

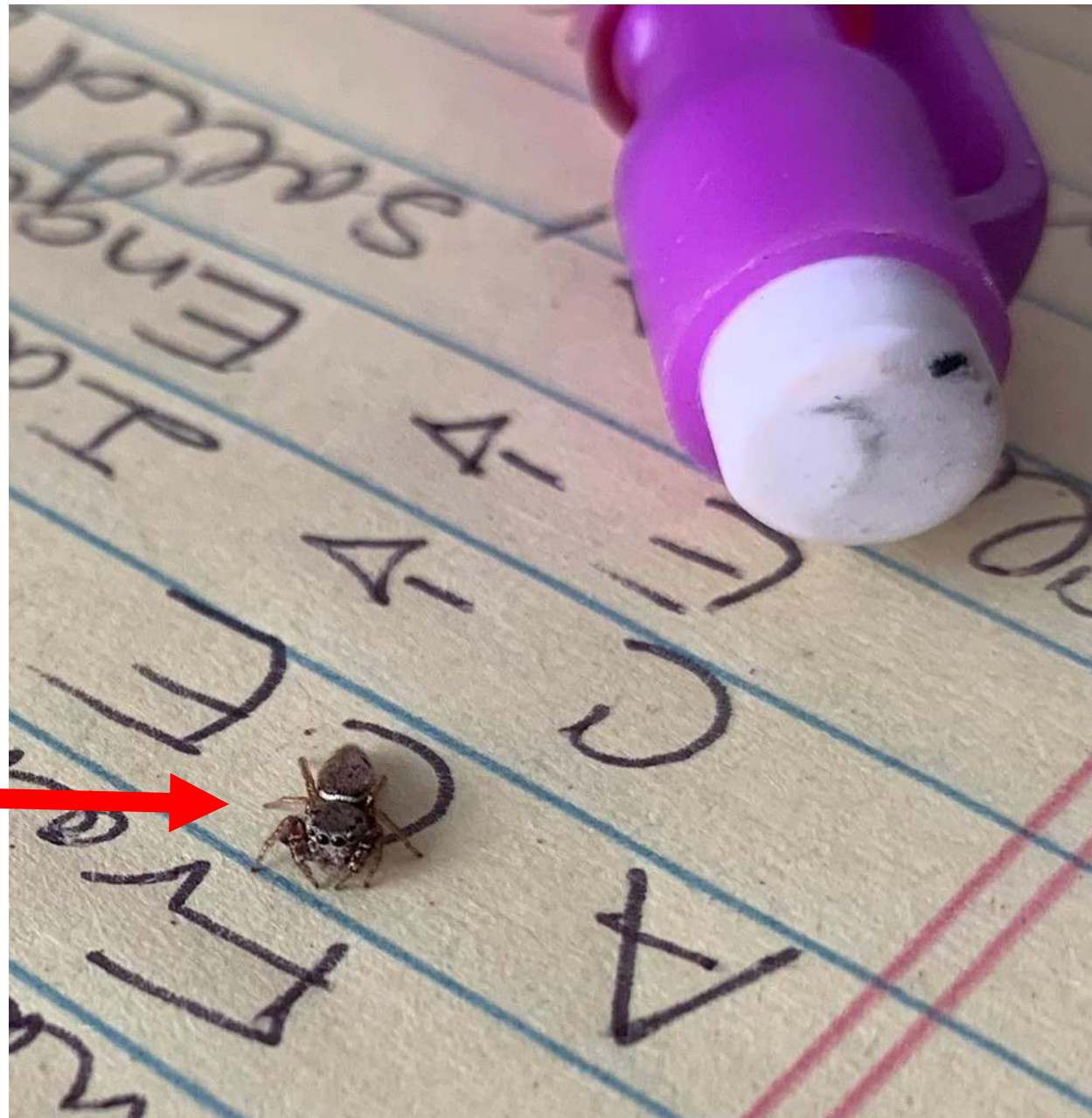
# iNaturalist

## Ecology for Everyone

Eco-Evo Pub -- 10-7-2019

[Buttonhook Leaf-beetle Jumping Spider](#)  
[\(\*Sassacus vitis\*\)](#)

Observed by a student in the **UCLA**  
Biomedical Library



<https://www.inaturalist.org/observations/26331097>

# iNaturalist is BIG

- 28 Million Observations
- 800,000 Observers
- 240,000 Species
- Observations from 250 Countries!



