**CV of Dr. Hmoud Fares Alkahem Al-Balawi**

## Name               :  Hmoud Fares Al-kahem AL-Balawi

**Nationality        : Saudi**

**Current Academic Position       : Professor**

**Place of Work                         : Department of Zoology**

## College of Science

## King Saud University

**P. O. Box 2455**

**Riyadh 11451**

**Kingdom of Saudi Arabia**

**Educational Qualifications.**

**B. Sc.        King Saud University, KSA.                    1975          Zoology**

**M. Sc.       Colorado State University, USA.     1980          Fish Biology**

**Ph. D.       Colorado State University, USA.     1983          Fish Biology**

**And Ecology**

# Administrative Position:

**Vice dean (Administration and Finance) College of Science, King Saud University From September 2008 to till date.**

**Chairman of Zoology department from 2006 to 2009.**

**Chairman of Biodiversity (M.S.) program from 2006 to 2009.**

**Professor of Zoology department since 1983.**

**Teaching Courses**

**Zoo 103, Zoo 305, Zoo 320, Zoo 374, Zoo 499, Zoo 521, Zoo 572, Zoo 573, Zoo 574, Zoo 600, Zoo 621, Zoo 700 and Bio 600**

**Teaching Experience**

## Assistant            October, 1983 to        Teaching  Fish Biology, Systematic,

**Professor           July, 1989                Conservation and Aquatic Ecology to**

**undergraduate students.**

**Associtae           July, 1989 to              Teaching Fish Biology, systematic,**

**Professor           October, 1999        Conservation and Aquatic Ecology**

**to Undergraduate and graduate**

**students.**

**Professor           October,1999              Teaching above mentioned courses**

**Todate                          to undergraduate and graduate**

**students.**

**Current Research Interest**

**:  Biological studies on some species of grouper**

**: Biological studies on cichlid species of Wadi Haneefah,**

**Riyadh, Saudi Arab**

**: Conservational and Ecological studies on Arabian freshwater**

**fishes.**

**Membership of Scientific Associations**

**Saudi Biological Society.**

**American Fisheries Society.**

**Desert  Fishes Council.**

**Ichthyological Society of Japan.**

**Asian Fisheries Society**

**Environment and Development Journal.**

**Participation in Conferences and Symposia**

**I have participated in 29 Symposia , conferences, academic presentations and writing in News papers about Environmental issues.**

