Plant dispersal insights may aid climate change predictions

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While many plants made great-circle movements between the landmasses, others are 'refugees' that millions of years ago escaped continent-wide glaciation in Antarctica. Credit: *Journal of Biogeography*

Explanations for why the same plant groups occur in Australia, New Zealand, and South America have been deeply controversial. By comparing broad patterns of climatic history to age and habitat information for more than 70 plant taxa, or groups, investigators have provided important new insights.

They now believe that while many plants made great-circle movements between the landmasses, others are "refugees" that millions of years ago escaped continent-wide glaciation in Antarctica—and therefore extinction—by virtue of successful dispersal. These findings could help improve the accuracy of the models used to predict the impacts of climate change.

"Our work suggests that there is an element of predictability to plant dispersal and illustrates how a better understanding of past events can inform predictions about the future" said Dr. Richard Winkworth, lead author of the *Journal of Biogeography* study.

More information: Winkworth, R. C., Hennion, F., Prinzing, A., Wagstaff, S. J. (2015), Explaining the disjunct distributions of austral plants: the roles of Antarctic and direct dispersal routes. *Journal of Biogeography*. DOI: 10.1111/jbi.12522

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