Participation Intensity Influences Motivations for Participating in iNaturalist

Samantha K. Lowe, Brittany M. Mason, Nia A. Morales, and Corey T. Callaghan

UF IFAS
UNIVERSITY of FLORIDA
School of Natural Resources and Environment

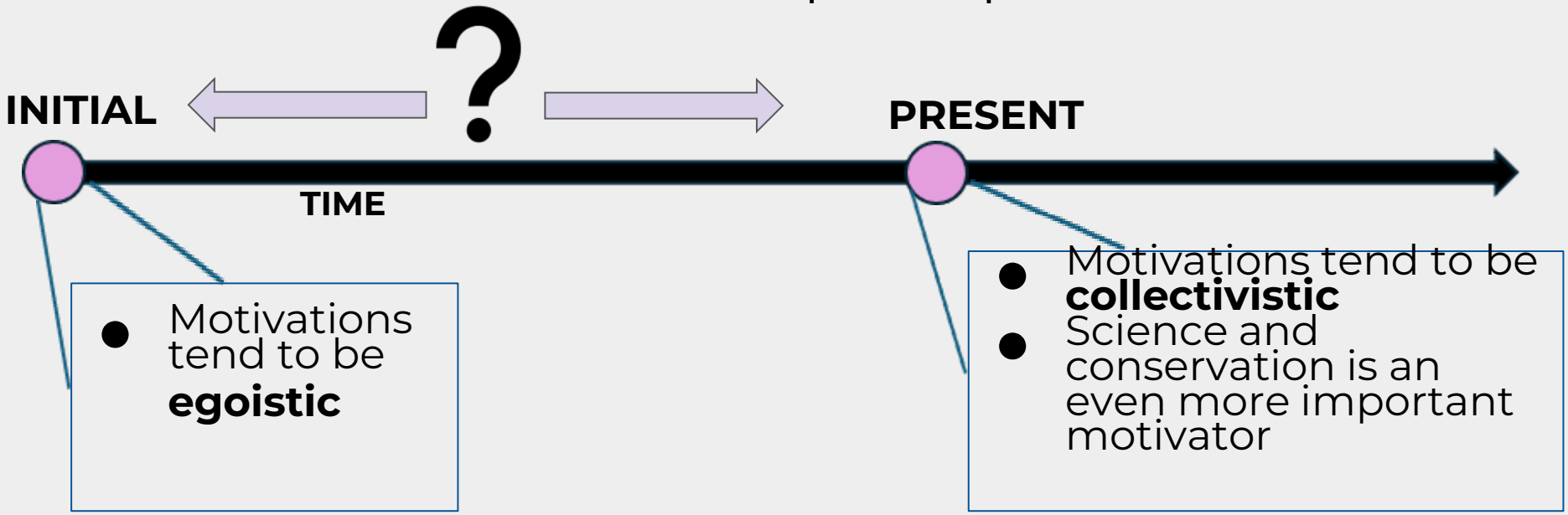
Motivations for participating in citizen science

- Understanding what motivates participants can improve recruitment and maintenance of participants
- People participate in projects that accommodate their motivations
- Contributing to science and learning are two strong motivators for biodiversity-oriented citizen science projects

West et al., 2021; Larson et al., 2020; Asingizwe et al., 2020; Maund et al., 2020

Knowledge Gap

How do motivations change throughout the duration of participation?



