

## Curriculum Vitae



**Name:** Dr. Tawfik M. Muhsin

**Birth Date:** July 1<sup>st</sup>, 1953

**Status:** Married

**Position:** Professor in Biology (Mycology)

**Address:** Department of Biology, College of Education, University of Basrah, Basrah, Iraq (email: [tmuhsin2001@yahoo.com](mailto:tmuhsin2001@yahoo.com))

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### Degrees awarded:

BSc. In Biology, College of Science, Basrah University, Iraq (1975)

MSc. In Mycology, College of Science, Basrah University, Iraq (1978)

PhD. In Mycology, Department of Botany, University of Manitoba, Manitoba, Canada (1985)

### Theses titles:

MSc. Thesis (Studies on saprolegniaceae in Shatt Al-Arab river near Basrah, Iraq)

PhD. Thesis (Studies on fungi associated with inland salt marsh halophytes In Delta marsh, Manitoba, Canada)

### Employment:

Assistant Lecturer at Biology Department, College of Education, University of Basrah, Basrah, Iraq (1979-1981)

Lecturer at Biology Department, College of Education, University of Basrah, Basrah, Iraq (1985-1990)

Assistant Professor at Biology Department, College of Education, University of Basrah, Basrah, Iraq (1990-1995)

Professor in mycology at Biology Department, College of Education, University of Basrah, Basrah, Iraq (1996-till now)

### Fellowships awarded:

1. Doctoral fellowship for three academic years at the University of Manitoba, Canada (1982-1985)
2. Post-Doctoral fellowship for one year awarded by the University of Alberta, Canada (2000-2001)

3. Research Assistant for one year awarded by the University of Alberta, Canada (2004-2005)

### **Teaching Experiences:**

I had taught the following courses;

1. Undergraduate courses (Mycology-Phycology-Plant Taxonomy-Aquatic Mycology-Archegoniates).
2. Graduate courses for MSc and PhD students (Fungal Taxonomy-Fungal Ecology-Medical Mycology-Applied Mycology-Fungal Biology- Biology of Halophytes).

### **Research Interests:**

1. Taxonomy and ecology of different fungal groups inhabiting soil and aquatic environments.
2. Biology of mycorrhizal fungi and their roles in plant growth and root-hydraulic conductance under stress-conditions.
3. Epidemiology of Dermatophytes of both Anthropophilic and Zoophilic fungi.
4. Biological control using Nematophagous fungi against plant pathogens.

### **International Scientific Societies Memberships:**

1. Mycological Society of America (member 1977-1990)
2. British Mycological Society (member 1978-1982)
3. Iraqi Biological Society (member 1976-2000)

### **Selected Presentations given at International meetings:**

1. Studies on fungi associated with salt marsh halophytes. Delta Marsh, Manitoba, Canada (1984)
2. Rhizoplane and Cauloplane fungi of inland salt marsh halophytes. Fourth International Marine Mycology Symposium, Portsmouth, England (1985).
3. Life strategies among fungal assemblages on *Salicornia europaea* agg. along conductivity gradients. International Meeting of Mycological Society of America (1985).
4. Interaction between endomycorrhizae and rhizospheric fungi in soil of five host plants in Iraq. International Symposium on Subsurface Microbiology. Davos, Switzerland (1996).
5. Exocellular enzyme activities of dermatophytes and yeast isolates using Photometric assay. Federation of African Societies of Virologists and Microbiologists. Cameroon (1999).
6. Ecological significance of ectomycorrhizal associations in forest Ecosystem. Landscape Ecology Seminars Series, University of Alberta, Canada (2001).
7. Significance of ectomycorrhize in forest ecosystem. University of Manitoba, Winnipeg, Canada (2001).

8. Use of nematophagous fungi in controlling root knot caused by *Meloidogyne*. 10th Arab Plant Diseases Congress, Beirut, Lebanon (2009).

### Scientific Committees:

1. Examination committee member of Biology Department, Education College, Basrah University (1986-1988).
2. Examination committee chairman of Biology Department, Education College, Basra University (1989-1992).
3. Executive of graduate studies committee at Biology Department, Education College, Basra University (1986-2000).
4. Member of the staff promotion committee at Basrah University (1996-2003).
5. Chairman of staff promotion committee of the Education College, Basrah University (1998-2003).
6. Member of the ecological and environmental protection committee at Basrah University (1997-2000).