# iNaturalist IS... *small*?

- Started by four students at UC Berkeley in 2008
- Staff of seven



CALIFORNIA  
ACADEMY OF  
SCIENCES



NATIONAL  
GEOGRAPHIC

# Is it useful?

Great photos for presentations!



[Siamese Peninsula Pitviper](https://www.inaturalist.org/observations/4963548)

<https://www.inaturalist.org/observations/4963548>



[Entoloma hochstetteri](https://www.inaturalist.org/observations/21726658)

<https://www.inaturalist.org/observations/21726658>



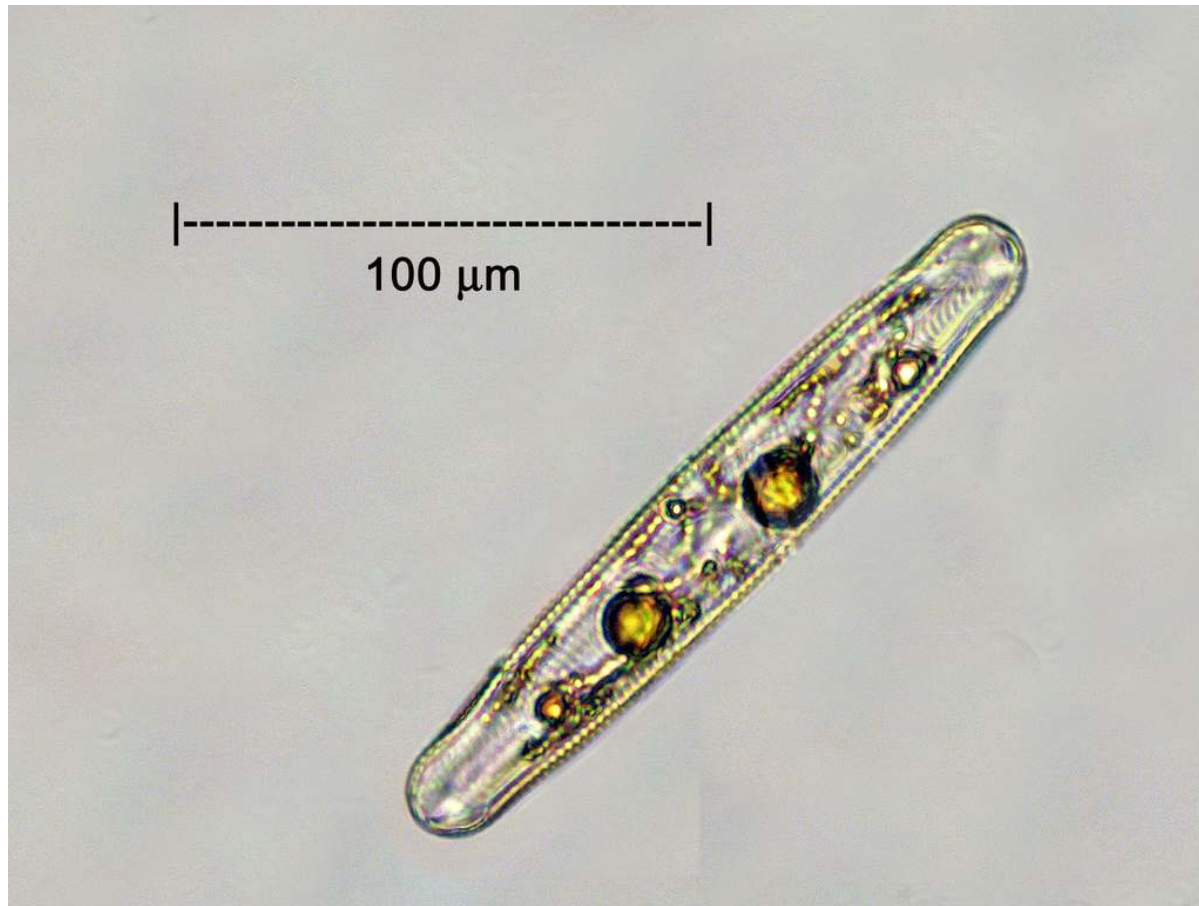
[\*Athoracophorus bitentaculatus\*](https://www.inaturalist.org/observations/8819700)

