

## University of South Bohemia in Ceske Budejovice, Czech Republic, Faculty of Science

### Working group of plant functional ecology (Jan Lepš lab) is looking for a two years postdoctoral researcher (Postdoctoral junior group leaders).

<http://botanika.prf.jcu.cz/fpe/>

The position is an open competition among six labs of Faculty of Science (two positions available), see

[https://www.researchgate.net/job/940390\\_Two\\_Postdoctoral\\_Junior\\_Group\\_Leaders\\_in\\_Biology](https://www.researchgate.net/job/940390_Two_Postdoctoral_Junior_Group_Leaders_in_Biology)

The main criterion of the selection among the labs will be the demonstrated abilities of the candidates – so mainly publications, and the ability to write a suitable project, fitting the host laboratory (short proposal is one of the parts of application – see the original advertisement). The accepted postdoc is expected (besides the research carried out in the host lab) to submit a proposal for either national or international grant during the two years of his/her postdoctoral stay - it is a prospect that the postdoc will stay after the two years paid by this call. The expected monthly salary should be about 64 000,- CZK (ca 2500,- Eur), which is rather high with respect to living expenses here.

### Specific requirements of our lab

We have large amount of data from our long-term experiments, particularly those being carried out in our Ohrazení site (see below), and also Benešov site. **The successful candidate is expected to participate in analyses of these data, leading to new publications.** In Ohrazení, we have an experiment running and monitored since 1994, with factorial combination of mowing, fertilization and dominant (*Molinia caerulea*) removal - the treatments (with exception of removal) were ceased ca 5 year ago, all plots are under traditional management (mown, unfertilized) now and we observe the convergence of the communities. Quite a few paper were already published, however, there is still a bulk of data that need further analyses, and there might be new hypotheses that will be tested (I am currently interested in spatial synchrony of individual species and of the whole community biomass under varying conditions).

In Benesov, there are two experiments, one established in 1996 (and still running and monitored, last results published by Švamberková et al. 2019), which is a sort of BEF (Biodiversity - Ecosystem functioning) experiment, and a newer one, also of BEF type, where with mixtures of constant number of species, the functional and phylogenetic diversity was varies (first results published by Galland et al. 2019). For the second experiment, the setup is there, the plant communities are established, and in general, we are open to any suggestions to modify, do further experiments, measure further characteristics etc. there. (I am rather skeptical what experimental field research can be done within two years, but within the setup of established perennial plant communities along two axes of diversity variation, there might be quite an opportunity to do further manipulations/measurements etc.).

In summary, the candidate needs to be able to demonstrate his ability to publish, should have excellent skills in data analysis, and should be innovative and cooperative. Note the requirements of the submission:

Please submit (a) your structured CV (max 4 pages), (b) motivation letter (max 1 page), (c) detailed description of your planned research projects (max 4 pages), (d) copy of your PhD diploma & (e) 2 references via e-mail to [jobs@prf.jcu.cz](mailto:jobs@prf.jcu.cz) by Sun 03 May 2020. Interviews with selected applicants will be held in May/Jun 2020.

> start his/her work at the faculty between 01 Sep 2020 – 01 Jan 2021, or by an agreement,

**Please, do not hesitate to contact me ([suspa@prf.jcu.cz](mailto:suspa@prf.jcu.cz)) prior the formal submission to [jobs@prf.jcu.cz](mailto:jobs@prf.jcu.cz), so that your proposal can fit well the requirements of our lab.**

#### **The paper from the new Benesov experiment**

Galland, T., Adeux, G., Dvořáková, H., E-Vojtkó, A., Orbán, I., Lussu, M., Puy, J., Blažek, P., Lanta, V., Lepš, J. and de Bello, F., 2019. Colonization resistance and establishment success along gradients of functional and phylogenetic diversity in experimental plant communities. *Journal of Ecology*, 107(5), pp.2090-2104.

#### **The papers from the old Benesov experiment**

Švamberková, E., Doležal, J. and Lepš, J., 2019. The legacy of initial sowing after 20 years of ex-arable land colonisation. *Oecologia*, 190(2), pp.459-469.

Lepš, J., Doležal, J., Bezemer, T.M., Brown, V.K., Hedlund, K., Igual Arroyo, M., Jörgensen, H.B., Lawson, C.S., Mortimer, S.R., Peix Geldart, A. and Rodríguez Barrueco, C., 2007. Long-term effectiveness of sowing high and low diversity seed mixtures to enhance plant community development on ex-arable fields. *Applied Vegetation Science*, 10(1), pp.97-110.

#### **New papers from the Ohrazení experiment**

Majeková, M., de Bello, F., Doležal, J. and Lepš, J., 2014. Plant functional traits as determinants of population stability. *Ecology*, 95(9), pp.2369-2374.

Lepš, J., 2014. Scale-and time-dependent effects of fertilization, mowing and dominant removal on a grassland community during a 15-year experiment. *Journal of Applied Ecology*, 51(4), pp.978-987.

Lepš, J., Májeková, M., Vítová, A., Doležal, J. and de Bello, F., 2018. Stabilizing effects in temporal fluctuations: management, traits, and species richness in high-diversity communities. *Ecology*, 99(2), pp.360-371.

Doležal, J., Lanta, V., Mudrák, O. and Lepš, J., 2019. Seasonality promotes grassland diversity: Interactions with mowing, fertilization and removal of dominant species. *Journal of Ecology*, 107(1), pp.203-215.

Mudrák, O., de Bello, F., Doležal, J. and Lepš, J., 2016. Changes in the functional trait composition and diversity of meadow communities induced by *Rhinanthus minor* L. *Folia geobotanica*, 51(1), pp.1-11.

See the Ohrazeni site (and us working there) from the air

<https://en.mapy.cz/s/nohehuvocu>