

Dedicated to the Professor Adam Boratyński

A Festschrift in honor of Professor Adam Boratyński – forester, botanist, and traveller

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Professor Adam Boratyński is a forester and botanist by education. He graduated from the Faculty of Forestry at the Poznań University of Life Sciences (previously, the August Cieszkowski Agricultural University of Poznań). Presently, he is a senior professor, very active as a researcher and educator and with great organizational skills. He is also an author and co-author of many scientific articles, monographs, atlases and chapters in the books that are of significant importance for the world's scientific literature. Trees and shrubs in the scientific life of Professor Boratynski are the focus of his research. The professor, apart from scientific articles, is the author of monographic studies of various tree species in the encyclopedia 'Enzyklopädie der Holzgewächse'.

Professor Boratyński is a friend of many botanists, especially young people. He always has time for conversations with them about science and life in general and is very interested in their problems, both scientific and connected with everyday life. He inspires young people to create different alternative hypotheses and search for and use various tools and technologies to solve research problems. Professor Boratyński has been continually developing his research techniques. He is one of the first Polish botanists to apply genetic analyses to solve phytogeographical problems and formed a team of young people, who presently develop high level research in the area of phylogeography, based on molecular techniques.

Professor Boratyński is also a passionate traveller, who uses travels for nature observation and collecting material for studies in plant systematics, chorology and ecology. Among Professor's favourite research regions are the Mediterranean Basin and Sudeten Mountains (Figs 1–2). The Mediterranean Sea (*mediterraneus* from Latin – inland or in the middle of the land) significantly affects the climate and vegetation of surrounding areas. It is vegetation of this region, particularly the dendroflora of Greece, Spain and some Mediterranean islands, which has been in the center of Professor's scientific interests.

In this place, it is worth recalling the work on dendroflora of Greece or the monograph of *Empetraceae* on the Iberian Peninsula, written in cooperation with his Spanish colleagues from the Botanical Institute of Barcelona. The Sudetes are the second special place for Professor Boratyński. The dendroflora of Karkonosze Mountains, the highest range of the Sudetes, was the study object of his habilitation thesis. No doubt, the biology and ecology of common yew (*Taxus baccata*) and many other trees were investigated in depth thanks to the Professor's research.

The current issue of the journal Plant and Fungus Systematics is dedicated to Professor Adam Boratyński. On behalf of the journal's editors and Polish botanists, we wish to thank Professor Boratyński for his passionate research work, for all past and future discussions about nature and science and, above all, for his great kindness for people and peacefulness – both features so rarely met nowadays.

We thank all the authors for their contributions to this issue, which is published to express our heartfelt appreciation of Professor Adam Boratyński.

You will find information about the scientific works of Prof. Boratyński: <https://orcid.org/0000-0003-0678-4304>; <https://www.researchgate.net/profile/Adam-Boratynski>.

Some publications by Adam Boratyński

- Boratyński, A. & Browicz, K. 1976. In: Browicz, K. (ed.) *Atlas rozmieszczenia drzew i krzewów w Polsce*. 17. PWN, Warszawa–Poznań.
- Boratyńska, K. & Boratyński, A. 1976. In: Browicz, K. (ed.) *Atlas rozmieszczenia drzew i krzewów w Polsce*. 19. PWN, Warszawa–Poznań.
- Boratyńska, K. & Boratyński, A. 1977. In: Browicz, K. (ed.) *Atlas rozmieszczenia drzew i krzewów w Polsce*. 23. PWN, Warszawa–Poznań.
- Boratyńska, K. & Boratyński, A. 1978. In: Browicz, K. (ed.) *Atlas rozmieszczenia drzew i krzewów w Polsce*. 25. PWN, Warszawa–Poznań.
- Boratyńska, K. & Boratyński, A. 1979. In: Browicz, K. (ed.) *Atlas rozmieszczenia drzew i krzewów w Polsce*. 27. PWN, Warszawa–Poznań.
- Boratyńska, K., Boratyński, A. & Hantz, J. 1980. In: Browicz, K. (ed.) *Atlas rozmieszczenia drzew i krzewów w Polsce*. 30. PWN, Warszawa–Poznań.

