

CURRICULUM VITAE



NAME: SAWSAN ATTALAH SALEH ORAN
NATIONALITY: JORDANIAN
MARITAL STATUS: MARRIED

DEGREES:

B. Sc. (GENERAL BIOLOGY) 1979

Dept. Of Biological Sciences
Faculty of Science
Baghdad University
Baghdad, Iraq

M. Sc. BOTANY (PLANT TAXONOMY) 1985

Dept. of Botany
Faculty of Science
University of Reading, Berks.
England

Ph.D. BOTANY (PLANT TAXONOMY) 1991

Dept. of Botany
Faculty of Science
University of Reading, Berks
England

THESIS TITLE (M. Sc.):

SYSTEMATIC OF THE
GENUS *ALYSSUM* IN JORDAN

THESIS TITLE (Ph. D.):

Biosystematics of The Genus *Salvia* in Jordan And The Neighboring Countries
With a Special Emphasis on Anatomy

TEACHING EXPERIENCE:

- **INSTRUCTOR** 1982-1990
University of Jordan
- **TEACHING ASSISTANCE** 1979-1984
Dept. of Biological Sciences
Faculty of Science
University of Jordan

- **ASSISTANT PROFESSOR 1991**
Dept. of Biological sciences
University of Jordan

- **ASSOCIATE PROFESSOR 1999**
Dept. of Biological sciences
University of Jordan

- **PROFESSOR 2006**
DEPT. OF BIOLOGICAL SCIENCES
FACULTY OF SCIENCE
UNIVERSITY OF JORDAN
AMMAN, JORDAN

- **Dean of Zarka University College / Al-Balqa Applied University , 2006-2008.**

- **Dean of Faculty of Sciences, University of Jordan, 2009.**

COURSES TAUGHT:

- | | | |
|------|--|-----------------------------|
| 1. | Vascular Plants (252) | 2 Nd Year Level |
| 2. | General Biology (102) | 1 St Year Level |
| 3. | Plant Anatomy | 3 Rd Year Level |
| 4. | Nonvascular Plants (251) | 2 Nd Year Level |
| 5a . | Mycology (453) | 3 ^{3Rd} Year Level |
| 5b. | Mycology (Practical) | 3 Rd Year Level |
| 6. | Seminar (491) | 4 Th Year Level |
| 7. | Special Topics (381) | 3 Rd Year Level |
| 8. | Plant Physiology (Practical) | 2 Nd Year Level |
| 9. | General Biology (Practical)= (103+104) | 1 St Year Level |
| 10. | Plant Taxonomy (451) | 4 Th Year level |
| 11. | General Botany (251) | 2 Nd Year level |
| 12. | Research | |
| 13. | Advanced plant Taxonomy (0324753) | POSTGRADUATE COURSE |
| 14. | Biodiversity (304774) | POSTGRADUATE COURSE |
| 15. | Medicinal Plants | Postgraduate course |

PREVIOUS EXPERIENCE

1. Herbarium Supervisor University Of Jordan 1979-1990
2. Teaching Assistant, 1985-1990 University Of Jordan

FIELDS OF RESEARCH INTEREST

1. Plant taxonomy (systematic)
2. Medicinal plants
3. Economic plants and socioeconomic
4. Plant anatomy
5. Biodiversity and conservation
6. Tissue culture
7. Palynology

ORGANIZATIONS

LOCAL (OUTSIDE THE UNIVERSITY):

1. Active member in the Royal Society for the Conservation of Nature.
2. Member in the Jordan Environmental Society.

3. Jordanian Biological Society.
4. Friends of Plants.
5. Society of Friends of Scientific Research at Public Universities in Jordan.
6. Member in The Jordanian Society for Desertification Control & Badia development.
7. Vice President in Jordan Society for National Code Ethics.

LOCAL (INSIDE THE UNIVERSITY):

1. Advisor of "The Protection of Nature Club".
2. Advisor of "The Scientific Club".

OUTSIDE

1. Member of the **OPTIMA** (Organization for the Phyto-Taxonomic Investigation of the Mediterranean Area).
2. Honorable Member of the **Tunisian Society of the Natural Sciences**.
3. Member of the **IAVS** (International Association of Vegetation Sciences)

