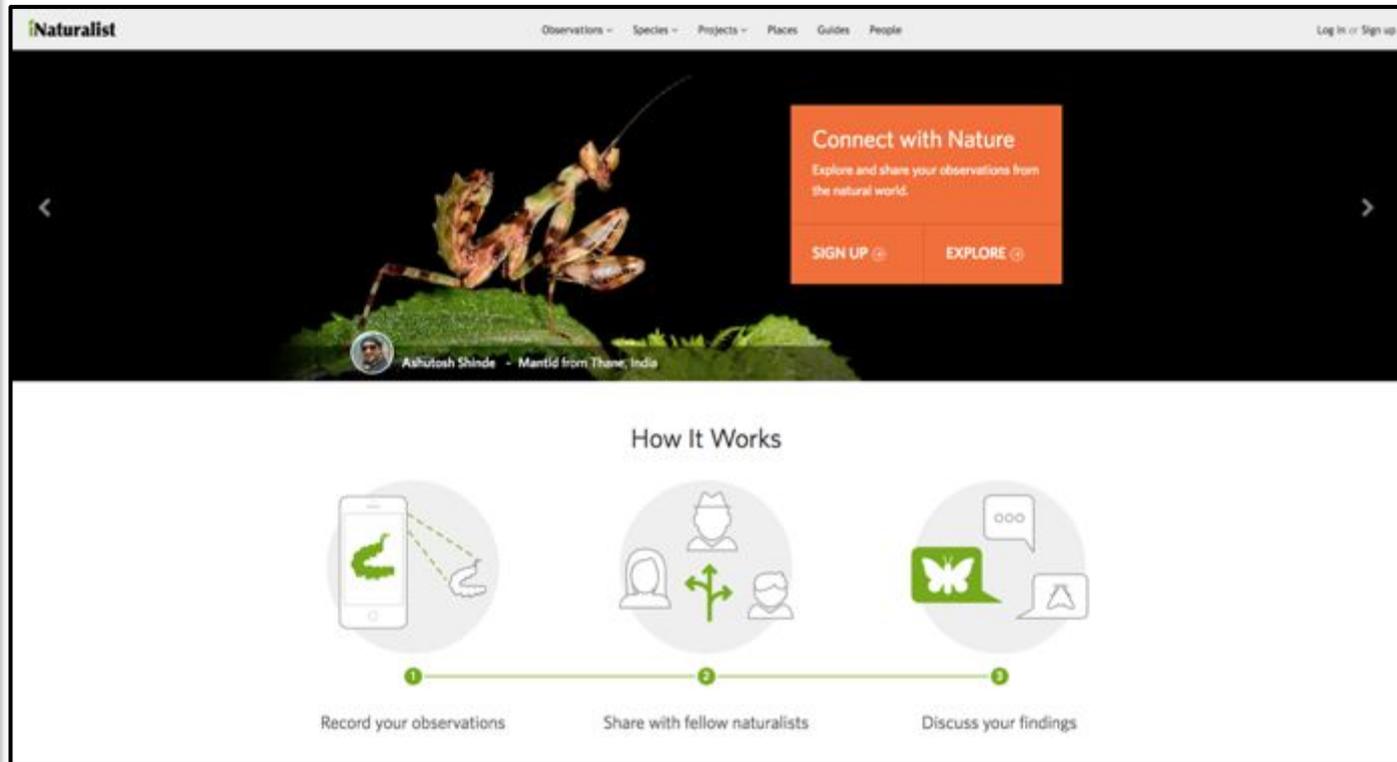
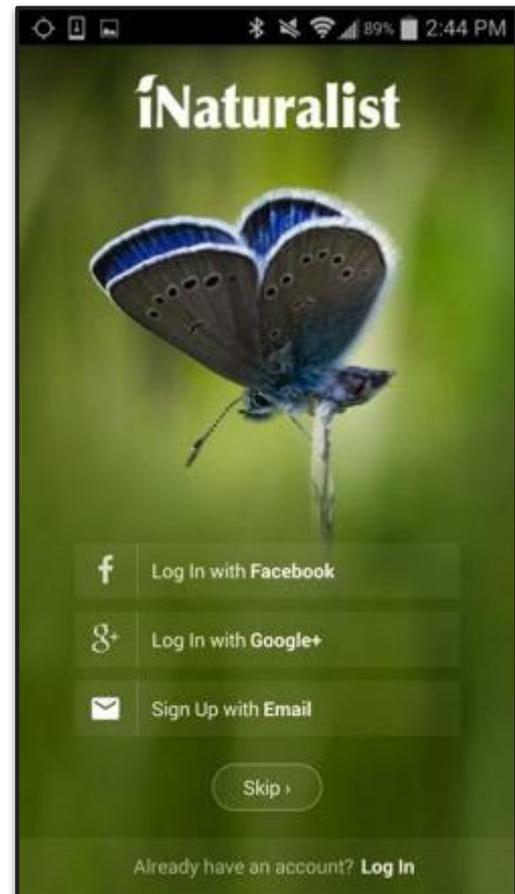


