



PERSONAL INFORMATION:

Full Name: Maryam Shahbazi

Nationality: IRAN

Academic Level: Associate Professor

Cell: +98-171-4427040

E-mail: maryam.shahbazi@gau.ac.ir, maryamshahbazi02@gmail.com

EDUCATION:

- **Ph.D.**, in Plant Biology, 2008, Joseph Fourier University (Grenoble I), Grenoble, France
- **M.Sc.**, in Plant Science, 1392, University of Kharazmi, Tehran-Iran
- **B.Sc.**, in Plant Science, 1388, University of Shahid Beheshti, Tehran-Iran

RESEARCH INTEREST:

- Biodiversity conservation, Plant Ecophysiology & Interested in participatory conservation

PUBLICATION:

1. Hajibarat, Z., Saidi, A., **Shahbazi, M.**, Zeinalabedini, M., Mosuapour Gorji, A., Mirzaei, M., Hosseini Salekdeh, Gh., Ghaffari, M.R. 2024. Comparative proteome analysis of the penultimate internodes of barley genotypes differing in stem reserve remobilization under drought stress. *Scientific Reports*, (Q1)
2. Afshari-Behbahanizadeh, S., Akbari, GA., **Shahbazi, M.** Sanjari, S., Rizza, F., Badeck, F.W., Farahani, L., Alahdadi, I. 2024. Barley awn dimensions and barbs changes under terminal drought stress and its relation to grain yield and carbon isotope discrimination. *Cereal Research Communications*, <https://doi.org/10.1007/s42976-024-00511-9>
3. Saremi, Z., Zeinalabedini, M., **Shahbazi, M.**, Majidi Haravan, E., Azizinezhad, R., Sadeghzadeh, B. 2023. Multi-trait diverse germplasm sources from mini-core collection

for barley drought tolerance. *Cereal Research Communications*, <https://doi.org/10.1007/s42976-023-00415-0>.

4. Sarabadani Tafresha, R., Shobbar ZS., **Shahbazi, M.***, Bihamta, MR., Karami, A., Moradi, M., Nikkhah, HR. 2023. Role of barley stem reserves in the maintenance of grain yield under terminal drought. *Crop Science*, 1–13. <https://doi.org/10.1002/csc2.20919>.
5. Eshaghzadeh, H., **Shahbazi M.**, Rana Akhavan, S., Pereira. L. 2023. Purification and Characterization of Phycoerythrin from Caspian Sea Red Macroalgae (*Osmundea caspica*). *Journal of Applied Phycology*, 35, 317–330. <https://doi.org/10.1007/s10811-022-02882-0> (Q1, Impact Factor: 3.14).
6. Khazaei, A., **Shahbazi, M.**, Sabouri, A., Shobbar, Z., Golzardi, F. 2023. Investigation of morphophysiological characteristics of cultivars and promising lines of grain sorghum [*Sorghum bicolor* (L.) Moench] under late season drought stress. *JOURNAL OF AGRICULTURAL SCIENCE AND SUSTAINABLE PRODUCTION*, 32 (4), 202-215. <https://doi:10.22034/saps.2022.49621.2796>.
7. Mirjani L., Salimi A., **Shahbazi M.**, Hajirezaei, M.R., Matinizadeh M., Razavi K., Hesamzadeh Hejazi, S.M. 2022. Arbuscular mycorrhizal colonization leads to a change of hormone profile in micropropagated plantlet *Satureja khuzistanica* Jam. *J Plant Physiology*, (Q1, Impact Factor= 3.65) <https://doi.org/10.1016/j.jplph.2022.153879>
- Hajibarat, Z., Saidi, A., **Shahbazi, M.**, Zeinalabedini, M., Mosuapour Gorji, A., Mirzaei, M., Hosseini Salekdeh, Gh., Ghaffari. M.R. 2022. Comparative proteome analysis of the penultimate internodes of barley genotypes differing in stem reserve remobilization under drought stress. *Scientific Reports*, (Q1) <https://doi.org/10.1016/j.jplph.2022.153879>
8. Fekrat, F., Nami, B., Hejazi, M.A., Ghaffari, M.R., **Shahbazi M.*** 2022. Correlation network analysis of metabolites reveals the role of nitrogen-containing metabolic stressors in stimulating high-value compounds biosynthesis in *Arthrospira platensis*. *Journal of Applied Phycology*, 34: 1967–1982. <https://doi.org/10.1007/s10811-022-02753-8>.
9. Sanjari S., Shobbar Z.S., Ghanati F., Afshari-Behbahanzadeh S., Farajpour M., Jokar M., Khazaei A., **Shahbazi M.*** 2021. Molecular, chemical, and physiological analyses of sorghum leaf wax under post-flowering drought stress. *Plant Physiology and Biochemistry*, 159: 383-391
10. Javadi S.M., Shobbar Z.S., Ebrahimi A., **Shahbazi M.** 2021. New Insights on Key Genes Involved in Drought Stress Response of Barley: Gene Networks Reconstruction, Hub, and Promoter Analysis. *Journal of Genetics Engineering and Biotechnology*. 19, 2, <https://doi.org/10.1186/s43141-020-00104-z>
11. Seyedi, S., Parvin, P., Jafargholi, A., Jelvani, S., Shahabi, M., **Shahbazi, M.**, Mohammadimatin, P., Moafi, A. 2020. Fluorescence properties of Phycocyanin and Phycocyanin-human serum albumin complex, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 118468, <https://doi.org/10.1016/j.saa.2020.118468>.