PUBLICATIONS

1. **Oran, S. A., (1994)**. Isolation and Counting of Cyanobacteria. IN ALEF, K. (ED.). **Methods in Applied Soil Microbiology and Biochemistry**, pp 181-191. *Academic Press*.
2. **Oran, S. A., (1994)**. Flora of Shoubak Mountain, Socioeconomic and Man Impact. Proceeding of The International Symposium "Man and Mountains 94". Primo Convegno Internazionale Per La Protezione E Lo Sviluppo Dell' Ambiente Montano (BS), Italy 20-24 Guigno 1994. PP. 739-751.
3. **Oran, S. A., (1994)**. Vascular Plants of Shoubak Pro. *Bull. Soc. Sc. nat. Tunisie*, Vol. 24: 95-1025.
4. **Al-Eisawi, D. & Oran, S. A., (1994)**. *Nicotiana glaucum* (Solanaceae), new to the flora of Jordan, *Quaderni Museo di Storia Naturale di Livorno*, 13: 19-21.
5. **Oran, S. A., Oran, R., & Al-Eisawi, D., (1994)**. Biodiversity of Karak Province \ Jordan. *Mu'tah Journal for Research and Studies*, Vol.10 (4): 15-41.
6. **Oran, S. A., Al-Eisawi, D., & Podlech D., (1994)**. Two Genera of Compositae to the Flora of Jordan. *Sendtnera* 2: 35-37.
7. **Al-Eisawi, D., Oran, S. A. & Podlech D., (1994)**. Two Genera of Umbelliferae to the Flora of Jordan. *Sendtnera* 2: 31-34.
8. **AL-HILL, M., AL-ANI, AL-NAJAR, S. & ORAN, S. A., (1994)**. The Botanical Atlas. *Deanship of Sceintific Research, Univ. of Jordan/Amman*.
9. **Oran, S. A., (1997)**. Biodiversity of Petra (Jordan). *Journal of Damascus University for Basic Sciences* Vol. 13(1): 153-163.
10. **Oran, S. A., Kochkar, N. and Rais, A., (1998)**. Anatomical study of two xerophytic Mediterranean species of *Globularia* L. *Dirasat, Natural and Engineering Sciences*, 25 (3): 451-455.
11. **Oran, S. A. & Al- Eisawi, D.M., (1998)**. Checklist of Medicinal Plants in Jordan. *Dirasat, Medicinal and Biological Sciences*, 25(2): 84-112.
12. **Oran, S. A., (1999)**. Potato Disc Bioassay of Some Jordanian Medicinal Plants. *Pharmaceutical Biology*, 37(4): 296-299.
13. **Oran, S. A., Kochkar, N. and Raies, A.,** Biosystematics of the Genus *Globularia* L. in Jordan and Tunisia (1999). *Dirasat*, 26(2): 203-210.
14. **Oran, S. A.,** Trichomes of the Genus of *Alyssum* in Jordan (1995). *Webbia*, 50(2): 237-245.
15. **Oran, S. A.,** The Ultrastructure of Nutlet Surface of the Genus *Salvia* L. in Jordan and The Neighboring Countries 1995. *Dirasat*, Vol.23 (3): 393-408.

