

Research Lab Sheet

Lab Name	Plant ecology
Academic Year	2021-2022

Basic Information	
Department	Botany & microbiology
Location	Faculty of Science
Total area (m²)	20

Lab Members				
No. of Prof.	No. of Ass. Prof.	No. of Lect.	No. of Ass. Lect. & Demonst.	No. of technicians
1	1	2	Non	Non



حاصلة على شهادة الاعتماد من الهيئة القومية
لضمان جودة التعليم والاعتماد في 2012/7/12م



Staff members

#	Name	Scientific degree	e-mail	Specializations	C.V
1	Prof. Ahmed Ali El-khatib	Professor	aaelkhatib@yahoo.com	Plant ecology	https://staffsites.sohag-univ.edu.eg/aaelkhatib https://www.researchgate.net/profile/Ahmed-El-Khatib
2	Dr. Naglaa Youssef Abdallah	Assistant professor	naglaaysf@yahoo.com	Plant ecology	https://www.researchgate.net/profile/Naglaa-Yousef
3	Dr. Amany Abo-elkassem	lecturer	aaboelkassem@science.sohag.edu.eg	Environmental science	https://www.researchgate.net/profile/Amany-Aboelkassem
4	Dr. Omer El-sheikh	Lecturer	elshikho@yahoo.com		

Theses produced by the Lab

M Sc Thesis			
	Degree	Title	Approval date
		Wastewater Treatment Using Wetland Planted with Aquatic	June - 2018

		Macrophytes	
		Monitoring and Phytoremediation of Wastewater Using Hydroponic Technique	October - 2020
Ph.D. Thesis			
		Trees as bio-monitor to assess the ecological function of urban ecosystems	June-2021
		The Radiological Effects of Non-nuclear Industries and Their Bio monitoring using Urban Trees	November - 2018

Articles produced by the Lab		
	Title	Journal information
1	Jean Diatta; Naglaa Youssef; Oskar Tylman; et al. 2021 .Acid rain induced leakage of Ca, Mg, Zn, Fe from plant photosynthetic organs – Testing for deciduous and dicotyledons	Ecological Indicators 121(6):107210
2	Bernd Markert, Naglaa Abdallah, et al.2020. Information gain in environmental monitoring through bioindication and biomonitoring methods ("B & B technologies") and phytoremediation processes-with special reference to the Biological System of Chemical Elements (BSCE) under specific consideration of Lithium	Bioactive Compounds in Health and Disease 3(11):214-250
3	Naglaa A Youssef. 2021. Changes in the morphological traits and the essential oil content of sweet basil (<i>Ocimum basilicum</i> L.) as induced by cadmium and lead treatments	International Journal of Phytoremediation. 2021; 23(3):291-299.
4	Amany aboelkassem, Alaa-Eldin M. Abd-Elaal., Ali A.M. Gad ., Saber A.Said (2021) Experimental study on removal of toxic metals and nutrient salts from secondary treated wastewater using <i>Echinochloa pyramidalis</i> and <i>Ludwigia stolonifera</i>	Journal of Environmental Studies [JES] 2021. 24: 15- 25
5	A. A. El-Khatib, N. A. Youssef, N. A. Barakat & N. A. Samir .2020. Responses of <i>Eucalyptus globulus</i> and <i>Ficus nitida</i> to different potential of heavy metal air pollution	International Journal of Phytoremediation. 22 (10). Pp: 986–999
6	E Mohamed, AMM Kasem, A El-khatib .2020. Allelopathic potential of Egyptian halophytes <i>Arthrocnemum macrostachyum</i> and <i>Halocnemum strobilaceum</i> from two coastal areas	Allelopathy J 50, 225-241
7	Alaa-Eldin M. Abd-Elaal., Amany aboelkassem, Ali A.M. Gad ., Saber A.S.Ahmed (2020) "Removal of heavy metals from wastewater by natural growing plants on	Water Practice and Technology https://doi.org/10.2166/wpt.2020.073

