



Tamara Jakovljević

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WORK EXPERIENCE

Senior Researcher in Division of Forest ecology (Scientific Area: Biotechnical Sciences) and Head of Laboratory for Physical and chemical analyses

Croatian Forest Research Institute [2010 – Current]

- Research activities: Assessment and Monitoring of Air Pollution Effects on forests, environmental monitoring, environmental chemistry, and biotechnology, nutrient cycle, data elaboration and evaluation of monitoring data, quality assurance and control
- Management activities: laboratory manager, Quality manager, organizing and conducting European soil Interlaboratory comparison within UN-ECE ICP Forests programme, project manager, organizing international scientific and expert conferences and meetings

Head of laboratory (Physical and chemical analyses of soil, plant material, atmospheric deposition and air particles)

Croatian Forest Research Institute [2003 – 2009]

- organizing and conducting laboratory work and analyses and quality assurance and control
- developing new methods
- managing and monitoring of atmospheric deposition in forests
- team member and coordinator of scientific and expert projects

Quality manager

Croatian Forest Research Institute [2007 – 2017]

- developing, implementing and maintaining technical quality assurance systems and activities according to ISO 9001 and ISO 17025
- defining quality procedures in conjunction with operating staff
- setting up and maintain controls and documentation procedures
- monitoring performance by gathering relevant data
- reviewing existing policies and make suggestions for changes and improvements and how to implement them
- measuring performance and identify any areas of weakness, recommending and implementing improvements
- liaising with other managers and staff and provide training, tools and techniques to enable others to achieve quality standards
- assessing the effectiveness of changes made
- training and managing a team of quality control technicians
- performing internal audit

EDUCATION AND TRAINING

Education

15/05/2018 Scientific adviser, scientific area biotechnical sciences, filed forestry
Republic of Croatia, National Council for Science, Higher Education and Technological Development

04/05/2012 Senior scientific associate, scientific area biotechnical sciences, filed forestry
Republic of Croatia, National Council for Science, Higher Education and Technological Development

29/06/2010 Scientific associate, scientific area biotechnical sciences, filed forestry
Republic of Croatia, National Council for Science, Higher Education and Technological Development

05/03/2010 PhD in Biotechnology (Area: Biotechnical sciences)
University of Zagreb, Faculty of Food Technology and Biotechnology and Italian national institute [2009 – 2010]

23/12/2008 MSc in Biotechnology
University of Zagreb, Faculty of Food Technology and Biotechnology and Italian national institute

Address: Zagreb (Croatia)

27/09/2000 BSc in Biochemical engineering
University of Zagreb, Faculty of Food Technology and Biotechnology

Address: Zagreb (Croatia)

International training

2019 National Agency for New Technologies, Energy and Sustainable Economic Development, ENEA , Rome, Italy, effects of ozone on terrestrial ecosystems, evaluation of monitoring data

2018 Polsky Center for Entrepreneurship and Innovation University of Chicago, training in technology transfer

2017 and 2019 Italian national institute, CNR ISE institute, Verbania Pallanza, Italy

- effects of atmospheric deposition on forest ecosystems, evaluation of monitoring data

2015 INRA institute, Avignon, France

project ""Integrated research on Forest Resilience and Management in the Mediterranean" working on Functional and evolutionary ecosystem response, Model coupling in ecology

2011 ENEA institute, Rome, Italy, Short scientific mission " Deposition of nitrogen and its effects on forests

ecosystem" Cost action FP0903: Climate change and forest mitigation and adaptation in a polluted environment

2009-2010 Italian national institute, CNR ISE institute, Verbania Pallanza, Italy

Analyses and evaluation of monitoring data for assesment of atmospheric deposition to the forest

Training in management systems

2022 Accreditation in organic production for the purpose of certification, Croatian Accreditation Agency

2021. Exchange of experiences of leading assessors, assessors and experts, Croatian Accreditation Agency

2020 Exchange of experiences of leading assessors, assessors and experts, Croatian Accreditation Agency

2018 Training for the assessors, Croatian Accreditation Agency

2018 New norm HRN EN ISO/IEC 17025:2017, Croatian Accreditation Agency

2009 ISO/IEC guide 99:2007, International Vocabulary Metrology, EC JRC & Croatian Accreditation Agency

2008 Good professional practice in laboratories, Croatian Metrology Institute

LANGUAGE SKILLS

Mother tongue(s): **Croatian**

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

Italian

LISTENING C2 READING C2 WRITING B2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

