

scistarter



The impact of a 3rd party platform on volunteer communities

ECSA 2020

Bradley Allf, Caren Cooper, Lincoln Larson, Sara Futch, Maria Sharova, Helen Spiers, Naama Dayan, Kobi Gal

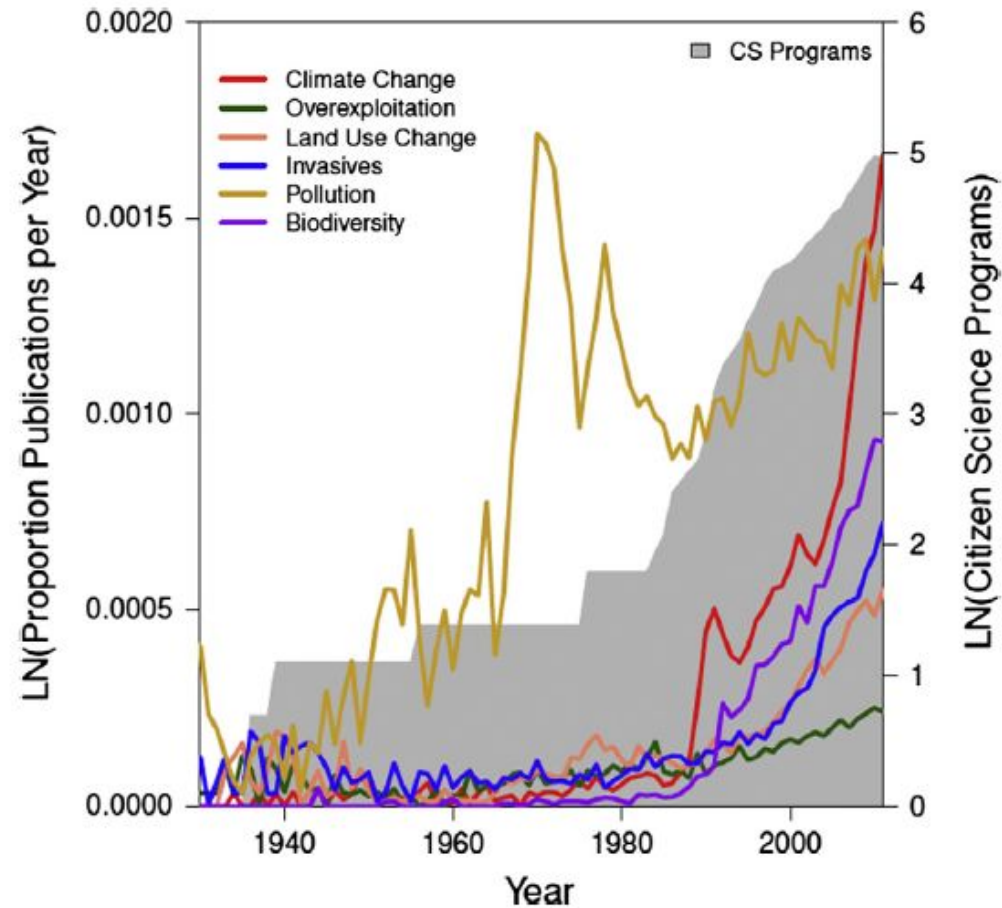
NC STATE
UNIVERSITY



UNIVERSITY OF
OXFORD

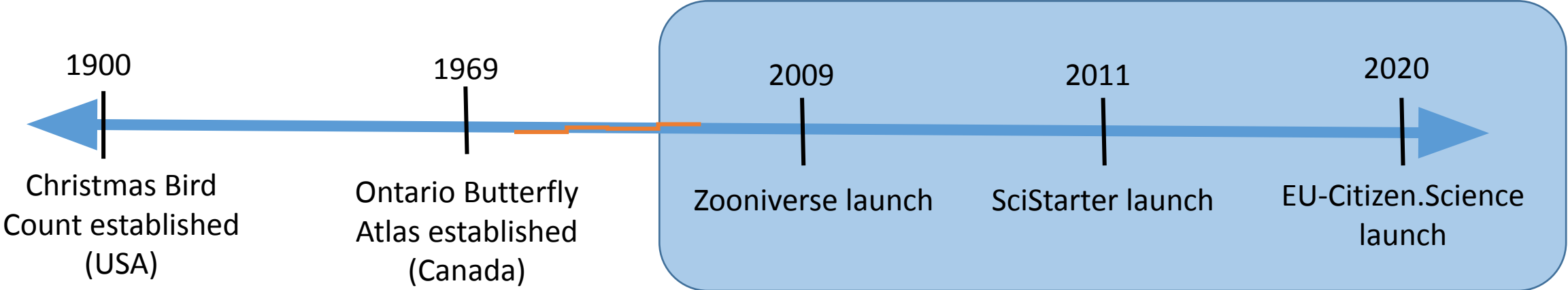


Citizen Science is Growing

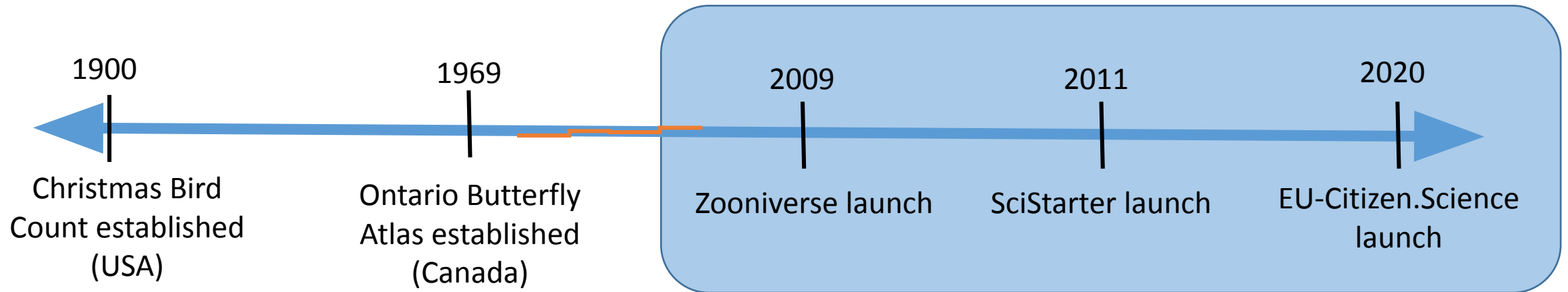


Number of biodiversity-related citizen science projects has grown (gray area).