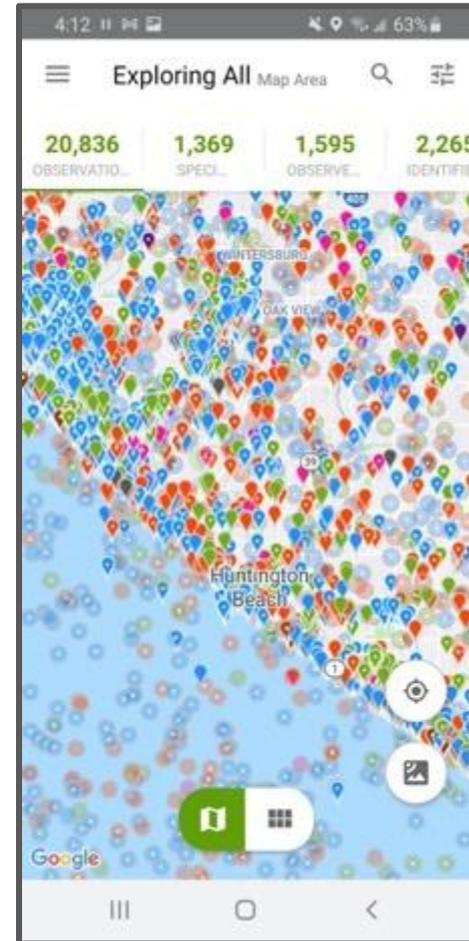
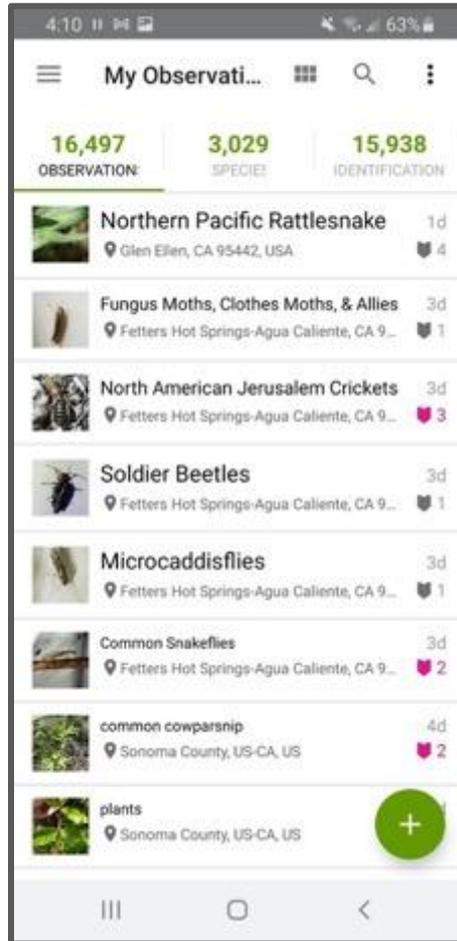
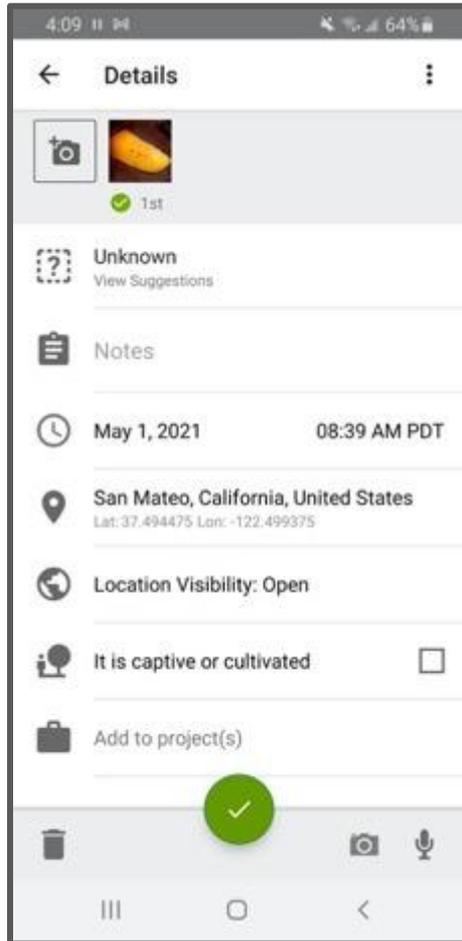
Using iNaturalist for Management, Conservation, Education, & Community Engagement

