### Guittar, John L., Deborah Goldberg, Kari Klanderud, Richard Telford, Vigdis Vandvik. 2016. Can trait patterns along gradients predict plant community responses to climate change? *Ecology*.

### This metadata document describes the R, R markdown, and csv files used and referred to in this study.

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### File list

traits\_transplants.Rmd

custom\_functions.R

bayesian\_immigration\_estimates.R

neutral\_simulation.R

simdat\_processing\_veg.R

simdat\_processing\_traits.R

simdat\_spp.R

species\_data.csv

**Description**

Description of R scripts and their workflow: traits\_transplants.Rmd is the central analysis script for this study and sources code from several other R scripts. First, it loads a suite of custom functions in custom\_functions.R that are used throughout the analysis. Then, it uses vegetation census data and trait data to estimate baseline turnover rate and immigration rate (bayesian\_immigration\_estimates.R), simulate trait-neutral community change (neutral\_simulation.R), compile and summarize simulation output in terms of species-based changes (simdat\_processing\_veg.R) and trait-based changes (simdat\_processing\_traits.R), and produce the tables and figures contained in the study. Figure S4 uses species-level summaries of simulation results, which are compiled by simdat\_spp.R.).

species\_data.csv: A table containing the list of species used in the study and their associated trait values.