

MILAN MATARUGA, Full Professor  
University of Banja Luka, Faculty of Forestry  
Vojvode Stepe Stepanovića, 75a, 78000

Banja Luka, 2019. year

## CURRICULUM VITAE

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Education:	<p>Faculty of Forestry, University of Belgrade, 2003: Doctoral thesis: "Genetic-selection bases of enhancing the seedling production of different provenances of austrian pine (<i>Pinus nigra Arnold</i>)".</p> <p>Faculty of Forestry, University of Belgrade, 1998: Master's thesis: "Interdependence of characteristics and development of Austrian pine (<i>Pinus nigra</i> Arn.) seedlings in seed orchard on Jelova Gora"</p> <p>Faculty of Forestry, University of Belgrade, 1993, Bachelor degree in forestry: "Optimising and perspective plan of forest road network development of forest management unit "Mlječanica".</p>
Title:	<p>Full professor, 2014-... Faculty of Forestry, University of Banja Luka: 4 compulsory courses of bachelor studies (Genetics with plant breeding, Forest genetic resources; Forest Seed and nursery; Planted forests and plantations).</p> <p>Associate professor, 2008-2014, Faculty of Forestry, University of Banja Luka,</p> <p>Docent, 2004-2008, Faculty of Forestry, University of Banja Luka,</p> <p>Senior assistant, 1999-2004, Faculty of Forestry, University of Banja Luka.</p> <p>Assistant and senior assistant lecturer, 1994-1999, Faculty of Forestry University of Belgrade, Serbia.</p>
Position:	<p>Rector of the University of Banja Luka, 2016-2017;</p> <p>Vice Rector for science, research and development of the University of Banja Luka, 2013-2016;</p> <p>Vice Dean for scientific and research at the Faculty of Forestry, University of Banja Luka, 2007-2008.</p> <p>Vice Dean for teaching process at the Faculty of Forestry, University of Banja Luka, 2003-2007;</p> <p>Head of Department for Forest genetics and planted forests, Faculty of Forestry, University of Banja Luka, 2010.-...;</p> <p>Members of the professional councils of the biotechnological science, University of Banja Luka, 2008 -2012.</p>
Education:	<p>Postdoctoral study in the World Forestry Intstitute, Portland, Oregon, September, 2008-September, 2009. "Knowledge broadening and</p>

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improvement of skills within the area of genetic resources, forest seed, nursery (forest and horticultural) and reforestation - integrated in a new textbook for students”.

The first training course on: Ex-situ conservation of native plant species. Centro Flora Autoctona, Parco Monte Barro, Lombardy Seed Bank, Università degli Studi di Pavia, 26-30.September 2005.

Application of science in nursery technique and shrub breeding in conservation and preservation of value of the tested species, Minoprio-Vertemate Foundation con Minoprio-Lombardy region, Italy, 13.07-08.08.2003.

Manners and problems of preservation and conservation of plant community biodiversity of Lombardy region, 01-14.07.2001.

Organizational and privatisation model review and the insight into existing experience and forest development of Poland, Latvia and Lithuania 25-31.09.2000.

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Scientific work: National Coordinator (B&H), the international association of researchers in forestry “IUFRO and IUFRO Board as representative” (2010 -...).

National Coordinator (B&H) for “FAO Global Forest Resources Assessment Programme” (2011 - ...).

Verified reviewer for SCI journals (Silvae Genetica, New Forests, Notulae Botanicae Horti Abrobotanici Cluj-Napoca, African Journal of Biotechnology).

Member of the Editorial Board (editorial) journal “Genetika” – international journal SCI - ISSN 0534-0012 Genetik (online) ISSN 1820-6069 IF = 0.440 (2011)

Member of the Editorial Board of the journal “Bulletin of the Faculty of Forestry, University of Banja Luka”.

Member of the Editorial Board of the journal “Science for Mountainous - Forest Science” published by “Forest Research Institute - Bulgarian Academy of Sciences”.

Member of the Scientific Committee of the International Conference: “Medical and aromatic plants in generating new values in 21st century”, 9-12. November, 2011, Sarajevo, Bosnia and Herzegovina.

Member of Scientific and Organizing Committee of the International IUFRO Conference: “Forestry Science and Practice for the Purpose of Sustainable Development of Forestry - 20 Years of the Faculty of Forestry in Banja Luka”.

Member of the Scientific Committee of the International Scientific Conference “Forests and the Future - Sustainable Use, Risks and Challenges”, Belgrade, 4th-5th, October.

