



## CURRICULUM VITAE

### PERSONAL DATA

<b>Name in Full</b>	Emad Yousif Awad Sultan Al-Sultan
<b>Birth date</b>	16/08/1971
<b>Place of Birth</b>	Basra
<b>Nationality</b>	Iraqi
<b>Marital status</b>	Married
<b>Number of Children</b>	3
<b>Address</b>	Biology Department/ College of Education for Pure Science/ Basrah University
<b>E-mail</b>	<a href="mailto:emad_yousif2000@yahoo.com">emad_yousif2000@yahoo.com</a> <a href="mailto:dr.emadyousif78@gmail.com">dr.emadyousif78@gmail.com</a> <a href="mailto:emad.awed@uobasrah.edu.iq">emad.awed@uobasrah.edu.iq</a>
<b>Phone No.</b>	009647801321198 - 009647712457222
<b>Scientific Rank</b>	Professor
<b>General Specialty</b>	Biology
<b>Specialty</b>	Phycology ( Algae)
<b>Current Interests</b>	Algal toxins ,Ecology of algae , Secondary metabolites from algae

### ACADEMIC QUALIFICATIONS

First University Degree: B.Sc.

Date awarded: 1993

College: Education

Name and place of University: Basrah University/ Basra/ Iraq

Second University Degree: MSc

Date awarded: 1998

College: Education

Name and place of University: Basrah University/ Basra/ Iraq

Thesis title::An Ecological and physiological study on a halotolerant alga *Dunaliella salina* in Basrah

**Third University Degree: PhD**

Date awarded: 2007

**College: Education**

**Name and place of University: College of Education / Basrah University / Biology Dept.**

**Thesis title: Bioassay of some toxic microalgae**

## **EMPLOYMENT HISTORY**

<b>Institution</b> (place of work)	<b>Job Title</b> (Academic rank)	<b>Duration of Employment</b>	<b>Type of Work</b>
Basra University	Researcher assist.	1993-1998	Researcher assistant & administration
Basra University	Lecture assist.	1998-2005	Lecturer & Researcher
Basra University	Lecturer	2007-2010	Lecturer & Researcher and supervisor on postgraduate students
Basra University	Assistant prof	2011-2016	Lecturer researcher and supervisor on postgraduate students
Basra University	Professor	2016 to now	Lecturer & researcher and supervisor on postgraduate students

## ***UNIVERSITY TEACHING & Skills***

<b>Course Title</b>
Practical plant physiology
Practical cordata ( comparative anatomy )
Practical Eco -pollution
Practical phycology ( Algae and Archegoniate )
Practical of cell biology
Cell biology
Algal toxins for MSc students
Biology of Algae for MSc students
Taxonomy of algae for MSc students

### **Advanced courses attended:**

<b>No.</b>	<b>Course Name</b>	<b>Place</b>	<b>Date</b>
<b>1</b>	Advance plant Physiology	Basra University	1995
<b>2</b>	Advance plant taxonomy	Basra University	1995
<b>3</b>	Halophyte plants	Basra University	1995
<b>4</b>	Biochemistry	Basra University	1995
<b>5</b>	Advance phycology	Basra University	1995
<b>6</b>	The biology of algae	Basra University	2002
<b>7</b>	Advance taxonomy of algae	Basra University	2002
<b>8</b>	Advance of plant physiology	Basra University	2002

## **LANGUAGE SKILLS**

Language	Read	Write
English Language	√	√
Arabic Language	√	√

## **Course Teaching**

	Course	Year
1	Practical Cordata ( comparative anatomy )	1994-1996
2	Practical Ecology and pollution ( for Third stage)	1998-2001
3	Practical plant physiology ( for four stage)	1998-2001
4	Practical phycology ( for second stage)	2008-2016
5	Algae and Archegoniate ( for third stage)	2008-2016
6	Advance phycology for MSc students	2011-2016
7	The biology of algae for MSc students	2011-2016
8	Advance taxonomy of algae for MSc students	2011-2016

