Notes from Nature:
A platform for biodiversity transcription project

GBIF community webinar
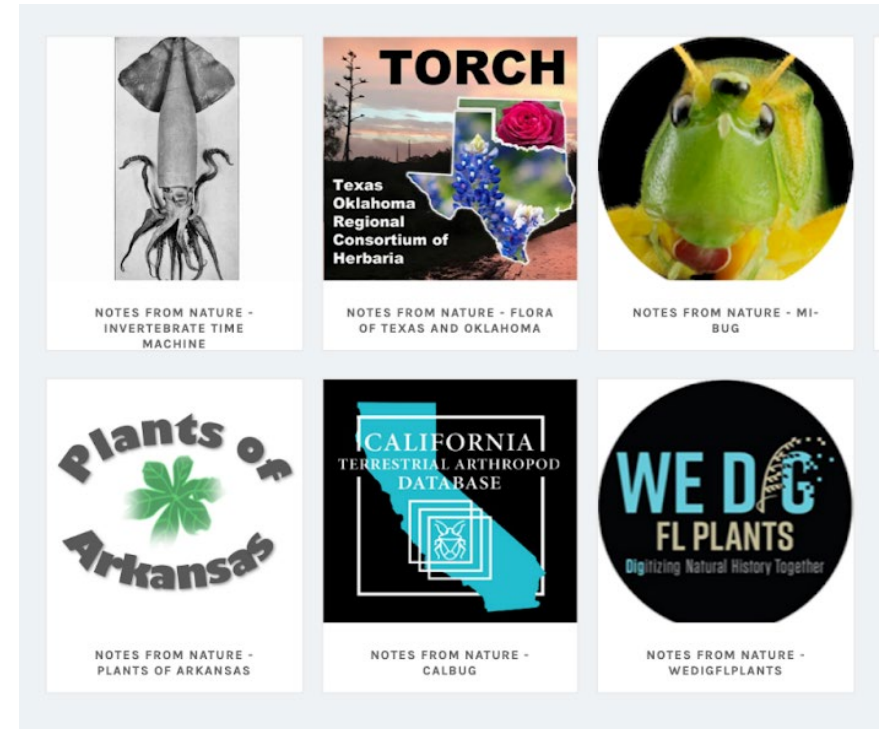
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Platforms and Projects

- Several platforms for biodiversity transcription
  - DigiVol

- Terminology
  - Community Science
  - Citizen Science
  - Crowd sourcing
  - *People-powered research*

- Community Resource
  - https://www.idigbio.org/wiki/index.php/Public_Participation_Platforms

