## Graduate Student Project Ichthyology, BIOL 5900, Fall 2014

The syllabus for Biology 3900, Ichthyology, as written for the undergraduates will also apply to the graduate students with the following exceptions.

Graduate students will meet at the end of lab in the office of Dr. Bechler on 22 August 2014, at which time he will go over the protocol that they will engage in as part of the graduate level course, BIOL 5900, which is as follows:

- Graduate Students will record in Excel data sets developed on species of Fundulidae by undergraduates in the Spring and Summer, 2014.
- Excel sheet data will be used by Dr. Bechler to develop sets of data analyses which involve modeling and statistical analyses to include →
  - Multidimensional scaling,
  - o Cluster analyses ,
  - PCA or Principle Components Analysis.
- Graduate students will then be shown→
  - How to run the above analyses in Primer 6 software,
  - Taught the value of such analyses for the analyses of various data such as the ones recorded in Excel on the Fundulidae.