Methods in Experimental Ecology II (PCB 6468)
Exercise 7 – Mixed model selection
Due March 25, 2016

The purpose of this exercise is to review the academic literature in your field and find out what statistical methods are used more frequently according to time of publication and journal impact factor (JIF)*.

To complete your exercise, you will need the search results of your six classmates; therefore it is important that *as a group* you coordinate activities so that there is no overlap in journals and everybody can turn in their exercise on time.

1. Select two academic journals that you are interested in. One must have JIF **> 3** and the other JIF **< 2**.

2. In each journal select 15 articles published between 1995 and 2000, and another 15 published between 2010 and 2015 (each of you will review a total of **60 papers**; *all papers must include some type of statistical analysis!*).

3. Find what type of statistical analysis was performed.

4. Search for the following words** and tally their occurrence across papers (only once per paper):

p-value (for the null hypothesis)	GLM (generalized linear models)
t-test	Mixed model(s)
ANOVA (analysis of variance)	Model selection
ANCOVA (analysis of covariance)	Linear regression
AIC	Bayesian (analysis)

5. Include a list with the reference of the papers that you used and what words were found in each of them.

6. Present a summary table with the frequency of each word per time of publication and journal quality for *your individual search* (60 total).

7. Present a summary table with the frequency of each word per time of publication and journal quality for *the whole class* (420 total)***.

8. Interpret and discuss the patterns you found.

*We recommend that you use **Web of Science** (which can be accessed through the UCF library) both to search for impact factors and for the articles. Use the JIF for 2014 as your reference to select journals.

**Feel free to include any others terms/concepts that you consider important.

***Because the papers searched by each person must be different, we suggest you simply make sure not to search from the same journals as any of your classmates.