16. **Oran, S. A.** Flavonoids of the Genus *Salvia* (**Labiatae**) in Jordan (1996). *Bull. Soc. Sc. Nat. Tunisie*, Vol. 25: 93-96.
17. **Oran, S. A.** (1994). Genetic Resources of Medicinal Plants in Jordan. *IPEGRI, (International Plant Genetic Resources Institute)*, pp117-126.
18. **Oran, S. A.,** Nutlet Anatomy of the Genus *Salvia* L. in Jordan. (1997). *Flora Mediterranean*, Vol.7: 27-40.
19. **Al- Eisawi, D.M., Al-Oqlah, A., Oran, S. A. & Lahham, J.,** (1996). Plant Biodiversity in Jordan. Proceeding of a national seminar on: Plant genetic resources of Jordan. Amman-Jordan (2-4 August 1994), *IPGRI* (International plant genetic resources institute): 13-51.
20. **Oran, S. A.,** (1997). Ultrastructure of pollen grains of the Genus *Salvia* L. (**Labiatae**) in Jordan and the neighboring countries, *Dirasat, Natural and Engineering Sciences*, 24(3): 629-641.
21. **Al-Eisawi, D. M., Oran, S. A.,** (1995). Plant Biodiversity in Jordan (For better use of land sources) the third Jordanian Scientific week. Publication of the Higher Council for Science and Technology, Amman-Jordan. The 5th volume (Scientific papers "Environmental"): 3-23.
22. **Oran, S. A.,** (1997). Systematics of the Genus *Salvia* L. in Jordan and The Neighboring Countries, *Bull. Soc. Sci. Nat. de Tunisie*, 26: 75-82.
23. **Elbetieha, A., Oran, S. A., Alkofahi, A., Darmani, H., and Raies, A. M.** (2000) Fetotoxic potentials of *Globularia arabica* and *Globularia alypum* (**Globulariaceae**) in rats. *J. Ethnopharmacol.* 72(1-2): 215-219
24. **Oran, S. A., and Raies, A. M.** (2000) Antimicrobial Activity of *Globularia arabica* Jaub. And Spach and *G. alypum* L. (**Globulariaceae**). *Dirasat.* 27(1): 71-73
25. **Oran, S. A.** (2004) Micropropagation of Two Endangered Species of *Globularia* L. (**Globulariaceae**). *Dirasat.* 31 (2): 158-162.
26. **Al-Hilli, M. R., and Oran, S. A.** (2002) Eco-Phytosociological Study on Wadi Hauran, Western Desert-IRAQ. *Dirasat.* 29(2)
27. **Oran, S. A., and Al- Da'ja, I. K.** (2002) Plant Association With The Endemic *Iris nigricans* Dinsmore. (Iridaceae), in Jordan. *Dirasat.* 29(2)
28. **Oran, S. A. and Fattash, I.A.** (2005) *In Vitro* Propagation of Endangered and Medicinal Bulbous Plant *Sternbergia clusiana* Ker-Gawler (Amaryllidaceae). *The Journal of Horticultural Science & Biotechnology.* (Submitted)
29. **Ibrahima, O., Oran, S. A., et Aly Raies.,** (2003) Evaluation morphologique de cultivars de mil (*Pennisetum glucum* (L.) R. Br.) collectés en Tunisie et en Afrique de l'Ouest. *Plant Genetic Resources Newsletter*, 2003, No. 133: 35-40.
30. **Oran, S. A., and Al-Da'ja, I. K.** (2003) Systematic Re-Evaluation of one Species of Royal *Iris: I. atrofosca* Bak of one Locality in Amman Area / Jordan. *Dirasat.* 30 (2): 283-304
31. **Atrouz, O. M., Oran, S. A., and AL-Abadi, S. Y.** (2004) Chemical analysis and identification of pollen grains from different Jordanian honey samples. *International Journal of Food Science and Technology.* **39**, 1-5.
32. **Abrahima, Chibani, Oran, S. A., Boussaid, Karamanos, Raies.** (2005) Allozyme variation among some pearl millet cultivars collected from Tunisia and West Africa. *Genetic resources and crop evolution.* **52:1087-1097**
33. **Al-Mohaisen, D. M. and Oran S. A.** (2005) Plant Biodiversity of the surrounding area of Al-Fuhais cement plant/ Jordan, *Revue Soc.Sci.Nat.de Tunisie*, T:31(35-50)
34. **Odeh, M. and Oran, S. A.** (2005). Biosystematic Evaluation of the Genus *Ornithogalum* L. (Liliaceae) in Jordan, , accepted, proceedings, **International Conference on Promoting Community-Driven Conservation and Sustainable Use of Dry Land Agrobiodiversity**, ICARDA, Aleppo, Syria, 18-21 April 2005.

35. **Oumar Ibrahima, Farhat Chibani, Oran, S. A., Mohamed Boussaid, Yannis Karamanos and Aly Raies,**(2005). Allozyme variation among some pearl millet (*Pennisetum glaucum* L.) cultivars collected from Tunisia and West Africa. *Genetic Resources and Crop Evolution* (2005).
36. **Odah. M. and Oran. S. A.** (2007). Karyological Study of the Genus *Ornithogalum* (Liliaceae) in Jordan. *An International Refereed Research Journal*. Vol. 34. No.2 2007.
37. **Shammout. M. W., Oran. S. A. and Fayyad. M.** (2008). The application of duckweed (*Lemna* sp.) in wastewater treatment in Jordan. *International Journal of Environment and Pollution*.vol.33 No. 1, 2008.
38. **Abu- Zahra. H and Oran. S.A.** (2009). *In Vitro* Micropropagation of the bulbous, medicinal *Narcissus tazetta*., *Proceedings of the First International Medicinal and Aromatic Plants on Culinary Herbs*. Acta Horticulturae.826: (135- 140), ISHS 2009.
39. **Silvio Sosa, Mayada B. Shehadeh, Antonio Vassallo, Laura Lepore, Sawsan A. Oran, Aurelia Tubaro and Roberto Della Loggia,** (2009). Screening of Six Jordanian *Salvia* Species Commonly Used in Traditional Medicine for Topical Anti- inflammatory Activity. *Natural Product Communications (NPC)*. Vol.4 No. 0: (1-6).
40. **Abdul-Wahab R. Hamad, Waleed M. Al-Momani, Sana Janakat and Sawsan A. Oran.** (2009). Bioavailability of Ellagic Acid After Single Dose Administration Using HPLC. *Pakistan Journal of Nutrition* Vol. 8 (10): 1661-1664.
41. **Oran, S. A.** The Impact of the Emitted Dust from Zarka Cremator and the Petroleum Refinery on the Plant Biodiversity. Jordan (2009). Submitted.
42. **Oran. S. A.** Plant Biodiversity of Al- Balqa Province Jordan (2009). Submitted.

