

Dr. Abbas Mokaram Hesar

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Address: Iran-Urmia-Afagh Higher Education Institute

PhD. in Plant Pathology (Plant Nematology)

- 2014-2020
- Shiraz University. Shiraz, Iran.
- **Thesis Title: “Taxonomy and Molecular Identification of Plant-parasitic Nematodes of the Superfamily Criconematoidea Taylor, 1936 in Northwestern of Iran”**
- Thesis Grade: 19.85
 - **Supervisor:** Dr. Akbar Karegar
 - **Advisors:** Dr. Reza Ghaderi, Dr. Habibollah Hamzezarghani, Dr. Saber Sadeghi

MSc. in Plant Pathology (Plant Nematology)

- 2007-2009
- Ferdowsi University of Mashhad. Mashhad, Iran.
- **Thesis Title: “Identification species of *Heterodera* in sugar beet fields and species of *Meloidogyne* in tomato fields with use of morphological and molecular methods in Razavi Khorasan Province-Iran”**
- Thesis Grade: 19.66
 - **Supervisor:** Dr. Esmat Mahdi Khani Moghadam
 - **Advisor:** Dr. Zahra Tanha Maafi

B.Sc. in Plant Protection

- 2000-2006:
- Urmia University, Urmia, Iran.

Research Interests

- Morphological identification of plant and insect parasite nematodes
- Molecular identification of plant and insect parasite nematodes
- Taxonomy and phylogeny of Nematodes
- Population genetics
- Biological control of plant parasite nematodes
- Population dynamics

Teaching Experience

- University of Applied Science and Technology - Mashhad (2007-2009)
- Ferdowsi university of Mashhad (2009-2010)

- Afagh Higher Education Institute - Urmia (2010-so far)

Technical Skills

- Identification of plant-parasitic nematodes
- Methods of sampling, extraction and cultivation of nematodes
- Molecular and biochemical techniques for identification, study of genetic diversity, phylogeny of nematodes, including methods of DNA extraction, PCR, RAPD, ISSR, RFLP, AFLP and sequencing.
- Methods of chemical and biological controls of nematodes
- Softwares in phylogeny and population genetic of nematodes
- Identification of plant viruses with use of serological and molecular methods
- Preparation of different mediums for fungi, culturing and Identification

Memberships in Professional Societies

- Iranian Society of Nematologists

Reviewer duties in Journals

- Iranian journal of plant pathology
- Journal of crop protection

Reviewer in Congress

- 22nd Iranian Plant Protection congress - Karaj
- 23nd Iranian Plant Protection congress - Gorgan

- Iranian 1st congress of Nematology - Tehran - 2019

Courses

- Mapping and genetic engineering – Mashhad – 2009
- Laboratory Safety Workshop - Mashhad - 2009
- R software – Shiraz – 2018
- Teaching workshop and question design – Afagh Higher Education Institute – 2019

Presentation

- Congress of biotechnology in agriculture – Neyshabour – 2009
- 19th Iranian plant pathology congress.
- Iranian 1st congress of Nematology – Tehran - 2019

Research Funding

- Phylogeny of genus *Psilenchus* in Iran with introduction of two new species for the world (with Dr. James Baldwin-University of California-Riverside)
- Fauna of rosmarinus in Mashhad (with Dr. E. Mahdikhani moghadam)
- Biological control of *Heterodera schachtii* with use of Tricoderma (with Dr. E. Mahdikhani moghadam)
- Identification insect parasite nematodes (Steinernematids and Heterorhabditis) in Mashhad with morphological and molecular methods (with Dr. Javad Karimi)
- Identification of TBSV, IYSV, ToYLCV in Razavi Khorasan (with Dr. Behrooz Jafarpour)
- Phylogeography of Criconematidae in the world (with Dr. Tom Powers - University of Nebraska)

- Morphological identification and genetic diversity of root knot nematodes in southern provinces of Iran (with Dr. Reza Ghaderi)

Publications

Books

- Ghaderi, R. and **Mokaram Hesar, A.** (2018). Nematodes of the family Tylenchulidae. Pp: 159-191 in R. Ghaderi, L. Kashi, and A. Karegar (Eds). Plant-parasitic nematodes in Iran. Shiraz, Marjaeelm & Iranian Society of Nematology.
- Ghaderi, R. and **Mokaram Hesar, A.** (2020). Methods and techniques in plant nematology. In press.
- **Mokaram Hesar, A.** (2018). Subfamily Heteroderinae and family Meloidogynidae. Pp: 67-72 in R. Ghaderi (Eds). Plant nematology in Iran. GlobeEdit.