French

LISTENING A2 READING A2 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A2

Spanish

LISTENING B1 READING B1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

Slovenian

LISTENING A2 READING A2

PUBLICATIONS

Publications in international journals

Sokač, T., Gunjević, V., Pušek, A., Jurinjak Tušek, A., Dujmić, F., Brnčić, M., Kovačević Ganić, K., **Jakovljević, T.**, Uher, D., Mitrić, G., Redovniković, IR., 2022. Comparison of Drying Methods and Their Effect on the Stability of Graševina Grape Pomace Biologically Active Compounds. *Foods*, 11, 112.

Jakovljević, T., L. Lovreškov, G. Jelić, A. Anav, I. Popa, C. Proietti, I. Limić, L. Butorac, M. Vitale, A. De Marco, 2021: Impact of ground-level ozone on Mediterranean forest ecosystems health, *STOTEN*, Volume 783, 147063

Lovreškov, L, Limić, I, Butorac, L, **Jakovljević, T.**, 2021: Nitrogen Deposition in Different Forest types along The Eastern Adriatic Coast, *South-east European forestry*, **12** (2021), 2; 115-122

Konig, N., Kowalska, A., Brunialti, G., Ferretti, M., Clarke, N., Cools, N., Derome, J., Derome, K., De Vos, B., Fuerst, A., **Jakovljević, T.**, Marchetto, A., 2020: Manual on Quality Assurance and Control in Laboratories, Part XVI, UN EC ICP Forests

Jakovljević, T., A. Marchetto, L. Lovreškov, N. Potočić, I. Seletković, K. Indir, G. Jelić, L. Butorac, Ž. Zgrablić, A. De Marco, G. Simioni, A. Jurinjak Tušek, 2019: Assessment of atmospheric deposition and vitality indicators in Mediterranean forest ecosystems, *Sustainability* 11(23), 6805

Velić N, Stjepanović M, Begović I, Habuda-Stanić M, Velić D, **Jakovljević T.**, 2018: Valorisation of Waste Wood Biomass as Biosorbent for the Removal of Synthetic Dye Methylene Blue from Aqueous Solutions BY: *South-east Eur* Volume: 9 Issue: 2 Pages: 115-122

Redovniković, IR, De Marco, A, Proietti, C, Hanousek, K, Sedak, M, Bilandžić, N, **Jakovljević, T.**, 2017: Poplar response to cadmium and lead soil contamination, *Ecotoxicology and Environmental Safety*, Vol. 144; 482-489

Jakovljević, T., Cvjetko Bubalo, M, Orlović, S, Sedak, M Bilandžić, N, Brozinčević, I, Radojčić Redovniković, I, 2014: Adaptive response of Poplar (*Populus nigra* var. *italica*) after longterm Cd exposure. *Environmental science and pollution research international*, vol. 21, no. 5: 3792-3802

Jakovljević, T., Halambek, J, Radošević, K, Hanousek, K, Gradečki-Poštenjak, M, Gaurina Srček, V, Radojčić Redovniković, I, De Marco, A, 2015: The Potential Use of Indigobush (*Amorpha fruticosa* L.) as Natural Resource of Biologically Active Compounds. *SEEFOR*, vol. 6, 171-178

ubalo, MC ; Hanousek K ; Radošević, K, Srček VG; **Jakovljević, T.**, Redovnikovic, IR, 2014: Imidiazolium based ionic liquids: effects of different anions and alkyl chains lengths on the barley seedlings, *Ecotoxicology and Environmental Safety* 101: 116-123

Jakovljević, T., Cvjetko M, Sedak M, Maja Đokic, Bilandzic, N., Redovnikovic, IR, 2013: Balance of glucosinolates content under Cd stress in two Brassica species, *Plant Physiology and Biochemistry* 63, 99-106 (2): 231-238

Jakovljević, T., Radojčić Redovniković, I, Cvjetko, M, Bukovac, M, Bilandžić, N, 2015: The potential of poplar (*Populus nigra* var. *italica*) in the phytoremediation of cadmium. *Šumarski list*, vol. 139, no. 5-6

