

GenTree

Optimising the management and sustainable use of forest genetic resources in Europe

Deliverable D4.1

Leaf samples from pairs of populations in contrasted environments in ten countries

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PU Public	PU
CI Classified, as referred to Commission Decision 2001/844/EC	
CO Confidential, only for members of the consortium (including the Commission Services)	

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1 Summary

Collection of leaf tissue for DNA extraction from 10 pairs of populations in contrasting environments for seven species.

2 Introduction

Each partner has permanently marked and sampled leaves or bud tissues from individuals in at least two populations (i.e. one population pair) for each of the seven species that are present in the country where the partner works and/or nearby regions not covered by any project partner. The population pair has been chosen to be close enough to be linked by gene flow, yet far enough to be in different selective niches. Given the great diversity of landscapes in Europe it has been difficult to locate exactly equivalent pairing across the continent, but good compromises have been identified. In total, 7 species * 20 populations (10 population-pairs) * 25 individuals = 3500 individuals have been sampled, and the same trees are being studied for WP3 through collection of detailed site and phenotypic information.

3 Collection & extraction progress

Species	Species Leader	Progress	Expected completion
<i>Betula pendula</i>	Tanja Pyhäjärvi	Complete, sent to IGATS	Complete
<i>Fagus sylvatica</i>	Florian Knutzen	Complete, awaiting shipment to IGATS	July 2017
<i>Picea abies</i>	Mari Mette Tollefsrud	Complete, sent to IGATS	Complete
<i>Pinus pinaster</i>	Annie Raffin	Collection awaiting one population, DNA extraction in progress.	August 2017
<i>Pinus sylvestris</i>	Stephen Cavers	Collection complete, Final extractions in progress	July 2017
<i>Populus nigra</i>	Marc Villar	DNA extraction in progress; awaiting additional samples from Germany, UK	August 2017
<i>Quercus petraea</i>	Mirko Liesebach (update from Christian Rellstab)	In progress, additional samples from Poland, Austria, Germany plus <i>Q. robur</i> , <i>pubescens</i>	September 2017

4 Conclusions

Task is largely complete but delayed due to sample quality issues. As shipments of samples to IGATS and its linked third party IGA have begun, these delays are not causing holdups downstream in the project and are fully justified as they permit the quality of the collections to be assured.



5 Partners involved in the work

NERC, INRA, CSIC, UU, PUM, CNR, INIA, UOULU, NIBIO, ASU, WSL, RAS