

Collaborating with Federal Partners: A New Online National Park Service Locality Database Through the University of California Museum of Paleontology



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Collection

UCMP

Digitization



UCMP has multiple on-going digitization projects.

Data Use



Portal is designed for NPS personnel

Collaboration

Erica Clites



Charles Marshall,
UCMP Director



Mark Goodwin,
UCMP Assistant
Director for
Research and
Collections



Ginger Ogle, project programmer



Angela Evenden

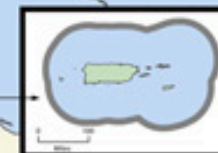


Vincent Santucci



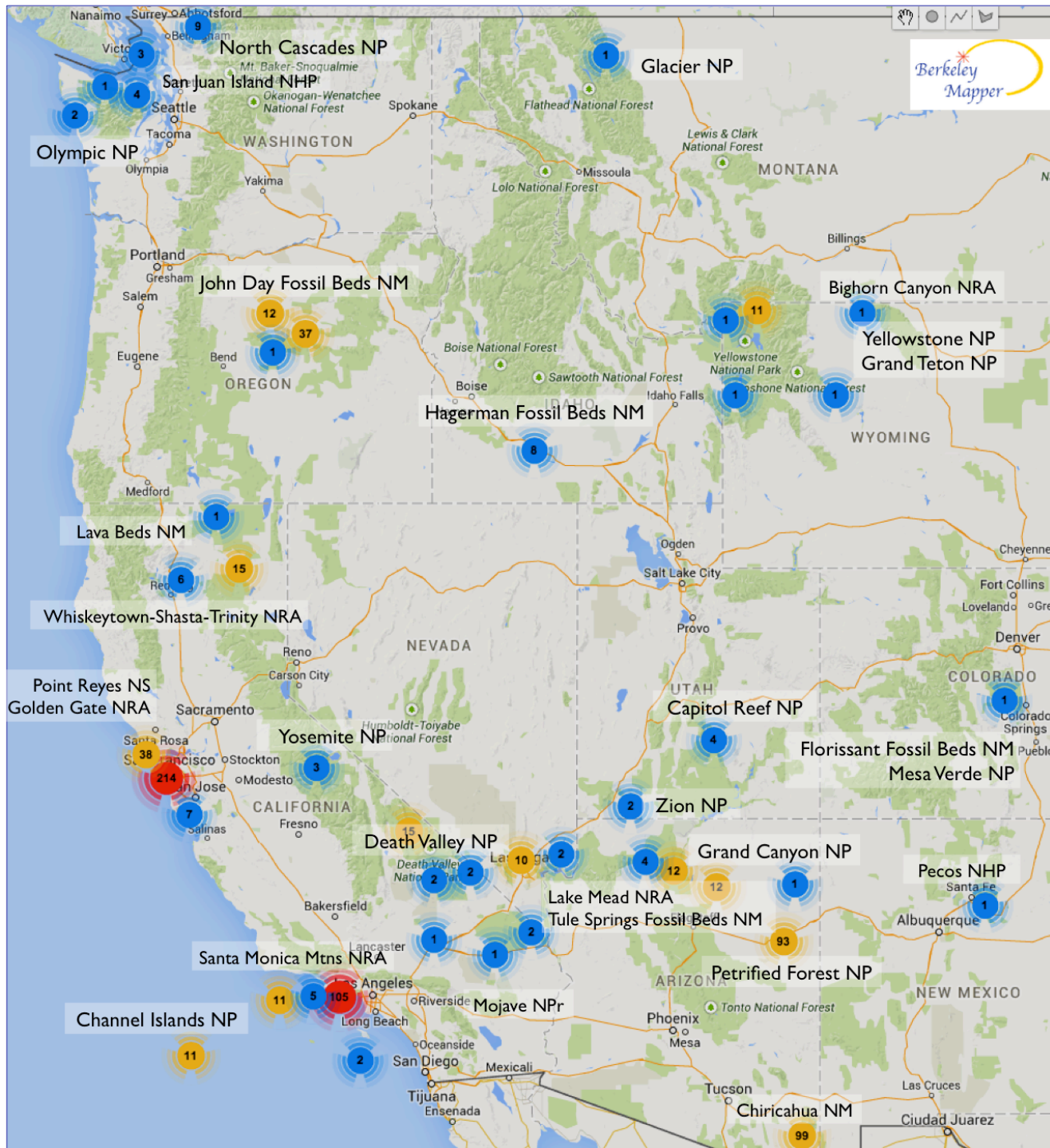
Cooperative Ecosystem Studies Units

CESU is the bridge that makes all of this possible! Check out an office near you to find out about funding opportunities, permitting, etc.



Results of
the portal
project:

I populated
the NPS
portal into
the UCMP
database
with
information
on fossils in
47 NPS areas
in <40 work
hours



Common ground

Focus on the fossils—their care,
curation and preservation for
the future.



Challenges

Important to undertake this project at the appropriate levels—with buy-in of high level staff at both NPS and UCMP.



UCMP Query UCMP Localities

[Back to: UCMP Administ](#)

Use this form to query **110,069** UCMP localities. Questions? See [Help with Queries](#)

Search	Reset	<input type="checkbox"/> Download full locality records
Collection	contains	<input type="text"/>
Loc ID Num	equals	<input type="text"/> PA666
Loc Num	equals	<input type="text"/> 666
Loc Prefix	equals	<input type="text"/> IP
Loc Suffix	equals	<input type="text"/> x
Other Loc Num	contains	<input type="text"/>
Project	contains	<input type="text"/>
Loc Name	contains	<input type="text"/>
Loc Description	<input type="text"/> +Erwin +"Truckee River" help	
Continent	equals	<input type="text"/>
Country	equals	<input type="text"/>
State/Prov	contains	<input type="text"/>
Island Group	contains	<input type="text"/>
Island	contains	<input type="text"/>
County	contains	<input type="text"/>

