

CURRICULUM VITAE



Mehdi Abedi

**Associate Professor
Tarbiat Modares University
Functional ecology and Nature conservation**

Personal Data (Career):

Date and Place of Birth: Sep. 9, 1980, Babol, Iran

Nationality: Iran

English: Fluent

Address: Department of Range Management, Faculty of Natural Resources, Tarbiat Modares University, Noor, Mazandaran, Iran.

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H index: 13

Total Citations: 1266

Highly cited papers (Top 1 %): 3

Academic Education

July 2008 – April 2013 PhD student in ecology and conservation. [Department of botany](#), University of Regensburg.

Title of thesis: *Seed Ecological Studies in dry Sandy Grasslands for optimizing conservation and restoration management*

January 2007 – October 2007 Instructor of Range and Watershed Management, University of Shahid Chamran, Ahvaz, Iran

April 2006 MSc in Rangeland Ecology and Management, Department of Range management, Tarbiat Modares University([TMU](#)), Noor, Iran.

Title of thesis: *Comparison of Double Sampling and Pooled Equation Methods for Biomass Production.*

September 2003 BSc in Rangeland and Watershed Management, Faculty of Natural Resources, University of Tehran ([UT](#)), Tehran, Iran.

Research visit- fellowships

2020- IPE-CSIC – Spain- 6 month

2020- Rey Juan Carlus University- 1 month

2023- University of Ankara- 1 month

2018 and 2023- CEBAS-CSIC- Spain- 1 weak

Research interests

Functional ecology, Seed ecology, Diversity, Ecosystem function, Landscape ecology, Functional foods, Ecophysiology

Skills

Ecological modeling (GLM, GAM, Mixed models), R software, Niche modeling and SDM, AFLP

Teaching Experience:

Functional ecology	Tarbiat Modares University
Ecological modeling	Tarbiat Modares University
Medicinal plant functional analysis	Tarbiat Modares University
Rangeland conservation	Tarbiat Modares University
Seed science and technology	Tarbiat Modares University
Plant ecophysiology	Tarbiat Modares University
Applied ecology and nature conservation	University of Regensburg
Rangeland ecology	Shahid Chamran University

Awards and prizes:

The 6th rank in Msc national Exam

PhD Research Grant (4 years stay in UR, Germany), Iranian Ministry of Science, Research and Technology (MSRT).

Professional Affiliations and Activities:

Member of Society of restoration ecology ([SER](#))

Member of International Association for Vegetation Science ([IAVS](#))

Member of European Dry Grassland Group ([EDGG](#))

Review of Manuscripts: ECOPERSIA journal ([ECOPERSIA](#))

Principle investigator in project of " Investigation of rangelands health attributes and indicators in shrublands and grasslands". University of Tehran.

Co- investigator in project of "National assessment program in different climatic regions". National Range and Forest Research Institute (RIFR)

Publications

Google Scholar Citations [Profile](#)

WOS [Profile](#)

Academia [Profile](#)

Books

- 2013** **Poschlod P, Abedi M, Bartelheimer M, Drobnik J, Rosbakh S, Saatkamp A** Seed ecology and assembly rules in plant communities. *Vegetation Ecology* (eds van der Maarel, E. & Franklin, J.), pp: 164-202. John Wiley & Sons, Ltd., Chichester.
- 2015** **Arzani H, Abedi M**, Rangeland assessment: Survey and monitoring. University of Tehran press.
- 2015** **Arzani H, Abedi M**, Rangeland assessment: Vegetation measurement. University of Tehran press.