The Rise of 3rd Party Citizen Science Platforms

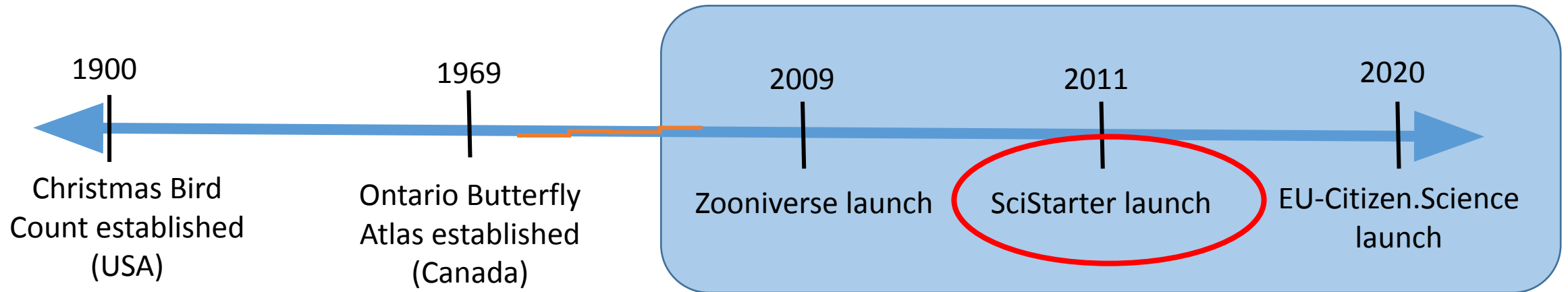


The Rise of 3rd Party Citizen Science Platforms



Guiding Question: What is the impact of 3rd party citizen science platforms on volunteer communities?

The Rise of 3rd Party Citizen Science Platforms



Guiding Question: What is the impact of 3rd party citizen science platforms on volunteer communities?

Model: SciStarter

scistarter
Science we can do together.



Bradley Alf | v

Quick Navigate



@Girl Scouts

Dashboard v

Project Finder

Tools

Events

Podcast


Blog

Partner Gateways v



CITIZEN SCIENTISTS ARE

USING SCIENCE TO ADDRESS
LOCAL AND GLOBAL PROBLEMS

 **FIND A PROJECT**

by Keyword

by Topic

Online only

Near me

[Find a Project](#) [Advanced search](#)

Model: SciStarter

Dashboard

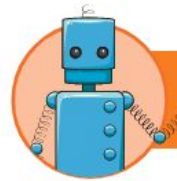
Profile

Info & Settings



Bradley Allf
(Bradley Allf)

[View Public Profile](#)



Recommended for Bradley Allf
Powered by AI



Stall Catchers



Stream Selfie



Globe at Night

«prev next»

[opt out from these recommendations](#)

Visited Saved Liked

Stall Catchers
/stall-catchers-by-eyesonalz
Viewed: 08/26/2019

[I Joined This Project](#) [I Decided NOT To Join This Project](#)

HerpMapper
/herpmapper
Viewed: 03/19/2019

[I Joined This Project](#) [I Decided NOT To Join This Project](#)

Colony B
/colony-b
Joined: 02/26/2020

[Participate](#) [Message Project](#) [Share](#) [Leave Feedback](#)

* [scistarter affiliate](#) [See My Stats](#)

[Remove Project](#)

iNaturalist
/inaturalist
Viewed: 03/02/2019

[Participate](#) [Message Project](#) [Share](#) [Leave Feedback](#)

* [scistarter affiliate](#) [See My Stats](#)

[Remove Project](#)

WE WANT YOU
Never Home Alone @ NCSU
/never-home-alone-ncsu
Viewed: 03/02/2019

[Participate](#) [Message Project](#) [Share](#) [Leave Feedback](#)



4
Projects
clicked to join



101
Contributions
to Affiliate Projects [?](#)



0
Recent Contributions
to Affiliate Projects (last 14 days)



My Joined Projects
Projects you participate in



Saved and Visited Projects
Review later & join!

2



My Events
Events you participate in

Model: SciStarter



SciStarter is working with National Geographic to enable you to partake in real research through these projects and others. Without the contributions of millions of citizen scientists, these research projects would not be possible.

The National Geographic Society is a global nonprofit organization that uses the power of science, exploration, education, and storytelling to illuminate and protect the wonder of our world. Since 1888, National Geographic has pushed the boundaries of exploration, investing in bold people and transformative ideas, providing more than 14,000 grants for work across all seven continents, reaching three million students each year through education offerings, and engaging audiences around the globe through signature experiences, stories, and content. To learn more, visit www.nationalgeographic.org.

Embark on your own National Geographic Society expedition.

Embark on your own expedition by participating in some of the National Geographic Society–supported citizen science projects. By engaging in these, you will have the opportunity to be like a National Geographic Explorer and further advances in science by simply collecting or analyzing data around biodiversity and human pressures.

Visit [the National Geographic Society's Citizen Explorer Lab website](#) for more information about how citizen science opportunities empower millions of people to explore, observe, and analyze the world. Find resources for teaching and learning through the National Geographic Society's Education team's [Citizen Science Collection](#).

National Geographic Society Grant Opportunities:

The National Geographic Society offers Explorers a variety of funding opportunities in the fields of conservation, education, research, storytelling, and technology. Find out more [here](#).

Online, Livestreamed Event:

[Watch](#) a recording of an online event that features citizen science and related resources from National Geographic Education.



DEBRIS TRACKER



INATURALIST



INSTANT WILD—OSA CAMERA TRAP

Volunteers Doing Standalone Projects

vs.

