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Habilitation thesis title: Assessment of structure and dynamics of forest ecosystems, and of effects of environmental changes on their elements

Domain: Forestry

## PUBLICATIONS LIST

### RELEVANT PAPERS

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1. **Petritan I.C.**, Commarmot B., Hobi M.L., Petritan A.M., Bigler C., Abrudan I.V., Rigling A. 2015. Structural patterns of beech and silver fir suggest stability and resilience of the virgin forest Sinca in the Southern Carpathians, Romania. **Forest Ecology and Management** 356: 184-195.
2. **Petritan I.C.**, Marzano R., Petritan A.M., Lingua E. 2014. Overstorey succession in a mixed *Quercus petraea*–*Fagus sylvatica* old growth forest revealed through the spatial pattern of competition and mortality. **Forest Ecology and Management** 326: 9-17.
3. Petritan A.M., Biris I.A., Merce O., Turcu D., **Petritan I.C.** 2012. Structure and diversity of a natural temperate sessile oak (*Quercus petraea* L.) - European beech (*Fagus sylvatica* L.) forest. **Forest Ecology and Management** 280: 140-149.
4. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2012. Response of planted beech (*Fagus sylvatica* L.) and Douglas-fir (*Pseudotsuga menziesii* (Mirb.) Franco) saplings to herbaceous and small shrubs control on clearcuts. **Journal of Forest Research** 17: 164-174.
5. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2011. Effects of root trenching of overstorey Norway spruce (*Picea abies*) on growth and biomass of underplanted beech (*Fagus sylvatica*) and Douglas fir (*Pseudotsuga menziesii*) saplings. **European Journal of Forest Research** 130: 813-828.

### PHD THESIS

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Contribuții la studiul statistic al parametrilor morfometrici și morfohidrologici ai bazinelor hidrografice mici, predominant forestiere. Universitatea Transilvania Brașov

### BOOKS

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1. **Petritan, I.C.** 2011. Jugendwachstum gepflanzter Buchen und Douglasien nach Kahlschlag, Saumschlag und Zielstärkennutzung im Fichtenvorbestand, VVB LAUFERSWEILER VERLAG, 138 p.
2. Chițea, Gh, **Petrițan, I.C.**, Chițea, C. 2010. Elemente de statistică, Brașov, LUX Libris

## ISI JOURNAL ARTICLES

1. Nguyen H.H., **Petritan I.C.**, Burslem D.F. 2018. High frequency of positive interspecific interactions revealed by individual species–area relationships for tree species in a tropical evergreen forest. **Plant Ecology & Diversity**, 1-10.
2. Nguyen H., Erfanifard Y., Pham V., Le X., **Petritan I.C.** 2018. Spatial Association and Diversity of Dominant Tree Species in Tropical Rainforest, Vietnam. **Forests** 9(10): 615.
3. Nguyen H.H., Erfanifard Y., **Petritan I.C.** 2018. Nearest Neighborhood Characteristics of a Tropical Mixed Broadleaved Forest Stand. **Forests** 9(1): 33.
4. Dölle M., Petritan A.M., Biris I.A., **Petritan I.C.** 2017. Relations between tree canopy composition and understorey vegetation in a European beech-sessile oak old growth forest in Western Romania. **Biologia** 72(12): 1422-1430.
5. Annighöfer P., Petritan A.M., **Petritan I.C.**, Ammer C. 2017. Disentangling juvenile growth strategies of three shade-tolerant temperate forest tree species responding to a light gradient. **Forest Ecology and Management** 391: 115-126.
6. Strimbu B.M., **Petritan I.C.**, Montes C., Biris I.A. 2017. An assessment of the O-ring methodology using virgin stands of mixed European beech–Sessile oak. **Forest Ecology and Management** 384: 378-388.
7. Vasile D., Petritan A.M., Tudose N.C., Toiu F.L., Scarlatescu V., **Petritan I.C.** 2017. Structure and Spatial Distribution of Dead Wood in Two Temperate Old-Growth Mixed European Beech Forests. **Notulae Botanicae Horti Agrobotanici Cluj-Napoca** 45(2): 639-645.
8. Petritan A.M., Bouriaud O., Frank D.C., **Petritan I.C.** 2017. Dendroecological reconstruction of disturbance history of an old-growth mixed sessile oak–beech forest. **Journal of Vegetation Science** 28(1): 117-127.
9. Dinulica F., Marcu V., Borz S.A., Vasilescu M.M., **Petritan I.C.** 2016. Wind contribution to yearly silver fir (*Abies alba* Mill.) compression wood development in the Romanian Carpathians. **iForest-Biogeosciences and Forestry** 9(6): 927.
10. **Petritan I.C.**, Commarmot B., Hobi M.L., Petritan A.M., Bigler C., Abrudan I.V., Rigling A. 2015. Structural patterns of beech and silver fir suggest stability and resilience of the virgin forest Sinca in the Southern Carpathians, Romania. **Forest Ecology and Management** 356: 184-195.
11. Dinulică F., Albu C.T., Borz S.A., Vasilescu M.M., **Petritan I.C.** 2015. Specific structural indexes for resonance Norway spruce wood used for violin manufacturing. **BioResources** 10(4): 7525-7543.