Peer-reviewed ISI Journals

- Q1** **2023** Bashirzadeh, Maral; **Abedi, Mehdi**; Shefferson, Richard P; Farzam, Mohammad. Post-Fire Recovery of Plant Biodiversity Changes Depending on Time Intervals since Last Fire in Semiarid Shrublands. *Fire*. 6: 103
- Q1** **2022** Maestre, Fernando T; Le Bagousse-Pinguet, Yoann; Delgado-Baquerizo, Manuel; Eldridge, David J; Saiz, Hugo; Berdugo, Miguel; Gozalo, Beatriz; Ochoa, Victoria; Guirado, Emilio; García-Gómez, Miguel et al. . Grazing and ecosystem service delivery in global drylands. *Science*. 378: 6622: 915-920
- Q1** **2022** Omid, M; Heydari, M; **Abedi, M**; Kohzadean, M; Valkó, O; Prévosto, B. Evaluating the restoration potential of soil seed banks in degraded semi-arid oak forests: Influence of canopy cover types and fire-related cues on seed germination. *Forest Ecology and Management*. 524: 120534
- Q1** **2022** Kooch, Y; Amani, M; **Abedi, M**. The effect of shrublands degradation intensity on soil organic matter-associated properties in a semi-arid ecosystem. *Science of the Total Environment*. 853: 158664
- Q1** **2022** Mašková, T; Phartyal, S S; **Abedi, M**; Bartelheimer, M; Poschlod, P. Soil moisture level and substrate type determine long-term seed lifespan in a soil seed bank. *Plant and Soil*. 2:475-485
- Q1** **2022** Kooch, Y; Amani, M; **Abedi, M**. Vegetation degradation threatens soil health in a mountainous semi-arid region. *Science of The Total Environment*. 830:154827
- 2022** Matinzadeh, Z; López-Angulo, J; Escudero, A; Palacio, S; **Abedi, M**; Akhani, H. Functional structure of plant communities along salinity gradients in Iranian salt marshes. *Plant-Environment Interactions*. 3(1):16-27
- Q2** **2022** Ahmadian, N; **Abedi, M**; Escudero, A; Sohrabi, M; Luzuriaga, A. *Artemisia sieberi* dominated landscapes of Northeastern Iran host great diversity in lichen and annual plant species. *Flora*: 288:1-9

- Q2 2022 **Abedi M**; Omidipour R; Bahalkeh K; Hosseini S. V; Gross, N. Fire disturbance effects on plant taxonomic and functional β -diversity mediated by topographic exposure. *Ecology and Evolution*. 12(1):1-13
- Q2 2021 Bahalkeh, K; **Abedi, M**; Dianati Tilaki, G. A; Michalet, R . *Artemisia sieberi* shrubs have contrasting specific effects on understory species in Iranian steppes. *Journal of vegetation science*. 32(4): e13067
- Q2 2021 Bahalkeh, K; **Abedi, M**; Dianati Tilaki, G. A; Michalet, R. Fire slightly decreases the competitive effects of a thorny cushion shrub in a semi-arid mountain steppe in the short term. *Applied Vegetation Science*. 24(2): e12575
- Q2 2021 Zaki, E; **Abedi, M**; Naqinezhad, A. How fire history affects germination cues of three perennial grasses from the mountain steppes of Golestan National Park. *Flora*. 28: 151835
- Q3 2021 Ahmadian, N; **Abedi M**; Sohrabi M; Rosbakh S. Contrasting seed germination response to moss and lichen crusts in *Stipa caucasica*, a key species of the Irano-Turanian steppe. *Folia Geobotanica*. 56:205-213
- Q1- JCR< 3 2020 Kattge J Bönisch G, Díaz S, Lavorel S, Prentice I C. , Leadley P, Tautenhahn S, Werner G. D. A, Aakala T, **Abedi M** et al. TRY plant trait database – Enhanced coverage and open access. *Global change biology*.
- Q1- JCR<10 2019 Matinzadeh Z; Akhani H; Abedi M; Palacio S. The elemental composition of halophytes correlates with key morphological adaptations and taxonomic groups. *Plant Physiology and Biochemistry*. 141: 259-278
- Q1- JCR<5 2019 Tabarsa M, You S, **Abedi M**, Ahmadian N, Li C; Talapphet N. The activation of RAW264. 7 murine macrophage and natural killer cells by glucomannogalactan polysaccharides from *Tornabea scutellifera*. *Carbohydrate polymers*. 2019: 368-377.
- Q1- JCR<5 2019 Kiani-Harchegani M, Sadeghi SHR, Singh V.P, Asadi H, **Abedi M**. Effect of rainfall intensity and slope on sediment particle size distribution during erosion using partial eta squared. *Catena*. 176: 65-72
- Q4 2018 Naseri B, Tabari M, Phartyal S, **Abedi M**. Deep physiological dormancy in seeds of Balkan maple (*Acer hyrcanum*): a rare tree in the Hyrcanin Mountain forests of Iran. *Seed Science and Technology*. 46:1-10
- Q1- JCR<20 2018 Adroit B, Rajaei H, Terral JF, Malekhosseini M, **Abedi M**, Wappler T, Girard V. Changes in pattern of plant-insect interactions on the Persian ironwood (*Parrotia persica*, Hamamelidaceae) over the last 3 million years. *Review of Palaeobotany and Palynology*. 258:22-35
- Q1- JCR<5 2018 Henry HA, **Abedi M**, Alados CL, Beard KH, Fraser LH, Jentsch A, Kreyling J, Kulmatiski A, Lamb EG, Sun W, Vankoughnett MR. Increased Soil Frost Versus Summer Drought as Drivers of Plant Biomass Responses to Reduced Precipitation: Results from a Globally Coordinated Field Experiment. *Ecosystems*:1-3.
- Q3 2017 M Heydari M, Omidipour R, **Abedi M**, Baskin C. Effects of fire disturbance on alpha and beta diversity and on beta diversity components of soil seed banks and aboveground vegetation. *Plant Ecology and Evolution*. 150 (3): 1-10