<https://www.inaturalist.org/observations/8819700>



<https://www.inaturalist.org/observations/2601454>

## Diatoms



*Pinnularia acrosphaeria*

<https://www.inaturalist.org/observations/271698>

## Tiny pseudoscorpions



<https://www.inaturalist.org/observations/15340303>

# Phoresy



<https://www.inaturalist.org/observations/15340303>

# Are the data useful?

- Dynamic species distributions

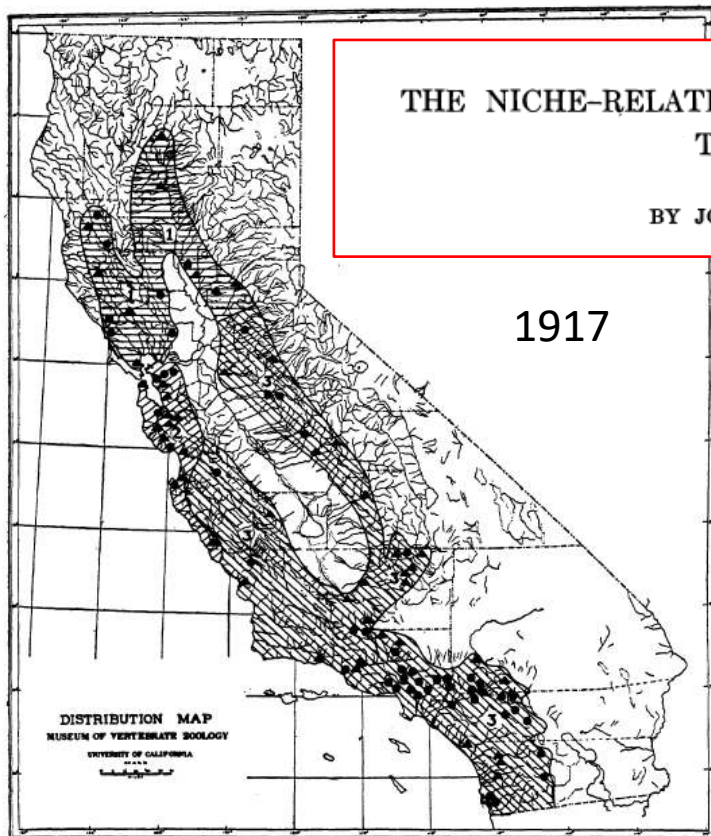
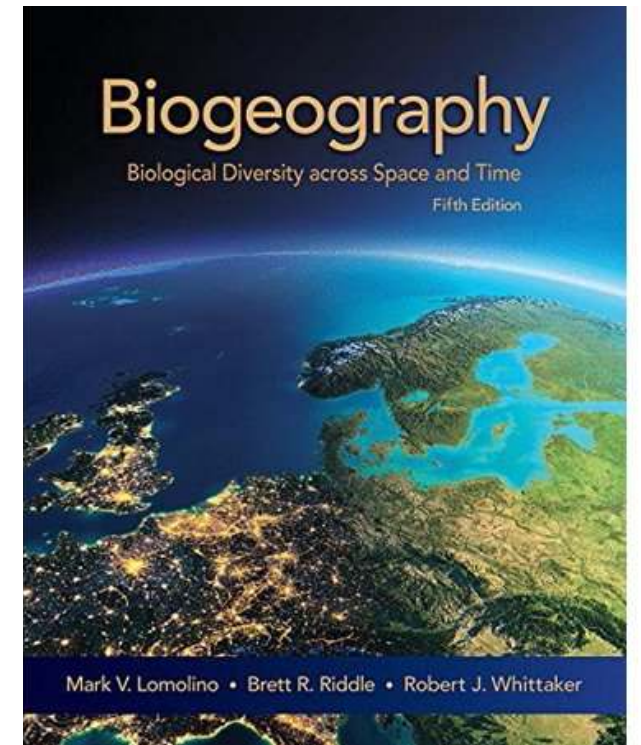


Figure 1.

THE NICHE-RELATIONSHIPS OF THE CALIFORNIA THRASHER.<sup>1</sup>  
BY JOSEPH GRINNELL.