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Figure 1. A – Adam Boratyński with Bouchra Douaihy, Kórnik, Poland (2011); B – Adam Boratyński with Yakiv Didukh, Barbara Waldon-Rudzinek, Piotr Kosiński, expedition to Ukraine (2004); C – Adam Boratyński with Dominik Tomaszewski during *International Botanical Congress, IBC*, Vienna, Austria (2005); D – Adam Boratyński with Anna K. Jasińska, expedition to Turkey (2005); E – Adam Boratyński, expedition to Turkey (2005); F – Adam Boratyński, expedition to Turkey (2009); G – Adam Boratyński with Karolina Sobierajska, expedition to Turkey (2009); H – Adam Boratyński, expedition to Turkey (2009). Photos: archives of the expedition team.



Figure 2. A – Adam Boratyński with the participants of the expedition to Greece and Bulgaria (2010); B – Adam Boratyński, expedition to Greece (2010); C – Adam Boratyński with Maciej Sękiewicz, Monika Dering, Katarzyna Sękiewicz, expedition to Morocco (2014); D – Drying in herbarium nets collecting plant material during the expedition to Morocco (2014); E – Adam Boratyński with Pedro Soria Estevan, Maciej Sękiewicz, Monika Dering, expedition to Morocco (2014); F – Adam Boratyński, expedition to Georgia (2017); G – Adam Boratyński as a guide, Karkonosze, Poland (2017); H – Adam Boratyński, expedition to Morocco (2014). Photos: archives of the expedition team.