UCMP's custom, web-based database is in MySQL with Perl scripts

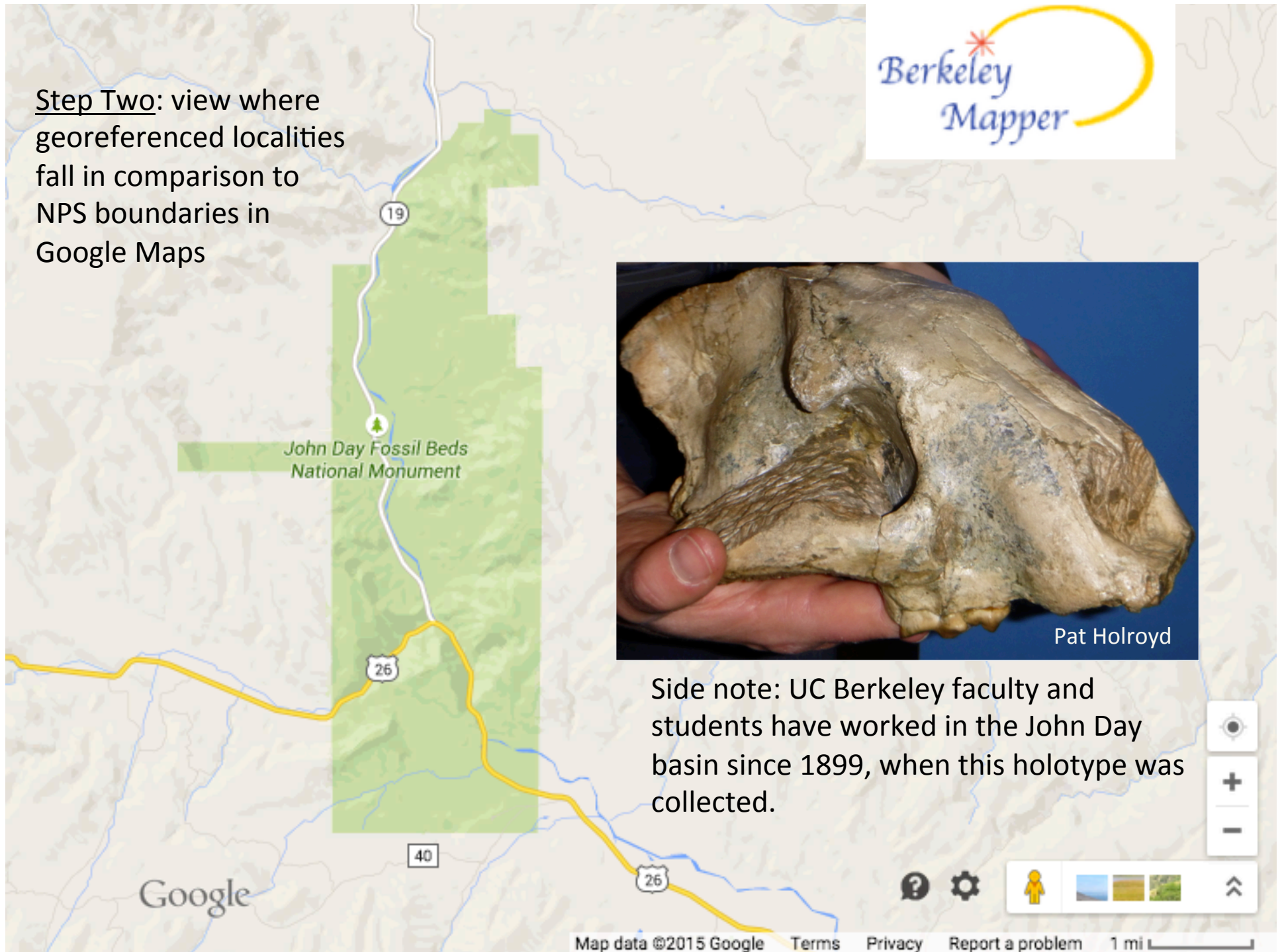
Step One:
Query for a state

Step Two: view where
georeferenced localities
fall in comparison to
NPS boundaries in
Google Maps



Pat Holroyd

Side note: UC Berkeley faculty and students have worked in the John Day basin since 1899, when this holotype was collected.





