

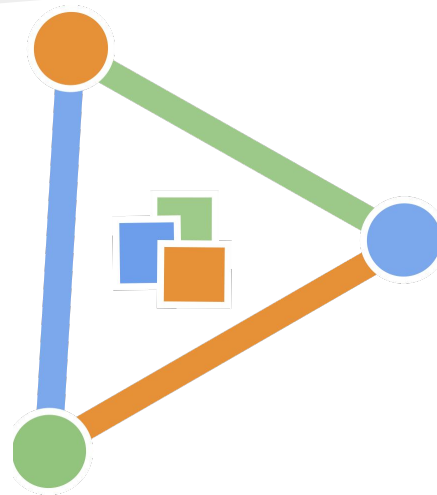
# Establishing a community for supporting and fostering adoption of reproducible research using R



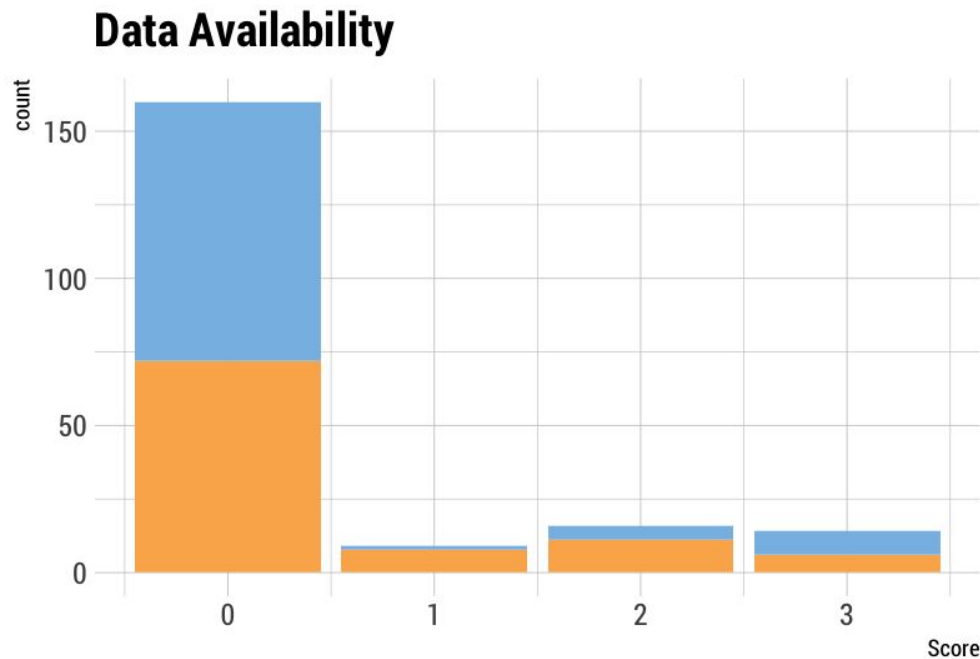
*Adam H. Sparks*



*Emerson M. Del Ponte*



# Data available?



**0 - Not available**

*1 - Upon request to authors*

*2 - Online behind paywall*

