INFORMAŢII PERSONALE

Ioan DUTCA

1, Sirul Beethoven, Brasov, 500123, Romania

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EXPERIENŢA PROFESIONALĂ SI DIDACTICĂ

2022 - prezent — **Conferențiar universitar**
Universitatea Transilvania din Brasov

2014 - prezent — **Cercetator**
Buckinghamhire New University, UK

2012 - 2022 — **Sef lucrari**
Universitatea Transilvania din Brasov

2012 - 2013 — **Postdoctorand**
Buckinghamhire New University, UK

EDUCAŢIE ȘI FORMARE

Octombrie 2007 – Mai 2011 — **Doctor**
Universitatea Transilvania din Brasov, Brasov, Romania

Octombrie 2005 – Iunie 2007 — **Masterat**
Universitatea Transilvania din Brasov, Brasov, Romania

Octombrie 2000 – Iunie 2005 — **Licenta**
Universitatea Transilvania din Brasov, Brasov, Romania

COMPETENTE PERSONALE

Limba(i) maternă(e): Romana

Alte limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversaţie	Discurs oral	
Engleza	Nivel avansat	Nivel avansat	Nivel avansat	Nivel avansat	Nivel avansat

Permis de conducere: B

INFORMATII SUPLIMENTARE

Keith, Heather, Zoltàn Kun, Sonia Hugh, Miroslav Svoboda, Martin Mikoláš, Dusan Adam, Dmitry Bernatski, Ioan Dutcă et al. "Carbon carrying capacity in primary forests shows potential for mitigation achieving the European Green Deal 2030 target." Communications Earth & Environment 5, no. 1 (2024): 256. https://doi.org/10.1038/s43247-024-01416-5

Florea, S. C., Dutca, I., & Nita, M. D. (2024). Tradeoffs and limitations in determining tree characteristics using 3D pointclouds from terrestrial laser scanning: A comparison of reconstruction algorithms on European bech (Fagus sylvatica L.) trees: A Case Study with European Beech (Fagus sylvatica). Annals of Forest Research, 67(2), 185-199. https://doi.org/10.15287/afr.2024.3885

Stăncioiu, P.T., Dutcă, I., Florea, S.C. and Paraschiv, M., 2022. Measuring Distances and Areas under Forest Canopy Conditions—A Comparison of Handheld Mobile Laser Scanner and Handheld Global Navigation Satellite System. Forests, 13(11), p.1893. https://doi.org/10.3390/f13111893

Dutcă, I., Cernat, A., Stăncioiu, P.T., Ioraș, F. and Ni□ă, M.D., 2022. Does slope aspect affect the aboveground tree shape and volume allometry of European Beech (Fagus sylvatica L.) trees?. Forests, 13(7), p.1071. https://doi.org/10.3390/f13071071

Dutcă, I., McRoberts, R. E., Næsset, E., & Blujdea, V. N. (2022). Accommodating heteroscedasticity in allometric biomass models. Forest Ecology and Management, 505, 119865. https://doi.org/10.1016/j.foreco.2021.119865

Stăncioiu, P. T., Șerbescu, A. A., & Dutcă, I. (2021). Live Crown Ratio as an Indicator for Tree Vigor and Stability of Turkey Oak (Quercus cerris L.): A Case Study. Forests, 12(12), 1763. https://doi.org/10.3390/f12121763

Blujdea, V. N., Sikkema, R., Dutcă, I., & Nabuurs, G. J. (2021). Two large-scale forest scenario modelling approaches for reporting CO2 removal: a comparison for the Romanian forests. Carbon Balance and Management, 16(1), 1-17. https://doi.org/10.1186/s13021-021-00188-1

Osewe, E. O., & Dutcă, I. (2021). The Effects of Combining the Variables in Allometric Biomass Models on Biomass Estimates over Large Forest Areas: A European Beech Case Study. Forests, 12(10), 1428. https://doi.org/10.3390/f12101428

Blujdea, V. N., Viskari, T., Kulmala, L., Gârbacea, G., Dutcă, I., Miclăuș, M., ... & Liski, J. (2021). Silvicultural Interventions Drive the Changes in Soil Organic Carbon in Romanian Forests According to Two Model Simulations. Forests, 12(6), 795. https://doi.org/10.3390/f12060795