BerkeleyMapper Information

Toggle map controls | Print

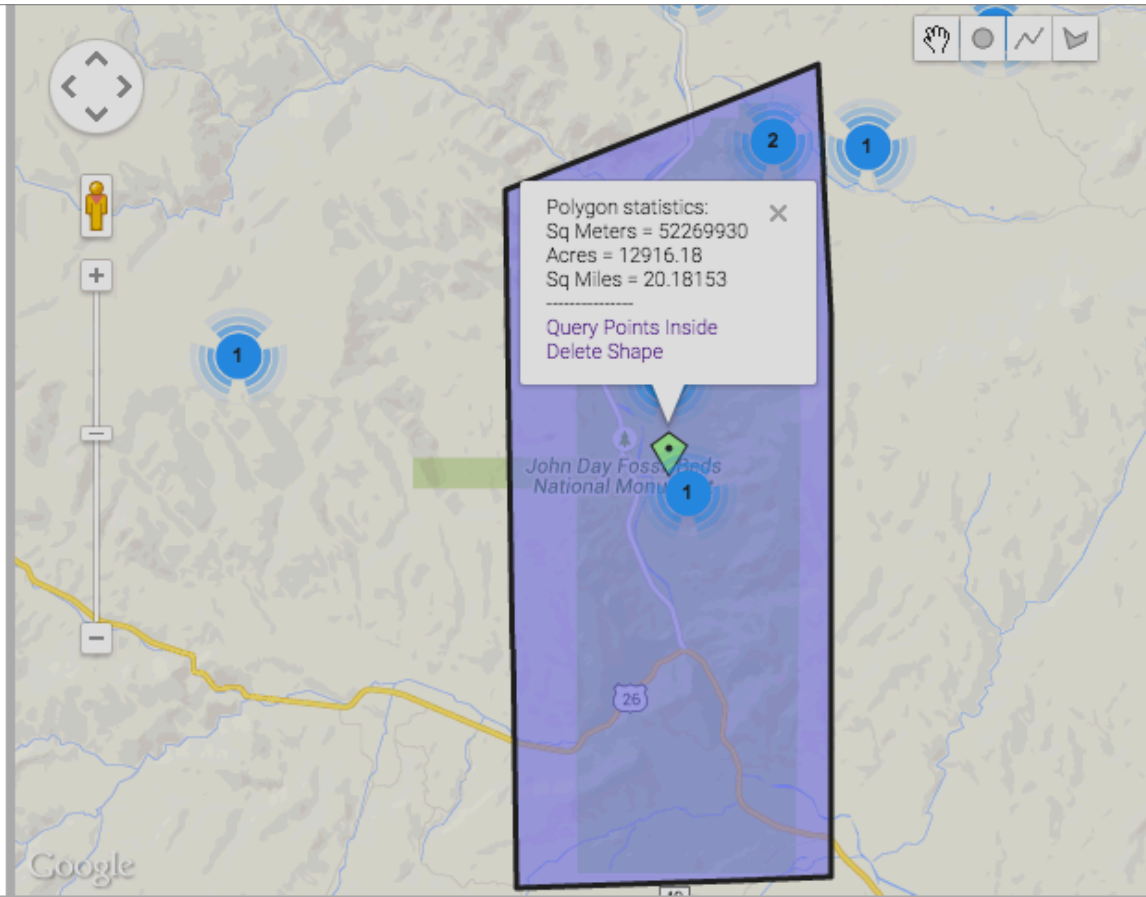
Display:

MarkerClusterer

Download All (tab-delimited with XLS extension)

Download Subset

Open in Google Earth



Include localities collected before the park existed, and those that fall near boundaries (makes process quicker, and all of this information is useful to the NPS for resource management).

Loc ID	Locality	County	State/Prov	Country	Period	Epoch	
22932	Sheep Rock Site 2	Grant County	Oregon	United States	Tertiary	Miocene	I
904	Butler Basin 2	Grant County?	Oregon	United States	Tertiary	Oligocene	IV
820	Butler Basin 1	Grant County	Oregon	United States	Tertiary	Oligocene	IV
883	John Day Misc. 1	Grant County	Oregon	United States	Tertiary	Oligocene	IV
818	Turtle Cove 1	Grant County	Oregon	United States	Tertiary	Oligocene	IV

Step Three: draw a polygon to encompass sites within the park boundary. View these records to verify whether they fall within the park based on locality descriptions.

National Park Service Portal: Disclaimer

University of California Museum of Paleontology

Back to: [UCMP/NPS Database Portal](#)

This site provides access to data and images in the University of California Museum of Paleontology collections. Specific locality information included in this portal is provided to National Park Service staff to facilitate natural resource management of paleontological resources occurring on or near federal lands. Inclusion of localities in this portal does not constitute a guarantee that they occur on federal land, or that the fossils collected from those localities are federal property. In some cases, additional information about whether the localities occur on federal land may be available through the [UCMP archives](#) or by [contacting a collections manager](#).

Please read the [UCMP copyright notice and disclaimer](#) before using UCMP records in analyses or reports.