Larson et al., 2020; Asingizwe et al., 2020; Bible and Clarke-de Reza, 2023

Addressing this knowledge gap with iNaturalist

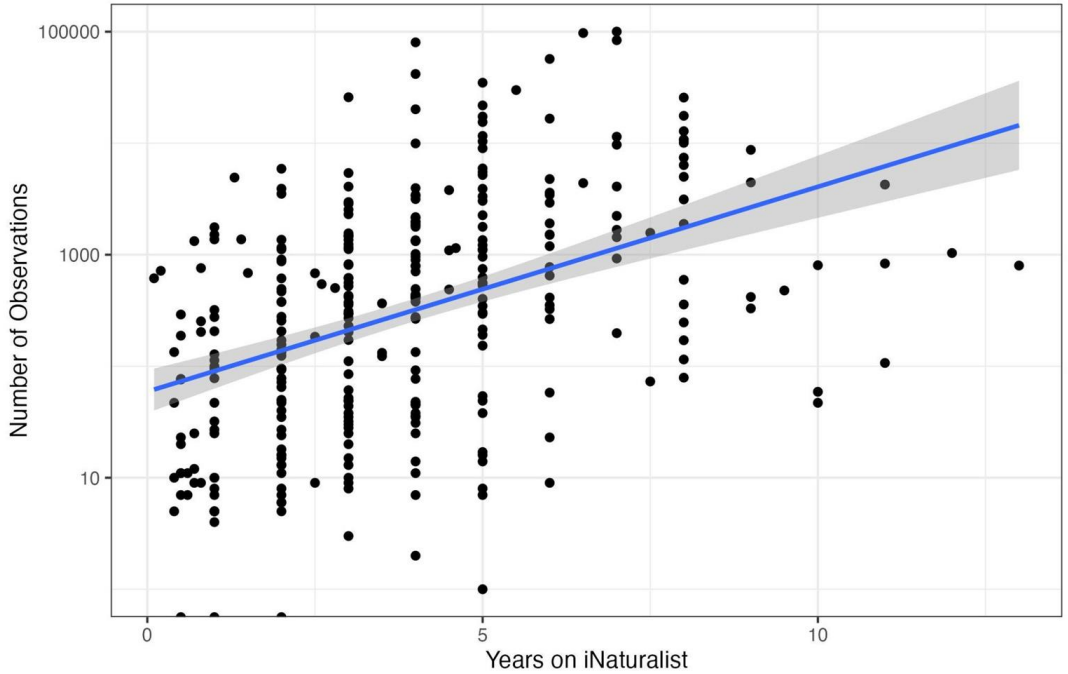
- Broad in scope based on number of users (3.5M) and diverse interests of users

- Results may be applicable to other citizen science projects

Using participation intensity

- Used iNaturalist **observation count** as measure of participation intensity

- Positively correlates with time since joining the platform



Methods

Survey Design & Pilot

- 15 motivations on a 5-point likert scale
- User metrics (observation count, etc.)
- Demographics

Quota Sampling of U.S. iNat users

- Stratified users into 5 groups by observation count
- 100 users sampled per group + 2 resamples
- Utilized iNat DMs