Editorial board member

International journals:

Forests

Frontiers in Forests and Global Change

Conference proceedings and Books of abstract of international conferences:

International conference Natural resources, green technology and sustainable development (4 editions)

NETWORKS AND MEMBERSHIPS

International engagements

- 2017- ongoing International Union of Forest Research Organizations (IUFRO)- Officeholder and Deputy Coordinator, unit 8.04.03 - Atmospheric deposition, soils and nutrient cycles, Division 8 - Forest Environment
- 2018-ongoing EUROPEAN COMMISSION DIRECTORATE-GENERAL ENVIRONMENT Quality of Life- Expert in working group for the implementation of Air quality (NEC) directives
- 2021-2024 COST CA19120 Watson - Dissemination Grant manager
- 2010-ongoing International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests) - Expert in panels deposition, air quality and soil
- 2022- ongoing International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests)- Co-chair in working group for quality assurance and quality control

Membership in national scientific and professional bodies

- 2018- ongoing Member of the expert body-Working Group for drafting the Regulation on national obligations to reduce emissions of certain air pollutants in the Republic of Croatia at the Ministry of the Economy and Sustainable Development
- 2021- ongoing Member of the panel for Monitoring the Third National Plan for the Implementation of the Stockholm Convention on Persistent Organic Pollutants in the Republic of Croatia, Ministry of the Economy and Sustainable Development
- 2018- ongoing President of the Section for the Environment and member of the Management Board of non-profit association CroLab - Croatian Laboratories
- 2018- ongoing Member of the Management Board and Treasurer in Croatian Society of Biotechnology
- 2010-ongoing Member of Croatian Forestry Society

Assessor for ISO standards

[2018 – Current]

- Assessor for EN ISO 17025 and expert for EN ISO 17065 (organic production), Croatian Accreditation Agency

PROJECTS

International and national projects

2021-2023 Sustainable waste management of winery by-product/ European regional development fund/ University of Zagreb, Faculty of food technology and Biotechnology//team member

2020-ongoing Influence of atmospheric deposition on forest ecosystem/National park Risnjak/ project coordinator

2015- ongoing European Soil Interlaboratory Test Programme /ICP Forests programme/coordinator and organizer

2020- 2024 - CA19120 - WATER isotopes in the critical zONE: from groundwater recharge to plant transpiration/ management committee member and Grant Awarding Coordinator/Management committee member and STSM coordinator

2017- 2020 Assessment of Atmospheric Deposition and Ozone levels in Mediterranean Forest ecosystems (DepOMedFor)/ Croatian science foundation/project coordinator

2018-ongoing Assessment of heavy metals in soil of protected areas/ Public Institution of Kamenjak/project coordinator

2015-2017 Carbon in soil and carbon nitrogen balance/Environmental agency/team member

2015-2016 Determination of biochemical parameters responsible for oxidative stress/Croatian academy for science and art/project coordinator

2007-ongoing National programme of monitoring of damage to forest ecosystems in the Republic of Croatia/ Ministry of agriculture /National expert / responsible for field measurement and elaboration of data for atmospheric deposition and air pollution

2015-2018 INtegrated research on FOrest Resilience and Management in the mEDiterranean(INFORMED) /FP 7 Foresterra collaborative project /Croatian Forest Research Institute Team leader/ the project aims to produce global change scenarios specifically dedicated to the Mediterranean forests

2015-2018 MedWildFireLab - Global Change Impacts on Wildland Fire Behaviour and Uses in Mediterranean Forest Ecosystems, towards a « wall less » Mediterranean Wildland Fire Laboratory /FP7 Foresterra networking project /Croatian Team leader/

2014-2018 COST ActionFP1306 Valorisation of lignocellulosic biomass side streams for sustainable production of chemicals, materials & fuels using low environmental impact technologies/member of working group LCA and Techno-economic analysis/management committee member

2013-2017 COST Action ES1308 Climate Change Manipulation Experiments in Terrestrial Ecosystems - Networking and Outreach (ClimMani) Management Committee member substitute/aim: synthesis of our knowledge across drivers and ecosystem processes

2011- 2013 Atmospheric deposition measurement / Croatian Forest Ltd. / Principal investigator/

