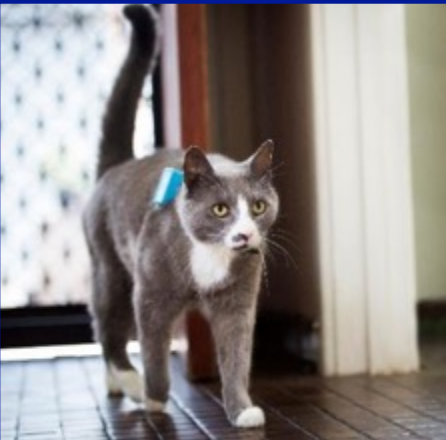




# Cat Tracker

Understanding pet cats through citizen science



Dr Philip Roetman, UniSA's Discovery Circle  
[www.discoverycircle.org.au](http://www.discoverycircle.org.au)

# What is **Citizen Science**?

Professional researchers engage the public to collect or analyse data within a cooperative framework of research and education

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Professional researchers engage the public to collect or analyse data within a cooperative framework of research and education

# 3 examples of citizen science

## 1. Christmas Bird Count

27 observers to 70,000+ (LeBaron 2007, 2013)

## 2. CoCoRaHS (Community Collaborative Rain, Hail, and Snow Network)

7,500 precipitation reports a day

(Cifelli et al. 2005)

