



DigIn

Broader Impacts

**NATURAL  
HISTORY  
MUSEUM**  
LOS ANGELES COUNTY

# Topics for Discussion

- ▶ **Existing resources** that we can contribute to, tweak for DigIn, or borrow the idea
  - ▶ iDigBio and TCNs
  - ▶ Online citizen science
- ▶ **Things we can do Y1**
- ▶ **Institution-specific things**
- ▶ **General thoughts**

# Existing Resources

*idigbio.org/education*

The screenshot displays the iDigBio Search Records interface. At the top, the iDigBio logo and navigation links (About iDigBio, Research, Technical Information, Education) are visible. Below the logo is a green navigation bar with links: iDigBio Home, Portal Home, Search Records, Learning Center, Data, Research Collaboration, and Feedback. The main content area is titled "Search Records" and includes a search bar, filter options (Must have media, Must have map point), and tabs for Filters, Mapping, Sorting, and Download. The search criteria are set to "Kingdom: dwc:kingdom", "Scientific Name: dwc:scientificName", and "Date Collected" with start and end date fields. A "Record Density" legend on the right shows a color scale from 1 (light yellow) to 478,420 (dark red). The map shows high density in North America and Europe. A "Total: 115,879,282" is displayed at the bottom right. Below the map is a table header with columns: Family, Scientific Name, Date Collected, Country, Institution Code, Basis of Record, and Columns.

- ▶ Tutorials and lesson plans for accessing data on iDigBio portal
- ▶ Work that other TCNs have produced
- ▶ Likely good for longer-term Broader Impacts

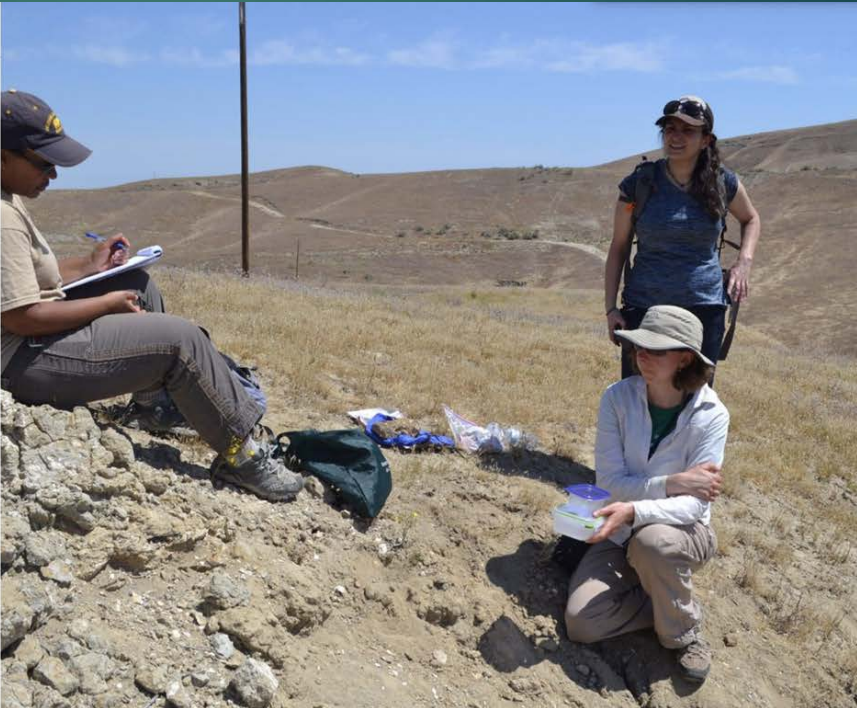
# EPICC TCN: Virtual Field Experience

A Virtual Field Experience

Field to museum

"Field to museum" is one of five modules of a Virtual Fieldwork Experience (VFE) that explores the geology and paleontology of the Kettleman Hills, which sit on the western edge of California's Central Valley. The home page of the VFE, including access to other modules, is [here](#). The VFE is the first in a series focusing on classic paleontological field sites that are part of the Eastern Pacific Invertebrate Communities of the Cenozoic (EPICC) Project, funded by the National Science Foundation.

This module explores the techniques of [paleontologists](#) and geologists, like those who reconstructed the history of the Kettleman Hills.



Plus interactive maps (via [arcgis.com](http://arcgis.com)), videos, lessons, etc.

# BLUE: Biodiversity Literacy in Undergraduate Education



# BLUE

Biodiversity Literacy in Undergraduate Education



ABOUT



INITIATIVES



MODULES



GET INVOLVED



# Online Citizen Science

- ▶ Transcription and/or annotation of field/cruise notes, labels, ledgers
- ▶ Collaborative/social online work via WeDigBio or other organized event
- ▶ Atlantic vs. Pacific challenge?

