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**Education and Degrees**

* B.Sc. in Biology- Assiut University, Egypt-1990.
* M.Sc. in Botany (Algae) - Assiut University, Egypt-1994.
* Ph.D. in Microbiology (Algal toxins) –Wright State University, OH, USA, 1998.

**Positions and Employment**

* **Teaching Assistant**- Botany Department- Faculty of Science- Assiut University, Egypt (1990-1994).
* **Teaching Assistant**- Botany Department- Faculty of Science- Assiut University, Egypt (1994-1996).
* **Assistant Professor**- Botany Department- Faculty of Science- Sohag University, Egypt (1998-2003).
* **Associate Professor**- Botany Department- Faculty of Science- Sohag University, Egypt (2003-2008).
* **Visiting Professor**- Department of Biological Sciences, College of Science, King Khalid University, Saudi Arabia (2003-2011).
* **Professor**- Botany Department- Faculty of Science- Sohag University, Egypt (2008-until now).
* **Chairman**- Botany & Microbiology Department- Faculty of Science- Sohag University, Egypt (2016-until now).

**Honors & Awards**

* Prize of young scientists in Environmental Sciences, UNESCO, 1999.
* SABIC (Saudi Arabia) grant supporting a research on toxic cyanobacteria in drinking water 2006
* The best presentation prize, Second International conference on Botany, Minia University Egypt (29-30 April 2012).
* Science Excellence Award, Sohag University, 2014.

 **Projects**

* Research on toxic cyanobacteria in drinking water in Abha city, Saudi Arabia, from SABIC, Saudi Arabia, 2006
* Accreditation and Quality Assurance of Genetic Engineering laboratory
* [H2020-MSCA-RISE-2018](https://ec.europa.eu/research/participants/portal/desktop/en/projects/index.html), European commission

**Conferences & Workshops**

* Gordon Conference on Mycotoxins and Phycotoxins- New Hampshire, USA (15-20 July, 1997).
* First National conference in Phycology- Suez canal University, Egypt ( 2000).
* Training Workshop on isolation and determinations of toxins and narcotics- Center of Toxins and narcotics- Cairo University (2000).
* The 8th International symposium on freshwater and marine Mycology- Hurgada- Egypt (2001).
* 8th International Symposium on Aquatic Microbial Ecology, Italy (20-25 October), 2002.
* Training workshop in e-learning- King Khalid University (2009).
* Training Workshop in Molecular Biology, King Khalid University (20-22 March, 2009).
* Second International conference on Botany, Minia University Egypt (29-30 April 2012).
* First international conference on Toxins in desert environments, [Weill Cornell Medical College in Qatar](http://qatar-weill.cornell.edu/) (17-20 Feb. 2013).- Invited Speaker
* Third International conference on Biotechnology and its Applications in Botany and Microbiology, Helwan University Egypt (17-18 April 2013).
* Workshop on Monitoring Harmful algal blooms (red tides), Dubai (13-17 Apr. 2014).
* 6th International Conference on Natural Toxins, Ismailia, Egypt (15-16 Dec.2014).
* 1st  Annual Science Day – Faculty of Science- Sohag University – April 20, 2016-
* 2ndt  Annual Science Day – Faculty of Science- Sohag University – April 20, 2017
* 3rd Annual Science Day – Faculty of Science- Sohag University – April 20, 2018
* Training workshop in NQI , Understanding the uncertainty budget under ISO/IEC 17025:2005 criteria Sep 25, 2012.
* Training workshop in NQI Internal Audits as per ISO/IEC 17025:2005 criteria Sep 26, 2012.

**Scientific societies**

* Member of Egyptian Phycological Society.
* Member of European Water Resources Association (EWRA).
* Member of Saudi society of Biological Sciences.
* Member of Egyptian Botanical Society
* Member of Natural Toxins Society

