



## I. PERSONAL INFORMATION:

**Date of Birth:** June, 1964      **Place of Birth:** Tehran, Iran      **Nationality:** Iranian

**Marital Status:** Married (F. Zamanian) – 2 children (Shiva and Nilufar)

**Address:** Department of Aquaculture, Faculty of Marine Sciences,

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## II. EDUCATIONAL RECORDS:

**1996-2000:** PhD. Student in Fisheries Sciences, Culture and Breeding of Aquatic Organisms, Tarbiat Modares University, Iran.

**PhD Thesis:** Immunization and immune response of Persian sturgeon against *Aeromonas hydrophila*. Supervisor: Dr. Mahdi Soltani      GPA: 19.01 out of 20

**1994-1996:** MSc. in Fisheries Sciences, University of Tarbiat Modares, Iran.

**Master Thesis:** Induction of triploidy in Rainbow Trout, *Oncorhynchus mykiss* by using thermal shocks. Supervisor: Dr. Ghobad Azari      GPA: 18.95 out of 20

**1990-1994:** BSc. in Fisheries Sciences, Gorgan University, Iran.

**Bachelor Thesis:** principle of shrimp culture in Iran. Supervisor: Dr. Hassan Aslan parviz      GPA: 18.20 out of 20



## III. ACADEMIC EXPERIENCES:

**1996-2000:** Research Assistant, Aquaculture Dept. Tarbiat Modares University, Noor, Iran

**2000-2005:** Assistant Professor, Aquaculture Dept. Tarbiat Modares University, Noor, Iran

**2005 to 2012:** Associated Professor, Aquaculture Dept. Tarbiat Modares University, , Iran

**2012 to present:** Full Professor, Aquaculture Dept. Tarbiat Modares University, Noor, Iran



## IV. MEMBERSHIPS IN SCIENTIFIC AND PROFESSIONAL ORGANIZATIONS:

- 1) Iranian Society of Biotechnology
- 2) Iranian Genetics Society
- 3) European Aquaculture Society (EAS)
- 4) Iranian Society of Gene bank and Aquatic Genetic Resources
- 5) Editorial board of international Journal of IJNRMS
- 6) Iranian Salmonid Conservation Society
- 7) Iranian Sturgeon Conservation Society
- 8) Foundation board of Iranian Ichthyologist Society
- 9) Managing Board of Iranian Aquaculture Society (IAS)



## V. REFEREE FOR JOURNAL ARTICLES SUBMITTED TO:

- 1) Iranian Journal /Bulletin of Fisheries Sciences -*IFRO*
- 2) Journal of Agricultural Sciences and Natural Resources - *Gorgan Univ.*
- 3) Journal of science and technology of agriculture and natural resources - *Isfahan Univ.*
- 4) Journal of Pajouhesh–va-Sazandegi
- 5) Iranian Journal of Marine Sciences and technology – *Tarbiat Modares Univ.*
- 6) Iranian Journal of Biological Sciences
- 7) Journal of the Iranian natural Resources - *Tehran Univ.*
- 8) Archive of Razi – *Serum and vaccine Research institute*
- 9) Journal of Yakhteh – *Royan Institute*
- 10) Journal of Aquaculture Research
- 11) Italian journal of zoology
- 12) World of Aquaculture society, Aquaculture, Bulletin of marine pollution, Environmental research, Comparative Biochemistry and Physiology, Fish & Shellfish Immunology,.....



## Editorial board of Research Journal:

- 1) Iranian Journal of Biotechnology
- 2) Frontiers of Marine Sciences
- 3) Iranian Journal of Aquaculture
- 4) Journal of Fisheries Sciences and technology (JFST)
- 5) Iranian Journal of Ichthyology
- 6) Journal of ECOPERSIA
- 7) Coastal Life Medicine



## VI. RESEARCH INTERESTS:

- 1) **Aquaculture** : ( Sturgeons, Salmonids, Carps, Inland water species )
- 2) **Genetics and Fish Breeding**: Karyology, Chromosome Set Manipulations of Aquatic Organisms (Gynogenesis, Androgenesis, Triploidization, Hormonal Sex Reversal and Hybridization, Population Genetics, Cryopreservation.
- 3) **Aquaculture and Fisheries Biotechnology**: Application of Molecular Genetics, Genomics and proteomix in Aquaculture and Fisheries, Algae biofuels, Cell culture, Stem Cells, Antimicrobial Peptide, Tissue engineering,
- 4) **Aquatic Nanotechnology**: Nano toxicology, Nano encapsulation, Nano Vaccine, .....



## VII. JOURNAL PAPERS (ISI & ISC):

1. Moghadam H, I Sourinejad, MR Kalbassi, SA Johari, Z Ghasemi.2023. [Use of monohydrate dextrose in zebrafish \(\*Danio rerio\*\) as a model to induce hyperglycemia.](#) Journal of Animal Environment 14 (4), 187-192
2. Amirhossein smiley, M. R. Kalbassi .2024. [Fish waste Alchemy: Innate and acquired immunity assessment followed vaccinated against Kocuriasis and investigate the function of Low molecular weight peptides of Kilka fish stick-water as both immunostimulant and adjuvant in farmed rainbow trout .](#) Turk. J. Fish. & Aquat. Sci. Accepted

3. Fahim A, **MR Kalbassi**, A Abedian Kenari, M Sadegh Sabet. 2023. [The effect of mutual physicochemical stresses \(light intensity-salinity\) on changes in growth, biochemical factors and fatty acid composition of microalgae \*Nannochloropsis oculata\*](#). Fisheries Science and Technology 11 (4), 300-316
4. Jorfi E., M. R. Kalbassi . 2022. [Analysis of parentage assignment and parental contribution of silver carp \(\*Hypophthalmichthys molitrix\*\) in a semi-natural system of propagation using microsatellites](#). Sustainable Aquaculture and Health Management Journal 8(2) 77-93
5. Banan A., **Kalbassi M.R.**, Bahmani, M., Yazdani Sadati, M.A .2023. [Effects of Rearing Tank Color and Colored Light on Stress Response of Juvenile Beluga, \*Huso huso\*](#). Iranian Journal of Marine Science and Technology., Vol. 22, No.1, pp: 80-90.
6. Saebi N, S Dorafshan, **MR Kalbassi**. 2022. [Physical indices changes and survival in rainbow trout \(\*Oncorhynchus mykiss\*\) eggs kept in different environments for different time duration](#). Aquaculture Sciences 10 (2), 35-46
7. Borhani M, **MR Kalbassi**, M Psenicka, B Falahatkar, A Crawford.2022. [Identification and isolation of spermatogonial stem cells from beluga \(\*Huso huso\*\) testicular tissue](#). Journal of Aquatic Physiology and Biotechnology 10 (2), 1-24
8. Jorfi E, **MR Kalbassi**, M Sadeghizadeh. 2022. [MHC-DAB II gene polymorphism in silver carp \(\*Hypophthalmichthys molitrix\*\) propagated by semi-natural method](#) . Cellular and Molecular Research (Iranian Journal of Biology) 35 (1), 122-136
9. Ashkan Banan, Ali Forouharmehr, **Mohammad Reza Kalbassi**, Milad Esmailbeigi, Mahmoud Bahmani ,Mohammadali Yazdani Sadati, Alan S. Kolok, Eleanor G. Rogan. 2022. [Salinity gradients exacerbate the genotoxicity and bioaccumulation of silver nanoparticles in fingerling Persian sturgeon \(\*Acipenser persicus\*\)](#). Regional Studies in Marine Science, 102264. - **(IF:1.625)**
10. **Kalbasi MR**, M Behzadei Taymehe, H Paknezhad. 2021. [Influence of both free and nanoencapsulated quercetin on fatty acid profile of zebrafish \(\*Danio rerio\*\) muscle and eggs](#). Iranian Scientific Fisheries Journal 30 (3), 39-49
11. Behzadi Tayemeh M, MR Kalbassi. 2021. [Protective effect of quercetin on gill, brain, and spinal cord tissues of zebrafish \(\*Danio rerio\*\) against silver nanoparticles](#). ISFJ 30 (2), 49-60
12. Seyedi J, **MR Kalbassi**, M Esmailbeigi, MB Tayemeh, JA Moghadam. 2021. [Toxicity and deleterious impacts of selenium nanoparticles at supranutritional and imbalance levels on male goldfish \(\*Carassius auratus\*\) sperm](#). Journal of Trace Elements in Medicine and Biology 66, 126758
13. Ghochanian S, **MR Kalbassi**, M Sharafi. 2021. [Effect of impermeable protectant addition on cryopreservation and quality indices of \*Acipenser persicus\* sperm](#). Journal of Aquatic Physiology and Biotechnology 8 (4), 19-36
14. Berenjkari Najme, **Mohammadreza Kalbassi**, Saman Hoseinkhani. 2021. [Identification, cloning and sequencing of piscidin gene from Gilthead seabream \(\*Sparus aurata\*\) in \*Escherichia coli\*](#). Journal of Fisheries Science and Technology 10 (2), 203-212
15. Esmailbeigi Milad, **Mohammad Reza Kalbassi**, Javad Seyedi, Mohammad Behzadi . 2021. [Intra and extracellular effects of benzo \[a\] pyrene on liver, gill and blood of Caspian](#)

