using Low-Cost Treatment Options. Curr Pollution Rep (2021). <u>https://doi.org/10.1007/s40726-021-00187-3</u>.
- Saleh, I., Abu-Dieyeh, M.H.* (2021) Novel *Prosopis juliflora* leaf ethanolic extract as natural antimicrobial agent against food spoiling microorganisms. *Sci Rep* 11, 7871 (2021). https://doi.org/10.1038/s41598-021-86509-3
- 8. Rana S. Al-Absi, **Mohammed Abu-Dieyeh**, Mohammad A. Al-Ghouti, (2021) Brine management strategies, technologies, and recovery using adsorption processes, Environmental Technology & Innovation, Volume 22, 2021, 101541, ISSN 2352-1864, <u>https://doi.org/10.1016/j.eti.2021.101541</u>.
- Fayad, R.K.; Al-Thani, R.F.; Al-Naemi, F.A.; Abu-Dieyeh, M.H*. (2021) Diversity, Concentration and Dynamics of Culturable Fungal Bioaerosols at Doha, Qatar. Int. J. Environ. Res. Public Health 2021, 18, 182. <u>https://doi.org/10.3390/ijerph18010182</u>
- Alhaddad, F.A., Abu-Dieyeh, M., Da'ana, D. *et al.* (2021) Occurrence and removal characteristics of phthalate esters from bottled drinking water using silver modified roasted date pits. *J Environ Health Sci Engineer* (2021). <u>https://doi.org/10.1007/s40201-021-00642-9</u>
- 11. Usman, K., **Abu-Dieyeh, M.H***., Zouari, N. *et al.* Lead (Pb) bioaccumulation and antioxidative responses in *Tetraena qataranse*. *Sci Rep* **10**, 17070 **(2020)**. <u>https://doi.org/10.1038/s41598-020-73621-z</u>

- Alhaddad F.A., ALrajhei K.N.H., Abu-Dieyeh M.H.* (2020) Biodiversity and Possible Utilization of Halophytes in Qatar. In: Grigore MN. (eds) Handbook of Halophytes. Springer, Cham. <u>https://doi.org/10.1007/978-3-030-17854-3</u>
- Saleh I.A., Usman K., Abu-Dieyeh M.H.* (2020) Halophytes as Important Sources of Antioxidants and Anti-Cholinesterase Compounds. In: Grigore MN. (eds) Handbook of Halophytes. Springer, Cham. <u>https://doi.org/10.1007/978-3-030-17854-3</u>
- 14. Mohammad A. Al-Ghouti, Aisha AlHusaini, Mohammed H. Abu-Dieyeh, Mahmoud Abd Elkhabeer & Muhammad Masood Alam (2020) Determination of aflatoxins in coffee by means of ultra-high performance liquid chromatography-fluorescence detector and fungi isolation, International Journal of Environmental Chemistry Analytical. DOI: 10.1080/03067319.2020.1819993
- Shaikh, S.S., Abu-Dieyeh, M.H.*, Al Naemi, F.A. *et al.* (2020). Environmental impact of utilization of "produced water" from oil and gas operations in turfgrass systems. *Sci Rep* 10, 15051 <u>https://doi.org/10.1038/s41598-020-72069-5</u>.
- Usman Kamal, Al Jabri Hareb, Abu-Dieyeh Mohammed H., Alsafran Mohammed H. S. A. (2020) Comparative Assessment of Toxic Metals Bioaccumulation and the Mechanisms of Chromium (Cr) Tolerance and Uptake in *Calotropis procera*. Frontiers in Plant Science, 11: 883. DOI=10.3389/fpls.2020.00883. URL=https://www.frontiersin.org/article/10.3389/fpls.2020.00883
- Siham S. Hassan, Mohammad A. Al-Ghouti, Mohammed Abu-Dieyeh, Gordon McKay (2020). Novel bioadsorbents based on date pits for organophosphorus pesticide remediation from water, *Journal of Environmental Chemical Engineering*, 8 (1). 103593, Volume 32, doi = "https://doi.org/10.1016/j.jwpe.2019.100990
- Al-Ghouti, M.A., Da'ana, D., Abu-Dieyeh, M. et al. (2019) Adsorptive removal of mercury from water by adsorbents derived from date pits. *Nature Scientific Reports*, 9, 15327 (2019) doi:10.1038/s41598-019-51594-y.
- 19. Usman K., Alghouti, M. A. S. and **Abu-Dieyeh**, **M. H.*** (2019). The assessment of cadmium, chromium, copper, and nickel tolerance and bioaccumulation by shrub plant *Tetraena qataranse. Nature Scientific Reports*, 9 (1), 5658.
- Ayesha Y. Ahmad, Mohammad A. Al-Ghouti, Ibrahim AlSadig & Mohammed Abu-Dieyeh (2019). Vertical distribution and radiological risk assessment of 137Cs and natural radionuclides in soil samples. *Nature Scientific Reports*, volume 9, Article number: 12196.
- 21. Fathy A.M. Atia, Mohammad A. Al-Ghouti, Fatima Al-Naimi, Mohammed Abu-Dieyeh, Talaat Ahmed, Saeed H. Al-Meer (2019). Removal of toxic pollutants from produced water by phytoremediation: Applications and mechanistic study. *Journal of Water Process Engineering*, Volume 32, December 2019, 100990
- 22. Abu-Dieyeh, M. H.*, Alduroobi H. M. and Alghouti, M. A. S., (2019). Potential of mercurytolerant bacteria for bio-uptake of mercury leached from discarded fluorescent lamps. *Journal of Environmental Management* 237: 217-227.

