

**In The name of God  
Resume**

**Personal Information**

**Name:** Omid Esmailzadeh

**Date of birth:** 08-23-1978

**Field study:** Phytosociology and Seed Ecology of forest taxa  
Omid Esmailzadeh is assistant professor of forest ecology. He is focusing in plant community classification, species- environmental analysis, assessing the statistical fidelity indices in association between species and group of sites and seed ecology of forest taxa.

**Place of Birth:** Amol, IRAN

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**Biography**

Dr. Omid Esmailzadeh is an Associate Professor of Forest Science at Tarbiat Modares University whose teaching and research focus on plant community ecology, syntaxonomy of vascular and non-vascular vegetation, indicator species analysis and species distribution modeling, prediction of environmental gradients, seed ecology—including dormancy, germination, storage, and soil seed banks—habitat suitability assessment, and prioritization of natural habitat conservation. He holds a B.Sc. in Natural Resources–Forestry from Gorgan University of Agricultural Sciences and Natural Resources (1999) and an M.Sc. (2003) and Ph.D. (2009) in Forest Science from Tarbiat Modares University. From 2004 to 2011, he collaborated in teaching and research with Sari Agricultural Sciences and Natural Resources University, and since 2011 has served as a faculty member at Tarbiat Modares University, teaching courses such as Dendrology, Phytosociology, Ecology and Seed Technology of Forest Trees, Vegetation survey and Mapping, Advanced Statistical Methods, Quantitative Ecology, and Numerical Techniques in Vegetation Analysis. He has supervised and advised numerous M.Sc. and Ph.D. theses within and beyond the university and has maintained active collaboration with the Natural Resources and Watershed Management Organization of Iran in recent years. Since 2026, Dr. Esmailzadeh has served as Director of the Educational–Research Forest of Tarbiat Modares University, contributing significantly to the scientific understanding and sustainable management of natural forest ecosystems.



### Research Areas and Interests

- Classification of vascular and non-vascular plant communities
- Assessment of habitat suitability and prioritization of natural habitat conservation
- Prediction of environmental gradients using indicator species analysis and species distribution models
- Development of Ellenberg indicator values for vascular and non-vascular plants in the Hyrcanian forests
- Preparation of ecograms for key bryophyte, fern, and vascular plant species in the Hyrcanian forests
- Comparison of the ecological capacity of bryophytes and ferns with vascular plants in species–environment relationship analysis
- Seed germination and the role of soil seed banks in forest community regeneration (seed-bank persistence and the effects of fire)

### Educational Records

<u>Degree</u>	<u>Institute</u>	<u>Field</u>	<u>Date</u>
B.Sc.	Gorgan University of Agricultural Science and Natural Resources, Iran	Forestry	2000
M.Sc.	Tarbiat Modares, Iran	Vegetation Ecology	2003
Ph.D.	Tarbiat Modares, Iran	Phytosociology and Soil seed bank	2009

- **M.Sc. Thesis Title:** Ecological Assessment of the Afratakhteh Yew (*Taxus baccata*) Reserve Using Geographic Information Systems (GIS)
- **Academic Achievements:** Ranked first among Ph.D. students in Forest Science at Tarbiat Modares University in 2003; Completed the Ph.D. program in 2009; Selected for the **Best Student Dissertation Award** at Tarbiat Modares University in 2011.
- **Ph.D. Dissertation Title:** Relationships Between Environmental Factors, Plant Communities, and Soil Seed Banks in Eastern Beech (*Fagus orientalis* Lipsky) Stands

### Experiences

- Lecturer at Sari Agricultural Sciences and Natural Resources University during 2004 to 2011.
- Assistance professor at Tarbiat Modares University, Tehran, Iran since September 2011.
- Membership of Forest Sciences and Engineering Dep. expert committee in Tarbiat Modares University since 2011.
- Membership of Rangeland Management Dep. expert committee in Tarbiat Modares University since 2012-2019.
- Membership of Research Committee at Natural Resources and Marine Sciences faculties Of Tarbiat Modares University during 2013-2014.
- Head, Department of Forest Sciences and Engineering, Tarbiat Modares University from November 2017.

## Executive Experiences

1. Lecturer at Sari Agricultural Sciences and Natural Resources University during 2004 to 2011.
2. Assistant Professor at the Faculty of Natural Resources, Tarbiat Modares University (2011–2020)
3. Associate Professor at the Faculty of Natural Resources, Tarbiat Modares University (2020–present)
4. Member of the Forestry Department Scientific Committee (since 2011)
5. Member of the Rangeland Department Scientific Committee (2012–2018)
6. Member of the Research Council of the Faculty of Natural Resources and Marine Sciences (2013–2014)
7. Head of the Department of Forest Science and Engineering (2017–2019)
8. Deputy for Administrative and Financial Affairs, Faculties of Natural Resources and Marine Sciences (2021–2026)
9. Director of the Educational–Research Forest, Faculty of Natural Resources, Tarbiat Modares University
10. CEO of Avaye Sabz Hirkan Ornamental Plant Production Company
11. Member of the Comprehensive Educational Planning Commission of Tarbiat Modares University
12. Principal Investigator for the Biodiversity Component of the Hyrcanian Forest UNESCO World Heritage Nomination Project
13. Principal Investigator for the Detailed Plan and Guidebook of Kashpel Forest Park, Noor Natural Resources Administration
14. Principal Investigator for the Field Guidebook of Key Vascular Plant Species of the Hyrcanian Forests
15. Principal Investigator for the Conservation Plan of the Lowland Forest of Pardis Noor
16. Cultural and Student Affairs Advisor

## Courses taught

B. Sc.	M.Sc.	Ph.D.
1- Fundamental of Ecology	1- Phytosociology	1- Statistical Ecology
2- Dendrology (Angiosperm)	2- Seed Ecology and Technology of forest taxa	2- Multivariate Methods in Plant Communities
3- Dendrology (Gymnosperm)	3- Statistic in plant community classification	
4- Forest Ecology	4- Plant Biodiversity	

## Research Experiences

### A) Participation in Academic Festivals

- Participation in the University Research Week Festival (2010) and selection for the Best Student Dissertation Award.