White fish (*Rutilus frissi kutum*): Cyto-genotoxicity and histopathology approach. Marine Pollution Bulletin, 111942

16. Mohammad Behzadi, **Mohammad Reza Kalbassi** ✉, Hamed Paknejad, Hamid Salari. 2020. Dietary nanoencapsulated quercetin homeostated transcription of redox-status orchestrating genes in zebrafish (*Danio rerio*) exposed to silver nanoparticles. *Environmental research*. ER-19-2889R1
17. Iman Shirdel. **Mohammad Reza Kalbassi** ✉, Saman Hosseinkhani, Hamed Paknejad, Michael Wink. 2020. Cloning, characterization and tissue-specific expression of the antimicrobial peptide hepcidin from caspian trout (*Salmo caspius*) and the antibacterial activity of the synthetic peptide. *Fish & Shellfish Immunology*. Vol. 90, Pages 288-296
18. Hamid Salari Joo, **Mohammad Reza Kalbassi** ✉, Hamed Paknejad. 2020. Nanosilver-impregnated and acid-treated vermiculite within water filtration system and its dual function in bacterial disinfection and silver reabsorption. *Iranian Journal of fisheries sciences*. (IF:0.36)
19. Iman Shirdel, **Mohammad Reza Kalbassi** ✉, Milad Esmaeilbeigi, Boshra Tinoush. 2020. Disruptive effects of nonylphenol on reproductive hormones, antioxidant enzymes, and histology of liver, kidney and gonads in Caspian trout smolts. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* Volume 232, 108756. (IF: 2.4).
20. Zohreh Ghodsi, **Mohammad Reza Kalbassi** ✉, Parvaneh Farzaneh, Ashraf Mohebbati Mobarez, Christine Beemelmans, Jamshid Amiri Moghaddam. 2020. Immunomodulatory function of antimicrobial peptide EC-Hepcidin1 modulates the induction of inflammatory gene expression in primary cells of Caspian Trout (*Salmo trutta caspius* Kessler, 1877). *Fish & Shellfish Immunology*. Vol. 104, Pages 55-61
21. Samaneh Poursaid, **Mohammad Reza Kalbassi** ✉, Hossein Baharvand ✉, Nafiseh Hasani, Goro Yushizaki. 2020. Isolation, Characterization, In Vitro Expansion and Transplantation of Caspian trout (*Salmo trutta*) Type A Spermatogonial stem cells. *General and Comparative Endocrinology*. GCE\_2019\_244\_R2
22. Mohammad Behzadi, **Mohammad Reza Kalbassi** ✉, Hamed Paknejad, 2020. Effective protection of both free and nanoencapsulated quercetin against silver nanoparticles toxicity in terms of multi-organ histopathological assay in zebrafish (*Danio rerio*). *Chemosphere*. Submitted. CHEM74063
23. Seyedeh Ainaz Shirangi, **Mohammad Reza Kalbassi** ✉, Saber Khobadandeh, Hojatollah Jafarian, Jehan-Hervé Lignot. 2019. Possibility of the Ion-regulation improvement in Persian Sturgeon (*Acipenser persicus*) Juveniles Abruptly Exposed to the Caspian Sea Water Using Cortisol Treatment. *Caspian Journal of Environmental Sciences (CJES)*. 17 (2), 131-143
24. Mohammad Sadegh Aramli · **Mohammad Reza Kalbassi**. 2019. Antioxidant characteristics of Persian sturgeon (*Acipenser persicus*) seminal plasma did not show significant changes during in vitro storage (48 h at 4°C). *Aquaculture Research*. Accepted Manuscript. doi:10.1111/ are. 13204
25. Hamid Reza Alizadeh Sabet, **Mohammad Reza Kalbassi** ✉, Mohammad Pourkazemi, Majid Sadeghizadeh. 2019. Evaluation of incubation temperatures on DNA damages of Caspian trout (*Salmo trutta caspius* Kessler, 1877) Single Cells through developmental stages by comet assay. *Iranian Journal of Fisheries Sciences*. 18 (1), 48-59 ( IF:0.36)

26. Seyedeh Ainaz Shirangi, **Mohammad Reza Kalbassi**, Saber Khobadandeh, Hojatollah Jafarian, Jehan-Hervé Lignot. 2017. Immunolocalization of Na<sup>+</sup>/K<sup>+</sup>-ATPase, Na<sup>+</sup>/K<sup>+</sup>/2Cl<sup>-</sup> Co-transporter (NKCC) and mRNA Expression of Na<sup>+</sup>/K<sup>+</sup>-ATPase  $\alpha$ -subunit during Short-term Salinity Transfer in Persian Sturgeon (*Acipenser persicus*, Borodin, 1897) Juveniles. *Journal of Applied Ichthyology* . 33 (3), 347-353.
27. Iman Shirdel, **Mohammad Reza Kalbassi**. 2016. Effects of nonylphenol on key hormonal balances and histopathology of the endangered Caspian brown trout (*Salmo trutta caspius*). *Comparative Biochemistry and Physiology: Part C: Toxicology and Pharmacology*. Accepted Manuscript doi:10.1016/j.cbpc.2016.01.003 (IF: 2.4).
28. Ashkan Banan, **Mohammad Reza Kalbassi**, Mahmoud Bahmani, Mohammad Ali Yazdani Sadati. 2016. Toxicity Assessment of Silver Nanoparticles in Persian Sturgeon (*Acipenser persicus*) and Starry Sturgeon (*Acipenser stellatus*) during Early Life Stages. *Environmental Science and Pollution Research* Accepted Manuscript ( IF:2.89) 10.1007/s11356-016-6498-3.
29. **Seyed Ali Johari**, **Mohammad Reza Kalbassi** . 2016. Chronic effect of waterborne colloidal silver nanoparticles on plasma biochemistry and hematology of rainbow trout (*Oncorhynchus mykiss*). *Journal of Coastal Life Medicine*, 4(5): 930-933.
30. Iman Shirdel, **Mohammad Reza Kalbassi**, Milad Shokri , Roya Olyaei , Issa Sharifpour. 2016. The response of thyroid hormones, biochemical and enzymological biomarkers to pyrene exposure in common carp (*Cyprinus carpio*). *Ecotoxicology and Environmental Safety*, 130 , 207–213. ( IF:2.76)
31. Seyedeh Ainaz Shirangi, **Mohammad Reza Kalbassi**, Saber Khobadandeh, Hojatollah Jafarian, Catherine Lorin-Nebel, Emilie Farcy, Jehan-Hervé Lignot. 2016. Salinity effects on osmoregulation and gill morphology in juvenile Persian sturgeon (*Acipenser persicus*) . *Journal of Fish Physiology & Biochemistry*. 42 (6), 1741-1754. ( IF:1.62)
32. **Mohammad R Kalbassi**, Reza Lorestani & Mohammad S Aramli. 2015. Study of testis histology and sperm morphology in the Bunnei, *Barbus sharpeyi* (Gunther, 1874) extract induced by luteinizing hormone-releasing hormone analogue and carp pituitary extract. . *Aquaculture Research*. Accepted Manuscript ( IF:1.203) doi:10.1111/are.12895
33. M.S. Aramli, **M.R. Kalbassi**, R.M. Nazari, K. Sarvi. 2015. Relationships between selected sperm characteristics and fertilisation success in the beluga sturgeon, *Huso huso* (Linnaeus, 1758). *Veterinarni Medicina*, ( IF:0.76) 60, (9): 509–514
34. Iman Sourinejad, **Mohammad Reza Kalbassi**, Paulino Martinez. 2015. Mixed milt fertilization of endangered Caspian brown trout *Salmo trutta caspius* influences effective population size of breeders. *Iranian Journal of Fisheries Sciences*, ( IF:0.36). 14(2) 393-408
35. **Seyed Ali Johari**, **Mohammad Reza Kalbassi**, Sang Bum Lee, Mi Sook Dong, Il Je Yu . 2015. Silver nanoparticles affects the expression of biomarker genes mRNA in rainbow trout (*Oncorhynchus mykiss* ). *Comparative Clinical Pathology*. -. (IF= 0.210)DOI: 10.1007/s00580-015-2144-6.
36. **Seyed Ali Johari**, **Mohammad Reza Kalbassi**, Mehdi Soltani, Il Je Yu . 2015. Application of nanosilver-coated zeolite as water filter media for fungal disinfection of rainbow trout (*Oncorhynchus mykiss*) eggs. *Aquaculture International*; DOI:10.1007/s10499-015-9906-7 .
37. **Seyed Ali Johari**, **Mohammad Reza Kalbassi**, Mehdi Soltani, Il Je Yu . 2015. Study of fungicidal properties of colloidal silver nanoparticles (AgNPs) on trout egg pathogen, *Saprolegnia* sp. *International Journal of Aquatic Biology* Vol 3, No 4.