**Journals reviewer**

* Toxicon (Elsevier).
* Environmental Toxicology (Wiley& Sons).
* Environmental Monitoring and Assessment (Springer).
* Biochemical Engineering( Elsevier(.
* Ecotoxicology and Environmental safety (Elsevier(.
* Environmental Toxicology and Chemistry, Society of Environmental Toxicology and Chemistry, SETAC Journals).
* Ecotoxicology (Springer) .
* Journal of International Society of Environmental Microbiology (ISME) ( Nature Publishing Group)
* Water Research( Elsevier).
* Parlar Environment Bulletin (Parlar Scientific publication, Germany).
* Aquaculture Research (Wiley& Sons).
* Journal of Water and Health (IWA Publishing).
* Journal of Environmental Management (Elsevier).
* Limnology Journal (Springer).
* Journal of Phycology (Wiley& Sons).
* Journal of Hazardous Materials (Elsevier).
* FEMS Microbiology Ecology (Wiley& Sons).
* Environmental Monitoring and Assessment (Springer).
* Chemistry and Ecology (Taylor & Francis)
* Environmental Science and Pollution Research (Springer)
* Biology Letters ([Royal Society Publishing](https://royalsociety.org/journals))
* Chinese Journal of Oceanology and Limnology
* Science of Total Environment (Elsevier)
* Environmental Forensics
* Journal of Environmental Engineering and Landscape Management ( Taylor & Francis)
* Harmful Algae (Elsevier)
* Journal of Applied Microbiology (Wiley& Sons).
* African Journal of Aquatic Science (Taylor & Francis)
* Limnologica (Elsevier)
* Algal Research (Elsevier)
* Aquatic Botany (Elsevier)

**Projects Reviewer**

* Research projects submitted to King Abdul Aziz city for Science and technology. Saudi Arabia
* Research projects submitted to National Science Centre, Poland
* Research projects submitted to [Academy of Scientific Research and Technology](http://www.interacademies.org/Egypt.aspx)
* Research projects submitted to Alexandria Al-Jouf University, Egypt
* Research projects submitted to Alexandria University, Egypt
* Research projects submitted to Mansoura University, Egypt

**Research interests**

* Isolation and identification of Algal and cyanobacterial toxins.
* Detection of algal toxins in drinking waters and seafood.
* Removal of Algal toxins from drinking waters.
* Biodegradation of algal toxins by aquatic organisms.
* Effect of algal toxins on aquatic organisms, higher plants, wild and domestic animals, and human health.
* Environmental factors affecting the growth of harmful algae and toxin production.

