New postdoc position on climate change and forest ecology:

Realized and potential distribution of broadleaved trees at their northern range limits: towards climate change adaptation

Supervisors: Kristoffer Hylander (Stockholm University, Sweden) & Jonathan Lenoir (CNRS, France).

As a consequence of climate warming, plants and animals are expected to shift their geographical ranges poleward and upward. This postdoc position is about studying these range dynamics for broadleaved trees having their northern range limit occurring across central Sweden, e.g. oak, maple, lime, ash and elm. During the first step of the project, we will use national forest inventory (NFI) data to map and model the realized and potential distributions, respectively, of these tree species. The combined map of the realized and potential distributions will allow us to identify areas of potential range expansion beyond the current northern range limit of each tree species. In step two, we will validate these migration outposts throughout a transplantation experiment. The results of this project will advance our understanding of disequilibrium vegetation dynamics and provide tools for climate adaptation.

The project is financed by Carl Tryggers foundation http://www.carltryggersstiftelse.se/. They offer a two year scholarship (evaluated after one year with a possible extension to two years). The candidate will get around 2400 €/month directly from the foundation and thus not be employed at Stockholm University (no tax is paid on this, but the candidate will not benefit from the normal social security system). The candidate will spend most of his/her time at the Department of Ecology, Environment and Plant Science at Stockholm University, but will also spend several months as a research visitor in the EDYSAN (https://www.u-picardie.fr/edysan/) research unit located at the Jules Verne University of Picardy in Amiens, France.

If you are interested in the position, please contact Kristoffer Hylander <u>Kristoffer.hylander@su.se</u> or Jonathan Lenoir jonathan.lenoir@u-picardie.fr, if possible before January 15, 2020.

http://www.su.se/english/profiles/khyla-1.192334







Two of the target species and a map showing the plots of the Swedish national forest inventory (NFI) data.