EDUARDO FERNANDEZ PASCUAL

De: Andrea Mondoni <andrea.mondoni@unipv.it>

Enviado el: domingo, 27 de enero de 2019 18:05 **Para:** EDUARDO FERNANDEZ PASCUAL

CC: Borja Jiménez-Alfaro

Asunto: Re: Launching the seed ecological spectrum of alpine plants

Datos adjuntos: Alpine_andrea.xlsx

Hi Eduardo and Borja,

please find attached our list of germination test for the alpine species. At the moment I could work out 1084 germination test for about 169 species, mostly from the Italian Alps and a few from Northern Appenines. These are test from our seed bank and published studies; unpublished studies still need to be put on an excel file at the moment.

This list account for both "specialist" alpine species and other that can occur also at lower altitude, BUT that in this case have been collected at alpine site. You can infer this by looking at the column named "Spc alt range", where for each species I put a code indicating its altitudinal range (there is comment which explain the meaning of each code at C1); for e.g. if you go to Achillea millefolium, line 11, it is referred to as "la", meaning that it can grow from lowland to alpine: that accession has been collected at apine site, see last column "altitude" (altitude is not always present unfortunately).

Personally, I would consider as truly alpine all species occurring from subalpine sites upward (i.e. 1400m altitude upward).

The column B indicate the number of replicates, so if its 3, for example, it means there are 3 identical germination test for that accession: often they are listed one after each other, but not always (so just look for them nearby, sorting for "scientific name" in case you are interested in replicates).

Still missing, the 53 species from Maria Tudela study (she has just sent me a list of germination test, but with only as avaraged percentage, not as number of germinated out of sown...). Hope she comes up with the right list soon, though she is quite slow in replying.

If anything is not clear, please let me know!

All the best, Andrea

Il giorno lun 21 gen 2019 alle ore 12:35 Borja Jiménez-Alfaro < <u>jimenezalfaro.borja@gmail.com</u> > ha scritto: Dear all;

Thanks again for your participation in this project, and especially Eduardo for taking the lead of data analyses!

Please reply as soon as possible to Eduardo's e-mail with the first version of your data (deadline is **one week from now**).

I also highlight the idea of having a meeting at the <u>Seed Ecology</u> conference this year in Germany. Please be so kind of replying (in your response to Eduardo) whether you will attend the conference and whether you are willing to participate in a group meeting about this project.

Best,

Borja

On Fri, 18 Jan 2019 at 13:47, EDUARDO FERNANDEZ PASCUAL < eduardofp.indurot@uniovi.es > wrote:

Sorry for writing again, I want to clarify two questions raised by Andrea:

- 1) By alpine we mean seeds collected above the treeline, including from both specialist species (which only grow above or around the treeline) and generalist species (which may also occur at lower elevations). In fact, generalists can be of special interest to compare with the specialists.
- 2) It does not matter if you only have data for one "replicate" (i.e. only one Petri dish) as the data will be analyzed as a proportion. By the way, it is very important that data is provided as successes, trials (i.e. with a cell for number of germinated seeds, a cell for number of potentially germinable seeds, and some indication of whether seed viability was measured somehow) NEVER as a percentage: i.e. [50 germinated, 100 germinable] and not 50% or 0.5.

De: EDUARDO FERNANDEZ PASCUAL

Enviado el: viernes, 18 de enero de 2019 10:38

Para: 'Borja Jiménez-Alfaro' < <u>jimenezalfaro.borja@gmail.com</u>>; Adrienne Nicotra

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Asunto: Launching the seed ecological spectrum of alpine plants

Importancia: Alta

Hello everyone,

I am writing to update you on the state of our proposed collaboration network: who has replied so far, next steps, proposed co-authorship policy, and instructions to submit data. I am still including everyone in this email to encourage participation, in the future I will write only to those of you who have declared their interest.

WHO HAS DECLARED INTEREST SO FAR

- 1. Andrea Mondoni: 150 published species from the European Alps and northern Apennines + c. 70 unpublished species from the same places and the Spanish Sierra Nevada.
- 2. Annisa Satyanti & Adrianne Nicotra: 100 Australian alpine species.
- 3. Honglin Li: 52 Chinese alpine species, although experiments were conducted in the field, not sure how comparable they will be with the rest.

- 4. Verónica Briceño: 23 species from the Chilean Andes.
- 5. Lohengrin A. Cavieres: 60 species from the Chilean Andes (not sure whether some of these may overlap with Verónica's).

NEXT STEPS

I believe we can start working with this species pool, while being open to more people joining in. Our idea is to have something preliminary to present at the Seed Ecology conference in Germany (July-August), and also that those of us who attend can meet there to discuss what we have and how to move forward with it.

CO-AUTHORSHIP POLICY

Regarding co-authorship policy, we are thinking about following the general guidelines used in multi-author vegetation papers, in which Borja has experience. Please understand that these are not some hardcoded rules, we are proposing this to start a discussion about it with you.