### B) Conference Papers

1. **Esmailzadeh & Hosseini, 2002.** The effect of planting space on growth of *Paulownia fortunei*. IUFRO Meeting on Management of Fast-Growing Plantations, 11–13 September 2002, Izmit, Turkey.
2. **Ghadiripoor & Esmailzadeh, 2004.** The effect of planting distance on growth of *Populus nigra* L. subsp. *nigra*. Fourth International Iran–Russia Conference, 8–10 September 2004, Shahrekord, Iran.
3. **Razavi & Esmailzadeh, 2004.** Introduction of flora, life forms, and plant geographical distribution of Oriental Beech (*Fagus orientalis* Lipsky) stands in Vaz Forests. Fourth International Iran–Russia Conference, Shahrekord, Iran.
4. **Esmailzadeh et al., 2008.** Life form and chorology of plants in Kouhmiyan Forest (Azadshahr, Golestan). First International Conference on Climate Change and Dendrochronology in Caspian Ecosystems, May 2008, Sari.
5. **Roudi, Jalilvand & Esmailzadeh, 2011.** Plant species diversity in ecosystem units of Sisangan Forest Reserve. Regional Scientific Conference on Knowledge-Based Management in Sustainable Agriculture and Natural Resources, 31 May–1 June 2011, Gorgan.
6. **Noraei, Jalali & Esmailzadeh, 2011.** Classification systems related to buried biodiversity in soil. National Conference on Environment, University of Tehran, 17 June 2011, Tehran.
7. **Noraei, Jalali & Esmailzadeh, 2011.** Floristic study of soil seed bank in the protected Sefidpalat Forest, Noor. First National Conference on New Approaches in Sustainable Natural Resources Management, 27 November 2011, Tehran.
8. **Noraei, Jalali & Esmailzadeh, 2012.** Depth-related changes in size, diversity, and species richness of soil seed banks in Sefidpalat Protected Area. Sixth National Conference on World Environment Day, 24–26 June 2012, Tehran.
9. **Jalali, Asadi & Esmailzadeh, 2012.** Capability of soil seed banks in maintaining species richness and regeneration of lowland forests in northern Iran. Third International Conference on Climate Change and Dendrochronology, 27–29 June 2012, Sari.
10. **Dehdashtifar et al., 2012.** Disturbance characteristics, deadwood, gap formation, and their importance in sustainable forest ecosystem management. Third International Conference on Climate Change and Dendrochronology, Sari.
11. **Dehdashtifar et al., 2012.** Gap conditions, deadwood, and natural regeneration density in Aghoozchal Forests (Nowshahr). First National Conference on Sustainable Development Strategies, Tehran.
12. **Yavari-Nik et al., 2013.** Species richness of epiphytic mosses on *Quercus castaneifolia* in lowland forests. Second National Conference on Environmental Protection and Planning, August 2013, Hamedan.
13. **Yavari-Nik et al., 2013.** Diversity of corticolous mosses on *Parrotia persica* using abundance distribution models. Second National Conference on Environmental Protection and Planning, Hamedan.
14. **Akbarpour, Jalali & Esmailzadeh, 2013.** Review of methods for studying soil seed banks. Second National Conference on Environmental Protection and Planning, Hamedan.
15. **Akbarpour, Jalali & Esmailzadeh, 2013.** Soil seed bank study in lowland forests of Tarbiat Modares University. Second National Conference on Environmental Protection and Planning, Hamedan.