38. Iman Shirdel and **Mohammad Reza Kalbassi** . 2014. [Assessing the Sensitivity of two Endangered Brackish Water Fish Species of Caspian Sea to Acute Toxicity of Nonylphenol](#). *Caspian Journal of Environmental Sciences (CJES)*. Vol.11, No. 2, December.
39. **Mohammad Reza Kalbassi**, Reza Iorestani- Jasem Marammazi. 2014. [Improvement of sperm quality of Bunni fish by application of LHRHA-2 and metocloperamide](#). *JAST*. 16: 91-104. (IF= 0.685)
40. Iman Sourinejad, **Mohammad R. Kalbassi**, Paulino Martinez.2014. [Effect of milt volume equalization in mixed milt fertilization of Caspian brown trout \*Salmo trutta caspius\* on genetic contribution of breeders to progeny](#).*Iranian Journal of Fisheries Sciences*. Accepted Manuscript.
41. Mohammad sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari . 2014- [Monthly fluctuations during the breeding season of sperm density, volume, motility, and composition of seminal and coelomic fluid in broodfish of Persian sturgeon, \*Acipenser persicus\*](#) Borodin, 1897. *J. Appl. Ichthyol.* (2014), 1–6.
42. Falahatkar B. , M. Soltani, B. Abtahi, **M.R. Kalbassi** and M. Pourkazemi.2014.[The role of dietary L-ascorbyl-2-polyphosphate on the growth and physiological functions of beluga, \*Huso huso\*](#) . *Aquaculture Research*. Accepted Manuscript ( IF:1.203) ID-ARE-OA-13-Sep-615.
43. Mohammad sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari .2014. [Protein concentration and enzyme activities of fresh and frozen–thawed Persian sturgeon, \*Acipenser persicus\*](#). *Int Aquat Res.* 6:54
44. Dorafshan S. , **Kalbassi Mohammad Reza**, Amiri B. M. and M. Pourkazemi .2014 .[Sperm Fertilization Capacity of Caspian salmon, \*Salmo trutta caspius\* under Ultraviolet Irradiation](#) *Caspian Journal of Environmental Sciences (CJES)*. Vol. 12, No.1, 1-13.
45. Johari SA , **MR Kalbassi**, IJ Yu. 2014. [Inhibitory effects of silver zeolite on in vitro growth of fish egg pathogen, \*Saprolegnia sp.\*](#) *Journal of Coastal Life Medicine*, 2(5): 357-361.
46. Aramli M. S. , **M. R. Kalbassi** and M. R. Gharibi. 2014. [Effects of multiple collections on spermatozoa quality of Persian sturgeon, \*Acipenser persicus\* : motility, density and seminal plasma composition](#). *Journal of Animal Physiology and Animal Nutrition*. DOI: 10.1111/jpn.12212
47. Mahboobeh Hajiesmaeili, Seyed Ali Ayyoubzadeh, Mehdi Sedighkia, **Mohammad Reza Kalbassi**. 2014. [Physical habitat simulation of Rainbow trout in mountainous streams of Iran](#). *Journal of Biodiversity and Environmental Sciences*. Vol. 5, No. 4, p. 497-503.
48. Johari SA , **MR Kalbassi**, IJ Yu. 2014.[Chronic effect of waterborne silver nanoparticles on rainbow trout \(\*Oncorhynchus mykiss\*\): histopathology and bioaccumulation](#). *Comparative clinical pathology*-. (IF= 0.210)
49. Tabarrok M, **MR Kalbassi**, S MohammadAlavi Yeganeh.2014.[Efficiency Comparison of Three Different DNA Extraction Methods from the Fin and Scale Samples of the Pike \(\*Esox lucius\*\)](#)
50. Salari-joo HR, **MR Kalbassi**, SA Johari.2014.[Effect of Water Salinity on Acute Toxicity of Colloidal Silver Nanoparticles in Rainbow Trout \(\*Oncorhynchus Mykiss\*\) Larvae](#).*Iranian Journal of Health and Environment* 5 (1), 121-132

51. Mohammad Sadegh Aramli, **Mohammad Reza Kalbassi**, Rajabmohammad Nazari. 2013. [Physiological Correlation between Sperm Motility and Seminal Plasma Composition in the Persian sturgeon, \*Acipenser persicus\*](#). *Journal of Infertility and Reproductive Biology*; 1(2):12-20.
52. **Mohammad Reza Kalbassi**, Reza Iorestani- 2013- [Analysis of saline activator solution effects on sperm quality indices of \*Barbus sharpeyi\* by image J software](#). *Iranian Journal of Fisheries Sciences* - 12(2) 357-377. (IF= 0.986)
53. Mohammad Sadegh Aramli, Rajab Mohammad Nazari, **Mohammad Reza Kalbassi** and Salim Aramli. 2013. [Semen of Beluga, \*Huso huso\*: Ionic Content and Osmolality of Seminal Plasma and Their Physiological Correlation with Sperm Motility In dices](#). *Fish Aquac. J.* 4(1): 1-5.
54. Banan A., **Mohammad Reza Kalbassi**, M. Bahmani and M.A. Y. Sadati . 2013. [Stress Response of Juvenile Beluga, \*Huso huso\* to Light and Tank Colours](#). *Journal of Applied Aquaculture*. 25(1): 71-80. (IF= 0.902)
55. Mohammad Sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari. 2013- [Selected biochemical parameters in plasma of blood and semen of Persian sturgeon \*Acipenser persicus\*](#). *Comparative clinical pathology*- Doi. 10.1007/00580-013-1769-6. (IF= 0.210)
56. Iman Sourinejad, **Mohammad Reza Kalbassi** and Paulino Martínez. 2013. [Sperm competition influences effective size of breeders in mixed milt fertilization of endangered Caspian trout \(\*Salmo trutta caspius\*\)](#). *Iranian Journal of Fisheries Sciences*- Accepted Manuscript (IF= 0.986)
57. Mohammad Sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari. 2013. [Blood and seminal plasma enzyme values of Persian sturgeon, \*Acipenser persicus\* \(Chordata: Osteichthyes\)](#). *Italian Journal of Zoology*, 80 (4): 490-493. (IF= 0.865)
58. **Mohammad Reza Kalbassi**; Hamid Salari Joo, Il J Yu, Je H Lee, Ali Johari, 2013 . [Bioaccumulation of silver nanoparticles in Rainbow trout \(\*Oncorhynchus mykiss\*\): Influence of concentration and salinity](#). *Aquatic Toxicology*. 140– 141, 398– 406. (IF= 3.762)
59. Mohammad Sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari. 2013- [Comparative analysis of blood and seminal plasma composition of Persian sturgeon, \*Acipenser persicus\*](#). *Journal of Applied Biological Sciences* 7 (2): 65-67.
60. Azam Janipour, Mahnaz Mazaheri Assadi, Hamideh Ofoghi, **Mohammad Reza Kalbassi**, Hoda Ahmadi Behazin, Masoumeh Rajabibazl, Hale Kosari. 2013. [Molecular Identification of \*Dunaliella\* Species in Some Iranian Salt Lakes](#). *European Journal of Scientific Research*. Vol. 103 No4, pp.570-580. (IF= 0.736)
61. Mohammad Sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari. 2013- [Study of Sperm Concentration, Seminal Plasma Composition and their Physiological Correlation in the Persian Sturgeon, \*Acipenser persicus\*](#). *Reproduction in Domestic Animals*. 48 (6), 1013-1018 (IF= 1.392)
62. Yadollahvand Reza, Haji Gholi Kami & **Mohammad Reza Kalbassi**. 2013. [Cytogenetic characterisation of the Caspian Pond Turtle, \*Mauremys caspica\* in Golestan and Mazandaran provinces, Iran \(Reptilia: Testudines\)](#). *Zoology in the Middle East*. 59 (3): 214-219. (IF= 0.434)
63. Mohammad Sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari. 2013- [Comparative Study of Sex Steroid Levels of Persian Sturgeon, \*Acipenser persicus\* Males in](#)