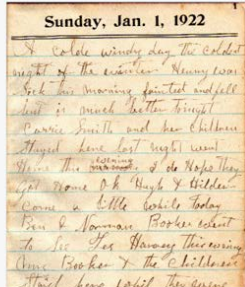
Julia Brumfield Diaries -- 1922

## Sunday, January 1, 1922

Page 3 of 269

Overview Transcribe Versions Settings

### Facsimile



Sunday, Jan. 1, 1922

A colde windy day, the coldest night of the winter. Henry was sick this morning fainted and fell but is much better tonight. Carrie Smith and her children stayed here last night. Went home this evening. I do hope they got home ok. Hugh & Hildes (?) come a little while today. Ben & Norman Booker went to see Les Harvey (?) this evening. Mr. Booker & the children staid here whil they were gone. Jim has not come back yet. I wish I could see all the children. Henry is sleeping down

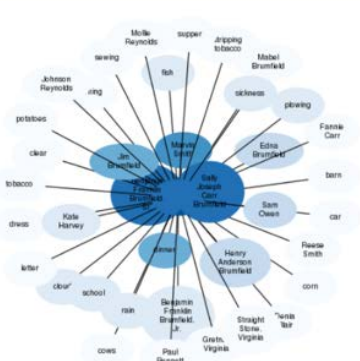
### Transcription

### Description

Carrie Ellen Brumfield (b 1884) was the thirteenth child of Julia and Henry Brumfield. She married [Marvin Smith](#) in 1906.

Her house was located closest to Julia's, less than a mile west of Julia's home.

### Related Subjects



Subjects Mentioned Frequently With Carrie Smith

### 20 Possible Duplicates

### Categories

- People -- [Julia's Children](#)
- People -- [Carrie Brumfield Smith Family](#)

### References

All references to [Carrie Smith](#)

All references to [Carrie Smith](#) in pages that do not link to this subject

349 pages refer to [Carrie Smith](#)

Show pages that mention [Carrie Smith](#) in all works

- Friday, April 5, 1918 -- Carrie
- Friday, August 9, 1918 -- Carries
- Friday, December 6, 1918 -- Carries
- Friday, December 20, 1918 -- Carrie
- Friday, January 25, 1918 -- Carries
- Friday, July 5, 1918 -- Carries
- Friday, July 19, 1918 -- Carries
- Friday, July 26, 1918 -- Carrie
- Friday, June 28, 1918 -- Carries
- Friday, March 1, 1918 -- Carrie
- Friday, March 8, 1918 -- Carrie
- Friday, March 15, 1918 -- Carries
- Friday, March 20, 1918 -- Carries

Cancer productus  
(Randall)  
38, 17

Canceridae

Canceridae

1492 42

Cancer productus  
(Randall)  
18, 17

ALLAN HANCOCK FOUNDATION

ACC. NO. \_\_\_\_\_ CAT. NO. \_\_\_\_\_  
Cancer productus Randall  
South Bay, Cape Arago State Park,  
Coos Co., Oregon  
July 30, 1942 shore  
ID. BY J. H. \_\_\_\_\_ STA. NO. 1492-42