Dr. Rebecca Johnson & Alison Young
Co-Directors, Center for Biodiversity & Community Science
California Academy of Sciences
@rebafay
@alisonkestrel

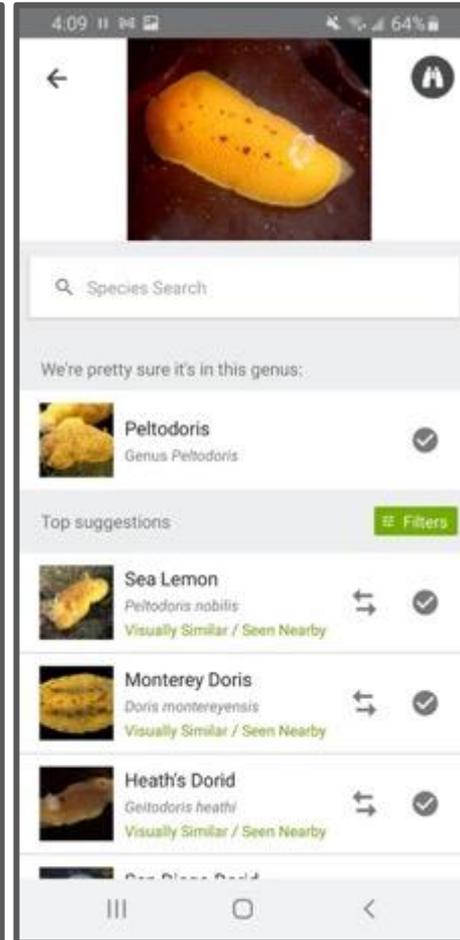
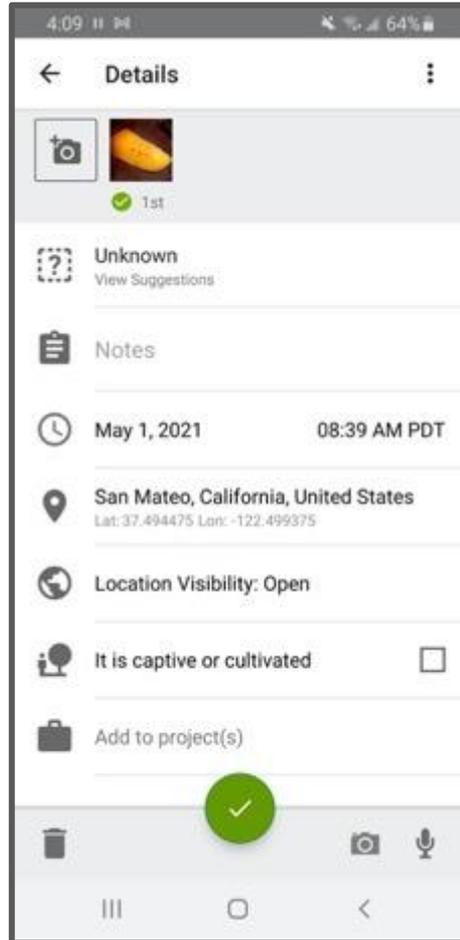




What is iNaturalist?



How does iNaturalist work?



1. Take a clear photo to make an observation
2. iNaturalist will give you a suggestion for ID
3. Pick from the list or type in your own ID
4. Hit "share" or ✓ to upload to iNaturalist

DEMONSTRATION: making an observation using the iNaturalist app

1. Take a clear photo to make an observation
2. iNaturalist will give you a suggestion for ID
3. Pick from the list or type in your own ID
4. Hit “share” or ✓ to upload to iNaturalist

iNaturalist: turning photos into data



Sea Lemon (*Peltodoris nobilis*) Research Grade



kestrel
16,497 observations

Observed:
May 1, 2021 - 9:39 AM PDT

Submitted:
May 1, 2021 - 7:42 PM PDT



Activity

- kestrel suggested an ID
 **Sea Lemon**
Peltodoris nobilis Compare
- maureenbug suggested an ID
 **Sea Lemon**
Peltodoris nobilis
- andbranchmon suggested an ID
 **Sea Lemon**
Peltodoris nobilis

Community Taxonomy

- Sea Lemon (*Peltodoris nobilis*)
Cumulative ID: 0
- Annotation
- Projects (7)
- Add to a Project
- Pillar Post Challenge

✓ Data Quality Assessment

Quality Grade: Research

The [data quality assessment](#) is an evaluation of an observation's accuracy. Research Grade observations may be used by scientists for research. Cast your vote below:

Research Grade Qualification	Yes	No
 Date specified	✓	
 Location specified	✓	
 Has photos or sounds	✓	
 Has ID supported by two or more	✓	
 Date is accurate	✓ 	
 Location is accurate	✓ 	
 Organism is wild	✓ 	
 Evidence of organism	✓ 	
 Recent evidence of an organism	✓ 	
 Community ID at species level or lower	✓	
 Based on the evidence, can the Community ID still be confirmed or improved?	<input type="checkbox"/> Yes <input type="checkbox"/> No, it's as good as it can be	



This observation is Research Grade! It can now be used for research and featured on other websites.