Responding Negative and Positive to LHRH-A2 Hormone. *Journal of Aquaculture Research & Development*. 4(3): 177-182. (IF= 1.422)

64. Ensieh Habibi, **Mohammad Reza Kalbassi**, Seyed Javad Hosseini, Seyed Ahmad Qasemi.2013. Feasibility of Identification of Fall and Spring Migrating Caspian trout (*Salmo trutta caspius*) by Using AFLP Molecular Marker. *Turkish Journal of Fisheries and Aquatic Sciences* 13: 241-248 (IF= 1.070)
65. Mohammad sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari . 2013. Spermatozoa and seminal plasma enzyme activity in Persian sturgeon, *Acipenser persicus*, in relation to short-term storage", *Aquaculture research-OA-13-Aug-532.R2* Accepted Manuscript (IF: 1.203)
66. **Mohammad Reza Kalbassi**, Seyed Ali Johari, Mehdi soltani, Il je Yu .2013. Particle size and agglomeration affect the toxicity levels of silver nanoparticles types in aquatic environments .2012. *Journal of Ecopersia*. Vol. 1, No. 3 - Accepted Manuscript
67. Mohammad sadegh Aramli, **Mohammad Reza Kalbassi**, Rajab Mohammad Nazari. 2013- Sex steroid levels of Persian sturgeon, *Acipenser persicus*, Borodin, 1897, males in negative and positive responding to LH-RH-analogue. *Journal of Applied Ichthyology*. Vol 1-2, doi: 10.1111/jai.12347. (IF= 0.902)
68. Mohammad Sadegh Aramli, Rajab Mohammad Nazari, **Mohammad Reza Kalbassi** and Salim Aramli.2013. Effects of short-term storage on the motility, oxidative stress, and ATP content of Persian sturgeon (*Acipenser persicus*) sperm. *Journal of Animal Reproduction Science* 143(1-4):112-117. (IF= 1.943)
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70. Rahimnejad Samad, Naser Agh and **Mohammad reza Kalbassi**. 2012. Effect of dietary bovine lactoferrin on growth, haematology and non-specific immune response in rainbow trout (*Oncorhynchus mykiss*). *Aquaculture Research*. Vol. 43, pp 1451-1459.
71. **Mohammad Reza Kalbassi**, Reza lorestani- 2012- Application of Imaje J software for analysis of sperm quality in *Barbus sharpie*. JIFRO - Accepted Manuscript.
72. Jamshidi, Sh.; **Mohammad Reza Kalbassi**. 2011.Conspecific relation between two seasonal migratory forms of endangered Caspian trout, *Salmo trutta caspius* Kessler, 1877, revealed by RAPD markers. *Iranian Journal of Fisheries Sciences*. Vol. 10, NO. 3. pp 437-446.
73. Banan A., **Mohammad Reza Kalbassi**, M. Bahmani and M.A. Y. sadati . 2011. Effects of Colored Light and Tank Color on Growth Indices and some Physiological Parameters of Juvenile Beluga (*Huso huso*). *Journal of Applied Ichthyology*. Vol. (27), 565-570.
74. Iman Sourinejad, **Mohammad R. Kalbassi**, Ania Pino-Querido, Manuel Vera, Carmen Bouza and Paulino Martinez. 2011. Parentage assignment of progeny in mixed milt fertilization of Caspian brown trout *Salmo trutta caspius* using microsatellite DNA markers: Implications for conservation. *A.J.B.* Vol. 10(26), pp. 5084-5090.
75. shirangi; **M.R. kalbassi** and S. Dorafshan. .2011. Microsatellite Polymorphism Reveals Low Genetic Differentiation between Fall and Spring Migratory Forms of Endangered Caspian Trout, *Salmo trutta caspius* (Kessler, 1870). *Caspian journal of environmental sciences*. Vol. 9 No.1 pp. 9~16.



76. **Kalbassi** M. R., H. Salari joo and S. A. Johari. 2011. Toxicity of silver nanoparticles in aquatic ecosystems: Salinity as the main causes of reducing toxicity. Iranian journal of toxicology. Accepted for publish
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186. Rezaii, M., R. M. Nazari, **M. R. Kalbassi** 2000. [Application and nutrition value of Artemia parthenogenetica nauplii in feeding of fry sturgeons \(Acipenser Stellatus\).](#) Journal of pajouhesh-va-sazandegi. Vol.13, N.2, PP.120-124.
187. **Kalbassi M. R.**, M. Soltani, M. Pourbakhsh, A. Adams 2000. [Humoral immune response of cultured Persian Sturgeon to four different Aeromonas hydrophila antigen.](#) Archives of Razi institute. No. 51, PP: 75-85.



#### **VIII. LIST OF PAPERS PRESENTED IN CONGRESSES AND SEMINARS:**

- 1) Induction of triploidy in rainbow trout *Oncorhynchus mykiss* by heat shock. 1995. 7th congress of Iranian Marine organization, Noor, Iran,
- 2) Determination of Artemia FCR in Persian sturgeon *Acipenser persicus* feeding, 1999, First national sturgeon Symposium, Rasht, Iran,

- 3) Comparative study on some biochemical characters in propagation of Persian sturgeon *Acipenser persicus* broodstocks. 1999. First National Sturgeon Symposium, Rasht, Iran.
- 4) Determination & Micropile Number of persian sturgeon *Acipenser persicus* of Caspian Sea. 1999. First National sturgeon symposium. Raasht, Iran.
- 5) Immunization of Persian Sturgeon Against *Aeromonas hydrophila* Using Three Different Antigens. 2000\_ 5<sup>th</sup> Conference of European Fish Pathologist. 17-21 June, Rodos, Greece
- 6) Passive Immunization of Persian Sturgeon (*Acipenser persicus*). 2002 \_ 7<sup>th</sup> Conference on Fish Vaccination. 21-25 May, Norway
- 7) Purification and Partial Characterization of Serum Immunoglobulin from Persian sturgeon (*Acipenser persicus*). 4<sup>th</sup> International Symposium on Sturgeon – July 8-13, Oshkosh, U.S.A.
- 8) Induction of tetraploidy in Rainbow Trout by Heat Shock. 2002- 3<sup>rd</sup> International Iran and Russia Conference– 18-20 September, Moscow, Russia
- 9) Comparison of Some Biological Parameters between Grass Carp and Female Grass Carp × Male Bighead Carp Hybrid. 2004. Seventh Asian Fisheries Forum, 30-4 November, penang, Malaysia
- 10) Purification and Partial Characterization of Serum Immunoglobulin in Caspian Kutum (*Rutilus frisii kutum*). 2004. Seventh Asian Fisheries Forum , 30-4 November, penang, Malaysia
- 11) Current status of aquaculture genetics research in IRAN. 2004. Seventh Asian Fisheries Forum, 30-4 November, penang, Malaysia
- 12) Effects of L-ascorbyl-2-polyphosphate on growth and survival of juvenile Beluga ,*Huso huso* 2004-Biotechnologies for quality, Aquaculture Europe ,Spain
- 13) Short term storage of Persian sturgeon ova in artificial media and coelomic fluid .2005, 5<sup>th</sup> International symposium on sturgeon. 9-13 May, Ramsar, Iran
- 14) Effects of Dietary vitamin C supplementation on performance, tissue chemical composition and alkaline phosphate activity in great sturgeon, *Huso huso*. 2005. 5<sup>th</sup> International symposium on sturgeon. 9-13 May, Ramsar, Iran
- 15) Ploidy confirmation on some imported Indian major carp to Iran. 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November,
- 16) Observation on diet composition of Caspian sand goby in sought of Caspian sea 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 17) Effect of different activator solution on the duration of sperm motility in rainbow trout *Oncorhynchus mykiss*. 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 18) Investigation of production possibility of all female triploid rainbow trout *Oncorhynchus mykiss* . 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 19) Comparision of sperm traits and fertilization performance of normal; male and neomale rainbow trout - *Oncorhynchus mykiss* 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 20) Hertwing effect caused by UV\_irradiation of sperm of the Caspian salmon *Salmo trutta caspius* and its photoreactivation 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November