- Boratyńska, K., **Boratyński, A.**, Browicz, K. & Hantz, J. 1981. In: Browicz, K. (ed.) *Atlas rozmieszczenia drzew i krzewów w Polsce*. 31. PWN, Warszawa–Poznań.
- Boratyński, A.** 1985. Rzadkie i godne ochrony drzewa i krzewy polskiej części Sudetów, Pogórza i Przedgórza Sudeckiego. 1. *Juniperus communis* L. s.lat. *Arboretum Kórnickie* 30: 111–126.
- Boratyński, A.** 1986. Chronione i godne ochrony drzewa i krzewy polskiej części Sudetów, Pogórza i Przedgórza Sudeckiego. 2. *Empetrum nigrum* L. s.lat. *Arboretum Kórnickie* 31: 21–37.
- Boratyński, A.** & Danielewicz, W. 1989. Chronione i godne ochrony drzewa i krzewy polskiej części Sudetów, Pogórza i Przedgórza Sudeckiego. 5. *Betula pubescens* Ehr. subsp. *carpathica* (Waldst. et Kit.) Asch. et Graebner. *Arboretum Kórnickie* 34: 71–88.
- Boratyński, A.**, Konca, B. & Zientarski, J. 1989. An instance of the most endangered forest association in the mountains of central Europe. *Pirineos* 133: 3–32.
- Boratyńska, K. & **Boratyński, A.** 1990. Systematyka i geograficzne rozmieszczenie. In: *Buk zwyczajny Fagus sylvatica L.* Białobok S. (ed.). *Nasze Drzewa Leśne* 10: 27–73.
- Boratyński, A.** 1991. Chorologiczna analiza flory drzew i krzewów Sudetów Zachodnich. 323 pp. Polska Akademia Nauk, Instytut Dendrologii, Kórnik.
- Boratyński, A.** 1991. Range of natural distribution. Developments in plant genetics and breeding 3 (C): 19–30.
- Boratyński, A.**, Browicz, K. & Zieliński, J. 1992. Chorology of Trees and Shrubs in Greece. 286 pp. + 24 maps. Polish Academy of Sciences. Institute of Dendrology, Sorus, Poznań–Kórnik.
- Białobok, S., **Boratyński, A.** & Bugała W. (ed.) 1993. Biologia sosny zwyczajnej. 624 pp. Polska Akademia Nauk, Instytut Dendrologii, Sorus, Poznań–Kórnik.
- Boratyński, A.** & De La Puente, M. L. V. 1995. The Empetraceae on the Iberian Peninsula. *Willdenowia* 25(1): 39–53.
- Boratyński, A.**, Kosiński, P., Kwiatkowski, P. & Szlachetka, A. 1995. Chronione i godne ochrony drzewa i krzewy polskiej części Sudetów, Pogórza i Przedgórza Sudeckiego. 8. *Sorbus terminalis* (L.) Crantz. *Arboretum Kórnickie* 40: 11–35.
- Lewandowski, A., **Boratyński, A.** & Mejnartowicz, L. 1996. Low level of isoenzyme variation in an island population of *Juniperus oxycedrus* subsp. *macrocarpa* (Sm. Ex Sibth.) Ball. *Acta Societatis Botanicorum Poloniae* 65(3–4): 335–338.
- Boratyński, A.**, Kmiecik, M., Kosiński, P., Kwiatkowski, P. & Szczęśniak, E. 1997. Chronione i godne ochrony drzewa i krzewy polskiej części Sudetów, Pogórza i Przedgórza Sudeckiego. 9. *Taxus baccata* L. *Arboretum Kórnickie* 42: 111–147.
- Boratyński A.** & Bugała W. 1998. (eds). Biologia świerka pospolitego. 781 pp. + 32 tabl. Polska Akademia Nauk, Instytut Dendrologii, Bogucki Wydawnictwo Naukowe, Poznań.
- Boratyński, A.** 1994. Chronione i godne ochrony drzewa i krzewy polskiej części Sudetów, Pogórza i Przedgórza Sudeckiego. 7. *Pinus mugo* Turra i *Pinus uliginosa* Neumann. *Arboretum Kórnickie* 39: 63–85.
- Boratyński, A.**, Kosiński, P., Kwiatkowski, P., Szczęśniak, E. & Świerkosz, K. 1999. Chronione i godne ochrony drzewa i krzewy polskiej części Sudetów, Pogórza i Przedgórza Sudeckiego. 5. *Cotoneaster integerrimus* Medik. i *C. niger* (Thunb.) Fr. *Arboretum Kórnickie* 44: 5–22.
