

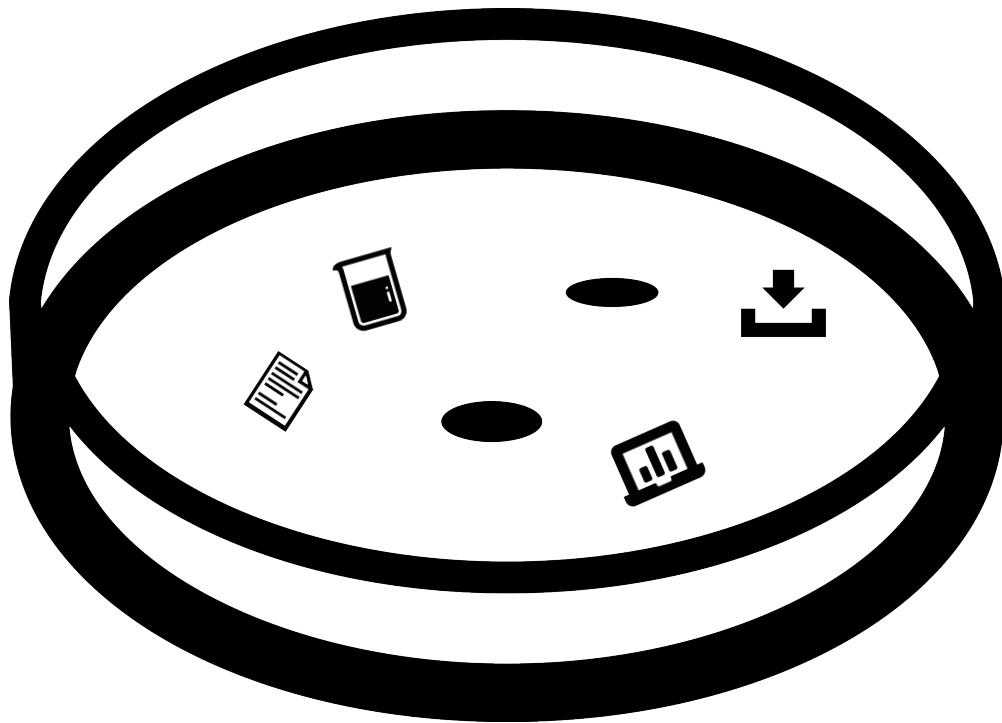
Open Science: Under the Microscope

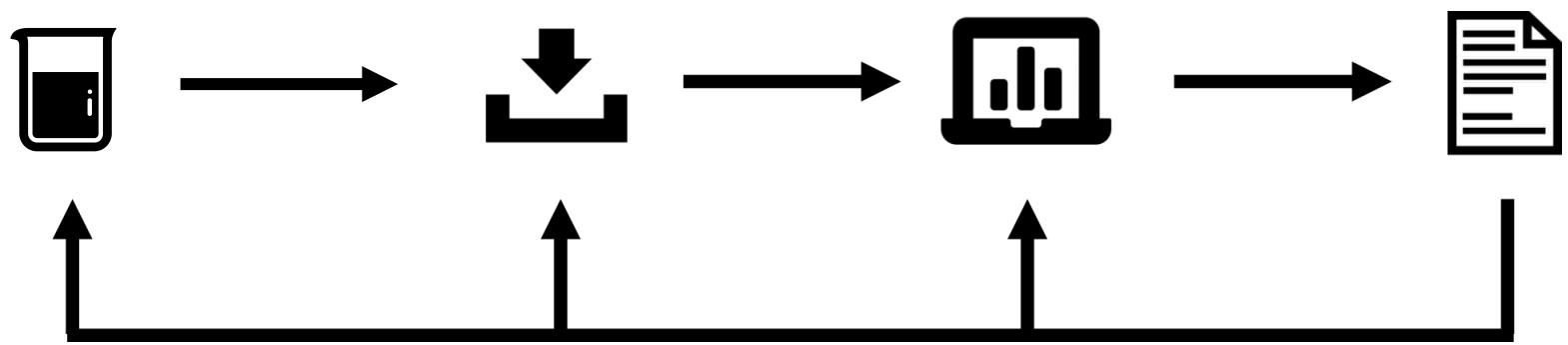


Monica Granados, Mitacs Canadian Science Policy Fellow in open science

OPEN SCIENCE

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

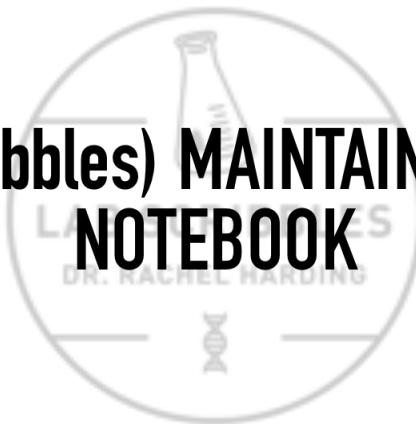




COLLECTION



**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
md5:9702eb2e6b0cc20820e7e3ddb7a1ed9e	Download

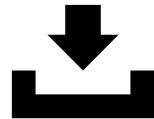
Make your science more reproducible

protocols.io is the #1 open access repository for science methods

[JOIN US - IT'S FREE!](#)[▶ HOW IT WORKS](#)

Easily create, edit and get credit for your methods

DATA





GITHUB IS A CODE AND DATA REPOSITORY



[Overview](#)

Repositories 23

Stars 2

Followers 17

Following 9

Popular repositories

[Customize your pinned repositories](#)

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

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...](http://descienceblog.tumblr.com)

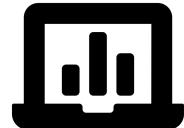
Organizations

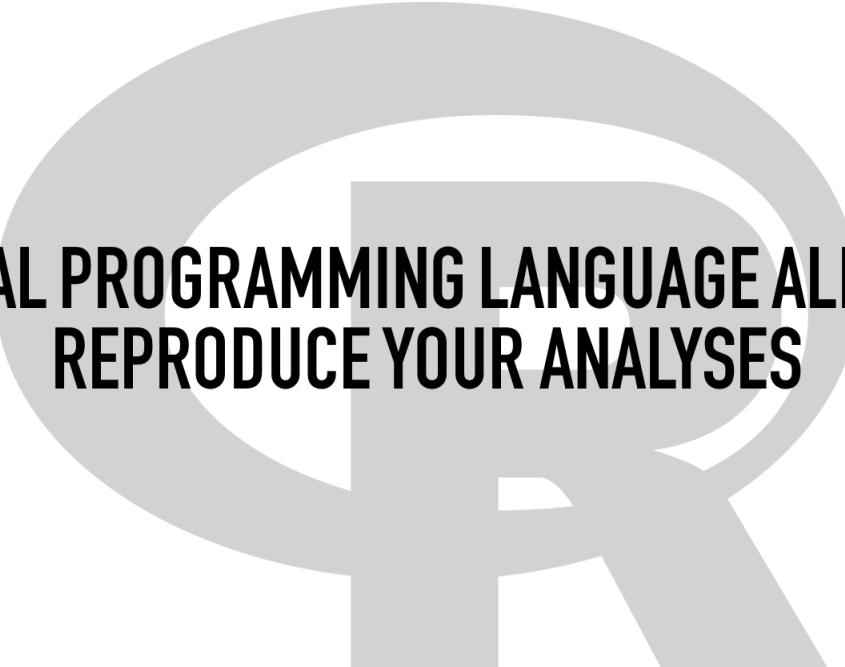


83 contributions in the last year

[Contribution settings ▾](#)

ANALYSIS





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

RStudio

Project: (None)

Food web modules and individual ... * | Source on Save | Run | Source | Environment | History | Import Dataset | Global Environment | List |

```
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(dplyr)
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/Monsause/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/Monsause/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/Monsause/Food-web-modules-and-individual-growth-rate/master/RNADNARatios.csv")
23 Ratios<-read.csv(text=Ratios.URL)
1:1 (Top Level) ▾
```

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)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

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

RmdWalkthrough.Rmd x

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 calculate the species richness at each site.
13
14 ```{r include=FALSE}
15 #load packages
16 library(ggplot2)
17 library(vegan)
18 ````
19
20 ```{r, echo=FALSE}
21 fish<-read.csv("doubsspe.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

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

Restarting R session...

