Curriculum Vitae

Sajad Nazari

Nationality/residency status: Iranian
Address Department of Genetics, Genetic and Breeding of cold freshwater fishes Center, Iranian Fisheries Science Research Institute (IFSRI), Yasouj, Iran P.O.Box 75914-358,
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Summary:

Vice chancellor for research affairs
Specialist in molecular genetics
Handling Next Generation Sequencing (NGS) data
Extensive research experience in fish molecular genetics
Project management
Laboratory management
Lecturer and laboratory trainer
Scientific writing and oral presentation

EDUCATION

Postdoctoral fellowship, 2017. Fish genomics
Postdoc research project: Utility of Single Nucleotide Polymorphisms and QTL-linked markers related to maturation trait in rainbow trout (*Onchorhynchus mykiss*) pre-broodstocks
Ph. D: Aquaculture genetics, 2016 Gorgan University
Thesis topic: Association between myostatin gene and quantitative traits in rainbow trout (*Oncorhynchus mykiss*) farms
M.Sc: Molecular Ecology 2007-2009. Guilan University.
Master thesis topic: Population genetic study of the Persian sturgeon (*Acipenser persicus*) in the Caspian Sea based on PCR-RFLP and mitochondrial DNA sequence data
BSc. 2002-2006: Fisheries Science. Guilan University.
Project: Cytogenetic analysis of the white Bream (*Blicca bjoerkna*)

PROFESSIONAL EXPERIENCE

Research and Laboratory Experience

Biologist in Genetics Laboratory: December 2012- present
Molecular Genetics laboratory
Work with other scientists from universities

Teaching Experience

Advanced Molecular Biology Laboratory

Laboratory Techniques

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- DNA and RNA extraction from tissue using kits and phenol-chloroform protocol
- Polymerase Chain Reaction (PCR method)
- RT-PCR
- Flow cytometry
- Genotyping microsatellite loci using acrylamide gels
- Molecular markers, SSCP,PCR-RFLP, QTL, SNP

Data Analysis and Presentation

- SPSS software
- Sequence analysis
- Next Generation Sequencing (NGS)
- Genotyping microsatellite DNA data and RFLP analysis
- Microsatellite and mtDNA primer design using Primer Select (DNASTAR, Genrunner) software
- Population Genetics Software (e.g., GENEPOP, FSTAT, TPFGA, GENECLASS, STRUCTURE, Mega, Dnasp, …)
- Presentation software (Powerpoint, Word, Excel)

PUBLICATIONS

Nazari, S., Pourkazemi, M and Porto, JIR. (2009). Comparative cytogenetic analysis of two Iranian cyprinids *Alburnoides bipunctatus* and *Alburnus filippii* (Cypriniformes: Ciprinidae), with cytotaxonomic considerations. Iranian Journal of Animal Biosystematics (IJAB). Vol.5, No.2, 23-32, 2009

Pourkazemi,M., **Nazari, S** and Bakhshalizade, S. (2010). Karyotype analysis in the white Bream (*Blicca bjoerkna*) from north coast of Iran. Iranian Journal of fisheries science.Vol. 9.No. 3.454-463.

Ghaderi, F., Fooladvand, Z., Salimpour, M., Ashourion, H., **Nazari, S.,** Abolmaali S. (2010) Screening Secondary Metabolites of Persian Gulf Sponges for Anticancer Agents. Journal of Biotechnology 150:422-423

Nazari, S., Pourkazemi, M and Porto, JIR. (2011) Chromosome description and localization of Nucleolus Organizing Regions by Ag-staining Technique *in Alburnus filippii* (Cyprinidae, Cypriniformes) of the south Caspian Sea Basin, Guilan, Iran. Iranian Journal of fisheries science Vol 10, No 2. 352-356.

Khoshkholgh,MR., Pourkazemi,M., **Nazari,S**. Azizzadeh,L.(2011). Genetic diversity in the Persian sturgeon (*Acipenser persicus*) in the south Caspian Sea based on mitochondrial DNA sequence analysis. Caspian Journal of Environmental Sciences. Vol. 9, (2). 27-37.

Pourkazemi, M., **Nazari, S**., Khoshkholgh, M.R., Azizzadeh, L., (2012). Genetic relationships among populations of the Persian sturgeon, *Acipenser percicus*, in the south Caspian Sea detected by mitochondrial DNA–restriction fragment length polymorphisms. Caspian Journal of Environmental Sciences 10 (2), 215–226.