- 23. Usman K., **Abu-Dieyeh**, **M. H.***, and Alghouti, M. A. S., (**2019**) Evaluating the invasive plant, *Prosopis juliflora* in the two initial growth stages as a potential candidate for heavy metal phytostabilization in metalliferous soil. *ENVIRONMENTAL POLLUTANTS AND BIOAVAILABILITY*, 31 (1), 145-155. <u>https://doi.org/10.1080/26395940.2019.1585958</u>.
- 24. **Abu-Dieyeh, M. H.*,** Alghouti, M. A. S. (**2018**). Phytoremediation: Halophytes as Promising Heavy Metal Hyper-accumulators. *Heavy Metals* (pp. 18). InTechOpen. <u>https://www.intechopen.com/books/heavy-metals/phytoremediation-halophytes-as-promisingheavy-metal-hyperaccumulators</u>
- Abdul Hakim, M., Alghouti, M., Das, P., Abu-Dieyeh, M., Ahmed, T., Aljabri, H. (2018). Potential application of microalgae in produced water treatment. *Desalination and Water Treatment*, 135:47-58.
- 26. Abu-Dieyeh, MH*, Ziad Said, Halla Maarouf, Azzam Abu Hanieh and Mohammad Al-Anwari. (2017). Impact of long-term practical training on science teachers' performance and their attitude toward creating a better science education environment. Proceedings of EDULEARN17 Conference 3rd-5th July 2017, Barcelona, Spain.
- 27. **Abu-Dieyeh, MH*, Diab M, Al-Ghouti MA.** (2017). Ecological and agriculture impacts of bakery yeast wastewater use on weed communities and crops in an arid environment. Environmental Sciences and Pollution Research, 24 (17):14957-14969.
- 28. Ziad S., Abu-Dieyeh, M. H. et al. (2017). THE IMPACT OF LONG TEACHERS' TRAINING ON PERFORMANCE AND ATTITUDE TOWARD SCIENCE OF BOTH TEACHERS AND STUDENTS-THE CASE OF SECONDARY SCHOOL TEACHERS. Proceedings of INTED2017 Conference 6th-8th March 2017, Valencia, Spain.
- 29. Pernot O., **Abu-Dieyeh M. H.**^{*}, Simon L., Al-Khyatt J. and Al-Ghouti M. (**2017**). Human and *Avicennia marina* Mangrove Populations: with Special Reference to Qatar. *The Arab World Geographer*, *20*(2-3), 208-236. <u>http://arabworldgeographer.org</u>
- 30. Abu-Dieyeh, M. H.* et al. (2017). Mercury Toxicity. The Importance of Microbial Diversity for Improved Environmental Remediation. *Heavy Metals in the Environment: Microorganisms and Bioremediation*. Taylor & Francis Group. <u>https://www.taylorfrancis.com/books/e/9781315233079/chapters/10.1201/b22013-14</u>
- Alghouti, M. A. S., Abuqaoud, R. H. Abu-Dieyeh, M. H.* (2016). Detoxification of mercury pollutant leached from spent fluorescent lamps using bacterial strains. *Waste Management* 49: 238-244.
- 32. Al-Otoum, F., Al-Ghouti, M.A., Ahmed, T.A., Abu-Dieyeh, M.H., Ali, M. (2016). Disinfection by-products of chlorine dioxide (chlorite, chlorate, and trihalomethanes): Occurrence in drinking water in Qatar. DOI: <u>10.1016/j.chemosphere.2016.09.008</u>.
- 33. Abu-Dieyeh, MH*, Pernot, O., Simon, L., Al-Khayat, J. A. A., Alghouti, M. A. S. (2015). Ecosystem services and mangroves in Qatar: preservation issues (pp. 2). Q Science Proceedings: Qatar University Life Science Symposium 2015. http://dx.doi.org/10.5339/qproc.2015.qulss2015.37

- 34. **Abu-Dieyeh, MH*** and Raghdah Barham (**2014**). Concentrations and dynamics of fungal spore populations in the atmosphere of Zarqa area, Jordan using the volumetric method. *Grana* 53(2): 117-132.
- 35. Abu-Dieyeh MH*, Al-Abeid H and Qnais IY (2013) Does allelopathy increase invasion of *Diplotaxis erucoides* in a disturbed arid land habitat? *Allelopathy Journal* 31 (1): 91-104.
- 36. Abu-Dieyeh, MH*, Ratrout Y. (2012) Seasonal variation of air-borne pollen grains in the atmosphere of Zarqa area, Jordan. *Aerobiologia* 28 (4): 527 539.
- Damhoureyeh S., Disi A., Al-Khader I. and. Abu-Dieyeh MH (2011). Development of a zoning management plan for Petra Archaeological Park (PAP), Jordan. *Natural Science* 3 (12):1040-1049.
- 38. Shaheen I., Abu-Dieyeh MH, Ash, GJ and Watson A.K. (2010). Physiological characterization of the dandelion bioherbicide, *Sclerotinia minor* IMI344141. *Biocontrol Science and Technology* 20 (1): 57 – 76.
- 39. Abu-Dieyeh, MH, Shaheen, I., Watson, A.K. (2010). Effect of plant age and turfgrass competition on the efficacy of the *Sclerotinia minor* granular bioherbicide on broadleaf plantain and prostrate knotweed. *Biocontrol Science and Technology* 20 (2): 213 226.
- 40. Esam Y. Qnais, **Abu-Dieyeh**, **MH**, Fuad. A. Abdulla, and Shtaywy S. Abdalla (2010). The antinociceptive and anti-inflammatory effects of *Salvia officinalis* leaf aqueous and butanolic extracts. *Pharmaceutical Biology* 48 (10):1149-1156.
- 41. Abu-Dieyeh, MH*, Raghdah Barham, Khaled Abu-Elteen, Radhi Al- Rashidi and Inaam Shaheen (2010). Seasonal Variation of Fungal Spore Populations in the Atmosphere of Zarqa Area, Jordan. *Aerobiologia* 26(4): 263-276.
- 42. Esam Qnais, Abu-Safieh Kayed, **Abu-Dieyeh, MH** and Fuad A. Abdulla (**2009**). Antinociceptive Effect of Two Flavonoids from *Aloysia Triphylla L. Jordan Journal of Biological Sciences* 2(4): 167-170.
- 43. **Abu-Dieyeh MH** and Watson AK (**2009**). Increasing the efficacy and extending the effective application period of a granular turf bioherbicide by covering with jute fabric. *Weed Technology* 23(4): 524-530.
- 44. Abdulla FA, **Abu-Dieyeh MH** & Qnais E. 2008. Human Activities and Ecosystem Health (pp. 341-360) In: ENVIRONMENTAL MANAGEMENT, SUSTAINABLE DEVELOPMENT AND HUMAN HEALTH (*edt. Goosen et al.*) CRC Press/Balkema © 2009 Taylor & Francis Group, London, UK.
- 45. Abu-Dieyeh MH and Watson AK. (2007). Efficacy of *Sclerotinia minor* for dandelion control: Effect of dandelion accession, age, and grass competition. *Weed Research* 4(7): 63-
- 46. **Abu-Dieyeh MH** and Watson AK. (**2007**). Grass overseeding and a fungus combine to control *Taraxacum officinale*. *Journal of Applied Ecology* 44: 115-124.