**I have served as a member of 38 different committees in the department of zoology and college of science.**

**List of Publications**

**A.  Papers published in various refereed national and international journals**

1. **Al-Kahem, H. F. and Behnke, R. J. (1983). Freshwater fishes of Saudi Arabia. Fauna of Saudi Arabia. 5 : 545-565.**
2. **Coad, B. W., Al-Kahem, H. F. and Behnke, R. J. (1983). *Acanthobrama hadiyahensis*, a new species of cyprinid fish from Saudi Arabia. Publication in Canadian Natural Museum. Natural Sciences. 2 : 1-6.**
3. **Al-Akel, A. S., Shamsi, M. J. K. and Al-Kahem, H. F. (1987). Selective feeding behavior of the Arabian freshwater fish, *Aphanius dispar*. Pakistan  J. Zool. 19 : 211-215.**
4. **Al-Kahem, H. F. and Ahmad, Z. (1987). Studies on the oxygen consumption of *Oreochromis niloticus* and *Cyprinus carpio*. Zeitscrift fur Angewandte Zoologie. 74 (4) : 471-477.**
5. **Al-Kahem, H. F., Al-Akel, A. S., Shamsi, M. J. K. and Ahmad, Z. (1988).  Food selection of various size groups of the cyprinid fish, *Cyprinion mhalensis* Al-Kahem and Behnke, 1983 from Saudi Arabia. Arab Gulf J. Scient. Res. (Sci.) B6: 419-427.**
6. **Al-Akel, A. S., Shamsi, M. J. K., Al-Kahem, H. F., Chaudhary, M. A. and Ahmad, Z. (1988). Effect of cadmium on the cichlid fish, *Oreochromis niloticus*: Behavioural and physiological responces. J. Univ. Kuwait, 15 (3) : 341-346.**
7. **Chaudhary, M. A., Al-Kahem, H. F. Al-Akel, A. S., Ahmad, Z. and Shamsi, M. J. K. (1988). Thyroxine and blood chemistry of carp, *Cyprinus carpio*. German J. Appl. Zool. 75: 345-353.**
8. **Al-Kahem, H. F. (1989). Effect of sublethal copper concentrations on the behaviour of cichlid fish, *Oreochromis niloticus*. German J. Appl. Zool. 76 :  93-99.**
9. **Al-Kahem, H. F. (1989). Effect of different acids on the freshwater fish, *Aphanius dispar*. J. Biol. Sci. Res. 20 : 537-545.**
10. **Al-Kahem, H. F. (1989). Wildlife conservation in Saudi Arabia. Proceeding of the first symposium on wildlife conservation and development in Saudi Arabia held in Riyadh in February, 87. 3: 61-71.**
11. **Al-Kahem, H. F.; Al-Akel, A. S., Shamsi, J. J. K., Ahmad, Z. and Al-Shawa, Y. R. (1990). Food selectivity of an Arabian Peninsula’s cyprinid fish, *Cyprinion acinaces*. J. King Saud Univ. (Sci.) 2 (20) : 37-42.**
12. **Al-Kahem, H. F.; Al-Akel, A. S., Ahmad, Z., Shamsi, M. J. K. and Chaudhary, M. A. (1990).  Biochemical and behavioural responses of common carp, *Cyprinus carpio* to sulphuric acid. J. King Abdul Aziz Univ. (Sci.) 2 : 55-62.**
13. **Al-Kahem, H. F.; Behnke, R. J. and Ahmad, Z. (1990). Some osteological distinction among four Arabian cyprinid species. Japanese J. lchthyol. 36 (4) : 477-482.**
14. **Al-Kahem, H. F. (1991). Studies on the variations in meristic characters of *Aphanius dispar* collected from three different localities of Saudi Arabia. Pakistan J. Zool. 23 (1) : 95-96.**
15. **Al-Kahem, H. F.(1993). Ethological responses and changes in haemoglobin and glycogen content of the common carp, *Cyprinus carpio*, exposed to cadmium. Asian Fish. Sci. 6 : 81-90.**
16. **Al-Kahem, H. F.(1994). The toxicity of nickel and the effects of sublethal levels on haematological parameters and behaviour of the fish, *Oreochromis niloticus*. J. Univ. Kuwait. 21: 243-252.**
