

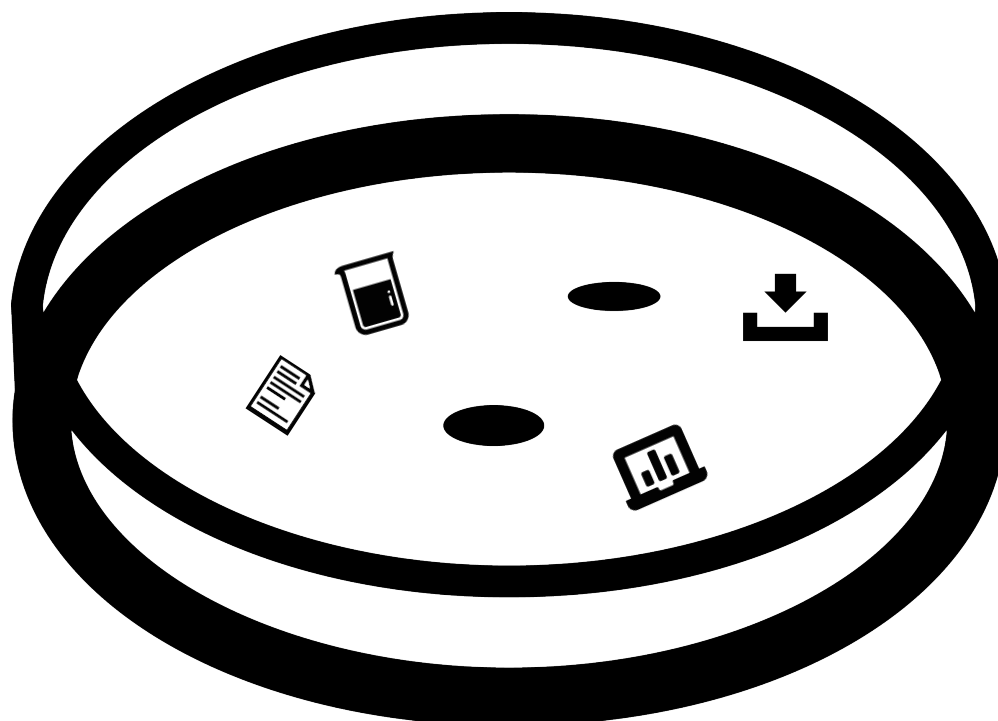
Open Science: Under the Microscope

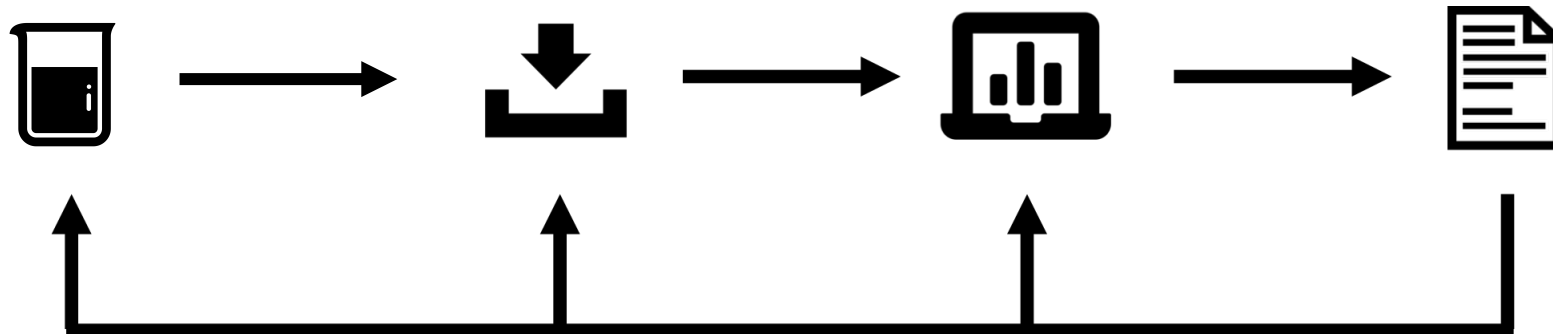


Monica Granados, Mitacs Canadian Science Policy Fellow in open science

OPEN SCIENCE

**OPEN SCIENCE IS THE BELIEF THAT ACCESS TO SCIENCE SHOULD NOT
BE LIMITED BY YOUR OCCUPATION, RACE, NATIONALITY OR
ECONOMIC STATUS**