- 21) Karyological analysis of Female Grass Carp × Male Bighead Carp F1 Hybrid - 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 22) Investigation on red blood cell alteration in triploid rainbow trout *Oncorhynchus mykiss* - 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 23) Hertwing effect caused by UV\_irradiation of sperm of the rainbow trout *Oncorhynchus mykiss* and its photoreactivation 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 24) Acute stress response in all female diploid and triploid rainbow trout *Oncorhynchus mykiss* - 2005-7<sup>th</sup> Indian Fisheries Forum held at Bangalore during 8-12 November
- 25) Evaluation of L-ascorbyl-2-polyphosphate (AAPP) as a dietary ascorbic acid source for great sturgeon, *Huso huso*. 2005- World aquaculture 2005, 19-23 May, Indonesia
- 26) Triploidy Induction in the Caspian Salmon, *Salmo trutta caspius* by Heat Shock" In 9<sup>th</sup> Iranian Genetics Congress, 20-22 May 2006, Tehran, Iran.
- 27) High Incidence of Triploids in Grass Carp × Big Head Carp Hybrid Progeny" In 9<sup>th</sup> Iranian Genetics Congress, 20-22 May 2006, Tehran, Iran.
- 28) Genetic manipulation in Aquaculture, A review on Important cultivated Fish Species in Iran" In 9<sup>th</sup> Iranian Genetics Congress, 20-22 May 2006, Tehran, Iran.
- 29) Transgenic Fish, Threats and Opportunities" In 9<sup>th</sup> Iranian Genetics Congress, 20-22 May 2006, Tehran, Iran.
- 30) Possibility of using Flowcytometry Method to Identify Triploid and Hybrid progenies of Rainbow trout, *Oncorhynchus mykiss* and the Caspian salmon, *Salmo trutta caspius*" 14<sup>th</sup> Iranian and the Second International Conference on Biological Sciences, Sep. 2006, Tehran, Iran.
- 31) Use of RAPD markers to assess hybridization between female rainbow trout *Oncorhynchus mykiss* and male Caspian Salmon *Salmo trutta caspius*" The 5<sup>th</sup> National Biotechnology Congress of Iran. Nov. 2007, Tehran, Iran.
- 32) Use of Microsatellite markers to assess gynogenesis in the Caspian Salmon *Salmo trutta caspius*" The 5<sup>th</sup> National Biotechnology Congress of Iran. Nov. 2007, Tehran, Iran.
- 33) Comparison of Gonadal developments in male and female diploid hybrids between female rainbow trout *Oncorhynchus mykiss* and male Caspian salmon *Salmo trutta caspius* " The 7<sup>th</sup> Iranian Marine Science and Technology Conference. Nov. 2007, Noshahr, Iran.
- 34) Do stress responses in cultured juveniles Bluga *Huso huso* affected by ascorbic acid . 2006. 2<sup>nd</sup> international and 14th national biology conference, Iran
- 35) An investigation of seasonal changes of coliforms bacteria in Noor-roud river in mazadaran state, Iran . 2007. Kalbassi, M.R., Younesi, H., Peymankia, .M. and Moghadam Y. Malaysia
- 36) Use of Microsatellite markers to assess hybridization between two species of commercial Salmonids of Iran" The 2<sup>nd</sup> National Congress of Cellular and Molecular Biology, Jan. 2008, Kerman, Iran.
- 37) Determination of Gynogenesis status in the Caspian salmon *Salmo trutta caspius* using Molecular method, Microsatellite" The 2<sup>nd</sup> National Congress of Cellular and Molecular Biology, Jan. 2008, Kerman, Iran.
- 38) Comparison of Morphometric and Meristic incidences between Diploid and Triploid Caspian salmon *Salmo trutta caspius*" The 2<sup>nd</sup> International Congress of Biological Sciences of Iran, Feb. 2008, Tehran, Iran.

- 39) Comparison of Morphometric and Meristic incidences between Diploid and Triploid Rainbow trout *Oncorhynchus mykiss*" The 2<sup>nd</sup> Local Congress of Agriculture and Natural Resources, Mar. 2008, Sanandaj, Iran.
- 40) Effects of colored light on growth indices and some physiological parameters of juvenile Beluga Huso huso (2009)- A.Banan, M. R. Kalbassi, M. Bahmani and M. A. Yazdani- 6th International Symposium on Sturgeon- 25-31 October- Hubei Province- China
- 41) Effects of tank colour on growth indices and some physiological parameters of juvenile Beluga Huso huso (2009)- A.Banan, M. R. Kalbassi, M. Bahmani and M. A. Yazdani- 6th International Symposium on Sturgeon- 25-31 October- Hubei Province- China
- 42) Adaptability of triploid Caspian Sea Salmon (*Salmo trutta caspius*) and triploid hybrid *Oncorhynchus mykiss* × *Salmo trutta caspius* to different salinities (2009)- Rahimi Khosrw, M Kalbassi, S Soltankarimi, M. Frozandeh, S. Khodabandeh- 4th European Conference on Coastal Lagoon Research- 14-18 december-Montpellier- France.
- 43) Application of D-loop and cytochrome b genes for detection of genetically differences (sic) between two migratory forms of endangered *Salmo trutta caspius* Kessler, 1870) assessed by DNA sequencing and RFLP analysis. Jamshidi, Sh., Kalbassi, M. R. and Daliri, M. H. 2009. 13th European Congress of Ichthyology, 6-12 September, Klaipeda, Lithuania.
- 44) Genetic relationships between two seasonal migratory forms of endangered Caspian salmon *Salmo trutta caspius* Kessler, 1870 based on RAPD markers. , Sh., Kalbassi, M. R., Shirangi, A. and Daliri, M. H. 2009.13th European Congress of Ichthyology, 6-12 September, Klaipeda, Lithuania
- 45) Application of nanosilver filters in egg incubation system of rainbow trout. 2010. Aquaculture 2010,. M. R. Kalbassi, S. A. Johari, M. Soltani Global conference. Phuket- Thailand. 22-25 Sep.
- 46) Prevention from Saprolegniosis by means of silver nanoparticles and silver zeolite. 2010. Aquaculture 2010,. M. R. Kalbassi, S. A. Johari, M. Soltani Global conference. Phuket- Thailand. 22-25 Sep.
- 47) Microsatellite profiling technique and assignment programs serve to detect parentage in Caspian salmon (*Salmo trutta caspius*). ImanSourinejad, Mohammad R. Kalbassi, Manuel Vera, PaulinoMartínez,Third Iranian Conference on Bioinformatics National Institute for Genetic Engineering & Biotechnology, January 5, 6, 2010
- 48) Application of bioinformatics in genetic comparison of Caspian Salmon (*Salmo trutta caspius*) immigrant forms. Shirangi S. A, Kalbassi M. R. Third Iranian Conference on Bioinformatics National Institute for Genetic Engineering & Biotechnology, January 5, 6, 2010
- 49) Application of GenAIEx and TFPGA Softwares for Identifying Fall and Spring Migrating Caspian Salmon (*Salmo trutta caspius* Kessler, 1877) by Using AFLP Molecular Marker. Habibia E., Kalbassi M. R., Hosseini S.J., Qasemic S.A.-Third Iranian Conference on Bioinformatics National Institute for Genetic Engineering & Biotechnology, January 5, 6, 2010
- 50) Application of bimolecular markers and bioinformatics to assess fertilization scheme of Caspian trout in hatchery (*Salmo trutta caspius*) (2010)- Iman Sourinejad, Mohammad Reza Kalbassi, Poulino Martinez- 9th Iran Biophysical Chemistry Conference- 24-25 February- Tehran- Iran.
- 51) Application of Silver nanoparticles in Water Filtration System of Rainbow Trout Fry Culture to Control of *Streptococcus iniae* Infection. 2010. M. R. Kalbassi, m. Ghahramani, M. Soltani, S. A. Johari .International Congress on Nanosciences and nanotechnology. Shiraz. Iran.