### Theses Supervision:

#### Master Theses:

1. Studies on fungi associated with desert plants southern Iraq. (Submitted by Daraj HF. 1989).
2. A comparative study on the salt tolerant plants in desert of southern Iraq. (Submitted by Athbi AM. 1990).
3. Taxonomy and ecology of vesicular-arbuscular mycorrhizal fungi in Iraq. (By Aubaid AH. 1990).
4. Studies on the nematophagous fungi in Iraq. (By Kasim AA. 1997).
5. A comparative anatomy of wheat cultivators infected with *Puccinia striiformis* (By Ali SA. 1998).
6. Degradation of submerged substrates by fungi in aquatic environment. (BY Khalaf KT. 1999).
7. Ecology and physiology of the salt tolerant alga *Dunaliella salina*. (BY Awad EY. 1999).
8. Effects of garlic (*Allium sativum*) extract on the growth and enzymes activity of rhizosphere and rhizoplane fungi. (By Ali ET. 2000).
9. A study on fungi of sewage in Basrah, Iraq. (By Hadi RB. 2000)
10. A study on zoophilic fungi in southern Iraq. (By Salih TH. 2000).
11. Effects of different plant extracts on the growth and enzymes activity of Pathogenic fungi. (By Farhan FH. 2000).
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#### PhD Theses:

1. Taxonomy and biology of endomycorrhizal fungi in their effects on plants growth. (By Nema JH. 1996).
2. A study the superficial cutaneous mycoses in Basrah, Iraq. (By Al-Duboon AA. 1997).
3. Pathogenicity, immunity and enzymic activities of dermatophytes and yeasts in Iraq. (By Aubaid AH. 1997).
4. Mycoflora of desert soils in Iraq. (By Ahmed NS. 1999).
5. Taxonomy and biology of myxomycetes in southern Iraq. (By Ali SA. 2005).
6. Nematophagous fungi and their use in biological control. (By Kasim AA. 2005).

7. Effects of fungal extracts on the growth of some pathogenic fungi. (By Khalaf KT. underway).

### Examiner for graduate student theses:

I have been chosen as an examiner or chairman committee for over forty theses submitted for Master and Doctoral degrees by the faculties of Science, Education, Agriculture and Medicin.

### List of publications

1. Muhsin TM, Rattan SS & Ismail AS (1979). Aquatic fungi of Iraq: Species of *Dictyuchus* and *Calyptrolegnia*. *Sydowia Annal Mycol* 31: 112-121.
2. Muhsin TM, Rattan SS, Al-Saddi HA & Hameed AH (1979). Possible relationship between phytoplankton numbers and saprolegnoid in Shatt Al-Arab river near Basrah, Iraq. *Hydrobiologia* 63: 57-62.
3. Muhsin TM, Rattan SS & Ismail AS (1979). Aquatic fungi of Iraq: Species of *Saprolegnia*. *Hydrobiologia* 65: 83-93.
4. Muhsin TM, Rattan SS & Ismail AS (1980). Notes on the occurrence and seasonal periodicity of saprolegniaceae in Shatt Al-Arab river, Basrah, Iraq. *Kavaka* 8: 41-48.
5. Muhsin TM & Al-Helfi MA (1981). Hyphomycetes of Iraq: The genus *Stachybotrys*. *Sydowia Annal Mycol* 34: 130-134.
6. Muhsin TM & Al-Helfi MA (1982). Occurrence of cellulolytic fungi in Shatt Al-Arab river and its creeks near Basrah, Iraq. *Bull Educa Basrah Univ* 8: 19-33.
7. Muhsin TM (1984). Mycological studies on salt marsh halophytes. *Annual Rep Univ Field St Manitoba, Canada* 17: 71-73.
8. Muhsin TM, Rattan SS & Ismail AS (1984). Aquatic fungi of Iraq: Species of *Achlya*. *Sydowia Annal Mycol* 37: 224-237
9. Muhsin TM & Booth T (1987). Fungi associated with halophytes of an Inland salt marsh. Manitoba, Canada. *Can J Bot* 65: 1137-1150.
10. Muhsin TM (1987). Studies of *Alternaria* associated with salt marsh halophytes. *Sydowia Annal Mycol* 40: 188-196.
11. Muhsin TM & Ewaz JO (1988). New records of Agarics from Iraq. *Basrah J Agric Sci* 2: 105-111.
12. Booth T, Gorri S & Muhsin TM (1988). Life strategies among fungal assemblages on *Salicornia europaea* agg. along conductivity gradients. *Mycologia* 80: 176-191.
13. Muhsin TM & Zwain KH (1989). Correlation between fungal populations and amino acids level of salt desert plants of Iraq. *Sydowia Annal Mycol* 41: 209-218.
14. Muhsin TM & Zwain KH (1989). A comparative study of ionic level and amino acids composition of desert plants in Iraq. *Basrah J Agric Sci* 2: 251-259.
15. Muhsin TM & Zwain KH & Lafta AH (1989). A study on the fungal populations of ground water in Basrah, Iraq. *Polish Arch Hydrbiol* 36: 315-322.
16. Muhsin TM (1990). Effects of salts on the growth of fungi associated with

