Supplemental Table 2: Table of variables selected for the analysis and the respective category (abiotic, biotic, neutral).

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| Category | Variable | Effects | Citation |
| Abiotic | Köppen-Geiger Climate Classes variety | Overall representation of an area's climate based on seasonality of monthly air temperature and precipitation. Used by risk analysts to estimate plant distribution. | Beck et al. 2018 |
| Abiotic | Minimum temperature mean | Average annual extreme minimum temperatures. This is a representation of plants’ temperature tolerance. | Daly et al., 2012; Takeuchi et al. 2018 |
| Abiotic | Elevation range | Large differences in microclimate occur with small changes in elevation. Climate is linked to plant diversity. | Oke and Thompson 2015 |
| Abiotic | Soil variety | Helps define water retention, acidity, and nutrient content. All important for plant growth. | Goldblatt and Manning 2002 |
| Biotic | Bird diversity | Frugivory can play a key role in plant diversity by "equalizing species' representation in the seed rain.” | Morán-López et al. 2017 |
| Biotic | Reptile diversity | Frugivory plays a key role in plant diversity by "equalizing species' representation in the seed rain." | Morán-López et al. 2017 |
| Biotic | Bird species mass | A representation of animal size. Larger animals can have stronger interactions with vegetation, for example, through frugivory. | Johnson 2009 |
| Biotic | Reptile species mass | A representation of animal size. Larger animals can have stronger interactions with vegetation, for example, through frugivory. | Johnson 2009 |
| Neutral | Island Area | Area helps determine the carrying capacity of an island and its extinction rate. | Simberloff and Abele 1976 |
| Neutral | Distance to nearest neighbor | Distance to nearest neighbors determines the sources of migration for an island. | Simberloff and Abele 1976 |
| Neutral | Number of neighbors within 100km | Number of nearest neighbors determines the sources of migration for an island. | Simberloff and Abele 1976 |
| Neutral | Mass effect | A representation of the size of nearest neighbors. Determines the potential magnitude of migration for an island. | Shmida and Wilson 1985 |