

**1. Personal Data**

Date and place of birth 8 July 1991, Murska Sobota, Slovenia  
Citizenship Slovenian  
Current residence Sundsberg, Finland  
Phone and email +358 457 839 1902, jure.zrim@helsinki.fi

**2. Education and degrees awarded**

2016 MSc (Plant Production Science – Agroecology), University of Helsinki, October 2016.  
2013 BSc (Agronomy), University of Ljubljana, September 2013

**3. Other education and training, qualifications and skills**

Advanced laboratory skills, work in sterile conditions, optical microscope  
Greenhouse gas measuring (static chamber method and Gasmeter DX 4015 FTIR method),  
nutrient leaching, TDR, penetrometer, soil sampling, LAI, SPAD, Soil DNA extraction, Mothur  
sequence analysis, SPSS  
Coding languages: R, Python  
Driving licence categories: B, F, G

**4. Linguistic skills**

English Full professional proficiency  
Slovenian Native proficiency  
Finnish Basic proficiency

**5. Present and previous professional appointments**

2021 Researcher at HYKERRYYS 3 project under the supervision of University lecturer Priit Tammeorg.  
2019–2020 Researcher at HYKERRYYS 2 project under the supervision of University lecturer, Priit Tammeorg.  
2019 Researcher at Climsage project, under supervision of Assistant Prof. Kristiina Karhu  
2018 Researcher at InCan project: Increasing soil carbon stocks and reducing nitrogen leaching with biochar (2018–2020), under supervision of Assistant Prof. Kristiina Karhu  
2017– University of Helsinki, a doctoral student  
2016–2019 Researcher at HYKERRYYS and TilaHYKERRYYS projects under the supervision of a professor in agroecology, Juha Helenius.  
2015– Participation in AgriChar research group, project: "Long term effects of biochar and meat bone meal in Finnish agriculture" since May 2015, project leader Univ lecturer Priit Tammeorg.  
2014 Research assistant in VORASUKA research project, University of Ljubljana

**6. Previous work experience**

2019 Participation in the 3<sup>rd</sup> Training School of the COST Action ES1406 entitled "Soil fauna -Key to Soil Organic Matter Dynamics and Modeling" (KEYSOM), at University of Tartu, Estonia.  
2019 Local Arrangement Team member in 4th Finnish Biochar Seminar. Helsinki 11. December.  
2017 Local Arrangement Team member in 22<sup>nd</sup> International Conference on Environmental Indicators, Helsinki 1–5. August.  
2016 Local Arrangement Team member in 3rd Finnish Biochar Seminar. Helsinki 25. November.  
2015 University of Helsinki, research group: Palopuro project (07-09/2015). This project model and makes investment plans for an integrated farm-scale agricultural and food-producing "industrial symbiosis", which is energy and nutrient self-sufficient. My task was to make system models for biomasses (nutrients) recycling systems in the Palopuro agroecological symbiosis. Work was conducted under the supervision of prof. Juha Helenius.  
2014 University of Ljubljana, research group: Vorasuka project (05-09/2014). I was in a research group under the supervision of prof. Marina Pintar. We were conducting field and laboratory experiments with the cooperation of the multinational corporation Knauf insulation. We were working with different types of rock wool materials applied to soil to improve certain soil qualities.

## 7. Research funding

2021	Kone Foundation, research on short- and long-term effects of biochar and other soil amendment materials on soil biota, 30 000 €
2019	Kone Foundation, research on short- and long-term effects of biochar and other soil amendment materials on soil biota, 25 000 €
2019	Finnish Cultural Foundation, research on short- and long-term effects of biochar and other soil amendment materials on soil biota, 18 000 €
2019	August Johannes and Aino Tiuran Foundation, research on short- and long-term effects of biochar and other soil amendment materials on soil biota, 6 000 €
2019–2020	The Ministry of Environment (Raki2), HYKERRYYS 2. Project leader: Univ. lecturer Priit Tammeorg, I will be participating as a researcher of soil microbial ecology and greenhouse gas emissions, 92 000 €
2018	August Johannes and Aino Tiuran Foundation, research on short- and long-term effects of biochar and other soil amendment materials on soil biota, 6 000 €
2018	Chancellor's Travel Grant, to attend 21st World Congress of Soil Science, Brazil, 2 000 €.
2017–2021	Estonian Agricultural Registers and Information Board, Innovation Cluster of Field Crops, Project leader: Prof. Alar Astover, I am participating in the project as a biochar researcher, 130 000 €.
2017–2020	Centre for Economic Development, Transport and the Environment (Uusimaa), Good Yield Recycling Fertilizer (TilaHYKERRYYS), Project leader: Prof. Juha Helenius, I am participating in the project as a researcher of biochar, 120 000 €.
2017	August Johannes and Aino Tiuran Foundation, research on short- and long-term effects of biochar and other soil amendment materials on soil biota, 6 000 €
2016	Olvi Foundation, research on short- and long-term effects of biochar and other soil amendment materials on soil biota, 10 000 €
2016–2019	Centre for Economic Development, Transport and the Environment (Uusimaa), Good Yield Recycling Fertilizer (HYKERRYYS), Project leader: Prof. Juha Helenius, I am a research assistant with the part-time contract in 2016–2019, 222 000 €.