- Q2** **2018** **Abedi M**, Zaki E, Erfanzadeh R, Naqinezhad AR. Germination patterns of the scrublands in response to smoke: The role of functional groups and the effect of smoke treatment method. *South African Journal of Botany*. 115: 231-236
- Q1- JCR<20** **2014** **Abedi M**, Bartelheimer M, Poschlod P. Effects of substrate type, moisture and its interactions on soil seed survival of three *Rumex* species. *Plant and soil*. 374:485 - 495.
- Q1- JCR<20** **2013** **Abedi M.**, Bartelheimer, M., Poschlod, P. Aluminium toxic effects on seedling root survival affect plant composition along soil reaction gradients - a case study in dry sandy grasslands. *Journal of vegetation science*. 24:1074-1085

Peer-reviewed Iranian Journals

- 2023** **M Amani, Y Kooch, M Abedi.** Effect of degradation intensity of wooded rangelands on root characteristics and soil ecochemical activities of Mirkola Region of Nowshahr. *Rangeland* , 17 (1), 63-75
- 2022** **Gholipour soloshi M, Dianati Tilaki G A, Abedi M.** Comparison of Vegetation Characteristics under Three Management Treatments (Heavy Grazing, Exclusion and Exclusion with Restoration Practices) in Kiasar Chardange. *Iranian Journal of Applied Ecology*, 11: 61-76
- 2021** **Abassnasab Z, Abedi M, Sadati SE.** Effect of biochar on some morphological and physiological traits in *Medicago sativa* and *Bromus tomentellus*. *Plant Process and Function*. 10 (41), 145-156
- 2020** **Khoshyari F, Dianati Tilaki GA, Abedi M,** The effect of some land administrations on soil fertility characteristics (Case study: Rangelands of Kohneh Lashak, Kojur, Mazandaran). *Journal of Rangeland* 14 (1), 25-36
- 2019** **Abassnasab Z, Abedi M, Sadati SE.** Effects of dust on some morphological and physiological parameters in *Bromus tomentellus* and *Medicago sativa*. *Iranian journal of Range and Desert Research*. 26 (1): 214-225
- 2019** **Abdoli H, Abedi M,** Effect of temperature fluctuation and cold stratification on germination of four dominant grass species (Case study: Golestan National Park). *Journal of Seed Research*. 29: 56-66
- 2019** **Ahmadian N, Abedi M, Sohrabi M.** Comparison of Moss, Cyanobacteria and *Artemisia* shrub in soil moisture conservations and soil temperature modifications. *Iranian journal of Range and Desert Research*. 26 (2), 451-460
- 2019** **Naseri B, Tabari M, Abedi M, Phartyal S.** Effect of seed moisture content and storage temperature on viability of Balkan maple (*Acer hyrcanum* Fisch & Meyer) seed. *Forest and Wood Products*. 2 (1): 1-8
- 2019** **Bahalkeh K, Abedi M, Dianati Tilaki GA, Ghorbanalizadeh A.** Effect of Shrub Death on Competitions of Grasslands Species in Golestan National Park. *Journal of Plant Researches* 32:366-378