16. **Bina et al., 2013.** Diversity of medicinal species of *Tussilago* in Iran. National Conference on Medicinal Plants, Islamic Azad University, Amol.
17. **Yousefi, Erfanzadeh & Esmailzadeh, 2013.** Reduction of herbaceous understory cover due to wild boar disturbance. First National Conference on Sustainable Agriculture and Natural Resources, Tehran.
18. **Yousefi, Erfanzadeh & Esmailzadeh, 2013.** Effect of wild boar disturbance on herbaceous cover and bare soil in rangeland communities. First National Conference on Sustainable Agriculture and Natural Resources, Tehran.
19. **Noraei, Jalali & Esmailzadeh, 2014.** Comparison of seasonal, depth-based, and SAI classification methods for soil seed bank stability. Second Student Conference on Forest Science, University of Tehran.
20. **Noraei, Jalali & Esmailzadeh, 2014.** Permanent soil seed bank composition in Sefidpalat Protected Forest. Second Student Conference on Forest Science, University of Tehran.
21. **Noraei, Jalali & Esmailzadeh, 2014.** Comparison of aboveground vegetation and soil seed bank composition in Sefidpalat Forest Park. Second Student Conference on Forest Science, University of Tehran.
22. **Soleimanipour et al., 2014.** Indicator species of ecological groups of *Buxus hyrcana* using the Indicator Value (IV) method. Fourth International Conference on Climate Change and Dendrochronology, Sari.
23. **Soleimanipour et al., 2014.** Classification of ecological groups using modified TWINSpan. Second Student Conference on Forest Science, University of Tehran.
24. **Yousefvand et al., 2014.** Effect of recreation on soil seed banks, aboveground vegetation, and soil. Fourth International Conference on Climate Change and Dendrochronology, Sari.
25. **Yousefvand et al., 2014.** Similarity between soil seed banks and aboveground vegetation across ecosystems. Second Student Conference on Forest Science, University of Tehran.
26. **Esmailzadeh, Darvand & Asadi, 2015.** Associations between species and site groups in vegetation classification. 58th IAVS Annual Symposium, 19–24 July 2015, Brno, Czech Republic.
27. **Esmailzadeh & Asadi, 2015.** Total Phi Fidelity Index (TPFI) as a new algorithm in plant community analysis. 58th IAVS Annual Symposium, Brno, Czech Republic.
28. **Hosseini-zadeh, Esmailzadeh & Naghi-nejad, 2015.** Ecological classification of Hyrcanian boxwood forests (*Buxus hyrcana*). Second National Conference on New Technologies in Agriculture and Natural Resources, Rasht.
29. **Hosseini-zadeh, Esmailzadeh & Naghi-nejad, 2015.** Indicator species of boxwood habitats using Phi coefficient. Second National Conference on New Technologies in Agriculture and Natural Resources, Rasht.
30. **Kermedar, Esmailzadeh & Alavi, 2015.** Response curves of plant species in Hyrcanian boxwood habitats to soil reaction. Second Iranian Congress of Biology and Natural Sciences.
31. **Kermedar & Esmailzadeh, 2015.** Flora, life form, and chorology of boxwood habitats in Mazandaran Province. Second Iranian Congress of Biology and Natural Sciences.
32. **Sarani-Kajour & Esmailzadeh, 2016.** Flora, life form, and chorology of boxwood habitats in Cheshmeh-Bolbol, Sisangan, and Mezga Forests. First National Conference on Plant Ecology, Diversity, and Conservation, Tehran.

33. **Sarani-Kajour & Esmailzadeh, 2016.** New algorithm for indicator value based on species combination. First National Conference on Plant Ecology, Diversity, and Conservation, Tehran.
34. **Sakhavat & Esmailzadeh, 2016.** Flora, life form, and chorology of soil seed banks in lowland and lower-montane Hyrcanian forests. First National Conference on Plant Ecology, Diversity, and Conservation.
35. **Sakhavat & Esmailzadeh, 2016.** Flora, life form, and chorology of aboveground vegetation in lowland and lower-montane Hyrcanian forests. First National Conference on Plant Ecology, Diversity, and Conservation.
36. **Hesabi, Alavi & Esmailzadeh, 2018.** Competition pattern and spatial structure of yew (*Taxus baccata*) in Gorgan forests. International Conference on Society and Environment, University of Tehran.
37. **Khabazi & Esmailzadeh, 2018.** Classification of Hyrcanian boxwood plant communities in Cheshmeh-Bolbol Forest. First National Conference on Iranian Forests, Urmia University.
38. **Khabazi & Esmailzadeh, 2017.** Multilayer perceptron method in plant community classification. First National Conference on Iranian Forests, Urmia University.
39. **Esmailzadeh, Soufi & Karami, 2019.** Plant communities and ecology of yew forests in Jahan-nama Protected Area. International Conference on Conservation Strategies for Endangered Species (Yew), Gorgan.
40. **Saberi & Esmailzadeh, 2019.** Classification of yew (*Taxus baccata* L.) plant communities in Tuskestan Forests, Gorgan. International Conference on Conservation Strategies for Endangered Species (Yew), Gorgan.

### Journal Articles

1. **Esmailzadeh, A.; Hosseini, S.M.; Oladi, J. (2005)** Introduction to the flora, life forms, and chorology of plant species in the Afratakhteh yew habitat.
2. **Hosseini, S.M.; Akbarinia, M.; Esmailzadeh, O. (2003)** Natural regeneration problems of yew in the Hyrcanian forests of Iran.
3. **Hosseini, S.M.; Esmailzadeh, O. (2005)** Growth and adaptability of *Paulownia fortunei* in the Caspian forests of Iran.
4. **Esmailzadeh, A.; Hosseini, S.M. (2007)** Relationship between ecological plant groups and plant biodiversity indices in the Afratakhteh yew reserve.
5. **Esmailzadeh, A.; Hosseini, S.M.; Tabari, M. (2007)** Forest communities of yew (*Taxus baccata* L.) in the Afratakhteh reserve.
6. **Esmailzadeh, A.; Hosseini, S.M.; Mosdaghi, M.; Tabari, M.; Mohammadi, J. (2009)** Can soil seed bank composition explain above-ground plant communities?
7. **Esmailzadeh, A.; Hosseini, S.M.; Mosdaghi, M.; Tabari, M.; Mohammadi, J. (2010)** Assessment of the permanent soil seed bank in the Darkela beech forest.
8. **Esmailzadeh, O.; Hosseini, S.M.; Tabari, M.; Baskin, C.C.; Asadi, H. (2011)** Persistent soil seed banks and floristic diversity in *Fagus orientalis* forest communities in the Hyrcanian vegetation region of Iran.
9. **Esmailzadeh, O.; Hosseini, S.M.; Tabari, M. (2011)** The relationship between the soil seed bank and above-ground vegetation in a mixed deciduous temperate forest in northern Iran.