17. **Al-Kahem, H. F., Ahmed, Z. and Al-Omer, 1. (1994). A study on the behavioural response and haematological profile of carp, *Cyprinus carpio*, exposed to exogenous urea. German J. Appl. Zool. 80 (1) : 97-105.**
18. **Al-Kahem, H. F. (1995). Acute and sublethal exposure of catfish (*Clarias gariepinus*) to cadmium chloride : Survival, behavioral and physiological responses. Pakistan. J. Zool. 27 (1) : 33-37.**
19. **Al-Kahem, H. F. (1995).  Effects of nickel on carbohydrate metabolism of *Oreochromis niloticus*. Dirasat. 22 B (1) : 83- 88.**
20. **Al-Kahem, H. F. (1995). Effect of Arabian crude oil on the freshwater fish, *Oreochromis niloticus* : Bioassay, behavioral and biochemical responses. Arab Gulf  J. Scient. Res. 13 (1) : 173-186.**
21. **Al-Kahem, H. F. (1995). Behavioral responses and changes in some haematological parameters of cichlid fish, *Oreochromis niloticus*, exposed to trivalent chromium. J. King Abdul Aziz Univ. Sci. 7 : 5-13.**
22. **Al-Kahem, H. F. ; Ahmed, Z. and Arrasheed, M. A. (1995). Comparative study on the rates of respiration of a native Saudi Arabian fish, *Aphanius dispar* (Ruppell, 1828) and an introduced competitor, *Gambusia affinis* Baird and Girard, 1853) under laboratory conditions. J. King Saud Univ. Sci (2) 7 : 245-253.**
23. **Al-Akel, A. S., Al-kahem, H. F., Shamsi, M. J. K. and Ahmad, Z. (1996). Selection of food in various size groups of Nile Tilapia, *Oreochromis iloticus* (L.) in Wadi Haneefah Stream, Saudi Arabia. Pakistan. J. Zool. 28 (4) : 271-275.**
24. **Al-Kahem, H. F. (1996). Effects of lethal and sublethal concentrations of lindane on the behaviour and energy reserves of the freshwater fish, *Oreochromis niloticus* J. King Saud Univ. Sci. 8 (2) : 153-164.**
25. **Al-Kahem, H. F. and Ahmad, Z. (1996). Haematological responses of cichlid fish, *Oreochromis niloticus* (Linnaeus, 1758), exposed to the Arabian crude oil. Egyptian J. Appl. Sci. 11 (12) : 12-21.**
26. **Al-Kahem, H. F., Al-Akel, A. S., Ahmad, Z. and Shamsi, M. J. K. (1997). Length-weight relationship, condition co-efficient (k) and relative condition co-efficient (Kn) of *Oreochromis niloticus*, from Wadi Haneefah Stream, Saudi Arabia. Geobios. 24 (1) : 3-9.**
27. **Al-Kahem, H. F., Al-Akel, A. S. and Ahmad, Z. (1998). Carbohydrate metabolism and ethological responses of cichlid fish, *Oreochromis niloticus* exposed to trichlorfon. Geobios. 25 (1) : 10-16.**
28. **Al-Akel, A. S., Shamsi, M. J. K., Al-Kahem, H. F., and Ahmad, Z. (1998). Haematological effects of manganese toxicity on freshwater fish, *Oreochromis niloticus* (Perciformes: cichlidae). Pakistan J. Zool. 30 (3) : 179-183.**
29. **Al-Kahem, H. F. ; Al-Akel, A. S.; Shamsi, M. J. K. and Ahmed, Z. (1998). Planktonic  biomass and physio-chemical parameters in Wadi Haneefah Stream, Riyadh, Saudi Arabia. Dirasat. 25 (2) : 363-376.**
30. **Al-Kahem, H. F., Ahmed, Z., Al-Akel, A. S. and Shamsi, M. J. K. (1999). Toxicity bioassay and changes in haematological parameters of *Oreochromis niloticus* induced by trichlorfon. Arab Gulf J. Scient. Res. 16 (3) : 581-593.**