## 3. Galaxy Zoo

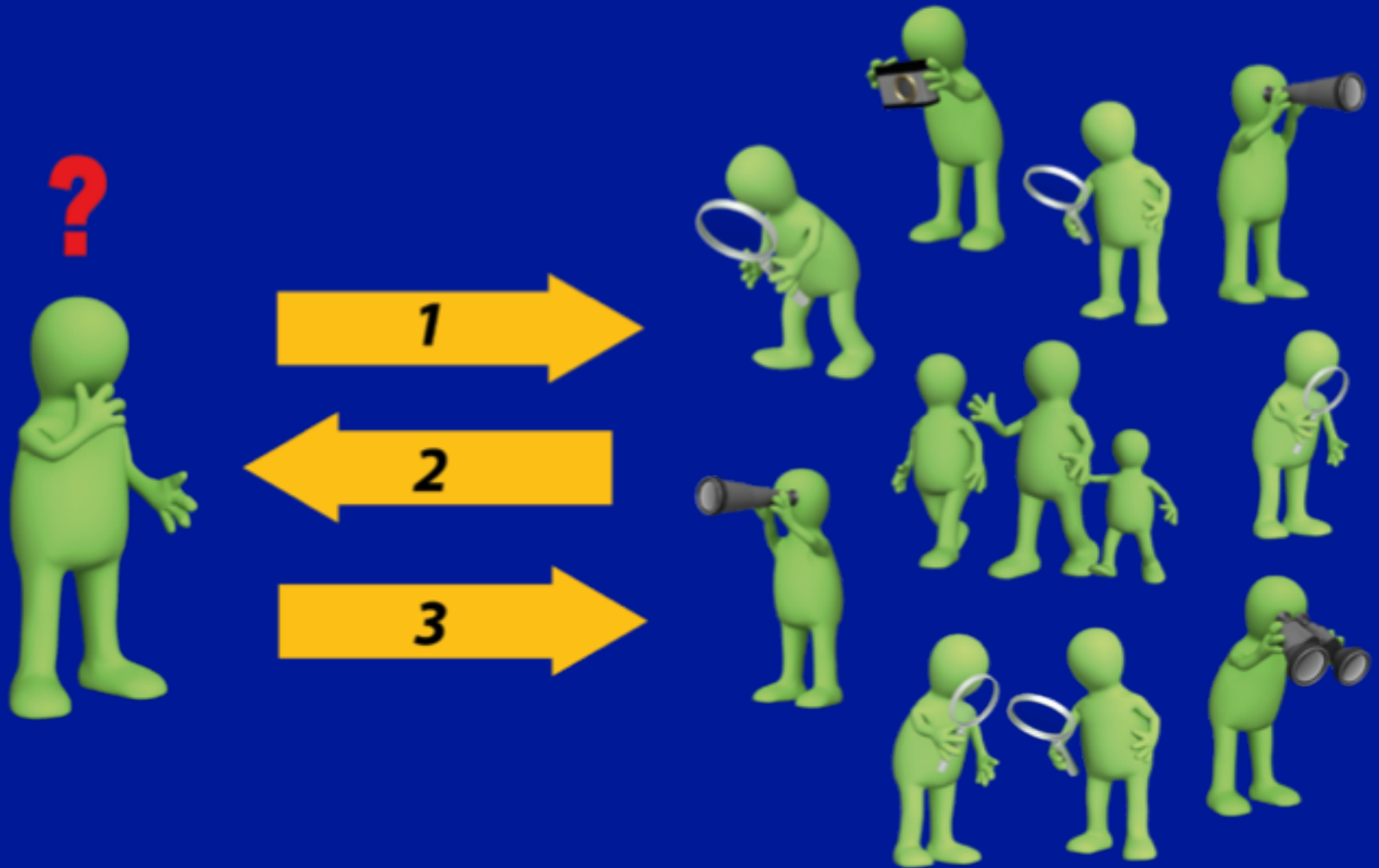
1 million+ participants

100 million+ galaxies classified

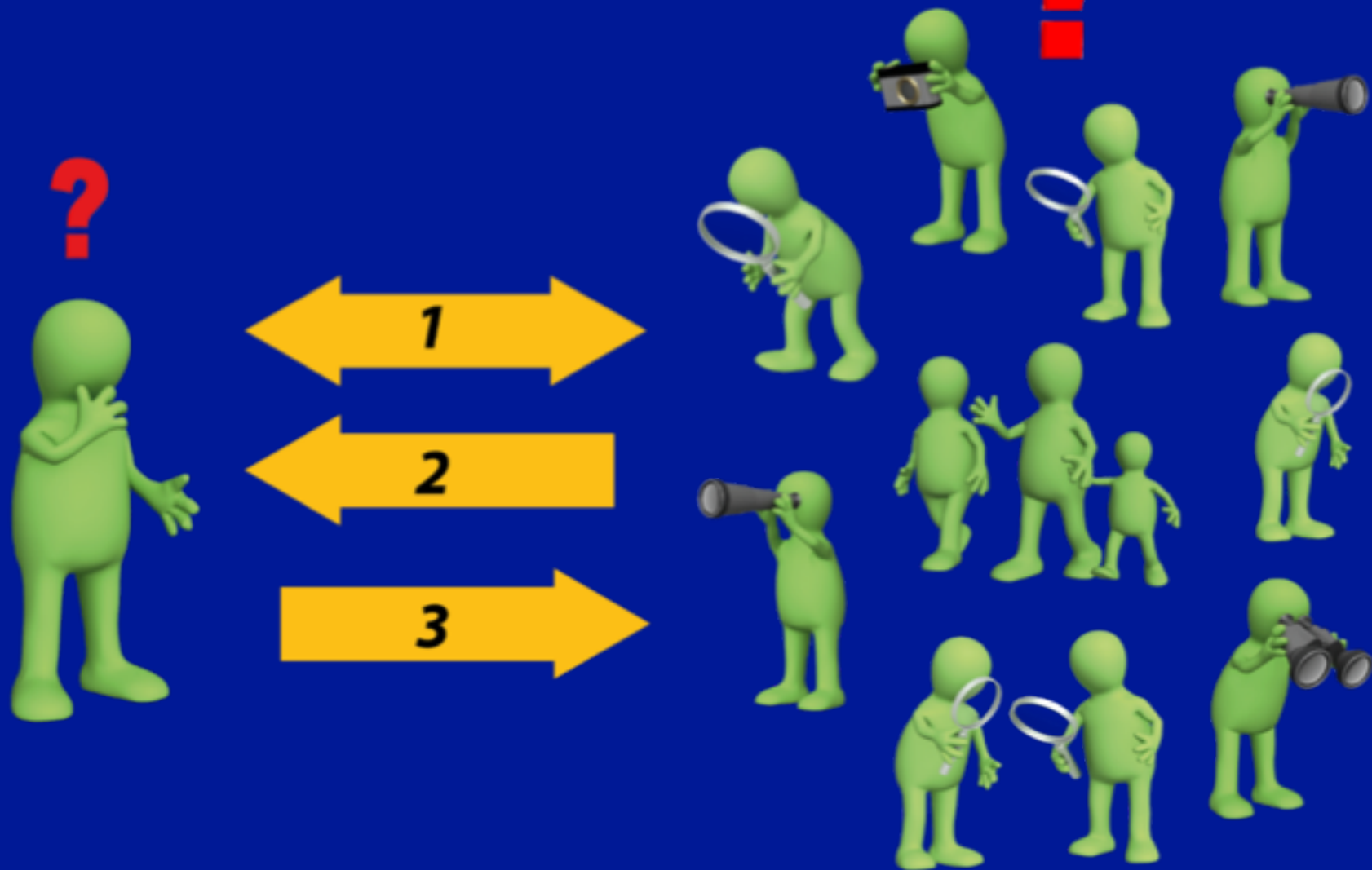
(Raddick et al. 2009b; Lintott et al. 2010)



# What is Citizen Science?



# What is Citizen Science?





2007



2008



2009



2010



2012



2013-



**BioBlitz  
Events**



**Cat  
tracker**



**Fluker  
posts**



**Goanna  
Watch**



**Birding  
the 'burbs**



**Little  
corellas**



**Edible  
Gardens**

+Environmental identity



1

3

2

Environmental data

Social data

Species distribution  
model

“Fit for purpose” for  
policy creation

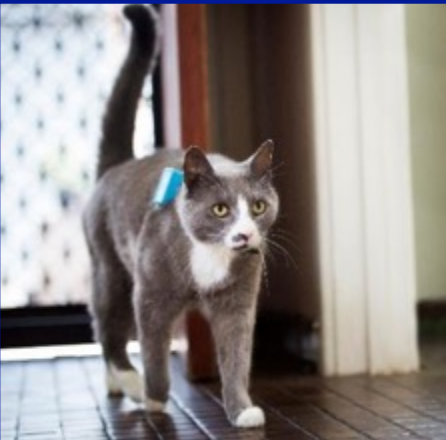
Engaged and  
knowledgeable community





# Cat Tracker

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# The Cat Tracker team



## Discovery Circle Partners:

- University of South Australia
- Department of Environment, Water and Natural Resources
- Adelaide and Mount Lofty Ranges Natural Resources Management Board
- City of Marion
- City of Salisbury

## Local Cat Tracker Project Partners

- Dog and Cat Management Board
- City of Mitcham

## International Project Partners:

- North Carolina State University
- North Carolina Natural History Museum
- Victoria University of Wellington

## Project team:

- Thousands of Citizen Scientists
- Philip Roetman, Carla Litchfield, Hayley Tindle, Gillian Quinton, Belinda Chiera
- Education team: Kathy Paige, David Lloyd, Yvonne Zeegers
- Partner organisation contributors: UniSA marketing team, David Chan

# Why Cat Tracker?

- **Need large sample:**
  - Cat movement (9%?)
  - Social survey
- **Impact:**
  - Informed management
  - Engaging cat owners
  - Demonstrating cat range