10. **Esmailzadeh, A.; Hosseini, S.M.; Asadi, H.; Ahmadi, A. (2010)** Biology of the gypsy moth (*Lymantria dispar*) in the lowland forests of Noor.
11. **Esmailzadeh, A.; Hosseini, S.M.; Tabari, M.; Asadi, H. (2011)** Identification of ecosystem units and assessment of their separability in forest classification (Case study: Darkela beech forest).
12. **Asadi, H.; Hosseini, S.M.; Esmailzadeh, A.; Ahmadi, A. (2011)** Flora, life forms, and chorology of boxwood stands in the Kheibous protected forest.
13. **Asadi, H.; Hosseini, S.M.; Esmailzadeh, A. (2011)** Plant communities of the Kheibous protected area and their relationship with physiographic characteristics and plant biodiversity.
14. **Asadi, H.; Hosseini, S.M.; Esmailzadeh, A. (2012)** Composition of the permanent soil seed bank in the Kheibous protected forest.
15. **Asadi, H.; Hosseini, S.M.; Esmailzadeh, O.; Baskin, C.C. (2012)** Persistent soil seed banks in old-growth Hyrcanian box tree (*Buxus hyrcana*) stands in northern Iran.
16. **Esmailzadeh, A.; Hosseini, S.M.; Asadi, H.; Ghadiripoor, P.; Ahmadi, A. (2012)** Relationship between plant biodiversity and physiographic factors in the Afratakhteh yew reserve.
17. **Roudi, Z.; Jalilvand, H.; Esmailzadeh, A. (2012)** Effect of edaphic factors on the distribution of ecological plant groups (Case study: Sisangan boxwood reserve).
18. **Roudi, Z.; Jalilvand, H.; Esmailzadeh, A. (2012)** Ecological plant groups of the Sisangan boxwood reserve and their relationship with soil properties.
19. **Esmailzadeh, A.; Asadi, H.; Ahmadi, A. (2012)** Plant sociology of the Kheibous protected area.
20. **Noraei, A.; Esmailzadeh, A.; Jalali, S.G.; Asadi, H. (2012)** Introduction of the Seed Association Index (SAI) for evaluating soil seed bank stability.
21. **Heidari, M.; Pourbabaie, H.; Salehi, A.; Esmailzadeh, A. (2013)** Application of the two-step clustering method to assess the effects of conservation management in Ilam oak forests on soil properties.
22. **Heidari, M.; Pourbabaie, H.; Esmailzadeh, O.; Pothier, D.; Salehi, A. (2013)** Germination characteristics and diversity of soil seed banks and above-ground vegetation in disturbed and undisturbed oak forests.
23. **Noraei, A.; Esmailzadeh, A.; Jalali, S.G. (2014)** Classification of permanent and temporary soil seed banks in the Sefid-Palat protected forest (Noor Forest Park).
24. **Yousefi, H.; Erfanzadeh, R.; Esmailzadeh, A. (2014)** Effect of wild boar plowing (*Susa scrofa*) on total and particulate organic carbon in rangeland herbaceous communities.
25. **Esmailzadeh, A.; Nourmohammadi, K.; Asadi, H.; Yousefzadeh, H. (2014)** Floristic study of the Salah-al-Din-Kola forests (Nowshahr).
26. **Esmailzadeh, A.; Asadi, H. (2014)** Introduction of the Total Phi Fidelity Index (TPFIM) for analyzing ecological plant groups.
27. **Noraei, A.; Jalali, S.G.; Esmailzadeh, A. (2014)** Seasonal variation patterns of the soil seed bank in the Sefid-Palat reserve (Noor Forest Park).
28. **Zakeri-Pashakolaei, M.; Alvani-Nejad, S.; Esmailzadeh, A. (2014)** Relationship between plant biodiversity and topographic factors in western Mazandaran forests (Case study: Tarbiat Modares University research forest).