Nazari, **S**., Pourkazemi, M., Khoshkholgh, MR. and Azizzadeh, L. (2013). Population structure and variation in Persian sturgeon (*Acipenser percicus*) from the Caspian Sea as determind from mitochondrial DNA sequences of the control region. Progress in Biological Sciences, 3(2), 67-80.

Khoshkholgh,M.R., **Nazari, S** &**.** Pourkazemi,M. (2013). Population structure of Persian sturgeon (*Acipenser persicus* Borodin, 1897) populations in the southern part of Caspian Sea. Iranian Journal of Animal Biosystematics ,9 (1), 29-39.

Khoshkholgh,M.R., **Nazari, S** &**.** Pourkazemi,M. (2013). Population structure of Persian sturgeon (*Acipenser persicus* Borodin, 1897) populations in the southern part of Caspian Sea. Iranian Journal of Animal Biosystematics ,9 (1), 29-39.

Khoshkholgh, MR., Alavi, A. and **Nazari, S.** Karyotypic characterization of the pike (*Esox lucius*) from the south Caspian Sea basin. (2015). *Iranian Journal of Animal Biosystematics* (IJAB), 11(1), 43-49.

Khoshkholgh, M.R. and **Nazari, S.**, (2015) Genetic variation in populations of the narrow-clawed crayfish (*Astacus leptodactylus*) as assessed by PCR-RFLP of mitochondrial COI gene. Molecular Biology Research Communications 2015; 4(4):225-237.

Nazari, S., Jafari, V, Pourkazemi, M. Kolangi Miandare, H., Abdolhay, H. (2016). Association between myostatin gene (MSTN-1) polymorphism and growth traits in domesticated rainbow trout (*Oncorhynchus mykiss*). Agri Gene 1 (2016) 109–115.

Kolangi Miandare, H., Mirghaed, A.T., Hosseini M., Mazloumi N., Zargar A., **Nazari, S.** (2017) Dietary Immunogen® modulated digestive enzyme activity and immune gene expression in *Litopenaeus vannamei* post larvae. Fish & Shellfish Immunology 70, 621-627.

Rastiannasab, A., Mousavi S.M., Hosseinzadeh, H.' Zolgharnein, H., **Nazari, S**., Akhlaghi, M (2018) Effects of dietary supplementation of combined probiotics and enzymes on immune-related gene expression and disease resistance of farmed rainbow trout *(Oncorhynchus mykiss*). Fish and Sellfish Immunology. (In press)

Ghaderi , M., **Nazari, S.,** Dolatabadi, M., Maxwell, T.M R., Amirpour Najafabadi, H. (2018) Hierarchical and general nonlinear growth modeling for estimating growth patterns. Journal of Veterinary and Animal Sciences. doi:10.3906/vet-1711-69

Khoshkholgh, M.R. and **Nazari, S.** (2019). Genetic stock structure of the narrow clawed crayfish (*Astacus leptodactylus*) based on microsatellite DNA and mitochondrial DNA markers: implications for conservation management. Conservation genetics. (In press)

Nazari, S., Pourkazemi, M., Najjar Lashgari, S. & Ghaderi, M. (201**9**). Single nucleotide polymorphisms (SNPs) identified through genotyping by sequencing improves genetic stock identification of farmed rainbow trout (*Oncorhynchus mykiss*). (Manuscript **submitt**ed).

Pourkazemi, M., **Nazari, S.,** Najjar Lashgari, S., Ghaderi , M, Aghaei, K. (2019). Genome wide association for growth traits in farmed rainbow trout (*Oncorhynchus mykiss*). (Manuscript prepared).