12. Yazdani, B., Sanjari, S., Rastegari, R., Pourabed, E., GhaneGolmohammadi, F. **Shahbazi, M.** Shobbar. Z.S. 2020. Revision of the barley WRKY gene family' members and phylogeny, plus expression analysis of the candidate genes in response to drought. *Biologia Plantarum*, 64: 9-19.
13. Ghotbi-Ravandi, A.A., Shariati M, Shobbar, Z.S., and **Shahbazi, M.*** 2019. Expression pattern and physiological roles of Plastid Terminal Oxidase (PTOX) in wild and cultivated barley genotypes under drought stress. *Environmental and Experimental Botany*, 162 :313-320. <https://doi.org/10.1016/j.envexpbot.2019.03.007>.
14. Mirjani L., Salimi A., Matinizadeh M., Razavi K., **Shahbazi M.** 2019. The role of arbuscular mycorrhizal fungi on acclimatization of micropropagated plantlet *Satureja khuzistanica* Jam. by ameliorating of antioxidant activity and expression of *PAL* gene. *Scientia Horticulturae*, 253: 364-370.
15. Sanjari S., Shirzadian-Khoramabad R., Shobbar Z.S., **Shahbazi M.** 2019. Systematic analysis of NAC transcription factors' gene family and identification of post-flowering drought stress responsive members in sorghum. *Plant Cell Reports*, 38, pages361–376, DOI: [10.1007/s00299-019-02371-8](https://doi.org/10.1007/s00299-019-02371-8).
16. Fekrat F., Nami B., Ghanavati H., Ghaffari A., **Shahbazi M.*** 2019. Optimization of chitosan/activated charcoal-based purification of *Spirulina platensis* phycocyanin using response surface methodology. *J Applied Phycology*, 31 (2): 1095–1105. DOI: [10.1007/s10811-018-1626-8](https://doi.org/10.1007/s10811-018-1626-8).
17. Nahidian B., Ghanati F., **Shahbazi M.***, Soltani N. 2018. Effect of nutrients on the growth and physiological features of newly Isolated *Haematococcus pluvialis* TMU1. *Bioresource Technology*, 255: 229–237.
18. Mohseni Fard, E., Bakhshi, B., Gharechahi, J., Nikpay, N., Keshavarznia, R., **Shahbazi M.*** and Hosseini Salekdeh, Gh. 2017. *Journal of plant physiology*, 118: 121-129.
19. Abedini, R., GhaneGolmohammadi, F., PishkamRad, R., Pourabed, E., Jafarnezhad, A., Shobbar, Z.A. and **Shahbazi, M.*** 2017. Plant dehydrins: shedding light on structure and expression patterns of dehydrin gene family in barley. *Journal of Plant Research*, 130 (4), 747-763.
20. Ghotbi-Ravandi, A.A., **Shahbazi, M.***, Pesarakli, M. and Shariati M. 2016. Monitoring the photosystem II behavior of wild and cultivated barley in response to progressive water stress and rehydration using OJIP Chlorophyll *a* fluoresce transient. *Journal of Plant Nutrition*, vol. 39, No. 8, 1174–1185.
21. Afshari Behbahanizadeh, S., Akbari, Gh. A., **Shahbazi, M.***, Alahdadi, I., Farahani, L., Tabatabaee, S. A. and Ganji M. 2016. Qualitative and physical properties of barley grains under terminal drought stress condition. *Journal of Agricultural Science and Technology*, vol. 18, No 6, p. 1303-1317.
22. Ghotbi-Ravandi, A.A., **Shahbazi, M.***, Shariati M. 2014. Effects of mild and severe drought Stress on photosynthetic efficiency in tolerant and susceptible barley (*Hordeum vulgare* L.) genotypes. *Journal of Agronomy and Crop Science*, 200: 403-415.
23. Hoseinian Khoshro, H., Taleei, A., Bihamta, MR. **Shahbazi, M.**, Abbasi A. and Ramezanzpour, S.S. 2014. Expression analysis of the genes involved in accumulation and