- 2018** **Ahmadian N, Abedi M, Sohrabi M.** Effects of lichens on germination of *Bromus tectorum* L, *Melica ciliata* L, *Stipa caucasica* Schmalh, and *Taeniatherum caput-medusae* (L.) Nevski in Steppe rangelands of Golestan national park. *Rangelands* 12:223-231
- 2018** **Ahmadian N, Abedi M, Sohrabi M.** The Effect of *Tortella tortuosa* (Hedw.) Limpr Moss on Germination of Five Dominant Grass Species in Rangelands of Golestan National Park. *Journal of Seed Research*.8:21-30
- 2018** **Ahmadian N, Abedi M, Sohrabi M.** The Protective Effect of Lichen in Maintaining Moisture and Modulating the Temperature Fluctuations of Soil Susceptible to Wind Erosion. *Journal of Environmental Erosion Research*. 31:71-86
- 2018** **Bahalkeh K, Abedi M, Dianati Tilaki GA.** Competitive Effects of *Onobrychis cornuta* Changes between Exposures and Fire (Case Study Golestan Natural Park).11, 342-352
- 2018** **Bahalkeh K, Abedi M, Dianati Tilaki GA.** Effect of fire on biotic interaction of *Onobrychis cornuta* in mountain grasslands of Golestan national park. *Iranian Journal of Range and Desert Research*.25, 140-152
- 2017** **Zaki E, Abedi M, Naqinejad A. R, Erfanzadeh, R.** Response of different plant functional groups to aerosol and smoke and smoke water. *Journal of plant researches*. 30 (4), 803-814
- 2017** **Bashmaghi M, Erfanzadeh R, Abedi M.** Effect of fire intensity on soil seed bank density of plant functional groups (case study: Golestan national park). *Range and Watershed Management* 70 (1), 43-55
- 2017** **Tayefi H, Erfanzadeh R, Abedi M.** Changes in Chemical Soil Characteristics in Confronting with Fire and Its Severity. *Journal of Water and Soil* 31 (1), 302-311
- 2017** **Zaki E, Abedi M,** Germination Study of Three Perennial *Grasses Stipa caucasica, Festuca valesiaca and Poa densa* to Smoke and Heat Treatments. *Journal of Rangeland* 10, 474-482.
- 2017** **Bahalkeh K, Abedi M, Dianati Tilaki GA.** The Effect of Seasons and Exposures on Microhabitat Modifications of *Onobrychis cornuta* Cushions. *Environmental Erosion Research* 6 (4), 68-80
- 2017** **Bhalkeh K, Abedi M, Dianati Tilaki GA.** Microclimate Changes of Cushion Species *Onobrychis cornuta* Affected by Fire in Golestan National Park Grasslands. *Iranian Journal of ecohydrology*. 3 (4), 623-630
- 2016** **Naseri B, Tabari M, Abedi M, Phartyal S.** Effect of warm stratification, GA3 and H2O2 on seed germination of Caucasian mapl (*Acer monspessulanum* subsp. *Ibericum* M.B.). *Iranian Journal of Forest*. 8 (1), 23-34
- 2016** **Mohebi S, Dianati G.A, Abedi, M.** Assessment of functionality of vegetation patches in different management treatments (Case study Kojor Noshahr). *Range and Watershed Management* . 69 (1), 187-199