Journals

- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., Tanha Maafi, Z. (2011) Morphometrical and genetic diversity of *Meloidogyne javanica* isolates from the north east of Iran. *Journal of Nematode Morphology and Systematics* 14(1), 1-11.
- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., Tanha Maafi, Z. (2011) Comparison of different populations of *Heterodera schachtii* by using morphological and molecular characters. *Iranian Journal of Phytopathology* 47(4), 405-418.
- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., Tanha Maafi, Z and Karimi, J. (2011) Identification of *H. avenae* group with used of Morphological, PCR-RFLP and sequencing of rDNA-ITS regions in sugar beet fields of Iran. *Journal of Nematode Morphology and Systematics* 15(1), 1-11.
- Mahdikhani Moghadam, E. and **Mokaram Hesar, A.** (2010) Identification of Plant Parasitic Nematodes of *Rosmarinus officinalis*. *Journal of Plant Protection* 4(24), 427-436.

- Askari, S., Rohani, H., Rastegar, M., Mehdikhani Moghadam, E and **Mokaram Hesar, A.** (2010) Identification of *pythium* spp. and their Pathogenicity on Cucurbits in Khorasan-Razavi Province, *Journal of Plant Protection* 24(4), 428-436.
- Karimi, J., **Mokaram Hesar, A.** and Hasani, M. (2011) Study on Native Isolate of Entomopathogenic Nematode, *Heterorhabditis bacteriophora* and its Symbiont, *Photorhabdus luminecens* ssp. *laumondii*. *Iranian Plant Protection Science* 42(2) 353-363.
- Mohamadi Zameleh, F., Karegar, A., Ghaderi, R. and **Mokaram Hesar, A.** (2019) Morphological and molecular characterisation of *Helicotylenchus ciceri* n. sp. and *H. scoticus* Boag & Jairajpuri, 1985 (Nematoda: Hoplolaimidae) from Iran. *Nematology* 1(aop), 1-16.
- **Mokaram Hesar, A.**, Karegar, A. and Ghaderi., R. (2019) Phylogenetic relationships of *Cacopaurus pestis* Thorne, 1943 within representatives of the Tylenchulidae Skarbilovich, 1947 as inferred from ITS and D2-D3 expansion segments of 28S-rRNA sequences. *Nematology* 21, 971-994.
- Ghaderi, R., Karegar, A., Miraeiz, E. and **Mokaram Hesar, A.** (2019) An updated and annotated checklist of the Tylenchulidae (Nematoda: Criconematoidea) of Iran. *Zootaxa* 4545(2), 205-229.
- Salahi Ardakani, A., Tanha Maafi, Z., **Mokaram Hesar, A.** and Mohammadi Gholtape, E. (2014) Relationship between Soil Properties and Abundance of *Tylenchulus semipenetrans* in Citrus Orchards, Kohgilouyeh va Boyerahmad Province. *Journal of Agricultural Science and Technology* 16, 1699-1710.
- Ghaderi, R., Dehghan, A. A., **Mokaram Hesar, A.** and Karegar, A. (2020) Genetic intraspecific diversity of *Meloidogyne javanica* parasitizing vegetables in southern Iran. *Journal of Nematology* 52, 1-13.
- Ghaderi, R., **Mokaram Hesar, A.**, Karegar, A. and Jose Pereira, T. (2020) Molecular phylogeny of *Diphtherophora* (Nematoda: Diphtherophoridae), with the description of *D. eldarica* sp. nov. from Iran. *Zootaxa* 4851 (2): 371–385.
- Rezaee Danesh, Y., **Mokaram Hesar, A.** and Ghaderi, R. (2020) Integrative taxonomy of the willow cyst nematode, *Heterodera salixophila* Kirjanova, 1969, a new record of *Humuli* group from Iran. *Nematology* 1(aop), 1-11.
- **Mokaram Hesar, A.**, Ghaderi, R. and Karegar, A. (2020) Morphological and molecular characterization of *Achlysiella urmiaensis* n. sp. (Tylenchoidea: Pratylenchidae), associated with grapevine. (Submitted to *Nematology*)