Restarting R session...
>

Environment History

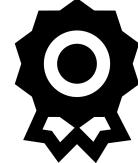
Import Dataset Global Environment

List

Environment is empty

Files Plots Packages Help Viewer

PUBLICATION



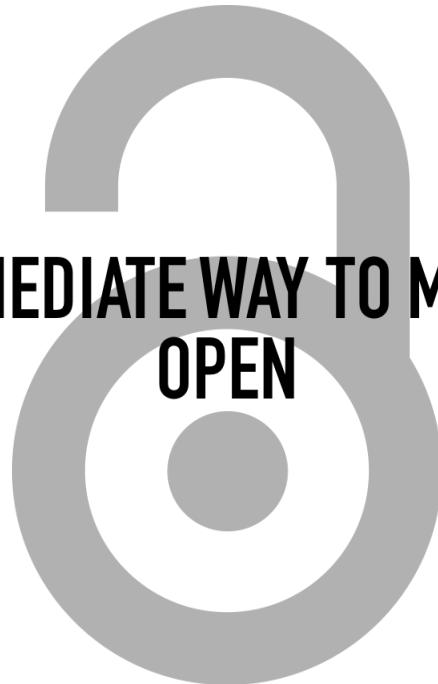


**HYBRID OR GOLD OPEN ACCESS PUBLISHING MAKES YOUR
RESEARCH ACCESSIBLE TO ALL BUT CARRIES FEES**



**GREEN OPEN ACCESS OR SELF ARCHIVING IS AN FREE, ALTERNATIVE
OPTION**

**PREPRINTS ARE AN IMMEDIATE WAY TO MAKE YOUR PUBLICATION
OPEN**





THE PREPRINT SERVER FOR BIOLOGY

Search



Advanced Search

Subject Areas

All Articles

Animal Behavior and Cognition	Ecology	Paleontology
Biochemistry	Epidemiology	Pathology
Bioengineering	Evolutionary Biology	Pharmacology and Toxicology
Bioinformatics	Genetics	Physiology
Biophysics	Genomics	Plant Biology
Cancer Biology	Immunology	Scientific Communication and Education
Cell Biology	Microbiology	Synthetic Biology
Clinical Trials	Molecular Biology	Systems Biology
Developmental Biology	Neuroscience	Zoology

Publisher copyright policies & self-archiving

[English](#) | [Español](#) | [Magyar](#) | [Nederlands](#) | [Português](#)

Search

Journal titles or ISSNs Publisher names

Exact title starts with contains ISSN

[Advanced Search](#)[Search](#)[Reset](#)

Use this site to find a summary of permissions that are normally given as part of each publisher's copyright transfer agreement.

Special RoMEO Pages

- [RoMEO Statistics](#)
- [Application Programmers' Interface \(API\)](#)
- [Publisher Categories in RoMEO](#)
- [Definitions and Terms](#)

Additions and Updates

[!\[\]\(212a2318a401861c7559cff43c43bd71_img.jpg\) RSS1 Feed](#)

- [Gruppo Entomologico Toscano](#) - Gruppo Entomologico Toscano - 12-Apr-2018
- [MayDay Group](#) - MayDay Group - 11-Apr-2018
- [Universidad de Jaén](#) - Universidad de Jaén - 06-Apr-2018

Other SHERPA Services

- [SHERPA/FACT](#) - Funders & Authors Compliance Tool
- [SHERPA/JULIET](#) - Research funders' open access policies



Post, Read and Engage with Preprint Reviews

We are scientists and ASAPbio Ambassadors who want to encourage other scientists to post their scientific outputs as Preprints. We hope to do that by making it easier to start and run a Preprint Journal Club, or integrate preprint review into conventional journal clubs.