*3 - Free access*

Article class

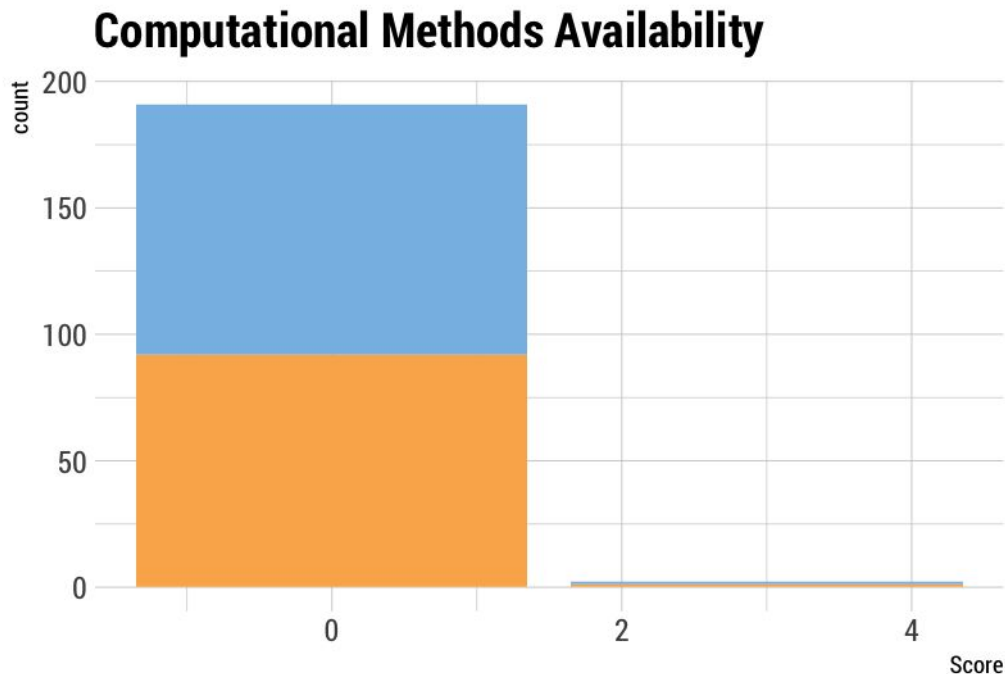
Applied

Fundamental

n = 200

Sparks et al (unpublished)

# Code available?



**0 - Not available**

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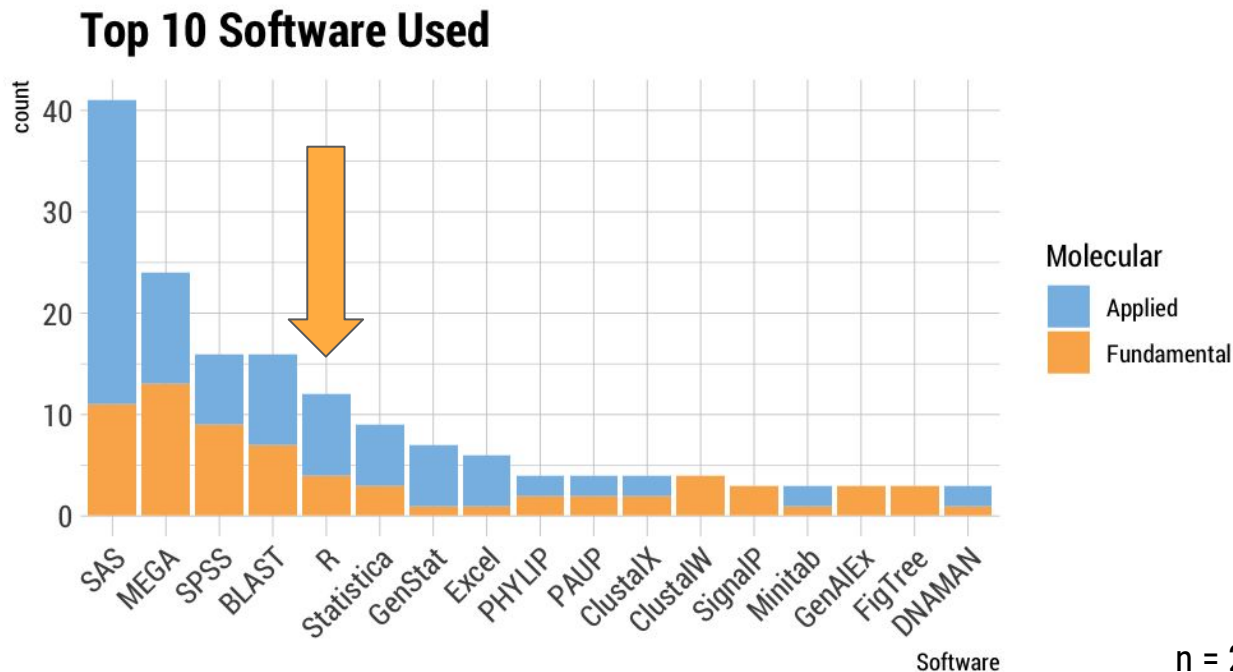
Article class



n = 200

Sparks et al (unpublished)