Conferences and Workshops

A. Conferences:

1. Advances in **Labiatae** Science Conference, Royal Botanic Gardens, **Kew, and U.K. 2-5 April 1991. Abstract Submitted:** Pollen Morphology of the genus *Salvia* in Jordan and the neighboring countries.
2. The 12th Scientific Conference for the Iraqi Biological Society, **BABEL\ IRAQ, 18-20-Feb, 1992. Abstract:** Scanning Electron Microscopy of seed surface of the genus *Salvia* L. in Jordan and the neighboring countries.
3. The 3rd Jordanian Conference and the 6th Scientific Conference of Biological Sciences, **Jordan, Amman, 24-28, Oct., 1992. Abstract:** Seed Anatomy of the genus *Salvia* in Jordan and the neighboring countries.
4. Man and Mountains 94, First International Symposium on Protection and Development of Mountains, **PONTE DE LEGNO\ ITALY, 20-24 June, 1994. Abstract:** Flora of Shoubak Mountains, Socioeconomic and Man Impact.
5. The 7TH Arab Conference of Biological Sciences, (Biodiversity and Environment) **SUSSA, TUNISIA, 4-7 NOVEMBER 1994. Abstract:** Biodiversity of Karak Province (Jordan).
6. The 3rd Scientific Conference, the Higher Council for Science and Technology, **SEPT. 1995, AMMAN. Abstract:** Biodiversity in Jordan.
7. The 1st Arab Conference for Conservation of Biodiversity in the Arab World. **Abstract:** Biodiversity of Petra (Jordan), **4-7 Sept. 1995, ALEPPO, Syria.**
8. Symposium International sur La Re'novation Didactique en Biologie, **Tunisia, 4-7/11. 1995. Abstract:** Teaching of biological sciences in Jordan University. The Jordanian experience.
9. Past, Present and Future, Middle East Desert. **Yarmouk University, 30 July- 1 August 1996.**

Abstract: the desert of Jordan (Badia).

10. The Forth Scientific Conference, the Higher Council for Scientific and Technology, **Amman, 27th August-3rd September.**
Abstracts: 1-Plant Biodiversity in Jordan. Database of Plant Biodiversity in Jordan.
2-The characterization of the Medicinal Plant *Globularia* in Jordan and Tunisia.
11. The 9th International Biological Days of Biotechnology and Development., **Monstir. Tunisia, 7-10/1996.**
Abstract submitted: Diversity of medicinal plants in the desert of Jordan.
12. The 8th Arab Conference of Biological Sciences and the 4th Jordanian Conference of Biological Sciences, **Amman, 8-16 Nov 1997.**
Abstract: Anatomy of Two Species of *Globularia*
13. Femme, Science et Technologie, Etat des Lieux ET Prospectives, 20- 22 Nov 1996, **Tunis**
Abstract: Woman and Technology in Jordan.
14. WSEK Congress (International Options for Close Water System, Wageningen-Congress, **Netherlands, 11-13 May 1998.**
Abstract submitted: Use of Duckweed for Wastewater Treatment at Khirbet AL-Samra Wastewater Treatment Plant/ Jordan.
15. IX OPTIMA Collique/ Meeting, International Conference, **Paris, 11-17 May 1998.**
Abstract submitted: Biosystematics of the genus *Globularia* in Jordan and Tunisia.
16. Xth Biological Conference / International Symposium, Hammamat/ Tunisia, 6-8 November 1998.
Abstract submitted: Potato Disc Bioassay of Some Jordanian Medicinal Plants.
17. 4th Symposium of African Palynology, **Susse, Tunisia, 26-30 April 1999**
Abstract submitted: Ultra-structure of pollen grains of some **Labiatae** members .
18. 42ND Annual Symposium of the IAVS: Vegetation and Climate. **Bilboa, Spain 26-30 July 1999.**
Abstract submitted: Anatomy of Two Mediterranean xerophytic plants in Jordan and Tunisia.
19. The 6th International Conference on the Development of Dry Lands International Center for Agriculture Research in Dry Areas (**ICARDA**). **Cairo, Egypt 22-27 August 1999.**
Abstract: Micro-propagation of Two Endangered Species of *Globularia* L. (**Globulariaceae**).
20. Mediterranean Conference **MEDFORUM** (Protected areas, preservation of biodiversity and sustainable development in the Mediterranean. Strategic **guidelines** and good practices) **Malaga, Spain 18-20 Nov. 1999.** Project submitted: Biodiversity of Jordan, Scientific results of the final phase, and recommendations.
21. “The Siq Project/ Petra”, Amman/ 11.Nov.1999. **Abstract submitted: Environmental Impact Assessment on Plant Life.**
22. Mediterranean Conference **MEDITEREANEAN NGO PARTICIPATION IN THE NATIONAL PROGRAMS TO COMBAT DESERTIFICATION AND DROUGHT.** Murcia (Spain), **16-18 June, 2000.**
23. 43th Annual symposium of the IAVS. **Navano/Japan July 2000.**
Abstract : Evaluation of some lentil germplasm.
24. 10th international pharmaceutical technology symposium. **DEVELOPMENT AND DELIVERY CHALLENGES OF THE NEXT GENERATION OF DRUGS.** Istanbul – Turkey. **September 11-13, 2000.**
Abstract submitted: evaluation of Ethanolic extracts of *Globularia arabica* and *Globularia alypum* on the fertility of female rat.
25. **XIIth National Days of Biology “ Biodiversity and Biotechnology.” 5-7 November 2001, Monastir / Tunisia.**