Dutcă, I., Mather, R., & Ioraș, F. (2020). Sampling trees to develop allometric biomass models: How does tree selection affect model prediction accuracy and precision?. Ecological Indicators, 117, 106553. https://doi.org/10.1016/j.ecolind.2020.106553

Dutcă, I., Zianis, D., Petri□an, I. C., Bragă, C. I., Ștefan, G., Yuste, J. C., & Petri□an, A. M. (2020). Allometric Biomass Models for European Beech and Silver Fir: Testing Approaches to Minimize the Demand for Site-Specific Biomass Observations. Forests, 11(11), 1136. https://doi.org/10.3390/f11111136

Blennow, K., Persson, J., Gonçalves, L. M. S., Borys, A., Dutcă, I., Hynynen, J., ... & Reyer, C. P. (2020). The role of beliefs, expectations and values in decision-making favoring climate change adaptation—implications for communications with European forest professionals. Environmental Research Letters, 15(11), 114061. https://doi.org/10.1088/1748-9326/abc2fa

Persson, J., Blennow, K., Gonçalves, L., Borys, A., Dutcă, I., Hynynen, J., ... & Reyer, C. P. (2020). No polarization–expected values of climate change impacts among European forest professionals and scientists. Sustainability, 12(7), 2659. https://doi.org/10.3390/su12072659

Dutcă, I. (2019). The variation driven by differences between species and between sites in allometric biomass models. Forests, 10(11), 976. https://doi.org/10.3390/f10110976

Dutcă, I., McRoberts, R. E., Næsset, E., & Blujdea, V. N. (2019). A practical measure for determining if diameter (D) and height (H) should be combined into D^2H in allometric biomass models. Forestry: An International Journal of Forest Research, 92(5), 627-634. https://doi.org/10.1093/forestry/cpz041

Stăncioiu, P. T., Dutcă, I., Bălăcescu, M. C., & Ungurean, Ș. V. (2019). Coexistence with Bears in Romania: A Local Community Perspective. Sustainability, 11(24), 7167. https://doi.org/10.3390/su11247167

Dutcă, I., Mather, R., Blujdea, V.N., Ioraș, F., Olari, M. and Abrudan, I.V., (2018). Site-effects on biomass allometric models for early growth plantations of Norway spruce (*Picea abies* (L.) Karst.). Biomass and Bioenergy, 116, pp.8-17. https://doi.org/10.1016/j.biombioe.2018.05.013

Dutcă, I., Stăncioiu, P.T., Abrudan, I.V., Ioraș, F., (2018). Using clustered data to develop biomass allometric models: the consequences of ignoring the clustered data structure, Plos One, 13(8). https://doi.org/10.1371/journal.pone.0200123

Dutcă, I., (2018). Biomass data for young, planted Norway spruce (*Picea abies* (L.) Karst.) trees in Eastern Carpathians of Romania, Data in Brief, 19, 2384-2392. https://doi.org/10.1016/j.dib.2018.07.033

Dutca, I., Mather, R., Ioras, F. (2018). Tree biomass allometry during the early growth of Norway spruce (Picea abies) varies between pure stands and mixtures with European beech (Fagus sylvatica). Canadian Journal of Forest Research, 48(1), 77-84. https://doi.org/10.1139/cjfr-2017-0177

Palaghianu, C., Dutca, I. (2017). Afforestation and reforestation in Romania: History, current practice and future perspectives. Reforesta, 4, 54-68 http://journal.reforestationchallenges.org/index.php/REFOR/article/view/58

Publicații

Dutca, I., Negrutiu, F., Ioras, F., Maher, K., Blujdea, V.N., Ciuvat, L.A. (2014). The Influence of Age, Location and Soil Conditions on the Allometry of Young Norway Spruce (Picea abies L. Karst.) Trees. Notulae Botanicae Horti Agrobotanici, 42(2), 579-582.
http://www.notulaebotanicae.ro/index.php/nbha/article/viewFile/9714/7771

Ciuvat, A.L., Abrudan, I.V., Blujdea, V., Dutca, I., Nuta, I. S., Elena, E.D.U. (2013). Biomass Equations and Carbon Content of Young Black Locust (Robinia pseudoacacia L.) Trees from Plantations and Coppices on Sandy Soils in South-Western Romanian Plain. Notulae Botanicae Horti Agrobotanici, 41(2), 590-592.
http://notulaebotanicae.ro/index.php/nbha/article/viewFile/9355/7673