29. **Baseri, F.; Akbarinia, M.; Esmailzadeh, A. (2014)** Flora, life forms, and chorology of the soil seed bank in the Sisangan boxwood reserve.
30. **Dehdashtifar, M.; Jalali, S.G.; Esmailzadeh, A.; Kehyani, S. (2014)** Effect of gap size and deadwood on natural regeneration in the Tarbiat Modares University research forest.
31. **Heidari, M.; Pourbabaei, H.; Esmailzadeh, A.; Salehi, A.; Eshaqi, J. (2014)** Indicator plant species for assessing edaphic conditions in Zagros oak forests (*Quercus brantii* var. *persica*) using logistic regression (Case study: Ilam).
32. **Bina, H.; Yousefzadeh, H.; Esmailpour, M.; Esmailzadeh, A. (2014)** Molecular identification of the genus *Betula* based on ITS region sequencing and its secondary structure in Iran.
33. **Ghadiripoor, P.; Saqeb-Talebi, Kh.; Salehe-Shoushtari, M.H.; Esmailzadeh, A. (2015)** Assessment of soil properties and quantitative characteristics of *Ziziphus spina-christi* in natural habitats of southwestern Iran.
34. **Soleimanipour, S.S.; Esmailzadeh, A. (2015)** Flora, life forms, and chorology of boxwood (*Buxus hyrcana* Pojark.) habitats in the Farim forests of Sari.
35. **Esmailzadeh, A.; Nourmohammadi, K. (2015)** Variability of soil carbon stock along an elevational gradient in the Salah-al-Din-Kola forests (Nowshahr).
36. **Bina, H.; Yousefzadeh, H.; Esmailpour, M.; Esmailzadeh, A. (2015)** Genetic affinity of *Betula pendula* in Iran using the chloroplast marker *trnH-psbA*.
37. **Heidari, M.; Pourbabaei, H.; Esmailzadeh, A. (2015)** Effects of site characteristics and human disturbances on understory plant diversity and soil properties in Zagros oak forests using path analysis.
38. **Esmailzadeh, A.; Soleimanipour, S.S.; Hosseini, S.S.; Asadi, H. (2015)** New rules for stopping classification in the TWINSpan dendrogram.
39. **Ghadiripoor, P.; Kalagari, M.; Salehe-Shoushtari, M.H.; Esmailzadeh, A. (2016)** Vegetative and morphological characteristics of hybrid poplars (*Populus alba* × *P. nigra*) in the Khuzestan selection nursery.
40. **Asadi, H.; Esmailzadeh, A.; Hosseini, S.M.; Asri, Y.; Zare, H. (2016)** Application of the Cocktail method for determining diagnostic species in vegetation classification.
41. **Asadi, H.; Hosseini, S.M.; Esmailzadeh, A.; Asri, Y.; Zare, H. (2016)** Relationship of statistical fidelity indices in determining diagnostic species of Hyrcanian boxwood communities.
42. **Esmailzadeh, A.; Soleimanipour, S.S. (2016)** Improving ordination results of ecological species groups using the concept of diagnostic species.
43. **Akbarpour, F.; Jalali, S.G.; Esmailzadeh, A. (2016)** Evaluation of greenhouse cultivation methods for studying soil seed banks with and without washing treatments.
44. **Kian, S.; Kouchaksaraei, M.T.; Esmailzadeh, O.; Alavi, S.J. (2017)** Gap characteristics and disturbance regime in an intact Hyrcanian Oriental beech forest (Iran).
45. **Hosseinzadeh, S.; Esmailzadeh, A. (2017)** Floristic study of boxwood (*Buxus hyrcana* Pojark.) habitats in western Haraz forests (Amol).
46. **Yousefvand, S.; Esmailzadeh, A.; Jalali, S.G.; Asadi, H. (2017)** Flora, life forms, and chorology of above-ground vegetation and soil seed banks in Noor Forest Park.
47. **Esmailzadeh, A.; Nourmohammadi, K. (2017)** Introduction of the Total Indicator Value Model (TIVM) for classifying ecological species groups.
48. **Esmailzadeh, A.; Darvand, R.; Asadi, H. (2017)** Evaluation of similarity indices for assigning sample plots to pre-classified plant communities.

49. **Parad, G.A.; Ghobad-Nejhad, M.; Tabari, M.; Yousefzadeh, H.; Esmailzadeh, O.; Tedersoo, L.; Buyck, B. (2018)** *Cantharellus alborufescens* and *C. ferruginascens* (Cantharellaceae, Basidiomycota) newly recorded for Iran.
50. **Nourmohammadi, K.; Esmailzadeh, A. (2018)** Changes in biodiversity indices of ecological species groups along an elevational gradient (Case study: Salah-al-Din-Kola forests, Nowshahr).
51. **Sakhavat, S.; Esmailzadeh, A.; Jabbari, M. (2019)** Feasibility of cryogenic storage of *Albizia julibrissin* seeds.
52. **Habibi-Kilak, S.; Alavi, S.J.; Esmailzadeh, A. (2019)** Ecological niche analysis of Hyrcanian boxwood (*Buxus hyrcana* Pojark.) in relation to environmental variables in northern Iran.
53. **Tavakoli, S.; Ejtehadi, H.; Esmailzadeh, A. (2019)** Evaluation of Ellenberg ecological indicator values for predicting soil properties in Salah-al-Din-Kola forests.
54. **Hesabi, A.; Alavi, S.J.; Esmailzadeh, A. (2019)** Interaction between mature yew trees (*Taxus baccata* L.) and their regeneration in the Afra-Takhteh reserve (Golestan Province).
55. **Nematipikani, M.; Ejtehadi, H.; Asri, Y.; Esmailzadeh, A. (2019)** Plant communities of the Qalajeh protected area and their relationship with environmental factors.
56. **Khabazi, F.; Esmailzadeh, A.; Najafi, A. (2019)** Supervised classification of Hyrcanian boxwood plant communities using artificial neural networks.
57. **Habibi-Kilak, S.; Alavi, S.J.; Esmailzadeh, A. (2020)** Response curve analysis of Hyrcanian boxwood (*Buxus hyrcana* Pojark.) to environmental variables.
58. **Hosseini, S.F.; Asadi, H.; Jalilvand, H.; Esmailzadeh, A. (2020)** Evaluation of beta-diversity indices for detecting changes in plant community composition of Hyrcanian boxwood forests.
59. **Parad, G.A.; Tabari-Kouchaksaraei, M.; Ghobadnejad, M.; Esmailzadeh, A.; Yousefzadeh, H. (2020)** Environmental factors influencing the establishment of the edible yellow mushroom *Cantharellus alborufescens* in Noor lowland forests (Mazandaran).
60. **Khabazi, F.; Esmailzadeh, A. (2020)** Classification of Hyrcanian boxwood (*Buxus hyrcana* Pojark.) plant communities in Cheshmeh-Bolbol Forest (Bandar-e-Gaz, Golestan).
61. **Sadeghi, M.; Habashi, H.; Esmailzadeh, A.; Mohammadi, J.; Sajjadi, T. (2020)** Changes in humus forms in beech and hornbeam stands in unmanaged and managed forests (Case study: Shast-Kalateh Forest, Gorgan).
62. **Tavakoli, S.; Ejtehadi, H.; Esmailzadeh, O. (2020)** Optimizing the classification of species composition data by combining multiple objective evaluators to select the best method and optimum number of clusters.
63. **Alavi, S.J.; Veiskarami, R.; Esmailzadeh, O.; Gadow, K.V. (2020)** Biological and structural diversity analysis of Hyrcanian forests dominated by *Taxus baccata* L.
64. **Karami-Kordalivand, P.; Esmailzadeh, O.; Willner, W.; Noroozi, J.; Alavi, S.J. (2021)** Classification of forest communities co-dominated by *Taxus baccata* in the Hyrcanian forests and comparison with southern Europe.
65. **Asadi, H.; Esmailzadeh, O.; De Cáceres, M.; Hosseini, S.M. (2021)** Assignment of relevés to pre-existing vegetation units: a comparison of approaches using species fidelity.

