APPENDIX A. **Which statistical test should I use?**

If you are testing the relationship between…	. . use this test…	. . to answer this question…	. . involving these statistical hypotheses…	. . to reach this kind of conclusion…
2 continuous variables	Correlation analysis	Is there a statistical association for high measures of one variable to be associated with high (or low) measures of another variable?	H_o : there is no association between variables H_a: there is an association (positive or negative) between variables	If the association is stronger than is likely by chance, the variables are said to be significantly positively (or negatively) correlated.
1 categorical predictor & 1 continuous response	t-test	Is there statistical evidence that the mean of one group is significantly greater than or less than the mean of a second group?	H_o : there is no difference in the mean between groups H_a: there is a difference (positive or negative) in the mean between groups	If the difference between means (relative to variation around the mean) is larger than expected by chance, then the difference is said to be statistically significant.

APPENDIX B. **Test statistic, calculation of sample size and degrees of freedom for different tests**

Statistical test	Test statistic	Sample size	Degrees of freedom
Correlation Analysis	r	N = number of individuals for which you have paired measurements of the two variables	N–2
t-test	t	N = total number of measurements summed across both groups *(for example, if you have two species and 30 measurements per species =60, then df =60-2 = 58)*	N–2