Volunteers on Platforms




Audubon
CHRISTMAS BIRD COUNT

Survey



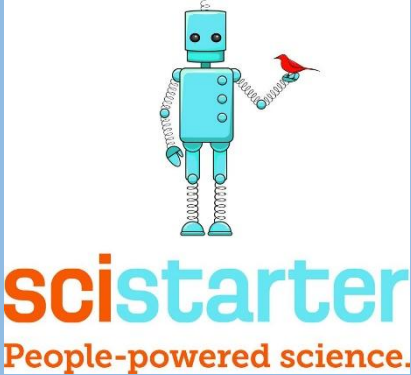
scistarter
People-powered science.

Survey



NORTH CAROLINA'S
**CANDID
CRITTERS**

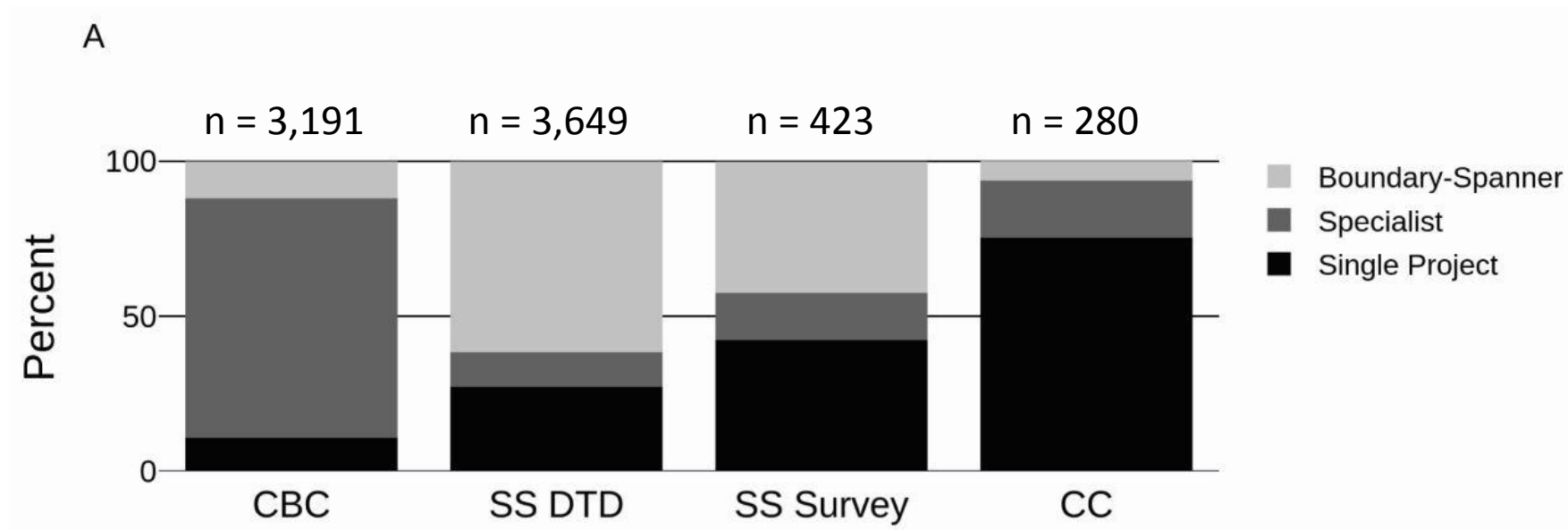
Survey



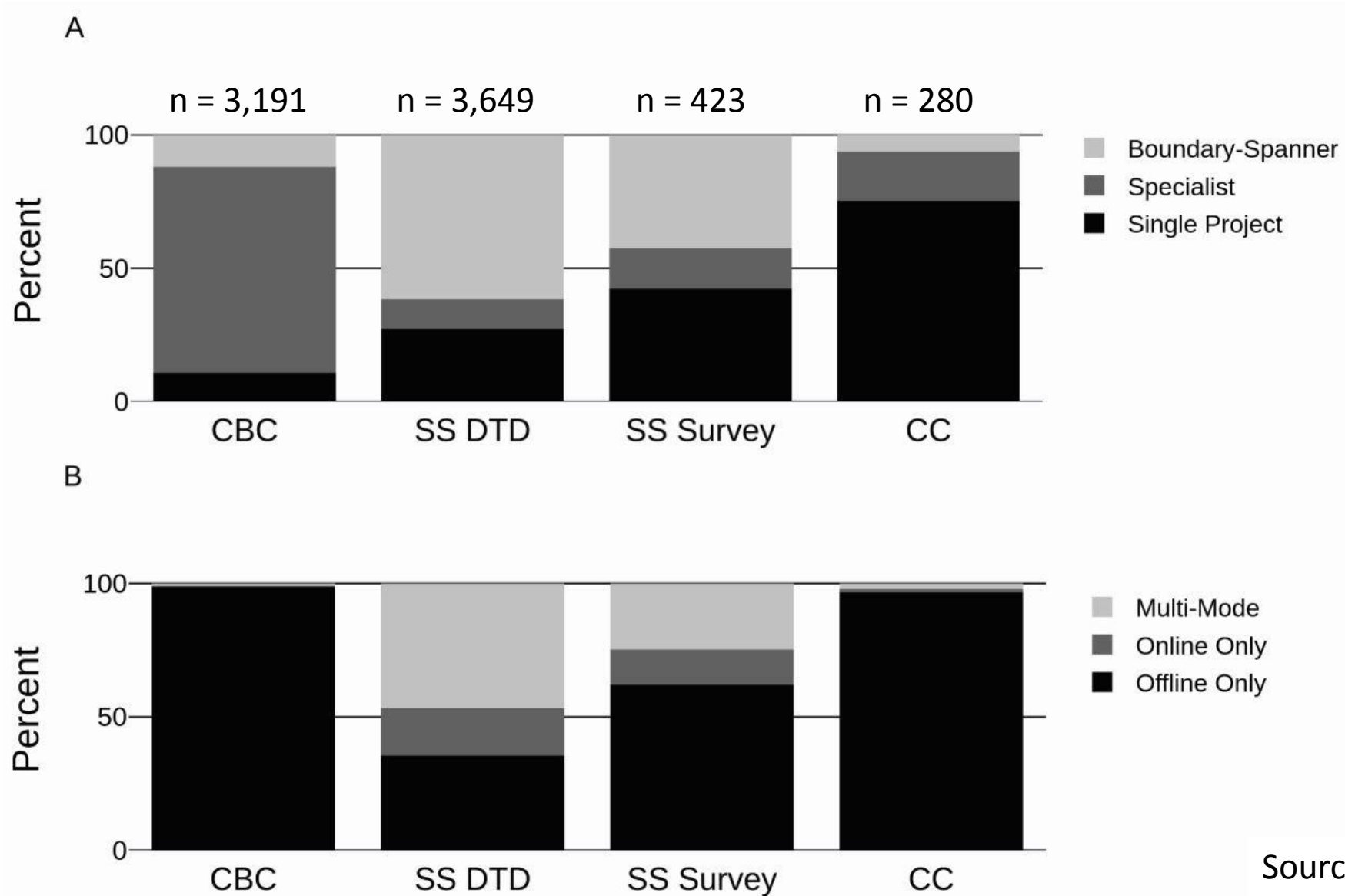
scistarter
People-powered science.

