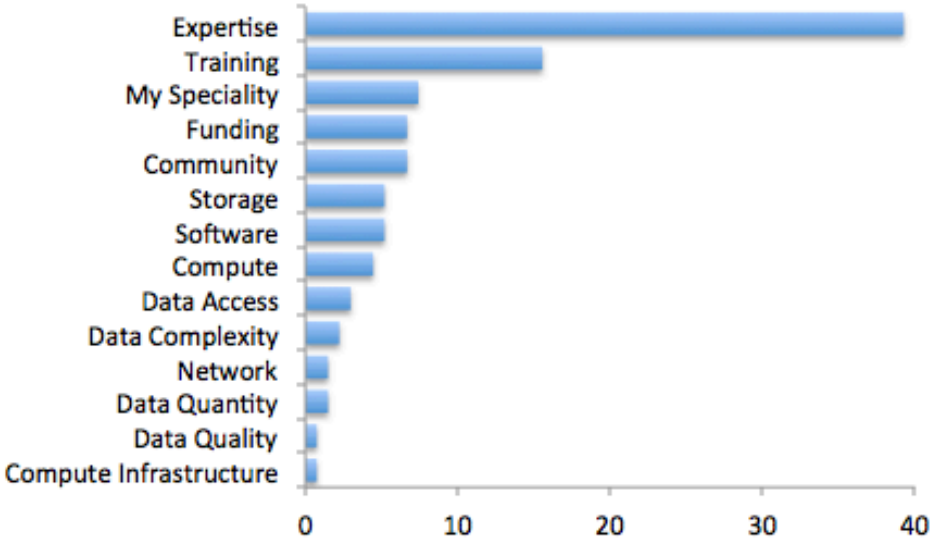
THE CHALLENGE

a lack of expertise in how to develop software and analyze data effectively and efficiently

What is your biggest bioinformatics difficulty?



Survey, Bioinformatics Resource Australia—EMBL (BRAEMBL)

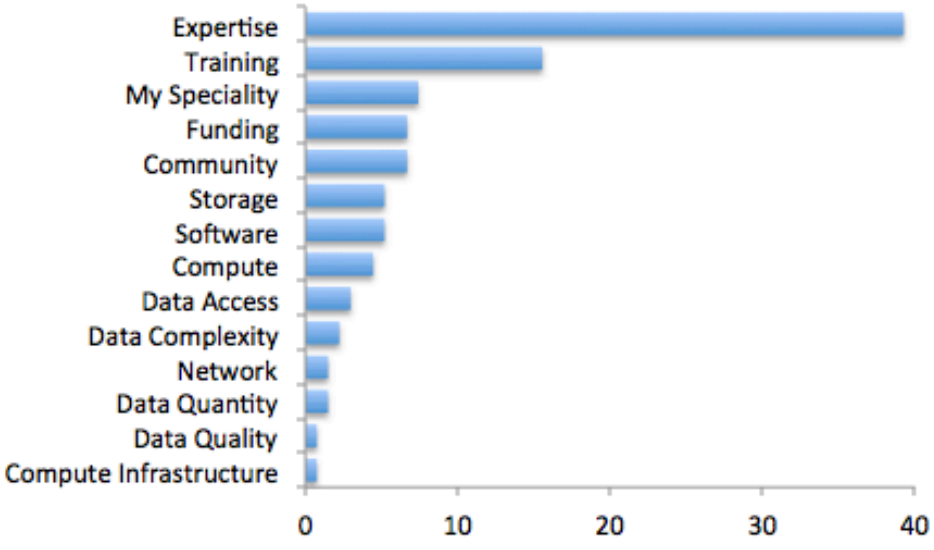
THE CHALLENGE

a lack of expertise in how to develop software and analyze data effectively and efficiently

THE OPPORTUNITY

high quality, widely available training based on sound scientific principles and best practices

What is your biggest bioinformatics difficulty?



What is the most useful thing that [could be done] for you?

Survey, Bioinformatics Resource Australia—EMBL (BRAEMBL)

Teach basic lab skills
for scientific computing
so that researchers can do more
in less time and with less pain.

