

CURRICULUM VITAE

Name Mirka Šprtová
Position Junior Scientist
Affiliation Laboratory of Plants Ecological Physiology
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Education

- M.Sc. studies: [Palacky University Olomouc](#), Faculty of Science, Biophysics (1989-1994)
M.Sc. Thesis: “Using a fast induction of chlorophyll a fluorescence for study of effects of natural stresses on Norway spruce (*Picea abies* [L.] Karst.) assimilatory apparatus under field conditions”
- Ph.D. studies: [Palacky University Olomouc](#), Faculty of Natural Sciences, Biophysics (1996-2004)
Ph.D. Thesis: “Study of functional response of forest trees assimilatory apparatus to the long-term impact of enhanced UV-B radiation ”

Academic and professional appointments:

1994– 2005 Junior Research Scientist, Institute of Landscape Ecology ASCR
2005- present Junior Research Scientist, Institute of Systems Biology and Ecology ASCR

Important research visits and fellowships:

1995 1 month: visiting scientist, Dept. of Plant Biology, Univ. Of Illinois, Urbana, USA, Prof. E. DeLucia
1996-2004 1 month visiting scientist, Department of Forest Ecology, University of Tuscia, Viterbo, Italy, Prof. G.Scarascia-Mugnoza;

Educational activities

2004 Palacky University Olomouc, Faculty of Science, Course of Biophysical Plant Physiology (practice)

Selected publications

- 1/ Šprtová, M., Marek, M.V., Nedbal, L., Prášil, O., and Kalina, J.: Seasonal changes of photosynthetic assimilation of Norway spruce under the impact of enhanced UV-B radiation. *Plant Science* 142: 37-45, 1999.
- 2/ Šprtová, M., Nedbal, L. and Marek, M.V.: Effect of enhanced UV-B radiation on chlorophyll a fluorescence parameters in Norway spruce needles. *Journal of Plant Physiology* 156: 234-241, 2000.
- 3/ Šprtová, M., Janouš, D. and Marek, M.V.: Enhanced UV-B radiation: a possible harmful environmental factor of Norway spruce (*Picea abies* L. Karst.) photosynthesis. *Ekológia (Bratislava)* 19: 35-47, 2000.

- 4/ Šprtová, M., Špunda, V., Kalina, J. and Marek, M.V.: Photosynthetic UV-B response of the beech (*Fagus sylvatica* L.) saplings. *Photosynthetica* 41 (4): 533-543, 2003.
- 5/ Šprtová, M., Marek, M.V.: Differences in the photosynthetic UV-B response between beech and Norway spruce saplings (*Photosynthetica – zasláno redakci*)
- 6/ Marek, M.V., Šprtová, M. and Kalina, J.: The photosynthetic irradiance-response of Norway spruce exposed to a long-term elevation of CO₂ concentration. *Photosynthetica* 33: 259-268, 1997.
- 7/ Špunda, V., Čajánek, M., Kalina, J., Lachetová, I., Šprtová, M. and Marek, M.V.: Mechanistic differences in utilization of absorbed excitation energy within photosynthetic apparatus of Norway spruce induced by the vertical distribution of photosynthetically active radiation through the tree crown. *Plant Science* 133: 155-165, 1998.
- 8/ Priwitzer, T., Urban, O., Šprtová, M. and Marek, M.V.: Chloroplastic carbon dioxide concentration in Norway spruce (*Picea abies* [L.] Karst.) needles relates to the position within the crown. *Photosynthetica* 35 (4): 561-571, 1998.
- 9/ Marek, M.V., Šprtová, M., Urban, O., Špunda, V. and Kalina, J.: Response of sun versus shade foliage photosynthesis to radiation in Norway spruce. *Phyton* 39 (4): 131-138, 1999.
- 10/ Šprtová, M. and Marek, M.V.: Response of photosynthesis to radiation and intercellular CO₂ concentration in sun and shade shoots of Norway spruce. *Photosynthetica* 37: 442-447, 2000.
- 11/ Marek, M.V., Šprtová, M., De Angelis, P., Scarascia-Mugnozza, G.: Spatial distribution of photosynthetic response to long-term influence of elevated CO₂ in a mediterranean *macchia* mini-ecosystem. *Plant Science* 160: 1125-1136, 2001.
- 12/ Marek, M.V., Urban, O., Šprtová, M., Špunda, V.: Chlorophyll a fluorescence response of Norway spruce needles to the long-term influenced elevated CO₂ is determined by their position within the canopy. *Photosynthetica* 39: 427-435, 2001.
- 13/ Urban, O., Janouš, D., Pokorný, R., Kalina, J., Marková, I., Pavelka, M., Fojtík, Z., Šprtová, M. and Marek, M.V.: Glass domes with adjustable windows: A novel technique for exposing juvenile forest stands to elevated CO₂ concentration. *Photosynthetica* 39: 395-401, 2001.
- 14/ Marek, M.V., Urban, O., Šprtová, M., Pokorný, R., Rosová, Z., Kulhavý, J.: Photosynthetic assimilation of sun versus shade needles under long-term impact of elevated CO₂. *Photosynthetica* 40: 259-267, 2002.
- 15/ Šprtová, M., Špunda, V., Kalina, J., Marek, M.V., (2003): Photosynthetic UV-B response of the young forest tree saplings. *Photosynthetica*, 41(4): 533-543.
- 16/ Špunda, V., Kalina, J., Urban, O., Luis, Sibisse, I., Puértolas, J., Šprtová, M., Marek, M.V.: Diurnal dynamics of photosynthetic parameters of Norway spruce trees cultivated under ambient and elevated CO₂: the reasons of midday depression in CO₂ assimilation. *Plant Science* 168(5): 1371-1381, 2005.
- 17/ 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.
- 18/ Urban O., Ač A., Kalina J., Priwitzer T., Šprtová M., Špunda V., Marek M.V.: Temperature dependences of carbon assimilation processes in four dominant species from mountain grassland ecosystem. *Photosynthetica* 45(3): 392-399, 2007.