Digital Trace Data

SciStarter users join diverse projects



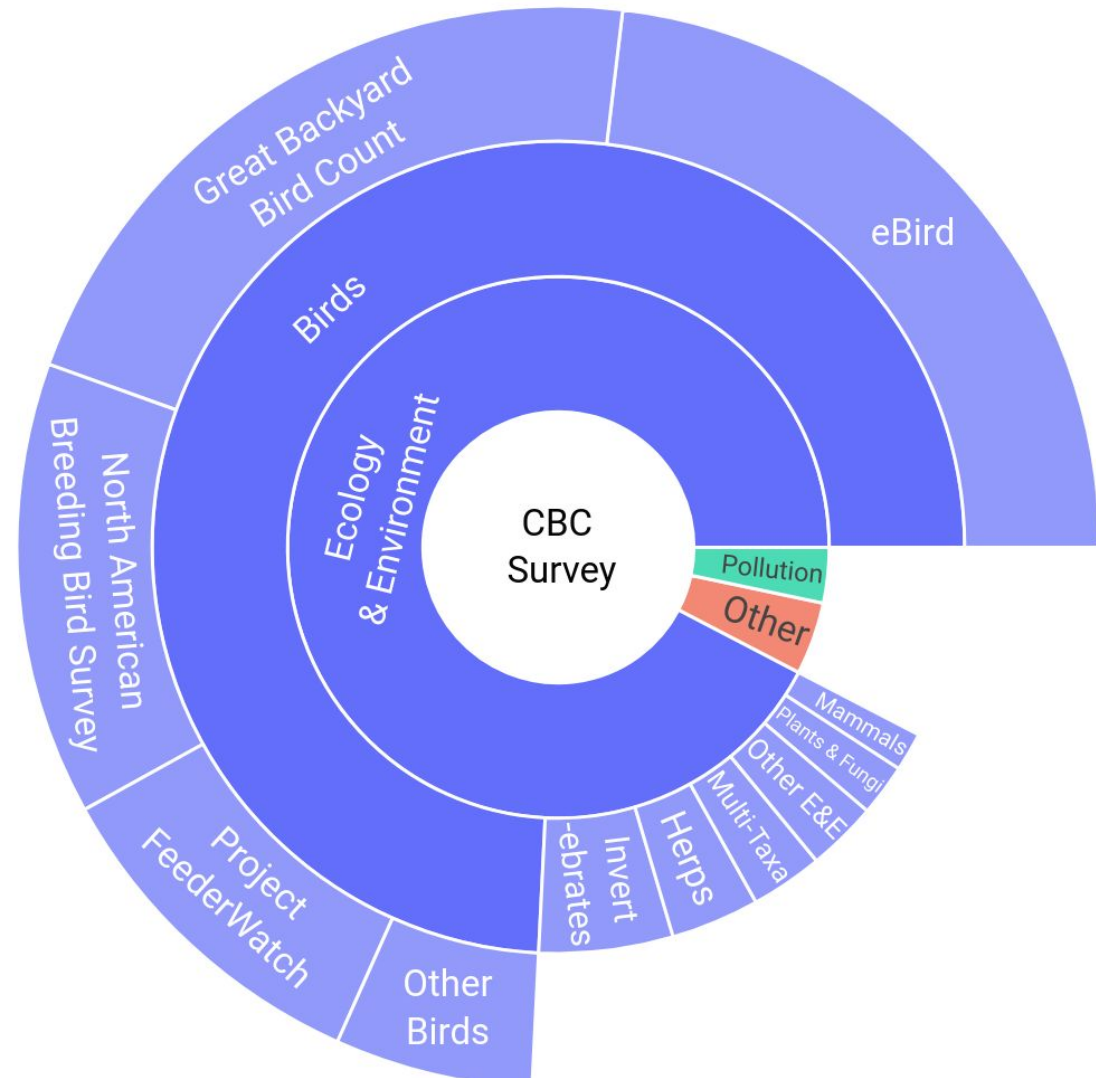
SciStarter users join diverse projects



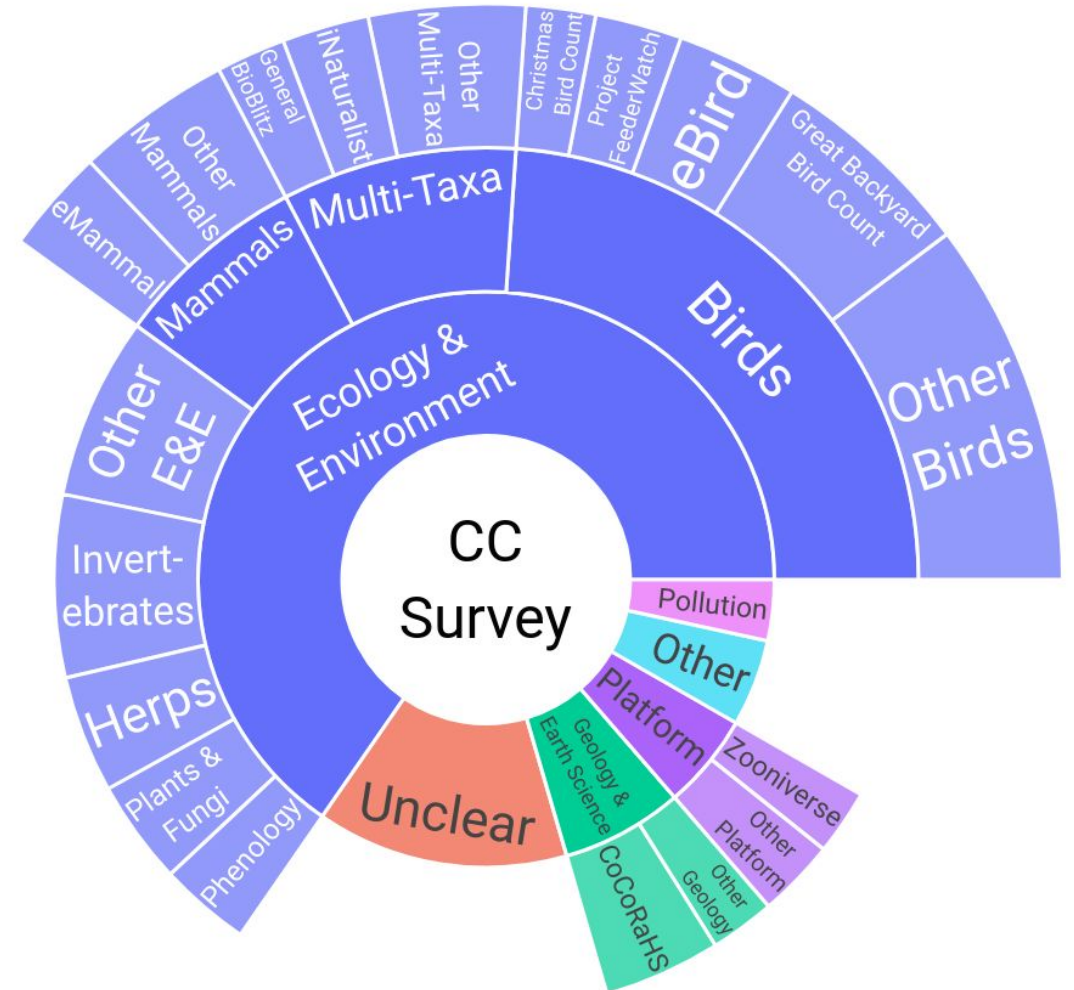
Source: Allf et al. *in prep*

SciStarter users join diverse projects

A