2010-2013 COST Action FP0903: 2010-2013 COST Action FP0903: Climate change and forest mitigation and adaptation in a polluted environment / Management Committee member substitute

2011-2013 The influence of various mineral fertilizers, substrates and container types on the vitality of forest tree seedlings/ Croatian Forests Ltd./Team member 2010- 2013 Forest monitoring / Croatian Forest Ltd. / Team member

CONFERENCES AND SEMINARS

Invited lectures on international conferences and expert panels

2022 " Soil interlaboratory Comparison"/ ICP Forests Meeting- Quality assurance and quality control in Labs, Zurich, Switzerland

2020 Soil quality assessment/ ICP Forests Joint Expert Panels Meeting on Crown Condition, Soil & Soil Solution, Foliage and Litterfall, Deposition and QA/QC in Labs, Brussels, Belgium

2019 Ozone levels in Mediterranean forests/8th ICP Forests Scientific Conference, Ankara, Turkey

2018 "Assessment of Atmospheric Deposition and Ozone levels in Mediterranean Forest ecosystems//European Biotechnology Congress/ Athens, Greece

2017 "Atmospheric Deposition and vitality indicators/28th IUFRO conference for Specialists in Air Pollution and Climate Change Impacts on Forest Ecosystems: "Actions for Sustainable Forest Ecosystems under Air Pollution and Climate Change" Tokio, Japan

2017 Soil assessment and analyses/ICP Forests Joint Expert Panels Meeting on Crown Condition, Soil & Soil Solution, Foliage and Litterfall, Deposition and QA/QC in Labs, Zagreb,Croatia

Presentation in more than 30 international and national conferences

Guest lecturer at higher education institution

[University of Zagreb, Faculty of Food technology and Biotechnology, 2016]

2016-ongoing invited lectures "Air pollution and phytoremediation" at graduate study programme Phytoremediation

HONOURS AND AWARDS

Award

European Cooperation in Science and Technology (Cost)

2011 Short scientific mission in National Agency for New Technologies, Energy and Sustainable Economic Development, ENEA , Rome, Italy, under Cost action FP0903: Climate change and forest mitigation and adaptation in a polluted environment

DIGITAL SKILLS

My Digital Skills

Knowledge of communication platforms (Skype, Zoom) / Microsoft Office (Word & Excel), Microsoft PowerPoint, Microsoft Project, Internet, Outlook / Use of email and shared workspace services

MANAGEMENT AND LEADERSHIP SKILLS

skills

- planning, decision-making, problem-solving, communication, delegation and coordination in laboratory processes
- leading competitive projects

Skills

Management skills:

- organization, planning, decision-making, delegation, problem solving
- Technical skills and the knowledge to use a variety of techniques in laboratory work
- Mentoring laboratory analysts, PhD student, graduate students
- managing projects and finances

Leadership skills:

- Strategic thinking and acting
- Innovation
- self-development
- team development

ORGANISATIONAL SKILLS

Skills

creator and organizer of international conferences

interlaboratory comparison organizer within UN-ECE ICP Forests programme

creating structure and order, boosting productivity, and prioritizing tasks that must be completed immediately

HOBBIES AND INTERESTS

hobbies

- learning languages

- travelling
- dancing

ORGANIZATION OF INTERNATIONAL CONFERENCES

Organization of scientific and expert meetings

2022, 2018, 2016, 2014 Natural resources, green technology and sustainable development-GREEN2022, 2018, 2016, 2014", supported by international organizations IUFRO, EFI, EBTA), International scientific and expert conferences, Chair of scientific committee and Co-chair of organization committee, Zagreb, Croatia

2018, 2019, 2021 CROLAB CONFERENCE, THE LABORATORY COMPETENCE, Co-chair of organization committee, Croatia

2017 Joint Expert Panels meeting on Crown Condition, Soil & Soil Solution, Foliage and Litterfall, Deposition and QA/QC in Laboratories, member of organization committee, Zagreb, Croatia

2017 13th CROLAB CONFERENCE, THE LABORATORY COMPETENCE, Co-chair of organization committee, Poreč, Croatia

2016 FP1306 COST Action "Valorization of lignocellulosic biomass side streams for sustainable production of chemicals, materials & fuels using low environmental impact technologies, member of Scientific committee, Dubrovnik, Croatia