[Public Documents \(29\)](#) [Statistics](#) [Members](#)

"If you want to be one year behind, don't read bioRxiv"

– Jeff Leek

Email us!
preprintjc@gmail.com

★ Licensed Group

Group Admins:
Samantha Hindle
Daniela Saderi



PREreview



PREreview
Code of Conduct



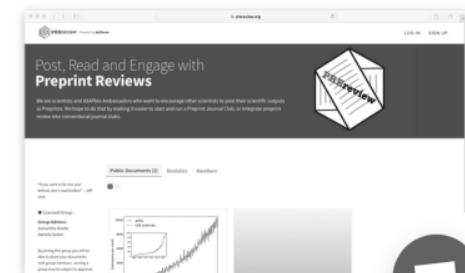
PREREVIEW

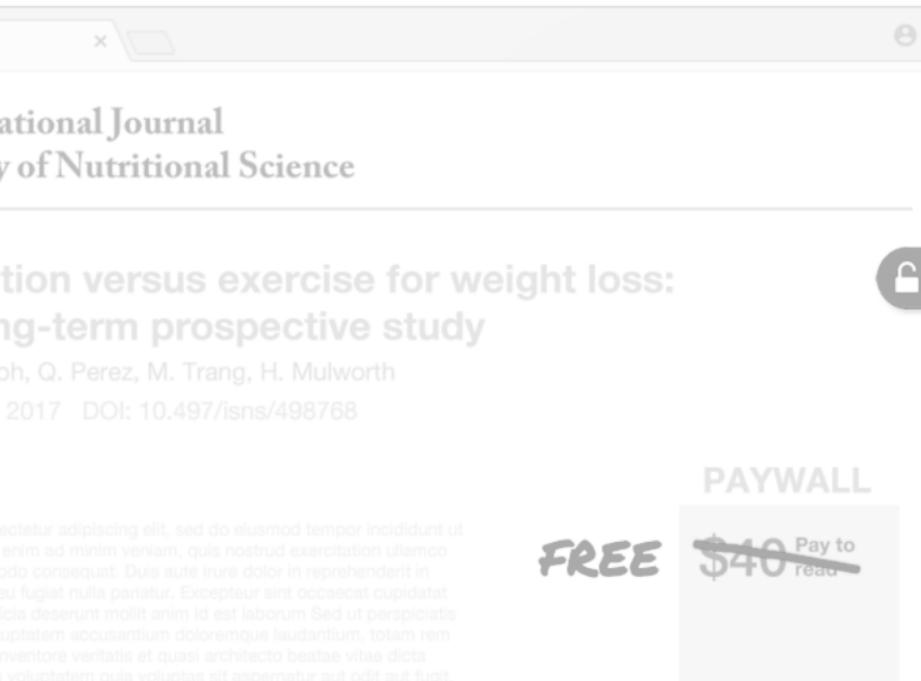
CODE OF CONDUCT

PREREVIEW



PREREVIEW





Read research papers for free.

Click the green tab and skip the paywall on millions of peer-reviewed journal articles. It's fast, free, and legal.