remobilization of assimilates in wheat stem under terminal drought stress. *Plant Growth Regulation*, 74:165–176.

24. Ghorbani E., Hassani R., **Shahbazi, M.***, Moradi, F. and Sadri, M. 2014. Optimization of extraction yield of Carthamine and Safflower yellow pigments from safflower (*Carthamus tinctorious* L.) under different treatments and solvent systems. *Research Journal of Pharmacognosy (RJP)* Vol. 2(1): 17-23.
25. Hasanloo, T., Pazirandeh, M.S., Niknam, V., **Shahbazi, M.**, Ebrahimzadeh Mabood, H., and Ghaffari, A. 2013. Effects of drought and methyl jasmonate on antioxidant activities of selected barley genotypes. *Journal of Agrobiology*, 30(2): 71-82.
26. Hoseinian Khoshro, H., Taleei, A., Bihamta, MR. **Shahbazi, M.** and Abbasi A. 2013. Expression Analysis of the Genes Involved in Osmotic Adjustment in Bread Wheat (*Triticum aestivum* L.) Cultivars under Terminal Drought Stress Conditions. *Journal of Crop Science and Biotechnology*, 16 (3): 173 -181.
27. Raeisi, S., **Shahbazi, M.**, Hezarjaribi E. and Mehravar M. 2013. Responses of Soybean Varieties for Abnormality in Podding in Different Planting Dates. *Int. J. Pure Appl. Sci. Technol.*, 17(1), pp. 93-99.
28. Rezaei, M. K., Shobbar, Z.S., **Shahbazi, M.**, Abedini, R. and Zare S. 2013. Glutathione S-transferase (GST) family in barley: Identification of members, enzyme activity, and gene expression pattern. *Journal of Plant Physiology*, 170: 1277– 1284.
29. Karami, A., **Shahbazi, M.***, Niknam, V., Shobbar, Z.S., Sarabadani Tafreshi, R., Abedini R. and Ebrahimzadeh Mabood, H. 2013. Expression analysis of dehydrin multigene family across tolerant and susceptible barley (*Hordeum vulgare* L.) genotypes in response to terminal drought stress. *Acta Physiologica Plantarum*, 35, 2289-97.
30. Sharbatkhari, M., Galeshi, S., Shobbar, Z.S., Soltani, A., Nakhoda, B. and **Shahbazi, M.** 2013. Assessment of agro-physiological traits for salt tolerance in drought-tolerant wheat genotypes. *International Journal of Plant Production*, 7(3): 437-454.
31. Baniaghil, N., Arzanesh, M.H., Ghorbanli, M., **Shahbazi, M.** 2013. The effect of plant growth promoting rhizobacteria on growth parameters, antioxidant enzymes and microelements of canola under salt stress. *Journal of Applied Environmental and Biological Sciences*, 3(1): 17-27.
32. Trouillard, M., **Shahbazi, M.**, Moyet, L., Rappaport, F., Joliot, P., Kuntz, M., Finazzi, G. 2012. Kinetic properties and physiological role of the plastoquinone terminal oxidase (PTOX) in vascular plants. *Biochimica et Biophysica Acta (BBA) – Bioenergetics*, 1817 (12): 2140-2148.
33. Abouzar M., **Shahbazi, M.***, Torabi, S., Nikkhah H.R. and Nadafi S. 2012. Post-anthesis changes in internodes dry matter, stem mobilization and their relation to the grain Yield of Barley (*Hordeum vulgare* L.). *Iranian Journal of Plant Physiology* 2(4): 553-557.
34. Amirinejad, M., Akbari, G.A., Baghizadeh, A., Allahdadi, I. and **Shahbazi M.** 2012. Study the effect of foliar application on quantitative and qualitative Yield of Cumin (*Cuminum cyminum*) under water Stress. *Iranian J Pharmaceutical researches*, vol.11 (2), supplement 1, page 308.