	River Nile banks in Egypt"	
8	Ahmad K. Hegazy, Hasnaa A. Hosni, Mohamed A. R. El-Sheikh, Amany Abo- ElKassem, El-Shafie M. Badawi, and Lesley Lovett-Doust (2020) "Plant biodiversity and soils in the Jebel Marra region of Darfur, Sudan"	ARID LAND RESEARCH AND MANAGEMENT. https://doi.org/10.1080/15324982.2020.1819913
9	Amany Aboelkassem, Ahmed El-Khatib, Somaya Hassanein, Ola Allam, Omer El-Sheikh, (2020) "Eco-physiological Response of Solanum nigrum to Cd and Ni Stress under Hydroponic Conditions"	Egypt. J. Bot. Vol. 60, No.2, pp. 563-574
10	Youssef N. A. 2019. Bioaccumulation of Heavy Metals in Urban Tree Leaves	Egyptian Journal of Botany. 60(1) 261-273
11	Ahmed Ali El-Khatib, Nasser A. Barakat, Naglaa A. Youssef, and Nesrin A. Samir 2019. Bioaccumulation of heavy metals air pollutants by urban trees	International Journal of Phytoremediation. 22(2)210-222.
12	Elkordy A. M., Omer M. Elsheikh., Naglaa Y. Abdallah. 2019. Floristic diversity and vegetation analysis of riparian and aquatic plants of the canals in the Sohag Governorate, Egypt	PHYTOLOGIA BALCANICA 25 (1): 81 – 95
13	Gurbanov E. M., Naglaa Y. Abdallah, Mammadova Z. J., Asadova K. A. and Ahmed Elkordy. Floristic Diversity and Phytogeography of Mil steppe-Azerbaijan	J. Eco. Heal. Env. 7, No. 1, 21-30.
14	Naglaa Y. Abdallah, Amany M. Aboel kassem and Omer M. Elsheikh.2017. Chemical structure of Natural Products Characterization of Secretory Tissue of Sweet Basil (Ocimum basilicum L) Under Lead Stress.	Journal of ecology of Health & Environment. 2, 57-64.
15	M. M. Khalaf• N. Y. Abdallah• H. M. Abd El Latee. 2018. Fine-template synthetic process of mesoporous TiO2 using ionic/nonionic surfactants as potential remediation of Pb (II) from contaminated soil	International Journal of Environmental Science and Technology. (5) 2018. Pp:1-12.Science and Technology
16	El-Khatib, A. A., Amany aboelkassem, H. Elzayat (2018) Bio-	Journal of Current Research Vol. 10,

	monitoring of Radionuclides air pollution using physiological Responses of Urban Trees, International.	Issue, 02, PP.65279 -65286
17	AK Hegazy, MH Emam, L Lovett-Doust, E Azab, AA El-Khatib.2017. Response of duckweed to lead exposure: Phytomining, bioindicators and bioremediation	Journal of Desalination and Water Treatment 12, 400-406
18	Afat O. Mammadova*1, Narmin M. Farzaliyeva1, Youssef N. Abdallah. 2015. Platanus Orientalis L. As a bioindicator And Quality Criterium Of Ecological Conditions Of Auto Transport Roadside Areas	Ciência e Técnica Vitivinícola. 32 (8). Pp:355-365
19	AA El-Khatib, NA Barakat, H Nazeir . 2016. Growth And Physiological Response Of Some Cultivated Species Under Allelopathic Stress Of Calotropis Procera (Aiton) W.T	Applied Science Reports 14 (3), 237-246
20	E Mohamed, R Matsuda, AA El-khatib, K Takechi, H Takano, S Takio . 2016. Differential tolerance to high salt with regard to cell growth and superoxide dismutase (SOD) activity in calluses of the halophyte Suaeda maritima from Japan and Egypt	Plant Omics 9 (1)
21	EMEA Ahmed A. El-Khatib , A. A. El-Shanawany . 2016. Urban Tree Leaf as Bio-indicator for Air Pollution around Superphosphate Fertilizers Plant, Upper Egypt	J. Eco. Heal. Env 4 (3), 1-7
22	E Mohamed, R Matsuda, AA El-Khatib, K Takechi, H Takano, S Takio. 2015. Characterization of the superoxide dismutase genes of the halophyte Suaeda maritima in Japan and Egypt	Plant cell reports 34 (12), 2099-2110
23	AA El-Khatib, FA Faheed, MM Azooz. 2015. Physiological response of Eucalyptus rostrata to heavy metal air pollution	El-Minia Science Bulletin 15, 429-451
24	Rovshan I. Khalilov, Aygun N. Nasibova, Naglaa Youssef . 2015. The Use Of Epr Signals Of Plants As Bioindicative Parameters in The study Of Environmental Pollution	International Journal of Pharmacy and Pharmaceutical Sciences. 7 (4). Pp: 172-175
25	Bernd Markert, Edita Baltrėnaitė, Ewa Chudzińska, Silvia De Marco, Jean Diatta, Zahra Ghaffari, Svetlana Gorelova, Jorge Marcovecchio8, Guntis Tabors, Meie Wang, Naglaa Youssef, Stefan	Environmental Science and Pollution Research 21(8). 5450–5456