NOTES FROM NATURE
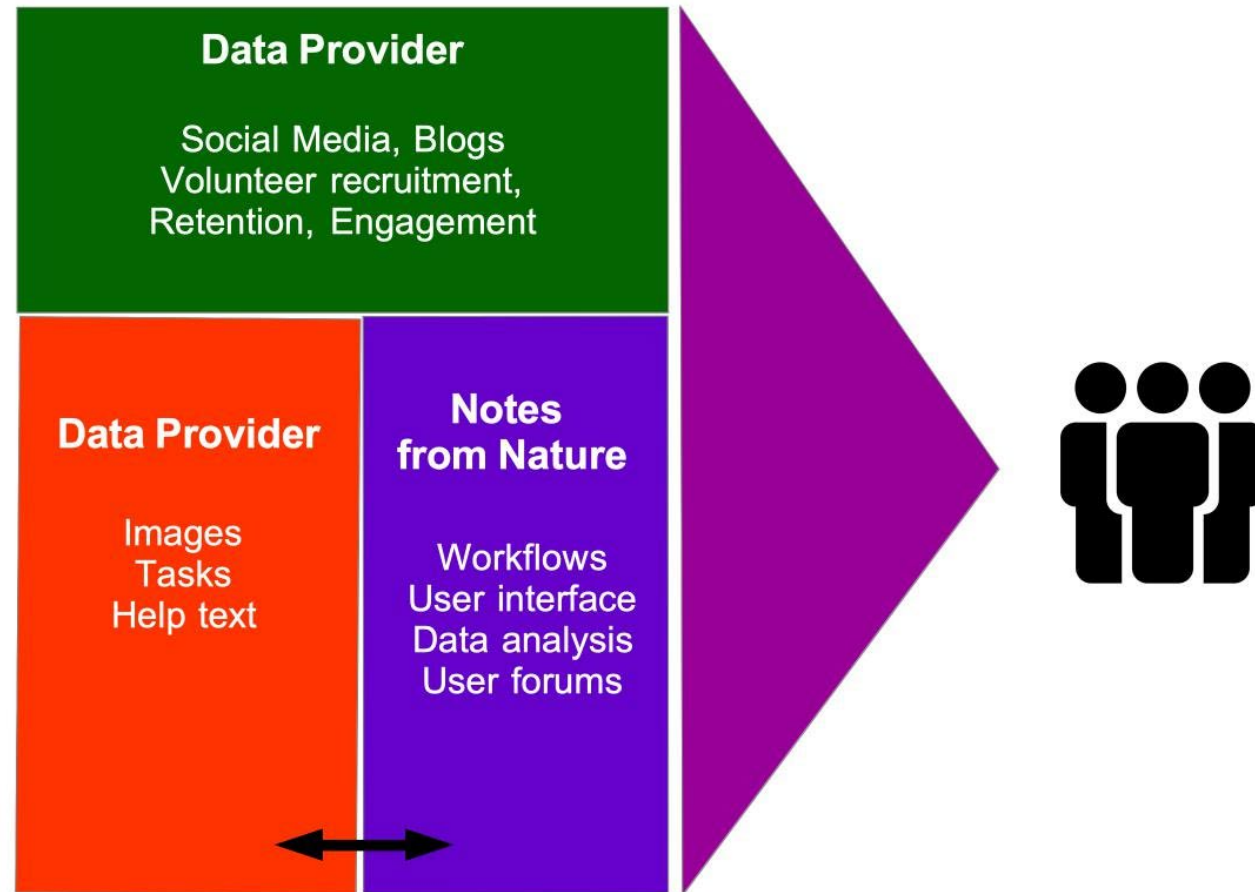
Notes from Nature (NfN)

- First launched in 2013
  - Zooniverse platform
- Over 4 million specimens transcribed
- Many specimen types
  - Herbarium specimens
  - Pinned insects
  - Microscope slides
  - More…

NOTES FROM NATURE - INVERTEBRATE TIME MACHINE

NOTES FROM NATURE - FLORA OF TEXAS AND OKLAHOMA

NOTES FROM NATURE - MI-BUG

NOTES FROM NATURE - PLANTS OF ARKANSAS

NOTES FROM NATURE - CALBUG

NOTES FROM NATURE - WEDIGFLPLANTS

NOTES FROM NATURE

Terminology

- Data provider – The person (or group) who is getting information transcribed

- Campaign – The overall effort that works towards meeting your science, digitization and engagement goals

- Expedition – A specific set of tasks being completed on a set of images

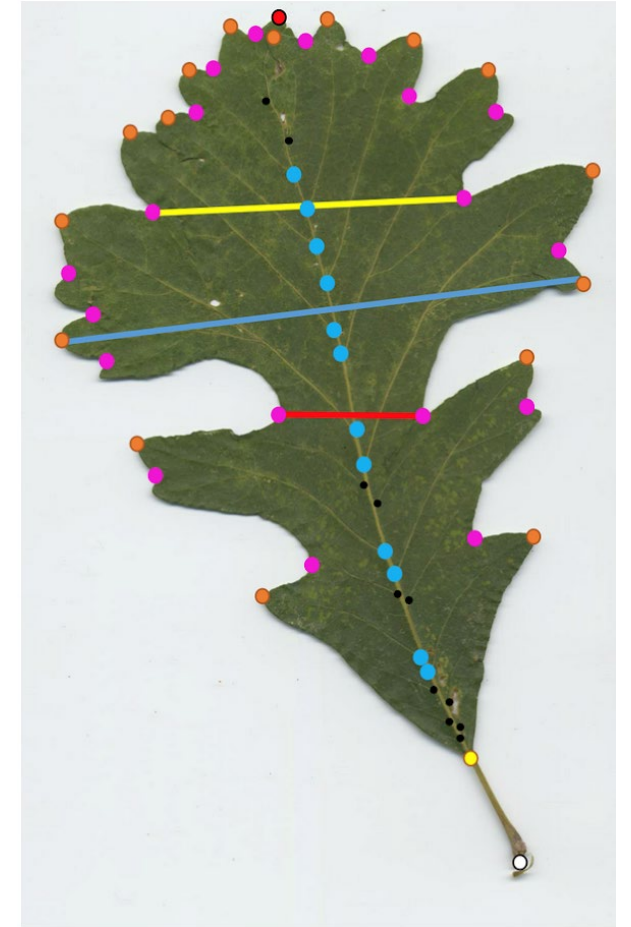NOTES FROM NATURE

Components of an campaign

Components of a campaign

- Platform choice

- Outreach campaign

- Images to transcribe or classify

- Target data elements

- Help text

- Data analysis

NOTES FROM NATURE

Components of an expedition

- Images (typically 1-3,000)
- Workflow
  - Tasks you want volunteers to complete
  - Best to reuse workflow as much as possible
- Title
- Outreach materials