# Software used?



n = 200

Sparks et al (unpublished)

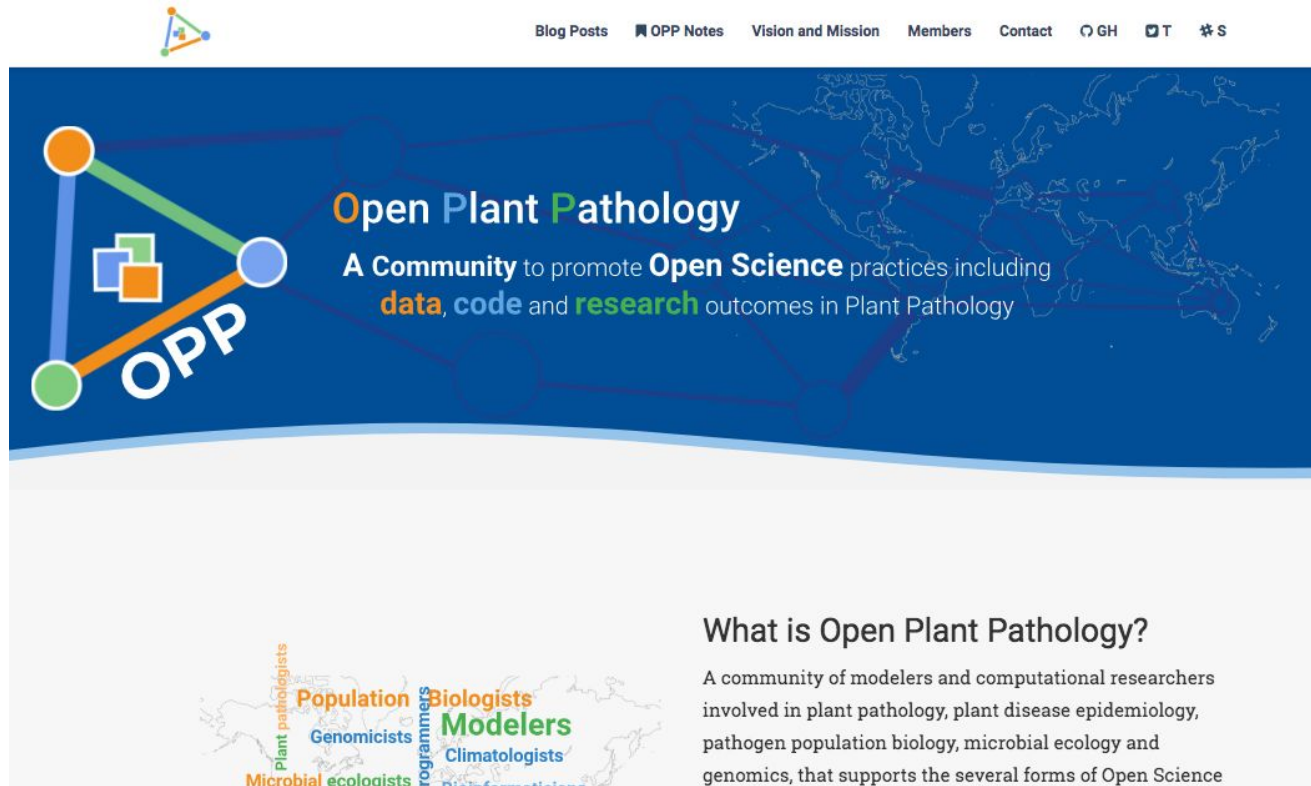
# How can we change that?

[www.openplantpathology.org](http://www.openplantpathology.org)




# Website




## Tools




# Collaborative coding: GitHub






[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)


  





## Open Plant Pathology


A community that values open data and computational tools for advancing epidemiology and pathogen population biology and ecology


 Global  <https://www.openplantp...>  [openplantpathology@g...](mailto:openplantpathology@g...)

 **Repositories** 12


 **People** 7

 **Teams** 3




 **Projects** 0


 **Settings**

### Pinned repositories



 **Reproducibility\_in\_Plant\_Pathology**


A systematic/quantitative review of articles, which will provide a basis for identifying what has been done so far in the field of plant pathology research.