# Cat Tracker: **two** areas of research

- **Social survey**

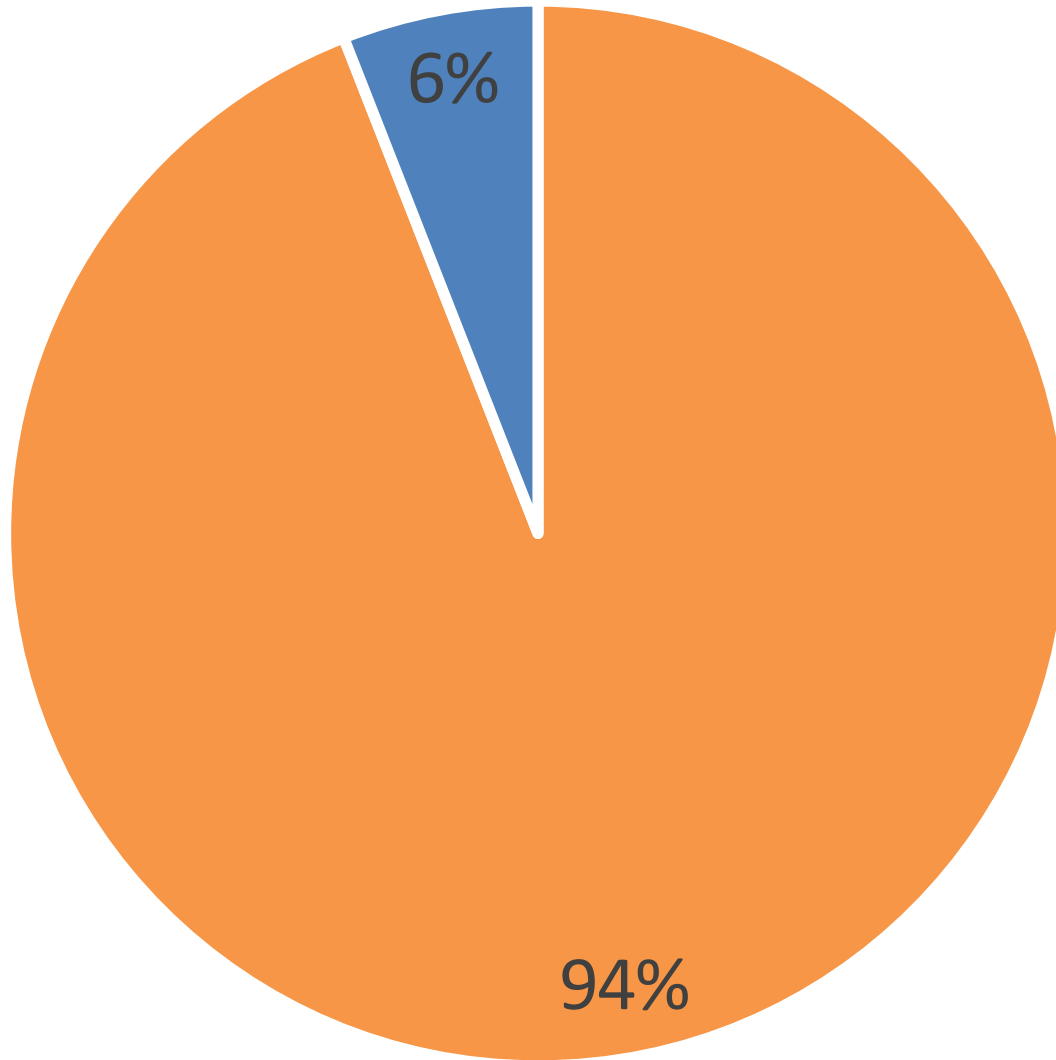
- 3,587
  - Cat details (4,413)
  - Cat management actions
  - Personality tests
  - Stories

- **Tracking data**

- 441 cats tracked (49 councils)



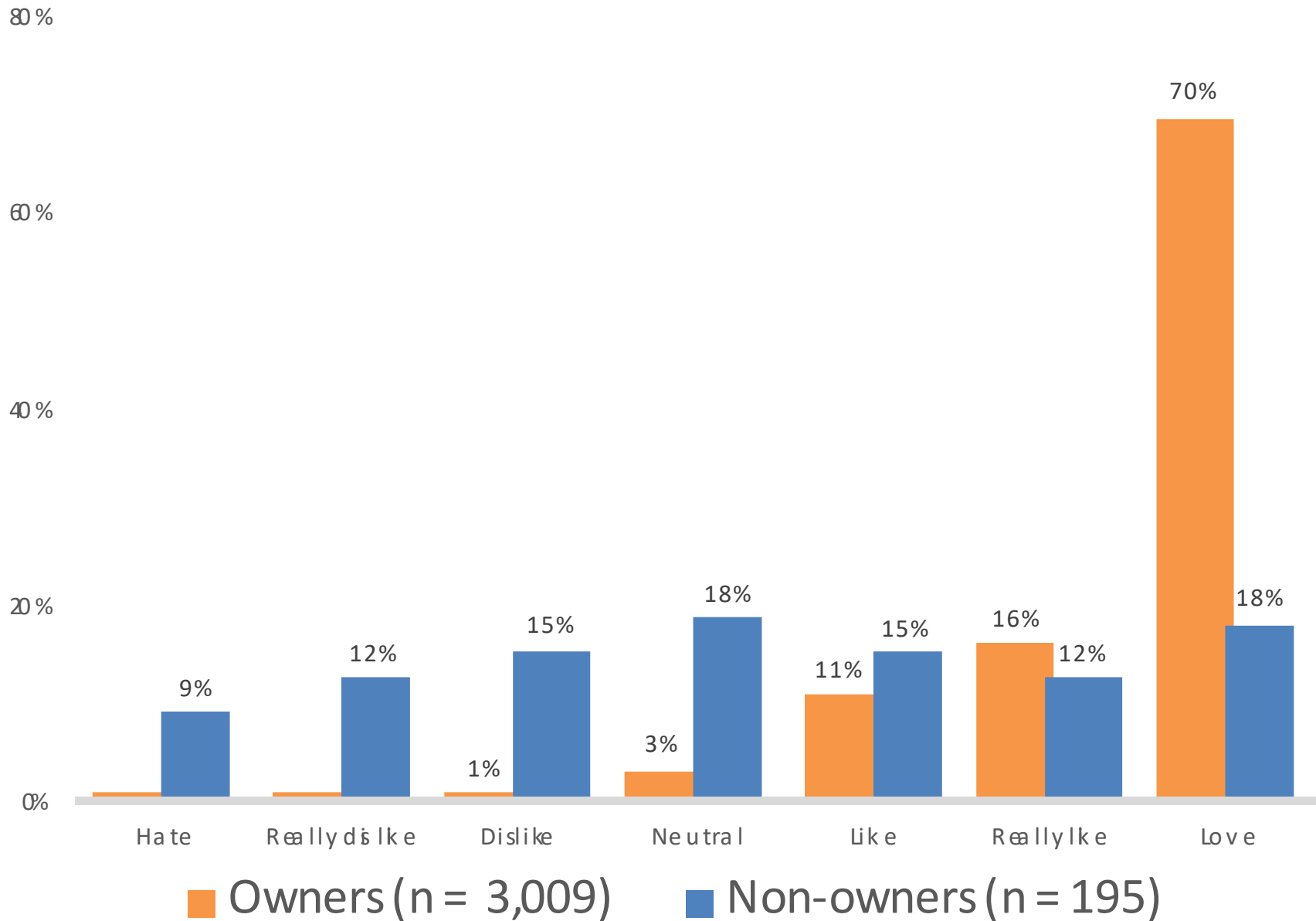
## Survey respondents: cat ownership



■ Owners (n = 3,370)