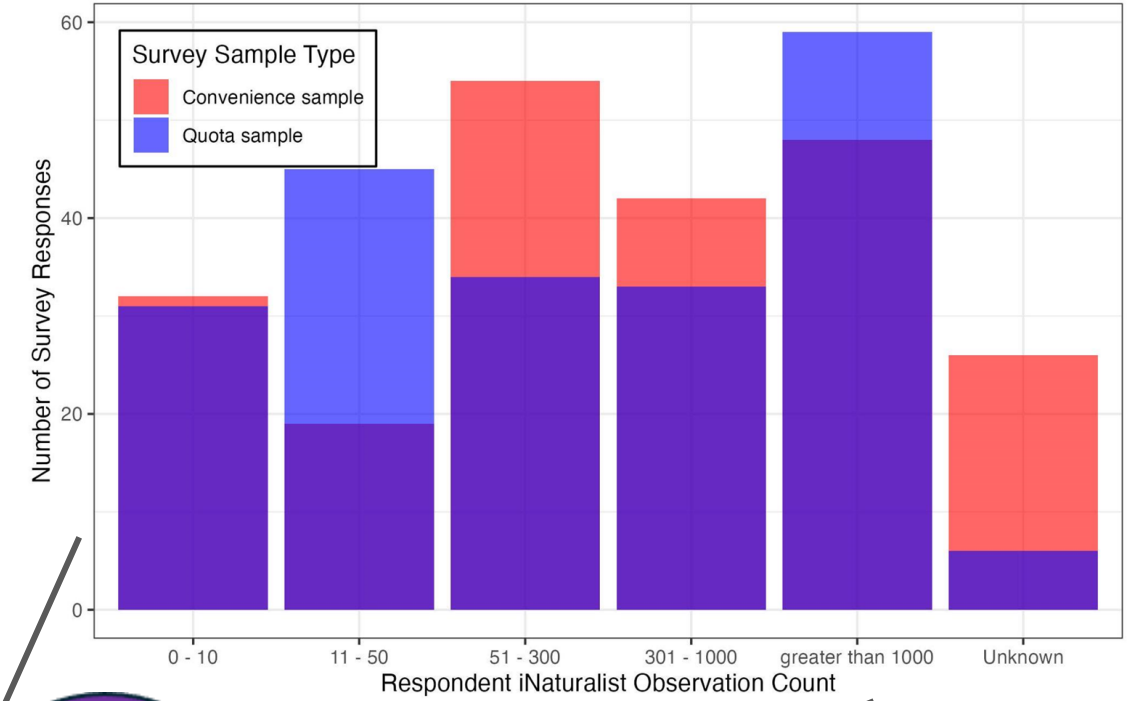
n=208

Convenience sampling