**Publications**

1. **Mohamed, Z.A.** and Carmichael, W.W., An, J. and El-Sharouny, H. M. (1999). Activated carbon removal efficiency of microcystins in an aqueous cell extract of *Microcystis aeruginosa* and *Oscillatoria tenuis* strains isolated from Egyptian Freshwaters. Environmental Toxicology and Water Quality. 14: 197-201.
2. Brittain, S., **Mohamed Z.A**., Wang, J., Lehmann, V.K.B., Carmichael, W.W. and Rinehart, K.L. (2000) Isolation and characterization of microcystisn from a River Nile strain of *Oscillatoria tenuis* Agardh ex. Gomont. Toxicon. 38: 1759-1771.
3. **Mohamed, Z.A**. and Carmichael, W.W. (2000) Seasonal variation in microcystin levels of river Nile water at Sohag city, Egypt. Annales De Limnologie. 36(4): 227-234.
4. **Mohamed, Z.A**. (2001) Accumulation of cyanobacterial hepatotoxins by daphnia in some Egyptian irrigation canals. Ecotoxicology and Environmental Safety. 50: 4-8.
5. **Mohamed, Z.A.** (2001) Alum and lime-alum removal of toxic and nontoxic phytoplankton from the Nile river water: laboratory study. Water Resources Management. 15: 213-221.
6. **Mohamed, Z.A**. (2001) Removal of cadmium and manganese by a nontoxic strain of the freshwater cyanobacterium *Gloeothece magna*. Water Research. 18: 4405-4409.
7. **Mohamed, Z.A**. (2002) Allelopathic activity of *Spirogyra* sp. Stimulating bloom formation and toxin production by *Oscillatoria agardhii* in some irrigation canals, Egypt. Journal of Plankton Research. 24(2): 137-141.
8. **Mohamed, Z.A.**, Abdel-Wahab, M.A. and El-Sharouny, H.M. (2002) Antimicrobial activity of an Egyptian marine cyanobacterium *Lyngbya majuscula* Gomont. Egyptian Journal of Phycology.3: 84-91.
9. Habib, T.N., El-Sawi, N.M. and **Mohamed, Z.A**. (2002) The antitumor effects of the Egyptian *Nigella sativa* L. oil induced by microcystin-LR in male mice. Journal of Union of Arab Biologists. 17(A): 541-556.
10. **Mohamed, Z.A**., Carmichael, W.W. and Hussein, A.A. (2003) Estimation of microcystins in the freshwater fish farm containing a *Microcystis* bloom. Environmental Toxicology. 18: 137-141.
11. **Mohamed Z**.**A.** and Hussein, A.A. (2006). Depuration of microcystins in tilapia fish exposed to natural populations of toxic cyanobacteria: A laboratory study. Ecotoxicology and Environmental safety. 63: 424-429.
12. **Mohamed, Z.A**., El-Sharouny, H. M., Ali, W.S.M. (2006). Microcystin production in benthic mats of cyanobacteria in the Nile River and irrigation canals, Egypt. Toxicon 47: 584-590.
13. Al-Shehri, A.M. and **Mohamed** **Z.A.** (2007) Mass occurrence and toxicity of the cyanobacterium Lyngbya majuscule under phosphorus-limited conditions in the Red Sea. Ecohydrology and Hydrobiology 7(1):51-57.
14. **Mohamed** **Z.A**. and Al-Shehri, A.M. (2006) Eukaryotic algal flora of surface water and wells derived from groundwater in the Asir region, including 13 new records for Saudi Arabia. Arab Gulf Journal of Scientific Research 24(3): 121-130.
15. **Mohamed, Z.A**. and Abdulrahman M. Al-Shehri(2008) Cyanobacteria of Surface and Ground Waters in Asir region with Fifteen New Records to Saudi Arabia. J. King Abdul Aziz Univ. JKAU: Sci., 20 , 113-129 .
16. Al-Shehri, A.M. and **Zakaria A. Mohamed**. (2009) Diatoms of Surface and Ground waters in Asir Region, with seven new records to Saudi Arabia. Journal of King Saud University (Science). 21(1), 17-24.
17. **Mohamed Z.A.**  (2007) First report of toxic *Cylindrospermopsis raciborskii* and *Raphidiopsis mediterranea* (Cyanoprokaryota) in Egyptian fresh waters. FEMS Microbiology Ecology 59(3):749-61.
18. **Mohamed, Z.A**., El-Sharouny, H. M., Ali, W.S.M (2007) Microcystin Concentrations in the Nile River Sediments, and Removal of Microcystin-LR by Sediments during Batch Experiments. Archives of Environmental Contamination and Toxicology 52(4):489-95.
19. **Mohamed, Z.A**. and Messad, I. (2007) First report on *Noctiluca scintillans* bloomsin the Red Sea offthe coasts of SaudiArabia: consequences ofeutrophication*.* Oceanologia 49(3):337-351.
20. **Mohamed Z.A** and AlShehri AM (2007) Cyanobacteria and their toxins in treated-water storage reservoirs in Abha city, Saudi Arabia. Toxicon.50 (1):75-84.
21. **Mohamed ZA** (2008) Toxic cyanobacteria and cyanotoxins in public hot springs in Saudi Arabia. Toxicon 51: 17-27.
22. **Mohamed Z.A.** (2008)Polysaccharides as a protective response against microcystin-induced oxidative stress in *Chlorella vulgaris* and *Scenedesmus quadricauda*; and their possible significance in the aquatic ecosystem. Ecotoxicology 17:504-516.
23. **Mohamed Z.A. and** AlShehri A.M. **(2009)** Microcystins in groundwater wells and their accumulation in vegetable plants irrigated with contaminated waters in Saudi Arabia. Journal of Hazardous Materials.172, 310-315
24. **Mohamed Z.A and Al-Shehri A.M. (2009)** Microcystin-producing bloom of *Anabaenopsis arnoldi* in a potable mountain lake In Saudi Arabia. FEMS microbiology Ecology.69:98-105.
25. **Mohamed Z.A** and Al-Shehri A.M. (2010)Microcystin production in epiphytic cyanobacteria on submerged macrophytes. Toxicon 55(7):1346-1352.
26. **Mohamed Z.A.** and Al-Shehri A.M. **(2010)** Differential responses of epiphytic and planktonic toxic cyanobacteria to the allelopathic substances of the submerged macrophyte *Stratiotes aloides* International Review of Hydrobiology 95(3):224-234.
27. **Mohamed Z.A.** and Al-Shehri, A.M., 2011. Occurrence andgermination of dinoflagellate cysts in surface sediments fromthe Red Sea off the coasts of Saudi Arabia**.** OCEANOLOGIA, 53 , 121–136.
28. **Mohamed Z.A**. and Al-Shehri (2012) The link between shrimp farm runoff and blooms of toxic *Heterosigma akashiwo* in the Red Sea coastal waters. Oceanologia. 54(2), 287-309.
29. **Mohamed Z.A**. and Alamri S.A. (2012) Biodegradation of cylindrospermopsin toxin by microcystin-degrading bacteria isolated from cyanobacterial blooms. 60, 1390-1395.
30. **Mohamed Z.A**. and Al-Shehri (2013) Assessment of cylindrospermopsin toxin in an arid Saudi lake containing dense cyanobacterial bloom. Environmental Monitoring and Assessment. 185, 2157-2166.
31. Alamri S.A. and **Mohamed Z.A**. (2013) Selective inhibition of toxic cyanobacteria by β-carboline-containing bacterium *Bacillus flexus* isolated from Saudi freshwaters. Saudi Journal of Biological Sciences. 20, 357-363
32. **Mohamed Z.A**. (2013) Allelopathic activity of the norharmane-producing cyanobacterium *Synechocystis aquatilis* against cyanobacteria and microalgae. Oceanological and Hydrobiological studies. 42, 1-7.
33. [**Mohamed**](http://www.sciencedirect.com/science/article/pii/S0147651313002571) **Z.A**. and [Al-Shehri](http://www.sciencedirect.com/science/article/pii/S0147651313002571) A.M. (2013) Grazing on *Microcystis aeruginosa* and degradation of microcystins by the heterotrophic flagellate *Diphylleia rotans*. Ecotoxicol. Environ. Safe. 96, 48-52.
34. **Mohamed Z.A**. (2013) Toxic effect of norharmane on a freshwater plankton community. Ecohydrology and Hydrobiology.13, 226-232.
35. **Mohamed, Z.A.,** Hashim, M., Alamri, S.A. (2014) Growth inhibition of the cyanobacterium *Microcystis aeruginosa* and degradation of its microcystin toxins by the fungus *Trichoderma citrinoviride.* Toxicon. 86, 51-58.
36. **Mohamed, Z.A.** and Al-Shehri, A.M. (2015) Biodiversity and toxin production of cyanobacteria in mangrove swamps in the Red Sea off the southern coast of Saudi Arabia. Botanica Marina. 58(1): 23–34.
37. **Mohamed, Z. A**., Deyab, M. A., Abou-Dobara, M. I., Kamel, A., El-Raghi, W. M. (2015) Occurrence of cyanobacteria and microcystin toxins in raw and treated waters of the Nile River, Egypt: Implication for water treatment and human health. Environmental Science and Pollution Research 22, 11716-11727
38. **Mohamed, Z. A**. (2016) Breakthrough of *Oscillatoria limnetica* and microcystin toxins into drinking water treatment plants- examples from the Nile River, Egypt. Water SA 42 (1), 161-165.
39. Mohamed, ZA. ,  Deyab, MA,  Abou-Dobara M I. ,  El-Raghi, W M.  (2016) Occurrence of toxic cyanobacteria and microcystin toxin in domestic water storage reservoirs, Egypt. Journal of Water Supply: Research and Technology – AQUA. 65 (5) 431-440
40. Fadel M.A., **Mohamed Z.A**., Abdel-Lateef, M A. Hosny A.A. (2018) Effect of extremely low frequency of electromagnetic fields on some toxic species of cyanobacteria. International Journal of New Horizon sin Physics 5, 5-10.
41. **Mohamed, ZA** , Bakr A (2018) Grazing on toxic *Microcystis aeruginosa* by the copepod *Cyclops vicinus:* potential for cyanobacterial bloom control and toxin transfer. Oceanological and Hydrobiological Studies (accepted)
42. **Mohamed**, **ZA**, Bakr A, Soliman HM (2018) Bioavailability of bound microcystins in mice orally fed with contaminated tilapia edible tissues: Implications to human health. Toxicon 151(1), 34-36.

