

Curriculum Vitae
Sajad Nazari



Nationality/residency status: Iranian

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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 persicus*, 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 persicus*) from the Caspian Sea as determined 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, M.R., 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 Shellfish 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. (2019). Single nucleotide polymorphisms (SNPs) identified through genotyping by sequencing improves genetic stock identification of farmed rainbow trout (*Oncorhynchus mykiss*). (Manuscript submitted).
- 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., Esmailpour, 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. Comparison of some biological parameters and chromosomal 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)