From: International Tundra Experiment (ITEX) on behalf of Sergey Rosbakh
To: ITEX-LIST@LISTS.UBC.CA
Subject: Arctic seed germination_update
Date: Tuesday, January 17, 2023 8:38:12 AM

Dear all,

I apologize for any inconvenience my previous message on arctic seed germination (see below) might have caused. Somehow the e-mail signature including my e-mail address was not included into the previous text. In case you are interested in cooperation on that topic, please send me a direct message to rosbakh@plen.ku.dk.

Sincerely,
Sergey

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Dear list,

My name is Sergey Rosbakh, I am a plant scientist based at the Uni Copenhagen (DK) particularly interested in ecology of plant sexual reproduction. Together with my colleagues Eduardo Fernandez-Pascual (Uni Oviedo, ES) and Andrea Mondoni (Uni Pavia, IT), we have just launched a project on arctic plant regeneration by seed. For the first project phase we plan to collect, analyse and publish first experimental data on arctic seed germination and longevity traits, as well as start collecting first arctic seedling trait data. The project is supported by the Uni Copenhagen (one PhD position starting in spring 2023, research infrastructure and (rather small) research budget to cover running costs). Based on the results of the field season 2023 and first experiments following that, we might embark on writing of a 'big' proposal aimed at either national or EU-level funding agency.

Briefly, we aim at studying regeneration by seed in Arctic plants with specific focus on seed dormancy, seed germination requirements, seedling temperature tolerance and seed longevity under genbank conditions. In this multispecies study, we strive for better understanding of 1) arctic plant adaptations to the harsh climate, 2) effects of climate change on arctic plant regeneration and 3) suitability of arctic seed for long-term storage in species conservation programmes. Our group has a great expertise in studying these questions in alpine context (here are three examples of our previous work: https://pubmed.ncbi.nlm.nih.gov/21081585
https://nph.onlinelibrary.wiley.com/doi/full/10.1111/nph.17086
https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2745.13955), but we would like to extend our research to other cold-adapted ecosystems, such as the Arctic.

In the attached file you can find a part of our proposal on arctic seed germination spectrum submitted for the recent TA/RA call (https://eu-interact.org/accessing-the-arctic/tacall). Among others, it describes the seed collection protocol and gives you an

idea what would happen to the seeds after they were collected and shipped to Copenhagen.

In April 2023, we will organise a webinar for all partners willing to collect seed material, to discuss the seed collection strategy and protocols. We offer co-authorship in project publications, free access to all project data and compensation for some costs related to seed collection (mainly tools, consumables, and postage).

Please let us know if you could contribute to the project by collecting seed material in your (sub)Arctic sites in summer-autumn 2023.

Sincerely,
Sergey, Eduardo and Andrea