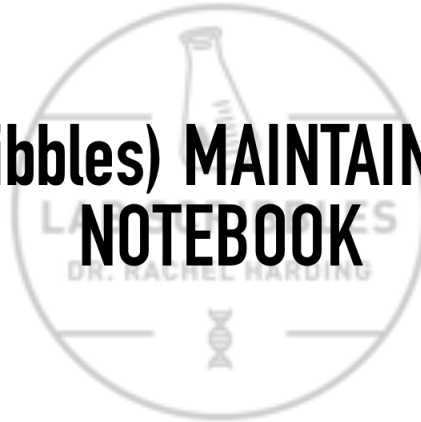




COLLECTION



**DR. HARDING (@LabScribbles) MAINTAINS A REAL TIME OPEN LAB
NOTEBOOK**



November 24, 2017

Dataset

Open Access

Huntingtin Q23 +- DNA Grafix in 0-1 percent Glutaraldehyde – 24th November 2017

Harding, Rachel; Duan, Shili; Hutchinson, Ashley; Seitova, Alma; Arrowsmith, Cheryl; Edwards, Aled

Huntingtin structure-function open lab notebook project

Files (1.2 MB)



Name	Size
Huntingtin Q23 +- DNA Grafix in 0-1 percent Glutaraldehyde – 24th November 2017 .docx	1.2 MB

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md5:9702eb2e6b0cc20820e7e3ddb7a1ed9e ?

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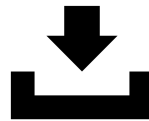
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DATA



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GITHUB IS A CODE AND DATA REPOSITORY





Monica Granados

Monsauce

Harnessing food web ecology to forward conservation. Champion of open science.

Edit bio

University of Guelph/Wildlife ...

Guelph/Toronto, ON

<http://descienceblog.tumblr.c...>

Organizations



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Open-the-North

Building a mobile app and open repository for indigenous ecological data and resources

HTML ★ 8 1

Descience

R scripts for design examples featured on the Descience blog

R ★ 2

Origin-omnivory-and-stability

Data and R script for "Consequences of consumer origin and omnivory on stability in experimental food web modules" manuscript

R ★ 1

Mussel-garden-fertilization-data

Data for "Potential for local fertilization: A benthocosm test of long-term and short-term effects of mussel excretion on the plankton" published in PLoS ONE

Food-web-modules-and-individual-growth-rate

Data and R script for "Size and variation in individual growth rates among food web modules" manuscript submitted to Ecosphere.

R

Vizualizing-Nutrients

Data and code for submission into the "Seeing into Water in New Ways: The Visualizing Nutrients Challenge"

R 2

83 contributions in the last year

Contribution settings ▾

ANALYSIS





**THE R STATISTICAL PROGRAMMING LANGUAGE ALLOWS OTHERS TO
REPRODUCE YOUR ANALYSES**

RStudio

Go to file/function Addins Project: (None)

Food web modules and individual ...

Source on Save Run Source

```
1 #Full code to run all analyses in Granados et al. (2017) Size and variation in individual growth rates among food web modules
2 {
3   ####packages required
4   library(plyr)
5   library(reshape)
6   library(RCurl)
7   library(ggplot2)
8   library(gridExtra)
9   library(car)
10
11
12   ####load data from GitHub
13   RFU.URL<-getURL("https://raw.githubusercontent.com/Monsauce/Food-web-modules-and-individual-growth-rate/master/RFU.csv")
14   RFU<-read.csv(text=RFU.URL)
15
16   SC.URL<-getURL("https://raw.githubusercontent.com/Monsauce/Food-web-modules-and-individual-growth-rate/master/StandardCurves.csv")
17   SC<-read.csv(text=SC.URL)
18
19   Artemia.URL<-getURL("https://raw.githubusercontent.com/Monsauce/Food-web-modules-and-individual-growth-rate/master/Artemia.csv")
20   Artemia<-read.csv(text=Artemia.URL)
21
22   Ratios.URL<-getURL("https://raw.githubusercontent.com/Monsauce/Food-web-modules-and-individual-growth-rate/master/RNADNARatios.csv")
23   Ratios<-read.csv(text=Ratios.URL)
24
25 }
```