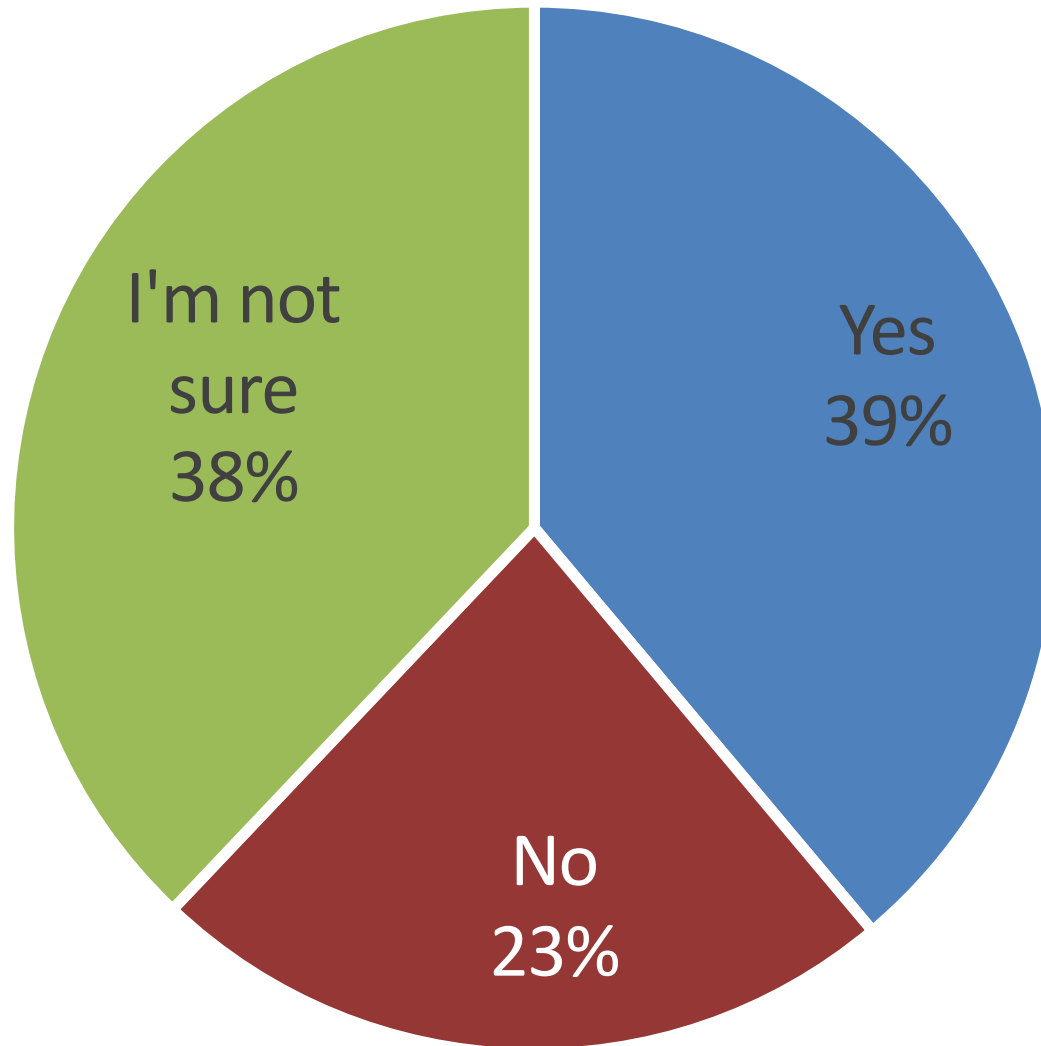
■ Non-owners (n = 213)

