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**Setup & Reading List**

**Start Your Engines!**

This document details how to set up your computer to work in the lab. I also provide a list of books & papers that I think are essential for success.

**Setup Your Work Environment**

1. Office: MS Office
   * Zotero (references)
   * Grammarly (grammar and copy editing)
2. Data science platform: see DataScience\_SetUp.md & associated setup scripts
3. Other software:
   * JMP or Jamovi (free) (stats)
   * BayesTraits (Comparative Methods)
   * Mrbayes, BEAST, RAXml, BayesPhylogenies, & IQtree (phylogenies)
   * BayesTrees, FigTree, <https://icytree.org/> (tree viewers)
   * Notepad++ (Windows text editor) or BBEdit (Mac)
   * WinSCP (Windows SSH/FTP) or Cyberduck (Windows/Mac)
   * Affinity Designer (vector graphics editor, Windows/Mac)
   * Affinity Photo (raster graphics editor, Windows/Mac)

**Must-Read Books& Papers for Graduate Students**

Books

1. *Origin of Species* & *Descent of Man* by Charles Darwin
2. *The Comparative Method in Evolutionary Biology* by Harvey & Pagel
3. *Chapter 1, An Introduction to the Phylogenetic Comparative Method* by Emmanuel Paradis (in Modern Phylogenetic Comparative Methods and Their Application in Evolutionary Biology)
4. *Range* by David Epstein
5. *The War of Art* by Steven Pressfield
6. *Four Thousand Weeks* by Burkeman
7. *Writing Science: How to Write Papers That Get Cited and Proposals That Get Funded* By Joshua Schimel.
8. *How to Write a Lot (2nd ed)* by Paul J. Silvia
9. *A PhD Is Not Enough!: A Guide to Survival in Science* by Feibelman
10. *Visual Display of Quantitative Information* (and other books) by Edwards Tufte

Papers

1. *Inferring Evolutionary Processes From Phylogenies* by Pagel (Zoologica Scripta 1997)
2. *Inferring the Historical Patterns of Biological Evolution* by Pagel (Nature, 1999)
3. *The Seven Deadly Sins of Comparative Analysis* by Freckleton (JEvoBio, 2009)
4. *Tidy Data* by Wickham (Journal of Statistical Software, 2014)
5. *Ten Simple Rules for Effective Statistical Practice* by Kass et al. (PLOS Computational Biology, 2016)

**Recommended Reading for graduate students**

1. *Voyage of the Beagle* by Charles Darwin
2. *Structure of Scientific Revolutions* by Thomas Kuhn
3. *Surely You Must Be Joking Mr. Feynman* by Richard Feynman
4. *Demon Haunted* World by Carl Sagan
5. *Philosophical Breakfast Club* by Laura Snyder
6. *The Theory That Would Not Die* by Sharon Bertsch McGrayne
7. *The Invention of Nature: Alexander von Humboldt's New World* by Andrea Wulf