[Search Specimens](#) • [Specimens \(advanced\)](#) • [Search Localities](#) • [Photos](#) • [About the Catalog](#) • [Notice and Disclaimer](#)

[UCMP Home](#) • [UCMP Collections](#) • [BSCIT](#) • [Berkeley Natural History Museums](#) 

Locality Name **Picture Gorge**

Collection **Invertebrates**

Accession No

Other Nums **V66114**

Project

Latitude

Longitude

LL Variance

Datum

Step Four: add the park name and NPS to the ownership field. Once the "NPS" is added, it will appear in the portal.

Continent/Ocean **North America**

Country **United States**

State/Province **Oregon**

Island

Island Group

County **Grant County**

Elevation

Depth

Bore Depth

Era **Cenozoic**

Period **Tertiary**

Epoch **Miocene**

Absolute Age

Stage **Early Miocene**

Local Stage

Storage Age

Biozone

Flora/Fauna

Map Name **Picture Gorge, Oregon**

Source

Scale **62500**

Edition

Subdivision

Section

Township

Range

Group

Formation **John Day**

Member

Lithology

Habitat

Collector

Coll. Date

Landowner **John Day Fossil Beds National Monument (NPS)**

Field Notes

Field Nums

Rack Bay

Bulk Residue Slides

Control Count

Other Storage

Link to Archives

Public Access **no**

Link to Archives

Locality Citation

Locality Description

Picture Gorge site 20. Force beds. Green tuffs.

Remarks

There are no specimens in the database from this locality.

47 NPS areas
944 localities
14,694 specimens

[Back to NPS Forms](#)

Alaska

[Aniakchak National Monument and Preserve](#) (3)
[Bering Land Bridge National Preserve](#) (1)
[Cape Krusenstern National Monument](#) (1)
[Denali National Park and Preserve](#) (1)
[Gates of the Arctic National Park and Preserve](#) (3)
[Glacier Bay National Park and Preserve](#) (7)
[Katmai National Park and Preserve](#) (1)
[Kenai Fjords National Park](#) (1)
[Kobuk Valley National Park](#) (2)
[Lake Clark National Park and Preserve](#) (12)
[Noatak National Preserve](#) (1)
[Wrangell Saint Elias National Park and Preserve](#) (52)

Arizona

[Chiricahua National Monument](#) (99)
[Grand Canyon National Park](#) (16)
[Petrified Forest National Park](#) (108)

Idaho

[Hagerman Fossil Beds National Monument](#) (8)

Maine

[Acadia National Park](#) (2)