**Review articles**

1. Mohamed, ZA (2016) Harmful cyanobacteria and their cyanotoxins in Egyptian fresh waters – state of knowledge and research needs. African Journal of Aquatic Science 41(4), 361-368.
2. Mohamed, ZA (2017) Macrophytes-Cyanobacteria allelopathic interactions and their implications for water resources management − a review. Limnologica 63, 122–132

# Mohamed, ZA (2018) Potentially harmful microalgae and algal blooms in the Red Sea: Current knowledge and research needs. Marine Environmental Research (In Press). <https://doi.org/10.1016/j.marenvres.2018.06.019>

**Book Chapters**

**Mohamed Z.A.** (2011) [Cyanotoxins in Egypt and Saudi Arabia](http://www.sciencedirect.com/science/article/pii/B9780444522726006255?_alid=1818395747&_rdoc=1&_fmt=high&_origin=search&_docanchor=&_ct=7&_zone=rslt_list_item&md5=9e564c8460c3c6b1487a6b14d231a38f), In*: Encyclopedia of Environmental Health*,J. O. Nriagu (Ed.), Elsevier, pp.872-880.

**Mohamed Z.A. (2016).** Cyanobacterial Toxins in Water Sources and Their Impacts on Human Health. In A. McKeown, & G. Bugyi (Eds.) *Impact of Water Pollution on Human Health and Environmental Sustainability* (pp. 120-149). Hershey, PA: . doi:10.4018/978-1-4666-9559-7.ch006