1:1 (Top Level) R Script

Environment History

Global Environment

Environment is empty

Files Plots Packages Help Viewer

Zoom Export

Console ~/Box Sync/PhD Documents/Chapter 2 (monica.granados@alumni.utoronto.ca)/Manuscript/Git/

Copyright (C) 2016 The R Foundation for Statistical Computing
Platform: x86_64-apple-darwin13.4.0 (64-bit)

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Natural language support but running in an English locale

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Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> |

MANUSCRIPT





**R MARKDOWN ALLOWS YOU TO PRODUCE REPRODUCIBLE
MANUSCRIPTS**

RStudio

Go to file/function Addins

RmdWalkthrough.Rmd x

Knit

```
1 ---
2 title: "TRCA Rmd Walkthrough"
3 author: "Monica Granados"
4 date: "April 1, 2016"
5 output:
6   html_document: default
7   pdf_document: default
8 ---
9
10 #Plots, tables and in-line code
11
12 Here we will build a Word document using the Doubbs fish data to demonstrate the dynamic properties of R Markdown. Let's first
13 calculate the species richness at each site.
14 ```{r include=FALSE}
15 #load packages
16 library(ggplot2)
17 library(vegan)
18 ```
19
20 ```{r, echo=FALSE}
21 fish<-read.csv("doubbspe.csv")
22 fish.pa<-decostand(fish[,2:28], method = "pa")
23 fish$richness<-rowSums(fish.pa)
24 fish.richness<-ggplot(fish, aes(x = Site, y = richness))+ geom_bar(stat = "identity",position="dodge")+xlab("Sites")+
25   ylab("Richness")+theme_bw()
26 plot(fish.richness)
27 ```
28
29 We can also embed R code within the document. For example if we wanted to know the average richness across our Doubbs sites. The
```

39:1 Plots, tables and in-line code R Markdown

Environment History

Global Environment

Environment is empty

Files Plots Packages Help Viewer

Console ~/

```
* DONE (rmarkdown)
Warning message:
In strptime(x, fmt, tz = "GMT") :
  unknown timezone 'zone/tz/2018c.1.0/zoneinfo/America/New_York'

Restarting R session...

Restarting R session...

>
```

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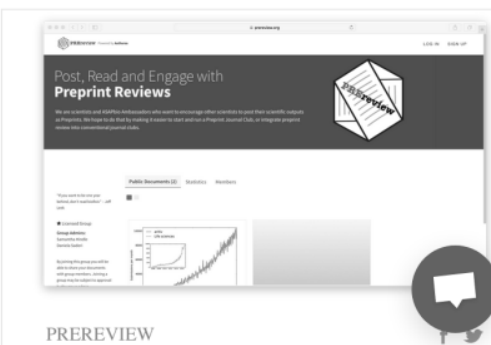
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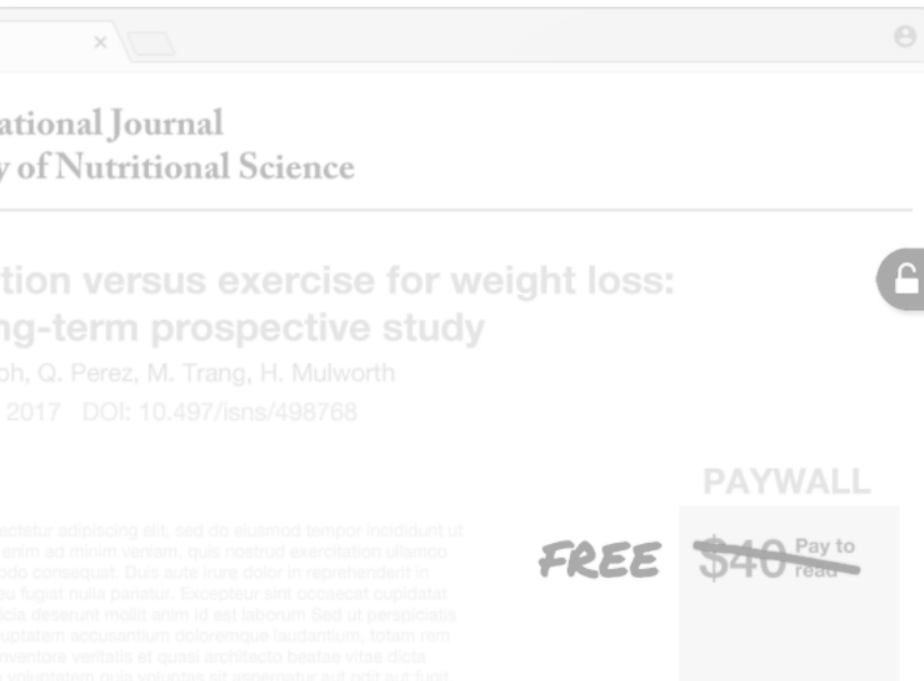
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— Jeff Leek