- Lewandowski, A., **Boratyński, A.** & Mejnartowicz, L. 2000. Allozyme investigations on the genetic differentiation between closely related pines *Pinus sylvestris*, *P. mugo*, *P. uncinata*, and *P. uliginosa* (Pinaceae). *Plant Systematics and Evolution* 221(1–2): 15–24.
- Boratyński, A.**, Didukh, Y. & Lucak, M. 2001. The yew (*Taxus baccata* L.) population in Knyazhdvir: Nature Reserve in the Carpathians (Ukraine). *Dendrobiology* 46: 3–8.
- Boratyńska, K., **Boratyński, A.** & Lewandowski, A. 2003. Morphology of *Pinus uliginosa* (Pinaceae) needles from populations exposed to and isolated from the direct influence of *Pinus sylvestris*. *Botanical Journal of the Linnean Society* 142(1): 83–91.
- Boratyński, A.**, Boratyńska, K., Lewandowski, A., Gołęb, Z. & Kiciński, P. 2003. Evidence of the possibility of natural reciprocal crosses between *Pinus sylvestris* and *P. uliginosa* based on the phenology of reproductive organs. *Flora: Morphology, Distribution, Functional Ecology of Plants* 198(5): 377–388.
- Mazur, M., Boratyńska, K., Marcysiak, K., Gómez, D., Tomaszewski, D., Didukh, Y. & **Boratyński, A.** 2003. Morphological variability of *Juniperus phoenicea* (Cupressaceae) from three distant localities on Iberian Peninsula. *Acta Societatis Botanicorum Poloniae* 72(1): 71–78.
- Boratyński, A.** & Romo, A. 2003. *Loiseleuria procumbens* (Ericaceae) in the Spanish Pyrenees. *Acta Societatis Botanicorum Poloniae* 72(2): 125–133.
- Romo, A., Didukh, Y. & **Boratyński, A.** 2004. *Thesium (Santalaceae)* in Crimea, Ukraine. *Annales Botanici Fennici* 41(4): 273–281.
- Boratyńska, K., Marcysiak, K. & **Boratyński, A.** 2005. *Pinus mugo* (Pinaceae) in the Abruzzi Mountains: High morphological variation in isolated populations. *Botanical Journal of the Linnean Society* 147(3): 309–316.
- Iszkuło, G. & **Boratyński, A.** 2005. Different age and spatial structure of two spontaneous subpopulations of *Taxus baccata* as a result of various intensity of colonization process. *Flora: Morphology, Distribution, Functional Ecology of Plants* 200(2): 195–206.
- Boratyńska, K. & **Boratyński, A.** 2006. Occurrence of three-needle dwarf shoots on European species of the genus *Pinus* (Pinaceae). *Plant Biosystems* 140(1): 21–26.
- Boratyński, A.**, Piwczyński, M., Didukh, Y., Tasenkevich, L., Romo, A. & Ratynska, H. 2006. Distribution and phytocoenotic characteristics of relict populations of *Rhododendron myrtifolium* (Ericaceae) in the Ukrainian Carpathians. *Polish Botanical Studies* 22: 53–62.
- Klimko, M., Boratyńska, K., Montserrat, J. M., Didukh, Y., Romo, A., Gómez, D., Kluza-Wieloch, M., Marcysiak, K. & **Boratyński, A.** 2007. Morphological variation of *Juniperus oxycedrus* subsp. *oxycedrus* (Cupressaceae) in the Mediterranean region. *Flora: Morphology, Distribution, Functional Ecology of Plants* 202(2): 133–147.
- Marcysiak, K. & **Boratyński, A.** 2007. Contribution to the taxonomy of *Pinus uncinata* (Pinaceae) based on cone characters. *Plant Systematics and Evolution* 264(1–2): 57–73.
- Marcysiak, K., Mazur, M., Romo, A., Montserrat, J. M., Didukh, Y., Boratyńska, K., Jasińska, A., Kosiński, P. & **Boratyński, A.** 2007. Numerical taxonomy of *Juniperus thurifera*,