## General opinion of pet cats: owners and non-owners



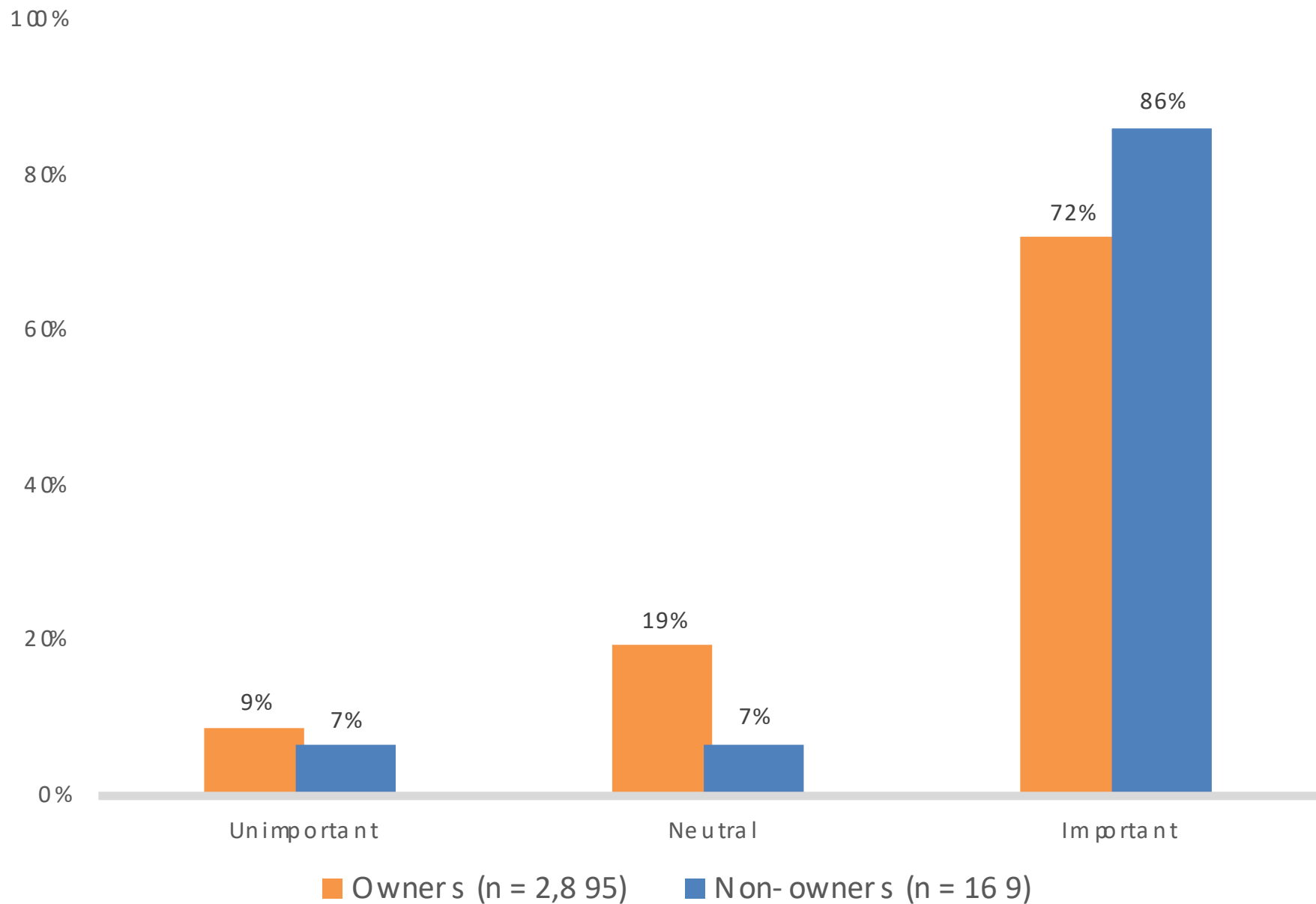


## Knowledge of cat laws (n = 3,204)

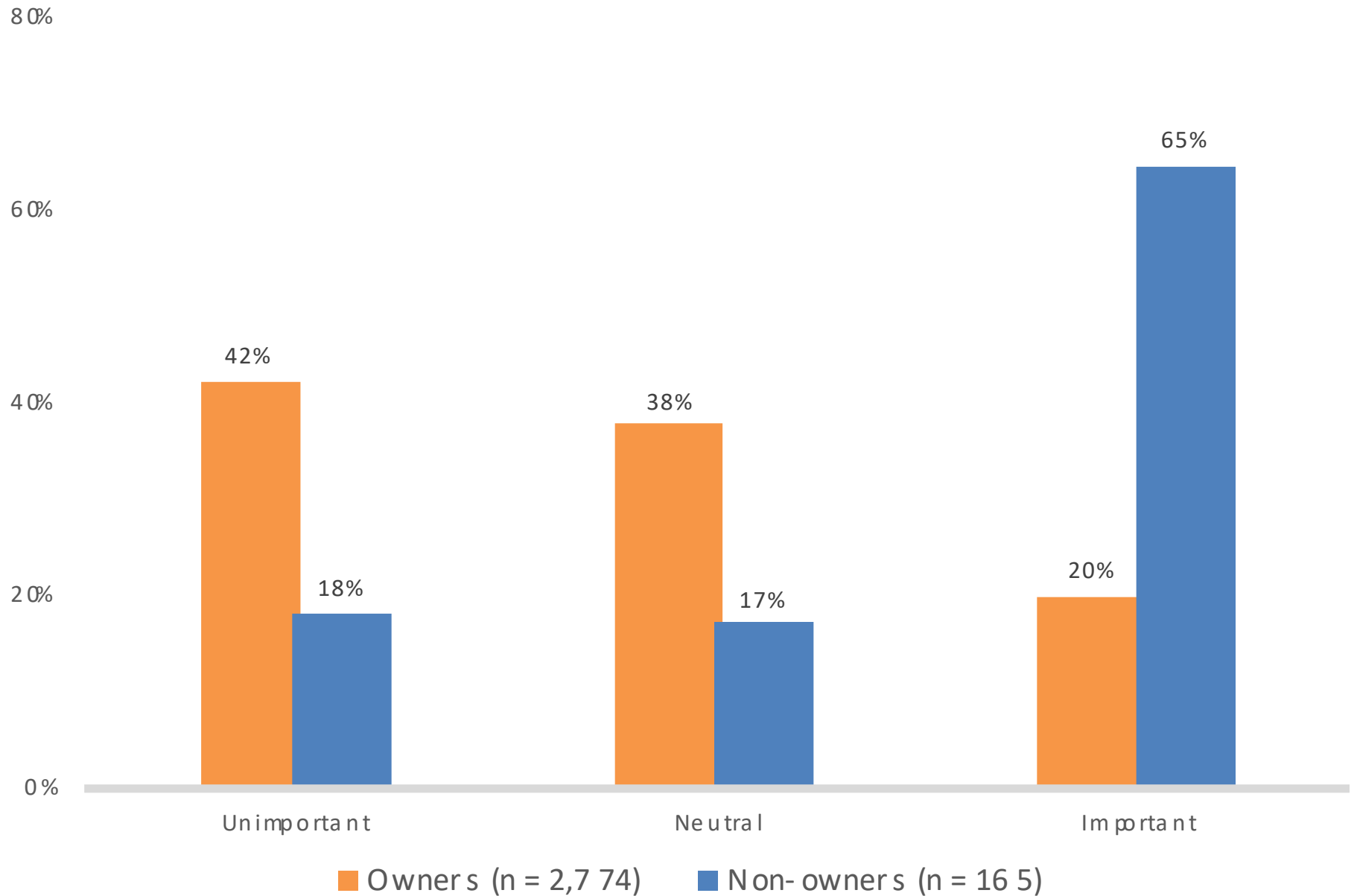


■ Yes ■ No ■ I'm not sure