THE UNIVERSITY OF SOUTHERN CALIFORNIA

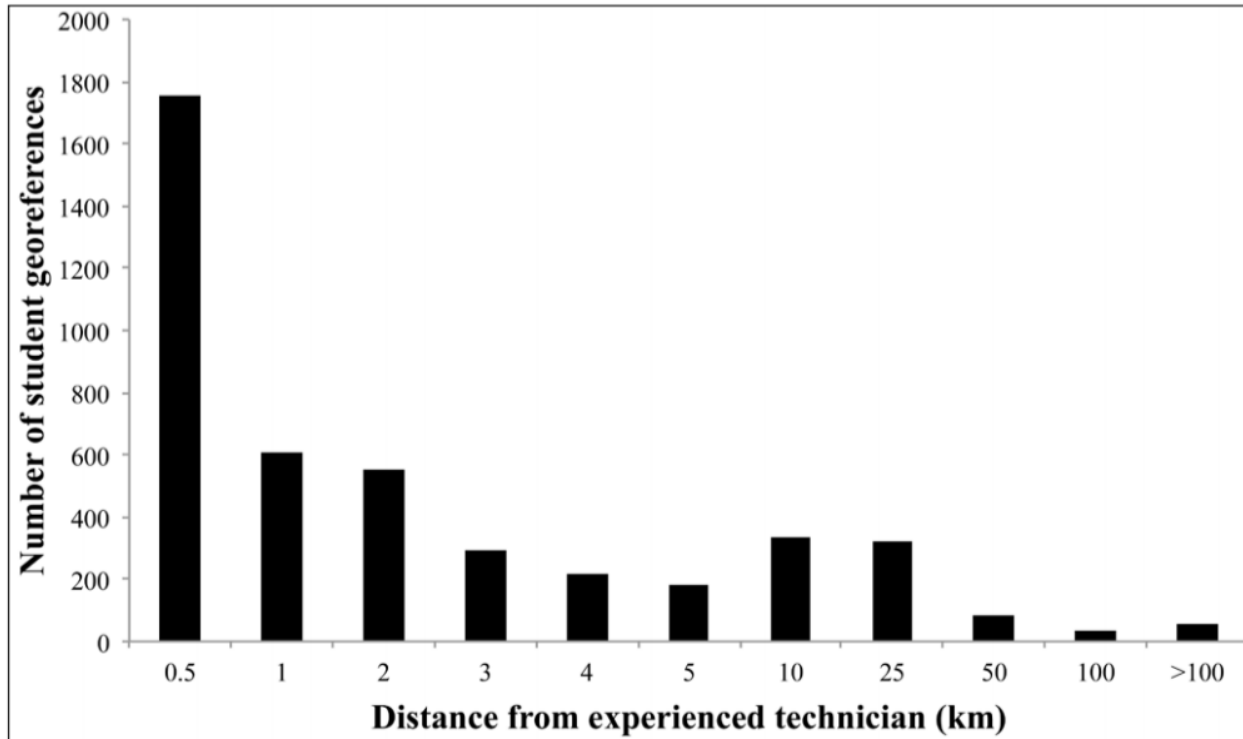
1000551 LACM MBC



NATURAL  
HISTORY  
MUSEUM

LOS ANGELES COUNTY

MARINE  
BIODIVERSITY  
CENTER



**Figure 2:** Distribution of the distance of student georeferences from expert points in the fish experiment at Tulane University with outliers removed.



# Things we can do Year 1,

i.e., things that don't require a lot of data

- ▶ Libraries of Life
- ▶ iNat project focused on spp we're digitizing
- ▶ What are you already doing with marine inverts?
  - ▶ DISCO (Diversity Initiative for the Southern Calif. Ocean)



**Libraries of Life**  
More to specimens than meets the eye...

### THE CHANNEL CATFISH: DID YOU KNOW?

**Channel Catfish**  
*Ictalurus punctatus*

Click to download card  
*Ictalurus punctatus*

Originally residents of the southern United States, channel catfish have become abundant and widespread throughout North American waters. Channel catfish show high tolerance for a wide variety of habitats and can survive in streams, lakes, reservoirs, and even **brackish** water near the Gulf Coast. These fish are easily recognized by their long, whisker-like **barbels** for which the species gets its name. Because visibility is low in deep and **turbid** waters, catfish often use taste buds located on their barbels and other body surfaces to locate food.

Channel catfish prefer to be in dark, secluded spaces when they spawn, which occurs only once per year for female fish. In this process, the female will deposit thousands of eggs onto a patch that a male has cleared. The male will then fertilize these eggs and guard them until they hatch. Thus, channel catfish are a species in which males provide the majority of **parental care**.

Determining how once-localized species like channel catfish have become so common is enabled by the availability of biodiversity research specimens. A purpose of the National Science Foundation's Advancing Digitization of Biodiversity Collections program (ADBC) is to digitize specimen data and make it globally available online. iDigBio is the National Resource for ADBC—it facilitates digitization of the nation's one billion biodiversity research specimens, serves the digital data at the iDigBio portal, and facilitates research,

# Field Kits

distributed at libraries



Community Science at NHMLA

# Institution-specific

- ▶ Exhibitions
  - ▶ Can be as 'simple' as a poster, single case, or cart
- ▶ Special events with speakers, tabling at events
- ▶ 'Dog and pony show' of cool things we're digitizing, interesting stories that have come to light, highlighting local contributors
  - ▶ Traveling trunk

# General thoughts

- ▶ Language and resources (figurative and literal) that are inclusive of underrepresented groups, that make use of local knowledge, and tap into existing educational structures
- ▶ Develop citizen science tie-ins to DigIn research (iNat, for example)
  - ▶ E.g., revisiting coastal sites for then and now bioblitzes
- ▶ Social Media!
  - ▶ DigIn handle or at least an agreed-upon hashtag