## **Supervisor on postgraduate students**

Degree	Number
Master	8
Doctorate	4

## **Master postgraduate students**

Name	Belonging and title of their study
1. Saja gaffer talib <b>2013</b>	Comparative study of some organs for two osteichthyes fishes fed on blue-green alg <i>Nostoc carneum</i> (Agardh, 18884) producing microcystins
2. Janain yaarob mahmood <b>2014</b>	Ecological study of some purification drinking water stations phytoplankton in Basrah governorate and estimate the concentration of hepatotoxins .
3. Aqeel Abdulsahib Abdulhussein A-Waeli <b>2017</b>	The effect of some green alga extracts of Chara vulgaris L. on the egg and the cysticercus of <i>Taenia taeniasformis</i> Batsch, 1786.
4. Marwa Abid-AL-Kareem	Capability of some blue-green algae isolated from

<b>Aubaed</b> <b>2017</b>	some water bodies in AL-Basara governorate / southern Iraq to production of toxins.
<b>5. Mustafa Taher Hatem</b> <b>2018</b>	Evaluation of some blue green algal species isolated from soil –southern Iraq to produce hepatotoxins (Microcystins) and effects of alga <i>Oscillatoria pseudogeminata</i> on growth of tomato plant <i>Lycopersicon esculentum</i> Mill.
<b>6. Hanan Dawood gdem</b> <b>2022</b>	Ecological and taxonomical study of blue –green algae and measurement microcystins toxins concentrations in Satt Al-Arab , Souther Iraq.
<b>7. Anfal Falah Abdullah</b> <b>2022</b>	Molecula identification study of the alga <i>Dunaliella salina</i> in brine bonds in Basrah city.
<b>8. Azhaar Sakban</b> <b>2023</b>	To now in work

### **Doctorate postgraduate students**

Name	Belonging and title of their study
<b>1. Amal musa eassa</b> <b>2020</b>	Physiological and histological effects of methanolic extract of alga <i>Lyngbya aestuarii</i> on laboratory mic <i>Mus musculus</i> .
<b>2. Muna Abd-almuttaleb Yahya</b> <b>2022</b>	Biological Activity of some alkaloid compounds isolated from <i>Conocarpus lancifolius</i> and <i>Calotropis procera</i> plants
<b>3. Alaa ismail saood</b> <b>2022</b>	Evaluation of efficacy of Ruppia martimia extract against a parasite sarcocystis moulei isolated from sheep and doats in laboratory mice and chicks.
<b>4. Mustafa Taher Hatem</b>	To now in work

### **SCIENTIFIC RESEARCH**

No.	Title	Date
<b>1.</b>	Muhsin, T.M., S.R. Al-Zubaidy and E.Y. Awad, 2001. Effects of nitrogen sources on the growth of the salt-tolerant alga <i>Dunaliella salina</i> . Basrah J. Sci. B, 19: 85-92.	<b>2001</b>
<b>2</b>	Al-Aarajy, M.J. and E.Y.A. Al-Sultan, 2008. Effects of some toxic microalgae on larval stage of the common carp ( <i>Cyprinus carpio</i> L.) and silver carp ( <i>Hypophthalmichthys molitrix</i> ). Basrah J. Agric. Sci., 23: 67-87	<b>2008</b>
<b>3.</b>	Al-Araajy, M.J. and E. Sultan, 2008. Isolation and purification of hepatotoxin	<b>2008</b>