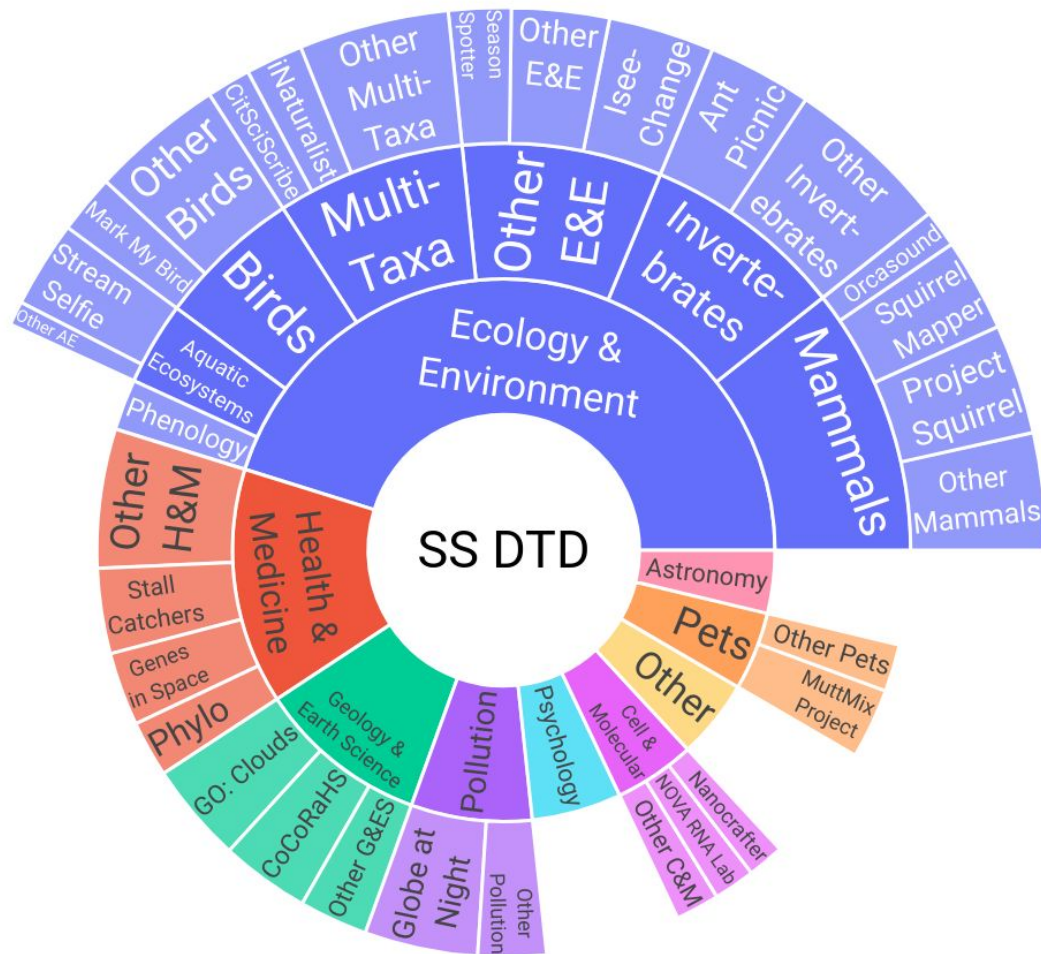


B

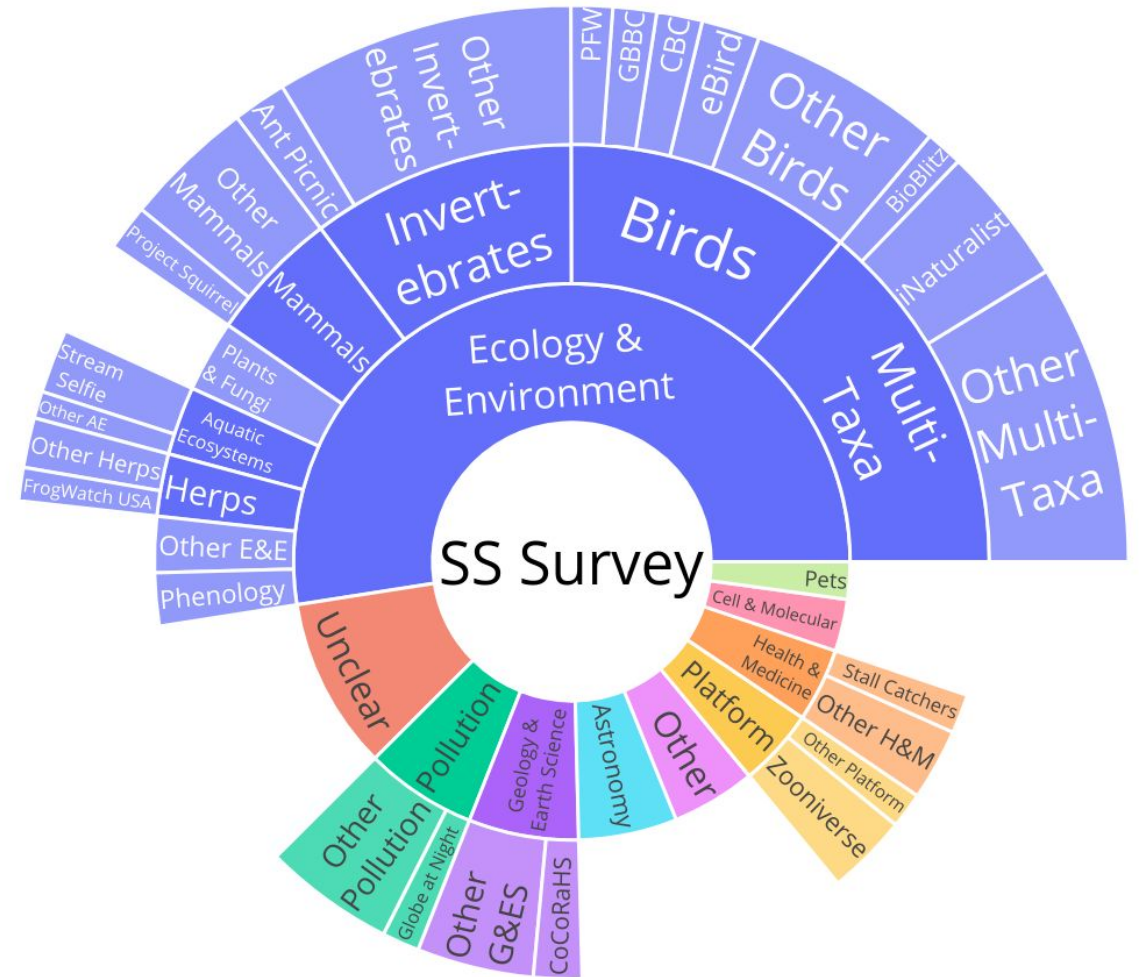


SciStarter users join diverse projects

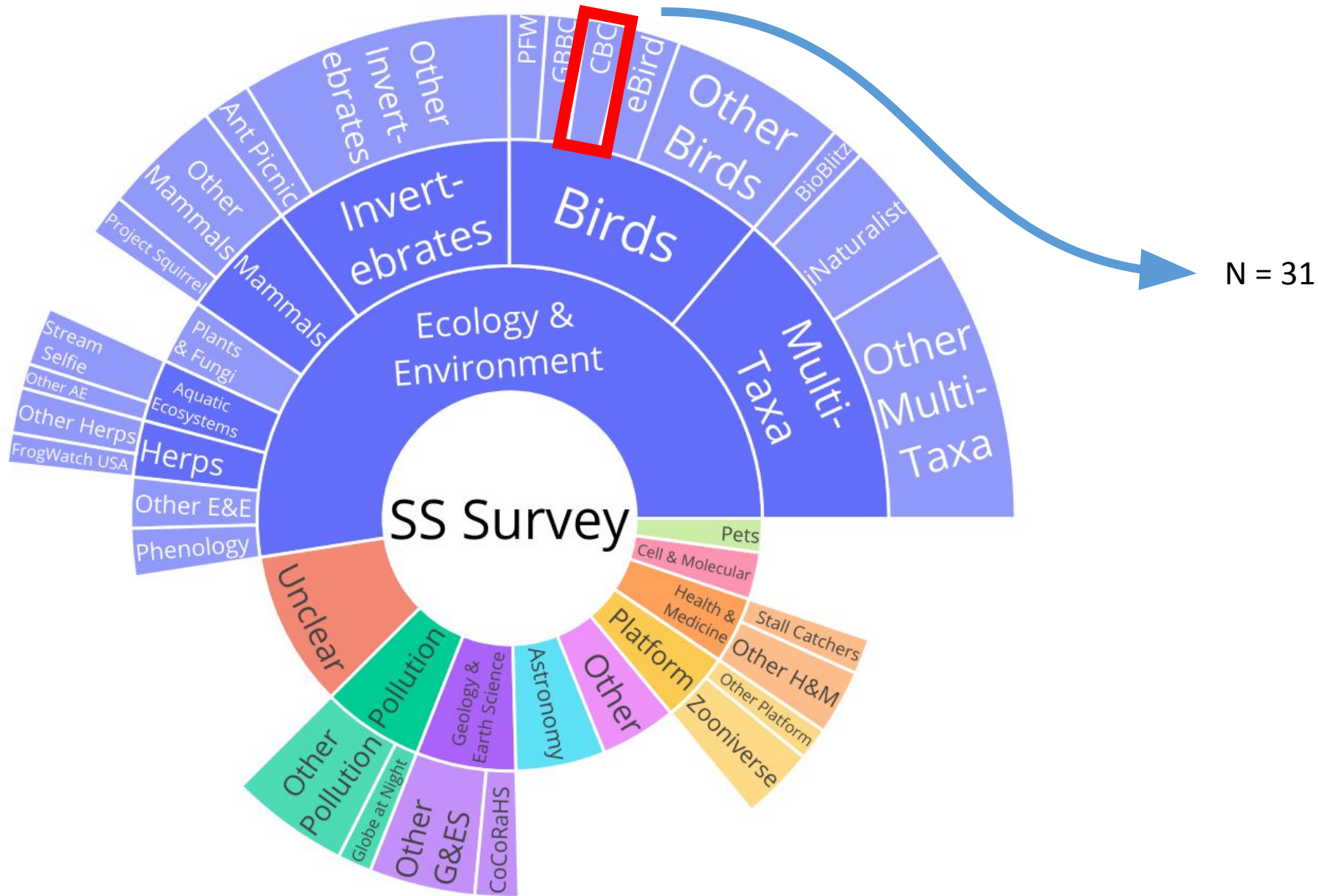
C



D

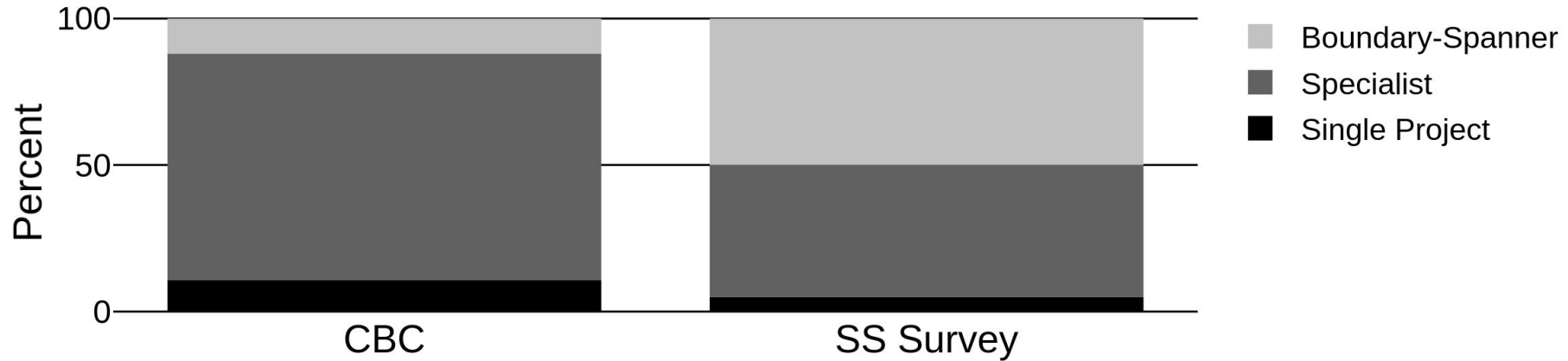


D

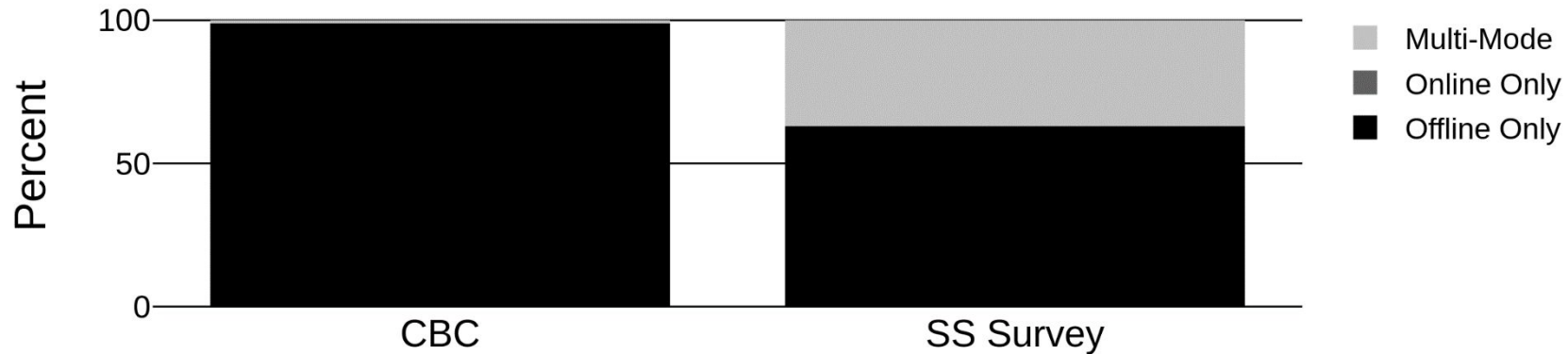


SciStarter users **that do CBC** join more diverse projects than typical CBC volunteers

A



B



Guiding Question: What is the impact of 3rd party citizen science platforms on volunteer communities?

Guiding Question: What is the impact of 3rd party citizen science platforms on volunteer communities?

- They may be driving volunteers to engage in more diverse citizen science experiences.

Guiding Question: What is the impact of 3rd party citizen science platforms on volunteer communities?

- They may be driving volunteers to engage in more diverse citizen science experiences.