- 47. **Abu-Dieyeh MH** and Watson AK. (**2007**). Population dynamics of broadleaf weeds in turfgrass as influenced by chemical and biological control methods. *Weed Science* 55:371380.
- 48. Abu-Dieyeh MH, Bernier J. and Watson AK. (2005). *Sclerotinia minor* advances fruiting and reduces germination in dandelion (*Taraxacum officinale*). *Biocontrol Science and Technology* 15(8): 815-825.
- 49. **Abu-Dieyeh MH** & Watson AK. (2006). Effect of turfgrass mowing height on biocontrol of dandelion with *Sclerotinia minor*. *Biocontrol Science & Technology* 16(5): 509-524.
- 50. Abu-Dieyeh MH and Watson AK. (2005). Impact of mowing and weed control on broadleaf weed population dynamics in turf. *Journal of Plant Interactions* 1(4): 239-252.
- 51. Hatough A. & Abu-Dieyeh MH. (1998). Ecology, Forth ed., Dar Al-Shorouk Publishing, Amman (In Arabic).
- 52. Abu-Dieyeh MH (shared with Faculty in the dept. members) (1994). Biology, a Laboratory Manual. Applied Science University, Amman-Jordan.
- 53. **Abu-Dieyeh MH**, Hatough A. & Disi A. (**1989**). The ecology of some rodents in Wadi Araba with a special reference to *Acomys cahirinus* (Abstract) Dirasat, Vol. XV, No 9.

<u>PATENT</u>

• <u>US 8,557,735 Patent (Filing date 30/10/2008 and Issuing date 15/10/2013)</u> Methods of reducing weeds and kits therefor. Assignees: The Royal Institution for the Advancement of Learning/McGill University. Inventors Alan K. Watson, Mohammed H. Abu-Dieyeh. <u>https://patents.google.com/patent/US8557735B2/en</u>

CONFERENCE PUBLICATIONS

I. Poster presentations and abstract proceeding publications

- 1- Abu-Dieyeh MH. 1990. Ecology of some rodents in Wadi Araba, with a special reference to *Acomys cahirinus*. The Second Conference in Biological Sciences, AmmanJordan.
- 2- Abu-Dieyeh MH and Watson AK. 2003. Effect of different turfgrass mowing heights on the performance of *Scloretinia minor* on dandelion" VRQ, PHYTOPROTECTION Conference. 7 Nov 2003. Saint-Hyacinthe, Quebec.
- 3- Abu-Dieyeh MH and Watson AK. 2006. The significance of competition: suppression of dandelion populations by *Sclerotinia minor* and grass overseeding. Conférence sur la Recherche et l'Innovation Québécoises en Agriculture et en Agroalimentaire. 21-22 March 2006. Université Laval, Ste Foy, Québec.
- 4- Abu-Dieyeh MH and Watson AK. 2009. Grass over-seeding and a fungus combine to control common dandelion, *Taraxacum officinal*. International
 Conference and Exhibition on Green Energy & Sustainability for Arid Regions & Mediterranean Countries "ICEGES 2009". 10-12 Nov 2009. Amman-Jordan.

5- Abu-Dieyeh MH. 2009. A survival mechanism of a weed due to a biotic interaction: a story between dandelion (*Taraxacum officinale*) and a promising bioherbicide *Sclerotinia minor*. Darwin NOW. Darwin's Living Legacy. An International Conference on Evolution and Society. 14-16 November 2009, Bibliotheca Alexandrina, Egypt.

6- Abu-Dieyeh, MH (Co-Author), Pernot, O. (Author & Presenter), Qatar University Life Science Symposium–QULSS 2015 Global Changes: The Arabian Gulf Ecosystem, "ECOSYSTEM SERVICES OF MANGROVES IN QATAR: CONSERVATION ISSUES.," QU, Doha, Qatar University, Qatar. (December 16, 2015).

7- Abu-Dieyeh, MH (Co-Author), Al-Haddad, F. (Author & Presenter), International Training Workshop on Conservation and Management of Ecosystem, "EVALUATION OF SALT TOLERANCE IN SELECTED QATARI HALOPHYTES AT THE TWO INITIAL GROWTH STAGES," QU, Doha, Qatar. (November 25, **2015**). **IUCN.**

8- Abu-Dieyeh, M. H. (Author), Bibi, S. (Author & Presenter), Qatar University Life Science Symposium 2016: Biodiversity, Sustainability and Climate Change, with Perspectives from Qatar Doha area, Qatar, "Allelopathic effects of the invasive *Prosopis juliflora* (sw.) Dc. On seed germination of selected Qatari native plant species," QU, Doha, Qatar. (December 2016).

9- Abu-Dieyeh, M. H. (Author), Fayad, R. (Author & Presenter), Qatar University Life Science Symposium 2016: Biodiversity, Sustainability and Climate Change, with Perspectives from Qatar, "Dynamics (seasonal and intra-diurnal) of air-borne fungal spore population of Doha area, Qatar," QU, Doha, Qatar. (December 2016).

10- Usman K., Al-Ghouti, M. and **Abu-Dieyeh**, **M. H.** (Co-Author), Qatar University Life Science Symposium 2016: Biodiversity, Sustainability and Climate Change, with Perspectives from Qatar, "Phytoremediation of heavy metals using Qatari flora," QU, Doha, Qatar. (December 2016).

11- Abu-Dieyeh, M. H. (co-Author), Alghouti, M. A. S. (Author & Presenter), ARC 2016, "Enhancing the remediation capacity of mercury ions from fluorescent lamp using roasted date pits and its modified forms," QNRF, Doha,, Qatar. (March 2016).

12- Abu-Dieyeh, MH^{*}, Ziad Said, Halla Maarouf, Azzam Abu Hanieh and Mohammad AlAnwari. Impact of long-term practical training on science teachers' performance and their attitude toward creating a better science education environment. EDULEARN17 Conference 3rd-5th July 2017, Barcelona, Spain.