Member of the Scientific Committee of the International Conference: Forest Research Institute at the Bulgarian Academy of Sciences 85th anniversary, Sofia, 1-2.October, 2013.

President of the Scientific Committee of the conference: “Students

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Encountering Science”.

President of the Scientific Committee of the conference: “Forest Science for Sustainable Development of Forests 25 Years of Forestry of the Republic of Srpska” December 7 - 9, 2017.

President of the Scientific Committee of the conference: “Students Encountering Science”.

Invited lectures at the World Forestry Center, Portland-Oregon-USA, entitled “Knowledge broadening and improvement of skills within the area of genetic resources, forest seed, nursery and reforestation”, 10 December. 2008.

Invited lectures for employees and students at Oregon State University, College of Forestry, Corvallis, Oregon-USA, entitled “Forests and Forestry in Republic of Srpska”, 02 April. 2009.

Invited Lectures for employees in the Taiwan Forestry Research Institute Taipei, Taiwan, entitled “Forests and Forestry in Republic of Srpska (Bosnia and Herzegovina)”, August. 2010.

Member of the Scientific Council of the Agricultural Institute of the Republic of Srpska, 2019-

Numerous lectures at conferences of international and national importance.

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Professional work: Member of the Council for Forestry (2012-2014.)  
The President of NGO „The association of forestry engineers and technicians in the Republic of Srpska”, (2010-2012).  
President of the Supervisory Board of National Park “Sutjeska”, (2007-2008).  
Coordinator activities on adoption of the Programme of conservation of forest genetic resources in the Republic of Srpska, 2013-2025.  
Member of the Working Group for drafting the Strategy of Development of Forestry in the Republic of Srpska, 2008-2012.  
The head of a large number of research (profesional) projects.  
Numerous lectures at seminars and workshops for representatives of the Forestry in the Republic of Srpska.

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Educational efforts: Teacher at the 4 compulsory courses of basic studies (Genetics with plant breeding, forest genetic resources; Forest Seed and nursery; Planted forests and plantations)  
Mentor for doctoral or master's thesis - 4 candidates  
Mentor of a master work (new Bolonja curriculum) - 5 candidates  
Member committee for a doctorate / master's thesis - 12 candidates  
Mentor for graduate / final work - more than 50 candidates

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Projects: **International projects:**  
Managing forests for climate change, Ceepus project, coordinator, 2019-  
Supporting decision making and building capacity to support IPBES through

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national ecosystem assessments, 2018-2022

Development of the Bosnia and Herzegovina Fourth National Communication and Third Biennial Update Report under the UNFCCC. UNDP project. Forestry expert, 2019.

Development of the Bosnia and Herzegovina Third National Communication and Second Biennial Update Report under the UNFCCC. UNDP project. Forestry expert, 2017.

*COST Action CA 15226, Climate-Smart Forestry in Mountain Regions, 2016-2020.*

COST Action FN 1302: The Voice of Research Administrators – Building a Network of Administrative Excellence (BESTPRAC), 2014-2017.

COST Action FP1106: STReSS - Studying Tree Responses to extreme Events: a Synthesis, 2012-2016.

PIMS 4497 CC EA Preparation of the BiH SNC to the UNFCCC/EE, Second National Communication of Bosnia and Herzegovina to the UN Climate Change, 2011-2012, an expert in the field of forestry.

COST Action FP0905 “Biosafety of Forest Transgenic Trees: Improving the Scientific Basis for Safe Tree Development and Implementation of EU Policy Directives”, 2010-2014.

COST Action FP0903: Climate Change and Forest Mitigation and Adaptation in a Polluted Environment, 2010-2014.

Teaching process improvement at forestry faculties in Bosnia and Herzegovina – alignment of syllabus and curriculum with forestry faculties which signed Bologna’s declaration.

Carbon Pro – Carbon balance drafting and new resources management tools according to kyoto protocol, 2006-2008.

**National projects (coordinator):**

Master plan for afforestation and management of planted forests in RS. Financed by the Ministry of Agriculture, Forestry and Water Management, 2019.

Defining strategies for *in situ* and *ex situ* conservation of Serbian spruce in term of climate change. Funded by the Ministry of Science and Technology of Republika Srpska, 2019-2020.

Testing fast-growing poplar clones for the production of biomass. Testing of the highest quality common oak provenances for the purpose of reitroduction of it. Funded by JP "Šume RS" a.d. Sokolac, 2018-2019.

