

**Candidate supervisor's information summary form**  
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: Marzena Niemczyk, Ph.D.	
Discipline/ disciplines of science	Forestry sciences
Professional development (degrees and titles) in chronological order	Ph.D. 2006; Research associate 2007 Dr. habilitated 2021; Associate Professor 2021
Most important publications/patens over the last 3 years (maximum 10)	<p>Žiauka, J., Striganavičiūtė, G., Szyp-Borowska, I., Kuusienė, S., &amp; <b>Niemczyk, M.</b> 2022. Differences in Environmental and Hormonal Regulation of Growth Responses in Two Highly Productive Hybrid Populus Genotypes. <i>Forests</i>, 13(2). <a href="https://doi.org/10.3390/f13020183">https://doi.org/10.3390/f13020183</a></p> <p><b>Niemczyk M.</b>, Chmura D.J., Socha J., Wojda T., Mroczek P., Gil W., Thomas B.R. 2021. How geographic and climatic factors affect the adaptation of Douglas - fir provenances to the temperate continental climate zone in Europe. <i>Eur J For Res.</i> <a href="https://doi.org/10.1007/s10342-021-01398-5">https://doi.org/10.1007/s10342-021-01398-5</a></p> <p><b>Niemczyk M.</b>, Bachilava M., Wróbel M., Jewiarz M., Kavtaradze G., Goginashvili N. 2021. Productivity and Biomass Properties of Poplar Clones Managed in Short-Rotation Culture as a Potential Fuelwood Source in Georgia. <i>Energies</i> 2021, 14(11), 3016; <a href="https://doi.org/10.3390/en14113016">https://doi.org/10.3390/en14113016</a></p> <p><b>Niemczyk M.</b> 2021. The effects of cultivar and rotation length (5 vs 10 years) on biomass production and sustainability of poplar (<i>Populus</i> spp.) bioenergy plantation. <i>GCB Bioenergy.</i> <a href="https://doi.org/10.1111/qcbb.12827">https://doi.org/10.1111/qcbb.12827</a></p> <p>Małachowska E., Lipkiewicz A., <b>Niemczyk M.</b>, Dubowik M., Boruszewski P., Przybysz P. 2021. Influences of Fiber and Pulp Properties on Papermaking Ability of Cellulosic Pulps Produced from Alternative Fibrous Raw Materials, <i>Journal of Natural Fibers</i>, 18:11, 1751-1761, <a href="https://doi.org/10.1080/15440478.2019.1697994">https://doi.org/10.1080/15440478.2019.1697994</a></p> <p><b>Niemczyk M.</b>, Thomas B.R. 2020. Growth parameters and resistance to <i>Sphaerulina musiva</i>-induced canker are more important than wood density for increasing genetic gain from selection of <i>Populus</i> spp. hybrids for northern climates. <i>Annals of Forest Science</i> 77:26. <a href="https://doi.org/10.1007/s13595-020-0931-y">https://doi.org/10.1007/s13595-020-0931-y</a>.</p> <p><b>Niemczyk M.</b>, Sierpińska A., Tereba A., Sokołowski K., Przybylski P. 2019. Natural occurrence of Beauveria spp. in outbreak areas of cockchafers (<i>Melolontha</i> spp.) in forest soils from Poland. <i>BioControl</i> Volume 64, Issue 2, pp 159–172. <a href="https://doi.org/10.1007/s10526-019-09927-3">https://doi.org/10.1007/s10526-019-09927-3</a></p> <p><b>Niemczyk M.</b>, Hu Y., Thomas B.R. 2019. Selection of Poplar Genotypes for Adapting to Climate Change. <i>Forests</i> 10(11):1041 <a href="https://doi.org/10.3390/f10111041">https://doi.org/10.3390/f10111041</a></p>

	<p><b>Niemczyk M., Przybysz P., Przybysz K., Karwański M., Kaliszewski A., Wojda T., Liesebach M.</b> 2019: Productivity, Growth Patterns, and Cellulosic Pulp Properties of Hybrid Aspen Clones. <i>Forests</i> 10: 450. <a href="https://doi.org/10.3390/f10050450">https://doi.org/10.3390/f10050450</a></p>
<p>Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order</p>	<p>Co-supervisor of Ph.D. candidate, Adam Klepacki, since 2017</p>
<p>Project/grants achievements (from the last 10 years)</p>	<p>Increasing the adaptive potential of forests through tree breeding. Implementation period: 2020 - 2024; Financing source: General Directorate of State Forests; project leader.</p> <p>Determining wood production capacity for energy and paper purposes in poplar plantations in short and medium rotation cycles. Implementation period: 2015 - 2019; Source of financing: General Directorate of the State Forests; project leader.</p> <p>Development of ecologically-silvicultural methods of thinning for young forest plantations and timber on disaster areas in the Beskids. Implementation period: 2013 - 2016; Source of financing: General Directorate of State Forests; contractor of the project.</p> <p>Dynamics of growth and development, as well as silvicultural management directions of small-leaved lime, stands in the state forest. Implementation period: 2013 – 2015; Source of financing: General Directorate of the State Forests; co-author and contractor of the project.</p> <p>Active protection of the common yew in selected Natura 2000 areas in Poland. Implementation period: 2010 - 2014; Source of Financing: European Regional Development Fund, Operational Program Infrastructure and Environment; co-author and contractor of the project.</p> <p>Environmentally friendly methods of protecting forest ecosystems threatened by <i>Melolontha</i> spp. Period of implementation: 2010 - 2013; Source of funding National Center for Research and Development; co-author and contractor of the project.</p>
<p>Topic – research problem – for which the candidate supervisor seeks a doctoral student</p>	<p>Genetic variation in phenotypic traits of forest trees within the species and the mechanisms of adaptation to climate change.</p> <p>Evolutionary adaptation of morphological traits and physiological response to drought stress of the most important tree species in the temperate climate zone.</p>

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