Minnesota

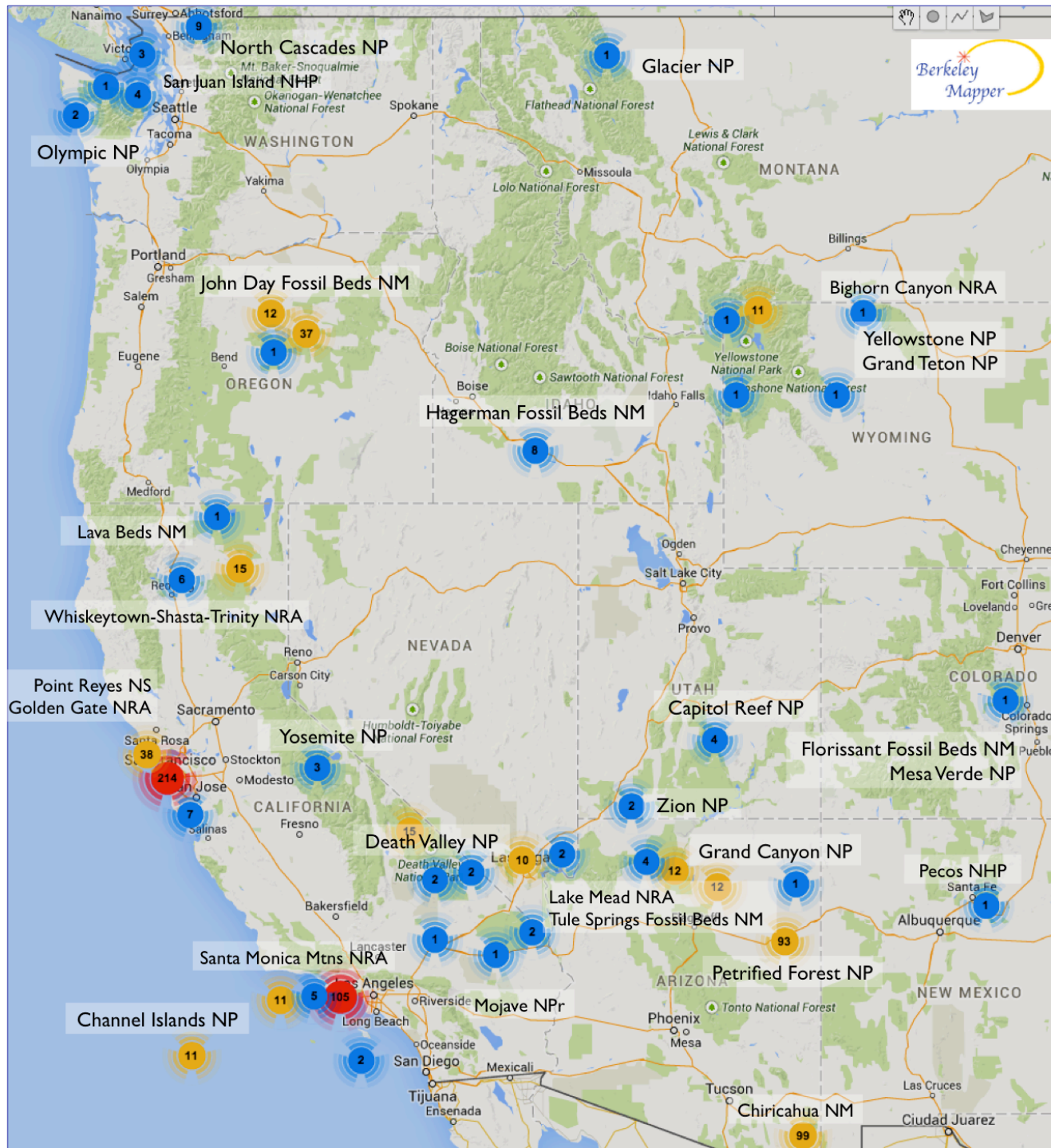
[Mississippi National River and Recreation Area](#) (1)
[Mississippi National River and Recreation Area , Cherokee Re Park](#) (1)
[Mississippi National River and Recreation Area , Minnehaha R](#)
[Mississippi National River and Recreation Area , Shadow Falls](#)

Mississippi

[Vicksburg National Military Park](#) (1)

Montana

[Glacier National Park](#) (2)
[Yellowstone National Park](#) (1)



Shared
data =
improved
records

Data Use by NPS

- Inventory/significance of park's paleontological resources
- Relocate historic localities
- Field monitoring program
- Scoping for environmental assessment projects
- Add data to NPS museum database