- 52) Application of Polyurethane Foam Containing Silver nanoparticles in Water Filtration System in Rainbow Trout fry culture for Control Infection by Streptococcus Iniaie. 2010. , A. Shahim, M. R. Kalbassi , M. Soltani, S. A. Johari. International Congress on Nanosciences and nanotechnology. Shiraz. Iran.
- 53) Application of bioinformatics in genetic comparison of Caspian Salmon (*Salmo trutta caspius*) immigrant forms (2010)- Shirangi S. A, Kalbassi M. R. Iranian Conference on Bioinformatics-5-6 Januray- Tehran- Iran.
- 54) Optimization of UV irradiation to induce Gynogenesis in endangered Caspian salmon. 2010. M. R. Kalbassi, S. Dorafshan. IBS2010, Rimini, Italy. 14-18 Sep.
- 55) Application of Polyurethane Foams Containing Silver Nano-particles in Water Filtration System of Rainbow Trout Fry Culture to Control Infection by Streptococcus Iniaie. 3rd International Conference on Nanoscience and Nanotechnology, 9-11 November 2010, Shiraz, Iran
- 56) Acute Effects of Micro and Nano Silver Particles on Alevin and Juvenile Rainbow Trout (*Oncorhynchus mykiss*)” 2011, International Conference on Biological Responses to Nanoscale Particles . M. R. Kalbassi, S. A. Johari, M. Soltani, September 11-15, 2011, Essen, Germany
- 57) Toxicity of Silver Nanoparticles in Aquatic Ecosystems: Salinity as the Main Cause of Reducing Toxicity. 2011, International Conference on Biological Responses to Nanoscale Particles. M. R. Kalbassi, H. S. Joo, S. A. Johari. September 11-15, 2011, Essen, Germany
- 58) Application of Polyurethane Foam Containing Silver Zeolite (Zeomic) in Water Filtration System for Infection Control of Streptococcus Iniaie in Rainbow Trout. 2011, International Conference on Biological Responses to Nanoscale Particles. M. R. Kalbassi, A. Shahim, M. Soltani, S. A. Johari. September 11-15, 2011, Essen, Germany
- 59) Identification of Molecular Weight of Oocyte Vitellogenin Protein of Iranian Caviar in time of Inducing in Liver by Treatment of 17 Beta Estradiol Hormone, Secreted in to Bloodstream and Stored in Oocyte in Iranian Sturgeon as a Yolk Protein. 2012 - Shirin Jamshidi, Mohammadreza Kalbassi, Majid Sadeghizadeh, The First International & 11th Iran Biophysical Chemistry Conference . J. Iran. Chem. Soc., Vol. 9, Suppl. 1, pp. A1-A144.
- 60) Application of biomolecular markers and bioinformatics to assess fertilization scheme of Caspian trout in hatchery. 2012 - Iman Sourinejad, Mohammad Reza Kalbassi, Poulino Martinez .The First International & 11th Iran Biophysical Chemistry Conference . J. Iran. Chem. Soc., Vol. 9, Suppl. 1, June 2012, pp. A1-A144.
- 61) Induction of vitellogenin and zonzpelucida mRNA expression as a biomarker of xenoestrogens compounds by in vitro treatment of nonylphenol in Persian sturgeon *acipenser persicus*. . 2012 . GRF one health summit. Davous Swiss. 19-22 Feb.
- 62) MHC genes application for larvae-parente assignment in captive Caspian salmon. 2012. Kaveh Khosraviani, Mohammadreza Kalbassi, Majid Sadeghizadeh, . First international larviculture conference in Iran. 2012- Karaj. Iran



#### **IX. SEARCH PROJECT LEADER:**

- 1) Chromosome Karyotyping from different developmental stages of rainbow trout-Leader. Supported project by Tarbiat Modares Univ.
- 2) Hybridization of female grass carp & male bighead carp and investigation on F1 hybrids. Leader. Supported project by Tarbiat Modares Univ.
- 3) Determination of nutritional value of artemia on sturgeon feeding – Cooperator. Supported project by Tarbiat Modares Univ.

- 4) Evaluation of effects of Euglena extract on fish anesthesia – Cooperator. Supported project by Iranian Fisheries Research Organization.
- 5) Immunization of Iranian sturgeon against bacterial pathogen – Cooperator. Supported project by Tehran Univ.
- 6) Cryopreservation of rainbow trout sperm in Kelardasht-Iran – Cooperator. Supported project by Iranian Fisheries Research Organization.



## X. BOOKS

1) Principles and Applications of Aquaculture. 2013. Tarbiat Modares Univ. Press. Iran. 550 p.

### A) M.Sc. Degree Students:

1. Ali Bagheri - **Induction of tetraploidy in rainbow trout *Oncorhynchus mykiss* by heat shock** 2009
2. Tahere Tavaklian, **Karyological study and the possibility of chromosomal polymorphism in the Caspian Sea salmon, *Salmo trutta caspius***, 2010
3. Mohammad Ali Poya- **Purification and Identification of Immunoglobulin Characteristics in Caspian Sea White Fish (*Rutilus frisii kutum*)** - 2010
4. Hossein Panahi -**hybridization of female carp and male carp and study of F1 generation** 2011
5. Shirin Jamshidi - **Investigation of the effectiveness of the PCR\_RAPD method in detecting the genetic diversity of female Amur fish, male carp and their hybrids** -2011
6. Morteza Ebrahimzadeh -, **comparative study of morphology, growth, and carcass composition in Amur fish and hybrids obtained from female Amur fish and male carp** 2013
7. Hamid Ebrahimi - **Morphological, Cytogenetic and Electrophoretic Study of River and Sea Catfish in Mazandaran and Golestan Provinces** 2013
8. Morteza Magdi -. **Investigation of the effect of delay in semen collection on the quality of sperm of *Acipenser persicus***. 2 013
9. Amir Hossein Ismaili - **Induction of mitotic and meiotic gynogenesis in rainbow trout with an emphasis on determining the time of polar cell release and the first embryonic division**. 2014
10. Mehdi Sohrabnejad, **keeping the eggs of Iranian carp (*Acipenser persicus*) in Cortland's artificial environment and coelomic fluid**, 2014
11. Seyed Ali Johari - **production of all female diploid and triploid rainbow trout *Oncorhynchus mykiss*** -2015
12. Ali Taheri - **Feasibility assessment of gamete transfer and egg hatching of rainbow trout *Oncorhynchus mykiss* in the laboratory incubator** .2015
13. Iman Sourinejad - **comparison of growth and carcass quality of all female diploid and triploid rainbow trout in the second year of breeding** -2016.
14. Khosro Rahimi - **study of the compatibility of diploid and triploid salmon in the Caspian Sea (*Salmo trutta caspius*) in different water salinity levels** - 12/21/2016
15. Sahil Sultan Karimi - **Studying the compatibility of triploid rainbow trout and triploid hybrid progeny of rainbow trout and Caspian sea trout (*Oncorhynchus mykiss*♀ × *Salmo trutta caspius*♂) at different salinity levels** - 12/21/1386
16. Mohsen Pourramzani - **Accelerating the hatching of Caspian sea free fish (*Salmo trutta caspius*) eggs in laboratory incubator conditions and investigating its effect on some qualitative parameters of larvae** 15/11/2013
17. Seyed Ainaz Shirangi, - **Genetic comparison of fall and spring free-flowing migratory fish of the Caspian Sea (*Salmo trutta caspius* Kessler, 1877) by microsatellite method**, 1387

18. Mohammad Sadegh Aramoli -. **Comparison of some chemical and biochemical parameters of seminal plasma and blood and their physiological relationship with sperm motility indicators in Persian sturgeon.** 2/15/1389
19. Ashkan Banan - **Effects of breeding tank color and colored lights on growth indicators and some physiological parameters of fingerling *Huso huso*** -14/11/2013
20. Ensieh Habibi - **Feasibility of Separation of Spring and Autumn Migratory Fishes of the Caspian Sea (*Salmo trutta caspius* Kessler, 1877) using AFLP molecular markers** - 10/11/2013
21. Athar Alsadat Shahim - **Application of polyurethane foams containing silver nanoparticles and silver zeolite in the water filtration system of rainbow trout fry in order to control the infection caused by *Streptococcus iniani*** - 10/13/2013
22. Maryam Ghahrani -, **use of silver nanoparticles and silver zeolite in reducing the infection caused by *Aeromonas hydrophila* bacteria in the rearing of rainbow trout larvae-**, 13/10/2013
23. Abbas Khalili, - **Investigating the effect of silver nanoparticles on survival rate and tissue structure of skin and gills of yolk sac larvae of Rainbow Trout,** -/4/28/1390
24. Hamid Salari -, **effect of different water salinities on the performance of direct use of colloid of silver nanoparticles on the larvae and fingerlings of rainbow trout,** -, 3/8/2013
25. Zahra Hosseini -, **use of silver nanoparticles in the control of infectious fungi during the incubation period of Caspian sea salmon** 2013
26. Mina Tovana - **effect of silver nanoparticles and titanium oxide nanoparticles on the survival of Artemia in different salinities,** - 2013
27. Ramin Qurbani - **Comparison of the efficiency of letrozole as a non-steroidal anti-aromatase agent with the steroid hormone 17-alpha-methyltestosterone in the breeding process of Siamese fish** - 2013
28. Fariba Kiani, - **the effect of ergosan, alginate and sodium nanoalginate on growth and safety indicators in fingerlings of rainbow trout** - 12/20/91
29. Iman Shirdel - **Investigation of the direct effect of nonylphenol on hematological and physiological indicators of Caspian sea salmon-** 11/9/91
30. Kaveh Khosroviani -, **the use of MHC molecular biomarker in determining the genetic affinity of free-breeding fish and the resulting F1 generation** - 11/11/91
31. Kave Nowrozi - **Production, maintenance and evaluation of primary cell culture from the fin tissue of Caspian sea salmon** - 11/15/91
32. Maryam Esmaeili -, **the effect of photoperiods and compensatory growth process on some growth, immunity and hematology indicators in rainbow trout (*Oncorhynchus mykiss*)** . -
33. Amina Malekpour -, **investigating the effect of nonylphenol on tissue damage and the concentration of sex hormones in the liver and gills of *Acipenser persicus*-**
34. Samani parvaneh- **.the evaluation of the effect of gamma and ultraviolet rays on DNA damage in embryos and larvae of rainbow trout (*Oncorhynchus mykiss*) by alkaline comet assay method.**
35. Mona Tabarak - **genetic structure of duck fish population *Esox lucius* Linnaeus 1758 in the southern shores of Caspian using microsatellite marker** -
36. Mohammad Javad Zarin, Mehr -, **the use of filters containing silica and zeolite beds covered with silver nanoparticles in reducing the infection caused by *Aeromonas hydrophila* bacteria and evaluating the effects of the possible release of particles on the survival and physiological changes of zebrafish,** -
37. Khodiar Rezaei - **Evaluation of the genetic diversity of common carp fish in the breeding farms of Iran using microsatellite molecular markers, D-LOOP**
38. Fatemeh Eslami -, **Evaluation of the genetic diversity of phytophagous fish in breeding farms in Iran using microsatellite molecular markers, D-LOOP**
39. Milad Ismail Begi - **Evaluation of pyrene's effect on micronucleus, DNA damage by alkaline comet assay test method and histological changes of zebra fish**

