

# Guillaume Hoareau



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Dansk Botanisk Forening

To whom it may concern,

My name is Guillaume Hoareau, I am an international student at the University of Copenhagen. I have been studying in Denmark for a little longer than a year and this February 1<sup>st</sup> I have started to work on my master project under the supervision of Assoc. Professor Ulrik Søchting. My project is titled “The importance of disturbance on the dynamic of coastal heath habitats”. My aim is to bring evidence for the need of dynamic processes in order to maintain high species richness for the better conservation of those habitats. Furthermore, a significant part of my study focuses on the colonization process of lichens on dune heathland; I therefore intend to gather extensive data on species of the *Cladonia* genus present on the west coast of Jutland. This could be considered as an update of the species list and lichen composition alongside the upcoming revision of red listed species in Denmark.

I would consequently like to apply for a total of 9850kr to the:

- Botanisk Rejsefond/M.P.Christiansen og hustrus legat
- Apoteker P.C.N. Friedrichsens legat
- Jakob E. Langes Fond
- Konto af 1988 for botaniske mikroorganismeforskning

I personally believe that this fund would greatly help me in the good accomplishment of this project.

Please see attached a description of how this budget will be use, a description of the project, a CV and a statement from Associate Professor Ulrik Søchting.

**CPR nummer:** 200490-4349

Sincerely,

Guillaume Hoareau



### Budget:

The budget will be use for the trips I will have to make between Copenhagen and West Jutland and the transportation between the several locations I am working on. I will also need to stay each time in situ for 4-5 days in order to collect data or realize experiments and therefore will use part of the budget for accommodation and food.

A consequent part of the money (4350kr) will be use to participate in the European Heathland Workshop that will take place in Denmark between the 23<sup>rd</sup> and 28<sup>th</sup> of June.

Finally, a small part will be used to cover expenses related to the acquisition of material for data collection and experiments (e.g. bags, small tools).

<b>Nature of the expense</b>	<b>Estimated cost</b>
Transportation between CPH and West Jutland (with return ticket) for 5 trips	400kr * 5 = 2000kr
Food and accommodation for stays	2500kr
European heathland workshop (June)	4350kr
Small equipment for the project	500kr

### Project description:

Heathlands are fascinating and valuable habitats that provide great recreational areas and where a diversity of species thrives. The flora of heathland is very characteristic, as species present are adapted to a nutrient poor and acidic soil. Inland heath habitats have for centuries been shaped by human activities, this is also the case of coastal heath but perhaps to a lesser extent. Indeed, sand dunes are very dynamic ecosystem that can naturally maintain heath type vegetation over long period of time without human intervention. Here, I address the case of dune heathlands located on the west coast of Jutland. These coastal heath habitats offer unusual vegetation types dominated by lichens and are therefore often categorized as lichen heath. The vegetation that we observe today on lichen heath is dynamic, adapted to perturbations and often dominated by lichens of the genus *Cladonia*. However, dune ecosystem have perhaps during past years been over-stabilized and left without proper management, resulting in a decrease in species richness and allowing invasive species to establish. My aim for this project is to bring evidence for the need of dynamic processes in order to maintain a mosaic of species rich vegetation and at the same time bring up to date the status of *Cladonia* lichens in west Jutland.