31. **Al-Kahem, H. F., Shamsi, M. J. K. and Ahmad, Z. (1999). Effect of water polluted with zinc sulphate on survial, behaviour, carbohydrate metabolism and blood parameters of cichlid fish, *Oreochromis niloticus* (Linnaeus, 1758).  Saudi J. boil. Sci. 6 (1) : 35-45.**
32. **Al-kahem,H.F,Ahmad,Z and Alghanim,K.A(2002) .Length-Weight relationship and monthly changes in different idices of *Oreochromis niloticus Pakist.Jour.of Scie.54(1-2):9-13.***
33. **Al-kahem,H.F.,Ahmad,Z.and Aldahi,A(2004).Studies on age and growth of Epinephelus chlorostigma andEpinephelus areolatus from the Arabian Gulf. Agri. Reser.Jour. Sue. Canal univer.3(1):27-31.**
34. **Alkahem,H.F.,Ahmad Z.and Alganim,k.(2005).Monthly innovations in haematological profile and biochemical composition of liver and muscle of Oreochromis niloticus(Linnaeus,1758). Geobios 32(2-3):105-112.**
35. **Al-kahem,H.F,ALGhanim K.&Ahmad Z.(2007).Studies on feeding of Sailfin Molly(P.latipinna)Dwelling in *Wadi Haneefah stream, Riyadh, Kingdom of Saudi Arabia.Pakistan J.of Biol.Scie.10(2):335-341.***
36. **Al-Ghanim, Khalid  A., Al-Kahem Al-Balawi, Hmoud F., Al-Akel, Ali S., Al-Misned, Fahad, Ahmad, Zubair, and Annazri, A. (2008). Ethological response and haematological and biochemical profiles of carp (Cyprinus carpio) exposed to trichlorfon. J. Food Agricult.  Environ. 6 (3&4):473-479.**
37. **Al-Kahem Al-Balawi, H.  F., Al-Ghanim, K.  A., Ahmad, Z., Temraz, T. A., Al-Akel, A. S., Al-Misned, F. and Annazri, A. (2008). A threatened fish species (Aphanius dispar) in Saudi Arabia, A case study. Pakistan J. Biol. Sci. 11(19):2300-2307.**
38. **Al-Ghanim, K.  A, Al-Akel, A. S., Al-Mesnad, F., Al-Kahem Al-Balawi, H.  F., Ahmad, Z., and Annazri, A. (2008). Seasonal variations and community structure of plankton in relation to some environmentalvariables in Wadi Haneefah Stream, Riyadh, Saudi Arabia. J. Thalassia Salentina, 31: 145-162.**
39. **El Amin, M. S., Al-Akel, A. S., Alkahem Al-Balawi, H. F., Al-Misned, F. and Ahmad, Z. (2010). Spawning of the endangered killi fish, *Aphanius dispar dispar*, (Ruppel, 1829), under laboratory conditions. A. Biol. J. 1(4):**
40. **Al-Akel, A. S., Al-Misned, F. Alkahem Al-Balawi, H.F., Al-ghanim, K. A., Ahmad, Z. and Annazri, H. (2010). Reproductive biology of sailfin molly, *Poecilia latipinna,* (Lesueur, 1821) in wadi Haneefah stream, Riyadh Saudi Arabia. Pakistan J. Zool. 42 (1) :**
41. **Al-Akel, A. S., Alkahem-Al-Balawi, H. F., Al-Misned, F., Mahboob, S., Ahmad, Z. and Suliman, E. M. (2010). Effects of dietary copper exposure on accumulation, growth, and hematological parameters in *Cyprinus carpio.* Toxicol. Environ. Chem. 92:1865-1878. (ISI)**
42. **Mahboob, S., Sultana, G. S., Al-Akel, A. S., Al-Kahem Al-Balawi, H. F., Al-Misned, F. and Ahmad, Z. (M., Zubair) (2011). Pesticide residues in flesh of *Cirrhinus mrigala* collected from a commercial farm and river Chenab at Trimu Head, Jhang. Pakistan J. Zool. 43:97-101. (ISI)**
43. **Ahmad, Z., Alkahem, H. F. and Aldhahi, A. A. A. (2011). Fecundity, sex ratio and gonado-somatic index of epinephelus chlorostigma and Epinephelus areolatus sampled from Arabian Gulf. Animal J. Biol. 2(3):**
44. **Alkahem Al-Balawi, H.F., Ahmad, Z., Al-Akel A. S., Al-Misned, F., Suliman, E.M. and Al-Ghanim K.A. (2011). Toxicity bioassay of lead acetate and effects of sub-lethal exposure on growth, haematological parameters and reproduction in *Clarias gariepinus*. African J. Biotech. 10(53):11039-11047. (ISI).**