2016 12th CROLAB CONFERENCE, THE LABORATORY COMPETENCE, Co-chair of organization committee, Vinkovci, Croatia

2015 12th CROLAB CONFERENCE, THE LABORATORY COMPETENCE, Co-chair of organization committee, Zadar, Croatia

2013 4th ICP Forests Meeting of the Heads of the Laboratories, Chair of organization committee, Zadar, Croatia

EVALUATION OF INTERNATIONAL PROJECTS AND PROJECT PROPOSALS

Projects and proposals

2022 evaluation of 6 mid-term project reports for European Metrology Programme for Innovation and Research

2021 evaluation 5 project proposals for European Metrology Programme for Innovation and Research

2021 evaluation of project final reports Horizont 2020-BBI, European Commission, Bio-based industry, Bruxelles, Belgium

2020 evaluation of 13 project proposals in the area of Life science, Ministry of University and Research, Rome, Italy

2020 evaluation of 5 project proposals Horizont 2020-BBI, European Commission, Bio-based industry, Bruxelles,

2020 evaluation of project proposal COST (European Cooperation in Science and Technology), Bruxelles, Belgij

2019 evaluation of project proposals call 2019, H2020-Bio-Based Industries Joint Undertaking, European Commission

2018 evaluation of submitted project periodic reports, Bio-Based Industries Joint Undertaking, European Commission, Bruxelles, Belgium

2016 evaluation of project proposals call 2016, Bio-Based Industries Joint Undertaking Call 2016, European Commission, Bruxelles, Belgium

2016 evaluation of project proposals ERA NET, Sumforest, Unit 315 European Research Affairs, Federal Office for Agriculture and Food, Bonn, Germany

2015 evaluation of project proposal, Non-profit organization Fondazione Cassa di Risparmio di Padova, Rovigo, Italy

2015 evaluation of project proposal submitted to Cost action "Life sciences"

2014 evaluation of project proposals for Ministry of Education, Youth and Sports, Czech Republic, Proposals under the Czech-Norwegian Research Programme (CZ09), Norway grants

PEER REVIEWER IN INTERNATIONAL JOURNALS

Scientific journals

Frontiers in Forests and Global Change (3 papers)

Waters (2 papers)

Sustainability (3 papers)

Science of total environment (4 papers)

Brasilian Journal of Botany (2 papers);

Journal of Plant Nutrition and Soil Science (1 paper);

Seefor (4 papers)

Journal of Agricultural Science and Technology (1 paper),

Acta Physiologiae Plantarum (2 papers)

Šumarski list (3 papers)

EXPERTISE IN DEVELOPEMENT OF STUDY PROGRAMMES

Lifelong learning programme

[2019 – 2022]

- member of focus group at Faculty of Food technology and Biotechnology that has delivered new lifelong learning study programme "Biotechnology in Bioeconomy" intended for the graduates in Biotechnology, Chemical technology, Agronomy and Forestry

EVALUATION OF HIGHER EDUCATION INSTITUTIONS

Member of international expert panel

2021 evaluation for the Croatian Agency for Science and Higher Education, re-accreditation of Karlovac University of applied sciences, Croatia

ASSESSMENT AREA:

- Internal quality assurance and the social role of the higher education institution,
- Study programmes (Mechatronics, Mechanical Engineering, Food Technology, Hospitality Management, Safety and Protection, Wildlife Management and Nature Conservation, Business Administration)
- Teaching process and student support
- Teaching and institutional capacities
- Professional and/or scientific activity

2019 evaluation for the Croatian Agency for Science and Higher Education, re-accreditation of University of Zagreb, Faculty of Forestry and wood technology, Croatia

ASSESSMENT AREA:

- Internal quality assurance and the social role of the higher education institution,
- Study programmes (Forestry, Urban Forestry, Nature Conservation and Environmental Protection, Wood Technology and Design)
- Teaching process and student support
- Teaching and institutional capacities
- Professional/ scientific activity

EVALUATION OF PHD PROPOSALS

Evaluation committee member

2021 evaluation of 26 applications for PhD in Biotechnical sciences received for the competition "Career Development Project for Young Researchers - Training of New Doctors of Science" for the Croatian Scientific Found

- evaluation of mentors
- evaluation of PhD career development plan