Paper submitted: *In Vitro* Propagation of Endangered and Medicinal Bulbous Plant *Sternbergia clusiana*. Ker-Gawler (Amaryllidaceae).

26. The Arab Conference on Medicinal Plants 13- 15 May 2002, **Manama- Kingdom of Bahrain** “**Terpenoid of *Inula viscosa* induces mitochondrial-independent apoptosis-like cell death in yeast *Saccharomyces cerevisiae*”.**
27. **Biotechnologies Végétales: Valorisations, Pour Une Agriculture durable. 7-9 October 2002, Marrakech-Maroc.** VIII^{èmes} Journées Scientifiques du Réseau “Biotechnologies, Amélioration des plantes et Sécurité Alimentaire” de l’Agence Universitaire de la Francophonie.
Abstract submitted: Evaluation du polymorphisme enzymatiques accessions du Mil (*Pennisetum*).
28. **L’essor des Bioressources.DJERBA du 16-19 Mars 2003.** SOCIETE DES SCIENCES NATURELLES DE TUNISIE, XIII^{èmes} JOURNEES NATIONALES DE BIOLOGIE.
Abstract submitted: DIVERSITE GENETIQUE DES PENNISETINES DE QUELQUES CULTIVARS DL MIL COLLECTES EN TUNISIE ET EN AFRIQUE DE L’OUEST.
29. “**The Seventh Jordanian Scientific Week**”, for science and technology. **6-8 October. 2003.**The Higher Council For Science and Technology.
Abstract submitted: *in Vitro* Propagation of (Amaryllidaceae).
30. “**The first Conference on Scientific Research in Jordan**”, Programme Agenda. The society of friends of scientific research / **Amman.** Oct. 25-26, 2003.
31. “**The Tenth Jordanian Scientific Week**”, for science and technology. **19-21. Sep. 2003.**The Higher Council For Science and Technology.
32. “**Helmholtz Dead Sea conference**”, **Dead Sea- Jordan,** 16- 19 January 2004.
33. “**2nd World Botanic Gardens Congress, Botanic Gardens- A World of Resources and Heritage for Humankind/** April 17- 22, 2004, BARCELONA, SPAIN.
34. **ملتقى المرأة العربية الاول للتربية البيئية/** فندق الانترنتنتنال/ الاردن. عمان 24 /4 /2004.
35. “**Agenda for Consultation Workshop on Refedain Marshlands (AL-Ahwar) Management**”, Le Meridien Hotel/ Amman, Jordan, June 19-22, 2004.
36. **The Second Environmental Symposium of the German-Arabic Society for Environmental Studies/** Amman, Jordan/ October 4&5, 2004 / **Water Resources and Environmental Protection in the Middle East and North Africa.**
37. Land use and management options for biodiversity in the Dead Sea region, **The Centre for Environmental Research Leipzig-Halle GmbH, Germany,** August 30 to September 2004,
38. **Abstract** submitted: “Plant Biodiversity of the Jordan Valley”.
39. **The international symposium of botanical gardens in the MENA region** (Mediterranean and North Africa), 19-21 March/ 2005, Dead Sea, Jordan.
40. **International symposium on the biology of the Palm,** 6-8 April/ 2005, Royal Botanic Gardens, Kew and Linnean Society of London, London, UK.
Abstract submitted: plant biodiversity of AL-Fuhais area/ Jordan.
41. **International Conference on Promoting Community-Driven Conservation and Sustainable Use of Dry Land Agrobiodiversity,** ICARDA, Aleppo, Syria, 18-21 April 2005.
Abstract submitted: Biodiversity and Biosystematic Evaluation of the Genus *Ornithogalum* L. (Liliaceae) in Jordan.
42. **The State of Gulf Ecosystem : Future and Threats,** 5-7 March 2006, Al Ain, UAE,
Abstract submitted: Plant Biodiversity and some exotic species in Jordan