This observation is featured on 1 site



1127831



Plants of Mount Tamalpais
Marin County, California

Eschscholzia californica (Lam.)
Ait., *Sisymbrium*

Flora of Marin

Marin Biological Station (Marin State Park), Off Laurel Dell Rd., south of
Culham Cr. 15, just north of where Calaveras Creek crosses road.
BY 82220 N, -122.62700 W

Observed habitat:
8 in. tall, base flowers, one fully open, other partially visible,
orange in center, fading to yellow at tips. No stem.
Some leafy stem in nearby area.

A. Williams, S. Gray, M. E. Hamrick, J. Tice
Williams 792

11/2011

California Poppy (*Eschscholzia californica*)

Research Grade

Edit



kestrel

15,011 observations

Observed:
Mar 29, 2019 - 1:55 PM PDT

Submitted:
Mar 29, 2019 - 5:36 PM PDT



Fern Lake Fire Rd, Glen Ellen, C. - Show

Details

Be the first to love this observation!

Data Quality Assessment

Quality Grade: Research

The Data Quality Assessment is an evaluation of an observation's accuracy. Research Grade observations may be used by scientists for research. Cast your vote below:

Research Grade Qualification	Yes	No
Date specified	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location specified	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has Photos or Sounds	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has ID supported by two or more	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Date is accurate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location is accurate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Organism is wild	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Evidence of organism	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recent evidence of an organism	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Community Taxon at species level or lower	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Based on the evidence, can the Community Taxon still be confirmed or improved?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> No, it's as good as it can be

Casual Needs ID Research Grade

This observation is Research Grade! It can now be used for research and featured on other websites.

This observation is featured on 1 site



The World

78,633,584
OBSERVATIONS

346,398
SPECIES

213,720
IDENTIFIERS

1,844,990
OBSERVERS



Your observations are contributing to a global database of when and where species are found!

iNaturalist data usage: big data



iNaturalist data usage: big data

Studies That Used iNaturalist Data in 2020

Click the flower charts for more information about what the numbers and colors mean. Impact data and charts courtesy of [Altmetric](#). Information about data usage courtesy of our friends at the [Global Biodiversity Information Facility](#).



Cooper, J., Pimiento, C., Ferrón, H., and Benton, M.
Body dimensions of the extinct giant shark *Otodus megalodon*: a 2D reconstruction

Scientific Reports

Data used: [doi:10.15468/dl.34gv5k](https://doi.org/10.15468/dl.34gv5k)



Dorey, J., Fagan-Jeffries, E., Stevens, M., and Schwarz, M.
Morphometric comparisons and novel observations of diurnal and low-light-foraging bees

Journal of Hymenoptera Research

Data used: [doi:10.15468/dl.92zbgq](https://doi.org/10.15468/dl.92zbgq) [doi:10.15468/dl.c5ugss](https://doi.org/10.15468/dl.c5ugss)

[doi:10.15468/dl.f55tu7](https://doi.org/10.15468/dl.f55tu7) [doi:10.15468/dl.kg7tch](https://doi.org/10.15468/dl.kg7tch) [doi:10.15468/dl.m8hpxs](https://doi.org/10.15468/dl.m8hpxs)

[doi:10.15468/dl.m8ud4s](https://doi.org/10.15468/dl.m8ud4s) [doi:10.15468/dl.narxm7](https://doi.org/10.15468/dl.narxm7) [doi:10.15468/dl.nk7d69](https://doi.org/10.15468/dl.nk7d69)

[doi:10.15468/dl.skwz9j](https://doi.org/10.15468/dl.skwz9j) [doi:10.15468/dl.w8gw8y](https://doi.org/10.15468/dl.w8gw8y)



Siqueira, A., Morais, R., Bellwood, D., and Cowman, P.
Trophic innovations fuel reef fish diversification

Nature Communications

Data used: [doi:10.15468/dl.9vzatq](https://doi.org/10.15468/dl.9vzatq)



Lim, J., Svenning, J., Gödel, B., Faurby, S., and Kissling, W.
Frugivore-fruit size relationships between palms and mammals reveal past and future defaunation impacts

Nature Communications

Data used: [doi:10.15468/dl.8ojwyx](https://doi.org/10.15468/dl.8ojwyx)



Craven, D., Sande, M., Meyer, C., Gerstner, K., Bennett, J., Giling, D., Hines, J., Phillips, H., May, F., Bannar-Martin, K., Chase, J., and Keil, P.