- J. excelsa* and *J. foetidissima* (Cupressaceae) based on morphological characters. *Botanical Journal of the Linnean Society* 155(4): 483–495.
- Romo, A. & **Boratyński, A.** 2007. Notes and contributions to the vascular flora of Oukaïmeden (Central High Atlas, Morocco). *Candollea* 62(1): 69–89.
- Boratyński, A.**, Marcysiak, K., Lewandowska, A., Jasińska, A. K., Iszkuło, G. & Burczyk, J. 2008. Differences in leaf morphology between *Quercus petraea* and *Q. robur* adult and young individuals. *Silva Fennica* 42(1): 115–124.
- Boratyński, A.**, Lewandowski, A., Boratyńska, K., Montserrat, J. M. & Romo, A. 2009. High level of genetic differentiation of *Juniperus phoenicea* (Cupressaceae) in the Mediterranean region: geographic implications. *Plant Systematics and Evolution* 277(3–4): 163–172.
- Dzialuk, A., Muchewicz, E., **Boratyński, A.**, Montserrat, J. M., Boratyńska, K. & Burczyk, J. 2009. Genetic variation of *Pinus uncinata* (Pinaceae) in the Pyrenees determined with cpSSR markers. *Plant Systematics and Evolution* 277(3–4): 197–205.
- Iszkuło, G., Jasińska, A. K., Giertych, M. J. & **Boratyński, A.** 2009. Do secondary sexual dimorphism and female intolerance to drought influence the sex ratio and extinction risk of *Taxus baccata*? *Plant Ecology* 200(2): 229–240.
- Jasińska, A. K., Wachowiak, W., Muchewicz, E., Boratyńska, K., Montserrat, J. M. & **Boratyński, A.** 2010. Cryptic hybrids between *Pinus uncinata* and *P. sylvestris*. *Botanical Journal of the Linnean Society* 163(4): 473–485.
- Douaihy, B., Vendramin, G. G., **Boratyński, A.**, Machon, N. & Dagher-Kharrat, M. B. 2011. High genetic diversity with moderate differentiation in *Juniperus excelsa* from Lebanon and the eastern Mediterranean region. *AoB PLANTS* 11(1): plr003.
- Dzialuk, A., Mazur, M., Boratyńska, K., Montserrat, J. M., Romo, A. & **Boratyński, A.** 2011. Population genetic structure of *Juniperus phoenicea* (Cupressaceae) in the western mediterranean basin: Gradient of diversity on a broad geographical scale. *Annals of Forest Science* 68(8): 1341–1350.
- Iszkuło, G. & **Boratyński, A.** 2011. Initial period of sexual maturity determines the greater growth rate of male over female in the dioecious tree *Juniperus communis* subsp. *communis*. *Acta Oecologica* 37(2): 99–102.
- Jasińska, A. K., Boratyńska, K., Sobierajska, K., Romo, A. M., Ok, T., Kharat, M. B. D. & **Boratyński, A.** 2013. Relationships among *Cedrus libani*, *C. brevifolia* and *C. atlantica* as revealed by the morphological and anatomical needle characters. *Plant Systematics and Evolution* 299(1): 35–48.
- Romo, A., Hidalgo, O., **Boratyński, A.**, Sobierajska, K., Jasińska, A. K., Vallès, J. & Garnatje, T. 2013. Genome size and ploidy levels in highly fragmented habitats: The case of western Mediterranean *Juniperus* (Cupressaceae) with special emphasis on *J. thurifera* L. *Tree Genetics and Genomes* 9(2): 587–599.
- Sękiewicz, K., Sękiewicz, M., Jasińska, A. K., Boratyńska, K., Iszkuło, G., Romo, A. & **Boratyński, A.** 2013. Morphological diversity and structure of West Mediterranean *Abies* species. *Plant Biosystems* 147: 125–134.
- Boratyński, A.**, Wachowiak, W., Dering, M., Boratyńska, K., Sękiewicz, K., Sobierajska, K., Jasińska, A. K., Klimko, M., Montserrat, J. M., Romo, A., Ok, T. & Didukh, Y. 2014. The biogeography and genetic relationships of *Juniperus* oxycedrus and related taxa from the Mediterranean and Macaronesian regions. *Botanical Journal of the Linnean Society* 174: 637–653.