	(microcystin LR) from some blue-green algae of sewage waters of Basrah. Marsh Bull., 3: 1-16.	
4.	Al-Sultan, E.Y.A., 2011. The isolation, the purification and the identification of hepatotoxin microcystin-LR from two cyanobacterial species and studying biological activity on some aquatic organisms. J. Basrah Res. Sci., 37: 39-57	2011
5.	Al-Ali, A.A.A., E.Y.A. Al-Sultan and F.A. Al-Sultan, 2011. Histopathological effects of toxic alga <i>Nostoc muscurum</i> on juvenile grass carp fish ( <i>Ctenopharyngodon idella</i> Val. 1844). J. Marsh Bull., 6: 32-61. 2011	2011
6.	Al-Sultan, E.Y.A., A.A.A. Al-Ali and F.A. Al-Sultan, 2011. Toxic effects of cyanobacteria <i>N. muscurum</i> on some physiological parameters in blood of <i>Ctenopharyngodon idella</i> val. 1844. J. Thi-Qar Sci., 3: 42-54.	2011
7.	Al-sultan, E.Y. and S.A.A. Al-Ali, 2010. Histopathological and biological effects of toxic algae <i>Hapalosiphon welwitschii</i> on molli fish <i>Poecilia spheonops</i> valenc. Basrah J. Agric. Sci., 23: 169-186.	2010
8.	Al-Sultan, E.Y.A., M.I. Abd Al Majeed and A.A.K. Abbas, 2015. Study of physiological and histological effects under very low concentration of cyanobacterial toxin MC-LR on lab. mice ( <i>Mus musculus</i> ). Res. J. Pharm. Biol. Chem. Sci., 6: 1064-1072.	2015
9.	Abd Al Majeed, M.I., E.Y.A. Al-Sultan and A.A.K. Abass, 2016. Toxic effects of low concentration of cyanotoxin (microcystin-LR) on mice and study of protective efficacy of the antioxidants vitamins (C&E) and <i>Capparis spinosa</i> L. root extract. J. Nat. Sci. Res., 6: 34-42.	2016
10.	طالب ، سجي جعفر و منصور ، عقيل جميل و السلطان ، عماد يوسف عواد (2013). دراسة مقارنة لمظهرية الاسنان الغلصمية وأقطار الألياف العضلية الحمر والبيض في نوعين من الأسماك العظمية المحلية. مجلة العلوم الصرفة - جامعة القادسية	
11.	السلطان ، عماد يوسف و محمود ، جنانن يعرب (2014). دراسة بيئية لأحواض الترسيب في محطتي البتروكيمياويات والرباط في محافظة البصرة / جنوب العراق وتقدير تركيز السموم الطحلبية (المبايكروسستينات) فيها. مجلة العلوم التطبيقية / جامعة القادسية المجلد 21، العدد3(2016).	2016
12.	السلطان ، عماد يوسف و عبد الله ، باسم هاشم و عبد الحسين ، عقيل عيد الصاحب (2016). تأثير المستخلص الفينولي للطحلب الأخضر <i>Chara vulgaris</i> على الطور البرقي للديدان الشريطية القط <i>Taenia taeniaformis</i> المجلة العربية للاستنزاع المائي- مركز علوم البحار - جامعة البصرة المجلد44، العدد2(2017) الصفحات 140-129.	2017
13.	السلطان ، عماد يوسف و مروة عبد الكريم عبيد (2017) عزل أربعة أنواع جديدة من الطحالب الخضراء المزرقمة وتشخيصها وتنقيتها واكتثارها في مياه شط العرب في البصرة جنوبي الع ارق وبيان قدرتها على انتاج السم العصبي. مجلة ابحاث البصرة -العمليات ، كلية التربية للعلوم الصرفة العدد43(2)ب(2017).	2017
14.	Emad yousif Awad Al-Sultan* Mustafa Taher Hatem (2018). Isolate and Cultivate Three Species of Blue-Green Algae from Soil Southern of Iraq and Study the Effect of Purified Microcystins from Alga <i>Oscillatoria Pseudogeminata</i> on Seed Germination of Tomato Plant <i>Lycopersicon esculentum</i> , Journal of Biology, Agriculture and Healthcare,. Vol.8, No.16, 20	2018
15.	Emad Yousif Awad Al-Sultan1*, Faris shaker kataa1 , Amal Mussa Eassa2(2019). Toxicological investigation of a bloom of the blue - green alga <i>Lyngbya aestuarii</i> in Basra Governorate Southern of Iraq, International Journal of Biosciences ,Vol. 15, No. 1, p. 66-79, 2019	2019
16.	MARWA A. AUBAEED, KASSIM F. ABDULKAREEM . , ALAA S.KATHIM , EMAD Y.A. AL-SULTAN .(2020). Toxic effects of neurotoxins (Anatoxin-a) purified from blue-green algae <i>Pseudoanbaena limnetica</i> on some organs in laboratory mice ( <i>Mus musculus</i> L.)   International Journal of Pharmaceutical Research.Vol.(12) No.(2) , issue (4).	2020
17.	Hanan Dawood Gdemi, Emad Yousif Awad(2022). The effect of some environmental factors on the production of hepatotoxins (Microcystin) in the Shatt al-Arab waters in Basrah Governorate southern Iraq. Eurasian Research Bulletin Vol. 14 (2022)	2022