II. Oral presentations and proceeding publications

- 1- Abu-Dieyeh MH, Bernier J. and Watson AK. 2005. *Sclerotinia minor* advances fruiting and reduces germination in dandelion. Northeast Ecology and Evolution Conference (NEEC). 18-20 March 2005. Penn. State Univ. University Park, PA. USA.
- 2- Abu-Dieyeh MH and Watson AK. 2005. Effect of host plant age and biotypes on efficacy of *Sclerotinia minor* for dandelion control. 59th Annual Meeting of Canadian Weed Science Society, November 27 – 30 2005, Niagara Falls, Ontario, CANADA

- **3- Abu-Dieyeh MH** and Watson AK. **2006**. The significance of competition: suppression of dandelion populations by *Sclerotinia minor* and grass overseeding. Halifax 2006 Conference, Joint Colloquium of CSA, CSAS, and CSHS. August 1-5, 2006, Westin Hotel, Halifax, Nova Scotia, **CANADA**.
- 4- Abu-Dieyeh MH, Teshler M.P. and Watson AK. 2007. Sclerotinia minor: a safe broadspectrum bioherbicide to control multiple weed targets in turfgrass. 61th Annual Meeting of Canadian Weed Science Society, November 27 – 29 2007, Fairmont Tremblant, Mont Tremblant, Quebec, CANADA.
- 5- Abu-Dieyeh MH, Gagne G and Watson AK. 2007. Utilisation d'un bioherbicide dans les terrains de golf. Société de protection des plantes du Québec, 99th Assemblée annuelle (2007). CANADA.
- 6- Abu-Dieyeh MH and Watson AK. 2008. Susceptibility of dandelion biotypes and broadleaf turfgrass weeds to *Sclerotinia minor*. Plant and Soil conference (2008) Joint meeting of the ASA-CSSA-SSSA NE branch. Canadian Society of Agronomy and Canadian Society of Horticultural Sciences. July 13-16, 2008. Mcgill University, Montreal-CANADA
- 7- Abu-Dieyeh MH, Al-Abeid H and Qnais IY. 2011 Does allelopathy involve in the invasiveness of *Diplotaxis erucoides* in a disturbed arid land habitat?. The 6th World Congress on Allelopathy. December 15-19, 2011 Guangzhou, China.
- 8- Abu-Dieyeh MH, and Alan K. Watson. 2013. Sclerotinia minor, a successful biocontrol agent for broadleaf weeds in turfgrass systems. 8th Annual International Symposium on Environment, 13-16 May 2013, Athens, Greece.
- 9- Abu-Dieyeh MH, AL-Abeid H, and Wafaa Abu Taleb. 2014. *Diplotaxis erucoides*: an allelopathic invasive species in disturbed aridland with potential antimicrobial activities. 7th World Congress on Allelopathy. July 28 August 1, 2014. Vigo-Spain.
- **10- Abu-Dieyeh MH** and Zalloum M. 2015. Screening of indigenous rhizobacteria for growth promoting and atagonistic activity against *Fusarium oxysporoum* in Tomato International Conference on Molecular Ecology, May 28-29, 2015, **Tokyo, Japan.**
- 11- Abu-Dieyeh, M. H. (Speaker), International Training Workshop on Conservation and Management of Ecosystem, "Genetic Diversity of Rhizobacteria Isolated from Arid land and their Role as Plant Growth Promoting and Antagonists of Plant Diseases.," QU, Doha, Qatar. (November 25, 2015). IUCN.
- **12- Abu-Dieyeh, M. H.** Density, Diversity and population dynamics of Fungal Spore Population in the Atmosphere of Arid land Area, Jordan. 6th European Symposium on Aerobiology of the European Aerobiology Society taking place in **Lyon, France** from 18 to 22 July 2016.
- 13- Abu-Dieyeh, M. H. Does Allelopathy Escalate Invasiveness of *Prosopis juliflora* (Sw.) DC in Arid Land Environment? <u>8th World Congress of Allelopathy</u>. Marseille (France). 24-28 Jul 2017.
- 14- Abu-Dieyeh, M. H. (Main Author), Shaikh, S. (Author & Presenter), QULSS 2017, "GRAS ESTABLISHMENT, WEED POPULATIONS AND SOIL MICROBIAL SUCCESSION IN TURF GRASS SYSTEM AS INFLUENCED BY PRODUCED WATER IRRIGATION," QU, Doha, Qatar University, Qatar. (December 2017).

- 15- Abu-Dieyeh, M. H. (Main Author), AlHaddad, F. (Author & Presenter), Joint International Conference "Wild, Medical Plants, Islamic Knowledge and Botanical Preservation in Qatar and the Gulf: An Interdisciplinary Approach"., "Evaluation of salt tolerance in selected Qatari halophytes at the two initial growth stages.," QU, Qatar University, Doha-Qatar. (October 2017).
- 16- Abu-Dieyeh, M. H. (Author & Presenter), Joint International Conference "Wild, Medical Plants, Islamic Knowledge and Botanical Preservation in Qatar and the Gulf: An Interdisciplinary Approach" "Managing an invasive Qatari Plant: Antifungal activities of leaf extracts of *Prosopis juliflora* (Sw.) DC. on post-harvest fungal pathogens," QU, Qatar University, Doha Qatar. (October 2017).
- 17- Abu-Dieyeh, M. H. (Author & Presenter), 8th World Congress of Allelopathy, "Does Allelopathy Escalate Invasiveness of *Prosopis juliflora* (Sw.) DC in Arid Land Environment?" QU, Marseille, France. (July 2017).
- **18- Abu-Dieyeh, M.** (Author & Presenter), EDULEARN17, "IMPACT OF LONG-TERM PRACTICAL TRAINING ON SCIENCE TEACHERS' PERFORMANCE AND THEIR ATTITUDE TOWAR CREATING A BETTER SCIENCE EDUCATION ENVIRONMENT," QU, **Barcelona, Spain** (July 2017).
- **19- Abu-Dieyeh, M. H.** (Main Author), Shaikh, S. (Author & Presenter), ARC 2018, "Grass Establishment, Weed Population and Soil Microbial Succession in Turf grass System as Influenced by Produced Water Irrigation," **QNRF, Doha,, Qatar**. (March 2018).
- **20-** Abu-Dieyeh, M. H. (Author & Presenter), AGRICULTURE & FOOD, 6th International Conference, "Antifungal activities of *Prosopis juliflora* on postharvest fungal pathogens of fruits in Qatar," Other, Elenite, Bulgaria. (June 2018).
- 21- Abu-Dieyeh, M. (Author & Presenter), International Congress on Agriculture and Animal Sciences, "Managing an invasive and allelopathic plant *Prosopis juliflora* (Sw.) DC. to serve against pathogens of fruit post-harvest fungal diseases in Qatar," Other, Alania, Turkey. (November 8, 2018).

<u>INVITED Speaker</u>

(1) Plant and Natural Selection: Survival Mechanisms. A scientific debate about Evolution Theory. Darwin NOW, British Council and University of Jordan. University of Jordan 27 March 2010. Amman-Jordan.

(2) Scholarship Underpinning Biodiversity and Ecosystems Management in Qatar. 2nd International Forum of the Qur'anic Botanic Garden Organized by the Qur'anic Botanic Garden and IUCN's Commission on Ecosystem Management April 22nd: 24th 2014 – Doha, State of Qatar.