- Dering, M., Sękiewicz, K., Boratyńska, K., Litkowiec, M., Iszkuło, G., Romo, A. & **Boratyński, A.** 2014. Genetic diversity and inter-specific relations of western Mediterranean relic *Abies* taxa as compared to the Iberian *A. alba*. *Flora: Morphology, Distribution, Functional Ecology of Plants* 209(7): 367–374.
- Jasińska, A. K., Boratyńska, K., Dering, M., Sobierajska, K. I., Ok, T., Romo, A. & **Boratyński, A.** 2014. Distance between south-European and south-west Asiatic refugial areas involved morphological differentiation: *Pinus sylvestris* case study. *Plant Systematics and Evolution* 300: 1487–1502.
- Romo, A. & **Boratyński, A.** 2014. The genus *Cotoneaster* (Rosaceae) in NW Africa. *Willdenowia* 44(2): 229–239.
- Boratyńska, K., Jasińska, A. K. & **Boratyński, A.** 2015. Taxonomic and geographic differentiation of *Pinus mugo* complex on the needle characteristics. *Systematics and Biodiversity* 13(6): 901–915.
- Jasińska, A. K., Rucińska, B., Kozłowski, G., Bétrisey, S., Safarov, H., Boratyńska, K. & **Boratyński, A.** 2015. Morphological differentiation of leaves in the relict tree Zelkova carpinifolia (Ulmaceae). *Dendrobiology* 74: 109–122.
- Sękiewicz, K., Dering, M., Sękiewicz, M., Boratyńska, K., Iszkuło, G., Litkowiec, M., Ok, T., Dagher-Kharrat, M. B. & **Boratyński, A.** 2015. Effect of geographic range discontinuity on species differentiation East-Mediterranean *Abies cilicica*: a case study. *Tree Genetics and Genomes* 11(1): 10.
- Mazur, M., Minissale, P., Sciandrello, S. & **Boratyński, A.** 2016. Morphological and ecological comparison of populations of *Juniperus turbinata* Guss. and *J. phoenicea* L. from the Mediterranean region. *Plant Biosystems* 150(2): 313–322.
- Sękiewicz, K., Boratyńska, K., Dagher-Kharrat, M. B., Ok, T. & **Boratyński, A.** 2016. Taxonomic differentiation of *Cupressus sempervirens* and *C. atlantica* based on morphometric evidence. *Systematics and Biodiversity* 14(5): 494–508.
- Sobierajska, K., Boratyńska, K., Jasińska, A., Dering, M., Ok, T., Douaihy, B., Bou Dagher-Kharrat, M., Romo, A. & **Boratyński, A.** 2016. Effect of the Aegean Sea barrier between Europe and Asia on differentiation in *Juniperus drupacea* (Cupressaceae). *Botanical Journal of the Linnean Society* 180(3): 365–385.
- Dering, M., Kosiński, P., Wyka, T. P., Pers-Kamczyc, E., **Boratyński, A.**, Boratyńska, K., Reich, P. B., Romo, A., Zadworny, M., Żytkowiak, R. & Oleksyn, J. 2017. Tertiary remnants and holocene colonizers: Genetic structure and phylogeography of Scots pine reveal higher genetic diversity in young boreal than in relict Mediterranean populations and a dual colonization of Fennoscandia. *Diversity and Distributions* 23(5): 540–555.
- Dzialuk, A., Boratyńska, K., Romo, A. & **Boratyński, A.** 2017. Taxonomic and geographic variation of the *Pinus mugo* complex on chloroplast microsatellite markers. *Systematics and Biodiversity* 15(5): 464–479.
- Jasińska, A., Boratyńska, K., Sękiewicz, K., Di Gristina, E. & **Boratyński, A.** 2017. Relationships among *Abies nebrodensis*, *A. alba* and *A. cephalonica* in the morphological and anatomical needle characteristics. *Plant Biosystems* 151(5): 775–782.

