Bayesian analysis

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1 Review of Basic Probability Concepts

1.1 Objectives

- Review basic probability concepts and distributions (binomial, dirichlet, gamma, exponential, logNormal), NP.

1.2 Readings

- **Bodine et al Unit 3**
- **Sokal & Rohlf Chapter 5**
- **Anderson**
- **ASA statement** Read Online

2 Probability Concepts in Kruschke

2.1 Chapter 2/4: Probability Kruschke

3 Probability Topics

- Conditional Probability

4 Statistical Concepts

- Likelihood

5 Bayesian Analysis by Kruschke

5.1 Chapter 5: Bayes Kruschke

5.1.1 Classical Statistics in Bayesian Mode

6 Monte Carlo Methods

6.1 Chapter 7: MC Kruschke

7 Modeling in Kruschke

7.1 Chapters 9/10: Modelado Kruschke

Texts to reference: @kruschke2015doing

8 Additional/Complementary Readings

- [Doing Bayesian Data Analysis in brms and the tidyverse. Version 1.1.0. A Solomon Kurz](#)

9 Bibliography

- @kruschke2015doing :: [Elsevier](#)
- [What's New in 2nd Edition](#)

10 Software

- [R - http://www.r-project.org/](http://www.r-project.org/)
- Julia https://julialang.org/