12. Clinciu I., **Petrițan I.C.**, Niță M.D. 2015. Magnitude of damage events on hydrotechnical torrent control structures. **Environmental Engineering and Management Journal** 14(1): 57-71.
13. **Petrițan I.C.**, Marzano R., Petritan A.M., Lingua E. 2014. Overstorey succession in a mixed *Quercus petraea*–*Fagus sylvatica* old growth forest revealed through the spatial pattern of competition and mortality. **Forest Ecology and Management** 326: 9-17.
14. Petritan A.M, Nuske R.S., **Petrițan I.C.**, Tudose N. C. 2013. Gap disturbance patterns in an old-growth sessile oak (*Quercus petraea* L.)–European beech (*Fagus sylvatica* L.) forest remnant in the Carpathian Mountains, Romania. **Forest Ecology and Management** 308: 67-75.
15. Budeanu M., Sofletea N., **Petrițan I.C.** 2013. Among-population Variation in Quality Traits in Two Romanian Provenance Trials with *Picea abies* L. **Baltic Forestry** 20: 37-47.
16. Petritan A.M., Biris I.A., Merce O., Turcu D., **Petrițan I.C.** 2012. Structure and diversity of a natural temperate sessile oak (*Quercus petraea* L.) - European beech (*Fagus sylvatica* L.) forest. **Forest Ecology and Management** 280: 140-149.
17. **Petrițan I.C.**, von Lüpke B., Petritan A.M. 2012. Response of planted beech (*Fagus sylvatica* L.) and Douglas-fir (*Pseudotsuga menziesii* (Mirb.) Franco) saplings to herbaceous and small shrubs control on clearcuts. **Journal of Forest Research** 17: 164-174.
18. **Petrițan I.C.**, von Lüpke B., Petritan A.M. 2011. Fine roots of overstorey Norway spruce (*Picea abies*): distribution and influence on growth of underplanted beech (*Fagus sylvatica*) and Douglas-fir (*Pseudotsuga menziesii*) saplings. **Forest Systems** 20: 407-419.
19. **Petrițan I.C.**, von Lüpke B., Petritan A.M. 2011. Influence of shelterwood and ground vegetation on late spring frost damages of planted beech (*Fagus sylvatica*) and douglas-fir (*Pseudotsuga menziesii*) saplings. **Baltic Forestry** 17 17: 227-234.
20. **Petrițan I.C.**, von Lüpke B., Petritan A.M. 2011. Effects of root trenching of overstorey Norway spruce (*Picea abies*) on growth and biomass of underplanted beech (*Fagus sylvatica*) and Douglas fir (*Pseudotsuga menziesii*) saplings. **European Journal of Forest Research** 130: 813-828.
21. Clinciu, I., **Petrițan, I.C.**, Nita, M.D. 2010. Monitoring of the hydrotechnical torrent control structures: a statistical approach. **Environmental Engineering and Management Journal** 9:1699-1708.
22. Petritan A.M., von Lüpke B., **Petrițan I.C.** 2010 A comparative analysis of foliar chemical composition and leaf construction costs of beech (*Fagus sylvatica* L.), sycamore maple

(*Acer pseudoplatanus* L.) and ash (*Fraxinus excelsior* L.) saplings along a light gradient. **Annals of Forest Science**, 67(6): 610\_1\_8.

23. Petritan A.M., von Lüpke B., **Petritan I.C.** 2009 Influence of light availability on growth, leaf morphology and plant architecture of beech (*Fagus sylvatica* L.), maple (*Acer pseudoplatanus* L.) and ash (*Fraxinus excelsior* L.) saplings. **European Journal of Forest Research**, 128(1): 61-74.
24. Petritan A.M., von Lüpke B., **Petritan I.C.** 2007 Effects of shade on growth and mortality of maple (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*) and beech (*Fagus sylvatica*) saplings, **Forestry** 80(4): 397-412.