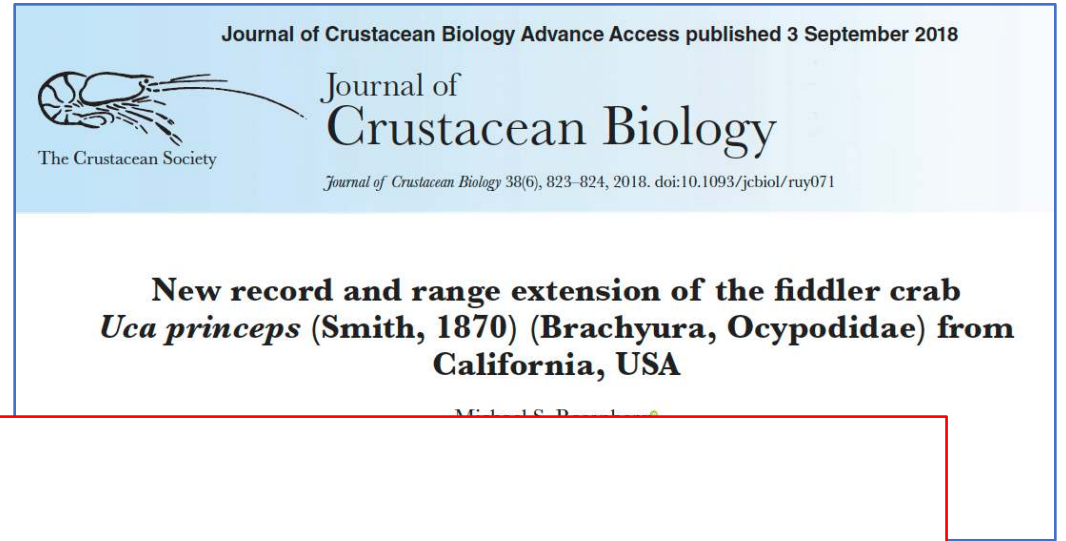


<https://www.inaturalist.org/observations/34451549>





# Are the data useful?



**Michael S. Rosenberg:**

*“I suspect that most scientists currently under-appreciate how much data these endeavors are creating and how useful they might be. ....the data might just be waiting there to answer the right questions if we just think to pose them.”*