40. Andishe Kasab -, **evaluation of the effect of colloidal silver nanoparticles on the changes in the microbial flora of Caspian sea white fish, -**
41. Ali Khakshor -, **the use of selenium in improving the quality of reproductive gametes and reproduction indicators of goldfish, -**
42. Farid Jahangiri, - **genetic comparison of phytophagous fish and common carp with the line generation imported from China in breeding farms of Iran using CO1 molecular marker -**
43. Javad Seyedi -, **the effects of different levels and times of nano selenium treatment on DNA damage, seminal plasma enzyme changes and goldfish (*Carassius auratus*) sperm quality indicators**
44. Seyyed Masoud Hosseini -, **the effect of dietary nanoselenium on changes in blood parameters, mucus protein profile and expression of tumor necrosis factor alpha one and two and glutathione peroxidase genes in breeding goldfish (*Carassius auratus gibelio*) - 11/12/95**
45. Zahra Ghazizadeh - **using cellulose/nano silver composite as a water filter to control *Aeromonas hydrophila* bacteria - 11/12/95**
46. Masoud Allah Beigi - **Effect of silver nanoparticles on changes in blood parameters, mucus protein pattern and tumor necrosis factor gene expression in rainbow trout (*Onchorhynchus mykiss*) - 11/12/95**
47. Salime Ghochanian, **investigation of the addition of BSA preservatives. Lecithin and trehalose to the freezing dilution solution and its effect on the qualitative indicators of the sporophyte of Persian sturgeon and White fishes of the Caspian Sea -**
48. Mohammad Behzadi- **Nanoencapsulation and targeted release of quercetin using chitosan and its effect on fatty acid profile and expression of antioxidant genes of zebra fish (*Danio rerio*) in exposure to silver nanoparticles -**
49. Mehrnaz Mohammadi - **Evaluation of growth indicators, safety, meat quality and the amount of heavy metal accumulation in rainbow trout fish during the breeding period in Caspian sea cages.**
50. Zahra Salimzadeh - **The effect of chitosan nanocarriers containing Ss Anti Dia On hystopathological damage in hyperglycemia model zebrafish**
51. Zohreh Salimzadeh – **The effect of chitosan nanocarriers containing Ss Anti Dia On cellular and genetic damage in hyperglycemia model zebrafish**

**Currently M.Sc. research student:**

- 1- Zahra Khorshahi- **The effect of oxygen nanobubbles on water quality indicators, growth and immune system of rainbow trout (*Oncorhynchus mykiss*) in normal and high densities**

**B) Ph.D. Degree students:**

1. Salar Drafshan - **Aquatic Biotechnology** - **Chromosome manipulations of Caspian Sea salmon and rainbow trout and comparison of growth in f1 generation**
2. Saeed Keyvanshokoh - **Aquatic Proteomics** - **Investigating the Gonad Proteome of *Acipenser persicus* male and female by proteomix method**
3. Eman Suri Nejad - **molecular genetics** - **evaluation of the effect of sperm competition during fertilization of mixed gametes of Caspian sea salmon *Salmo trutta caspius* on the genetic diversity of the F1 generation**



4. Korosh Sarvi- **Molecular Physiology**- Investigating the time of smoltification on the process of some physiological changes from the par to smolt stage in the Caspian Sea salmon (*Salmo trutta caspius*)
5. Ali Johari - **Aquatic Nanotechnology** - The use of silver nanoparticles in the control of infectious fungi during the incubation period and the possible effects of their release on changes in some physiological indicators of rainbow trout (*Oncorhynchus mykiss*)
6. Reza Lorestani - **Reproductive Biology** - Evaluation of the effect of LHRHa-II hormone and its combination with anti-dopamine on sperm cognitive and hematological indices of *Barbus sharpeyi* breeders
7. Shirin Jamshidi - **Molecular genetics** - The effect of nonylphenol-like estrogenic substance on gene expression in mRNA level and vitellogenin (vtg) protein as a biomarker of young Persian sturgeon (*Acipenser persicus*) in the Caspian Sea.
8. Amirhossein Esmaili-**Aquatic stem cells**:- Production, maintenance and evaluation of the characteristics of embryonic stem cells in gold fish
9. Hamid Alizadeh- **Genomic thermotoxicology**- The effect of temperature pollution on genomic changes and some biological indicators in the stages of embryonic and larval development of Caspian sea salmon.
10. Elham Jarfi - **Molecular genetics of reproduction** - Evaluation of genetic diversity and degree of affinity between parents and F1 generation in the reproduction of phytophagous fish by semi-natural and artificial methods using microsatellite markers and MHC genes
11. Ainaz Shirangi -**Molecular Physiology**-Evaluation of direct and gradual transfer methods and hormonal treatment in the adaptation of young Persian sturgeon to Caspian Sea salinity using some physiological and genomic indicators
12. Ashkan Banan - **Aquatic Nanotechnology** - The use of silver nanoparticles in the filtration of fungal infection during the incubation period and the comparison of its acute and chronic effects on the changes of physiological indicators and DNA damage of Persian sturgeon (*Acipenser persicus*) in different salinities
13. Morteza Ebrahimzadeh - **Aquatic cell line** - Genetic and cellular toxicity of silver nanoparticles and titanium dioxide in the cell line of fin and fingerling salmon of the Caspian Sea
14. Semaneh Poursaid - **Aquatic stem cells** - Multiplication and transplantation of spermatogonial stem cells of Caspian sea salmon to rainbow trout Alevin and evaluation of clonogenicity and Vasa gene expression in chimera fish
15. Sahil Sultan Karimi - **Aquatic Metabolomics** - Evaluation of the effects of silver nanoparticles on Persian sturgeon (*Acipenser persicus*) by metabolomics method
16. Zohra Qudsi - **Aquatic cell line** - Effect of Ec-Hepcidin antimicrobial polypeptide on inhibition of *Streptococcus iniae* bacteria in primary cell cultures of rainbow trout (*Oncorhynchus mykiss*) and Caspian salmon (*Salmo caspius*)
17. Iman Shirdel - **Recombinant Peptides** - Cloning, Sequencing and Production of Antimicrobial Hepcidin Synthetic Peptide from Caspian Sea Salmon (*Salmo trutta caspius*) and Evaluation of its Antibacterial Power on Free-Led Fish Pathogens
18. Hamid Salari - **Aquatic Nanotechnology** - Evaluation of the Vermiculite-Silver Nano Particles hybrid performance as a filter bed for water purification in inhibiting *Aeromonas Hydrophila*

**bacteria and the amount of silver nano release on the activity and gene expression of antioxidant enzymes in zebra fish (*Danio rerio*) by metabolomics method**

19. Mahsa Borhani- **Aquatic stem cells**- Isolation and Identification of Great Sturgeon (*Huso huso*) Spermatogonial Stem Cells and Intraperitoneal Transplantation into Sterlet (*Acipenser ruthenus*) for Chimera Fish Production.