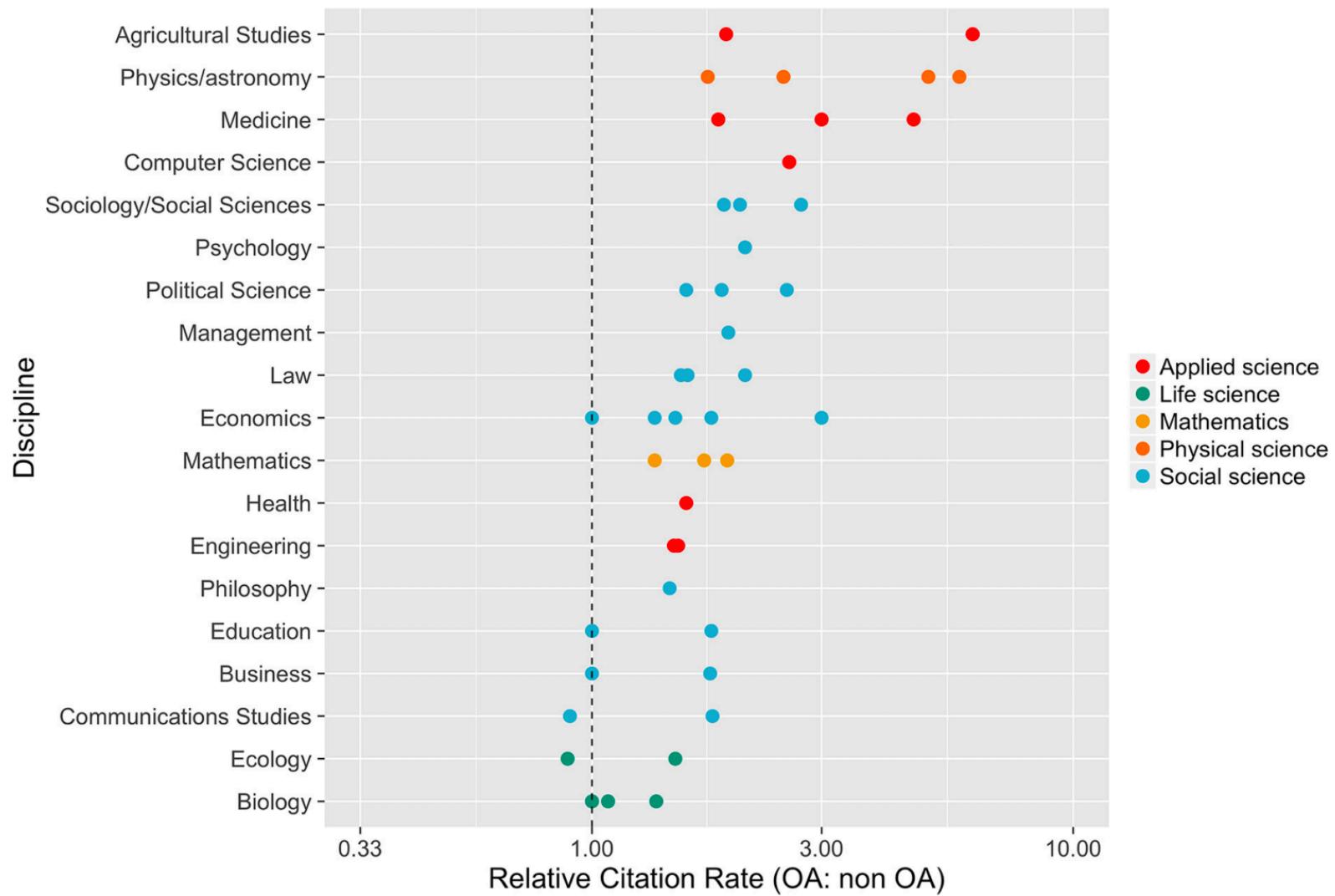
Add to Firefox - It's free

via the Firefox web store

★★★★★ five-star rating on Chrome Web Store

124,492 users on Chrome and Firefox have read millions of articles for free.

HOW OPEN SCIENCE HELPS RESEARCHERS SUCCEED



66%

SAW A CITATION ADVANTAGE WHEN PUBLISHED AS OPEN ACCESS

REGARDLESS IF THE PAPER WAS PUBLISHED AS **GOLD** OR
GREEN OPEN ACCESS OR SELF ARCHIVED

NATURE COMMUNICATIONS PAPERS THAT WERE PUBLISHED OPEN ACCESS RECEIVED TWICE THE NUMBER OF UNIQUE TWEETS AND MENDELEY READERS

2X

PROJECTS THAT POST DATA AND CODE GET MORE COLLABORATORS FROM A GREATER NUMBER OF COUNTRIES AROUND THE WORLD

WORKSHOP

<https://tinyurl.com/yb5f94pm>

QUESTIONS?

GITHUB.COM/MONSAUCE

 MONSAUCE

monica.granados@alumni.utoronto.ca