

Praeger Grant Scheme 2021

Final report

Submission Date Dec 6, 2021

1. Title: Dr

First name: Daniel

Surname: Buckley

2. Email:

3. Year awarded

2021

4. Title of project Irish Black poplar Genetic Finger Printing Project-Phase 2

5. Summary of your findings including what you consider to be the key achievements from your grant. This should include, if applicable, any impact or applications of your findings.

Black poplar is a rare tree in Ireland. Eleven wild trees and four planted trees from Lough Allen, eight trees from Laois, Offaly, Tipperary, Limerick and Antrim and a sapling propagated from seed collected in Co. Laois were genotyped to determine their clone line. The wild Lough Allen trees were assigned to nine clones unique to Lough Allen, with three trees being assigned to one clone. The four planted Lough Allen trees were assigned to two clones. Three of the trees were assigned to a female clone (clone 133) previously found in Ireland. One tree was assigned to a male clone (clone 34) previously found in Ireland and Britain. The trees from Laois, Offaly, Tipperary and Limerick were also assigned to Clone 133, however, the tree from Antrim was assigned to a previously unrecorded clone (Clone 146).

Parentage analysis of the wild Lough Allen trees indicates they are the progeny of the two clones identified from planted trees in the area. Parentage analysis of the Laois seedling indicates it is the progeny of two widespread planted clones in Ireland and Britain. This study suggests that black poplar in Ireland originated from a number of imported clones, principally from Britain.

6. Please provide an image



7.

8. a) Please tell us about any academic articles, books or other scholarly publications associated with this project, and any dissemination of your research at academic conferences, workshops or

The results of this project will be combined with the results from the 2020 project and, along with an updated Irish distribution map for the species, be published as a paper in a scientific journal. The results may also be presented at a relevant conference, such as the BSBI (Botanical Society of Britain and Ireland) Irish Conference or the Irish Ecological Association Conference.

other events that you have been involved in, or plan to:

b) Number of articles/publications **1**

c) Number of presentations/events: **2**

8. Please outline details of any collaborations with national or international, or academic partners: **The genetic analysis was carried out in the UK by Forest research.**

9. Please tell us about any additional funding that you may have received from other government sources, trusts, EU funding or any other sources including the amount of the grant: **n/a**

10. Please tell us about any engagement activities and communication about your research (inc. public open days, public lectures, work with museum/gallery/science centre, citizen science, work with teachers or schools, interviews on tv/radio, social media projects or any other relevant activities) **Unfortunately due to COVID 19 restrictions I have been unable to present my work at public lectures or at conferences.**