66. **Saberi, B.G.; Esmailzadeh, A.; Asadi, H. (2020)** Evaluation of the quality of different methods for determining diagnostic species in vegetation classification.
67. **Hematzadeh, A.; Esmailzadeh, A.; Jalali, S.G.; Mirjalili, M.H.; Yousefzadeh, H. (2020)** Morphological variation in leaves of male and female yew trees (*Taxus baccata* L.) in the Hyrcanian forests.
68. **Raeisi, Sh.; Yousefzadeh, H.; Jalali, S.G.; Esmailzadeh, A. (2021)** Leaf morphological diversity and seed germination traits of rowan (*Sorbus aucuparia* L.) in the Hyrcanian forests.
69. **Yousefzadeh, H.; Raeisi, S.; Esmailzadeh, O.; Jalali, G.; Nasiri, M.; Walas, L.; Kozłowski, G. (2021)** Genetic diversity and structure of rear-edge populations of *Sorbus aucuparia* in the Hyrcanian forest.
70. **Karami, P.; Esmailzadeh, A. (2021)** Application of expert-based systems in vegetation classification.
71. **Hesabi, A.; Alavi, S.J.; Esmailzadeh, A. (2021)** Spatial pattern and interspecific competition in mixed yew stands in Afra-Takhteh Forest, Aliabad-Katoul.
72. **Kalantari, K.; Heydari, M.; Esmailzadeh, O.; Asadi, H.; Prévosto, B. (2022)** Classification of plant communities in Caspian Hyrcanian yew forests using environmental factors: testing the modified TWINSpan method.
73. **Asadi, H.; Esmailzadeh, O. (2022)** Syntaxonomy and gradient analysis of common yew (*Taxus baccata* L.) communities in eastern Hyrcanian forests.
74. **Esmailzadeh, A.; Soufi, M.; Darvand, R. (2020)** Predicting site environmental characteristics using vegetation composition.
75. **Ghadiripoor, P.; Esmailzadeh, A.; Ghasemi, R.A. (2022)** Key leaf morphological traits for identifying 14 widely used poplar clones in wood cultivation.
76. **Yusefi, H.; Erfanzadeh, R.; Esmailzadeh, O. (2023)** Effect of wild boar disturbances on the soil seed bank in alpine plant communities.
77. **Mahmoodi, S.; Ahmadi, K.; Heydari, M.; Karami, O.; Esmailzadeh, O.; Heung, B. (2023)** Elevational shift of endangered European yew under climate change in Hyrcanian Mountain forests: implications for conservation and restoration.
78. **Hematzadeh, A.; Esmailzadeh, O.; Jalali, S.G.; Mirjalili, M.H.; Walas, L.; Yousefzadeh, H. (2023)** Genetic diversity and structure of English yew (*Taxus baccata* L.) as a tertiary relict and endangered tree in the Hyrcanian forests.
79. **Karimi, Y.; Esmailzadeh, A.; Noraei, A. (2023)** Effects of box tree moth (*Cydalima perspectalis*) on litter and soil quality (Case study: Cheshmeh-Bolbol boxwood reserve, Golestan).
80. **Ramzi, S.; Noroozi, J.; Gholizadeh, H.; Hamzeh'ee, B.; Asri, A.; Talebi, A.; Moradi, H.; Mahdavi, P.; Tamjidi-Eramsadati, S.S.; Zarezadeh, S.; Kamrani, A.; Esmailzadeh, O.; ...; Naqinezhad, A. (2024)** IranVeg — The Vegetation Database of Iran: current status and future directions.
81. **Habibi-Kilak, S.; Alavi, S.J.; Esmailzadeh, O. (2025)** Spatial resolution matters: the role of environmental predictors in English yew (*Taxus baccata*\* L.) distribution using MaxEnt modeling.
82. **Darvand, R.; Esmailzadeh, A. (2023)** Indicator species analysis using the concept of combining plant groups/communities.

