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Academic Degree:	dr hab. (DSc.)
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UPWr Base of Knowledge - link:	https://bazawiedzy.upwr.edu.pl/info.seam?id=UPWr59bf6dcad3f467f925fc1224c38a63a&affil&lang=en
Researchgate:	https://www.researchgate.net/profile/Jaroslaw-Prockow
Personal website / Working group website:	
Participation in projects in last 5 years (chronological; with distinction into PI (kierownik) and RF (wykonawca)):	Analysis of historical natural healing texts in the assessment of the antibacterial potential of beds of Silesian healing clay – terra sigillata Silesiaca (key task manager, Miniatura 4.0, 2020-2021).
PhD topic:	Biogeography, speciation and phylogeny of <i>Centaurea</i> subg. <i>Lopholoma</i> (Asteraceae) related to the Quaternary Glacial Cycles and the role of Mountain Ranges in South and South-Eastern Europe as biodiversity hotspots and refuges of the subgenus
Research discipline in Doctoral School:	Biological Sciences
Short description of the research problem to be solved in the PhD (minimum 1000 characters):	<p>Cornflowers (<i>Centaurea</i> sp., <i>Cyanus</i> sp.) are one of the largest genera belonging to the Asteraceae family and by far the most numerous within the thistle subfamily (Carduoideae), numbering almost 1,000 taxa. Their enormous diversity, ranging from outstanding morphological differences within individual sections, through genetic variability, the possibility of interspecific crossbreeding and the formation of fertile hybrid taxa, the formation of complexes of closely related species with an unclear status and a high degree of endemism, especially marked in biodiversity hotspots of this type in Southern Europe makes them the subject of multidimensional, multidisciplinary scientific research since the 1880s, which, however, in many aspects of their biology, evolutionary processes and geoclimatic phenomena shaping their current range are insufficient or undertaken selectively with respect to only specific groups of taxa.</p> <p>This state of affairs is particularly striking in the subgenus <i>Lopholoma</i>, which includes about 100 species, which are distributed mostly throughout the Mediterranean (with one species, <i>Centaurea scabiosa</i>, reaching the high north of Europe). It forms groups of closely related species, the particularly interesting complexes of which occur in the mountain areas of Spain, Greece, the Balkan Peninsula, Turkey, and the semideserts of Iran.</p> <p>The aim of this PhD thesis will be to learn, using advanced molecular biology techniques (sequencing of cpDNA, nrDNA, ETS and ITS sequences in rDNA, low-copy genes (AGT1 and related) and biogeographic analyses (including modern methods of ecological niche modelling), supported by classical methods of taxonomy, the evolutionary history of species complexes concentrated in the diversity hotspots of this subgenus within the mountain ranges of southern and southwestern Europe and Iran, the impact of climatic phenomena (glaciations and Quaternary interglacials) on the phenomena of gene flow, speciation and changes in the ranges of individual taxa and the role of mountain ranges as refugia and hybridisation areas of closely related taxa.</p>
Professional skills for PhD candidate (e.g. master program, specializations, softwares, language, analytical techniques, minimum 500 characters):	<p>A candidate for a PhD student applying to pursue the above-mentioned PhD thesis should meet the following conditions and have specific skills:</p> <ul style="list-style-type: none"> - completed higher education in environmental biology, experimental biology or biotechnology - knowledge of English at B2+ level - operation of statistical programs (Statistica, R, etc.) - high experience and knowledge in the identification of vascular plants are welcome - experience in DNA isolation, amplification and sequencing are welcome - having at least one published scientific work from the Journal Citation Reports (JCR) - commitment and availability in research work - ability to organise work and desire for continuous scientific development - to be fluent with MS Office software (or similar one) - to be open-minded for working in an international and multicultural team.
a) Project title:	0
b) Agreement number:	0
c) Number of months in the project to support PhD student (in months; starting from 1st of October 2024):	0
Project website:	