

CURRICULUM VITAE

Name Petr Holub
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Education

- **M.Sc.** studies: Masaryk University Brno, Faculty of Science, Plant physiology (1988-1993)
M.Sc. Thesis: "The effect of different irradiance and nitrogen form in substrate on growth of *Deschampsia caespitosa*."
- **Ph.D.** studies: Institute of Botany ASCR, Masaryk University Brno, Faculty of Sciences, Plant physiology (1995-2000)
Ph.D. Thesis: "The growth and nitrogen use efficiency of grasses *Calamagrostis* species on deforested areas in the Moravian-Silesian Beskydy Mts."

Academic and professional appointments

1993 – 1997 Institute of Landscape Ecology ASCR
1997 – present Institute of Botany ASCR

Research field

Study of differences in growth of grasses, in nutrient uptake, their retranslocation and evaluation of nutrient use efficiency in various grass stands, field cultivation experiments.

Important research visits and fellowships

1996 - Institute of Botany, Jagellonian University, Krakow, Dr. Malgorzata Kotańska; clear-cut grass vegetation and soil interaction.

1997 - Ithaca College, Ithaca, USA, Prof. John Bernard; growth of clonal plants on sites with and without pollution impact.

1999 - Wageningen Agricultural University, Netherlands, Prof. Frank Berendse;
- Utrecht University, Netherlands, Prof. Roland Bobbink; methodology of nutrient use efficiency of grasses.

Main research project

1996-1999: Plant growth and development in normal and polluted sites. Joint research project
- NSF USA and AS CR. (*Bernard, Fiala, Květ, Holub, Tůma*)

1998-2000: Degradation of meadows of a natural hydroserie - ecological and soil processes.
Grant Agency of the Czech Republic. No.206/98/0216 (*Fiala, Holub, Sedláková, Tůma, Záhora, Zelená*)

- 2000-2003:** The influence of different types of management on changes of biodiversity in the Protected Areas. Ministry of Environments of the Czech Republic, VaV 610/10 (*Sedláková, Chytrý, Fabšičová, Holub, Tůma, Záhora*)
- 2002-2004:** The relationship between nutrient availability, their utilization and successful expansion of tall grasses in dry grassland communities. Grant Agency of the Czech Republic. No.206/02/0581 (*Fiala, Fabšičová, Holub, Sedláková, Tůma, Záhora*)
- 2002-2004:** Nutrient use efficiency of grasslands with expanding *Calamagrostis epigejos* under climatic variation. Grant Agency of the Czech Republic. No.206/02/P023 (**Holub**)
- 2006-2008:** Vliv různých srážek na rostlinnou složku a procesy v půdě některých travinných ekosystémů, GA ČR r.č.526/06/0556 (BÚ: I. Tůma, **P. Holub**, M. Fabšičová, R. Hédl, MZLU: J. Záhora, M. Tesařová, V. Zelená).

Selected publications

- Fiala, K., Tůma, I., **Holub, P.**, Tesařová, M., Jandák, J., Pávková, A.: Importance of grass cover in reduction of negative processes in soil affected by air pollution. *Rostlinná výroba*, 47: 377-382, 2001.
- Fiala, K., Tůma, I., **Holub, P.**: Effect of wet depositions on losses of nutrients from soil on deforested areas in the Moravian-Silesian Beskydy Mts. (Czech Republic). *Ekológia, Bratislava*, 20 (4): 373-381, 2001.
- Fiala, K., **Holub, P.**, Sedláková, I., Tůma, I., Záhora, J., Tesařová, M.: Reasons and consequences of expansion of *Calamagrostis epigejos* in alluvial meadows of landscape affected by water control measures – A multidisciplinary research. *Ekológia, Bratislava*, 22 (2): 242-258, 2003.
- Fiala, K., Záhora, J., Tůma, I., **Holub, P.**: Importance of plant matter accumulation, nitrogen uptake and utilization in expansion of tall grasses (*Calamagrostis epigejos* and *Arrhenatherum elatius*) into an acidophilous dry grassland. *Ekológia, Bratislava*, 23 (3): 225-240, 2004.
- Fiala, K., Tůma, I., **Holub, P.**, Jandák, J.: The role of *Calamagrostis* communities in preventing soil acidification and base cation losses in a deforested mountain area affected by acid deposition. *Plant and Soil*, 268: 35-49, 2005.
- Holub, P.**: The nutrient use efficiencies of various alluvial meadows in the south Moravia. *Ekológia, Bratislava*, 20 (4): 366-372, 2001.
- Holub, P.**: The expansion of *Calamagrostis epigejos* into alluvial meadows: comparison of aboveground biomass in relation to water regimes. *Ekológia, Bratislava*, 21 (1): 27-37, 2002.
- Holub, P.**: The effect of increased altitude on the growth and nitrogen use efficiency of *Calamagrostis arundinacea* and *C. villosa*. *Biologia, Bratislava*, 58 (4): 805-815, 2003.
- Holub, P.**: Nitrogen use efficiency and the dominance of *Calamagrostis epigejos* in floodplain meadows. – *Ekológia, Bratislava*, 22 (2): 268-274, 2003.