- halophytes in vitro. *Basrah J Agric Sci* 3: 151-159.
17. Muhsin TM & Abdul-kadir MA (1991). Marin fungi from Iraq. *Marina Mesopotamica* 6: 193-207.
  18. Muhsin TM, Aubaid AH & Al-Bader SM (1992). Taxonomy of vesicular-arbuscular mycorrhial fungi in Iraq: The genus *Acaulospora*. *Basrah J Agric Sci* 2: 118-128.
  19. Muhsin TM & Zwain KH (1992). Fungi associated with desert plants in Iraq. *Iraqi J Microbiol* 4:60-73.
  20. Muhsin TM, Al-Zubaidy SR & Zwain KH (1993). A study on an endophyte fungus associate with parasitic desert plant *Cynomorium coccinium*. *J Abhath Al-Basrah* 2:70-92.
  21. Muhsin TM & Daraj HF (1993). Population dynamics of *Alternaria* species associated with desert plants in Iraq. *J Abhath Al-Yarmouk* 2: 9-29.
  22. Muhsin TM & Aubaid AH (1993). A proposed key to the vesicular-arbuscular mycorrhial (VAM) fungi in Iraq. *Basrah J Sci* 11: 73-79.
  23. Muhsin TM & Aubaid AH (1993). Taxonomy of vesicular-arbuscular mycorrhizal (VAM) fungi in Iraq. *Basrah J Sci* 11: 97-104.
  24. Muhsin TM, Aubaid AH & Abdul-Kadir MA (1993). Effects of VAM on fungal spores inocula on the growth of *Hordium distichus* L. *Basrah J Sci* 11: 105-114.
  25. Muhsin TM & Abdul-Kadir MA (1993). Fungi associated with semi arid desert plants of Iraq. *Basrah J Agric Sci* 6: 125-136.
  26. Muhsin TM, Habbeeb EK & Athbi AM (1993). Spatial and temporal occurrence and frequency of aquatic fungi in Shatt Al-Arab river, Basrah, Iraq. *Marina Mesopotamica*. 8: 105-117.
  27. Muhsin TM & Zwain KH (1993). On the community and ionic level of western desert of Iraq. *Basrah J Sci* 1: 11-19.
  28. Muhsin TM, Athbi AM & Haddad RS (1994). Seed germination of *Salicornia herbacea* L. in vitro. *J Abhath AL-Yarmouk* 12: 55-65.
  29. Muhsin TM, Athbi AM & Haddad RS (1994). Growth and ion accumulation in *Tamarix aphylla* treated with sodium chloride. *Basrah J Sci* 12: 71-80.
  30. Muhsin TM (1994). *Calyptrolegnia basraensis* sp. nov. (Saprolegniaceae) from Iraq. *Pol Arch Hydrobiol* 41: 415-418.
  31. Muhsin TM & Aubaid AH (Vesicular-arbuscular mycorrhizal (VAM) fungi from Iraq: The genus *Glomus*. *Basrah J Sci* 12: 81-90.
  32. Muhsin TM & Aubaid AH (1995). Comparison of vesicular-arbuscular mycorrhizal fungal assemblages among three sites of *Phoenix dactylifera*. *Basrah J Sci* 13: 91-100.
  33. Muhsin TM & Abdul-Kader MA (1995). Ecology of fungi associated with *Phragmites australis* in Iraq. *J Abhath AL-Yarmouk* 4: 31-50.
  34. Muhsin TM & Athbi AM (1997). Growth response of the halophyte *Salicornia herbacea* L. under different treatments of sodium chloride and fertilizers. *J Abhath AL-Yarmouk* 6: 39-52.
  35. Muhsin TM & Nema JH (1997). Interaction between endomycorrhizae