20. Najmeh Berenjkari - **Recombinant Peptides** – Cloning and sequencing of recombinant antimicrobial peptide piscidin of Gilt-head sea bream (*Sparus aurata*) and evaluation of its immunostimulatory and antibacterial activities of recombinant peptide production on rainbow trout (*Oncorhynchus mykiss*)

21. Azin Fahim - **Algae biotechnology and biofuel production** - Induction of abiotic stresses on the microalgae *Nannochloropsis oculata* with the aim of increasing the biosynthesis of biofuel (triacylglycerol -TAG) and evaluating the effect of these stresses by measuring the profile of fatty acids and the expression of the enzyme (acetyl-CoA synthetase (ACS) gene)

#### **Currently Ph.D. research students:**

- 1- Kaveh Khoraviani- **Recombinant Vaccine**- Designing Lactobacillus Recombinant Probiotic and Production of Nanoencapsulated Oral Vaccine in Evaluating Immune Response Against *Aeromonas Hydrophila* Disease and Growth of Persian Sturgeon (*Acipenser persicus*)
- 2- Maryam Soleymanpour- **Tissue engineering and stem cells** - Design and manufacture of chitosan wound dressing using the combination of tissue engineering, stem cells and nanoparticles technologies and its effect on Acceleration of wound healing in fish
- 3- Somayeh Bashiri – **Ovarian Laparoscopy**- Obtaining and quality assessment of the (*Acipenser baerii*) caviar by laparoscopic method and study of the ovary growth post- surgery
- 4- Heydar Al- Mashkour – **Recombinant Vaccine** - The effect of nanoencapsulated recombinant vaccine obtained from *bacillus subtilis* on growth rate and immune system performance of Nile tilapia (*Oreochromis niloticus*) against *Streptococcus iniae* disease
- 5- Tayebeh Nemati - **Recombinant Hormone**- Design and production of nanoencapsulated GnRH recombinant hormone and hormone induction by oral and injection methods in koi model fish (*Cyprinus carpio*)
- 6-



#### **XII. COURSES TAUGHT:**

- |   |                       |
|---|-----------------------|
| 1) Principles of Genetics               | undergraduate (B.Sc.) |
| 2) Principles of Microbiology           | undergraduate (B.Sc.) |
| 3) Fish Genetics                        | undergraduate (B.Sc.) |
| 4) Genetics and fish breeding           | graduate (M.Sc.)      |
| 5) Complementary Aquaculture            | graduate (M.Sc.)      |
| 6) Fish processing biotechnology        | graduate (M.Sc.)      |
| 7) Aquatic Nanotechnology               | graduate (M.Sc.)      |
| 8) Mariculture                          | postgraduate (Ph.D.)  |
| 9) Advanced Aquaculture Biotechnology   | postgraduate (Ph.D.)  |
| 10) Nanobiotechnology of fisheries      | postgraduate (Ph.D.)  |
| 11) Professional methods in Aquaculture | postgraduate (Ph.D.)  |



#### **XIII. INVENTIONS:**

1. **Laboratory Fish Incubator** :Patented in Iranian Patent Office; Tehran With No. 32024 Dated on July 9th 2005

2. **Silver nanoparticle filter to control microbial infections of rainbow trout eggs and larvae in semi-closed breeding and rearing systems:** Patented in Iranian Patent Office; Tehran With No. 68486 Dated on 2019/10/13-
3. **Polyurethane filter containing silver nanoparticles to control streptococcus bacteria in closed-loop rainbow salmon farming systems.** Patented in Iranian Patent Office; Tehran With No. 68474 Dated on -22/09/2013
4. **The use of Zeomic fiber filter in the water ion filter system to control streptococcosis disease in rainbow trout .** Patented in Iranian Patent Office; Tehran With No. 70412 Dated on 24/02/2013
5. **Polypropylene filter fiber containing silver nanoparticles for the control of fungal infections in the eggs of wild fish of the Caspian Sea in a semi-closed circuit incubation system for reproduction and breeding.** Patented in Iranian Patent Office; Tehran With No. 77439 Dated on 22/09/2013
6. **Silver fiber filter to control microbial infections of eggs and larvae of rainbow salmon in semi-closed systems of propagation and breeding.** Patented in Iranian Patent Office; Tehran With No. 68483 Dated on 2019/10/14



### Genome documentation in NCBI Gene Bank:

- 1) *Salmo trutta caspius* haplotype Iran5 control region, complete sequence; mitochondrial 1,012 bp linear DNA , Accession: HM237341.1 GI: 299150789 , GenBank FASTA, 2010
- 2) *Salmo trutta caspius* haplotype Iran4 control region, complete sequence; mitochondrial 1,012 bp linear DNA , Accession: HM237340.1 GI: 299150788 , GenBank FASTA, 2010
- 3) *Salmo trutta caspius* haplotype Iran3 control region, complete sequence; mitochondrial1, 012 bp linear DNA Accession: HM237339.1 GI: 299150787 ,GenBank FASTA, 2010
- 4) *Salmo trutta caspius* haplotype Iran2 control region, complete sequence; mitochondrial1, 012 bp linear DNA ,Accession: HM237338.1 GI: 299150786 ,GenBank FASTA 2010
- 5) *Salmo trutta caspius* haplotype Iran1 control region, complete sequence; mitochondrial1, 012 bp linear DNA ,Accession: HM237337.1 GI: 299150785 ,GenBank FASTA, 2010
- 6) *Salmo trutta caspius* D-loop, partial sequence; mitochondrial 865 bp linear DNA , Accession: FJ770380.1 GI: 224995225 ,GenBank FASTA, 2009
- 7) *Salmo trutta caspius* cytochrome b (cytb) gene, partial cds; mitochondrial1, 069 bp linear DNA , Accession: FJ655773.1 GI: 223931344 ,GenBank FASTA, 2009
- 8) *Salmo trutta caspius* haplotype A D-loop, partial sequence; mitochondrial 865 bp linear DNA, Accession: FJ655772.1 GI: 223931343, GenBank FASTA, 2009
- 9) *Acienser persicus* vitellogenin mRNA. partial sequence. ="Lipoprotein amino terminal region; pfam01347". Accession: AFQ62076.1 GI:402533214. GenBank FASTA, 2012
- 10) *Acipenser persicus* Na/K/2Cl cotransporter (NKCC1) mRNA, partial cds.538 bp linear mRNA . Accession: KJ802783.1GI:745787731. GenBank FASTA, 2015
- 11) *Acipenser persicus* Na/K-ATPase alpha subunit mRNA, partial cds. 632 bp mRNA linear .ACCESSION KJ802784. VERSION KJ802784.1 GI:745787733. VRT 14-JAN-2015
- 12) *Hypophthalmichthys molitrix* Hymo-DAB gene, MHC class II beta chain, partial sequence, haplotype: DAB7. ACCESSION LC159064, VERSION LC159064.1, GI:1036484779 , 2016.
- 13) *Hypophthalmichthys molitrix* Hymo-DAB gene, MHC class II beta chain, partial sequence, haplotype: DAB6. ACCESSION LC159063, 2016.
- 14) *Hypophthalmichthys molitrix* Hymo-DAB gene, MHC class II beta chain ,partial sequence, haplotype: DAB5. ACCESSION LC159062, VERSION LC159062.1, GI:1036484775, 2016.



## **V. OTHERS (Award, ...):**

- 1) Ranked 1 among Fisheries Engineering postgraduate (M.Sc.) Students of Iran (1996).
- 2) Outstanding Junior Honor Student of fisheries in Tarbiat Modares University
- 3) The first PhD educated in Aquaculture in Iran from Tarbiat Modares University
- 4) Establishment of Aquatic Genetic and Biotechnology Laboratory, Aquarium lab, Aquaculture workstation lab for fisheries Dept., Tarbiat Modares University, Noor, Iran.
- 5) Invited Special Session Coordinator for zibakenar, Tehran, lahijan, Tonkabon and ghaemshahr fisheries conferences
- 6) Members of revision committee for B.Sc., M.Sc. and PhD fisheries syllabus in MSRT, Iran
- 7) Selected Researcher of Tarbiat Modares University (Ranked 14 among 400 professors) in 2006.
- 8) Selected teacher of Tarbiat Modares University in 2007.
- 9) Editor-in-Chief of Fisheries Sciences and Techniques Quarterly journal from March 2010 to 2014
- 10) Director of Marine Biology Department of Tarbiat Modares University -2012-2014
- 11) Director of Fisheries Department of Tarbiat Modares University - 2014 to 2016
- 12) Director General of Education and Head of the Department of Talents of the Tarbiat Modares University 2016-2019
- 13) The head of the university's international student admission and scholarship policy making council-2020
- 14) Academic vice president of Tarbiat Modares University 2019-2021