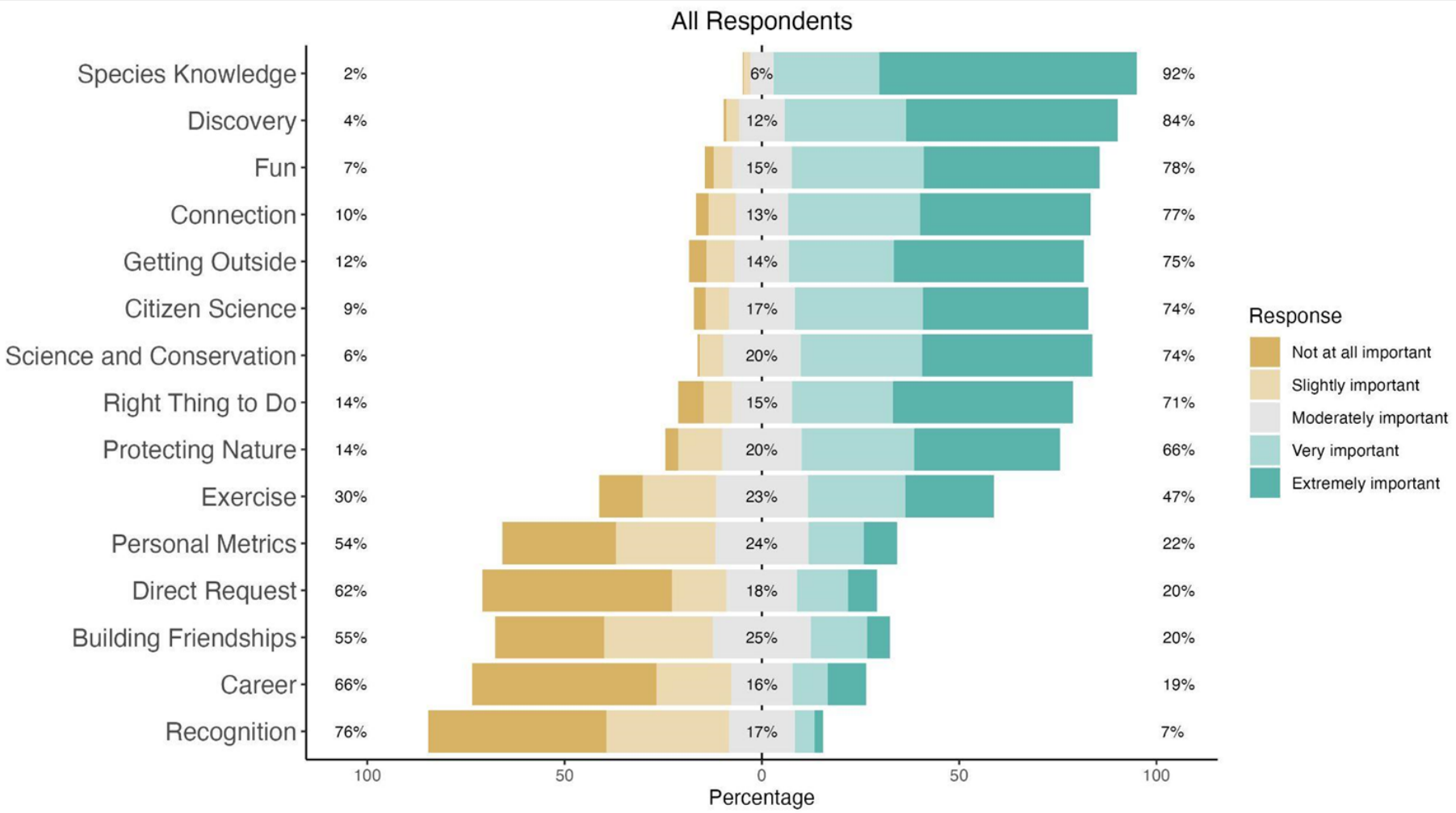
- Spanish version of survey available
- 11 weeks