A cross-scale assessment of productivity-diversity relationships

Global Ecology and Biogeography

Data used: [doi:10.15468/dl.mka2y5](https://doi.org/10.15468/dl.mka2y5)



Simpson, K., Jardine, E., Archibald, S., Forrester, E., Lehmann, C., Thomas, G., and Osborne, C.

Resprouting grasses are associated with less frequent fire than seeders

New Phytologist

Data used: [doi:10.15468/dl.rckugp](https://doi.org/10.15468/dl.rckugp)

375+ papers published using iNaturalist data in 2020

iNaturalist data usage: management & more

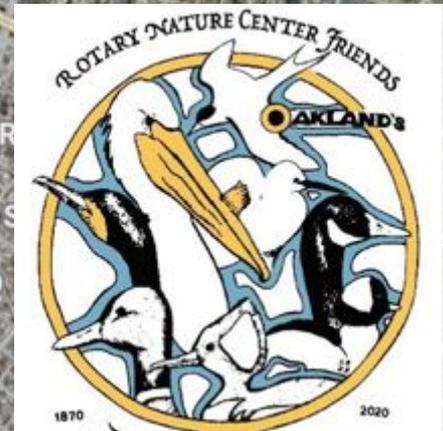
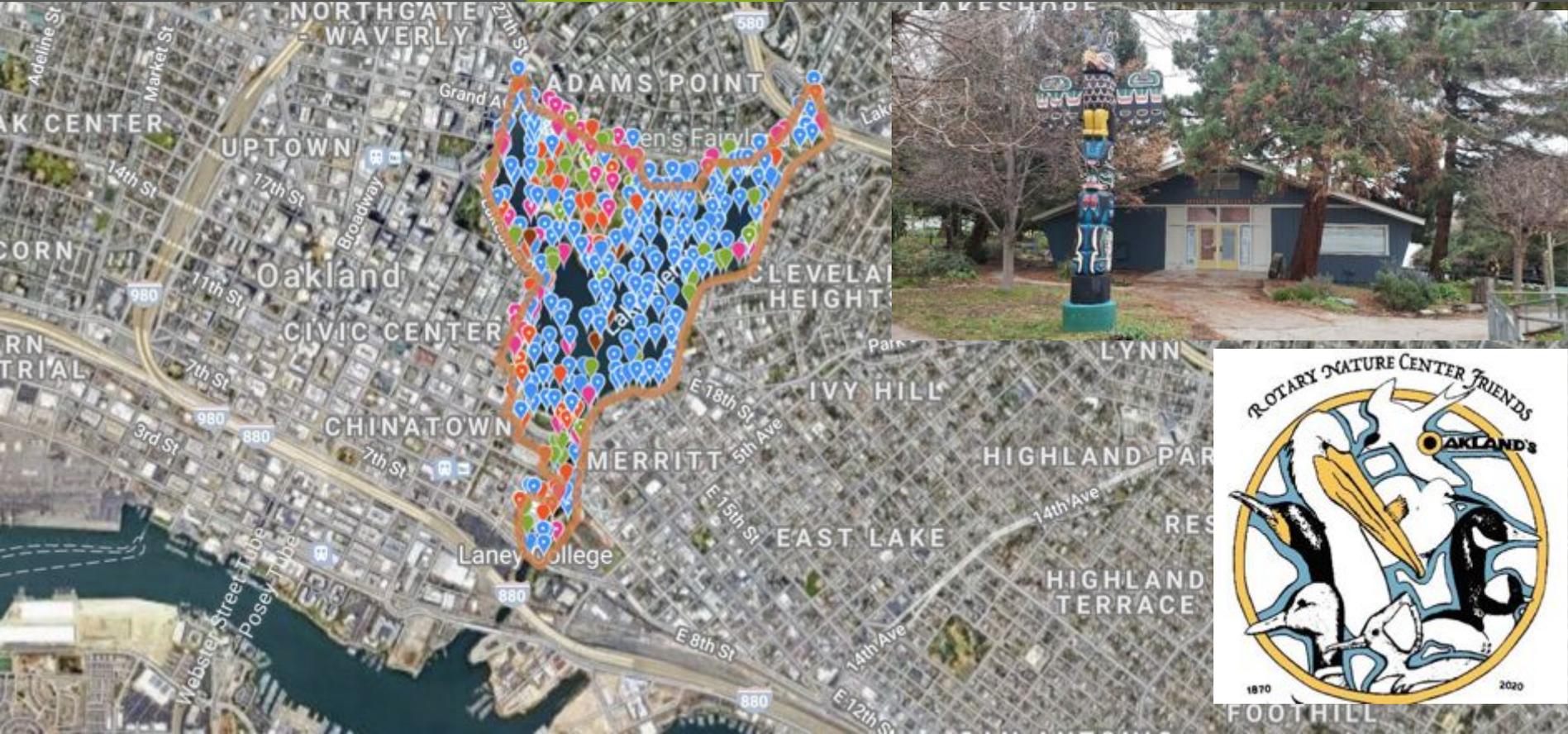
Lake Merritt