# Are the data useful?

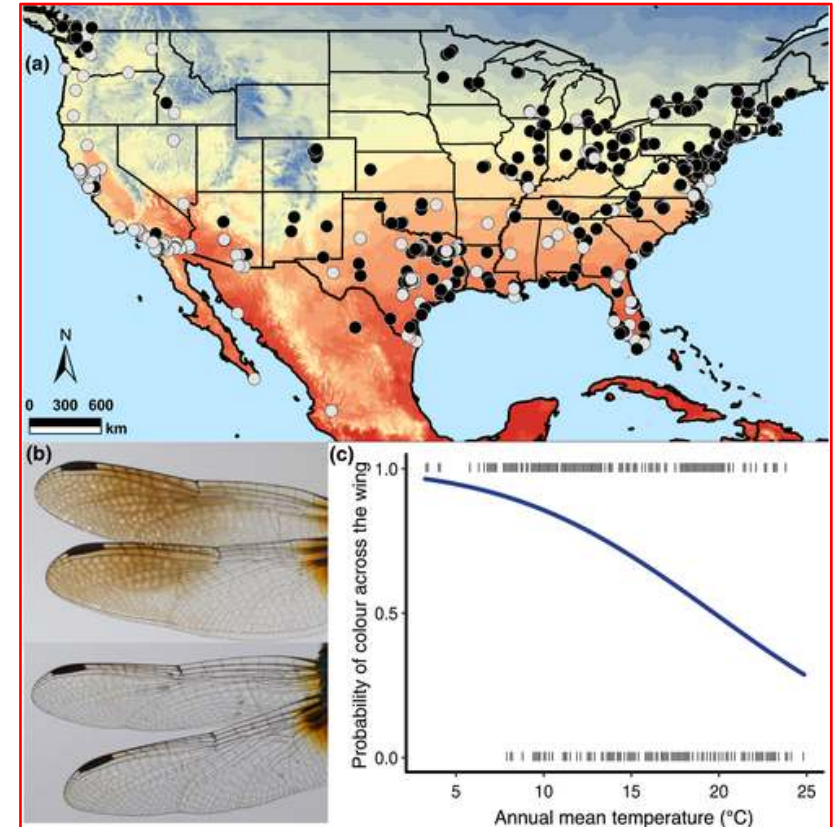
Wing coloration in Blue Dashers

Photos provide for more research opportunities than simple occurrence records



**ECOLOGY LETTERS**  
*Ecology Letters*, (2019) 22: 437–446 doi: 10.1111/ele.13200

**LETTER** Temperature shapes the costs, benefits and geographic diversification of sexual coloration in a dragonfly



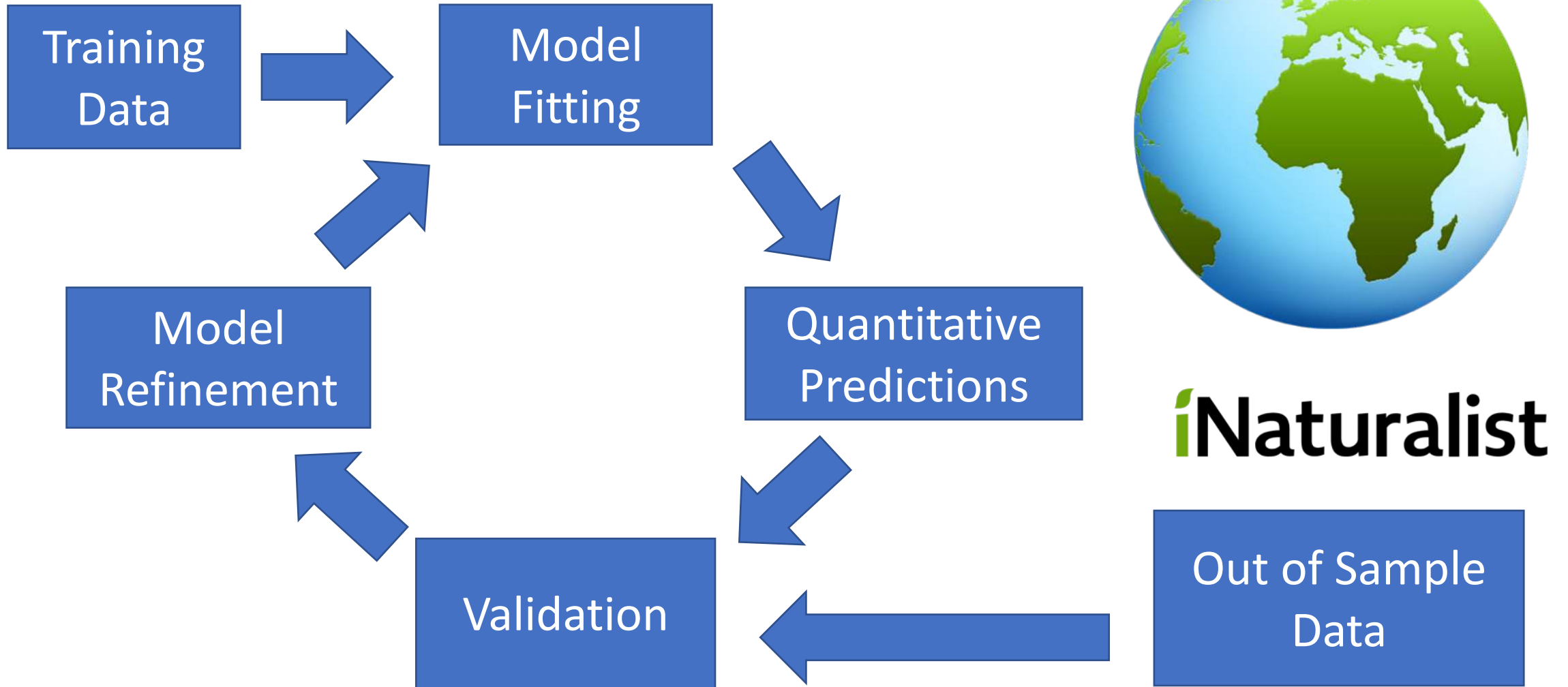
# A new way of doing ecology?