18.	Muna A.Y. Al-Mussawii, Emad Y.A. AL-Sultan, Maytham A. AL-Hamdani <sup>3</sup> , Usama H. Ramadhan (2022). Antibacterial activity of alkaloid compound Methoxy phenyl –Oxime (C <sub>8</sub> H <sub>9</sub> N <sub>02</sub> ) isolated and purified from leaf of <i>Conocarpus lancifolius Engl.</i> Teikyo Medical Journal, Volume 45, Issue 01, February, 2022	2022
19.	Alaa Ismail Saood, Emad Yousif Awad AL-Sultan, Basim Hashim Abdallah(2022). MORPHOLOGICAL AND MOLECULAR DIAGNOSIS OF <i>RUPPIA MARITIMA L.</i> IN THE BASRAH GOVERNORATE SOUTHERN OF IRAQ. Ann. For. Res. 65(1): 475-486, 2022	2022
20.	Alaa Ismail Saood, Basim Hashim Abdallah, Emad Yousif Awad AL-Sultan(2022). Experimental infection of <i>Sarcocystis moulei</i> in mice and treated by using the alkaloid extract of <i>Ruppia sp.</i> in Basrah governorate southern of Iraq, <i>Science Archives</i> (2022) Vol. 3 (4), 301-310.	2022
21.	Marwa A. Aubaeed, Amjed Mirza Oda, Emad Y.A. AL-Sultan(2023). Isolation and Classification of Green Alga <i>Stigeoclonium attenuatum</i> and Evaluation of its Ability to Prepare Zinc Oxide Nanoflakes for Methylene Blue Photodegradation by Sunlight. Baghdad Science Journal. Online publishing.  : <a href="https://dx.doi.org/10.21123/bsj.2023.7231">https://dx.doi.org/10.21123/bsj.2023.7231</a>	2023
22	<i>Dunaliella</i> للطحلب تشخيصية السمطان (2022). دراسة عواد يوسف عماد و عبدالله فلاح أنفال وإنتاج نموه في الصوديوم كلوريد ملح تأثير و في محافظة البصرة المالحة البرك من <i>salina</i> الكاروتين . المجلة العراقية للاستزراع المائي ، المجلد(2) العدد(1)، 2023، الصفحات 19-49.	2023
23	Muna A.Y. Al-Mussawii, Emad Y. A. AL-Sultan, Maytham A. AL-Hamdani. (2023). Evaluation of the cytotoxic effects of the colchicine compound isolated from the leaves of <i>Calotropis procera</i> (Ait) against MCF-7 and SK-GT-4 cancer cell lines. 2023: Online-First (2)  <a href="https://bsj.uobaghdad.edu.iq/index.php/BSJ/onlinefirst/view/7091">https://bsj.uobaghdad.edu.iq/index.php/BSJ/onlinefirst/view/7091</a>	2023