Blujdea, V., Pilli, R., Dutcă, I., Ciuvă, L., Abrudan, I.V. (2012). Allometric biomass equations for young broadleaves in plantations in Romania. Forest Ecology and Management, 264, p172–184.
https://doi.org/10.1016/j.foreco.2011.09.042

Dutcă, I., Abrudan, I.V., Stăncioiu, P.T., Blujdea, V. (2010) Biomass Conversion and Expansion Factors for Young Norway Spruce (Picea abies (L.) Karst.) Trees Planted on Non-Forest Lands in Eastern Carpathians. Notulae Botanicae Horti Agrobotanici, 38(3), p286 - 292.
http://www.notulaebotanicae.ro/index.php/nbha/article/view/5450/5103

Stăncioiu, P.T., Abrudan, I.V., Dutcă, I. (2010) The Natura 2000 ecological network and forests in Romania: implications on management and administration. International Forestry Review, Vol.12(1), p106-113.
https://doi.org/10.1505/ifor.12.1.106

Dutcă, I., Abrudan, I.V. (2010). Estimation of Forest Land Cover Change in Romania between 1990 and 2006. Bulletin of Transilvania University of Brasov, Series II Forestry, Wood Industry and Agricultural Food Engineering, Vol. 2 (51), p13-18.
http://webbut.unitbv.ro/BU2010/Series%20II/BULETIN%20II%20PDF/Forestry/Dutca%20I.pdf

Proiecte

12. Testing the replacement of trees regenerated from vegetative shoots with trees regenerated from seeds as a measure to improve forest carbon sink
    Sursa de finanțare: Institutul Forestier European
    Perioada: 2024 – 2025
    Poziție: Coordonator
11. ForestPaths - Co-designing Holistic Forest-based Policy Pathways for Climate Change Mitigation
    Sursa de finanțare: Comisia Europeană, Orizont Europa
    Perioada: 2022 – 2027
    Poziție: membru echipa implementare
10. Holistic management practices, modelling and monitoring for European forest soils
    Sursa de finanțare: Comisia Europeană, Orizont 2020
    Perioada: 2020 – 2025
    Poziție: membru echipa implementare
9. Improving the accuracy and precision of biomass estimations for Fagus sylvatica L., from tree level to large area, using terrestrial laser scanning technology - BIOPREDICT
    Sursa de finanțare: Ministerul Educației și Cercetării, CNCS – UEFISCDI.
    Perioada: 2020 – 2022
    Poziție: Coordonator
8. Mobilizing and Monitoring Climate Positive Efforts in Forests and Forestry - FORCLIMIT
    Sursa de finanțare: Comisia Europeană - ERA-GAS, Orizont 2020
    Perioada: 2017-2020
    Poziție: membru echipa implementare
7. MSc Programme in Climate Change and Restoration of Degraded Lands
    Sursa de finanțare: Comisia Europeană
    Perioada: 2012-2014
    Poziție: membru echipa implementare
6. Green Technology European Virtual Gateway
    Sursa de finanțare: Comisia Europeană
    Perioada: 2012-2014
    Poziție: membru echipa implementare
5. Improving the conditions for large carnivore conservation – a transfer of best practices (LIFE EX-TRA)
    Sursa de finanțare: Comisia Europeană
    Perioada: 2010-2012
    Poziție: membru echipa implementare
4. Project title: Data collection for economical assessment of National Protected Areas in Romania
    Sursa de finanțare: Banca Mondială și United Nations Development Programme
    Perioada: 2011-2012
    Poziție: membru echipa implementare
3. Project title: Integrated Nutrient Pollution Control – Consulting services for development of afforestation plans
    Sursa de finanțare: Ministerul Mediului și Banca Mondială
    Perioada: 2009-2012
    Poziție: membru echipa implementare
2. Estimation of carbon accumulation dynamics through afforestation, using classic and modern tools
    Sursa de finanțare: Ministerul Educației si Cercetării, UEFISCDI
    Perioada: 2008-2010
    Poziție: Coordonator
1. Modelling of carbon sequestration in transitory forest ecosystems associated with forest land use change in Romania (FORLUC)
    Sursa de finanțare: Ministerul Educației si Cercetării, UEFISCDI
    Perioada: 2007-2010
    Poziție: membru echipa implementare

25.05.2025