

## LISTA LUCRĂRI ȘTIINȚIFICE

Cercetător Științific Grad I Dr. Ing. Constantin NECHITA

### A. Teza de doctorat

1. *REȚEAUA NAȚIONALĂ PENTRU SERII DENDROCRONOLOGICE DE STEJAR ȘI GORUN* – a fost susținută în anul 2013 în cadrul Școlii Universității "Ștefan Cel Mare" Suceava, coordonator Ionel POPA.

### B. Lista de lucrări publicate în jurnale internaționale ISI Web of Science

1. Iordache, A.M., **Nechita, C.**, Voica, C., Pluhacek, T., Schug Kevin, A., 2022. *Climate change extreme and seasonal toxic metals occurrence in Romanian freshwaters in the last two decades – case study and critical review.* npj Clean Water. <https://doi.org/10.1038/s41545-021-00147-w> (IF 9,378; SRI 4,652).
2. **Nechita, C.**, Iordache, A.M., Lemr, K., Levanič, T., Pluhacek, T., 2021. *Evidence of declining trees resilience under long term heavy metal stress combined with climate change heating.* Journal of Cleaner Production, 128428. <https://doi.org/10.1016/j.jclepro.2021.128428> (IF 9,297; SRI 2,059).
3. **Nechita, C.**, Iordache, A.M., Costinel, D., Botoran, O.R., Dănilă, G., Ionete, R.E., Varlam, M., 2022. *Contrasting signals in TRW, BAI,  $\delta^{18}\text{O}$  and  $\delta^{13}\text{C}$  *Pinus sylvestris* L. and *Pinus nigra* J. F. Arnold in northeastern Romania.* Forests. <https://doi.org/10.3390/f13020336> (IF 2,634; SRI 1,314).
4. Iordache, A.M., **Nechita, C.**, Zgavarogea, R., Voica, C., Varlam, M., Ionete, R.E., 2022. *Accumulation and ecotoxicological risk assessment of heavy metals in surface sediments of Olt river, Romania.* Scientific Reports. <https://doi.org/10.1038/s41598-022-04865-0> (IF 4,13; SRI 2,35).
5. Voica, C., **Nechita, C.**, Iordache, A.M., Roba, C., Zgavarogea, R., Ionete, R.E., 2021. *ICP–MS assessment of essential and toxic trace elements in foodstuffs with different geographic origins available in Romanian supermarkets.* Molecules, 26, 7081. <https://doi.org/10.3390/molecules26237081> (IF 4,412; SRI 1,314).
6. Iordache, A.M., **Nechita, C.**, Pluhacek, T., Iordache, M., Zgavarogea, R., Ionete, R.E., 2020. *Past and present anthropic environmental stress reflect high susceptibility of natural freshwater ecosystems in Romania.* Environmental Pollution, 267, 115505. <https://doi.org/10.1016/j.envpol.2020.115505> (IF 8,071; SRI 2,216)
7. **Nechita, C.**, Macovei, I., Popa, I., Badea, O.N., Apostol, E.N., Eggertsson, Ó., 2019. *Radial growth-based assessment of sites effects on pedunculate and greyish oak in southern Romania.* Science of the Total Environment. 694, 133709. <https://doi.org/10.1016/j.scitotenv.2019.133709> (IF 7,137; SRI 2,099)
8. **Nechita, C.**, Čufar, K., Macovei, I., Popa, I., Badea, N.O., 2019. *Testing three climate datasets for dendrochronological studies of oaks in the South Carpathians.* Science of the Total Environment. 694, 133709. <https://doi.org/10.1016/j.scitotenv.2019.133730> (IF 7,137; SRI 2,099)
9. **Nechita, C.**, Eggertsson, O., Badea, N.O., Popa, I., 2018. *A 781-year oak tree-ring chronology for the Middle Ages archaeological dating in Maramureș (Eastern Europe).* Dendrochronologia. 52, 105–112. <https://doi.org/10.1016/j.dendro.2018.10.006> (IF 2,293; SRI 1,690)
10. **Nechita, C.**, Popa, I., Eggertsson, O., 2017. *Climate response of oak (*Quercus* spp.), an evidence of a bioclimatic boundary induced by the Carpathians.* Science of the Total Environment, 599–600, 1598–1607. <https://doi.org/10.1016/j.scitotenv.2017.05.118> (IF 5,039; SRI 1,901)
11. Macovei I, Luca SV, Skalicka-Woźniak K, Sacarescu L, Pascariu P, Ghilan A, Doroftei F, Ursu E-L, Rimbu CM, Horhogecea CE, Lungu C, Vochita G, Panainte AD, **Nechita C**, Corciova MA, Miron A. 2022. *Phyto-Functionalized Silver Nanoparticles Derived from Conifer Bark Extracts*