83. **Karimi, A.; Esmailzadeh, A.; Jahangiri, A.H.; Eskandari, A.; Eshaqi, Sh. (2024)** Sodanjili Forest Reserve: the highest elevational limit of *Parrotia persica* habitat in the Hyrcanian forests.
84. **Esmailzadeh, A.; Rahnamazadeh, R.; Amini, T. (2024)** Classification of ecological species groups in *Juniperus excelsa* forests of the Haraz Valley, northern Iran.
85. **Habibi, Sh.; Alavi, S.J.; Esmailzadeh, A. (2025)** Environmental variables influencing the distribution of *Taxus baccata* L. using MaxEnt modeling in the Hyrcanian forests.
86. **Hesabi, A.; Alavi, S.J.; Esmailzadeh, A. (2025)** Accuracy assessment of WorldClim and CHELSA climate datasets in three northern provinces of Iran.
87. **Hesabi, A.; Alavi, S.J.; Esmailzadeh, O. (2025)** From data to action: MaxEnt-based conservation planning for *Buxus hyrcana* in the Hyrcanian forest.
88. **Hematzadeh, A.; Esmailzadeh, O.; Yousefzadeh, H.; Mirjalili, M.H. (2025)** Gender influences taxane content in different organs of European yew (*Taxus baccata* L.) in the Hyrcanian forests.
89. **Mélanie, S.; Necmi, A.; Claire, A.; Dalibor, B.; Tatiana, B.; Sylvain, B.; Giacomo, C.; Thomas, C.; Esmailzadeh, O.; ...; Jens-Christian, S. (2025)** Seeing yew for the forest: a call to action for improving conservation and restoration of European yew (*Taxus baccata* L.).
90. **Alavi, S.J.; Hesabi, A.; Esmailzadeh, A. (2025)** Species distribution modeling of Hyrcanian boxwood (*Buxus hyrcana* Pojark.) using Random Forest in northern Iran.
91. **Hesabi, A.; Alavi, S.J.; Esmailzadeh, A. (2025)** Role of bioclimatic and topographic variables in the distribution of Hyrcanian boxwood (*Buxus hyrcana* Pojark.).
92. **Pourgharib, H.; Esmailzadeh, O.; Mirjalili, M.H. (2026)** Morphological and phytochemical variation in cherry laurel (*Prunus laurocerasus* L.) in northern Iran.
93. **Hesabi, A.; Alavi, S.J.; Esmailzadeh, O. (2026)** Machine learning meets ecology: XGBoost-based prediction of endangered species refugia using multi-source environmental data.
94. **Darvand, R.; Esmailzadeh, O.; Zare, H.; Amini, T.; Kissling, W.D.; Naimi, B. (2026)** Remotely sensed 3D ecosystem structure for explaining biodiversity distribution.
95. **Magsoudi, M.; Ejtehadi, H.; Esmailzadeh, A.; Zare, H. (2026)** Ethnobotany of mosses in Iran.

#### **Ph.D. Students and Dissertation Titles**

1. **Hamed Asadi** Classification of Hyrcanian boxwood (*Buxus hyrcana* Pojark.) plant communities in northern Iran **Tarbiat Modares University**
2. **Samaneh Tavakoli** Plant communities and identification of environmental factors influencing diagnostic species in a temperate Hyrcanian forest (Tarbiat Modares University Research Forest) **Ferdowsi University of Mashhad**
3. **Pari Karami** Plant sociology and the use of indicator species analysis for predicting environmental gradients in Hyrcanian yew forests
4. **Azam Hematzadeh** Seed germination, sex ratio, morphological diversity, and genetic variation of yew (*Taxus baccata* L.) in the Hyrcanian forests
5. **Saleh Sakhavat** Diversity of vascular and bryophyte plant communities along an elevational gradient in the Tarbiat Modares University Research Forest

6. **Rezgar Darvand** Mediterranean plant communities in northern Iran: expert-based methods, environmental variable prediction, and community-level species distribution models
7. **Farhad Khabazi** Habitat suitability modeling of yew and boxwood plant communities in the Hyrcanian forests of northern Iran
8. **Sorayya Yousefvand** Species diversity and bryophyte communities in Hyrcanian boxwood forests (*Buxus hyrcana* Pojark.): effects of blight disease and box tree moth disturbance
9. **Mohaddeseh Maghsoudi** Ethnobotany, species diversity, and bryophyte plant communities in microhabitats of yew and non-yew stands in central and eastern Hyrcanian forests
10. **Amir Karimi** Diversity of *Juniperus excelsa* plant communities along the northern slope profile of the Alborz Mountains, northern Iran

#### **Ph.D. Students – Six-Month Research Fellowship**

1. **Zohreh Atashgah** Improving classification and ordination results of plant communities using the concept of diagnostic species **Ferdowsi University of Mashhad**
2. **Masoumeh Sadeghi** Ecological profiling of diagnostic species in the Shast-Kola forest communities **Gorgan University of Agricultural Sciences and Natural Resources**

#### **Ph.D. Students – Under Supervision**

1. **Mehdi Heidari** Effects of human interventions and management on above-ground vegetation and soil seed banks in Zagros forest ecosystems (Ilam) **University of Guilan**
2. **Saeid Kian** Gap disturbance regime and succession patterns in old-growth beech stands of the Hyrcanian forests **Tarbiat Modares University**
3. **Mostafa Nematipikani** Plant sociology of vegetation in the Qalajeh protected area, Kermanshah Province **Ferdowsi University of Mashhad**
4. **Ghasem-Ali Parad** Ecological requirements and species diversity of *Cantharellus* mushrooms in the Hyrcanian forests (Northern Iran) **Tarbiat Modares University**
5. **Masoumeh Sadeghi** Applied morphological classification of humus forms along an elevational gradient in a temperate Hyrcanian forest: effects of parent material, soil, climate, and vegetation
6. **Pedram Ghadiripoor** Effects of site factors on vegetative, morphological, and chromosomal characteristics of Caspian poplar (*Populus caspica*\* Bornm.) in the Hyrcanian forests\*
7. **Shadi Habibi** Species distribution modeling of endangered yew (*Taxus baccata*\* L.) in the Hyrcanian forests using multi-source environmental data\*
8. **Aref Hesabi** Identification of suitable habitats for the endangered Hyrcanian boxwood (*Buxus hyrcana*\* Pojark.) in northern Iran\*
9. **Farideh Mazloumi** Comparison of growth, soil properties, and arbuscular mycorrhizal fungal diversity in broadleaf and conifer plantations of Keloud, Amol

#### **M.Sc. Students – Under Supervision**

1. **Mohsen Zakeri** Patterns of plant biodiversity and their relationship with soil and topographic characteristics along an elevational gradient in western Mazandaran forests (Aghoozchal series, Nowshahr) **Yasouj University**