14,493
OBSERVATIONS

1,194
SPECIES

2,005
IDENTIFIERS

972
OBSERVERS





545 observations

CC0

Black-crowned Night-...*(Nycticorax nycticorax)*

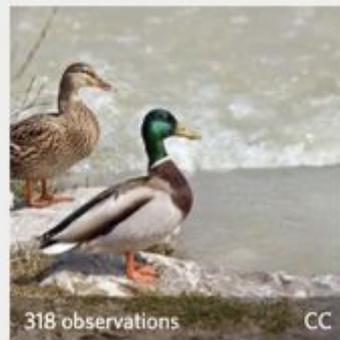
484 observations

CC

American White Pelican*(Pelecanus erythrorhynchos)*

419 observations

CC

Snowy Egret*(Egretta thula)*

318 observations

CC

Mallard*(Anas platyrhynchos)*

260 observations

CC

American Coot*(Fulica americana)*

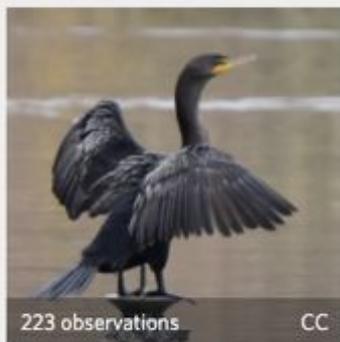
255 observations

CC

Common Raccoon*(Procyon lotor)*

244 observations

CC

Canada Goose*(Branta canadensis)*

223 observations

CC

Double-crested Cormo...*(Phalacrocorax auritus)*

188 observations

CC

Great Egret*(Ardea alba)*

187 observations

CC

Fox Squirrel*(Sciurus niger)*

iNaturalist data usage: unexpected finds



yetinaturalist

489 observations



Observed:

Apr 28, 2018 · 1:00 PM PDT

Submitted:

Apr 28, 2018 · 2:46 PM PDT



📍 Unnamed Road, Oakland, CA 94610, ... [Show](#)

[Details](#)

⭐ edpl faved this observation

Activity



yetinaturalist suggested an ID

⚡ Maverick 3y ▾



Broadhead Planarians

Genus *Bipalium*

⚖ Compare

✓ Agree



edpl suggested an ID*

🌱 Improving 3y ▾



Diversibipalium multilineatum

a member of Hammerhead Worms
(Subfamily Bipaliinae)

⚖ Compare

✓ Agree

* edpl disagrees this is **Broadhead Planarians (Genus *Bipalium*)**



edpl commented

3y ▾

The exact same comment I just wrote to @carly100 :

I am almost 100% sure *D. multilineatum* has never been reported before in the US. Up to the date only *B. kewense*, *B. adventitium*, *B. vagum* and *B. pennsylvanicum* were known in America (all of them introduced from Asia). First time I see that...It would be very interesting to report this finding in a scientific publication.



edpl commented

3y ▾

Let me add that I just saw in the location map that they were found close to a "Japanese garden", which is rather interesting taking into account that the species is supposed to be native to Japan. It might be that the specimens you took photos of were introduced by accident along with plants from Japan (I am assuming there are plants from Japan there).



jaimem100 suggested an ID

3y ▾



Diversibipalium multilineatum

a member of Hammerhead Worms (Subfamily Bipaliinae)



piterkeo suggested an ID

3y ▾



Diversibipalium multilineatum

a member of Hammerhead Worms (Subfamily Bipaliinae)



bekahwal suggested an ID

2mo ▾



Diversibipalium multilineatum

a member of Hammerhead Worms (Subfamily Bipaliinae)

Diversibipalium multilineatum Research Grade



yetinaturalist

489 observations



Observed:

Apr 28, 2018 · 1:00 PM PDT

Submitted:

Apr 28, 2018 · 2:46 PM PDT



📍 Unnamed Road, Oakland, CA 94610, ... [Show](#)

[Details](#)

☆ edpl faved this observation



900 observations CC0

Black-crowned Night-...
(*Nycticorax nycticorax*)



682 observations CC

Snowy Egret
(*Egretta thula*)



558 observations CC

American White Pelican
(*Pelecanus erythrorhynchos*)



526 observations CC

Mallard
(*Anas platyrhynchos*)



466 observations CC

Monarch
(*Danaus plexippus*)



443 observations CC

Double-crested Cormo...
(*Phalacrocorax auritus*)



440 observations CC

American Coot
(*Fulica americana*)



