# Scott Chamberlain

Email: <a href="mailto:scott@ropensci.org">scott@ropensci.org</a>
Web: <a href="http://scottchamberlain.info">http://scottchamberlain.info</a>

Ph: (713) 364-5048

Biology Department Simon Fraser University 8888 University Drive Burnaby, BC, Canada

## **Proposed work**

The proposed work involves creating an interactive web interface that will allow users to manipulate variables (soil type, vegetation layers, rainfall, slope, etc.) to create a map highlighting areas of interest. The interface will be built using R and Shiny (<a href="http://shiny.rstudio.com/">http://shiny.rstudio.com/</a>), which will allow combining interactive web components with powerful statistical analysis and vizualization ability of R. An example application: <a href="http://shiny.rstudio.com/gallery/superzip-example.html">http://shiny.rstudio.com/gallery/superzip-example.html</a>

#### Education

Rice University, Houston, TX
Ph.D in Ecology & Evolutionary Biology, 2012
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Rice University, Houston, TX
M.A. in Ecology & Evolutionary Biology, 2009

**California State University**, Chico, CA B.S. in Biological Sciences, 2003

### **Programming**

**Code**: See my code at <a href="https://github.com/sckott">https://github.com/ropensci</a> and many contributions at <a href="https://github.com/ropensci">https://github.com/ropensci</a> R: Developed R software for 8 years, for research projects, and as packages (see them on GitHub at <a href="https://github.com/sckott">https://github.com/sckott</a>).

**Python**: Programmed in Python for 1.5 years. Writing a Python package for getting taxonomy data from the web *pytaxize* (https://github.com/sckott/pytaxize).

**Ruby**: Programmed in Ruby for 1 year. Deployed an app http://rodash.herokuapp.com/roapi to monitor the many web APIs that we at rOpenSci consume, and wrote a Ruby package cites (<a href="https://github.com/sckott/cites">https://github.com/sckott/cites</a>) to search articles, and get references.

**HTML/CSS**: Use HTML often for websites, and customize CSS. Create software tutorials with HTML, CSS, and Javascript.

Databases: Use many databases, including SQL (MySQL, SQLite) and NoSQL (CouchDB).

## **Work Experience**

rOpenSci - 2011-present - Co-founder

Co-founded a developer collective to make R software to facilitate use of open source journals and data sets. Received total of \$460,000 in grant funding from the Alfred P. Sloan Foundation. Website: <a href="http://ropensci.org/">http://ropensci.org/</a>; Code: <a href="https://github.com/ropensci.org/">https://github.com/ropensci.org/</a>;

## Simon Fraser University - 2012-2014 - PostDoctoral Researcher

Built and maintained a SQL database containing data from a large network of dozens of researchers. Synthesizing data from a research network across Canada to answer questions about pollinator communities, leading to four peer-reviewed papers.

#### Dittes and Guardino Consulting - 2003-2005 - Environmental Consultant

Carried out plant surveys for the USDA Forest Service prior to awarding contracts to logging companies. Prepared environmental managagment plans for muncipalities. Performed GIS data collection in the field.

#### **Honors**

Sixteen peer-reviewed publications in top journals in my field (S.A. Chamberlain)
Public Library of Science & Mendeley Binary Battle - 3rd place in code competition, 2012
Lodieska Stockbridge Vaughn Fellowship, 2010-2011

Prairie Biotic Research, Inc. Grant, 2010

National Science Foundation REU (Research Experience for Undergraduates), CSU, Chico, 2002