2. **Kazem Nourmohammadi** Stability of soil seed banks along an elevational gradient in the Salah-al-Din-Kola forests **Tarbiat Modares University**
3. **Seyyede Samira Soleimanipour** Classification of Hyrcanian boxwood (*Buxus hyrcana*\* Pojark.) plant communities and their relationship with environmental factors in the Farim forests (Savadkuh)\* **Tarbiat Modares University**
4. **Rezgar Darvand** Evaluation of plot-group and species-group association indices in vegetation classification **Tarbiat Modares University**
5. **Saeedeh Hosseinzadeh** Diagnostic species of boxwood plant communities in western Haraz forests: comparison of abundance and frequency data **Tarbiat Modares University**
6. **Zahra Kermedar** Development of Ellenberg indicator values for vascular plants in Hyrcanian boxwood forests **Tarbiat Modares University**
7. **Forouzan Sarani-Kajour** Use of species combination methods for determining diagnostic species of boxwood communities in the Cheshmeh-Bolbol forest reserve (Bandar-e-Gaz) **Tarbiat Modares University**
8. **Saleh Sakhavat** Soil seed bank of *Albizia julibrissin* in lowland Hyrcanian forests and feasibility of cryogenic seed storage **Tarbiat Modares University**
9. **Seyed Morteza Hosseini** Classification of plant communities and soil seed banks in the Pilarg boxwood forests (Nowshahr) **Tarbiat Modares University**
10. **Farhad Khabazi** Fuzzy classification in the analysis of Hyrcanian boxwood plant communities
11. **Reza Abedinpour** Dormancy, germination, and seed storage of ash (*Fraxinus excelsior*) in the Hyrcanian forests
12. **Bakhtigol Saberi** Classification of beech plant communities in the Tuskestan forests (Gorgan)
13. **Meysam Soufi** Environmental gradient assessment of yew plant communities in the Jahan-Nama forests
14. **Mohammadreza Abbaszadeh** Classification and ecological profiling of yew plant communities in central Hyrcanian forests (Haraz and Gazou valleys)
15. **Hannaneh Pourgharib** Classification of plant communities and phytochemical variation in leaves and fruits of cherry laurel (*Prunus laurocerasus*\* L.) in central Hyrcanian forests\*
16. **Yeganeh Karimi** Effects of box tree moth (*Cydalima perspectalis*) on vegetation dynamics, soil seed bank, and soil respiration in Hyrcanian boxwood forests
17. **Reza Rahnamazadeh** Classification of *Juniperus excelsa* plant communities in the Haraz Valley (Amol)
18. **Mohammad-Hossein Akbari** Soil seed bank characteristics and their application in restoration of lowland Hyrcanian forests
19. **Paria Del-Bisheh** Diversity of vascular and bryophyte plant communities along elevational gradients in the Hyrcanian forests (Kheyroudkenar Research Forest; Watershed 45)
20. **Ali Eskandari** Classification and composition of plant communities in rock-outcrop habitats of the central Alborz Mountains
21. **Fatemeh Mirdar** Ecological classification of the Nav-Asalem forests (western Hyrcanian region) along an elevational gradient

### **M.Sc. Students – Under Advisory Supervision**

1. **Hamed Asadi** Ecological study and soil seed bank analysis of Hyrcanian boxwood (*Buxus hyrcana* Pojark.) stands in the Kheibous protected area **Tarbiat Modares University**
2. **Abbas Ahmadi Donchali** Study of boxwood plant communities in the Kheibous protected forest **Islamic Azad University, Chalous Branch**
3. **Zeynab Roudi** Ecological classification of the Sisangan boxwood reserve **Sari Agricultural Sciences and Natural Resources University**
4. **Azam Noraei** Spatial and temporal variation patterns of the soil seed bank in the Sefid-Palat reserve, Noor Forest Park **Tarbiat Modares University**
5. **Fereshteh Baseri** Assessment of soil seed banks in boxwood and non-boxwood stands of the Sisangan boxwood reserve **Tarbiat Modares University**
6. **Maryam Dehdashtifar** Gap characteristics and their effects on natural regeneration and plant biodiversity in the Tarbiat Modares University research forest **Tarbiat Modares University**
7. **Seyed Farid Ghafari** Patterns of plant biodiversity and their relationship with soil and topographic characteristics along an elevational gradient in the Golandroud watershed **Tarbiat Modares University**
8. **Hamid Yousefi** Temporal changes in vegetation and soil properties caused by wild boar disturbance in forest and rangeland ecosystems **Tarbiat Modares University**
9. **Fatemeh Akbarpour** Comparison of greenhouse cultivation and combined methods (greenhouse cultivation after soil washing) for soil seed bank assessment **Tarbiat Modares University**
10. **Sorayya Yousefvand** Effects of recreation on above-ground vegetation composition, soil seed bank, and regeneration in Noor Forest Park **Tarbiat Modares University**
11. **Aref Hesabi** Spatial pattern and competitive status of yew (*Taxus baccata* L.) in the Afra-Takhteh forest, Gorgan **Tarbiat Modares University**
12. **Shadi Habibi** Ecological niche analysis of Hyrcanian boxwood (*Buxus hyrcana* Pojark.) in the Hyrcanian forests **Tarbiat Modares University**
13. **Razieh Veiskarami** Structural diversity of yew in the Siah-Roudbar and Afratakhteh forests, Golestan Province **Tarbiat Modares University**
14. **Mehri Abbasi** Phenology detection of yew stands using satellite time-series imagery **Tarbiat Modares University**