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## Beata Paszko

### Numerical analyses in taxonomy

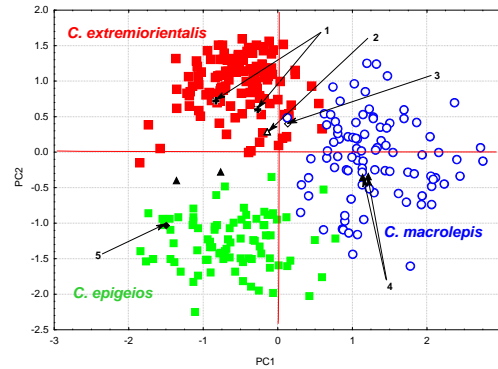
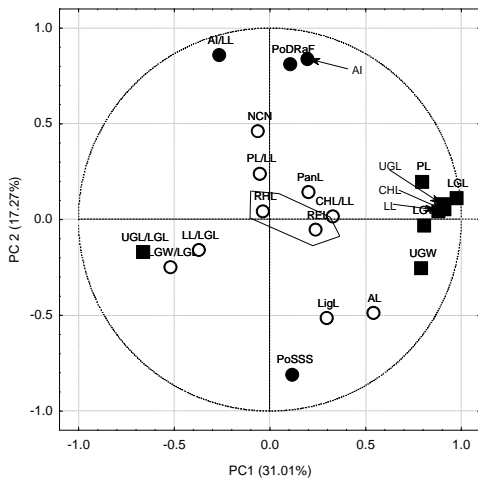


**Part 1. Basic knowledge** (10am-11:30am, June 9; 104 meetingroom, Research Center for Systematic and Evolutionary Botany)

**Part. 2. Examples of applying numerical analysis to solve taxonomical questions among species within two familiar genera *Calamagrostis* and *Deyeuxia*.** (3pm-4:30pm, June 11; 104 meetingroom, Research Center for Systematic and Evolutionary Botany)

**Part. 3. How to do a basic analysis using Statistica software.**  
(3pm-4:30pm, June 12; 104 meetingroom, Research Center for Systematic and Evolutionary Botany)

Lecture contains a large amount of information about numerical analysis used in taxonomy hard to find in standard textbooks. “**You can experience the unique intellectual adventure when you would like to puzzle out your own scientific riddle (taxonomical, ecological, etc)**” [Piernik 2008. *Metody numeryczne w ekologii*. Translated by B. Paszko].



## Curriculum vitae

# Dr. Beata Paszko

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## ● ACADEMIC AND PROFESSIONAL APPOINTMENTS

06.2004– present      *W. Szafer Institute of Botany, Krakow, Poland*  
 Senior Research Assistant

1996-05.2004      *W. Szafer Institute of Botany, Kraków, Poland*  
 Research Assistant  
 PhD of Natural Sciences, November 2003.  
*Thesis:* [Biosystematics of mountain species in the genus *Calamagrostis* (sections *Deyeuxia* and *Calamagrostis*) in Poland as a base for biodiversity protection].

## **RESEARCH SPECIALIZATION AND SKILLS**

- Grass taxonomy and systematics (two genera *Calamagrostis* and *Deyeuxia*)
- Univariate and multivariate statistics and numerical taxonomy
- Highly skilled at molecular techniques including: DNA extraction, spectroscopy, PCR technology, AFLP method, autoradiography
- Very good written and oral communication skills; fluent in English, and reading knowledge of German, Russian, and Latin language.

### ● **PUBLICATIONS.**

Paszko B., Nobis M. 2010. The hybrid origin of *Calamagrostis* × *gracilescens* (Poaceae) in Poland inferred from morphology and AFLP data. *Acta Soc. Bot. Poloniae* 79(1): 51-61.

Howard T.G., Saarela J.M., Paszko B., Peterson P.M. & Werier D. 2009. New Records and a Taxonomic Review of *Calamagrostis perplexa* (Poaceae: Poaceae: Agrostidinae), a New York State Endemic Grass. *Rhodora* 111: (946): 155-170.

Paszko B. 2008. Zmienność morfologiczna trzcinnika pstrego (*Calamagrostis varia*) [Morphological variability of *Calamagrostis varia*]. In: *Zastosowania metod statystycznych w badaniach naukowych* [Application of the statistical analysis for research studies]. Statsoft Polska Inc., Kraków: 405-412.

Paszko B. 2008. Zróżnicowanie międzygatunkowe trzcinników (*Calamagrostis*) w obrębie sekcji *Deyeuxia* [Interspecific variation of Polish reedgrasses in the section *Deyeuxia*]. In: *Zastosowania metod statystycznych w badaniach naukowych* [Application of the statistical analysis for research studies]. Statsoft Polska Inc., Krakow: 435–442.

Paszko B. 2007. The differing characteristics of *Brachypodium pinnatum* and *B. sylvaticum*. *Biodiversity: Research and Conservation* 5-8: 11-16.

Paszko B. 2008. The variability of natural populations of *Brachypodium pinnatum* and *B. sylvaticum* based on morphological features. *Acta Soc. Bot. Poloniae* 77(3): 255-262.

Paszko B. 2007. European *Calamagrostis* species (Poaceae). [W: Frey L. (red.), Biological issues in grasses]. W. Szafer Institute of Botany, Polish Academy of Sciences. Kraków: 49-58.

Mizianty M., Frey L., B. Paszko, M. Szczepaniak 2007. Morphology. [W: Mizianty M., Frey L. (red). Biodiversity of wild Triticeae (Poaceae) in Poland]. W. Szafer Institute of Botany, Polish Academy of Sciences, Kraków: 19-45.

Mizianty M., Frey L., B. Paszko, M. Szczepaniak 2007. Distribution. [W: Mizianty M., Frey L. (red). Biodiversity of wild Triticeae (Poaceae) in Poland]. W. Szafer Institute of Botany, Polish Academy of Sciences. Kraków: 75-84.

Mizianty M., Frey L., B. Paszko, M. Szczepaniak 2007. Dynamic tendencies. [W: Mizianty M., Frey L. (red). Biodiversity of wild Triticeae (Poaceae) in Poland]. W. Szafer Institute of Botany, Polish Academy of Sciences, Kraków: 85-87.

Paszko B. 2006. A critical review and a new proposal of the karyotype asymmetry indices. *Plant Systematics and Evolution* 258: 39-48.

Paszko B. 2005. Biosystematyka trzcinników (*Calamagrostis* Adanson) w obrębie sekcji Deyeuxia [Interspecific variation of Polish reedgrasses in the section Deyeuxia]. In: Statystyka i data mining w badaniach naukowych, StatSoft Polska: 23-32.

Paszko B. 2005. Waltzing with karyotype asymmetry. Proceedings of the Eleventh National Conference on Application of Mathematics in Biology and Medicine, Zawoja, 21-24 September 2005: 91-96.

Paszko B. and J. Krawczyk. 2005. Culm structure of selected *Calamagrostis* species. [W: L. Frey (red.). Biology of grasses]. W. Szafer Institute of Botany, Polish Academy of Sciences, Kraków: 235-244.