43. **Molecular Mapping and Marker assisted Selection in Plants**, 3-6 February 2008. Vienna, Austria.
Abstract submitted : Biosystematics of Onopordum in Jordan
44. **International Medicinal and Aromatic Plants Conference on Culinary Herbs**, 29April- 04 May2007, Divan Talya Hotel, Antalya- Turkey,
Abstract submitted: "Micropropagation of the Wild Endangered Daffodil *Narcissus tazetta* L."
45. **The 1st International Symposium on Medicinal Plants, their Cultivation and Aspects of Uses**, 15-16 October 2008, Petra Marriot Hotel, Petra-Jordan,
Abstract submitted: " The immunomodulatory and antitumor effects of the Crude Aqueous Suspension of *Globularia Arabica* leaves in Balb/c Mice".
46. **First International Congress Documenting, Analysing and Managing Biodiversity in the Middle East**, 20- 23 October 2008, Intercontinental Hotel, Aqaba- Jordan,
Abstract submitted: " Plant Biodiversity of Al- Balqa Governorate –Jordan."
47. **International Conference on Plants & Environmental Pollution**, July 6-11, 2009, Kayseri- Turkey,
Abstract submitted: "The Impact of the Emitted Dust from Zarka (Jordan) Petroleum Refinery on the Plant Biodiversity".

B. Workshops

1. Workshop on plant Genetic Resources in Jordan, Jordan, **2-4, August 1994**. Abstract: Genetic Resources of Medicinal Plants in Jordan. Abstract: Biodiversity of Karak (**Jordan**).
2. Workshop Forestry and Communities of Forests, **AL-Ruman, Jordan, 10-13 OCT 1994**
3. The Experts of Biodiversity in Jordan Workshop, **18-19 June, Amman, Jordan**. Abstract: Plant Biodiversity in Jordan (a Country Study).
4. EIA (Environment Impact Assessment) workshop, **Aqaba, 24-27, May, 1997** Promotion and Preservation of Medicinal and Herbal Plant, Workshop on Medicinal and Herbal Plants in Jordan, **NCARTT, Baqa, Jordan June 28, 1998**, Abstract: Diversity of Plant Genetic Resources in Jordan
5. GEF/ SGP National Workshop, Country Program Strategy, **Amman, April 22nd, 1999**.
6. Environmental Public Awareness Course and Workshop, (World University of Canada and the General Corporation for Environmental Protection), **Amman, May 13th, 1999**
7. Conservation of Medicinal and Herbal Plants of Jordan, (PDF-B Grant), National Stakeholder Workshop, **24-25 April 2002**, Movenpick at the **Dead Sea / Jordan**.
8. Workshop on Environmental Cases / Projects of Specialized Studies / Great Amman Municipality, Amman, **22/ 12/ 2002**.
9. 2nd meeting / Discussing the Laws of Environment / Ministry of Environment/ Amman.
 - a. EIA law (Environmental Impact Assessment). Committee.
 - b. Reserves law. Committee.
May 17th, 2003, Amra hotel/ Amman.
10. “ The effect of using computer, multiple tools, and free experience, in teaching the students of science / University of Jordan” workshop/**Amman. Oct. 16th. 2003**. Higher Council of Science and Technology.
11. Jordan- conservation of medicinal and herbal plants (P069847)- project launching workshop/ 12-13 April 2004/ Holiday-Inn/ Amman- Jordan.
12. “Environmental Impact Assessment of wastewater plants and water reuse in the Mediterranean rejoin” workshop / 11.7- 15.7.2004. AL-Albait University/ Jordan, **Abstract submitted: PLANT BIODIVERSITY and EIA**
13. Landuse and management options for biodiversity in the Dead Sea region, **The Centre for Environmental Research Leipzig-Halle GmbH, Germany**, August 30 to September 2004, Abstract submitted: “Plant Biodiversity at the Jordan Valley”.
14. The effect of the extracts of some Jordanian medicinal plants on the immune system. Amman . August. 13th .2006. The higher council of Science and Technology.

15. ورشة إطلاق قاعدة البيانات الوطنية للتنوع الحيوي، 3 حزيران 2009 في مبنى "برية الأردن/ وزارة البيئة".

