Appendix No. 1 to the Recruitment Rules of the SGGW Doctoral School in Warsaw

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

Name and surname, degree, title: Urszula Zajączkowska, PhD, DSc (habilitation)	
Academic discipline/disciplines	Forest sciences, biological sciences
Professional development (degrees and titles) in chronological order	2002 - MSc in Forestry 2004 - PhD in Forest Sciences 2017 - DSc (habilitation) in Forest Sciences
Most important publications/ patents in the last 3 years (maximum 10)	1. Zajączkowska U. (2026). *Environmental Rhythms and Regulation of Plant Morphogenesis: Temporal Architectures – The Environmental Clocks of Plant Life*. In: Introduction to Rhythms in Plants, Springer Nature Singapore, pp. 71–79. DOI: 10.1007/978-981-95-3592-7_3 2. Dołkin-Lewko A., Pulat E., Wójcik R. et al. (2025). *Distinctive traits of European mistletoe (Viscum album ssp. austriacum) and its impact on host tree wood (Pinus sylvestris)*. Plants, 14, 1489. DOI: 10.3390/plants14101489 3. Dołkin-Lewko A., Zajączkowska U. (2025). *Growth strategies and climbing behavior of the invasive vine wild cucumber (Echinocystis lobata)*. Acta Biologica Cracoviensia Series Botanica, 66(2), 1–17. DOI: 10.24425/abcsb.2024.150384 4. Dołkin-Lewko A., Baj P., Giedrowicz A. et al. (2025). *Wild cucumber invasiveness: impact of seasonal changes on biometric seed traits and dispersal strategy*. Journal of Experimental Botany, eraf526 (in press). DOI: 10.1093/jxb/eraf526 5. Zajączkowska U., Dmitruk D., Sekulska-Nalewajko J. et al. (2024). *The impact of mechanical stress on anatomy, morphology, and gene expression in Urtica dioica L.* Planta, 260(2), 46. DOI: 10.1007/s00425-024-04477-0
Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	Initiated doctoral procedure of one PhD dissertation, 2026 Doctoral mentoring, University of Silesia, 2025
Achievements in the area of projects/grants (in the last 5 years)	BIOSTRATEG – *Integrated strategy for the reactivation of Polish hybrid wheat breeding*. Participation in task WP 1.2: *Characterization of the structure and functionality of*

	wheat spikelets in order to identify traits favouring chasmogamous pollination (2019).
Subject area of the research project for which the candidate student is being recruited	Possible areas of doctoral cooperation include several complementary research directions focused on plant functioning under environmental stress and their structural and physiological adaptation. One proposed research direction concerns plant tissue biomechanics, focusing on relationships between anatomical structure, mechanical properties of organs, and resistance to extreme environmental factors such as wind, drought, and mechanical disturbance. Another area involves studies on plant movement and its temporal variability, including the analysis of organ kinematics and active movement responses as components of survival strategies and early indicators of physiological condition. A further research direction concerns the physiology of assimilatory organs in trees, including diagnostics of metabolic performance, the role of anatomical structures in maintaining whole-plant homeostasis, and responses to environmental stress. An additional research area focuses on hydraulic and metabolic strategies of invasive plants, analysed along environmental gradients ranging from natural habitats to urbanised environments. Particular emphasis is placed on water relations, hydraulic vulnerability, and plant responses to increasing vapour pressure deficit . A complementary area of cooperation includes studies on trade-offs between protective mechanisms and biological performance, involving quantitative assessment of investments in structural and pigment-based protective barriers in relation to photosynthetic apparatus regeneration and adaptation to extreme microclimatic conditions.
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