- (3) Evaluation of Salt Tolerance in Selected Qatari Halophytes at the Two Initial Growth Stages, 1st International Conference on Sustainable Development: Achieving Food Security in Arid Lands, " QU, Doha, Qatar. (November 30, 2016).
- (4) Managing an invasive Qatari Plant: Antifungal activities of leaf extracts of

Prosopis juliflora (Sw.) DC. on post-harvest fungal pathogens," Joint International Conference "Wild, Medical Plants, Islamic Knowledge and Botanical Preservation in Qatar and the Gulf: An Interdisciplinary Approach"., "QU, Qatar University, Doha Qatar. (October 2017).

INVITED Expert

Invitation as plant ecologist to discuss the ecological impacts of Sahara Forest project in Aqaba and Wadi Araba- 29-6 to 2-7-20011, Aqaba-Jordan.

INVITED Scientist, delegate

(1) The 1st preparatory meeting of Arabic Encyclopaedia of Life (AEOL)- 14 April 2010- Bibliotheca Alexandrina- Egypt - A member of plant subcommittee: Participation in Arabic translation of taxonomical, ecological and distributional information of certain plant species.

(2) International Conference on Mediterranean Countries and EU Opportunities.

22-23 October 2012. Le Meridien Hotel, Amman-Jordan.

HOSTED Scientist

Global Forum for Innovations in Agriculture. Abu-Dhabi-UAE. 9-11 March 2015

<u>Media Appearances</u>

Qatar University Magazine. (September 2018). Qatar University team wins the 1st prize at the 10th UREP Annual Competition (Arabic and English version). Issue no 10 - September 2018

Qatar Radio. (April 14, 2018).

An interview in MASSAA ELDOHA program about the 1st prize we won from Qatar Foundation for the Outstanding Research Project

Qatar TV. An interview with Qatar TV about the importance of QULSS-13 scientific event in November 2019.

AL-RAYA newspaper. An interview with AL-RAYA newspaper (in January 2020) about highlighting the undergraduate and graduate programs in the department.

Administrative Academic Assignments

(1) Department Head Sep 5, 2008 up to Sep 6, 2011.

Biology and Biotechnology Dept. The Hashemite University, Zarqa-Jordan.

(Chaired the department for three consecutive years working with 22 faculty member, 5 Teaching and research assistants, 5 technicians, ~600 students; 2 B.Sc. programs (Biological Sciences and Biotechnology) and one M.Sc. program (Biological Sciences).

(2) Graduate Program Director. (September 2014 – August 2019).

Dept. of Biological and Environmental Sciences, Qatar University, Doha-Qatar. Coordinating the two graduate programs in the department (1) M.Sc. Environmental Sciences and (2) PhD in Biological and Environmental Sciences as well as Academic advising of graduate students.

(3) Department Head (August 2019 to present).

Dept. of Biological and Environmental Sciences, Qatar University, Doha-Qatar.

Other Administrative Assignments and Community services

(1) The Hashemite University/ Zarqa-JORDAN

- 1- Chair of Greenhouse Committee/ Dept. of Biol. and Biotech., The Hashemite University/ 2006-2013.
- 2- Chair of Accreditation Committee for B.Sc. programs in Biology and B.Sc. program in Biotechnology/ 2010-2011. Both programs were accredited from Ministry of Higher Education.
- 3- Chair of Graduate Studies Committee/ Dept. of Biol. and Biotech., The Hashemite University/ 2006-2013.
- 4- Member of academic committee/ Dept. of Biol. and Biotech./ 2006-2013. 6- Member of research committee/ Dept. of Biol. and Biotech. The Hashemite University/ 2006-2013.

(2) Qatar University / Doha-QATAR

- 1. Graduate Program Coordinator (MSc. & PhD)/ Dept. of Biol. Env. Sci./ Sep 2014- Up to date.
- 2. Chair of the Committee of Self-Study report of M.Sc. in Environmental Sciences and Chair of the committee
- 3. Chair of the Graduate steering Committee/ Dept. of Biol. Env. Sci./ Sep 2014- Up to date.
- 4. Chair of the Graduate Commission/ Dept. of Biol. Env. Sci./ Sep 2015- Up to date.
- 5. Chair of Graduate PLO assessment committee/ Dept. of Biol. Env. Sci./ Sep 2014- Up to date.
- 6. Member of Quality Assurance Committee/ Dept. of Biol. Env. Sci./ 2013-2014
- 7. Member of PLO Assessment Committee/ Dept. of Biol. Env. Sci./ 2013-2014
- 8. Member of Farm and green house Committee/ Dept. of Biol. Env. Sci./ 2013- Up to date.
- 9. Chair of Herbarium Committee, Biology Museum, Marine and Biology Field Committee/ Dept. of Biol. Env. Sci./ 2013- Up to date.
- 10. Member of Graduate Program steering committee/ Dept. of Biol. Env. Sci./ 2013-

11. 2014.

- 12. Member of Academic and curriculum committee/ Dept. of Biol. Env. Sci./ 2013- Up to date.
- 13. Member of Recruitment committee/ College of Arts and sciences/ 2013-2014.
- 14. Graduate Studies committee/ CAS/Qatar University/ Member/ Oct 2014-June 2015.
- 15. PLO Faculty committee/ CAS/Qatar University/ Member. Oct 2014-June 2015
- 16. Graduate self-study report subcommittee/ Dept. of Biol. and Environ. Sciences/ Qatar University/ Chair. Oct 2013-June 2014
- 17. Environmental Day Organizing committee/ Dept. of Biol. and Environ. Sciences/ Qatar University/ Chair. Dec 2014-March 2015.
- Graduate Program steering committee/ Dept. of Biol. and Environ. Sciences/ Qatar University/ Member. October 2017 - September 2018.
- 19. Academic quality and assessment committee/ Dept. of Biol. and Environ. Sciences/ Qatar University/ Member. October 2017 September 2018.
- 20. Curriculum committee/ Dept. of Biol. and Environ. Sciences/ Qatar University/ Member. October 2017 - September 2018.
- 21. Recruitment committee/ Dept. of Biol. and Environ. Sciences/ Qatar University/ Member. October 2017 - September 2018.
- 22. Schedule and Teaching load committee / Dept. of Biol. and Environ. Sciences/ Qatar University/ Member. October 2017 September 2018.