Other Research activities

- Member of the Agenda 21 Project (A21): Writing the Plant biodiversity Chapter (1997-)
- Carried out 2 projects sponsored by The **Higher Council for Science and Technology** / Jordan, (R & D Fund): 1996- 2000:
 1. **Data Base**
 2. **Biodiversity of Medicinal Plants in Jordan.**
 3. **Glowa Project**
 4. **onservation of medicinal plants in Jordan**
- A partner (Biologist) in a joint project (**Canadian Government and the Water research center/Univ. of Jordan**) for using the duckweed in water treatment): 1997-1998.
- Carried out a project entitled "Biology of *Globularia* in Jordan", sponsored by Deanship of Scientific Research, University of Jordan. 1995-2002.
- Researcher (consultant) in the pilot project at Wadi Musa (Waste Water Plant), Badia Research and Development Program (BRDP) / 2002, carried out the vegetation survey.
- Researcher in **Glowa** Project, University of Jordan and Tuebingen University, 2005 – now.
- Major researcher in a project entiteled : " **Consrvation and micropropagation of rare , bulbs and other medicinal plants in Jordan**", sponsored by the Deanship of Academic research, University of Jordan , 2003-...now
- Major researcher in a project entitled " **The impact of the Cement Dust Emitted from Al-Janoub (Al-Rashadyah Tafila) Cement Plant on the Biodiversity of the surrounding Area**" sponsored by the Deanship of Academic Research, University of Jordan, Amman, Jordan, 2005.
- Major researcher in a project entitled " The Impact of the Emitted Dust from Zarka (Jordan) Petroleum Refinery on the Plant Biodiversity", sponsored by the Deanship of Academic Resaeach, AL- Balqa'a Applied University, Jordan 2007.
- Major researcher in an ongoing project entitled " *In Vitro* Micropropagation of *Iris bismarckiana* Regal plant (Iridaceae) in Jordan" sponsored by the Deanship of Academic Research, University of Jordan, Amman, Jordan, 2009.

M. Sc. Thesis (supervision)+ Examining committees

- **Member** of the examination committee for the student Ghadeer Omar 1994
Thesis title: Anatomy of the Genus *Clochicum* (Liliaceae) In Jordan.
- **Member** of the examination committee for the student Ahmad Mohammad 1998
Thesis title: Determination of Organic and Inorganic N-chloramines in Al-Samra Chlorinated Wastewater and its effects on the Disinfection Process.
- **Member** of the examination Committee for the PH.D student Salam Jamal Iyoub 2001
Thesis title: A study of some Physiological and Anatomical Aspects of Rooting Nabali and Raseei Olive Semi-Hardwood Stem Cuttings
- **Member** of the examination Committee for the PH.D student Nihadd Issa Al-Smeirat 2002
Thesis title: Comparative Study on Rooting of two Apple Rootstocks by Stem Cuttings
- **Member** of the examination Committee for the PH.D student Ghadeer Omar (2006)
Thesis title: Systematics of the genus *Allium* in Jordan.
- **Member** of the examination Committee for the M. Sc student Fathi Goma AL-Sghair 2004
Thesis title: Vegetation study of Dibin National Park, Jordan.
- **Major advisor** for the M. Sc Student Misa'a Shamoot / Ecology 1997-1998.
Thesis title: Use of Duckweed for Waste Water Treatment at Khirbet Al-Samra Waste Water Treatment Plant / Jordan

- **Major advisor** for the M. Sc Student Muna Odeh 1999
Thesis title: Systematic Study of the Genus *Ornithogallum* (Liliaceae) in Jordan
- **Major advisor** for the M. Sc student Dana AL-Mohaisen 2003
Thesis title: Botanical Study of the Surrounding Area of AL-Fuhays Cement Plant and its Impact on Plant Biodiversity.
- **Major advisor** for the PH.D student Enas Al – Zua'bi, 2004
Thesis title: Systematic study of the genus *Onopordum* (Asteraceae) in Jordan.
- **Major advisor** for the M.Sc. student Hamad Abu Zahra, 2005.
Thesis title: Micropropagation of the wild, endangered Daffodil (*Narcissus tazetta* L.).
- **Co-advisor** for the student Omaima Al-Kiswani.
Thesis title: Anatomical Studies of the Genus *Crocus* (Iridaceae) In Jordan.
- **Co-advisor** for the student Yassir Adil Turki, 2004.
Thesis title: Assessment of the Immunomodulatory and Antitumor Effects of Some Plant Extracts on Bala/ c Mice.
- **Major advisor** for the current PH.D student Jameel Fayyad Bzour, 2009,
Thesis title: "Assesment of the Antirheumatic Activity of *Salvia fruticosa* Mill.
(Syn.: *Salvia triloba* L.fil.) (Lamiaceae) ; by Performing Enzymatic, Cellular and *in vivo* Studies".