### Conferences & Workshops

	<i>Title</i>	<i>Place</i>	<i>Date</i>
1	Conference of Science college / Basrah university	Iraq	7-8 October 2007
2	Conference of Agriculture college / Basrah university	Iraq	26-27 October 2007
3	Six Conference of Agriculture college / Basrah University	Iraq	2-3 may 2009
4	Symposia about blooming of toxic alga in shatt –Al-arab and relationship with cancer in Basrah city	Iraq	16-3-2008

## ***PROFESSIONAL AFFILIATIONS***

<b><i>Title</i></b>	<b><i>Date</i></b>	
	<b><i>From</i></b>	<b><i>To</i></b>
Alert science Journals ( Reviewer )	2016	To now
Natural History Museum	2016	To now

## ***Journals***

<b><i>Publishers</i></b>	<b><i>Journal Title</i></b>
Basrah University/ College of Education for Pure Science/Iraq	Basrah Research Journal
Basrah University/College of Science/Iraq	Journal of Marsh Bulletin
Thi-Qar University/College of Science / Iraq	Journal of Thi-Qar Sciences
Basrah University / College of Agriculture/Iraq	Basrah Journal of Agriculture Sciences
Al-Qadisiya University/ College of Science	Al-Qadisiya Journal of Science
Basrah University / Marine Science Center	Journal of Arabian aquaculture
India (RJPBCS) ( Impact factor = 0.65)	Research Journal of Pharmaceutical ,Biological and Chemical Sciences
United State of American (USA) Impact factor =5	Journal of Natural Science Research



## *Certificates & Awards*

	<i>Title</i>	<i>Organization</i>	<i>Date</i>	<i>Place</i>
1	SPSS in Use Training Course ( Statistical program)	Basrah University	2008	Basra University

### *Scientific committees*

1.	<b>Examination committee</b>	<b>2018-2023</b>
2.	<b>Member of the College promotions committee</b>	<b>2019-2-23</b>
3.	<b>Member of the biology dept. promotions committee</b>	<b>2020-2-23</b>
4.	<b>Member of the editorial board of the College journal (Journal of Basrah researches (Sciences))</b>	<b>2020-now</b>

## ***Biography and Research lines and future directions of research activity***

I have two research lines that according to the PhD and MSc. experience:

The first approach is related to ecological and physiological studies on algae in different habitat. The MSc approach was included study of life cycle of halotolerant alga *Dunaliella salina* in Basrah / Southern of Iraq and study their ability to halotolerant different high and low concentration of chloride salts ( Na , K, Ca and Mg) on growth . As well as study the effects of different nitrogen sources on growth of this alga and evaluation the mechanism of salt tolerant against salinity .

The second approach In PH.D thesis and last my articles was aimed to study the toxicity of algae especially cyanobacteria ( Blue-green algae )in Basrah governorate southern of Iraq which included isolation and purification many algal species as axenic algae in batch cultures in the laboratory . such as species ( *Microcystis aeruginosa* , *Microcyst flos-aque* , *Hapalosiphon welwitschii* , *Hapalosiphon aureus* , *Calothrix parietina* , *Nostoc muscurum* , *Nostoc carneum* and *Anabaena circinalis* ) from different habitats in Basrah . Toxicological effects (Survival and mortality ) ,histopathological and physiological effects was studies against different organisms such as Zooplankton , ( Crustacean , copepods and Artemia ) , Fishes and Mice. Also two papers evaluated the toxic effects of low concentration of hepatotoxin (algal toxin) under the acceptable world concentration ( 1 ug/l) against laboratory mice and test the toxic efficacy of some vitamins and plant extracts against this toxins . The role of some secondary metabolites extracted from green alga *Chara vulgaris* was evaluated to inhibition the larvae of parasite *Taenia taeniaformis* in the laboratory infection. The Microcystin concentration was studied in drinking water purification station exactly in sedimentation tanks in some station in Basrah governorate southern of Iraq.

The extraction and purification of some active substances from algae, aquatic plants and land plants and their biological effectiveness was demonstrated by antibacterial, antifungal and anti-

cancerous activity in multiple researches in this regard.