45. **Mahboob, S., Rauf, A., Ashraf,M. Sultana, T., Sultana, S., Jabeen, F., Rajoka, M. I., Alkahem Al-Balawi, H. F. and Al-Ghanim K,A. (2012). High-density growth and crude protein productivity of a thermotolerant Chlorella vulgaris: Production kinetics and thermodynamics. Aquacult. Int. 20: 455-466. (doi:10.1007/s10499-011-9477-1).**
46. **Mahboob, S., Farooq, M., Mahmood, S., Nasir,N., Sultana, S., Chaudhary, A. S., Al-Akel, A. S., Alkahem Al-Balawi, H. F., Al-Misned, F. and Al-Ghanim, K. A. (2012). Phylogenetic relationship of cultured and wild Labeo rohita and cirrhinus mrigala based on muscles proteins profile in different weight groups: A new tool in phylogenetic analysis. Int. J. Food Properties, 15: 949-960.**
47. **Alkahem Al-balawi, H. F., Al-Misned, F., Ahmad, Z., Al-Ghanim, K. A. and Mahboob, S. (2013). A study on the concentration of heavy metals in water and sediments of natural water reservoir in Wadi hanefah, Saudi Arabia and uptake of metals by a fish *Poec ilia latipinna*. Pak. J. Zool. 45:613-618. (ISI)**
48. **Alkahem Al-balawi, H. F., Al-Akel, A. S., Al-Misned, F., Suliman, E. M., Al-Ghanim K. A., Mahboob, S. and Ahmad, Z. (2013). Effects of sub-lethal exposure of lead acetate on histopathology of gills, liver, kidney and muscle and its accumulation in these organs of *Clarias gariepinus*. Braz. Arch. Biol. Technol. 56(2):293-302. (ISI)**
49. **Ahmad, Z. Al-harsi, I., AlKahem Al-balawi, H. F. and Al-akel, A. S. (2013). Studies on the feeding ecology of Cyprinion mhalensis dwellin in Wadi Bua, Taif, Saudi Arabia. Pak. J. Zool. 45(2):351-358 (ISI).**
50. **Hakami, A. H., Alkahem Al-Balawi, H. F., Ahmad, Z., Mahboob, S., Elamin M. Suliman. and. Al-Ghanim, K. A. (2013). Studies on Feeding Ecology of fresh water fish (*Barbus arabicus*) Dwelling in "Beesh Dam", Jazan, Saudi Arabia. Life Sci. J., 10:39-45. (ISI)**
51. **Al-Deghayem, W., Al-Kahem Al-Balawi, H. F., Kandeal, S. and Suliman, E. M. (2013). The effect of different diets and temperatures on growth rate, nutrient utilization and body composition of *Clarias gariepinus (Burchell 1822).* Life Sci. J., 10(4):450-456. (ISI)**
52. **Mahboob, S., Alkahem Al-Balawi, H. F., Al-Misned, F. and Ahmad, Z. (2014). Investigation on the genotoxicity of mercuric chloride to freshwater *Clarias gariepinus*. Pak. Vet. J. 34(1): 100-103.**
53. **Ahmad, Z., Al-Ghanim K. A., Alkahem Al-Balawi, H. F., Al- Misned, F., Mahboob, S. and Suliman, E. M. (2014). Effect of exogenous ovarian steroids on growth and muscle composition of catfish, *Heteropneustes fossilis.* Afinidad 80 (568): 393-397. (ISI)**
54. **Mahboob, S. Alkahem Al-Balawi, H. F., Al-Misned, F., Al-Quraishy, S. and Ahmad, Z. (2014). Tissue metal distribution and risk assessment for important fish species from Saudi Arabia. Bull. Environ. Contam. Toxicol. 92: 61-66. (ISI)**
55. **Mahboob, S., Alkahem Al-Balawi, H. F., Al-Misned, F., Al-Ghanim, K. A. and Ahmad, Z. (2014). An evaluation of water pollution in the Wadi Hanefah, a natural reservoir in Saudi Arabia using oxidative stress indicators in *Poicilia latipinna*. J. Animal and Plant Sci. 24(2):475-480.**