	Fraenzle, Simone Wuenschmann.2014. Multilingual education of students on a global scale and perspective—international networking on the example of bioindication and biomonitoring (B&B technologies)	
26	AA El-Khatib, AK Hegazy, AM Abo-El-Kassem. 2014. Bioaccumulation Potential and Physiological Responses of Aquatic Macrophytes to Pb Pollution	- International journal of phytoremediation 16 (1), 29-45
27	Markert, Bernd*, Wuenschmann, Simonea, Baltrėnaitė, Editab, Chudzińska, Ewac, De Marco, Silviad, Diatta, Jeane, Ghaffari, Zahraf, Gorelova, Svetlanag, Marcovecchio, Jorgeh, Tabors, Guntisi, Yousef Naglaa. 2014. International, transdisciplinary and intercultural cooperation in bioindication and biomonitoring studies (B&B technologies)	Int. J. of Sustainable Water and Environmental Systems Volume 6, No. 1 17- 26
28	Youssef N.A., Gurbanov E.M. , Hacıyeva S.R, Mammedova A.O. Khalilov R.I . 2013. Antioxidant enzymes, fluctuating asymmetry and morphological changes of urban trees as an ecological indicators of heavy metal stress	International Journal of Pharmaceutical Science and Health Care. 3(1). P: 1-18
29	Youssef N.A., Markert B., Gurbanov E.M., Hacıyeva S.R. Simone Wu"nschmannnc . 2013. Bioindication of trace metal pollution in the atmosphere of Baku city using Ligustrum japonicum, Olea europea and Pyracantha coccinea leaves	Journal Of Environmental Engineering And Landscape Management. 22[1].P:14-20
30	Youssef Naglaa Abdallah, Gurbanov Elshad Mejnun, Hacıyeva Sevinc .R. Mamedova Afet . 2013. Change of The Morpho-Anatomical Structure of Leaves of Ligustrum japonicum And Olea europea Caused By Heavy Metal Pollution	Casp. J. Appl. Sci. Res. 2(2): 29-38.
31	Youssef Naglaa Abdallah., Gadjiyeva S.R. 2013. Biomonitoring of Trace Metals and Air Quality in Baku City, Azerbaijan, Using Ligustrum japonicum L., (Oleaceae	Transactions of Botanical institute of Azerbaijan National Academy Of Science
32	AA El-Khatib, AM Abd El-Rahman, OM El-Sheikh. 2012. Biomagnetic monitoring of air pollution using dust particles of urban tree	Assiut University Journal of Botany

	leaves at Upper Egypt	
33	AA El-Khatib. 2012. Morpho-Anatomical Characteristics of Olive (<i>Olea europaea</i> L.) Trees Leaf as Bio-indicator of Cement Dust Air Pollution in Libya	Journal of Environmental Studies
34	Youssef, Naglaa., Gurbanov, E.M., Hacıyeva, S.R. 2012. Lead accumulation and response of antioxidant enzymes of <i>Ligustrum japonicum</i> in urban atmosphere of Baku city	Baku Journal. (3): 44-50
35	Youssef, Naglaa., Gurbanov, E.M., Hacıyeva, S.R.2012. Fluctuating asymmetry of <i>Ligustrum japonicum</i> , <i>Pyrchantha coccinea</i> , <i>Olea europea</i> leaves as bioindicators of aerotechnogenic pollution of urban ecosystems	Ganga. Azerbaijan. (48): 7-13
36	Youssef, Naglaa. 2012. Antioxidant enzymes in <i>Pinus eldarica</i> as biomarkers of heavy metal expouser in urban atmosphere of Baku	Azerbaijan National Academy of Science journal. (4), p: 251-260.
37	Youssef, Naglaa . 2012. Urban Trees as biomonitor of air particulate pollutants	LAP LAMBERT Academic publishing
38	Youssef, Naglaa., Gurbanov, E.M., Hacıyeva, S.R. 2012. Response of Antioxidant enzymes in <i>Pyrchantha coccinea</i> as biomarkers for the detection of Pb in urban atmosphere.	Casp. J. Appl. Sci. Res. 1(13): 51-56.
39	El-Khatib, A. A., Al-Sayed, K. N. and Naglaa, Y. 2011. Bio-monitoring of Airborne Dust Particles Pollutants by Morpho-anatomical Reactions of Urban Tree Leaves Under Dry Climate	Egyptian Journal of Botany 51 (1), 1-12
40	AA El-Khatib, A El-Rahman, OM Elsheikh 2011. Leaf geometric design of urban trees: Potentiality to capture airborne particle pollutants	Journal of Environmental Studies 7 (1), 49-59
41	AA El-Khatib, AK Hegazy, AM Abo-El-Kassem 2011. Cadmium-induced response of protein profile and antioxidant enzymes in aquatic macrophytes <i>Myriophyllum spicatum</i> and <i>Ceratophyllum demersum</i>	Journal of Environmental Studies 7 (1), 17-23
42	AA El-Khatib, AK Hegazy, AM Abo-El-Kassem 2011. Induction of Biomarkers Associated with Cadmium Detoxification in Aquatic Species	Journal of Environmental Studies 7 (1), 9-16