- 23. Preparation and establishment of proposal for Graduate Certificate in Environmental Sciences/ Dept. of Biol. and Environ. Sciences/ Qatar University/. **Chair.** October 11, 2017 December 2017.
- QULSS- Qatar University Life Science Symposium 2017 organizing committee. Dept. of Biol. and Environ. Sciences/ Qatar University/ Member and Moderator. May 2017 -December 2017.
- 25. CAS Graduate Studies committee/ CAS/Qatar University/ **Co-Chair/** September 2017 September 2018.
- 26. Academic quality and assessment committee/ Dept. of Biol. and Environ. Sciences/ Qatar University Committee Member/ January 2018 December 2018.
- 27. Graduate Program Steering Committee, Dept. of Biol. and Environ. Sciences/ Qatar/ Committee Member/ January 2018 - December 2018.
- 28. Schedule and Teaching load committee/ Dept. of Biol. and Environ. Sciences/ Qatar. Committee Member/ January 2018 December 2018.
- 29. **Department Council Member**/ Department Council (Biological and Environmental Sciences) September 1, 2017 December 30, 2018.
- Committee Chair: task force committee/ A proposal for Graduate Certificate in Environmental Sciences/ Dept. of Biol. and Environ. Sciences/ Qatar. October 11, 2017 - June 2018.
- 31. CAS Graduate Studies committee/ **Co-Chair**/ CAS Graduate Studies committee January 2018 June 30, 2019.

Professional Memberships

- (1) IUCN / Commission of Ecosystem Management/Dry land commission, Switzerland. (2012 Present).
- (2) International Society of Allelopathy (2009 Present).
- (3) European Aerobiology Society (EAS) (2015-Present)
- (4) IPBES member Dec 2019 to present

Professional and Community Services

(1) **REVIEWING** and editorial work in peer reviewed journals

* Act as a peer reviewer for several scientific articles in the following journals:

- Jordan Journal of Biological Sciences (Ministry of higher education, Jordan.
- Aerobiologia (**Springer**)
- The Kuwait Journal of Science
- African Journal of Microbiology Research
- Journal of Agricultural Science and Technology (USA).
- International Journal of Agronomy/ **Hindawi Publishing Corporation**/ USA 🗆 CLEAN Soil, Air, Water. **Elsevier**.

* Act as editor or editorial board member

- Editor "the series of Botany and Environmental Science"
- Editor "Journal of Biotechnology and Recent Advances"
- Editorial Board Member "Nature Scientific Reports"

- Associate Editor-in-Chief "United Journal of Environmental Sciences"
- Editorial Board Member "journal Series C: Biology"
- Editorial Board Member "American Journal of Plant Biology"

(2) Volunteer participation in establishing a website to help students in primary schools to understand science through providing answers for their questions. I am responsible for Plant Science questions. <u>http://welovechange.org/ar/projects-2/2013-11-07-05-29-34.html</u> The Hashemite Universite/ Zarqa-Jordan/ Volunteer scientist.

(3) Supervising a research for school students from Omar Ben Al-Khattab (Independent School). 2016-2017 and 2017-2018.

(4) **Reviewers in Research Grants** (BA/CSSP RG) program. Bibliotheca Alexandrina-Alexandria, Egypt. From 2012 up to date.

(5) Ministry of education and higher education, Doha-Qatar. A member of the Scientific Committee of the 16 International Junior Science Olympiad 2019. (Six months of work on preparing Biology questions, theory and practical, screening and selection of the proper question, then defending the selected questions in the presence of all participating countries).

(6) Ministry of education and higher education. Nominated from the Associate Dean of Science and applied Sciences to revise the content and standards of the school textbook "Ecosystems and Earth system". Ministry of education and higher education. January 2019

<u>Research Grants</u>

- Abu-Dieyeh, M. H. (Lead Principal Investigator). Biology and ecology of dandelion *Taraxacum officinale* in Jordan. JD 1000. The Hashemite University Deanship of Scientific Research.
- Abu-Dieyeh, M. H. (Lead Principal Investigator). Anti-microbial (bacterial, fungal and algal) effects of *Diplotaxis erucoides*. Student Grant JD 500. The Hashemite University Deanship of Scientific Research.
- Abu-Dieyeh, M. H. (Lead Principal Investigator) Aerobiology (fungal spores and pollen grains) of Zarqa area, Jordan. JD 16000. The Hashemite University Deanship of Scientific Research.
- Abu-Dieyeh, M. H. (Principal Investigator) Biofuel from macroalgae of Jordan, a research funded by European Union. EUR 85000. External grant.
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Usman, K. (Principal Investigator), "Investigating the role of Qatari plants in phytoremediation of heavy metals from polluted water," Qatar University, **QR 20,000.00.** (May 1, 2017 - December 31, 2017).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Al-Naemi, F. (Co-Principal Investigator), "UREP19-152-1-026/ Qatar Foundation. Assessment of Airborne fungi and their constituents in indoor environment of Qatar University Campus," Local, \$30,000.00. (December 2016 - December 2017).
- Alatalo, J. M. (Lead Principal Investigator), **Abu-Dieyeh**, **M.** (Co-Principal Investigator), Balakrishnan, P. (Co-Principal Investigator), "Ecosystem services from planted and natural mangrove.," Qatar University, **QR 115,000.00.** (March 1, 2016 December 31, 2017).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Al-Ghouti, M. (Principal Investigator), "Screening of Selected Qatari Plant Species for Allelopathic activity and investigating their potential applications as natural herbicides," Qatar University, **QR 104,000.00.** (March 1, 2016 - December 31, 2017).
- Abu-Dieyeh, M. H. (Principal Investigator), Said, Z. (Lead Principal Investigator),

"(NPRP 7 - 050 - 5 - 001 Award Active) Development of a Framework for practical Science in alignment with the Curriculum Standards of grades K-12 of Independent Schools in Qatar," Local, **US \$805,487.00**. (January 2014 - December 2017).