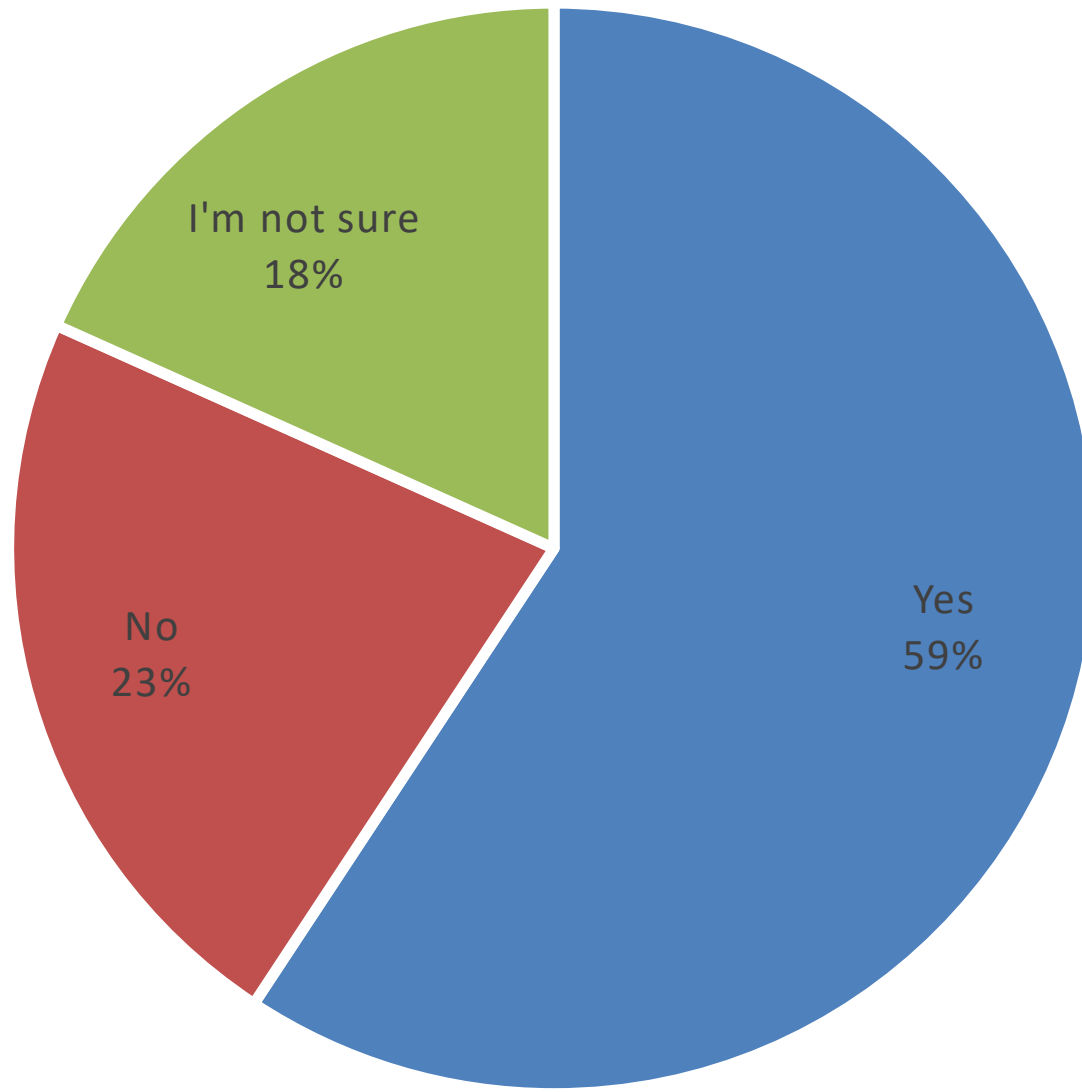
# Importance of containing cats during the night



# Importance of containing cats during the day

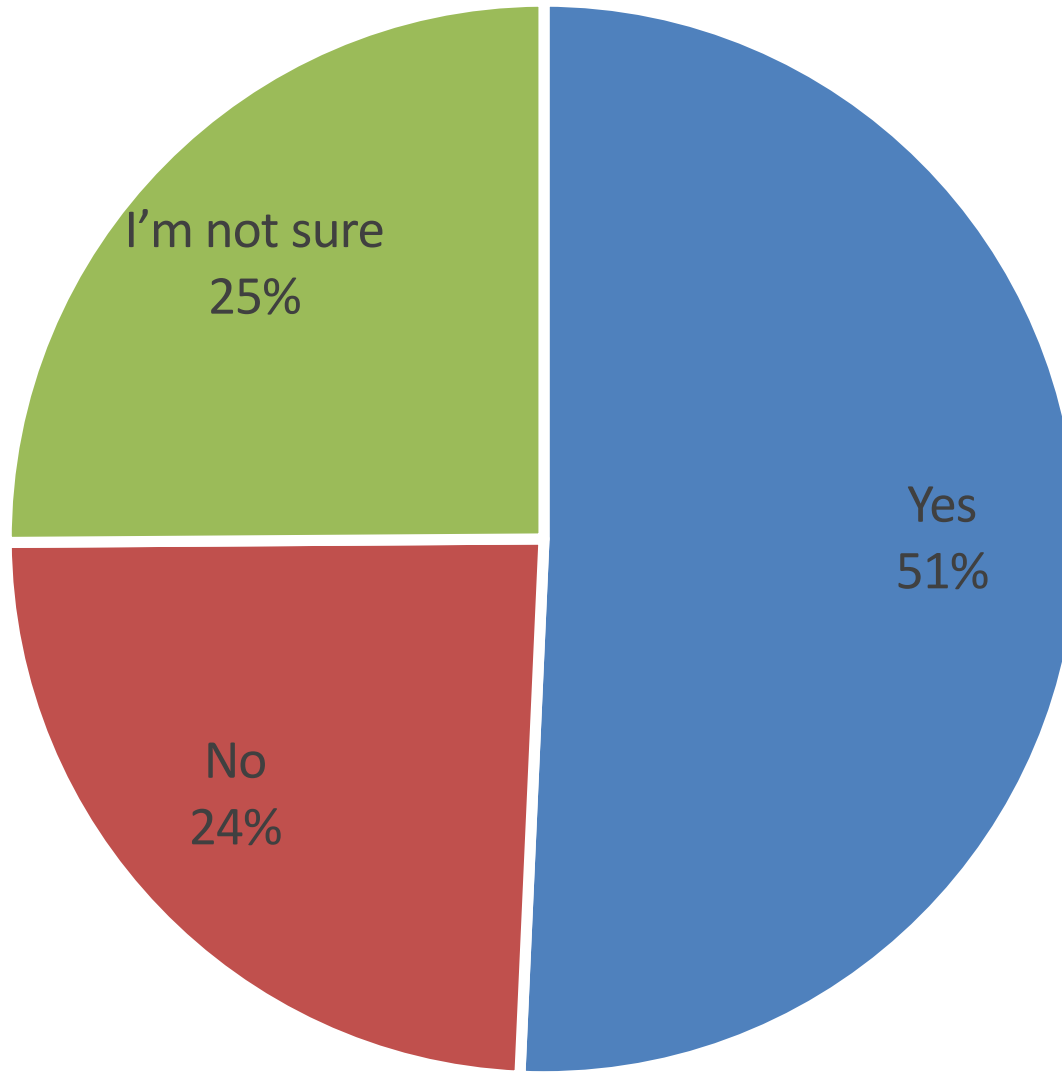


Should there be a night-time curfew on cats? (n = 3,138)