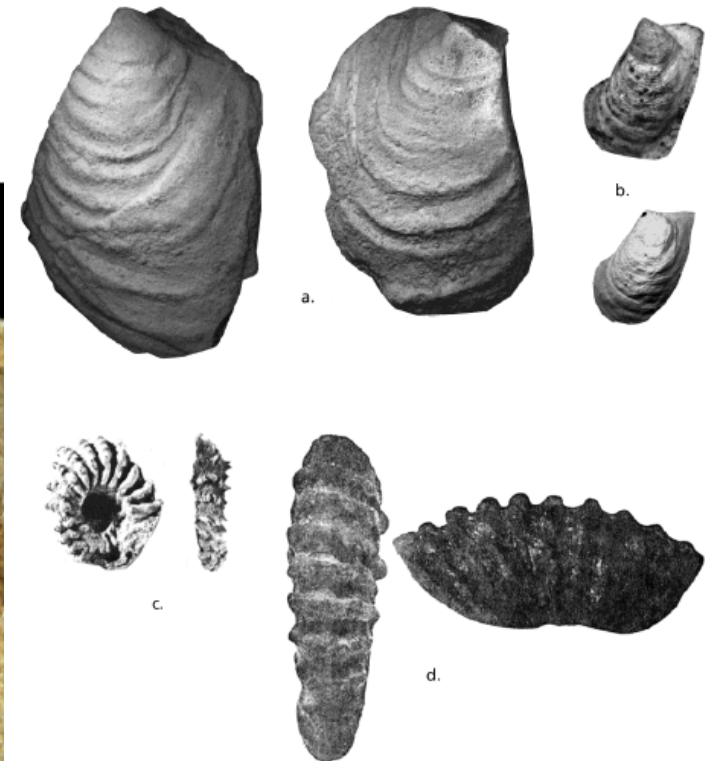
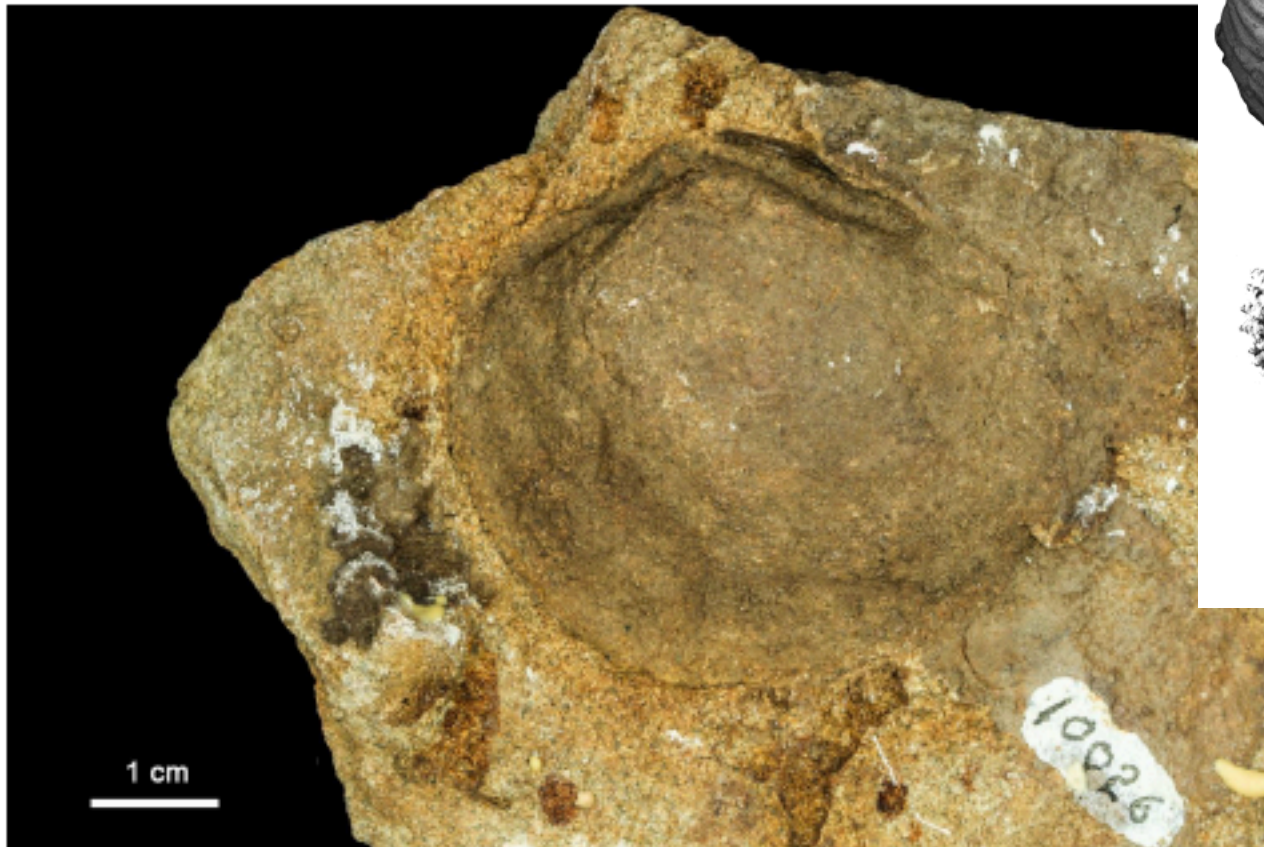