#### OTHER (NON-ISI) INTERNATIONAL DATABASE JOURNAL ARTICLES

1. Medrea I., Petrițan A.M., Hereș A.M., **Petrițan I.C.** 2017. DACiA, un program destinat analizei caracteristicilor anatomice ale lemnului de rășinoase. **Revista de Silvicultură și Cinegetică** 22: 86-90.
2. Băluț M., Dinulică F., Medrea I., Petrițan A.M., **Petrițan I.C.** 2016. Un program accesibil și ușor de utilizat pentru măsurarea și analizarea inelelor anuale. **Revista de Silvicultură și Cinegetică** 21: 27-30.
3. Petrițan A.M., **Petrițan I.C.** 2015. Shade tolerance of maple and ash saplings as prerequisite for their maintenance in highly-structured beech forest. **Revista de Silvicultură și Cinegetică** 20: 29-33.
4. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2011. Effekt der Ausschaltung von Altfichtenwurzel-Konkurrenz auf Wasser-, Nährstoffversorgung und Wachstum junger Buchen und Douglasien. **Forstarchiv** 82, 161-162.
5. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2010 Einfluss unterschiedlicher Hiebsformen auf das Wachstum junger Buchen und Douglasien aus Pflanzung (Influence of different cutting types on growth of planted beech and Douglas fir saplings). **Forstarchiv** 81(2): 40-52.
6. Clinciu I., **Petritan I.C.**, Nita M.D., Tudose N. 2010. The typology, frequency and magnitude of some behaviour events in case of torrential hydrographical management works in upper Tarlung watershed. **Annals of Forest Research** 53(2):161-174.
7. Clinciu I., **Petrițan I.C.**, Niță M.D. 2010. Research concerning the event of uncontrolled installation of forest vegetation on the torrential managed network in the Upper Tărlung Watershed. **Bulletin of the Transilvania University of Brasov, Series II - Forestry, Wood Industry, Agricultural Food Engineering** 52: 21-28.
8. **Petritan I.C.**, Clinciu I. 2010. The influence of the size of watersheds on the hierarchical classification of morphometric and morphohydrological parameters. **Bulletin of the**

- Transilvania University of Brasov. Forestry, Wood Industry, Agricultural Food Engineering. Series II**, 3, 83.
9. **Petritan I.C.**, Clinciu I. 2009. Research with respect to the frequency distribution of the behavioral events associated to the component parts of a transverse hydrotechnical work. **Bulletin of the Transilvania University of Brasov, Series II - Forestry, Wood Industry, Agricultural Food Engineering**, 51: 29-34.
  10. Clinciu I., Păcurar V.D., **Petrițan I.C.**, Vasilescu M.M. 2008. Cercetări privind vegetația forestieră instalată pe rețeaua torențială amenajată din bazinul superior al Tărlungului. **Revista Pădurilor** 123(6): 13-20.
  11. Ciubotaru A., Chițea G., **Petrițan I.C.** 2005. Cercetări privind posibilitățile de evaluare a prejudiciilor aduse arborilor pe picior prin activitatea de exploatare a pădurilor. **Lucrările sesiuni științifice Pădurea și dezvoltarea durabilă**, Brașov, Romania, 2005, 2006, pp 357-362
  12. Florescu I.I., Chitea G., Sparchez G., Simon D., **Petritan I.C.** 2005. Considerații privind evoluția unor ecosisteme forestiere montane cvasivirgine. **Revista Pădurilor** 120(2): 23-27.
  13. Nicolescu N.V., Stăncioiu P.T., **Petritan I.C.**, Vasilescu M.M. 2004. O tabelă locală pentru stabilirea legăturii dintre dimatrul de bază și diametrul cioatei la fag și brad, în zona Christian-Brașov. **Revista Pădurilor** 119(5):15-18.
  14. Nicolescu N.V., Kruch J., **Petrițan I.C.** 2003. Cercetări privind elagajul natural al nucului negru (*Juglans nigra* L.). **Revista Pădurilor** 118 (5): 8-11.
  15. Florescu I.I., Chițea G., Spârchez G., **Petrițan I.C.**, Filipescu C. 2003. Cercetări privind modul de structurare a unor ecosisteme forestiere cvasivirgine din zona Brașov. **Revista Pădurilor** 118 (1): 18-26.
  16. Nicolescu N.V., Simon D, Filipescu C. N., **Petrițan I.C.**, Păcurar V.D., Radu N., Tereșneu C. 2002. Cercetări privind aplicarea silviculturii dinamice în făgete tinere din zona Brașov. **Anale Institutul de Cercetări și Amenajări Silvice** 45: 199-207.
  17. Florescu I., Chițea G., Spârchez G., Filipescu C. , **Petrițan I.C.** 2002. Considerații privind variația indicilor de zveltețe și de elagaj în unele păduri montane cvasivirgine din zona Brașov. **Revista Pădurilor** 117: 6-10.
  18. Florescu I., Chițea G., Spârchez G., Simon D., **Petrițan I.C.**, Filipescu C. 2002. Particularități privind modul de structurare și funcționare a unor ecosisteme forestiere montane cvasivirgine din zona Brașov. **Annals of Forest Research** 45: 21-30.

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