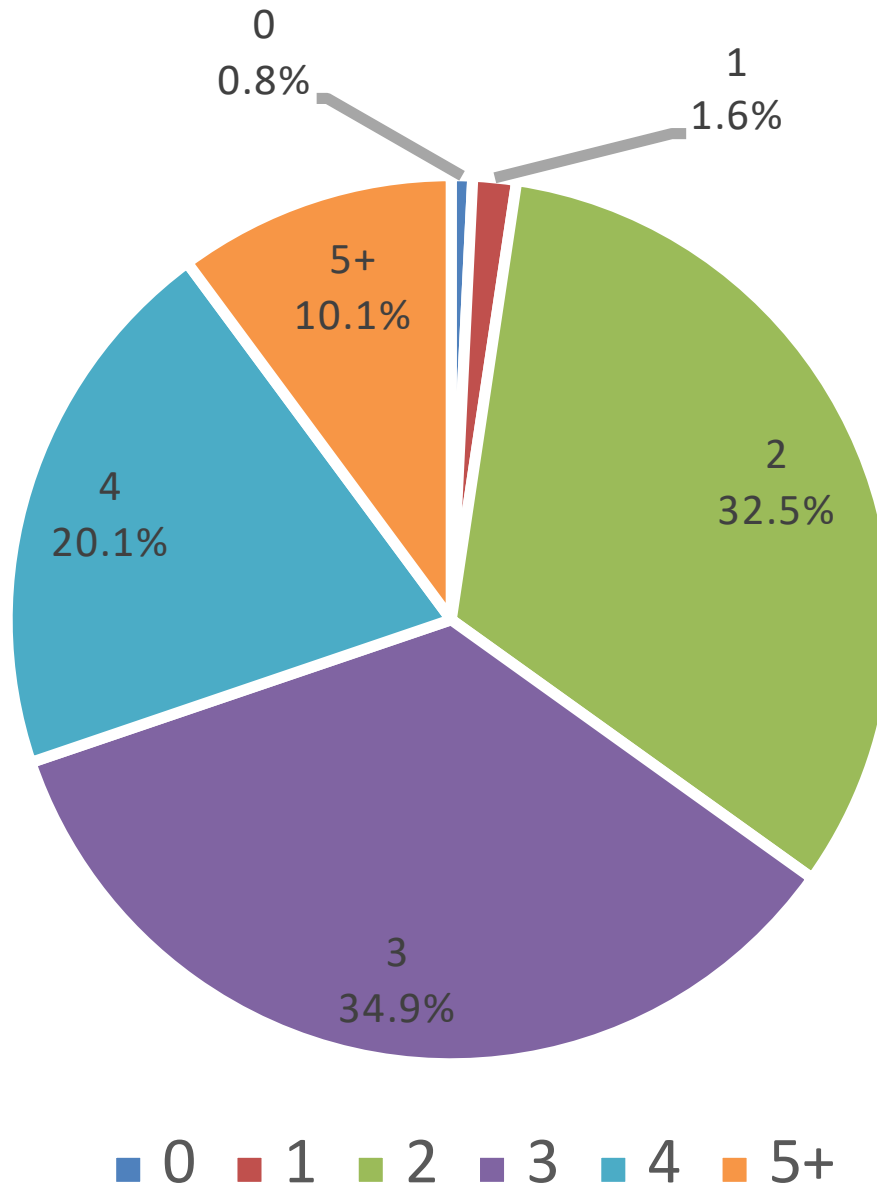
■ Yes ■ No ■ I'm not sure

# Cat registration: should it be mandatory? (n = 3,151)



■ Yes ■ No ■ I'm not sure

# Cats per residence: what should be the limit? (n=2,720)



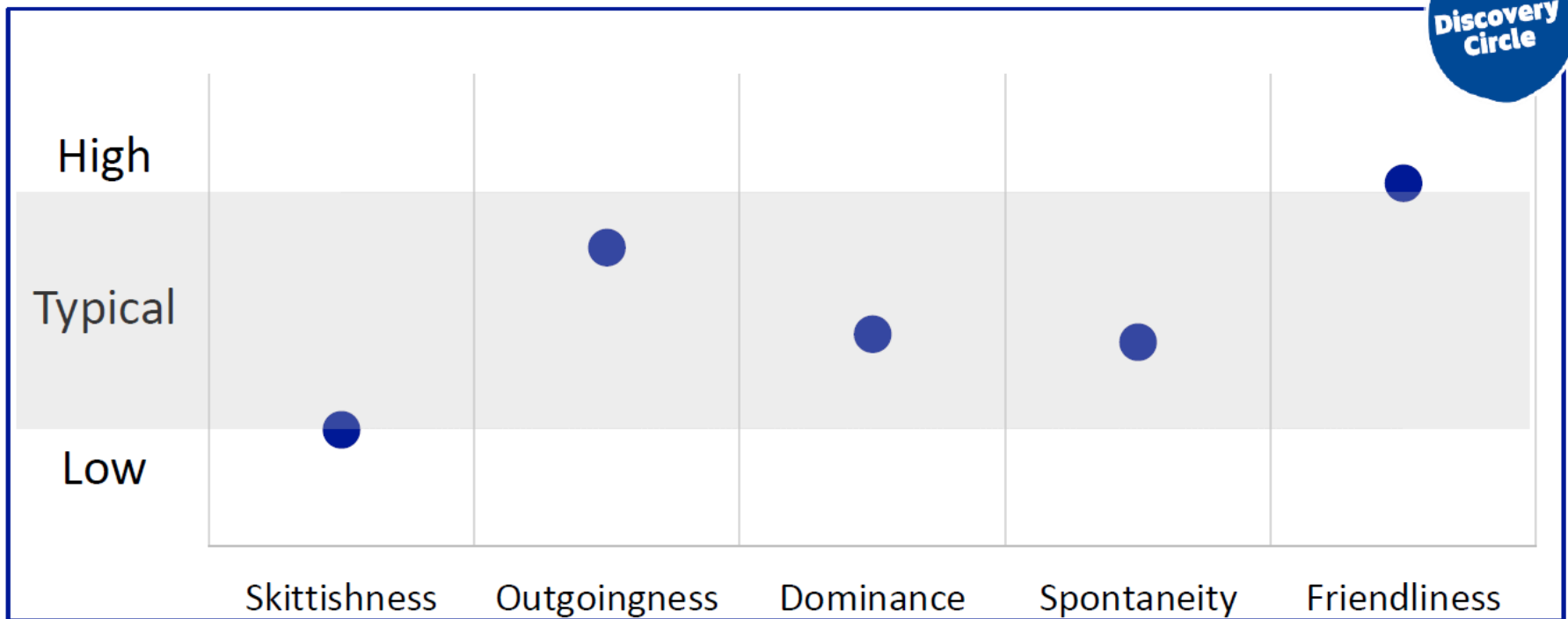


# Social data (personality reports)



## The feline five:

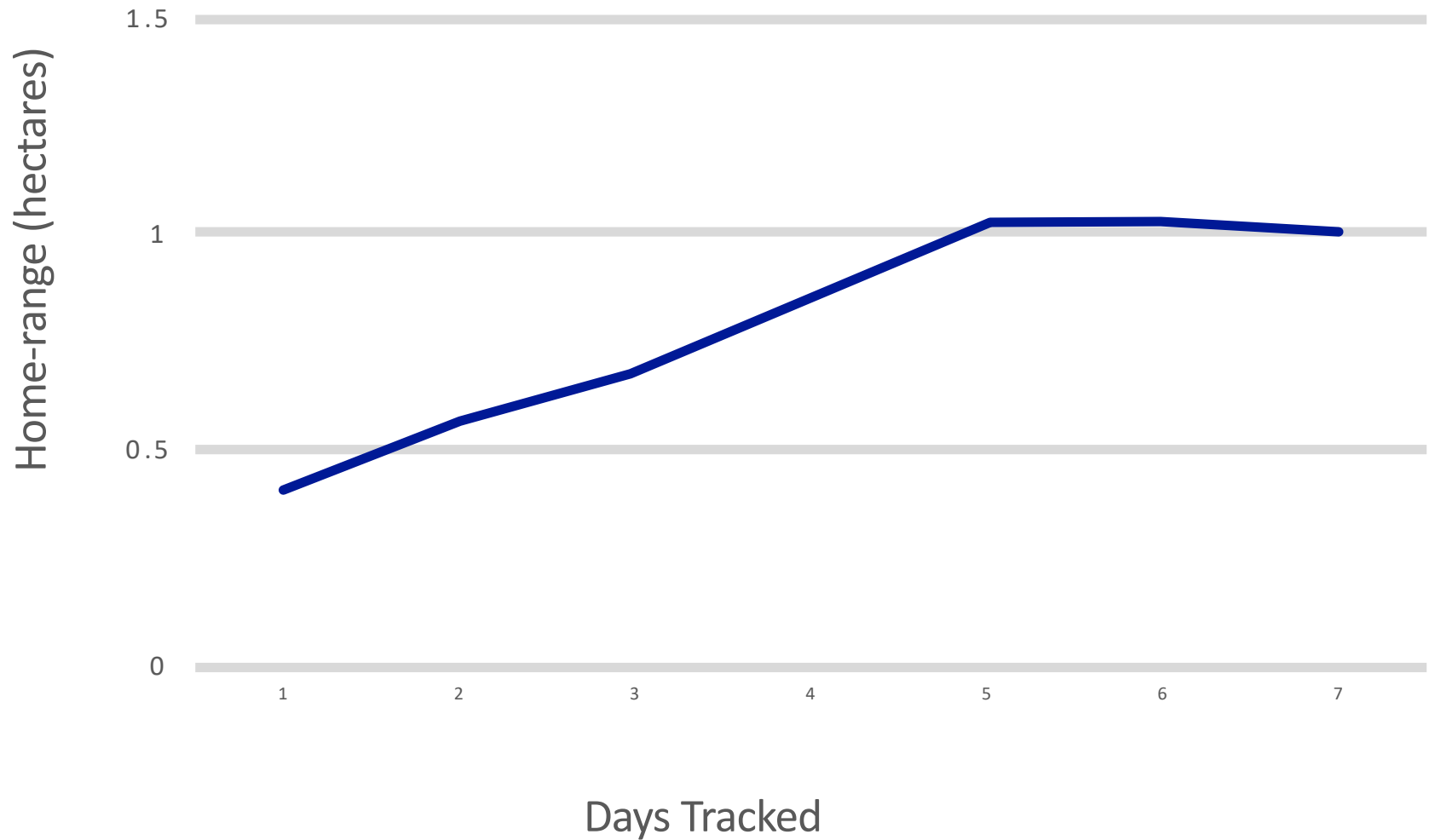
Personality test results for Quizmo



Similarity of indoor and outdoor cats



## Median home-range by number of days tracked (n = 441)





# Snowy



Prospect 0.5 ha home range (95%MCP)





# Snowy



Prospect 0.5 ha home range (95%MCP)





# Mon Mon



**Hallett Cove**      **25.2 ha home range** (95%MCP)





# Mon Mon



**Hallett Cove**

**25.2 ha home range** (95%MCP)





# Sheffield



**Mawson Lakes**      **0.0 ha home range** (95%MCP)





# Cat Tracker: **Tracking** data



- **Findings:**
  - Smallest home range: 0.07ha
  - Largest home range: 31.13ha
  - Average home range: 1.99ha



**Walkley Heights**



**Mt Gambier**

# Cat Tracker: **Tracking** data

- **Findings:**
  - Male cats = larger home-ranges
  - Wandering cats = more fights
  - Wandering cats = more prey
  - Wandering cats = younger cats
  - Night time = larger home-ranges