43	MA Fawzy, NE Badr, A El-Khatib, A Abo-El-Kassem . 2012. Heavy Metal Biomonitoring and Phytoremediation Potentialities of Aquatic Macrophytes in River Nile	Environmental monitoring and Assessment 184 (3), 1753-1771
44	AA El-Khatib, ARA El-Shanawany, ESM El-Amery . 2010. Significance of Leaf Surface of Urban Trees to Monitor Airborne Particle Pollutants Nearby Superphosphate Fertilizer Plant	Isotopes in Environmental and Health Studies. 5 (1), 57-67
45	AA El- Khatib, MM Abdel- Ghaney, KN El- Sayed . 1998. Soil-vegetation relationship and distribution of Convolvulus in Egypt	Feddes Repertorium 109(1-2) 175-185
46	AA EL- KHATIB, AK Hegazy, HK Galal. 2004. Allelopathy in rhizosphere and amended soil of Chenopodium murale L	- Weed Biology and Management 4 (1), 35-42
47	PH Freer-Smith, AA El-Khatib, G Taylor . Capture of Particulate Pollution by Trees: A Comparison of Species Typical of Semi-Arid Areas (Ficus Nitida and Eucalyptus Globulus) with European and North American Species	Water, Air, and Soil Pollution 155 (1), 173-187
48	AA El-Khatib, AK Hegazy, HK Galal . 2004. Does allelopathy have a role in the ecology of Chenopodium murale?	Annales Botanici Fennici, 37-45
49	AA El-Khatib . 2003. The response of some common Egyptian plants to O ₃ and their use as bioindicators	Environmental Pollution 124 (3), 419-428
50	AA El-Khatib.2000. The ecological significance of allelopathy in the community organization of Alhagi graecorum Boiss	Biologia Plantarum 43 (3), 427-431
51	AM A. A. El-Khatib, K, a, Fayez . 1999. Adaptive responses of Alhagi graecorum under different habitat conditions	Acta Agronomica Hungarica 47 (2), 171-180
52	AA El-Khatib . 1998. Growth and physiological responses of wild oat to the allelopathic potential of wheat	Acta Agronomica Hungarica 47 (1), 11-18
53		
54	AA El-Khatib, GA Abd-Elaah . 1998. Allelopathic potential of Zilla spinosa on growth of associate flowering plants and some rhizosphere fungi	Biologia plantarum 41 (3), 461-467

55	AA El-Khatib . 1997. Does allelopathy involve in the association pattern of <i>Trifolium resupinatum</i> ?	Biologia Plantarum 40 (3), 425-431
56	AA El-Khatib . 1997. Former and present vegetation of Kraman Island, Upper Egypt	Journal of Arab Gulf Science & Researches 15 (3), 661-682
57	ZA Zahran, SM Ayyad, EK A.A. 1995. Ecopalynological studies in the extreme arid part of Egypt	Occasional Publication., 57-72

Lab instruments						
#	Device	quantity	Quality			
			Good	Poor	Need maintenance	malfunction
1	Spectrophotometer	1	*		No	
2						
3						
4						

Instruments Description	
Device image	Description /use
توضع صورة للجهاز	وصف بسيط لاستخدامات الجهاز
	A spectrophotometer is a device measures the intensity of electromagnetic energy at each wavelength of light in a specified region, Operate in the ultraviolet, visible and near infrared regions. The spectrophotometer consists of a light source, a way to focus light onto the sample, a method to collect the light from the sample, a monochromator to separate the light into its component wavelengths and a detector to measure the intensity of light at each wavelength.

Evaluate the fulfillment of lab to appropriateness of areas, building installations, facilities and human resources standards

Areas of assessment		Indicators	Yes	Somewhat	No
Floor area and capacity	1	Adequacy of the total capacity of the lab for the number of researcher (1).		√	
Windows and doors	2	Availability of windows for adequate ventilations.	√		
	3	Ease of use of windows.	√		
Equipment	6	Appropriate temperature during the lectures (3).	√		
	7	Availability of good ventilation (4).	√		
	8	The existence of adequate lighting (4).			
	9	Lab is connected to the Internet	√		
	10	The existence of directions inside the Lab showing entrances and emergency exits.			√
Security and Safety	11	Existence of firefighting equipment near the hall (5).	√		
	12	Cleanliness of the room.	√		