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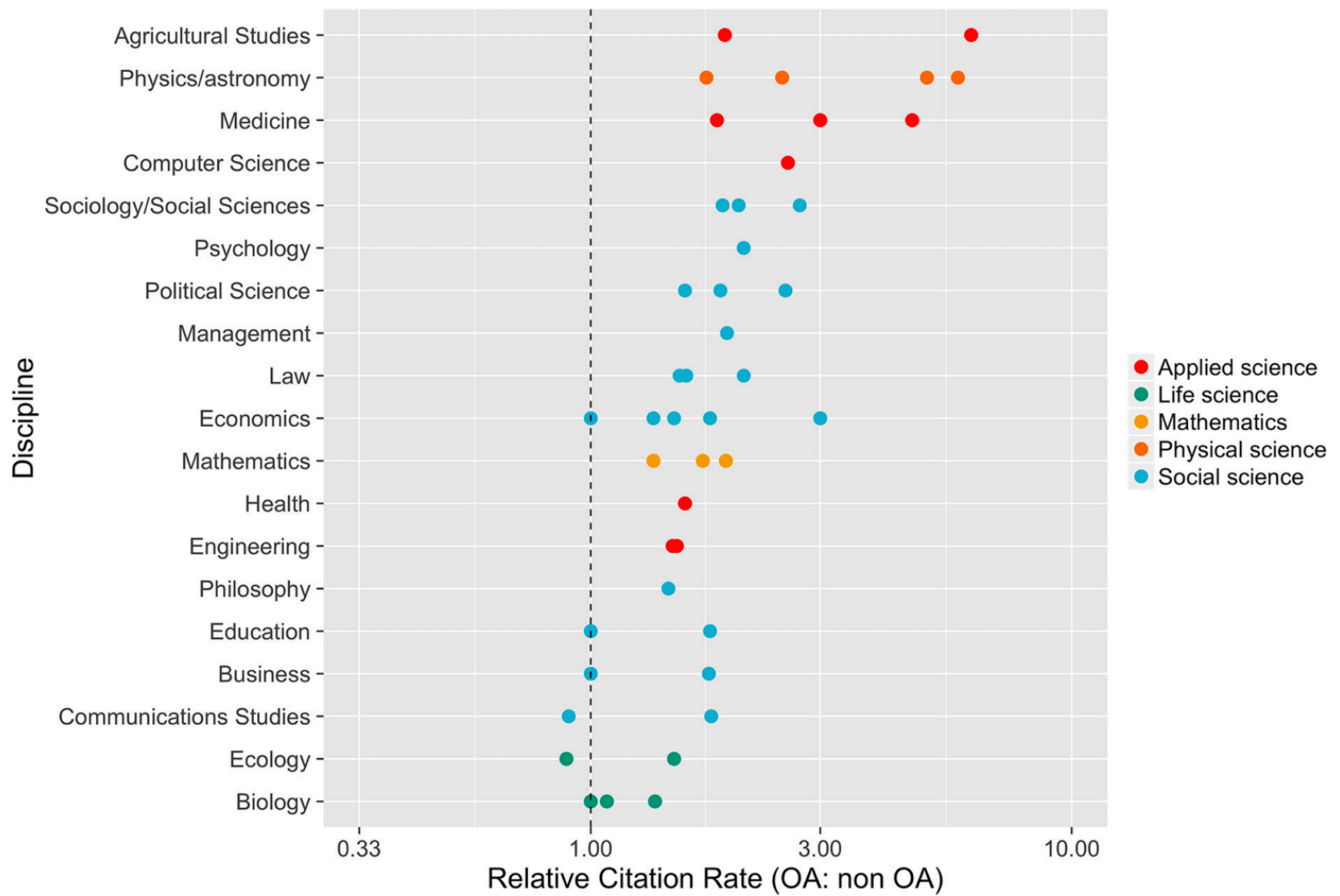
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monica.granados@alumni.utoronto.ca