Genetic structure of natural populations of Serbian spruce (*Picea omorika* Panč./Purk.) in order to define *ex situ* conservation strategy. Funded by the Ministry of Science and Technology of the Republic of Srpska, 2015-2017.

Support to the implementation of the COST Action: Strengthening Conservation: A key issue for the adaptation of marginal / peripheral

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populations of forest trees to climate change in Europe (MAP-FGR). Funded by: Ministry of Civil Affairs, 2016-2018.

Study on the establishment of forest plantations and fitoremediation in RŽR "Ljubija" Prijedor, Financed by RŽR "Ljubija" Prijedor, 2016.

Seedling production by new methods and techniques. Funded by the Ministry of Science and Technology of the Republic of Srpska, 2016.

Support to the implementation of the COST Action: STReESS-Studying Tree Responses to extreme Events: a Synthesis. Funded by: Ministry of Civil Affairs, 2016.

Genetic diversity and morphological variability of chestnut population (*Castanea sativa* Mil ..) in Bosnia and Herzegovina. Funded by the Ministry of Science and Technology of the Republic of Srpska, 2011.

Genetic characterization of Norway spruce (*Picea abies* L. Karst) in Republic of Srpska. Fouded by the Ministry of Agriculture, Forestry and Water Management, 2012.

Removing seed dormancy most commonly used deciduous species in the production of seedlings in Republic of Srpska, 2011.

Programme conservation of forest genetic resources in Republic of Srpska, Founded by the Ministry of Agriculture, Forestry and Water Management, 2010.

Project of establish seed orchard spruce (*Picea abies* Karst.) in Bosnia and Herzegovina. – Founded by the Ministry of Agriculture, Forestry and Water Management 2005-2010.

Selection of species and ecotypes, methods and new technologies in afforestation of the arid (dry) terrains – Karst. Founded by the Ministry of Agriculture, Forestry and Water Management 2008-2009.

The study of feasibility expanding of the National Park "Sutjeska". Funded by the Ministry of science and technology, 2007-2008.

Importance of mixed population of scotch pine and birch at Han Kram as natural rarities, for preservation and utilization – Founded by Ministry of Agriculture, Forestry and Water Management 2003-2005.

Separation and arrangement of seed stands in order to collect genetic and high-quality seed in Republic of Srpska. Funded by the PFE "Srpske šume" and Ministry of Agriculture, Forestry and Water Management 1998-2004.

**National project (researcher):**

Development of the system of contemporary visual communications at the University of Banja Luka. Funded by the Ministry of Science and Technology, 2016.

Support to the implementation of the EU Horizon 2020 project "Promoting

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innovation leadership among public administrators and researchers-Pilar", Funded by the Ministry of Civil Affairs of BiH, 2016.

National strategy and action plan for protection of biological and landscape biodiversity in BiH, national expert for part of "Genetical biodiversity and biotechnology".

Optimal structure of the crown and the vitality of beech trees in seed stands in the function increasing of seed yield. Founded by the Ministry of Agriculture, Forestry and Water Management, 2010

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Published:

**Books:**

1. Матаруга, М., Исајев, В., Орловић, С., Ђурић, Г., Брујић, Ј., Даничић, В., Цвјетковић, Б., Ћопић, М., Балотић, П. (2013): Програм очувања шумских генетичких ресурса Републике Српске, 2013—2025. година, Министарство пољопривреде, шумарства и водопривреде у Влади Републике Српске, Бања Лука.п:1-178. ISBN 978-99955-736-1-4. COBISS.RS-ID 4132888.

2. Матаруга, М., Исајев, В., Орловић, С. (2013): Шумски генетички ресурси, Шумарски факултет Универзитета у Бањој Луци, П:1-399. ISBN 978-99938-56-28-3.

3. Матаруга, М. (2006): Црни бор на стијенама — варијабилност и могућност коришћења, Шумарски факултет Универзитета у Бањој Луци, п:1-282. ISBN 99938-56-05-3

4. Исајев, В., Матаруга, М., Лучић, А., Ракоњац, Љ., Демић, З., (2010): Приручник за производњу шумског сјемена у природним сјеменским објектима. Подгорица, п: 1-185. ISBN 978-86-85799-06-8., COBISS-CG-ID 17212432.