  10  2




 **rice\_awd\_pests**


A study of the effects of different water and nitrogen managements on sheath blight of rice.

  5




 **OpenPlantPathology**


Open Plant Pathology website

  6  5



 **contributions**


Repository hosting templates for contributions to Open Plant Pathology

  1  1



 **OPP.at.IEW12**

Open ideas, data and code sharing: epidemiologists should be in front!

  1

 **paper-sad-cls**

Research compendium for the new SAD for Cercospora Leaf Spot

  1

[Customize pinned repositories](#)

# Outreach: workshops



Nik Grunwald

Population Genomics in **R**



Sydney Everhart

Introduction to **R** for Plant Pathologists



Neil McRoberts

Introduction to Multivariate Statistics Using **R**



# Where we've struggled

[Blog Posts](#)[OPP Notes](#)[Vision and Mission](#)[Members](#)[Contact](#)[GH](#)[T](#)[S](#)

## OPP Notes

Teaching notes peer-reviewed by  
community members.

[>Contribute an OPP Note](#)[>All Notes](#)

## Linear modelling of soil temperature effects on root lesion nematode population densities in R

*Adam H Sparks, John P Thompson*

This teaching note recreates the fit of linear and quadratic models using R for the population response of *Pratylenchus thornei* in Queensland, Australia wheat to temperature as described in the original paper.

[READ FULL ARTICLE](#)

# Where we've succeeded

[Posts](#)[OPP Notes](#)[Vision and Mission](#)[Members](#)[Contact](#)[GH](#)[T](#)[S](#)

## Linear modelling of soil temperature effects on root lesion nematode population densities in R

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This teaching note recreates the fit of linear and quadratic models using R for the population response of *Pratylenchus thornei* in Queensland, Australia wheat to temperature as described in the original paper.

[READ FULL ARTICLE](#)

# Citations

JJ Allaire, Yihui Xie, Jonathan McPherson, Javier Luraschi, Kevin Ushey, Aron Atkins, Hadley Wickham, Joe Cheng and Winston Chang (2018). rmarkdown: Dynamic Documents for R. R package version 1.10.

<https://CRAN.R-project.org/package=rmarkdown>

Ben Marwick (2018). rrtools: Creates a reproducible research compendium. R package version 0.1.0.

<https://github.com/benmarwick/rrtools>

RStudio Team (2016). RStudio: Integrated Development for R. RStudio, Inc., Boston, MA. <http://www.rstudio.com/>

Yihui Xie (2018). blogdown: Create Blogs and Websites with R Markdown. R package version 0.6.

Yihui Xie, Alison Presmanes Hill, and Amber Thomas (2017). blogdown: Creating Websites with R Markdown. Chapman and Hall/CRC. ISBN 978-0815363729

Hadley Wickham and Jay Hesselberth (2018). pkgdown: Make Static HTML Documentation for a Package. R package version 1.1.0. <https://CRAN.R-project.org/package=pkgdown>

# Data and slide availability

Del Ponte, E.M. and Sparks, A.H. (2018). *Compendium of R code and data for 'Open ideas, data and code sharing: epidemiologists should be in front!'*. Accessed 04 Jul 2018. Online at <https://doi.org/10.5281/zenodo.1304483>



<https://github.com/openplantpathology/OPP.at.IEW12>

Sparks, A.H., Del Ponte, E.M., Everhart, S., Foster, Z.S.L., Grünwald, N., (2018). *Compendium of R code and data for 'Status and Best Practices for Reproducible Research In Plant Pathology'*. Accessed 04 Jul 2018. Online at <https://doi.org/10.5281/zenodo.1250665>



[https://openplantpathology.github.io/Reproducibility\\_in\\_Plant\\_Pathology](https://openplantpathology.github.io/Reproducibility_in_Plant_Pathology)

Sparks, A.H. and Del Ponte, E.M. (2018). *Establishing a community for supporting and fostering adoption of reproducible research using R*. Accessed 10 Jul 2018. Online at <https://zenodo.org/badge/latestdoi/140354306>



<https://github.com/openplantpathology/OPP.at.useR-2018>