



Praeger Grants in Natural History - Report

Name of Grantee:	Dr Daniel Buckley
Title of Project:	Irish Black Poplar Genetic Finger Printing Project
Amount and year awarded:	€1,986 in 2020

Summary of findings, including key achievements:

Black poplar is a rare, possibly native, tree in Ireland. A national survey conducted in 1989 and 1990 recorded only 375 trees. This project aimed to carry out genetic analysis of 33 trees from 12 counties for the purpose of identifying clone lines that could be propagated for conservation plantings. All trees tested were found to be pure black poplar and eighteen clones were identified. From cross referencing the National Clone register held by Forest Research in Scotland, four clones found in Ireland were confirmed to be present in Britain also. This is evidence that black poplar stock from Britain has been imported into Ireland in the past, most likely during the tree planting initiatives of the 18th Century. However, 14 clones of black poplar were found to be unique to Ireland and are possibly native stock. Interestingly every tree sampled from Lough Allen was a different clone unique to this area. No clones found in planted populations were also found in this population. The high clone diversity and the presence of male and female trees are strong evidence that a sexually reproducing wild population of potentially native origin is growing on the lakeshore. This population is of international importance.





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Please outline the plans for the dissemination of the results of the project:

The results of the genetic finger printing project will be published as a paper in a scientific journal along with an updated distribution for black poplar.

Please outline details of any additional collaborations with industry, national or international academic partners:

National Parks and Wildlife Service Western Region covered the cost for the genetic finger printing of two trees.

National Parks and Wildlife Service South Eastern Region covered the cost for the genetic finger printing of one tree.

Payment for the genetic finger printing of six trees was self-funded.

Please tell us about any engagement activities and communication about your research:

Unfortunately, due to COVID 19 restrictions in 2020 I was unable to partake in any engagement activities for my project. I hope to give lectures and engage with media in relation to my research once it has been completed and published in a scientific journal.