- **Mokaram Hesar, A.**, Rostami, M. and Ghaderi, R. (2020) Population genetic structure of *Meloidogyne javanica* recovered from different regions of Iran. (Submitted to European Journal of Plant Pathology)

Congress

- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., Tanha Maafi, Z. (2010) Comparison of different populations of *H. filipjevi* by morphological characters, PCR-RFLP and sequencing of rDNA-ITS in sugar beet fields of Khorasan Razavi province. *19th Iranian plant pathology congress.*
- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., Tanha Maafi, Z. (2010) Identification of different populations of *H. schachtii* with morphological characters and ITS-PCR-RFLP in sugar beet field of Razavi Khorasan province. *19th Iranian plant pathology congress.*
- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., Tanha Maafi, Z. (2010) Morphological and genetic diversity between different populations of *M. javanica* on different host plants in razavi Khorasan province. *19th Iranian plant pathology congress.*
- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., José Pereira, T., Mundo Campo, M and Baldwin, J (2010) Populations of *Psilenchus* spp. (Nematoda) from Iran and the description of a new species of the genus. *19th Iranian plant pathology congress.*
- Askari, S., Rohani, H., Rastegar, M., Mehdikhani Moghadam, E and **Mokaram Hesar, A.** (2010). Morphological identification of *Pythium* species from vegetable crops in Razavi province. *19th Iranian plant pathology congress.*
- Askari, S., Rohani, H., Rastegar, M., Mehdikhani Moghadam, E and **Mokaram Hesar, A.** (2010). Identification of *Pythium* species from vegetable crops in Razavi province using AFLP marker. *19th Iranian plant pathology congress.*
- Keivanloo, E., Karimi, J., Sadeghi Namaghi, H, and **Mokaram Hesar, A.** (2010). DNA barcode as a tool for identification of *Tetranychus urticae*. *16th National and 4th International Conference of Biology. Mashhad – Iran.*

- Fazeli Salmani, A., Tehranifar, A., Davarynejad, G., Mahdikhani, E, and **Mokaram Hesar, A.** (2010). Studies on Growth Disorders of Pistachio Caused by Root-Knot Nematode (*Meloidogyne Javanica*) in Mahvelat Iran. *Acta horticulturae*.
- Manteghi, A., Rezaee Danesh, and **Mokaram Hesar, A.** (2018). Effects of Arbuscular Mycorrhizal Fungus *Glomus mosseae* on population dynamics of some criconematids in green house condition. *I International Agricultural Science Congress – Van/Turkey*.
- Khoshkbari Rezayie, S., Rezaee Danesh., Y., Zare, S and **Mokaram Hesar, A.** (2018). Some species of *Helicotylenchus* Steiner, 1945 from West Azarbaijan of Iran. *I International Agricultural Science Congress – Van/Turkey*.
- Taghizadeh, T., Rezaee Danesh., Y., Zare, S and **Mokaram Hesar, A.** (2018). Identification plant parasitic nematodes of Dorylaimida in West Azerbaijan Province-Iran. *I International Agricultural Science Congress – Van/Turkey*.
- Masomzadeh, R., Rezaee Danesh., Y., Meshkini, S and **Mokaram Hesar, A.** (2018). Some species of family Tylenchidae Orelly, 1880 From Urmia-Iran. *I International Agricultural Science Congress – Van/Turkey*.
- Rezaee Danesh., Y, and **Mokaram Hesar, A.** (2018). First report of *Geocenamus stegus* (Thome & Malek, 1968) Brzeski, 1991 from Iran. *I International Agricultural Science Congress – Van/Turkey*.
- Rezaee Danesh., Y, and **Mokaram Hesar, A.** (2018). Identification some species of genus *Filenchus* Andrassy 1954 from Urmia city. *I International Agricultural Science Congress – Van/Turkey*.
- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E., Tanha Maafi, Z. (2010) Identification different population of *H. schachtii* with morphology and ITS-PCR-RFLP in Iran- *13th MPU- Italy*.
- **Mokaram Hesar, A.**, Mahdikhani Moghadam, E (2010). Identification plant parasitic nematodes of *Rosmarinus officinalis* in Iran - *13th MPU- Italy*.
- **Mokaram Hesar, A.**, Karegar, A., Hamzezarghani, H. and Ghaderi., R. (2019) Morphometrical and genetic diversity in different populations of *Mesocriconema xenoplax*, *M. antipolitanum* and *Criconemoides informis* in Iran- *1st Iranian congress of Nematology-Tehran-Iran*