- and Evaluation of Their Antimicrobial and Cytogenotoxic Effects. *Molecules*, 27(1):217. <https://doi.org/10.3390/molecules27010217> (IF 4,412; SRI 1,314)
12. Popa, I., **Nechita, C.**, Hofgaard, A., 2017. *Stand structure, recruitment and growth dynamics in mixed subalpine spruce and Swiss stone pine forests in the Eastern Carpathians*. *Science of the Total Environment*, 598, 1050–1057. <https://doi.org/10.1016/j.scitotenv.2017.04.169> (IF 5,039, SRI 1.901)
  13. Bosela, M., Popa, I., Gomory, D., Longauer, R., Tobin, B., Kyncl, J., Kyncl, T., **Nechita, C.**, Petras, R., Sidor, C.G., Seben, V., Buntgen, U., 2016. *Effects of postglacial phylogeny and genetic diversity on the growth variability and climate sensitivity of European silver fir*. *Journal of Ecology*, 104, 716–724. <https://doi.org/10.1111/1365-2745.12561> (IF 5.783, SRI 6.622)
  14. Rădoane, M., **Nechita, C.**, Chiriloaei, F., Rădoane, N., Popa, I., Roibu, C., Robu, D., 2015. *Late Holocene fluvial activity and correlations with dendrochronology of subfossil trunks: case studies of northeastern Romania*. *Geomorphology*, 239, 142–159. <https://doi.org/10.1016/j.geomorph.2015.02.036> (IF 3.144, SRI 1.53)
  15. Wązny, T., Lorentzen, B., Köse, N., Akkemik, Ü., Boltryk, Y., Güner, T., Kyncl, J., Kyncl, T., **Nechita, C.**, Sagaydak, S. and Jeni Kamenova, V., 2014. *Bridging the Gaps in Tree-Ring Records: Creating a High-Resolution Dendrochronological Network for Southeastern Europe*. *Radiocarbon*, 56(4), S39–S5. [https://doi.org/10.2458/azu\\_rc.56.18335](https://doi.org/10.2458/azu_rc.56.18335) (IF 2.523)
  16. Levanič, T., Popa, I., Poljanšek, S., & **Nechita, C.**, 2013. *A 323 – year long reconstruction of drought for SW Romania based on black pine (Pinus Nigra) tree-ring widths*. *International Journal of Biometeorology*, 57(5), 703–714. <https://doi.org/10.1007/s00484-012-0596-9> (IF 2.765)
  17. Voica, C., Iordache, A.M., Roba, C., & **Nechita, C.**, 2022. *Determination of Toxic Elements in Facial Cosmetics from the Romanian Market and Their Health Risk Assessment*. *Analytical Letters*, <https://doi.org/10.1080/00032719.2022.2053699>. (IF 2.329; SRI 0.48).
  18. Badea, S.L., Ionete, R.E., Costinel, D., **Nechita, C.**, Botu, M., and Botoran, O.R., 2020. *Changes of carbon-isotope ratios in soil organic matter relative to parent vegetation and site specificity*. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 48(4), 2085–2094. DOI:10.15835/48412138 (IF 1,44)
  19. Simion, C. A., Mocanu, N., Gaza, O., Stanciu, I. M., Sava, G. O., Stefan, B. M., ... & **Nechita, C.**, 2019. *Semi-automatic combustion of environmental and biological samples on Oxidizer M307 and equivalents: New solutions for background reduction*. *Journal of Labelled Compounds and Radiopharmaceuticals*, 62(11), 758–767. <https://doi.org/10.1002/jlcr.3797> (IF 1,809)
  20. Rădoane, M., Chiriloaei, F., Sava, T., **Nechita, C.**, Rădoane, N., & Gâza, O., 2019. *Holocene fluvial history of Romanian Carpathian rivers*. *Quaternary International*. 527 113–129 <https://doi.org/10.1016/j.quaint.2018.11.014> (IF 2,003)
  21. **Nechita, C.**, Chiriloaei, F., 2018. *Interpreting the effect of regional climate fluctuation on Quercus robur L. trees under a temperate continental climate (southern Romania)*. *Dendrobiology*, 79, 77–89. <http://dx.doi.org/10.12657/denbio.079.007> (IF 1,357)
  22. **Nechita, C.**, Popa, I., 2012. *The relationship between climate and radial growth for the oak (Quercus robur L.) in the Western Plain of Romania*. *Carpathian Journal of Earth and Environmental Sciences*, 7(3), 137–144. <http://www.ejees.ro/viewTopic.php?topicId=250> (IF 1,307)