NOTES FROM NATURE

Tasks

- Things we are asking volunteers to do

- Two primary categories
    - Transcription
    - Classification

Tasks

Tasks

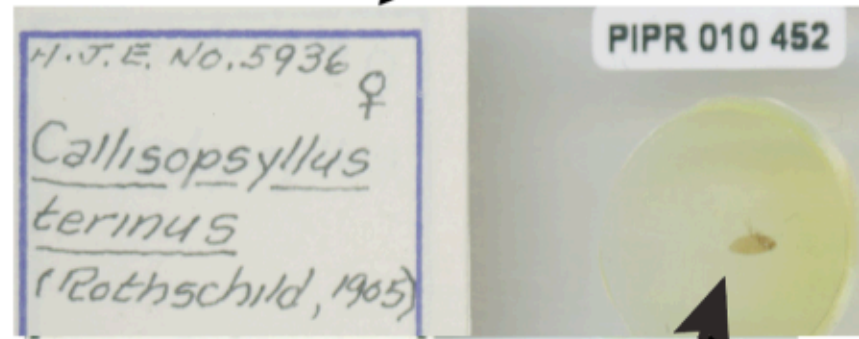The number of fleas may be written on the slide. **This label indicates there is 1 flea on this slide.**

PIPR 010 452

H·J·E· No·5936 ♀
Callisopsyllus terinus
(Rothschild, 1905)

If there is no information on the label, or if the label is missing, look at the specimens and count the lice. **This flea is visible on this slide.** If you can't see the specimens, enter "unknown".
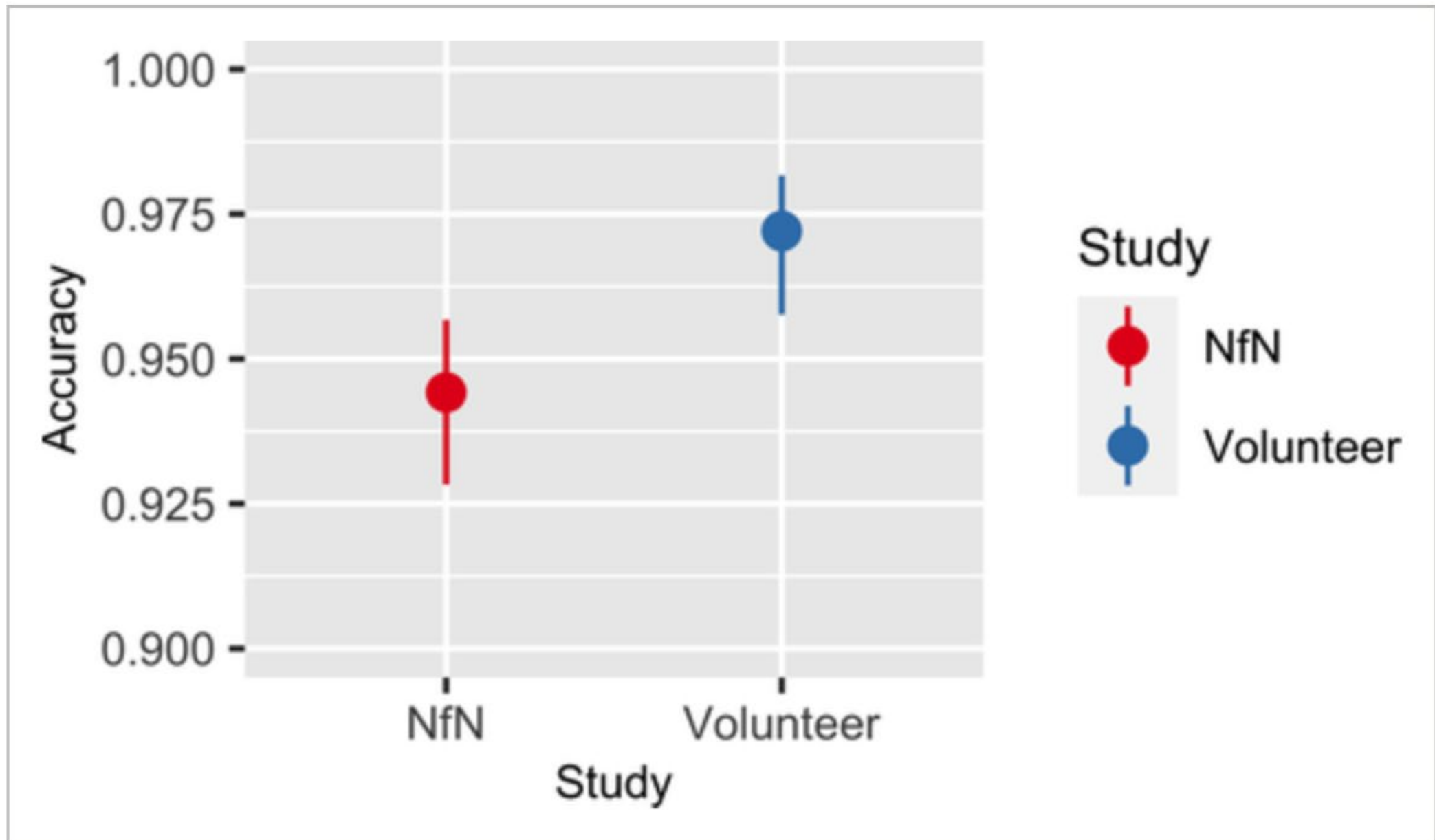
Close

