Ten Basic Rules of Natural History Study Design

C. Riley Nelson, Department of Biology, Brigham Young University, Provo 84602. Email: rileynelson@byu.edu

These rules will guide you in doing biological research. This list is simple and therefore not complete. It is intended as a jumping off point for further discussion. The originator of this list was Krebs (1989), but I’ve modified it to guide me through the years.

1. Not everything that can be measured should be.

2. Find a problem and ask a question.

3. Collect data that will answer your question.

4. Some ecological questions are impossible to answer at the present time.

5. Decide on the precision you need before you start the project.

6. Never report an ecological estimate without some measure of its possible error.

7. Be skeptical about the results of statistical tests of significance.

8. Never confuse statistical significance with biological significance.

9. Make your data machine-readable.

10. Garbage in, garbage out.

Literature Cited

Krebs, C. J. 1989. Ecological Methodology. Harper Collins Publishers, New York. 654 pp.