- Abu-Dieyeh, M. H. (Lead Principal Investigator), Al-Naemi, F. A. J. (Co-Lead Principal Investigator), Akhtar, S. (Supporting), Alasmar, W. (Supporting), Kafour, N. (Supporting), Saadat, F. (Supporting), Sadeq, N. (Supporting), Ahmad, S. (Supporting), "(UREP18-170-4-003 Award Active)/ Qatar Foundation. Antifungal activities of Prosopis juliflora on post-harvest fungal pathogens of fruits in Qatar," Local, US \$58,850.00. (December 2015 February 2017).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Moughrabi, R. (Principal Investigator), "Dynamics of Fungal populatons in the indoor air environment of class rooms at QU Campus," Qatar University, **QR 8,000.00**. (May 18, 2016 - December 31, 2016).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Touti, m. (Principal Investigator), "Dynamics of Fungal populations in the indoor air environment of library and students' dwellings at QU Campus," Qatar University, **QR 8,000.00.** (May 18, 2016 - December 31, 2016).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Al-Naemi, F. (Co-Principal Investigator), "UREP21-060-1-012, Qatar Foundation. In-vitro Assessment of Qatari halophytes for Antifungal Activities," Local, US \$30,000.00.
- Abu-Dieyeh, M. H. (Co-Lead Principal Investigator), Alghouti, M. A. S. (Lead Principal Investigator), "(UREP17-066-1-004, Award active, Qatar Foundation) Detoxification of mercury extracted from spent fluorescent lamps by date pits and bacterial strains," Local, US \$51,700.00. (June 2015 June 2016).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Fayad, R. (Principal Investigator), "(Graduate Student Grant) Dynamics (Seasonal and Intra-diurnal) of air-borne fungal spore population of Doha Area, Qatar.," Qatar University, **QR 10,000.00**. (June 2015 - May 2016).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Bibi, S. (Principal Investigator), "(Undergrad. Student grant) Allelopathic effects of the invasive Prosopis Julifora (Sw.) DC. On germinaton potental of seeds of selected Qatari native plant species (student grant)," Local, QR 10,000.00. (June 2015 - May 2016).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Kazmi, S. (Principal Investigator), "(Undergrad. Student Grant) Effect of salinity gradient and soil type on vegetation of Qatari coastal areas," Qatar University, **QR 10,000.00.** (June 2015 - May 2016).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Al-Naemi, F. A. J. (Principal Investigator), "(Active University Grant) Concentrations and dynamics of air-borne fungal spore population of Doha Area, Qatar, using the volumetric method/ Internal University grant," Qatar University, **QR 140,000.00.** (April 2014 March 2016).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Al-Haddad, F. (Principal Investigator), "(Graduate Student Grant) Evaluation of Salt Tolerance in Selected Qatari Halophytes at the Two Initial Growth Stages," Qatar University, **QR 10,000.00**. (October 2014 - September 2015).
- Abu-Dieyeh, M. H. (Principal Investigator), Al-Naemi, F. A. J. (Lead Principal Investigator), Alghouti, M. A. S. (Principal Investigator), Youssef, T. A. A. (Principal Investigator), "(Active Award-TOTAL) Innovative environmental-friendly solutions for the re-use of produced waters for irrigation purposes and its effects on plant and soil characteristics," International, US \$100,000.00. (January 2016 - December 2017).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), Al-Naemi, F. A. J. (Co-Lead Principal Investigator), Akhtar, S. (Supporting), Alasmar, W. (Supporting), Kafour, N.

(Supporting), Saadat, F. (Supporting), Sadeq, N. (Supporting), Ahmad, S. (Supporting), "(UREP18-170-4-003 Award Active) Antifungal activities of *Prosopis juliflora* on postharvest fungal pathogens of fruits in Qatar," Local, **US \$58,850.00**. (December 2015 - February 2017).

- Abu-Dieyeh, M. (Lead Principal Investigator), Qutibi, R. (Principal Investigator), ""Investigating Methodologies of Isolation of Endophytes from Qatari halophytes," Qatar University, **QR 20,000.00**. (December 2017 - December 2018).
- Abu-Dieyeh, M. (Lead Principal Investigator), Al-Naemi, F. (Principal Investigator), "(UREP21-060-1-012) In-vitro Assessment of Qatari halophytes for Antifungal Activities," Local, US \$30,000.00. (Feb 2018- December 2018).
- Abu-Dieyeh, M. H. (Lead Principal Investigator), "In-vitro evaluation of promising rhizobacterial strains isolated from Qatari soil against *Fusarium oxysporum* QUST-2CAS-2018-9," Qatar University, QR 20,000.00. (June 2018 December 2018).
- Abu-Dieyeh, M. H. (Principal Investigator), "QUXP-CAS-2018-1 Qatari Medicinal Plants and their uses," Local, QR148, 000. (March 2018 December 2020).
- Abu-Dieyeh, M. (Lead Principal Investigator), Qutibi, R. (Principal Investigator), ""Investigating Methodologies of Isolation of Endophytes from Qatari halophytes," Qatar University, QR 20,000.00. (December 2017 - December 2018).
- Abu-Dieyeh, M. (Lead Principal Investigator), *Prosopis juliflora* extracts as antispoiling agent, in-vitro assessments of crude extracts. Qatar University, QR 20,000.00. (August December 2019). UREP26-005-4-001
- Abu-Dieyeh, M. (Lead Principal Investigator), Plants heavy metal hyper accumulation and the role of stress induced proteins in phytoremediation mechanism. Qatar University, QR 20,000.00. (August December 2019).
- Abu-Dieyeh M. (Principal Investigator), Greywater treatment using vegetated walls for sustainable urban greening and water reuse in Qatar. NPRP12S-0226-190160, Qatar Foundation. \$699,309. January 2020-January 2024.
- Abu-Dieyeh M. (Principal Investigator), Medicinal wild herbs from the Qatari environment: Multidisciplinary exploratory study. UREP25-022-5-003, Qatar Foundation. \$16200. January 2020 January 2021.
- Abu-Dieyeh, M. (Lead Principal Investigator), Isolation of endophytic microorganisms from *Limonium axillare* a Qatari halophyte for applications in selected vegetable growth promotion. UREP25-065-1-007, Qatar Foundation. **\$15000**. January 2020 -January 2021.
- Abu-Dieyeh, M. (Lead Principal Investigator), "Screening, isolation and In-vitro assessments of endophytes isolated from halophytes in Qatar". QUCG-CAS-20/213 Collaborative Grant, Qatar University. QAR 269,800. 13/1/2020 31/12/2021.
- Abu-Dieyeh, M. (Principal Investigator), Ahmed, T. (Co-Lead Principal Investigator), "Enhancing vegetable production and quality in greenhouse and open field conditions in Qatar," Local (Excluding Qatar University), \$749,219.00. (November 1, 2020 - November 1, 2023). MME01-0826-190018
- Abu-Dieyeh, M. (Lead Principal Investigator), Razavi, M. (Principal Investigator), "Application of biochar produced from *Prosopis juliflora* for the removal of heavy metal pollutants from contaminated soil," Qatar University, QR14,000.00. (August 15, 2021 -November 25, 2021).
- Abu-Dieyeh, M. (Lead Principal Investigator), Dalloul, A. (Principal Investigator), "Phyllosphere epiphytic and endophytic fungal community of mangrove, Avicenna marina," Qatar University, \$7,000.00. (August 15, 2021 - November 25, 2021).
- Abu-Dieyeh, M. (Lead Principal Investigator), Al-Ghouti, M. (Principal Investigator), Al-Rajihi, K. (Principal Investigator), "Isolation and Screening of Arbuscular Mycorrhizal Fungi (AMF) from Arid Zones and their Applications on Crop Plant Growth Promotion"

Local(Excluding Qatar University), \$5,000.00. (April 2021 - September 2021). QUEX-CAS-QAFCO-2021-2.