Data

- Quality Assurance and Quality Control (QA/QC)
  - Often lumped together

- QA - Fine tuning process to avoid data issues in the end

- QC - Test data at the end to discover problems

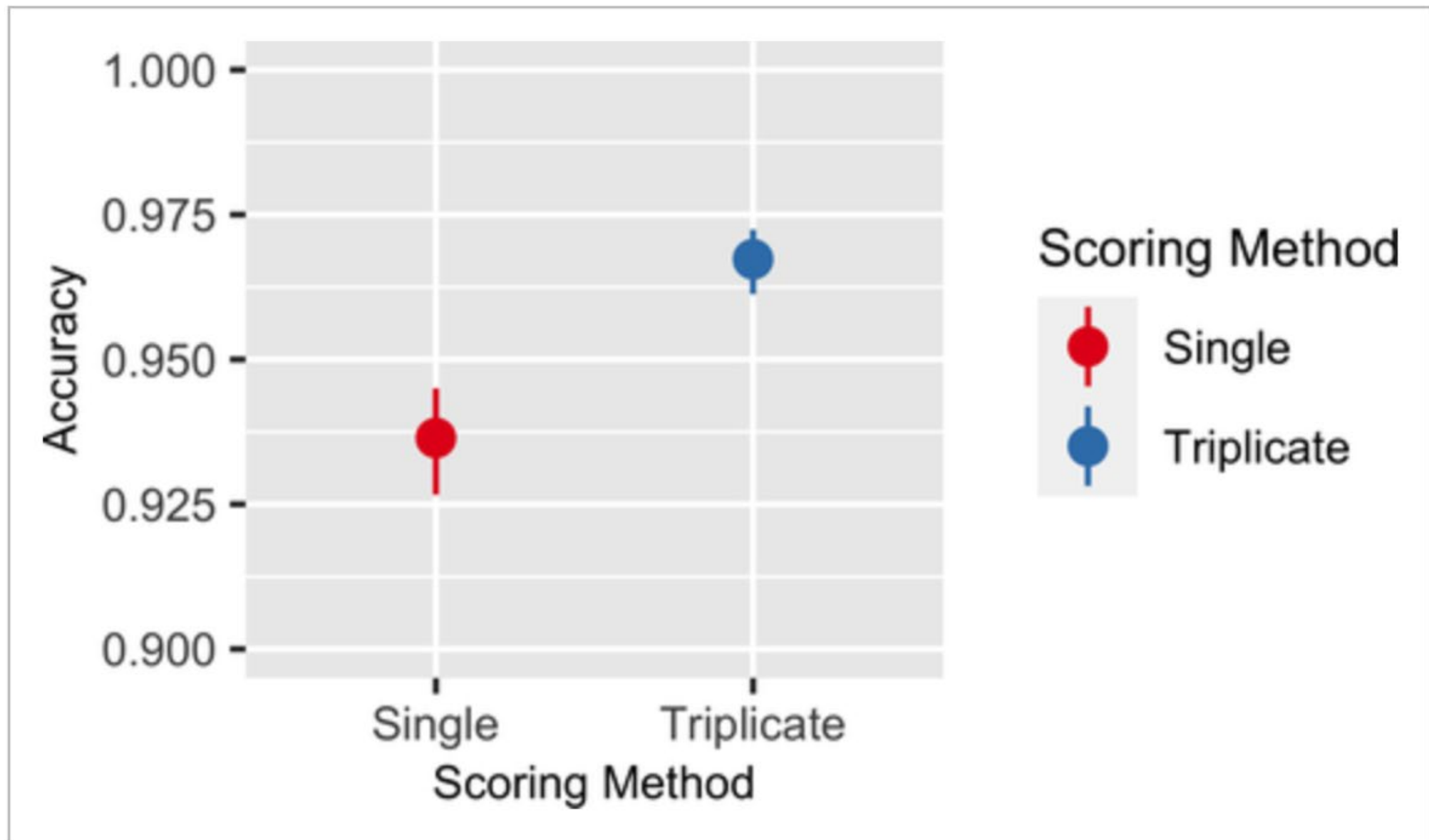- Managing vs. verifying

NOTES FROM NATURE

Data

- NfN data is processed by a custom algorithm
- Once expedition is complete we provide a data package

- Data package contains several files
    - Reconciled data is in a tabular format
    - Most collections have no issue mapping to their database

NOTES FROM NATURE

Output

		Canada	Ontario		Cystopteris laurentiana	Dawson Point overlooking Sutton Bay.	Shady, limestone cliffs. Cover of Poplar, birch and Dogwood. Glandular. Near G. robertianum.
		Unanimous match, 3 of 3 records	Match, 2 of 3 records with 1 blank	No select match on 3 records with 1 blank	Exact match, 2 of 3 records with 0 blanks	Exact match, 2 of 3 records with 0 blanks	Partial ratio match on 3 records with 0 blanks, score=100
#1	234200234	PVerbeeck	Canada	Ontario	Timiskaming	Cystopteris laurentiana	Dawson Point overlooking Sutton Bay.	Shady, limestone cliffs. Cover of Poplar, birch and Dogwood. Glandular. Near G. robertianum.
#2	238685888	BetaB	Canada	Ontario	Timiskaming District	Cystopteris laurentiana	Dawson Point overlooking Sutton Bay.	Shady, limestone cliffs. Cover of Poplar, birch and Dogwood.