Non-Academic Experiences

Herbarium curator / University of Jordan / Amman

Committees

1. Member of Study Plan Committee / University of Jordan (2009- now).
2. Member of Energy Council Committee / University of Jordan (2009- now).
3. Member of Hamdi Mngo Center for Scientific Research Committee / University of Jordan (2009- now).
4. Member of the Journals Committee / University of Jordan (2009- now).
5. Member of Conferences and Seminars Committee / University of Jordan (2009- now).
6. Member of the Appointment and Promotion Committee / University of Jordan (2009- now).
7. Member of the Steering committee of the Biodiversity Project-Jordan / Higher Council for Science and Technology.
8. Member of the Agenda 21 National Project
9. Member of the national team for the study of plant Biodiversity in Jordan / The General Corporation for Environment Protection. (1995-now)
10. Member of **OPTIMA** Organization (Organization for the Phyto-Taxonomic Investigation of the Mediterranean Area).
11. Member of the Organization for the Phyto-Taxonomic Investigation of the Mediterranean area.
12. Member of Jordan Society of Biological Sciences
13. Member of Jordan Society of Environment.
14. Member in the Royal Society for Conservation of Nature.
15. Member of plant friends Society / Jordan
16. Member of Society of Friend of Scientific Research at Public Universities.
17. Member in the Tunisian Society for Natural Sciences
18. Member in the Activation and Stimulation of Computer Society in the faculty of Science / University of Jordan 1997/1998
19. Supervisor of Environment Conservation Club for Students / University of Jordan – Dean ship of Students Affairs 1994.
20. Supervisor of Science Creativity Club for Students / University of Jordan – Dean ship of Students Affairs 1995.
21. Secretary of the Biological Department Council / University of Jordan 1996 / 1995.
22. Member of the Scientific Research Committee / Department of Biological Sciences / University of Jordan 1998 / 1999.

23. Member of the Social and Sport Committee / Faculty of Science / University of Jordan 1996 / 1997 /1998.
24. Representative of the Faculty of Science Council / University of Jordan 1998 / 1999.
25. Member of Student Execution Committee / Faculty of Science – University of Jordan 1999.
26. Member of the Approval Committee of Petra (Al-Banat) University (Private University) / 1995 / Ministry of Higher Education
27. Member of the Scientific Research Committee / Department of Biological Sciences / University of Jordan 1999 /2000.
28. Representative of Department of Biological Sciences in the Faculty of Science Council.
29. Member of Execution Committee for Students / Faculty of Science / University of Jordan 1999/2000.
30. Member of the steering committee for the Promotion, Conservation and Utilization of Medicinal Plants in Jordan Project/ Ministry of Agriculture/ National Center for Agricultural Research and Technology Transfer 1998-1999.
31. Member of Communication with Society Committee / Faculty of Science / University of Jordan 1999 / 2000.
32. Member of the Social Committee / Department of Biological Sciences / Faculty of Science / University of Jordan 1999 / 2000.
33. Member of the Approval Committee of Jareh University (Private University) / 2001 / Ministry of Higher Education
34. Member of the Technical Committee of Medicinal and Ornamental Plants / Ministry of Agriculture / National Center for Agricultural Research and Technology Transfer 2001.
35. Member of the committee for the Shafa Badran Botanical Gardden/ Faculty of Agriculture/ Univ. Of Jordan
36. Member of the Technical and steering committee for the conservation of medicinal and herbal plants of Jordan. Project – PDF – B – Grand 2002.
37. Member of the chevening Association / British council / Amman.
38. Member of the equal postgraduate degrees committee / 2002 -Now/ Ministry of Higher Education & Scientific research.
39. Representative of Department of Biological Sciences in the Faculty of Science Council.2003-2004.
40. Member of Execution Committee for Students, in the Faculty of Science Council/ University of Jordan 2003-2004.
41. Member of Execution Committee for Students, in the University Council/ University of Jordan 2003-2004.
42. Member of course outline committee for the Department of Biological Sciences/ University of Jordan 2003-2004.
43. Member of the Associate studies committee, 2003- 2004. Faculty of postgraduate studies/ University of Jordan.
44. Member of the scientific day committee, 2004. Faculty of science/ University of Jordan.
45. Member of Student Execution Committee for the Faculty of Science – University of Jordan 2004/2005.
46. Member of the scientific day and social communication committee, 2004/2005. Faculty of science/ University of Jordan.
47. Representative of Department of Biological Sciences in the Faculty of Science Council.2004-2005.
48. Member of the postgraduate studies committee / Department of Biological Sciences / Faculty of Science/ University of Jordan. 2004-2005.
49. Member of Student Execution Committee of the university 2004/2006.

Fellow ships:

1. M. Sc grant (Reading University U. K.) from the University of Jordan 84.
2. British Council/ Amman, Jordan. P. H. D 90 (Reading University, U. K.).

Consultancy:

1. Consultant in the *Pilot Project at Wadi Musa (Waste Water Plant)* Badia Research and Development Program (BRDP)/ 2002
Carried out the vegetation survey.
2. Consultant in a study entitled “**Survey of medicinal plant in south of Jordan** “ submitted to Jordanian company for investment and development of the south/ 1994.
3. Consultant in a study entitled “**Planting the site of the south cement mines in Al- Rashadih / Tafila**” submitted to the Center For Consultation And Technical Services / University of Jordan.