- Jasińska, A., Sękiewicz, K., Ok, T., Romo, A., **Boratyński, A.** & Boratyńska, K. 2017. Taxonomic position of *Abies equi-trojani* on the basis of needle characters by comparison with different fir species. *Turkish Journal of Botany* 41(6): 620–631.
- Romo, A., Iszkuło, G., Seghir Taleb, M., Walas, Ł. & **Boratyński, A.** 2017. *Taxus baccata* in Morocco: A tree in regression in its southern extreme. *Dendrobiology* 78: 63–74.
- Didukh Y., Kontar I. & **Boratyński A.** 2018. Phytoindicating Comparison of Vegetation of the Polish Tatras, the Ukrainian Carpathians and the Mountain Crimea. In: Greller A., Fujiwara K. & Pedrotti F. (eds) Geographical Changes in Vegetation and Plant Functional Types. Geobotany Studies (Basics, Methods and Case Studies). Springer, Cham. https://doi.org/10.1007/978-3-319-68738-4_9
- Mazur, M., Zielińska, M., Boratyńska, K., Romo, A., Salvà-Catarineu, M., Marcysiak, K. & **Boratyński, A.** 2018. Taxonomic and geographic differentiation of *Juniperus phoenicea* agg. based on cone, seed, and needle characteristics. *Systematics and Biodiversity* 16(5): 469–482.
- Sękiewicz, K., Dering, M., Romo, A., Dagher-Kharrat, M. B., Boratyńska, K., Ok, T. & **Boratyński, A.** 2018. Phylogenetic and biogeographic insights into long-lived Mediterranean *Cupressus* taxa with a schizo-endemic distribution and Tertiary origin. *Botanical Journal of the Linnean Society* 188(2): 190–212.
- Kosiński, P., Sękiewicz, K., Walas, Ł., **Boratyński, A.** & Dering, M. 2019. Spatial genetic structure of the endemic alpine plant *Salix serpillifolia*: genetic swamping on nunataks due to secondary colonization? *Alpine Botany* 129(2): 107–121.
- Kosiński, P., Sliwinska, E., Hilpold, A. & **Boratyński, A.** 2019. DNA ploidy in *Salix retusa* agg. only partly in line with its morphology and taxonomy. *Nordic Journal of Botany* 37(7): e02197.
- Romo, A., Mazur, M., Salvà-Catarineu, M. & **Boratyński, A.** 2019. A re-evaluated taxon: Genetic values and morphological characters support the recognition of the Canary Island juniper of the *phoenicea* group at a specific level. *Phytotaxa* 406(1): 64–70.
- Walas, Ł., Sobierajska, K., Ok, T., Dönmez, A. A., Kanoğlu, S. S., Dagher-Kharrat, M. B., Douaihy, B., Romo, A., Stephan, J., Jasińska, A. K. & **Boratyński, A.** 2019. Past, present, and future geographic range of an oro-Mediterranean Tertiary relict: the *Juniperus drupacea* case study. *Regional Environmental Change* 19(5): 1507–1520.
- Litkowiec, M., Sękiewicz, K., Romo, A., Ok, T., Bou Dagher-Kharrat, M., Jasińska, A. K., Sobierajska, K., Boratyńska, K. & **Boratyński, A.** 2021. Biogeography and relationships of the *Abies* taxa from the mediterranean and central Europe regions as revealed by nuclear DNA markers and needle structural characters. *Forest Ecology and Management* 479: 118606.
- Sobierajska, K., Wachowiak, W., Zaborowska, J., Łabiszak, B., Wójkiewicz, B., Sękiewicz, M., Jasińska, A. K., Sękiewicz, K., Boratyńska, K., Marcysiak, K. & **Boratyński, A.** 2020. Genetic consequences of hybridization in relict isolated trees *Pinus sylvestris* and the *Pinus mugo* complex. *Forests* 11: 1086.
- Taib, A., Morsli, A., Chojnacka, A., Walas, Ł., Sękiewicz, K., **Boratyński, A.**, Romo, A. & Dering, M. 2020. Patterns of genetic diversity in North Africa: Moroccan-Algerian genetic split in *Juniperus thurifera* subsp. *africana*. *Scientific Reports* 10: 4810.
- Mazur, M., **Boratyński, A.**, Boratyńska, K. & Marcysiak, K. 2021. Weak geographical structure of *Juniperus sabina* (*Cupressaceae*) morphology despite its discontinuous range and genetic differentiation. *Diversity* 13(10), 470, <https://doi.org/10.3390/d13100470>
- Salvà-Catarineu, M., Romo, A., Mazur, M., Zielińska, M., Minissale, P., Dönmez, A. A., Boratyńska, K. & **Boratyński, A.** 2021. Past, present and future geographic range of the relict Mediterranean and Macaronesian *Juniperus phoenicea* complex. *Ecology and Evolution* 11(10): 5075–5095.
- Song, Y. G., Walas, Ł., Pietras, M., Sâm, H. V., Yousefzadeh, H., Ok, T., Farzaliyev, V., Worobiec, G., Worobiec, E., Stachowicz-Rybka, R., **Boratyński, A.**, Boratyńska, K., Kozłowski, G. & Jasińska, A. K. 2021. Past, present and future suitable areas for the relict tree *Pterocarya fraxinifolia* (*Juglandaceae*): Integrating fossil records, niche modeling, and phylogeography for conservation. *European Journal of Forest Research* 140(6): 1323–1339.