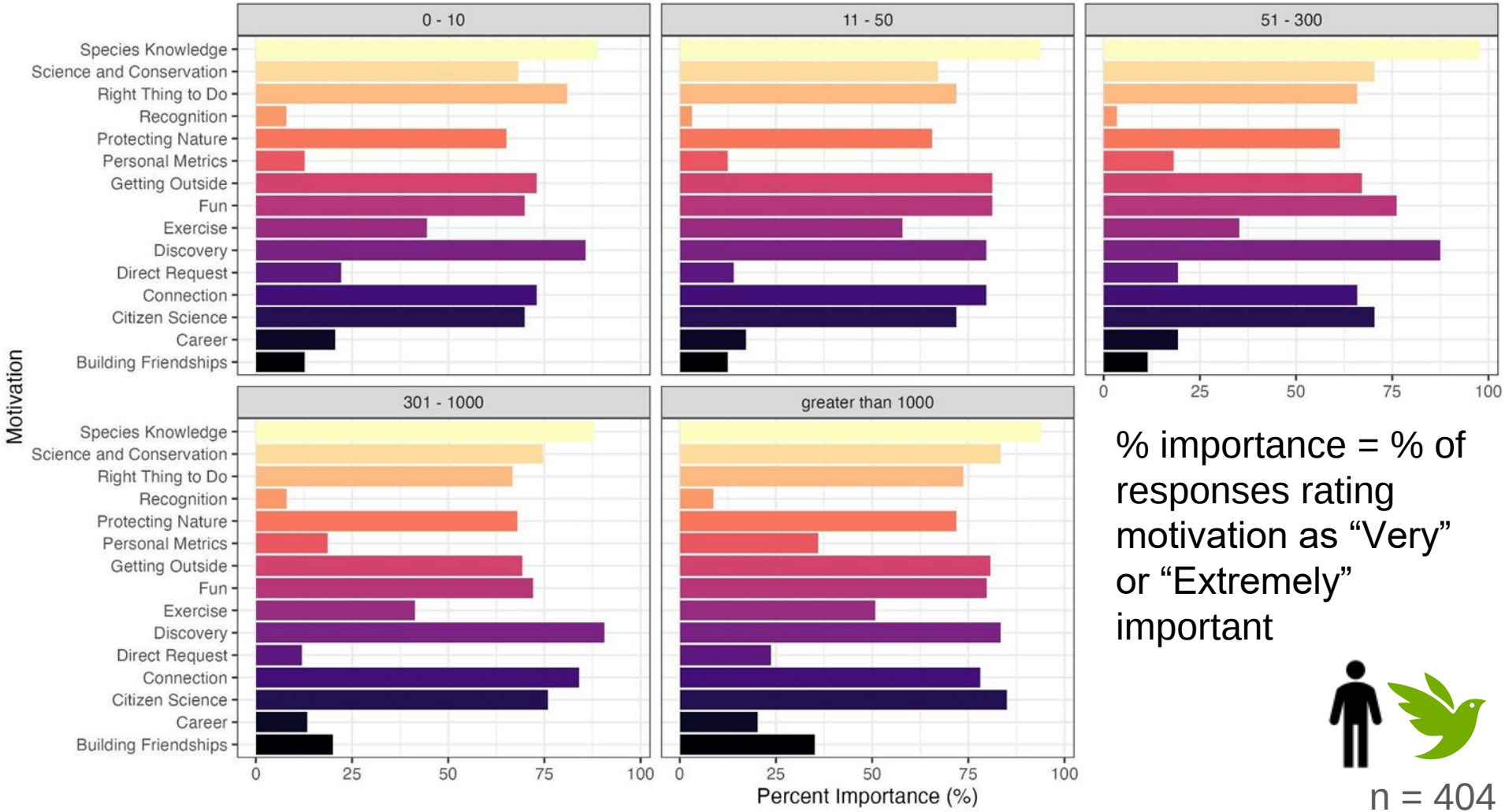
n=221

Survey response results



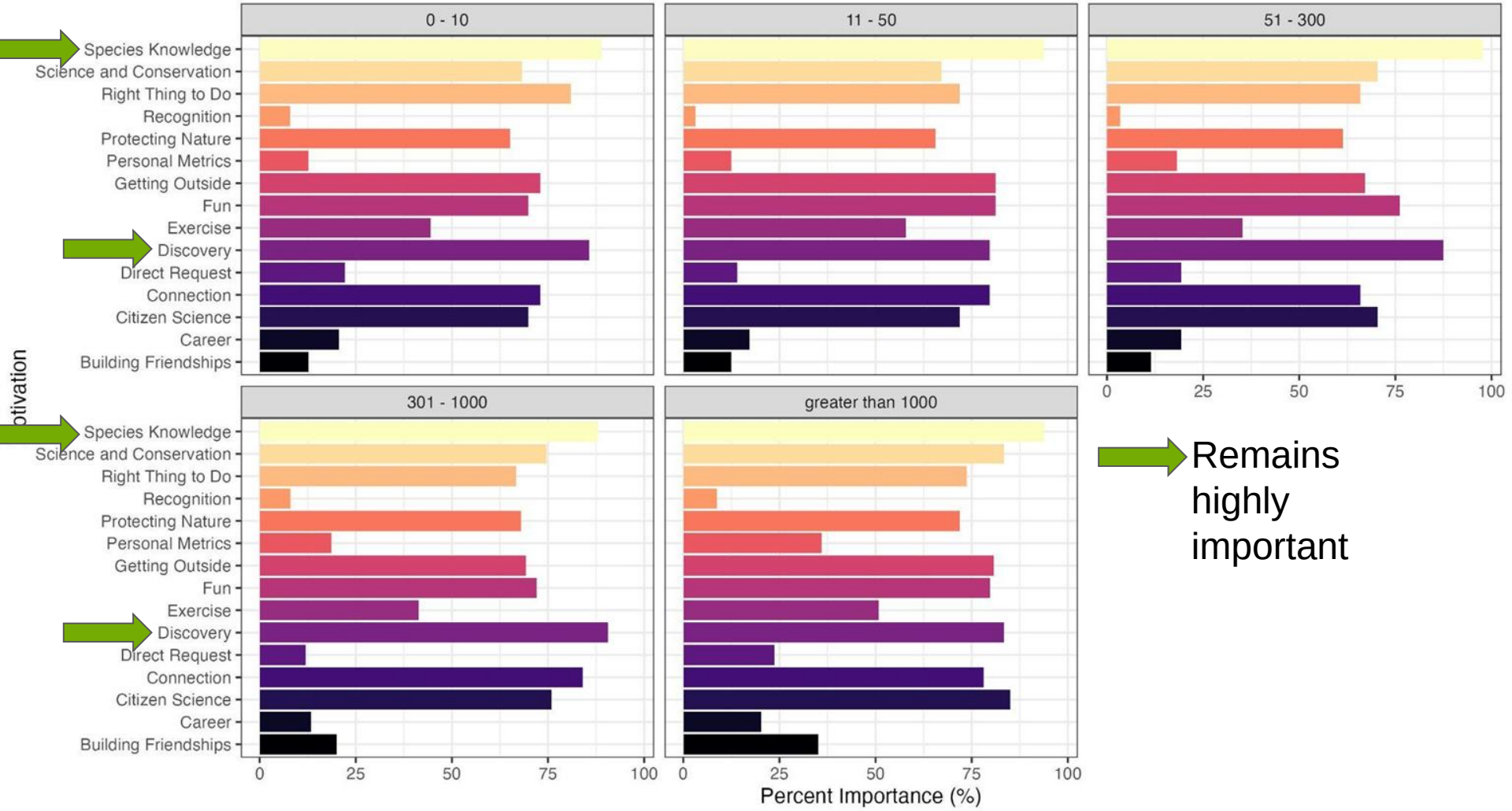
N=429

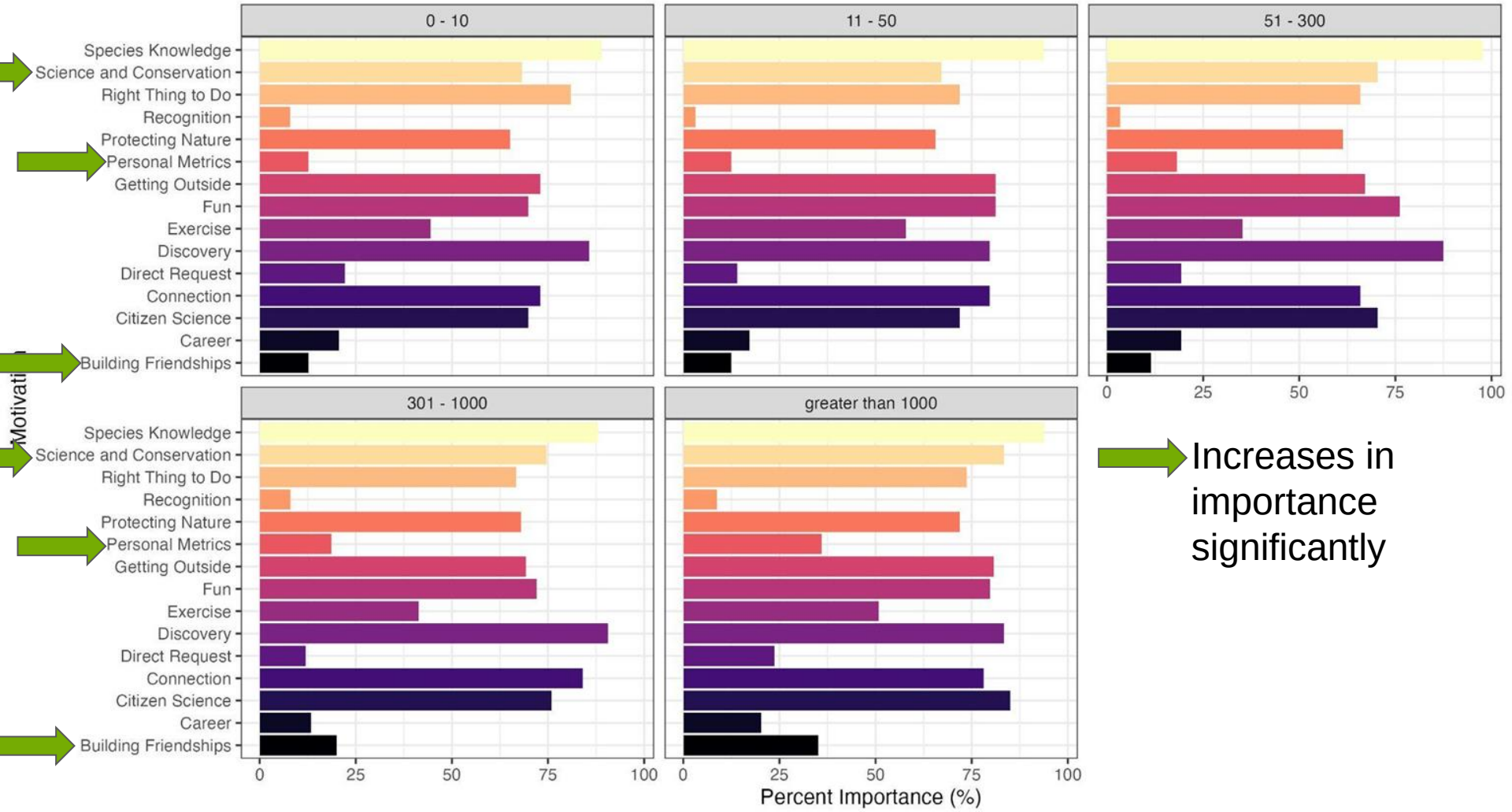

All Respondents
Species Knowledge
Discovery
Fun
Connection
Getting Outside
Citizen Science
Science and Conservation
Right Thing to Do
Protecting Nature
Exercise
Personal Metrics
Direct Request
Building Friendships
Career
Recognition
2%
4%
7%
10%
12%
9%
6%
14%
14%
30%
54%
62%
55%
66%
76%
6%
12%
15%
13%
14%
17%
20%
15%
20%
23%
24%
18%
25%
16%
17%
92%
84%
78%
77%
75%
74%
74%
71%
66%
47%
22%
20%
20%
19%
7%
100
50
0
50
100
Percentage
Response
Not at all important
Slightly important
Moderately important
Very important
Extremely important



