

BIOMETRY, CLASS EXERCISE 1

- (1) Give an example (not presented in the lecture) in a biological context of a variable which is:
 - a) Categorical, on nominal scale.
 - b) Quantitative, discrete, on ordinal scale.
 - c) Quantitative, continuous, on ratio scale.

- (2) In a biological or ecological context give an example of a measurement which expected to be:
 - a) accurate but imprecise.
 - b) precise but not accurate.

- (3) Round the following numbers to three significant figures: 106.55, 3.0495, 17815.02, 20.1500. What are the implied limits before and after the rounding?

- (4) How precisely should you measure the wing length of a species of mosquitoes in a study of geographic variation if the smallest specimen has a length of about 2.8mm and the largest a length of about 3.5mm?

- (5) A ratio of 0.16/0.12 is formed from the measurements of 0.16 and 0.12. Compute the relative error of the two measurements and the relative error of the ratio.