- Abu-Dieyeh, M. (Pi) Internal Grant/ PI/ Marine photosynthetic microbial mat extracts as a potential source for antimicrobial agents and soil fertilizers. Awarded 26/12/2021.400,0000 QR.
- Abu-Dieyeh, M. (LPI) QUST-1-CAS-2022-409/Student Grant/ Phyllosphere endophytic fungal community of *Prosopis juliflora* and *Prosopis cineraria*"/ 7000 QR/ 9-01 to 13-04-2022.
- Abu-Dieyeh, M. (LPI) QUST-1-CAS-2022-407/ Student Grant/LPI/ Antimicrobial effects of root crude extracts of three Qatari native plants *Sporobolus ioclados, Halopeplis perfoliata* and *Arthrocnemum macrostachyum*/ 7000 *QR*/ 9-01 to 13-04-2022.

Date	Subject and Place		
January 31 to February 3,	Environmental Auditing Workshop, Amman- Jordan.		
1994	-Society for the control of Environmental Pollution and World Environmental		
	center. USA.		
December 8-29, 1994	Toward an active university teaching. Qatar University. Doha- Qatar		
22/12/1994-22/3/1995	The use of electron microscopes. Qatar University. Doha- Qatar		
November 1-3, 1998	Atmospheric Pollution Monitoring, Doha- Qatar, - UNEP/ SARC, Qatar		
	University. Doha- Qatar		
May 2, 2006	Workplace Hazardous Materials Information System (W.H.M.I.S.),		
	Environmental Health & Safety, McGill University.		
Nov 25, 2006 – Dec 2, 2006	The Tenth workshop about education technology and academic evaluation for		
	university professors. The Hashemite University, Zarqa- Jordan		
3 rd Sep 2012	Establishing species conservation priorities in Jordan. Reinforcing		
	Cooperation between the Royal Botanic Garden of Jordan and ERA (BOT ERA).		
	Landmark hotel, Amman-Jordan. CAS Educational Center, Qatar University		
11/9/2013	Blackboard 9.1 workshop session, OFID/Qatar University		
6/11/2013	Course portfolio, OFID/Qatar University		
15/11/2013	Blackboard 9.1 Medium level- Evaluation center, OFID/Qatar University		
3/12/2013	Managing Attendance sheet with Excel, OFID/Qatar University		
26 Nov 2013	Practical course on the morphological identification of fungi relevant in food		
	safety, Qatar University, CAS-DBES.		
9/02/2013	Academic Publishing in the 21st Century: Translating Ideas into Peer -		
	Reviewed Journal Articles. CAS, Qatar University		
12-13/2/2014	QU Assessment days, workshop on assessment. The Academic Program and		
	Learning Outcome Assessment Office in collaboration with OFID.		
18/4/2014	Interactive Lectures. Online workshop, Qatar University		
20 Sep. 2014	Graduate Teaching Workshop. Qatar University		
January 2014	ACE Leadership Academy for Department Chair. Qatar University		
February 8, 2017 -	MAXIMIZE MENTORING POTENTIAL/Graduate Programs.		
February 9, 2017	OFID/Qatar University		
17 January 2017	Teaching Graduate at the College of Pharmacy- Can we do better.		
	OFID/Qatar University		
8-9 February 2017	Workshop, "MAXIMIZE MENTORING POTENTIAL/Graduate," OFID Qatar		
	University, Doha, Qatar.		

WORKSHOPS

27 February 2018	Workshop, "Animal Ethics Awareness Day," Office of Vice President of		
	Research and Graduate Studies, Qatar.		
14 May 2018	Workshop, "Qatar University Web Ex," OFID Qatar University, Doha, Qatar.		
26 June 2018	OFID Qatar University, Doha, Qatar. "رفع كفاءة العمل باستخدام برنامج ون نوت"		
March 2018	البيئة المناخية وأنماط الطقس في دولة قطر		
October 2019	Professional Development Program for Academic Administrators.		
	Center for Excellence in Teaching and Learning; Qatar		
10 January 2019	Teaching and Learning; Qatar University. CETL, Qatar University,		
10 January 2019	Notable Educators Answers. 5 key Questions about Teaching. CETL,		
	Qatar University,		
10 January 2019	Who's responsible? Teacher or Student. CETL, Qatar University		
4 June 2020	Workshop, "1st CETL Symposium: Together We Learn, Together We		
	Teach," Qatar University, Doha, Qatar		
19 October 2020	Workshop, "Scopus Database. Center," Qatar University, Doha, Qatar.		
23 November 2020	Workshop, "استخدام تقنيات الذكاء الاصطناعي لمراقبة الاختبارات عن بعد", GCC, Oman.		
22 November 2021	The Center for Excellence in Teaching and Learning (CETL) at Qatar		
	BB Annotate. بورد بلاك في الواجبات حول رقمية ملاحظات تقديم :University. Title		
3rd November 2021	The Center for Excellence in Teaching and Learning (CETL) at Qatar		
	University. Title:		
	التحول الرقمي في التعليم والتعلم عن طريق تطبيق التعلم المعزز بالرقمنة باستخدام		
	Microsoft J One Drive		
29 December 2021	Elsevier Research Academy, Title: SciVal Rankings for QU.		

REFERENCES

Institution		
Institution	Phone Number	Email Address
Plant Science Dept.	+ (514) 398-7858	Alan.watson@mcgill.ca
McGill University		
Dean of College of Arts and	+974-4403-4848	Alkaabiialkaabi@qu.ed u.qa
Sciences, Qatar University		
Head of Dept. of Biological	+(974) 55875587	f.naemi@qu.edu.qa
and Environmental Sciences.		
Qatar University		
Vice President.		
The Hashemite University. Zarqa-Jordan	+(962) (5) 3903333	<u>karmi@hu.edu.jo</u>
	+(962) (6) 5340428	
	Plant Science Dept. McGill University Dean of College of Arts and Sciences, Qatar University Head of Dept. of Biological and Environmental Sciences. Qatar University Vice President. The Hashemite University. Zarqa-Jordan	Plant Science Dept. McGill University+ (514) 398-7858Dean of College of Arts and Sciences, Qatar University+974-4403-4848Head of Dept. of Biological and Environmental Sciences. Qatar University+(974) 55875587Vice President. The Hashemite University. Zarqa-Jordan+(962) (5) 3903333 +(962) (6) 5340428