## Global Ecological Surveillance System

- Range shifts
- Phenology
- Population trends



# A new way of doing ecology?



# A global network of naturalists

- International
- Interdisciplinary (all the “-ologies”)
- Professional and amateur
- Non-hierarchical
- Low barrier to entry



<https://www.inaturalist.org/observations/13824586>

# iNaturalist IS... *small*?

- Started by four students at UC Berkeley in 2008
- Staff of seven



CALIFORNIA  
ACADEMY OF  
SCIENCES

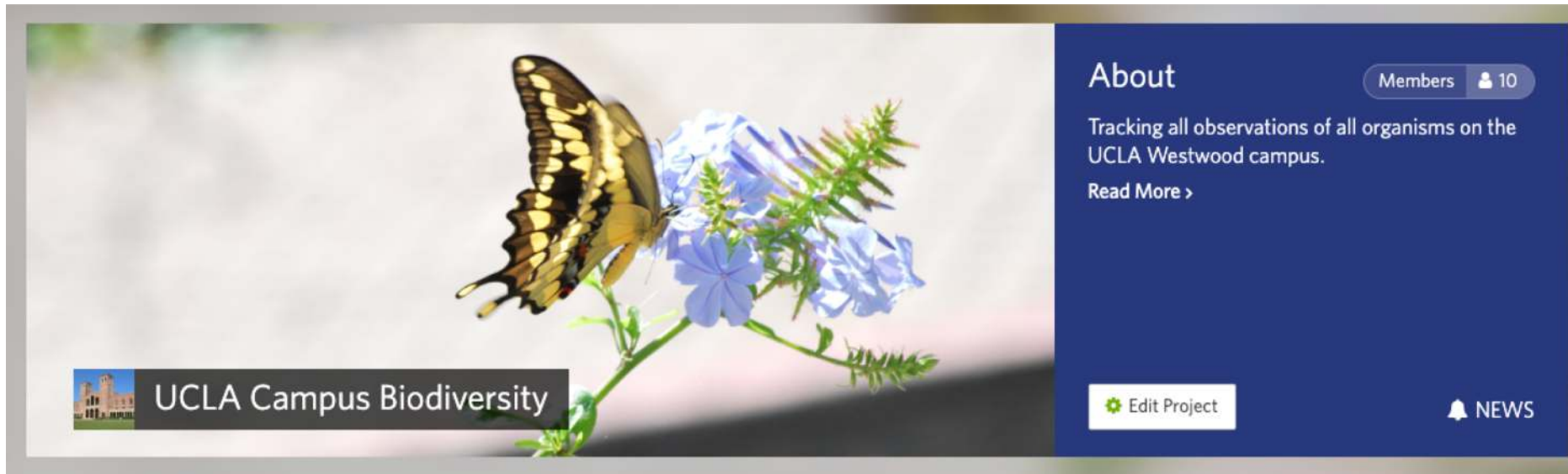


NATIONAL  
GEOGRAPHIC

# A microcosm of the scientific process

- Observations are reviewed by many people
- Data are provisional *until validated*
  - *“Research grade” requires +2 identifiers to agree*
  - *Location and date data are scrutinized*
  - *Sunlight is the best disinfectant*
- Volunteer curators deal with taxonomic changes
- Active online forum for discussion of issues
  - <https://forum.inaturalist.org/>

# iNaturalist @ Ucla



The screenshot shows the iNaturalist project page for 'UCLA Campus Biodiversity'. The main image is a close-up of a yellow and black butterfly feeding on a cluster of light blue flowers. In the bottom left corner of the image, there is a small icon of a building and the text 'UCLA Campus Biodiversity'. To the right of the image, on a dark blue background, is the 'About' section. It includes a 'Members' button with a person icon and the number '10'. Below this is the text 'Tracking all observations of all organisms on the UCLA Westwood campus.' followed by a 'Read More >' link. At the bottom of the blue section, there is an 'Edit Project' button with a gear icon and a 'NEWS' button with a bell icon.

UCLA Campus Biodiversity

About Members 10

Tracking all observations of all organisms on the UCLA Westwood campus.

[Read More >](#)

[Edit Project](#) [NEWS](#)

<https://www.inaturalist.org/projects/ucla-campus-biodiversity>