- and rhizosphere fungi in soils of five host plants. *Acta Mycol* 32: 41-50.
36. Muhsin TM, Aubaid AH & Al-Duboon AA (1997). Extracellular enzyme activities of dermatophytes and yeast isolates on solid media. *Mycoses* 40: 465-469.
  37. Muhsin TM & Aubaid AH (1998). Partial purification and kinetic studies of exocellular proteinase from *Trichophyton mentagrophytes* var. *erinacei*. *Mycoses* 41: 163-168.
  38. Muhsin TM, Al-Duboon AA & Al-Rubaiy KK (1998). Tinea capitis in Basrah, Iraq. *Mycoses* 41: 163-168.
  39. Muhsin TM & Kasim AA (1998). Nematophagous fungi from Iraq. *Acta Mycologica* 33: 161-167.
  40. Muhsin TM & Nema JH (1998). *Gigaspora guttliospora* sp. nov. A new species from Iraq. *J Abhath AL-Yarmouk* 7: 51-57.
  41. Muhsin TM, Al-Duboon AA & Al-Rubaiy KK (1999). Characteristics of dermatophytes in Basrah, Iraq. *Mycoses* 42: 335-339.
  42. Muhsin TM, Al-Zubaidy SR & Ali RT (2000). Effect of garlic bulb extract on the growth and enzymic activities of rhizosphere and rhizoplane fungi. *J Basrah Res* 25: 44-51.
  43. Muhsin TM, Al-Zubaidy SR & Ali RT (2000). Effect of garlic extract (*Allium sativum* L.) on the inhibition of growth of rhizosphere and root associated fungi of some plants. *J Basrah Res* 24: 103-135.
  44. Muhsin TM & kasim AA (2000). New records of some species of nematophagous fungi from Iraq. *J Basrah Res* 24: 29-35.
  45. Muhsin TM, Hamadi KJ & Ali SA (2000). Mechanism of infection and resistance to the stripe rust caused by *Puccinia striiformis* on different cultivars of wheat in Basrah, Iraq. *Basrah J Agric Sci* 13: 119-135.
  46. Muhsin TM & Aubaid AH (2001). Partial purification and some biochemical characteristics of exocellular keratinase from *Trichophyton mentagrophytes* var. *erinaceae*. *Mycopathologia* 150: 121-125.
  47. Muhsin TM, Al-Zubaidy SR & Awad EY (2001). Effect of nitrogen sources on the growth of the salt tolerant alga *Dunaliella salina*. *Basrah J Sci* 19:85-92.
  48. Muhsin TM & Kasim AA (2001). *Curvularia lunata* a destructive fungus to free living nematodes in rhizospheric soil. *Iraqi J Biol* 1: 35-38.
  49. Muhsin TM & Hadi RB (2001). Degradation of keratin substrates by fungi isolated from sewage sludge. *Mycopathologia* 154: 185-189.
  50. Muhsin TM, Al-Zubaidy SR & Ali RT (2001). Effect of garlic bulb extract on the growth and enzymic activities of rhizosphere and rhizoplane fungi. *Mycopathologia* 152: 143-146.
  51. Muhsin TM, Al-Duboon AA & Al-Rubaiy KK (2001). A study on pityriasis versicolor in Basrah (Iraq). *Medical J Basrah Univ.* 19: 31-34.
  52. Muhsin TM & Salih TH (2001). Exocellular enzyme activity of

dermatophytes and other fungi isolated from ruminants in southern Iraq. *Mycopathologia* 153: 1-4.

53. Muhsin TM & Khalaf KT (2002), Fungi from submerged wood southern Iraq. *Iraqi J Biol* 2: 455-463.
54. Muhsin TM, Al-Zubaidy SR & Ali RT (2002). Effect of garlic extract on some growth characteristics of tomato infected by *Fusarium oxysporum*. *Iraqi J Biol* 2: 347-355.
55. Muhsin TM & Kasim AA (2002). Endonematophagous fungi from Iraq. *J Basrah Res* 28: 15-24.
56. Muhsin TM, Al-Sulami AA & Salih TH (2002). Zoophilic and opportunistic fungi from ruminants southern Iraq. *Iraqi J Biol* 2: 449-454.
57. Muhsin TM & Zwiazek JJ (2002). Colonization with *Hebeloma crustuliniforme* increase water conductance and limits shoot sodium uptake in white spruce (*Picea glauca*) seedlings. *Plant Soil* 238: 217-225.
58. Muhsin TM & Zwiazek JJ (2002). Ectomycorrhizas increase apoplastic water transport and root hydraulic conductivity in *Ulmus americana* seedlings. *New Phytologist* 153:153-158.
59. Landhauser SM, Muhsin TM, & Zwiazek JJ (2002). The effect of ectomycorrhizae on water relations in Aspen (*Populus tremuloides*) and white spruce (*Picea glauca*) at low soil temperature. *Can J Bot* 80: 648-689.
60. Muhsin TM, Al-Duboon AA & Al-Rubaiy KK (2003). Cutaneous Candidiasis from Basrah, Iraq. *Iraqi J Biol* 3: 135-139.