### C. Cărți

1. **Nechita, C.**, 2021. *Schimbările climatice și reziliența stejarilor*. Editura Silvică. ISBN 978-606-8020-75-4.
2. Șuvar, N.S., Iordache, A.M., **Nechita, C.**, Mesaroș C., Podea, P., Culea, M., 2021. *Studii asupra unor compuși biologici și toxici prin metode spectroscopice*. Editura Presa Universitară Clujeană. ISBN-978606-37-1165-7.
3. **Nechita, C.**, Timur, C.V., 2019. *Datarea dendrocronologică a patrimoniului cultural din Maramureș*. Editura Silvică. ISBN 978-606-80-20-60-0.

4. **Nechita, C.**, 2013. *Rețeaua națională pentru serii dendrocronologice de stejar și gorun*. Editura Silvică. ISBN 978-606-8020-38-9.
- D. *Alte articole, studii publicate în reviste de specialitate sau în volumele unor manifestări științifice internaționale recunoscute.*
1. Zgavarogea, R.I., Iordache, M., Iordache, A.M., Constantinescu, M., Bucura, F., Ionete, R.E., Grigorescu, R., **Nechita, C.**, 2021. *The contribution of Romania to climate change – the effects of accounting the ghg emissions from land use, land-use change and forestry (LULUCF)*. Smart Energy and Sustainable Environment. 24(1), 5–20, <https://doi.org/10.46390/j.smensuen.24121.433>
  2. Iordache, M., Zgavarogea, R.I., Iordache, A.M., Ionete, R.E., Bucura, F., Grigorescu, R., **Nechita, C.**, 2021. *Temporal evolution of greenhouse gas emissions in European Union (EU-28): a perspective on Romania*. Smart Energy and Sustainable Environment. 24(2), 43–58, <https://doi.org/10.46390/j.smensuen.24221.438>
  3. Iordache, M., Sandru, C., Miricioiu, M., **Nechita, C.**, Ionete, R.E., & Botoran, O.R., 2020. *Influence of anthropogenic activity to the macronutrient loading in water and soil—Case study of industrial area*. Smart Energy and Sustainable Environment, 23(2), 81–92. <https://doi.org/10.46390/j.smensuen.23220.431>
  4. **Nechita, C.**, 2019. *Consistency of temperature and precipitation extremes across international and national gridded in Extra-Carpathian region of Romania*. SGEM2019, 3(2), 665–672. <https://doi.org/10.5593/sgem2019/3.2/S14.086>
  5. **Nechita, C.**, 2019. *Decline history of oaks in the 20<sup>th</sup> century for Romanian Extra-Carpathian regions*. SGEM2019, 3(2): 673-680. <https://doi.org/10.5593/sgem2019/3.2/S14.087>
  6. Popa, I., **Nechita, C.**, Semeniuc, A., Timiș, V., 2018. *Saplings height growth dynamics in treeline ecosystems from Eastern Carpathians*. SGEM2018 18(3.2) 893-900. <https://doi.org/10.5593/sgem2018/3.2/S14.115>
  7. Rădoane, M., Chiriloaei, F., Rădoane, N., & **Nechita, C.**, 2018. *Mid and Late Holocene flooding reconstruction based on fluvial archives of the East Carpathian rivers*. Revista de Geomorfologie, 20(20), 17–33.
  8. Rădoane, M., Perșoiu, I., Chiriloaei, F., Robu, D., Rădoane, N., **Nechita, C.**, 2017. *History of Holocene fluvial activity in Romania: evidences based on absolute dating*. In Proc.33<sup>rd</sup> Rom. Geomorphol. Symp, 92–96.
  9. Musca C., **Nechita, C.**, 2016. *A review of trend methods for calculating the tree volume. Trends and New approaches*. Analele Universitatii din Oradea, Fascicula: Protecția Mediului, 27, 445–452.
  10. Musca C., **Nechita, C.**, 2016. *The trunk shape analysis – classical geometry approach*. Natural Resources and Sustainable Development, 108–115.
  11. **Nechita, C.**, Popa I., Chiriloaei F., Timis V., 2016. *Dendrochronological dating of the supporting pillars wooden bridges in historical Bucovina, Romania*. Natural Resources and Sustainable Development, 116–121.
  12. **Nechita, C.**, Popa I., Chiriloaei F., Timis V., 2016. *Climate signal derived from tree ring growth with daily resolution in oaks*. Analele Universitatii din Oradea, Fascicula: Protecția Mediului, 26, 209–214
  13. **Nechita, C.**, 2014. *Researches regarding climate impact over growth rings in oak in the region of Baia Mare, Maramures, Romania*. Analele Universității Oradea, Fascicula Protecția Mediului, 23, 517–522.
  14. **Nechita, C.**, 2014. *The dendroclimatic signal in Quercus robur L. Tree-ring chronologies from the northern Romania*. Analele Universității Oradea, Fascicula Protecția Mediului, 23, 509–516.
  15. **Nechita, C.**, 2014. *Dendroarchaeology seen as instrument for dating ecclesiastical items*. European Journal of Science and Theology, 10(5), 227–242.