## 8. Merits in teaching and pedagogical competence

**Supervision of theses**     **I have (co-)supervised 3 MSc theses. The MSc theses were completed by:**

2024	Zannatul Ferdous (co-supervisor, University of Helsinki)
2022	Vilja Jyrinki (supervisor, University of Helsinki)
2022	Eiko Höglund (supervisor, University of Helsinki)

## 9. Other academic merits

2017–2021	Member, Finnish Biochar Association
2018–2019	Board member, Finnish Biochar Association
2018	Vice President, Finnish Biochar Association
2017	Founding member, Finnish Biochar Association
2017–	Personal research blog: jurezrim.wordpress.com
2016–2019	Member, Finnish Society of Soil Sciences

## 10. Scientific and societal impact of research

### a) Publications

1. Kiani, M., **Zrim, J.**, Simojoki, A., Tammeorg, O., Penttinen, P., Markkanen, T., Tammeorg, P. 2023. Recycling eutrophic lake sediments into grass production: A four-year field experiment on agronomical and environmental implications. *Science of the Total Environment*. 870, 18.
2. Kalu, S., Kulmala, L., **Zrim, J.**, Peltokangas, K., Tammeorg, P., Rasa, K., Kitzler, B., Pihlatie, M. & Karhu, K., 2022. Potential of biochar to reduce greenhouse gas emissions and increase nitrogen use efficiency in boreal arable soils in the long-term. *Frontiers in Environmental Science*. 10, 16.

3. Kiani M., Simojoki, A., Tammeorg, O., **Zrim, J.**, Tammeorg, P. October 2021. Closing phosphorus cycle by reusing lake sediments in agriculture. Abstract of an oral presentation. Eurosoil 2021, Geneva, Switzerland.
4. Kiani, M., Simojoki, A., **Zrim, J.**, Tammeorg, O., Penttinen, P., Tammeorg, P. May 2019. Environmental Impacts of lake sediment reuse as a phosphorus-rich soil amendment. 15th International Conference of Sustainable Use and Management of Soil, Sediment and Water Resources, Antwerp, Belgium. Book of abstracts, p. 151.
5. **Zrim, J.**, Simojoki, A., Penttinen, P., Karhu, K., Tammeorg, P. 2019. How do softwood biochars affect the microbial communities and greenhouse gas emissions from agricultural soils in southern Finland? Poster abstract. X Maaperätieteiden päivät 2019, Helsinki, Finland, 9–10 January 2019. Pro Terra 75, p. 107–108.
6. **Zrim, J.**, Nuutinen, V., Simojoki, A., Penttinen, P., Glaser, B. & Tammeorg, P. 2019. Biochar impacts on earthworm and bacterial communities in two long-term field experiments in Finland. Poster abstract. Proceedings of the 21st World Congress of Soil Science, 2018, Rio de Janeiro, Brazil, August 12-17, Volume II, p. 422
7. **Zrim, J.**, Nuutinen, V., Simojoki, A., Penttinen, P., Karhu, K., Glaser, B. & Tammeorg, P. 2018. Effects of softwood biochars on soil biota in medium-term field experiments in Finland. Poster abstract. 3rd Conference on Ecology of Soil Microorganisms, 12–17 June, Helsinki, Finland. Book of abstracts, p. 209.
8. Tammeorg, P., **Zrim, J.**, Kiani, M., Mäkelä, P., Stoddard, F., Simojoki, A. 2017. Biochar as promising tool for carbon sequestration: Effects on Environment and Agriculture. Abstract of an oral presentation. The 22nd International Conference on Environmental Indicators, 1–5 August 2017, Helsinki, Finland. Book of abstracts, p. 22.
9. **Zrim, J.**, Nuutinen, V., Simojoki, A., Tammeorg, P. 2017. Effects of biochar on earthworms in two long-term field experiments in Finland. Poster abstract. The 22nd International Conference on Environmental Indicators, 1–5 August 2017, Helsinki, Finland. Book of abstracts, p. 48.
10. **Zrim, J.**, Nuutinen, V., Simojoki, A., Tammeorg, P. 2017. Effects of biochar on earthworms in two long-term field experiments in Finland. Poster abstract. IX Maaperätieteiden päivät 2017, Helsinki, Finland, 9–10 January 2017. Pro Terra 71, p. 99–100.
11. **Zrim, J.** 2016. Effect of softwood biochars on earthworms in two contrasting soils in Southern Finland. Master's Thesis. University of Helsinki.