56. **Mahboob, S., Alkahem Al-Balawi, H. F., Al-Misned, F., Al-Ghanima, K. A. and Ahmad, Z. (2014). A study on the accumulation of nine heavy metals in some important fish species from a natural reservoir in Riyadh, Saudi Arabia. Toxicol. Environ. Chem. 96(5):783-798.**
57. **Mustafa, G., Mahboob, S., Al-Ghanim, K. A., Sultana, S., Alkahem Al- Balawi, H. F. , Sultana, T., Al-Misned, F. and Ahmad, Z. (2014). Acute toxicity I: effect of profenofos and triazophos (organophosphates) and carbofuran and carbaryl (carbamates) to *Labeo rohita.* Toxicol. Environ. Chem. 96(3): 466-473.**
58. **Mahboob, S., Al-Ghanim, K. A., Alkahem Al- Balawi, H. F., Al-Misned, F. and Ahmad, Z. (2014). Carbofuran-induced effects on acetylcholinesterase (AChE) in erythrocytes and liver of *Cyprinus carpio.* Toxicol. Environ. Chem. 96(4): 614-623.**
59. **Mahboob, S., Alkahem Al- Balawi, H. F., Al-Ghanim, K. A., Al-Misned, F. and Ahmad, Z. (2014). Study on Complete Replacement of Fish Meal by Plant Sources Meal as a Dietary Protein for *Labeo rohita* and *Ctenophyryngodon idella.* Pak. J. Zool., 46(5): 1391-1397.**
60. **Mahboob, S., Alkahem Al- Balawi, H. F., Al-Ghanim, K. A., Al-Misned, F., Ahmad, Z. and Suliman E. M. (2014). Biomarkers of oxidative stress as indicators of water pollution in Nile tilapia (*Oreochromis niloticus*) from a water reservoir in Riyadh, Saudi Arabia. Toxicol. Environ. Chem. 96(4): 624-632.**
61. **Ghazala, Mahboob, S., Al-Ghanim, K. A., Sultana, S., Alkahem Al-Balawi, H. F., Sultana, T., Al-Misned, F. and Ahmed Z. (2014). Profenofos-induced effect on esterase activity and protein content in liver, kidney, brain, blood, and muscles in Indian major carp. Toxicol. Environ. Chem. 96(4):633-640.**
62. **Ghazala, Mahboob, S., Al-Ghanim, K. A., Sultana, S., Alkahem Al-Balawi, H. F., Sultana, T., Al-Misned, F. and Ahmed Z. (2014). Acute toxicity II: Effect of organophosphates and carbmates to *Catla catla fingerlings*. J. Animal & Plant Sci. 24(6): 1795-1801.**
63. **Mahboob, S., Haider, S., Sultana, S., Al- Ghanim, K. A., Al-Misned, F., Al-Kahem Al-Balawi, H. F. and Ahmad, Z. (2014). Isolation and characterisation of collagen from the waste material of two important freshwater fish species*.* J. Animal & Plant Sci. 24(6): 1802-1810.**
64. **Ahmad, Z., Alkahem Al-Balawi, H. F., Al-Misned, F., Maboob, S. and Suliman, E. M. (2015). Accumulation of heavy metals in the fish, *Oreochromis niloticus* and *Poecilia latipinna* (Leseuer, 1821) and their concentration in water and sediment of dam lake of Wadi Namar, Saudi Arabia. J. Environ. Biol. 36:296-299.**
65. **Mahboob, S., Ghazala, Al-Ghanim, K. A., Sultana, S., Alkahem Al-Balawi, H. F., Sultana, T., Al-Misned, F. and Ahmad, Z. (2015). A Study on Acute Toxicity of Triazophos, Profenofos, Carbofuran and Carbaryl Pesticides on *Cirrhinus mrigala.* Pak. J. Zool. 47:461-466.**
66. **Al- Ghanim, K. A., Mahboob, S., Alkahem Al-Balawi, H. F., Al-Akel, A. S., Al-Misned, F. and Ahmad, Z. (2015). Nitrogen input II: Performance evaluation of buffalo manure on the production of natural fish food and growth performance of major carps. J. Animal and Plant Sci. 25:567-571.**