- The main idea is to be inclusive and invite everyone who wants to contribute with relevant data.
- Each contributing institution should make a proposal of who they think merits recognition with coauthorship for their contribution to generate the data, we think 1-3 people is reasonable. If any institution wants to propose more people, they will need to make a reasoned case for why is that necessary, and identify which was the specific contribution of each person.
- Once the dataset is assembled, we will have to evaluate what constitutes a relevant data contribution, in the form of a threshold (like 5% of the final dataset). For example, contributing data for one species may be relevant if the final dataset is 30 species, but not if the final dataset is 300. If in the end some data is deemed non-relevant, and the contributor doesn't want it to be included without coauthorship, we will drop the data from the dataset.
- Contributing data should not be the only criterion for co-authorship, everyone listed as a co-author should provide some feedback on the manuscript before submission, at the very least by reading and accepting the last version, and agreeing to being accountable for everything that is in the manuscript.
- I understand that some of you may feel anxious about **sharing unpublished data**. I believe we can work with this kind of data for our meta-analysis, as this is going to take some time before becoming public. You can rest assured that unpublished data will be kept confidential and that I won't share it with anyone nor publish it without your express consent. If we want to include it in summary results, for example for the Seed Ecology conference, we can keep it with anonymous species names, origin, etc.

INSTRUCTIONS TO SUBMIT DATA

I can assume that everyone has their data stored in different formats, so the best thing would be for every contributor to send me a sample or samples of how they have their raw data stored. I will check the format of the sample, and either ask for the whole dataset to be submitted as is, or to make some format changes to be able to merge it into a common format.

Please send me these sample datasets **no later than Jan 28**, so we can work on unifying datasets during Feb, make preliminary analyses during March, and have something for the Seed Ecology deadline which is in April.

In this email, please state also: (a) name and contact details of everyone from your group who you are proposing as a contributor (see co-authorship guidelines, I will use these contacts for future mails); (b) whether you agree with the co-authorship guidelines or want to propose changes to it.

Thanks to everyone,

Eduardo Fernández Pascual

Investigador Clarín

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De: Borja Jiménez-Alfaro [mailto:jimenezalfaro.borja@gmail.com]

Enviado el: miércoles, 12 de diciembre de 2018 16:26

Para: Adrienne Nicotra <a drienne.nicotra@anu.edu.au; Annisa Satyanti <a nnisa.satyanti@anu.edu.au; Julie Larson <<u>Julie.E.Larson@colorado.edu</u>>; Veronica Briceno <<u>vbricenor@gmail.com</u>>; Lohen Cavieres <<u>Icaviere@udec.cl</u>>; Honglin Li <<u>Iihl2009@Izu.edu.cn</u>>; Guozhen Du <<u>guozhendu2013@gmail.com</u>>; Andrea Mondoni andrea.mondoni@unipv.it; Carol Baskin <<u>carol.baskin@uky.edu</u>>; EDUARDO FERNANDEZ PASCUAL <eduardofp.indurot@uniovi.es>

Asunto: Seed ecological spectrum of alpine plants

Dear colleagues;

I would like to invite you to collaborate on a project to address the seed ecological spectrum of alpine plants. The idea arose two years ago during the seed trait workshop held in Perh when we though on bringing together germination data from alpine regions across the world. For different reasons, we were not able to start the project - but together with the working group on seed traits, a few of us defined a roadmap that includes exploring the seed ecological spectrum (see the pdf attached) -. The point is that I am back in Spain to develop a research project on alpine ecology, and my former Ph.D. student Eduardo Fernández-Pascual is now in the same institution for continuing his own research on comparative seed ecology. Therefore we both have decided to include this project in our research agenda.

We are mainly interested in cold-adapted species living above the climatic treeline (could be also species living in subalpine/alpine habitats). From our previous contacts, it seems that we have, at least, data from Western Europe, European Alps, Australian Alps, Andes, and the Tibetian Plateau (Julie suggested to collect data from the USA, maybe Carol can help on this). Beyond seed mass, we would like to collate data from experiments dealing with temperature and/or moisture conditions, producing information on e.g. fresh germination % (non-dormant fraction); final germination % after stratification/treatments; embryo type; seed mass viability, etc.; together with elevation and climate data. Eduardo has agreed to collect and check the data, then we can discuss their potential for specific analyses. Please note that the idea is to compare existing data rather than develop an intercontinental experiment (this could be a nice follow-up), using raw experimental data or a meta-analysis if the raw data is not comparable. It could happen that we find only one or two variables to compare, but we need to look at your data first.

If you are willing to be involved in the project, please indicate:

- (ii) the approx. number of species and the regions for which you have information on seed germination of alpine plants (published or unpublished)
- (ii) recent publications from your group showing results on seed ecology and related topics (please send the pdf or the weblink)
- (iii) whether you know other publications or working groups in which you are not involved but you think may be relevant for getting more data.

Thank you in advance,

Borja

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