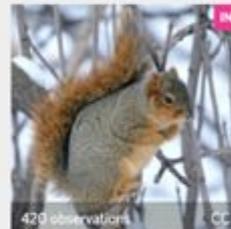
428 observations CC

Canada Goose
(*Branta canadensis*)



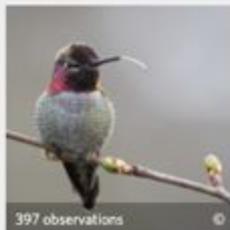
425 observations CC

Western Honey Bee
(*Apis mellifera*)



420 observations CC

Fox Squirrel
(*Sciurus niger*)



397 observations CC

Anna's Hummingbird
(*Calypte anna*)



392 observations CC

Western Fence Lizard
(*Sceloporus occidentalis*)



380 observations CC

Coast Live Oak
(*Quercus agrifolia*)



373 observations CC

California Slender Sala...
(*Batrachoseps attenuatus*)



352 observations CC

Common Goldeneye
(*Bucephala clangula*)

Bioblitzes







Candlestick State Park Bioblitz 2019

OCT 19, 2019

About

Leave  6

Join Literacy for Environmental Justice, California State Parks, the San Francisco Public Library, and the California Academy of Sciences as we explore our City's State Park. We'll work together to document as many plants and animals as we can!

[Read More >](#)

 [Your Membership](#)

 [Edit Project](#)

 [Project Journal](#)

Overview

1,300
OBSERVATIONS

252
SPECIES

195
IDENTIFIERS

62
OBSERVERS

 Stats



Most Observations

catchang

115



mallorina

69



zoemonosson

50



metsa

47



rachmono

46



robberfly

46

[View All](#)

[View Yours](#)



Most Species

catchang

101



robberfly

42



mallorina

35



laurahersz

25



rrgb

23



rachmono

22

[View All](#)

[View Yours](#)



Most Observed Species

Coyote Brush

63



Fennel

34



Fleshy Russian Thistle

32



Yellow Shore Crab

21



Toyon

20



Bristly Oxtongue

20

[View All](#)

[View Yours](#)

iNaturalist & OSLA: bioblitzes



Overview

602
OBSERVATIONS

137
SPECIES

58
IDENTIFIERS

28
OBSERVERS

Stats



Most Observations

1st dpom 62

- maureenbug 57
- greasewood 38
- chilipossum 38
- kentstrother 36
- rebeccafay 36

[View All](#)

[View Yours](#)



Most Species

1st dpom 52

- chilipossum 35
- greasewood 19
- marinmaverick 19
- ktnoon 16
- rebeccafay 16

[View All](#)

[View Yours](#)



Most Observed Species

Hedgpeth's Sapsucker 52

- Yellow Shore Crab 28
- Japanese Littleneck 24
- Rockweed 14
- Genus *Polysiphonia* 9
- Sea Spaghettis 9

[View All](#)

[View Yours](#)

DEMONSTRATION: making a
bioblitz project in iNaturalist

iNaturalist & OSLA: looking at existing data

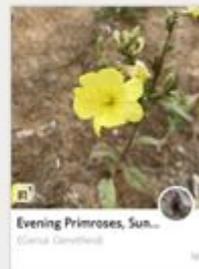
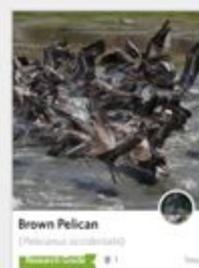
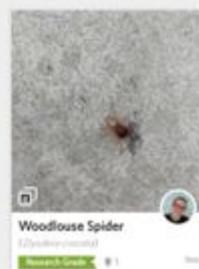
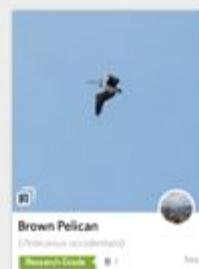
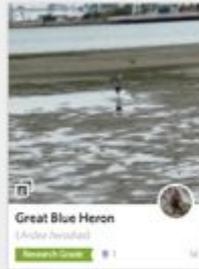
Middle Harbor Shoreline Park

1,830
OBSERVATIONS

309
SPECIES

571
IDENTIFIERS

112
OBSERVERS



iNaturalist & OSLA: looking at existing data

Martin Luther King Jr. Regional... 

4,877
OBSERVATIONS

456
SPECIES 

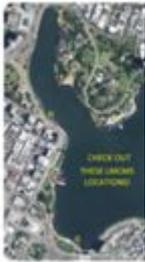
960
IDENTIFIERS 

292
OBSERVERS 



DEMONSTRATION: how to find data
from a particular place in iNaturalist

lake merritt



Common Birds (

Print



A few of the more common birds you're likely to s

All 28

TAXONOMY

- Waterfowl 8
Order Anseriformes
- Nightjars, Swifts,
Hummingbirds, and Allies 1
Order Caprimulgiformes
- Shorebirds and Allies 4
Order Charadriiformes
- Pigeons and Doves 1
Order Columbiformes
- Cranes, Rails, and Allies 1
Order Gruiformes
- Perching Birds 3
Order Passeriformes
- Pelicans, Herons, Ibises, and
Allies 6
Order Pelecaniformes
- Grebes 3
Order Podicipediformes
- Gannets, Cormorants, and
Allies 1
Order Suliformes

Layout



grid
Grid of single images, no descriptions



book
Complete guide including all photos and descriptions, spanning multiple pages.



journal
Split page, species info on the left, room for notes on the right. Species info will be truncated to fit on the page.