67. **Al-Ghanim, K. A., Ahmad, Z., Alkahem Al-Balawi, H. F., Al-Misned, F., Mahboob, S. and Suliman, E. M. (2015). The effects of a low- radiotoxicity uranium salt (uranyl acetate) on biochemical and haematological parameters in the catfish, *Clarias gariepinus.* Chinese J. Oceanol and Limnol.** [**http://dx.doi.org/10.1007/s00343-015-4392-3**](http://dx.doi.org/10.1007/s00343-015-4392-3)
68. **Mustafa, G., Mahboob, S., Al-Ghanim, K. A., Sultana, S., Alkahem Al- Balawi, H. F., Sultana, T., Al- Misned, F. and Ahmed, Z. (2015).** **Assessment of Meat Quality and Dressing Losses in Wild and Farmed *Cyprinus carpioa.* Pakistan J. Zool., 46:1753-1759.**
69. **Mustafa, G., Mahboob, S., Al-Ghanim, K. A., Sultana, S., Alkahem Al- Balawi, H. F., Sultana, T., Al- Misned, F. and Ahmed, Z. (2015).** **Assessment of Meat Quality and Dressing Losses in Wild and Farmed *Cyprinus carpioa.* Pakistan J. Zool., 46:1753-1759.**
70. **Mahboob, S., Al-Ghanim, K. A., Alkahem Al-Balawi, H. F., Al-Misned F., and Ahmed Z. (2016). Assessment of Accumulation of Trace Elements in Muscles, Gills, Liver and Intestine of Clarias gariepinus (Burchell, 1822) from Wadi Hanefah, Saudi Arabia. Pakistan J. Zool., vol. 48(3), pp. 875-880, 2016.**
71. **Al-Ghanim1 K.; Al-Thobaiti A., Alkahem Al-Balawi H. F., Ahmed Z.; Mahboob S. (2016). Effects of Replacement of Fishmeal with other Alternative Plant Sources in the Feed on Proximate Composition of Muscle, Liver and Ovary in Tilapia (Oreochromis nioloticus). Braz. Arch. Biol. Technol. v.59: e16150376, Jan/Dec 2016.Ghazala, Mahboob S., Al-**
72. **Ghanim K. A., Sultana S., Alkahem Al- Balawi H. F., Sultana T., Al-Misned F. Ahmed L. and Ahmed Z. (2016). Effect of Triazophos on Esterase Activity and Protein Contents of Liver, Kidney, Brain, Blood and Muscles of Catla catla, Labeo rohita and Cirrhinus mrigala. Pakistan J. Zool., vol. 48(2), pp. 513-518, 2016.**
73. **AL-GHANIM K. A., AHMAD Z., Al-Kahem AL-BALAWI H. F., AL-MISNED F., MABOOB, SULIMAN E. M. (2016). Effects of a low-radiotoxicity uranium salt (uranyl acetate) on biochemical and hematological parameters of the catfish, Clarias gariepinus. Chinese Journal of Oceanology and Limnology, Vol. 34 No. 1, P. 109-117, 2016.**
74. **Ahmad Z., Al-Ghanim K. A., Alkahem Al-Balawi H. F., Al-Misned F., and Mahboob S. (2016). STUDY ON ACUTE TOXICITY, HAEMATOLOGICAL AND BIOCHEMICAL ALTERATIONS INDUCED BY THE EXPOSURE OF DDT TO CATFISH. Fresenius Environmental Bulletin. Volume 25 – No. 12a/2016, pages 5935-5943.**
75. **Al-Deghayem W. A., Al-Balawi1 H. F., Kandeal S. A. and Suliman E. S. (2017). Gonadosomatic index and some hematological parameters in African catfish Clarias gariepinus (Burchell, 1822) as affected by feed type and temperature level. Braz. Arch. Biol. Technol. v.60: e160157, Jan/Dec 2017.**
76. **Al-Ghanim K., Al-Thobaiti A., Alkahem Al-Balawi H. F., Ahmed Z.; and Mahboob S. (2017). Effects of Replacement of Fishmeal with other Alternative Plant Sources in the Feed on Proximate Composition of Muscle, Liver and Ovary in Tilapia (Oreochromis nioloticus). Biological and Applied Sciences. Vol.60: e17160376, January-December 2017.**

**B.   Book**

**1-       Field guide of animal ecology  (in Arabic with other collegue ,**

**Dr. Awadh Al-Johny)**

**2-      Ichthyology (in Arabic)**