

CURRICULUM VITAE

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Position PhD. student
Affiliation Laboratory of Plant Ecological Physiology
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Education

2003 - present Ph.D. studies: Mendel University of Agricultural and Forestry (Brno),
Faculty of Agronomy
Ph.D. thesis: "Soil respiration as CO₂ source in ecosystem"
1998 - 2003 M.Sc. studies: [Palacky University Olomouc](http://www.upol.cz), Faculty of Science, Ecology
M.Sc. thesis: "Soil CO₂ efflux and its dynamic"

Academic and professional appointments:

1991 –present Institute of Systems Biology and Ecology, ASCR (former Institute of
Landscape Ecology)

Important research visits and fellowships:

2003 International Workshop on "The Role of Soils in the Terrestrial Carbon Balance".
Edinburgh, Scotland.
2004 Summerschool "Integrated methodology on soil carbon flux measurements".
Centro di Ecologia Alpina at Monte Bondone, near Trento, Italy.
2005 Soil measurements for "ADVEX" experiment. Renon, Italy.
2006 Soil measurements for "ADVEX" experiment. Wetzstein, Germany.
2006 Potential and limitations of an International Soil Respiration Database- Workshop.
ESF and CarboEurope Workshop. Sissi-Lassithi, Crete, Greece.

Selected publications

Marková, I., Janouš, D., **Pavelka, M.** 2000: Transmittance of the Norway spruce canopy. The
Beskids Bulletin „Influence of air-pollution on forests and forestry in the Beskids, 13, 63-
70.
Urban, O., Janouš, D., Pokorný, R., Marková, I., **Pavelka, M.**, Fojtík, Z., Šprtová, M., Kalina,
J., Marek, M.V. 2001: Glass domes with adjustable windows: A novel technique for
exposing juvenile forest stands to elevated CO₂ concentration. *Photosynthetica* 39:
395-401.

- Pokorný, R., Šalanská, P., Janouš, D., **Pavelka, M.** 2001: ALAI-02D – a new instrument in forest practice. *Journal of Forest Science* 47: 164-169.
- Marková, I., Janouš, D., **Pavelka, M.** 2001: Distribution of global radiation and the share of its diffuse component. *The Beskids Bulletin* 14: 67-72.
- Pavelka, M.**, Janouš, D. 2002: Seasonal Changes of Coefficient Q_{10} in CO_2 Flux from Soil Under Spruce Stand. *The Beskids Bulletin* 15: 43-48.
- Acosta, M., **Pavelka, M.**, Janouš, D. 2003: Heterogeneity in woody-tissue CO_2 efflux in a Norway spruce forest stand. *The Beskids Bulletin* 16: 73-78.
- Pavelka, M.**, Janouš, D., Acosta, M. 2003: Limitation of soil respiration during dry period. *The Beskids Bulletin* 16: 47-52.
- Pavelka, M.**, Janouš, D., Urban, O., Acosta, M., Pokorný, R., Havránková K., Formánek, P. 2003: Carbon sources in vertical profile of Norway spruce stand. *Folia Oecologica* 30/2: 191-198.
- Janouš, D., Havránková, K., **Pavelka, M.**, Acosta, M., Zvěřinová, Z., 2003: Night time fluxes in the sloping terrain. *Folia Oecologica* 30/2: 191-198.
- Kurajdová, J., Acosta, M., **Pavelka, M.**, Střelcová, K. 2004: Soil respiration during drought period. In 12th International Poster Day, Transport of Water, Chemicals and Energy in the System Soil – Crop Canopy – Atmosphere“, Slovak Academy of Sciences, Institute of Hydrology and Geophysical Institute, Bratislava, 25th of November.
- Pavelka, M.**, Acosta, M., Janouš, D. 2004: A new device for continuous CO_2 flux measurement in forest stand. *Ecology (Bratislava)*, Vol.23, supplement 2: 88-100.
- J. Kurajdová, M. Acosta, **M. Pavelka**: Temporal and spatial heterogeneity of soil CO_2 efflux in a Norway Spruce stand. *Zpravodaj Beskydy* 19(2006) 59-64
- Pavelka M.**, Tomášková I., Homolová L., Acosta M., Janouš D.: Pick – up angle influence on sunlit index of Norway spruce stand canopy surface area. *Beskydy*, 19 (2006): 163 – 170.
- Urban O., Janouš D., Acosta M., Czerný R., Marková I., Navrátil M., **Pavelka M.**, Pokorný R., Šprtová M., Zhang R., Špunda V., Grace J., Marek M.V.: Ecophysiological controls over the net ecosystem exchange of mountain spruce stand. Comparison of the response in direct vs. diffuse solar radiation. *Global Change Biology* 13(1): 157-168, 2007.
- Pavelka, M.**, Acosta, M., Marek, M.V., Kutsch, W., Janouš, D.: Dependency of the Q_{10} values on the depth of soil temperature measuring point. *Plant and Soil*, V.292, Number 1-2, 2007, p.171-179.
- Pavelka M., Acosta M., Janouš D., Czerný R., Tomášková I.: Behavior of Spring Discharge Dynamic at Forest and Grassland Mountain Catchments. *Beskydy*, 20 (2007): 55-60.
- Acosta. M., **Pavelka. M.**, Pokorný. R., Janouš. D., Marek. M.V.: Seasonal Variation in CO_2 efflux of stems and branches of Norway Spruce Trees. *Annals of Botany* 101, 3, 311-317, 2008.
- Rejsek, K., Formanek, P., **Pavelka, M.**: Estimation of protease activity in soils at low temperatures by casein amendment and with substitution of buffer by demineralised water. *Amino Acids* 35, 411-417, 2008.