Honors & Awards

Fellowships

Scholarship, The College of Natural resources, University of Guilan, 2010
Training Grant, University of Gorgan, 2013
Training Grant, Iranian Fisheries Science Research Institute (IFSRI), 2014
Graduate Scholarship Recipient, University of Gorgan**,** 2014
Scholarship Recipient, Iranian Fisheries Science Research Institute (IFSRI), 2014
Postdoctoral Fellowships, Iranian Scientific Foundation (ISF), 2017

Memberships

Student Member, Curriculum Committee, University of Guilan, 2009
Member, Iranian Society for Biotechnology, 2013
Member, Iranian Society for Genetics, 2015
Member, Iranian Society for Aquaculture, 2015
Member, Iranian Society for Ichthyology, 2016

Invited reviewer for scientific journals

- Gene
- Iranian Journal of Fisheries Science
- Iranian Journal of Biotechnology

National Projects (as a co-worker**)**

- The Creation of genetic basic population of Rainbow trout (*Onchorhynchus mykiss)* based on study of genetic variation in brood stocks using microsatellite.
- Induction of population triploid-interploid in Rainbow trout (*Oncorhynchus mikiss)* Using by indirect method
- Investigation of population genetic structure of Narrow-clawed crayfish (*Astacus leptodactylus*) in the south Caspian Sea Rivers.
- Heritability estimates for growth-related quantitative traits in rainbow trout *(Oncorhynchus mykiss)* using molecular markers
- Gene expression analysis of growth traits in different stocks of cultivated rainbow trout *(Oncorhynchus mykiss)* using RNA-Seq technology
- Identification of molecular markers and characterization of RNA expression related to sex determination in Nile tilapia (*Oreochromis niloticus*) using RNA-Seq
- Genome wide association (GWAS) for identification of superior stocks of the rainbow trout (*Onchorhynchus mykiss*)

COMPETENCES

- **Scientific and Technical:** Fish Genetics and Genomics, Cytogenetics, Molecular Genetics, Marker Assisted Selection
- Biochemistry, Bioinformatics tools for molecular biology

Administrative: Vice chancellery for research affairs**,** Laboratory management; Project Management; Management of personnel and budget;

- laboratory informatics; Planning and execution and monitoring of projects; Scientific presentation; Writing and handling of scientific articles; Writing of research grants
- **Soft Skills:** Leadership; Organization; Flexible and adaptable; Problem solving; Team player; Capable to perform under pressure

LANGUAGES

- **Persian** mother tongue
- **English** Good spoken and written skills
- **French** Elementary

SERVICE

- Reviewed projects and articles for Molecular genetics in aquaculture

Conference

Nazari, S. 2015. Assessment of potential selective improvement of rainbow trout (*Oncorhynchus mykiss*) in Iran. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran. (Oral presentation)

Nazari, S. 2015. Genetic differentiation among cultured populations of the rainbow trout (*Oncorhynchus mykiss*) based on molecular markers. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran. (Oral presentation)

Nazari, S., Pourkazemi, M. 2015. Conservation of Persian sturgeon (*Acipenser persicus*) populations: description of stock structure according to microsatellite data. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran. (Oral presentation)

Khoshkholgh, M.R. and **Nazari, S.**, 2015. Mitochondrial DNA variation in the narrow-clawed crayfish (*Astacus leptodactylus*) populations as assessed by PCR-RFLP technique. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran

Khoshkholgh, M.R. and **Nazari, S.**, 2015. Microsatellites reveal evident genetic boundaries among narrow-clawed crayfish (*Astacus leptodactylus*) populations from the south Caspian Sea basin and northwest Iran. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran

Gandomkar, H., **Nazari, S.**, 2015. Ploidy of the rainbow trout (*Oncorhynchus mykiss*) reveals a tetraploid DNA content characterized by flow cytometry analysis. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran.

Ghaderi-Zefrehei, M., Esmaeilpour**,** M.**, Nazari, S.**, 2015. Radar assisted DNA barcoding of marine species using integrative bioinformatics. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran.

Rastiannasab, A., H. Gandomkar, **Nazari, S.** 2015. Comparision of some biological parameters and chromosoml number of reared fish from native (Iran) and imported (French) rainbow trout eyed eggs *Oncorhynchus mykiss*. Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran.

Rastiannasab, A., **Nazari, S.** 2015 . the investigation of ploidy level in genome of cultured rainbow trout (*Oncorhynchus mykiss*). Middle East and Central Asia Aquaculture, December 14-16, 2015, Olympic Hotel,Tehran, Iran.

Nazari, **S.,** Jafari, V, Pourkazemi, M. Kolangi Miandare, H., Abdolhay, H, (2016). Association between polymorphism in candidate gene and quantitative traits in domesticated rainbow trout (*Oncorhynchus mykiss*). 2th International & 14th Iranian Genetics Congress, May 21-23, 2016, Shahid Beheshti University,Tehran. (Oral presentation)