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APPENDIX

Our models to predict propagule dispersal capability from morphological characteristics are based on the technique of multiple regression analysis. Table 1 presented standard partial regression coefficients so that the relative importance of predictors, regardless of their units of measurement, could be compared. Here we also present the conventional (unstandardized) partial regression coefficients to facilitate use of the models for conservation management.

The conventional multiple linear regression equation is:

$$\hat{Y} = a + b_{Y1} \,.\, X_1 + b_{Y2} \,.\, X_2 + \ldots + b_{Yk} \,.\, X_k,$$

where $\hat{Y}$ (here, dispersal capability) represents a dependent variable that is being estimated by a function of k independent variables $X_1, X_2, \ldots, X_k$ (here, the morphological measurements), a represents the intercept, and each partial regression coefficient b_{Yj}. represents the regression coefficient of Y on variable X_j that would be obtained if all other variables were held constant.

Thus, for prediction of drop time, our model using all morphological measurements is:

$$\text{drop time}_{(s)} = 1.80 + -0.36(\text{mass}_{(mg)}) + -0.099(\text{ach. len.}_{(mm)}) + 0.67(\text{ach. wid.}_{(mm)}) + 0.068(\text{pap. len.}_{(mm)})$$

And using mass alone is:

$$\text{drop time}_{(s)} = 2.16 + -0.275(\text{mass}_{(mg)})$$

Similarly, for prediction of flight distance, our model using all morphological measurements is:

$$\text{flight distance}_{(m)} = 1.85 + -0.42(\text{mass}_{(mg)}) + -0.15(\text{ach. len.}_{(mm)}) + 0.52(\text{ach. wid.}_{(mm)}) + 0.097(\text{pap. len.}_{(mm)})$$

And using mass alone is:

$$\text{flight distance}_{(m)} = 2.12 + -0.35(\text{mass}_{(mg)})$$