  - Clandestine cats



Discover the secret  
life of your cat with  
Discovery Circle's  
Cat tracker.

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## Cat tracks

Cats that have been tracked as part of the Cat Tracker project in Australia are displayed below.

Click on 'View Track' under each cat photograph to see the cat's movement... you will need to wait a moment for the data to load.

Find out more about the project and how to participate: [click here](#).

The cat tracks and photographs published as part of the Cat Tracker project are subject to copyright. If you would like to reproduce any of the images or information, please contact us at the [Discovery Circle](#).

Charlotte



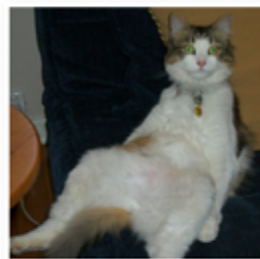
[View Track](#)

Wizzer



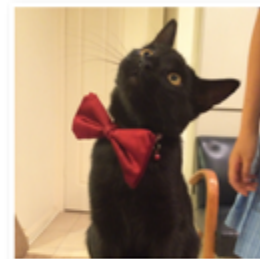
[View Track](#)

Casper



[View Track](#)

Mickey



[View Track](#)

Johnny



Milo



Molly



Max#2



# Where to **next**?

- **National project?**
  - Sign up!
  - Nation-wide tracking and social survey
  - Analysis of cat diet
    - Diet diaries
    - Isotope analysis of cat hair
- **Tracking semi-owned cats?**
  - Utilising current participants
  - New technology

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