Taxa to include

All taxa in this guide

28 taxa matching current filters

Note: most browsers have an option to print to PDF

Print

Cal Academy & OSLA: communications

YouTube

Search



Jasmin Graham (she/her)

▶ ⏪ 🔊 14:00 / 1:12:00

⏮ CC ⚙️ 📺 📱 🔍



Top chat replay ▾

- M** Meena Dhande hi
- O** Olivia What tools study sharks and how do they work? How were they invented?
- O** Olivia How can we figure out things like shark intelligence? For example, how do we tell which part of their brain (or any animal's brain) does what?
- T** The Science Research Center hi 😊
- M** Meena Dhande 😊
- California Academy of Sciences** Hi all, thanks for being here! Feel free to ask questions at any time, we'll ask them at the end!
- M** Meena Dhande do marine biology is fun? 😊 because I really wanted to become marine biologist
- California Academy of Sciences** We'll ask, Meenal
- M** Meena Dhande ok thank you
- O** Olivia Your work is excellent!!! ❤️ 🙌
- O** Olivia How do CT scans work? How were there invented?
- Jeff N Garden** Young lady! Great Job!

HIDE CHAT REPLAY

Shark Science: The Panel!

428 views • Streamed live on Jul 19, 2021

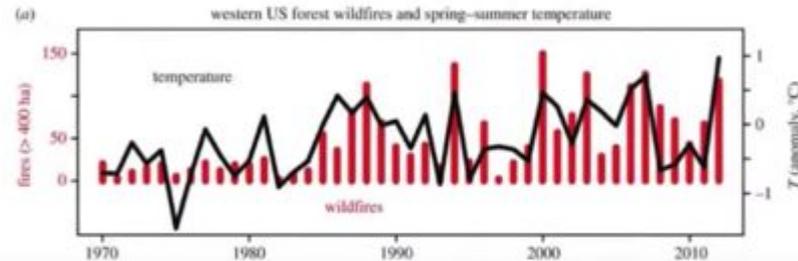
👍 22 🗨️ 1 ➦ SHARE ➦ SAVE ...

All Science Listenable Related Filter

Cal Academy & OSLA: communications

night school

Large Wildfires are increasing in frequency in the Western United States



Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring

Anthony LeRoy Westerling
Published 05 June 2016 <https://doi.org/10.1098/rstb.2015.0178>

NCAR UCAR | Airborne Observations of Wildfire Smoke



Rebecca Hornbrook

Top chat replay

- Melinda Poullion hey glad to be here
- Elizabeth Stevens Hi from NCI
- J. VonKlopp Hello from Dublin!
- Melinda Poullion im in michigan
- AJ Ylizarum Hola from NOLA!
- Kara Abare hello from Phoenix!
- Will Bumps hello!
- Waterloo Gardeners Hello!
- Robin Farley Hello from Arlington, VA
- Steven Schrier Hi from Kalamazoo (Michigan) direct to you!
- Rochelle Richardson ❤️❤️❤️❤️❤️
- Maryam هيا هيا! Hi!
- Jennifer Karaya Hello from Anaheim
- Carl M. Pileri Hi from San Mateo
- Michael Lynch Hello from SF
- Quinn Martinson Regular from Alameda, CA
- Kid Fabulous Hi from Sunnyvale
- Michael Lynch Hi
- Sharon Owe-Wing Good evening from Redwood City CA (regular attendee)

HIDE CHAT REPLAY

NightSchool Series

California Academy of Sciences - 18 / 57

NightSchool: Extreme Science

1,847 views • Streamed live on Mar 18, 2021

👍 65 🗨️ 1 ➦ SHARE ⚙️ SAVE ...

THANK YOU!



Dr. Rebecca Johnson:

✉ rjohnson@calacademy.org

🐦 [@rebeccafay](https://twitter.com/rebeccafay)

🌿 [@rebafay](https://twitter.com/rebafay)

Alison Young:

✉ ayoung@calacademy.org

🐦 [@alisonkestrel](https://twitter.com/alisonkestrel)

🌿 [@kestrel](https://twitter.com/kestrel)

calacademy.org/community-science

[iNaturalist.org](https://www.inaturalist.org)