**Participant Background Questionnaire**

Bayesian Modeling for Practicing Ecologists

March 2013

Dear colleagues,

In preparation for the course, we would like to get some baseline information about your formal training in statistics, your familiarity with some of the software we will be using and your level of familiarity with topics we plan to cover. Your feedback will help us target the content of the course to your needs and ensure that we don’t consistently bore or overwhelm you. Thanks for taking the time to do this!

Software

1. How many years have you used R? **~2 years**
2. How often do you use it? Daily Weekly **Less Often**
3. Purpose (circle all that apply) **Analysis** Graphics Data manipulation Simulation **Other (specify): Basic Leslie Matrix modeling**
4. Do you use other statistical software? If so, specify.

**Most commonly: JMP, PRIMER, SigmaPlot**

**In the past: SPSS, SAS, Matlab**

1. Do you use any of the following R packages and associated software?

Skill: rate yourself as novice, intermediate, advanced, super-ninja.

|  |  |  |
| --- | --- | --- |
| **Package** | **Y/N** | **Skill** |
| bbmle | N |  |
| lme4 | N |  |
| arm | N |  |
| JAGS | N |  |
| WinBUGS | N |  |
| OpenBUGS | N |  |
| R2WinBUGS | N |  |
| R2OpenBUGS | N |  |
| rjags | N |  |
| R2jags | N |  |
| GeoBUGS | N |  |
| INLA | N |  |
| Other |  |  |
| Primer | Y | Intermediate |
| deSolve | Y | Novice |

1. How would you characterize your programming skill? **Intermediate – most of my programming skill and background is with Java**

Statistics background

1. Have you taken a course in statistical methods or theory? Please list them below.

**In graduate school at the University of Miami’s marine school:**

**Biometry**

**Advanced Statistics**

1. Rate the following topics with respect to your current knowledge using 0 = a new topic for me, 1 = I am somewhat familiar but I need review, 2 = I am thoroughly familiar with this topic.

|  |  |
| --- | --- |
| **Topic** | **Rating** |
| Rules of probability | 2 |
| Probability distributions for discrete  and continuous random variables | 2 |
| Moment matching | 0 |
| Likelihood and maximum likelihood  estimation. | 1 |
| Bayes theorem | 1 |
| Conjugacy | 0 |
| Gibbs sampler | 0 |
| MCMC | 1 |
| Metropolis Hastings algorithm | 0 |
| Multilevel/hierarchical models | 1 |
| Latent process models | 0 |
| Occupancy models | 0 |
| Dynamic models | 1 |
| Spatial models | 1 |
| Spatio-temporal models | 1 |

1. Do you teach a statistics course? At what level? Please list it/them below.

**I teach a two-semester introduction to statistics for ecology class for incoming Masters students in the Masters of Marine and Environmental Science program. The course is called “Research Methods and Tools” I and II.**

**Topics covered include:**

**First semester (I): Probability distributions, Experimental design, ANOVA (one-way and multi-way), Linear regression, ANCOVA, Correlation**

**Second semester (II): Power analysis, Analysis of Frequencies, Generalized Linear Models, MANOVA, PCA, nMDS, ANOSIM**

1. What references (e.g., textbooks, internet, papers) do you regularly refer to when you encounter a statistics issue/question? List your top <5 references.

**My number 1 reference tool:** **Google**

**Textbooks I use in my class include: Biometry (Sokal and Rohlf), A Primer of Ecological Statistics (Gotelli and Ellison), Experimental Design and Data Analysis for Biologists (Quinn and Keough)**

**Other books I have used: Biostatistical Analysis (Zar), Introductory Statistics with R (Dalgaard)**