- 2010** **Ahmadi Z, Heshmati G.A, Abedi M (2010)** Investigation the improvement operations affection on ecological indexes of rangeland health (Jahan Nama Garden, Golestan province). *Iranian Journal of Range and Desert Research*. 16: 55-65
- 2009** **Toranjzar H, Ahmadi A, Abedi M, Ahmadi Z (2009)** Assessment of rangeland conditions (health) in Meyghan desert Arak. *Rangeland*. 2: 259- 271
- 2007** **Mahdavi M, Arzani H, Farahpour M, Malekpour B, Jouri H, Abedi, M (2007)** Efficiency investigation of rangeland inventory with rangeland health method. *Journal of agricultural science and natural resources*. 57: 158- 165
- 2007** **Abedi M, Arzani H, Shahriary E, Tongway D, Aminzadeh M (2007)** Assessment of patches structure and function in Arid and semi arid Rangelands. *Journal of Environmental Studies*. 40: 117-126.
- 2007** **Arzani H, Abedi M, Shahriari E, Ghorbani M (2007)** Investigation of soil surface indicators and rangeland functional attributes by grazing and land cultivation (case study: Orazan-Taleghan). *Journal of Iranian range and desert research*. 14: 68-79
- 2006** **Arzani H, Abedi M (2006)** Investigation of management effects on rangelands health attributes and indicators. *Journal of Iranian range and desert research*.13: 141-161
- 2006** **Jamshidi A.M, Aminzadeh M, Azarnivand H, Abedi M (2006)** Evaluation for quality and quantity of essential oil for *Thymus kotschyanus* (Damavand- Tar). *Journal of Medicinal Plants*. 18: 17-22

Conferences

- 2020** **Abedi M**, Iran nature: diverse and in danger. Rey Juan Carlus University, Spain
- 2019** **Abedi M**, Functional ecology of arid lands: microhabitats explain vegetation and lichens compositions. II GYPWORLD conferences. (Key note speaker). Reggio Calabria, Italy.
- 2015** **Abedi M**, Trait based approach and its application in rangelands ecological interpretation. *6th National range management* (key note speaker)
- 2013** **Abedi M, Bartelheimer M, Poschlod P (2013)**. Aluminum-tolerance of species as an independent trait to support Ellenberg indicator value (EIV) for soil reaction (R). *1th conferences in linking vegetation and plant trait databases*. Leipzig. P:33
- 2011** **Abedi M, Bartelheimer M, Poschlod P (2011)** Germination Ecology of Dry Sandy Grassland Species along a pH-Gradient. *41th GFÖ conferences*. Oldenburg. P:31

- 2010** **Abedi M, Bartelheimer M, Krall R, Poschlod P (2010)** Germination Ecology of Dry Sandy Grassland Species along a pH-Gradient Simulated by Different Aluminium Concentrations. *IV Seed ecology conferences*. Utah. P:1
- 2008** **Ahmadi Z, Heshmati G.A, Abedi M (2008)** Investigation the improvement operations affections on ecological indexes of rangeland health in rangelands of Golestan province, Iran. XXI International Grassland Congress and the VIII International Rangeland Congress. China.
- 2005** **Dianati H, Abedi M, Shahryari E, Arzani H (2005)** Comparison of biometric method with clipping and weighting method for estimation *artemisia siebri* yield (case study zarand save region). *XX international grassland congress*.Dublin. P:437
- 2005** **Abedi M, Arzani H (2005)** Grazing intensity effects on patches structure in Taleghan. *8th international conference on development of dry lands*.China (P:24)
- 2005** **Abedi M, Arzani H (2005)** Improving rangeland health in relict dry farming in grassland type. *8th international conference on development of dry lands*. China. P: 28.

Research project

Title	Responsibility	Country	Year	
GYPWORLD	Coordinator of Iran	EU	2018	
BIODESERT	Principle investigator	EU	2017	
Promoting research on gypsum ecology in Iran and Turkey .	Coordinator	Spain	2017	
Effect of climate change and fire on ecosystem function. Golestan national park	Coordinator	France	2017	

- 2005** **Arzani H, Abedi M. Tongway D** "Investigation of rangeland health attributes and indicators in shrub land and grassland". University of Tehran(Principle investigator)
- 2006** **Toranjzar H. Abedi M** " investigation of vegetation patches on rangeland function". university of Arak,Iran (Principle investigator)
- 2006** "National assessment program in different climatic regions". National range and forest research institute (co- investigator)

2006

"Determination of forage quality of rangeland plant and determination animal unit". universiy of Tehran (co- investigator)