5. Матаруга, М., Исајев, В., Беус, В., Бурлица, Ч., Балотић, П., Даничић, В., (2007): Генеколошка истраживања заједнице бијелог бора и маљаве брезе (*Pineto-Betuletum pubescentis* Stef.) код Хан Крама на Романији. Шумарски факултет Универзитета у Бањој Луци, п:1-94. ISBN 978-99938-56-09-0.2.

6. Матаруга, М. Исајев, В., Лазарев, В., Балотић, П., Даничић, В. (2005): Регистар шумских сјеменских објеката РС-основа унапређења сјеменске производње, Шумарски факултет, Бања Лука, п: 1-222. ISBN 99938-56-03-7.

**Chapters in book:**

Mataruga, M., Ballian, D., Terzić, R., Daničić, V., Cvjetković, B. (2019) State of Forests in Bosnia and Herzegovina: Ecological and Vegetation Distribution, Management and Genetic Variability, edited by **Šijačić-Nikolić, M., Milovanović, J., Nonić, M.** in "Forests of Southeast Europe Under a Changing Climate - Conservation of Genetic Resources". Springer, p: 3-19. <https://doi.org/10.1007/978-3-319-95267-3>

Ballian, D., Mataruga, M., Terzić, R., Daničić, V., Cvjetković, B. (2019) International and National Legislative in Light of Climate Changes and Its Impact on Forest Genetic Resources in Bosnia and Herzegovina, *edited by:*

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Šijačić-Nikolić, M., Milovanović, J., Nonić, M. in "Forests of Southeast Europe Under a Changing Climate - Conservation of Genetic Resources". Springer, p: 125-133. <https://doi.org/10.1007/978-3-319-95267-3>

Cvjetković, B. Mataruga, M., Ballian, D., Terzić, R., Daničić, V., (2019) In Situ Conservation: Case Study Bosnia and Herzegovina *edited by: Šijačić-Nikolić, M., Milovanović, J., Nonić, M.* in "Forests of Southeast Europe Under a Changing Climate - Conservation of Genetic Resources". Springer, p: 187-194. <https://doi.org/10.1007/978-3-319-95267-3>

Daničić, V., Ballian, D., Mataruga, M., Cvjetković, B., Terzić, R., (2019): Ex Situ Conservation – Case Study in Bosnia and Herzegovina, *edited by: Šijačić-Nikolić, M., Milovanović, J., Nonić, M.* in "Forests of Southeast Europe Under a Changing Climate - Conservation of Genetic Resources". Springer, p: 251-258. <https://doi.org/10.1007/978-3-319-95267-3>

Cvjetković, B. Mataruga, M., Daničić, V., Ballian, D. (2019): Climate in Bosnia and Herzegovina, Its Changes and Impact on Forest Genetic Resources, *edited by: Šijačić-Nikolić, M., Milovanović, J., Nonić, M.* in "Forests of Southeast Europe Under a Changing Climate - Conservation of Genetic Resources". Springer, p: 373-387. <https://doi.org/10.1007/978-3-319-95267-3>

#### **Papers in international recognized journals (SCI):**

Cvjetković B., M. Konnert, B. Fussi, M. Mataruga, M. Šijačić-Nikolić, V. Daničić, A. Lučić (2017): Norway spruce (*Picea abies* Karst.) variability in progeny tests in Bosnia and Herzegovina.- Genetika Vol 49, No1, 259- 272.

Stojnić, S., Orlović, S., Ballian, D., Ivanković, M., Šijačić-Nikolić, M., Pilipović, A., Bogdan, S., Kvesić, S., Mataruga, M., Daničić, V., Cvjetković, B., Miljković, D., von Wuehlisch, G., (2015): Provenance by site interaction and stability analysis of European Beech (*Fagus sylvatica* L.) provenances growth in common garden experiment, *Silvae Genetica*, 64, 4, 133-147.

Kazana V, Tsourgiannis L, Iakovoglou V, Stamatidou C, Alexandrov A, Araújo S, Bogdan S, Bozic G, Brus R, Bossinger G, Boutsimea A, Celepirović N, Cvrčková H, Fladung M, Ivankovic M, Kazaklis A, Koutsona P, Luthar Z, Máchová P, Malá J, Mara K, Mataruga M, Moravcikova J, Paffetti D, Paiva JAP, Raptis D, Sanchez C, Sharry S, Salaj T, Šijačić-Nikolić M, Tel-Zur N, Tsvetkov I, Vettori C, Vidal N (2015). Public attitudes towards the use of transgenic forest trees: a cross-country pilot survey. *iForest* (early view). – doi: 10.3832/ifor1441-008 [online 2015-11-20].