- **Mokaram Hesar, A.**, Karegar, A., Hamzezarghani, H. and Ghaderi., R. (2019) Study the vertical population dynamics of *Mesocriconema xenoplax*, *M. antipolitanum* and *Criconemoides informis* in natural conditions in Urmia city- *1st Iranian congress of Nematology-Tehran-Iran*
- **Mokaram Hesar, A.**, Karegar, A., Hamzezarghani, H. and Ghaderi., R. (2019) Investigation the effect of *Mesocriconema xenoplax*, *M. antipolitanum* and *Criconemoides informis* on chemical elements of the host plant under greenhouse conditions- *1st Iranian congress of Nematology-Tehran-Iran*

Member of Scientific Committee for MSc thesis

- Meysam Vojdani, 2016. Identification of plant parasitic nematodes of main plants in north of Urmia. M.Sc. thesis. **Advisor.**
- Mojtaba Khosromeydani, 2016. Identification of plant parasitic nematodes of main plants in south of Urmia. M.Sc. thesis. **Advisor.**
- Mohamad Asadzadeh, 2017. Identification different species of *Heterodera* in sugar beet fields in Naghade city. M.Sc. thesis. **Advisor.**
- Hasan Hasanpour, 2018. Investigation population dynamics of *Criconemides informis* in rhizosphere of some important plants in greenhouse conditions. M.Sc. thesis. **Advisor.**
- Said Salami, 2019. Morphological and molecular identification of different species of family Criconematidae in Urmia city. M.Sc. thesis. **Supervisor.**
- Rasol Abdollahzadeh, 2020. Study the morphological and molecular diversity of different populations of *Heterodera schachtii* in sugarbeet fields in Chaldoran city of west Azerbaijan province. M.Sc. thesis. **Supervisor.**
- Esmail Azaryar, 2019. Effect of some essential oils on *Botrytis cinerea* isolates resistant to fenhexamid fungicide. M.Sc. thesis. **Referee.**
- Sasan Nournejad, 2019. Study of morphological and genetic diversity and pathogenicity of Botryosphaeria canker isolates in West Azarbaijan Province (Urmia, Miyandoab and Salmas cities). M.Sc. thesis. **Referee.**
- Masror Emdadi, 2018. The effect of essential oils of some medicinal plants on growth of *Butteritis sinera*. M.Sc. thesis. **Referee.**

- Torkan Taghizadeh, 2018. Identification plant parasitic nematodes of Dorylaimida in West Azerbaijan province. M.Sc. thesis. **Advisor.**
- Simin Jafari, 2020. Study the effect of *Mesocriconema antipolitanum* on the amount of stored elements in alfalfa in greenhouse conditions. M.Sc. thesis. **Supervisor.**
- Shiva Khoshkbari Rezaeieh, 2018. Identification Different Species of *Helicotylenchus* in West Azerbaijan. M.Sc. thesis. **Advisor.**
- Atefeh Soleimani, 2019. Study of important fungal agents of root and crown rot of stone fruit trees in Western Azerbaijan province. M.Sc. thesis. **Referee.**
- Shabnam danandeh, 2019. Study of some of the Biological Characteristics of Fusarium disease of Wheat meat and Evaluation of the Reaction of Commercial and Linear Cultivars in the Introduction of Warm and Wet wheat in the North-eastern Region Relative to Disease. M.Sc. thesis. **Referee.**
- Mahpareh Alizadeh, 2019. Comparison of the inhibitory effect of green walnut skin extract, essential oil and silver nanoparticles against the *Aspergillus flavus*. M.Sc. thesis. **Referee.**
- Robab Masomzadeh, 2018. Identification nematodes of Tylenchidae in West Azerbaijan. M.Sc. thesis. **Advisor.**