#3	243757590	Suem28	Canada			Cystopteris lautentiana	Dawson Point overlooking Sutton Bay. Timiskaming District.	Shady limestone cliffs. Cover of Poplar, birch and Dogwood. Baldwin has C. fragilis from here and no C. bulbifera. Glandular. Near G. robertianum.

Brenskelle, L., *et al.* 2020. Maximizing human effort for analyzing scientific images: A case study using digitized herbarium sheets. *Applications in Plant Sciences* 8(6): e11370.

Brenskelle, L., *et al.* 2020. Maximizing human effort for analyzing scientific images: A case study using digitized herbarium sheets. *Applications in Plant Sciences* 8(6): e11370.

How to get involved

- Get in touch with me
    - notesfromnature.pm@gmail.com
- 30 meeting often helpful
- Try out the platform!

Opportunities

- New partnerships

- Underrepresented
  - Groups
  - Geographic regions
  - Collection types
  - Interest in longer term collaborations

Thank you!

- Notes from Nature volunteers
- The Zooniverse Team
- Rob Guralnick - NfN Project Lead
- Julie Allen - NfN Project Lead
- Rafe LaFrance – NfN Project Developer

NOTES FROM NATURE

Tasks

- What percentage of the labels contain the target items?
- Is there specific domain knowledge that volunteers are expected to have?
- Will external resources be needed to complete the task?
- What do you want the data to look it?

Qualities of a successful project

- Simple, clear and concise instructions
- Moderate number of tasks for volunteers to complete
- Responsive to questions
- Engaging theme / science goals
- Audience
- Data provider gets the data they need!

NOTES FROM NATURE