Orlović, S., Stojnić, S. Pilipović, A., Pekeč, S., Mataruga, M. Cvjetković, B., Miljković, D., (2014): Variation in leaf photosynthetic traits of wild cherry (*Prunus avium* L.) families in a nursery trial. *Journal of Forestry* (Šumarski list), No 7–8, 381–386.

Ballian, D., Isajev, V., Daničić, V., Cvjetković, B., Bogunić, F., Mataruga, M. (2013): Genetic differentiation in seed stands of European beech (*Fagus sylvatica* L.) in part of Bosnia and Herzegovina. *Genetika*, Vol 45, No. 3, 895-

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Cvjetković, B., Mataruga, M., Isajev V. Lević, J., Lučić, A., Trkulja, V., Kremenović, Ž. (2013): Variability in germination and germination dynamics of differently treated seeds of Serbian spruce (*Picea omorika* Pančić/Purkyně), Genetika, Vol 45, No. 1. pp. 109-119.

Lučić A., Isajev, V., Rakonjac, Lj., Mataruga, M., Popović, V., Nevenić, R., Mladenović-Drinić, S. (2012): Analysis of inter – population variability of Scots pine (*Pinus sylvestris* L.) using morphometric markers, Genetika, Vol 44, No. 3, 689-699.

Mataruga, M., Isajev, V., Konstantinov, K., Mladenović-Drinić, S., Ballian, D., (2012): Proteins as Gene Markers of Tolerance to Drought in Austrian pine (*Pinus nigra* Arnold). Phytion (Horn, Austria). 52. 263-280.

Mataruga, M., Haase, D., Isajev, V., Orlović S., (2012): Growth, survival, and genetic variability of Austrian pine (*Pinus nigra* Arnold) seedlings in response to water deficit New Forests. 43:791–804.

Nonić, D., Bliss, J., Milijić, N., Avdibegović, M., Mataruga, M., (2011): Challenges of Organizing Private Forest Owners in Serbia. Small-scale Forestry. 10 (4): 435-455.

Lučić, A., Isajev, V., Rakonjac, Lj., Mataruga, M., Babić, V., Ristić, D., Mladenović-Drinić, S., (2011): Application of various statistical methods to analyze genetic diversity of Austrian (*Pinus nigra* Arn.) and Scots pine (*Pinus sylvestris* L.) based on protein markers, Genetika, Vol. 43, No. 3: 477-486.

Mataruga, M., Isajev, V., Daničić, V., Cvjetković, B., (2011): The dynamics of germination and morphometrics properties of Austrian pine (*Pinus nigra* Arnold) saplings in terms of early indicators of tolerance toward the drought. Genetika, Vol. 43. No1, 75-90.

Mataruga, M., Haase, D., Isajev, V., (2010): Dynamics of seed imbibition and germination of Austrian pine (*Pinus nigra* Arnold) from extreme habitat conditions within five Balkan provenances. New Forests 40, 229-242.

Mataruga, M., Isajev, V., Konstantinov, K., Mladenović-Drinić, S., Daničić, V., (2007): Protein in seed and seedlings of selected austrian pine (*Pinus nigra* Arnold) trees as genetic markers tolerant to drought. Genetika, Vol. 39. No. 2, 259-272.

#### **Papers published in other journals:**

Published 35 papers in national journals categorized mainly in the Republic of Srpska/Bosnia and Herzegovina, Serbia ...

Papers presented at conferences and published in the conference proceedings:

Published 82 papers in international and national scientific conferences.

Membership in organizations:

The member of Society of Genetics of Serbia –Section of the Breeding of organisms.  
The member of Forest Sewardship Council.



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	Associated member of „Oregon State University“. The alternate member in International Council in IUFRO Organization from BiH. Member of “Horticultural Science Society of Bosnia and Herzegovina”. Member of the “Association of Forestry Engineers and Technicians of the Republic of Srpska”.
Social work:	Member of the Rotary Club „Banja Luka“ (served as secretary from 2013 to 2014).
Foreign languages:	English and Russian.
Family:	Married, two sons.
Hobbies:	Photos, production of seedlings.
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e-mail:	Official: <a href="mailto:milan.mataruga@sf.unibl.org">milan.mataruga@sf.unibl.org</a> Private: <a href="mailto:mmataruga@gmail.com">mmataruga@gmail.com</a>

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