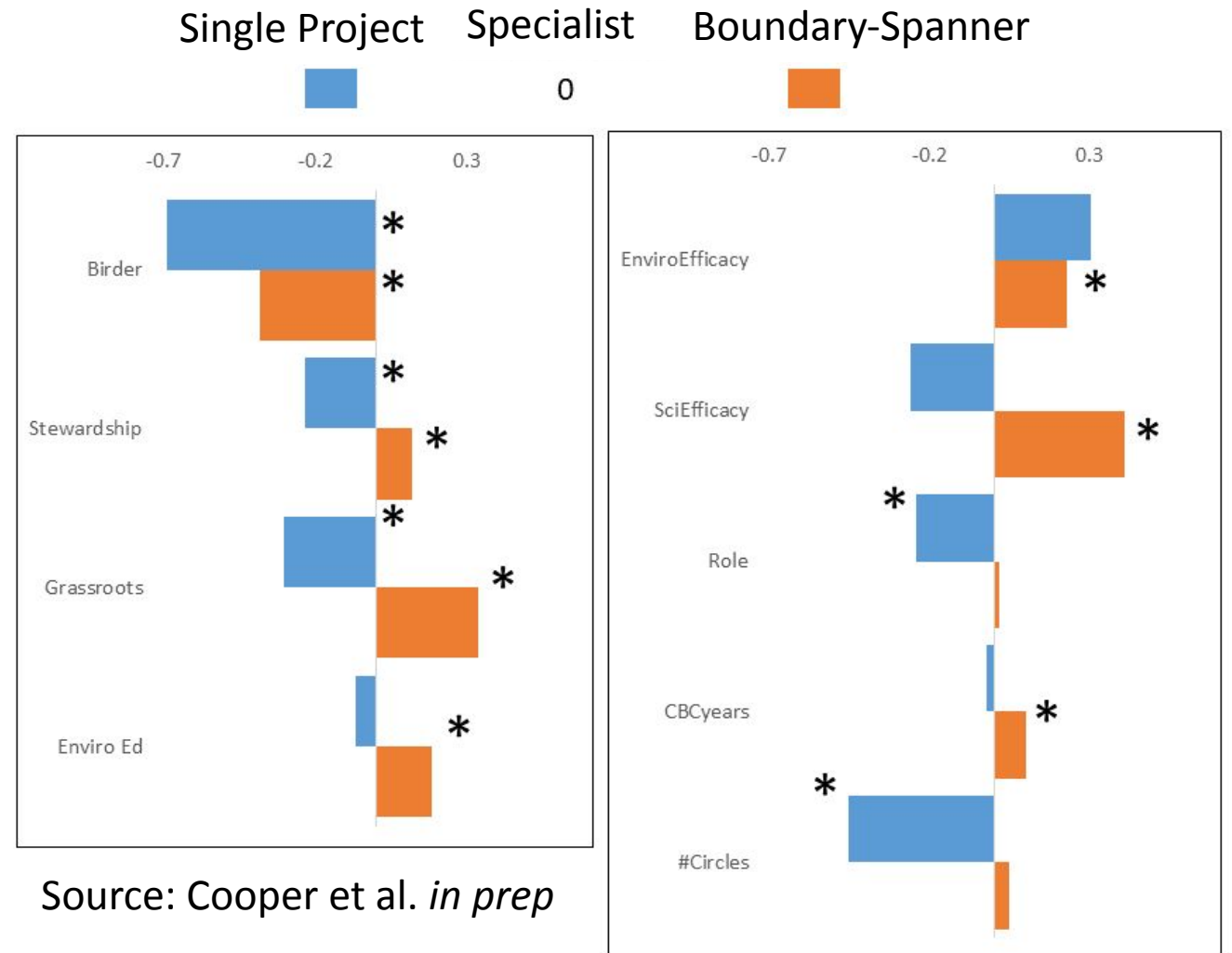
Significance?

Diverse Engagement in Citizen Science

Strongest Outcomes among CBC volunteers

Participants in one bird project vs. multiple bird projects vs. multiple projects across disciplinary topics.

* Depicts significant results (based on odds ratios) of multinomial logistic regression model comparing responses to different outcome variables across all three groups

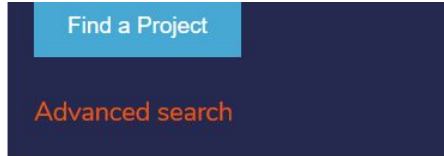


Significance?

More diverse engagement in citizen science on platforms may facilitate deeper learning and/or engagement in science and conservation.

Next Steps

- Quasi-experimental studies to assess causality in non-traditional groups



SAS

Thank you for participating in the SAS Citizen Science Volunteer Program! SAS has partnered with SciStarter to host a special portal for employees to engage in authentic research that makes a difference for science, people and the planet. You can participate in any/all of the projects on this page! Click on a project to learn more about it.



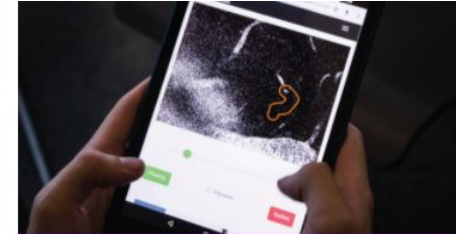
FLU NEAR YOU

Spread the word. Not the flu.



INATURALIST

Document and identify plants and animals around you.



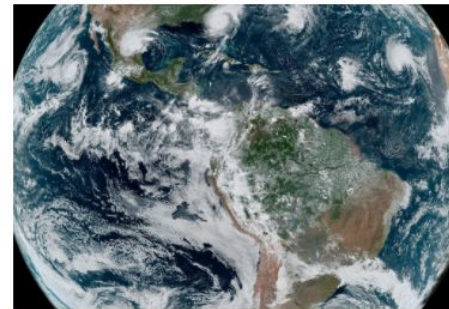
STALL CATCHERS

Accelerate Alzheimer's research by playing an online game.



GLOBE AT NIGHT

Measure the night sky brightness.



BECOMING A PLANET PROTECTOR

Track your progress as a citizen scientist

Conclusions

- 3rd parties are an emerging form of engagement with citizen science
- Volunteers using 3rd parties are engaging in more diverse types of citizen science than “traditional” volunteers from standalone citizen science projects
- 3rd parties are engaging new audiences with citizen science that may not have joined projects on their own
- By embracing shared management of volunteers via 3rd parties, managers and researchers may be better positioned to inspire stewardship, lifelong learning, and social change

Contact Info: Bradley Allf: ballf@ncsu.edu

References

- Theobald, E. J., Ettinger, A. K., Burgess, H. K., DeBey, L. B., Schmidt, N. R., Froehlich, H. E., ... & Parrish, J. K. (2015). Global change and local solutions: Tapping the unrealized potential of citizen science for biodiversity research. *Biological Conservation*, 181, 236-244.
- Allf, B., Cooper, C., Larson, L., Dunn, R., Futch, S., Sharova, M., Cavalier, D. (2020; *in prep*). "The New Citizen Scientist: Multi-Project Participation."
- Futch, S., Larson, L., Cooper, C., Cutts, B. B., Allf, B., Sharova, M., Cavalier, D. (2020; *in prep*). "Exploring connections among citizen science projects: a network analysis of volunteer activity across the SciStarter landscape."
- Cooper, C., Allf, B., Larson, L. (2020; *in prep*). "The impact of multi-topic participation in citizen science among volunteers."

This work supported by NSF AISL and NSF GRFP grants