35. Mostafa M., **Shahbazi M.***, Khazaei A. and Daneshian J. 2012. Effect of post-flowering water stress on yield and physiological characters of grain sorghum genotypes. Iranian Journal of Plant Physiology, 2 (1): 233-239.
36. **Shahbazi M.**, Gilbert M. Labouré A. M. and Kuntz. 2007. Dual roles of Plastid Terminal Oxidase in Tomato. Plant Physiology, vol. 145, pp. 691–702.
37. Madjd, A. and **Shahbazi, M.** 1996. The Effects of salt stress on the shoot apical meristem and leaf generation in sunflower (*Heliathus annuus* L.) Journal of sciences (Islamic Republic of Iran) 7(3): 137-143.

On-Going Projects:

- Compilation of participatory management guidelines in Golestan Biosphere Reserve. Custom design of Golestan's Department of Environment.
- Genetic diversity of Sea Aster (*Aster tripolium*) in the Caspian coasts using DNA barcoding.
- Study of Growth and Nitrate uptake by *Aster tripolium* in order to use in Phytoremediation of Caspian coasts.
- Establishment of collection of perennial native grasses and study of their forage value.

ACADEMIC TEACHING EXPERIENCE:

Botany; Morphology and Taxonomy (B.Sc.), Biogeography (M.Sc.), Conservation Biology (M.Sc.), Plant Ecophysiology (M.Sc.), Phycology (B.Sc.), Research Methodology (M.Sc.), Soil Water Plant Relationship (M.Sc.), Biological Erosion Control (M.Sc., Ph.D.)

SERVICE AND PROFESSIONAL MEMBERSHIP:

- Appreciation for holding the research week exhibition of the year 2017, international exhibition - top booth, December 2017.
- Appreciation as the workshop manager in the third biotechnology festival of the Islamic Republic. **Scientific and Technological Vice President**, 2014.
- Honor Scientific Researcher, **Jihad-Agriculture Organization of Golestan**, 2002.
- National Honor Scientific Researcher, **Ministry of Jihad- Agriculture**, 1999.
- Member Board, Federation of Iran Bioscience societies and head of the Biodiversity Committee, March 2018 –current.
- Head of Board, Iranian Plant Physiology Society, September 2021- current.
- Member of the board, the Iranian Plant Antioxidants Center of Excellence, Ministry of Science, Research and Technology, May 2018 until now.
- Member of the editorial board of the journal (English and Persian) Plant Process and Function (Q2), November 2019 until now.

- Member of the Editorial Board of Seed Science and Technology Journal, Iran Seed Association since 2016.
- Member of the editorial board of the Journal of Environmental Plant Physiology of Iran, from 2014 until now.

Position

- The author of the proposal of the Globally Important Agricultural Heritage Systems (GIAHS) of Qazvin Traditional Garden, Food and Agriculture Organization of the United Nations (FAO), **Fall 2023**.
- Responsible for the establishment of the non-native and invasive species research Institute, Gorgan University of Agricultural Sciences and Natural Resources, **December 2019**.
- Member of scientific board, Environmental Sciences department, Gorgan University of Agricultural Sciences and Natural Resources, **since November 2018**.
- Head of Commercialization and Marketing Department, Iran Agricultural Biotechnology Research Institute, **April 2017 to October 2018**.
- Responsible for setting up the By-research doctoral course at the Agricultural Biotechnology Research School, **May 2013**.
- Director of Education office, Iran Agricultural Biotechnology Research Institute, **March 2012 to April 2017**.
- Member of scientific board, Iran Agricultural Biotechnology Research School, **October 2009 to November 2018**.
- Director of the Plant Physiology Laboratory, Golestan Agricultural Research Center, **1997-2003 and 2008-2009**.

LANGUAGES:

Persian, English, French