16. Vlad, R., Popa, I., Sidor, C., **Nechita, C.**, 2013. *High mountain forest structure in Calimani Mts. (Eastern Carpathians)*. Analele Universității Oradea, Fascicula Protecția Mediului, 20, 179–186.
17. **Nechita, C.**, 2013. *The dendroarcheology - review of dating the patrimony items across the globe*. Journal of Horticulture, Forestry and Biotechnology, 17(2), 34–40.
18. **Nechita, C.**, 2013. *The influence of early wood and late wood to emergence of pointer years in oak trees*. Journal of Horticulture, Forestry and Biotechnology, 17(2), 41–47.
19. **Nechita, C.**, Popa, I., Roibu, C., 2013. *Disturbance history in a stone-pine (Pinus cembra) multicentury tree-ring chronology from Calimani Mountains (Eastern Carpathians)*. Advances in Agriculture & Botany 5 (2).
20. **Nechita, C.**, 2012. *Dendroclimatological analysis of the radial growth rings for oak in Moldova Plateau*. Journal of Horticulture, Forestry and Biotechnology, 16(4), 98–104.
21. **Nechita, C.**, Popa, I., 2011. *Dendrochronology of oak species in Vaslui region, tree-ring growth responses to climate*. Analele Universității Oradea, Fascicula Protecția Mediului, 17, 503–510.

*E. Proiecte câștigate prin competiție*

1. **166PED** — "O nouă tehnică de datare dendrocronologică. Abordare statistică, biologică și chimică" 2017-2018. [http://www.icassv.ro/166PED/Index\\_en.html](http://www.icassv.ro/166PED/Index_en.html); <https://uefiscdi.gov.ro/resource-8616>
2. **PN 19070502** — "Evaluarea prin metode transdisciplinare a declinului arboretelor de stejari din zona extracarpatică, afectate de schimbările de mediu actuale - adaptare, atenuare și riscuri" 2019-2022. <https://pn-19070502.webnode.ro/>; <https://www.research.gov.ro/uploads/programe-nationale/program-nucleu/2019-2022/rezultate/programe/icas-bucuresti.pdf>

20 Mai 2022

Candidat,

**Dr. Ing. CS I Constantin NECHITA**