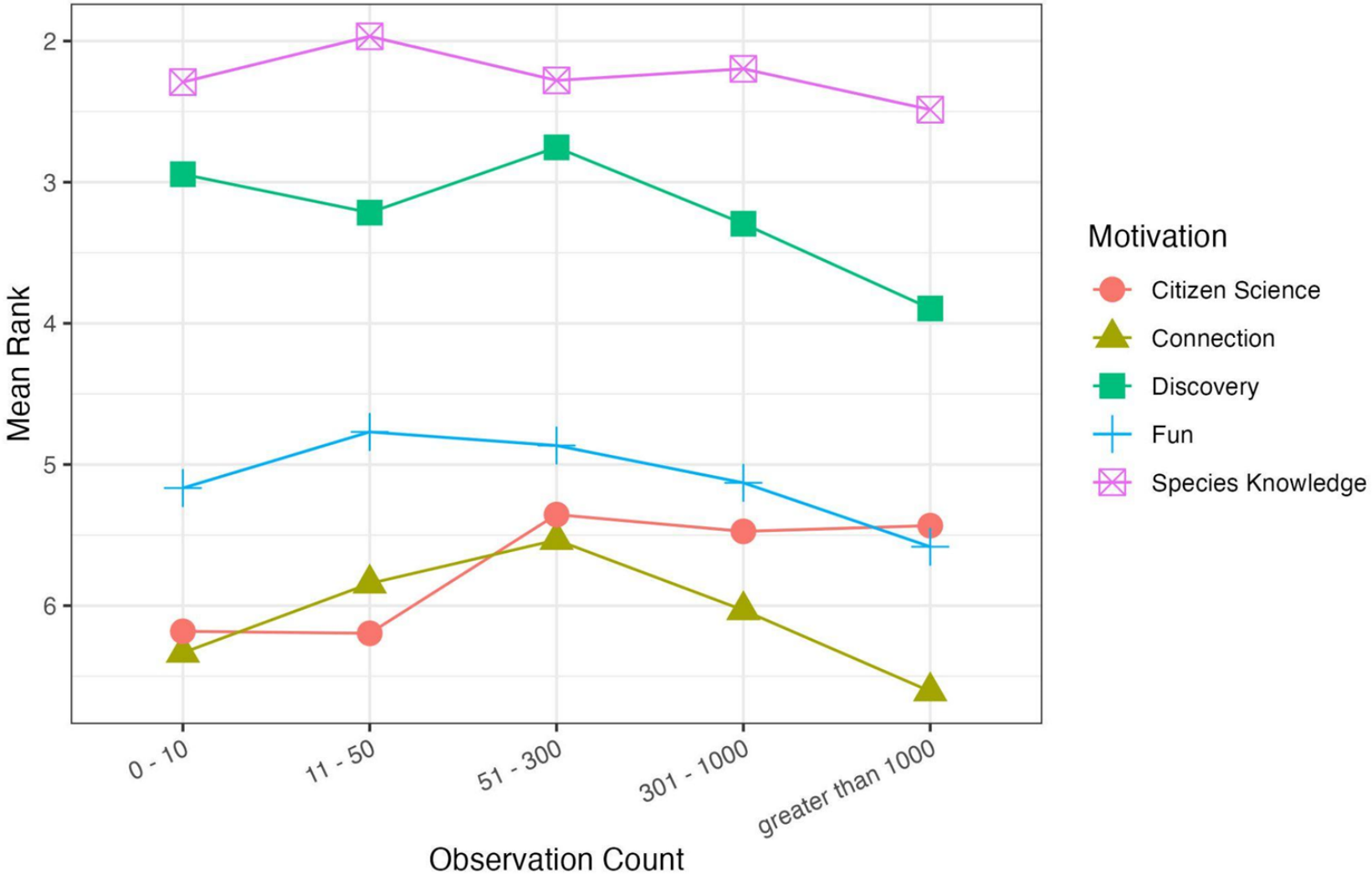
% importance = % of responses rating motivation as “Very” or “Extremely” important

n = 404


0 - 10
11 - 50
51 - 300
301 - 1000
greater than 1000
Species Knowledge
Science and Conservation
Right Thing to Do
Recognition
Protecting Nature
Personal Metrics
Getting Outside
Fun
Exercise
Discovery
Direct Request
Connection
Citizen Science
Career
Building Friendships
0
25
50
75
100
Percent Importance (%)
Remains highly important



Increases in importance significantly


Mean Rank
2
3
4
5
6
0 - 10
11 - 50
51 - 300
301 - 1000
greater than 1000
Observation Count
Motivation
Citizen Science
Connection
Discovery
Fun
Species Knowledge

Key takeaways

- ➔ iNaturalist users are highly motivated by improving their species knowledge and discovering information about ecosystems around them (learning!)

- ➔ Some motivations vary in importance with participant experience including science and conservation which increases importance

- ➔ Implications for attracting and retaining users?

Thank you!
Questions?

Contact: **lowe.samantha@ufl.edu**

Other CAPS prep:

Post moderating form: https://forms.gle/je6qiLfWANfD6GEr5
Moderator instructions:
https://docs.google.com/document/d/1ds_VahJFgjmm0rso94FZ9tmAzobi8vY5swxuDigmdnM/edit?usp=sharing

Mentimeter:
https://www.mentimeter.com/app/presentation/alor3qqfu1nkj41o4wgfyn82uei6f76o/edit?question=b18faxf7moq9
Master slide deck:
https://docs.google.com/presentation/d/1dXQVB8411GkQFnaWg-5ySVIKu24MSE4vmXGE4Mk_Fic/edit?usp=sharing