

AForGeN Business Meeting Report

Friday, 14.06.2019, Mt. Ventoux, France.

Report edited by:

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1) AForGeN website

The homepage was transferred from UC Davis to the WSL. Christian Rellstab (CR) proposed the homepage to contain only basic information, but emphasized the importance of updating it with papers published by the AForGeN members. CR volunteered to send out regularly e-mails to the members asking to send their publications and news.

2) Young scientists in AForGeN

Participants agreed and supported the idea by CR and Marjana Westergren (MW) to make further efforts to involve young people in the AForGeN activities. The meetings in the AForGeN format are appropriate for young people to present their first research results and obtain feedback and constructive comments from the participants. Having time for discussions, young researchers can obtain guidance on how to continue their work. Moreover, AForGeN represents an ideal network to establish connections in the world of Forest Genomics. However, it is necessary to find funds (EvoTree, IUFRO) for granting young people to participate at the AForGeN meetings.

3) COST action

Bruno Fady (BF) raised the idea to compose and submit a COST Action proposal. For a COST Action proposal in September 2020, the framework and basic idea should be formulated. Volunteered to help BF in collecting ideas were Caroline Scotti (CS) and Maria Höhn (MH). The idea will be further discussed in January 2020 in the AForGeN side event/meeting of the GenTree final conference (see 6).

4) Next AForGeN meeting

There was a single proposal for the next meeting to take place in the Austrian Alps by Berthold Heinze (BH). Location: Zirbenland, Steiermark. The area has good accessibility, a geographically central position, and is famous for its Swiss stone pine forests. Field trip can be organized to the Zirbitkogel peak (highest mountain in the Seetaler Alps). The network accepted BH's proposal and voted for the next AForGeN to be in Austria.

5) Opinion paper

Linked to the recently published *Abies alba* reference genome paper, the idea of writing a community-based publication was introduced by MW (in agreement with the steering committee, SC) to disperse results and thoughts on the importance of genome studies, focusing on *Abies alba*, its future potential and what the sequenced genome could be used for. The target

audience still needs to be decided upon; whether it is the policy makers or foresters and researchers in e.g. silviculture. Highlights could be also translated in national languages. Volunteered in writing the draft paper: MW, CR, BF, CS, B. Fussi (BF), BH, MH, K. Krutovski (KK). The whole community will be asked later to join the publication. D. Neale (DN) offered to keep the group in the loop of a similar opinion paper focusing on the usefulness of genomic resources per se currently underway in the US.

6) Contribution of AForGeN to the GenTree final conference in Avignon, January 2020

CR will be member of the scientific committee, and other AForGeN members will also attend the meeting. Request has been formulated to the GenTree organizers to provide an accessible meeting room during the conference where AForGeN members can meet and discuss SFGP2 and the ongoing projects.

7) Proposal of an open project

Santiago C. González-Martínez (SGM) proposed to establish an open project on alpine tree species. The project includes the collection of data and sources available at genotypic and phenotypic level on certain (still to be defined) spatial range. The aim is to construct a database and an interactive map to use in about one year in order to analyse major trends in the alpine environment.

Responsible: SGM and K. Csilléry (KC), volunteers MH, CS, MW.

8) Paper on comparing *Abies* genomes

This proposal was made by KK who will send an e-mail to all AForGeN members to identify contributors.

9) Proposal for David Neale to become an honorary member of the SC

In the name of the AForGeN group, MH expressed gratitude to DN in initiating and managing AForGeN, organizing and conducting the Silver Fir Genome Project (SFGP) and for making an important contribution in writing the *Abies alba* genome paper. CR handed a present over to DN, two Toblerone chocolates specially printed, one with DN's name and another with *Abies alba*. DN accepted to be the honorary member of the SC.

10) North American Forest Genetic Society

DN presented an initiative for unifying fragmented US societies dealing with forest genetics into a North American Forest Genetics Society (NAFGS). A new webpage was created and the aim is to find donations for research activity. The discussion continued in the direction whether this should become an international society: International Forest Genetic Society (IFGS). (link: treegenesdb.org/NAFGS). In general, the network showed interest to establish an IFGS.

In Europe there are already two networks having approximately the same goal: EvolTree (www.evoltree.eu; scientific level) and EUFORGEN (www.euforgen.org; network with national mandates – policy level). On the international level, IUFRO division 2 covers part of this initiative.

It was decided that DN forwards the initiative to AForGeN members to look at it individually.

11) Geographical and altitudinal gradient plots

BF proposed to establish long term plots along geographical and altitudinal gradients for Alpine tree species and study the colonization along the gradients and distribution area. This could be linked to the point about the COST Action.

12) Second phase of Silver Fir Genome Project (SFGP2)

BH summarized the actual state of the SFGP. The two working groups initiated in 2018 are: (1) re-sequencing and SNP-genotyping (SFGP2.1) and (2) genome improvement with long read sequencing (SFGP2.2). CR suggested to lead SFGP2.1 because Michela Troglio (MT) is not involved in *Abies* work at the moment. CR will contact MT to discuss this.

SFGP2.1 needs to collect funds (e-mail will follow). SFGP2.2 already started with first financial funds from WSL, will need further funding if successful.

KK: Mapping after re-sequencing can be performed without sequence improvement, the existing Abal 1.0 genome version is sufficient for mapping (but a lot of computing resources needed and many uncertain hits have to be discarded).

Discussion: How to support the project: individual contributions, or a common project?

KC gives a reports on the ongoing experiment of the controlled crosses for a linkage genetic map. The WSL tree was used as mother, the pollen comes from an *Abies cephalonica* from Italy (Nicola La Porta, FEM). Around 500 hybrid DNAs may be available.

The network decided to continue with three working groups: 1) SFGP2.1 led by Christian Rellstab and TBD; 2) SFGP2.2 led by Felix Gugerli and Kristian Ullrich, 3) Linkage map group led by KC and Ole Hansen.