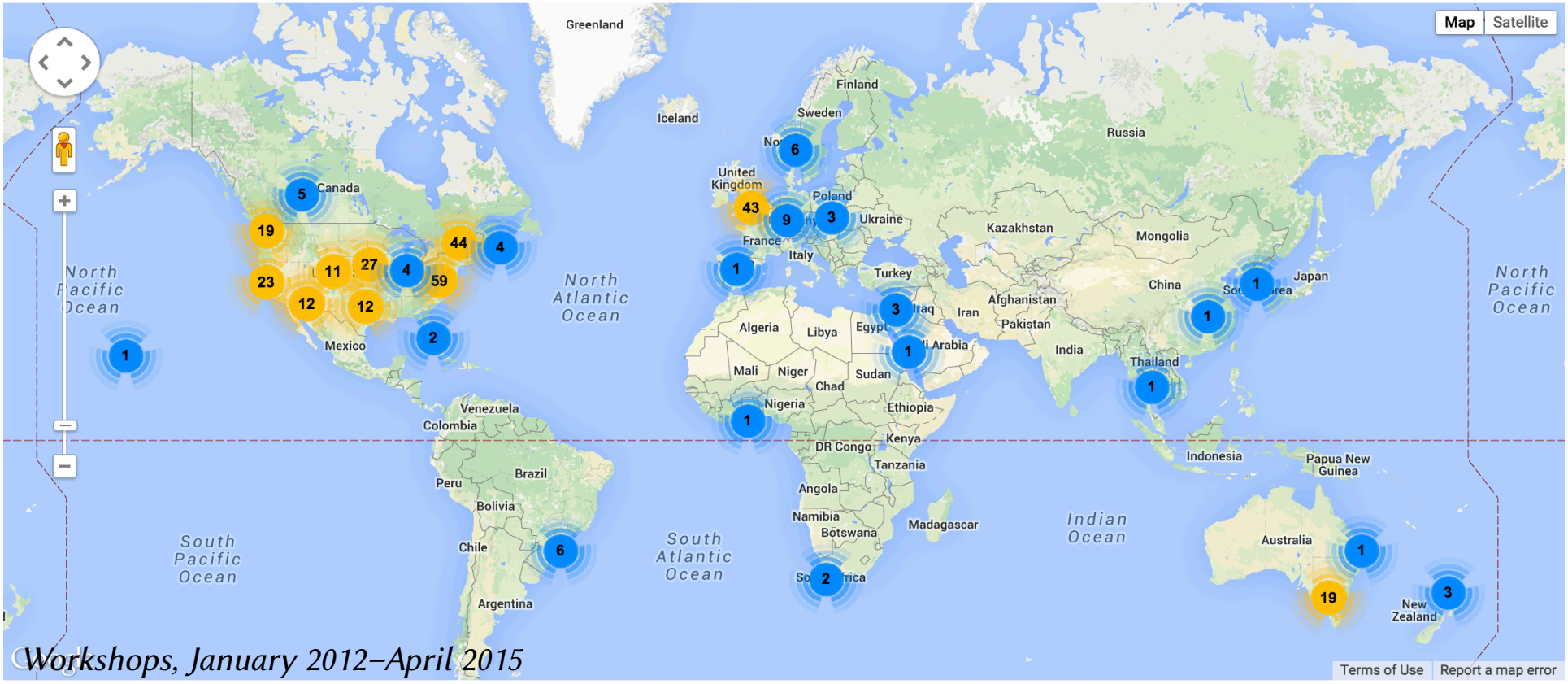
Teach basic concepts, skills and tools for working effectively with data
especially to those without prior computational experience.

software carpentry

WORKSHOPS

Since January 2012, we've taught

- 270+ two-day workshops
- to 10,000+ learners
- with 250+ volunteers
- in 20+ countries.



Workshops, January 2012–April 2015

WORKSHOPS
CURRICULUM

- Task automation (Unix shell)
- Modular programming (Python, R, MATLAB; unit testing)
- Reproducibility and collaboration (Git and GitHub)
- Data management (SQL)

WORKSHOPS
CURRICULUM
OUTCOMES

- Enable researchers to save half a day a week (or more) for the rest of their careers.
- Prepare researchers for reproducible research, high-performance computing, and open science.
- Enable researchers to tackle entirely new kinds of problems.

http://software-carpentry.org

OVERVIEW

- Sister organization of SWC
- Officially began November 2014 (with NSF support)
- 24 workshops planned in 2015

OVERVIEW

CURRICULUM

- Domain-specific data focus (biology, genomics, geoscience, social sciences)
- Data analysis in effective and reproducible way
- Novices targeted (no prerequisites or prior assumed knowledge)

http://datacarpentry.org