Golden Gate National Recreation Area

Paleontological Resource Inventory

Natural Resource Report NPS/GOGA/NRR—2015/915

Other collaborative projects with NPS included this report based on scientific literature and museum collections.



Launch of Point Reyes National Seashore long-term paleontological resource monitoring project, led by GeoCorps intern Lillian Pearson.



[Online exhibits](#) : [Special exhibits](#) : [Fossils in our parklands](#)

Florissant Fossil Beds National Monument, Colorado

by Diane M. Erwin and Cindy Looy

The Florissant Fossil Beds National Monument, Teller County, is an ancient lake deposit that preserves the terrestrial biota that lived in the Florissant valley area of Colorado 34 million years ago. Because of the diversity of its flora and fauna, Florissant ranks as one of the world's best known and richest paleontological resources. Together, the fossil biota and geology provide an incredibly detailed snapshot of the western interior of the United States at the Eocene-Oligocene transition — a period in Earth history when there was a dramatic change from warm subtropical, temperate climate to cooler more temperate conditions. The fossil flora also tells us that during the late Eocene, Florissant was at a similar elevation as today — 8500 ft. (2590 m), and from the geology, we know that Lake Florissant formed in an area with an active volcanic eruptive center, the Guffey volcano, which spewed ash and violent pyroclastic flows that buried and killed plants and animals alike, but in the end aided in their preservation.



Florissant Fossil Beds National Monument, Colorado

<http://www.ucmp.berkeley.edu/science/parks/index.php>

UCMP
webpages
about
collaborations
with NPS



Among the hallmarks of the monument are the remains of the massive petrified redwood trees that once dominated the Florissant forest of 150 plant species. The famous "Redwood trio" at Florissant is the only known fossil occurrence of a redwood "family circle." Modern coast redwoods (*Sequoia sempervirens*) reproduce from sprouts that grow from the base of the parent tree. These root sprouts can grow to normal size trees especially in cases where the parent dies, as was the case at Florissant. We know that in addition to the redwoods, there were other conifers and hardwoods growing around the lake margin and at higher elevations that provided food and shelter to populations of insects (~1500 species), birds, and a growing list of mammals that include a pigmy opossum, rodents, horses, rhinoceros-like brontotheres, sheep-sized oreodonts, deer-like animals, a tapir-like ancestor of the rhinoceroses, and the oldest fossil mole. Lake Florissant was also home to shorebirds, numerous freshwater gastropods, clams, ostracods, insect larvae, aquatic plants and fish — their remains sandwiched between layers of paper-thin, diatom-rich shales like beautifully illustrated pages of a book.



A photo by Harry MacGinitie of the "Redwood trio."

UCMP involvement

One cannot mention the Florissant Fossil Beds without acknowledging the work of two UCMP scientists. Research Associate Harry D. MacGinitie (known as "Mac" to his friends and colleagues) provided the most comprehensive modern account of the Florissant paleoflora. Beginning in the 1930s, using a horse-drawn plow to excavate and collect Florissant plant sites, Mac eventually published the now classic monograph entitled *Fossil*

Collaborate!

Thanks to NPS Pacific
West Region for
funding my work on
these projects.

Contact me:

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