## <u>What kinds of creatures primarily</u> <u>lived in this ecosystem?</u>

- Trees: conifers, elms, willows, beeches, fruit trees
- Insects: flying ants, beetles, flies, spiders, moths, butterflies, millipedes
- Fish and birds (1)

Fossilized Wasp (5)

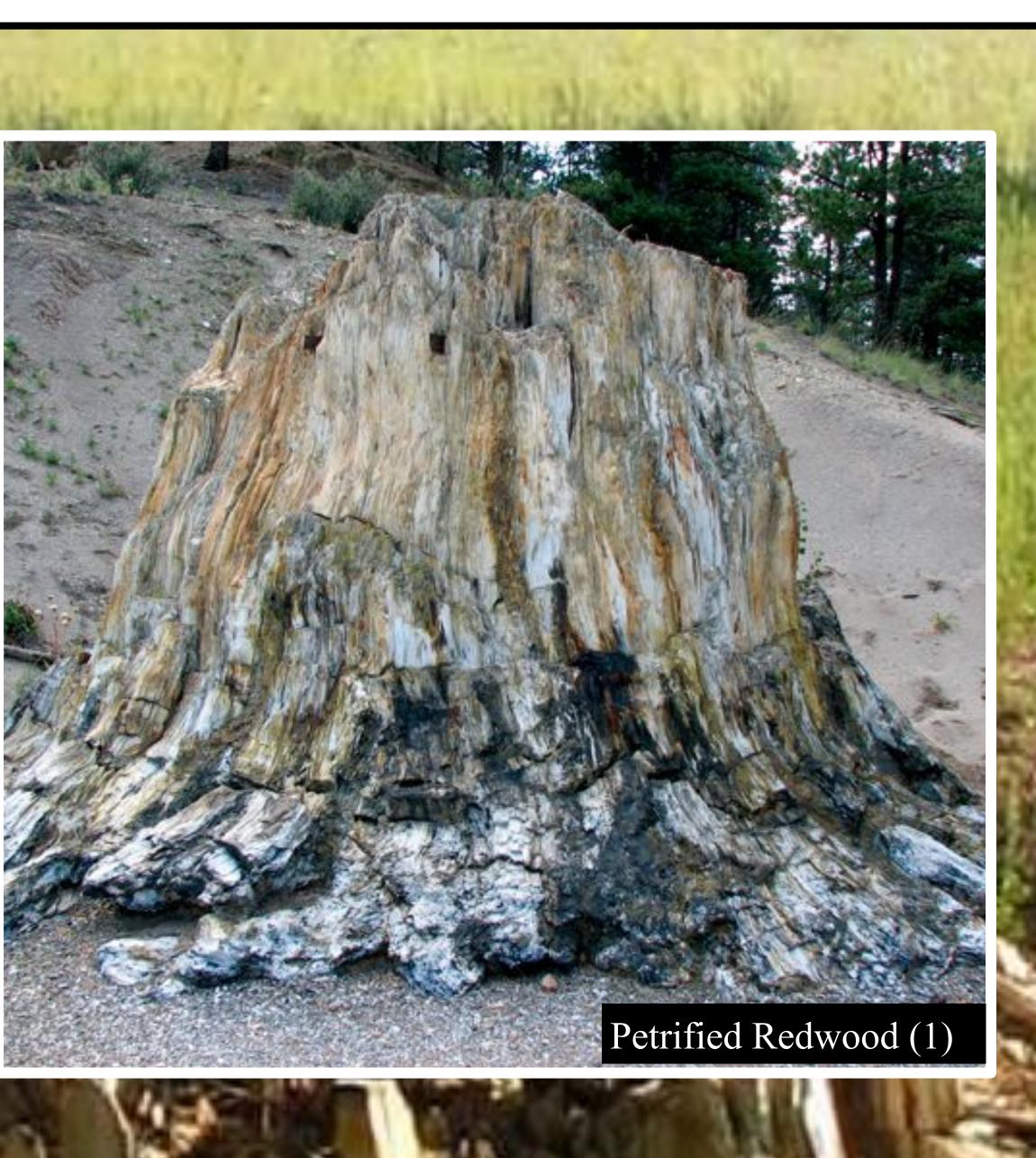
## **Subsequent Formations**

- Guffey volcanic center caused formation of lakes and promoted fossil preservation
- Uplift in Rocky Mountains formed valleys for ash and sediment to fall into
- 6 sedimentary layers atop oldest precambrian granite (5)

Shales Containing Fossils (1)

What are the Florissant Fossil Beds? It is a national monument in Colorado that is home to some of the most well preserved insect and plant fossils on earth. Due to its close proximity to an ancient volcanic field, the insects and plants there were covered with volcanic ash and sediment which preserved them incredibly well. (5)

# Florissant Fossil Beds



## Methods for Data Collection

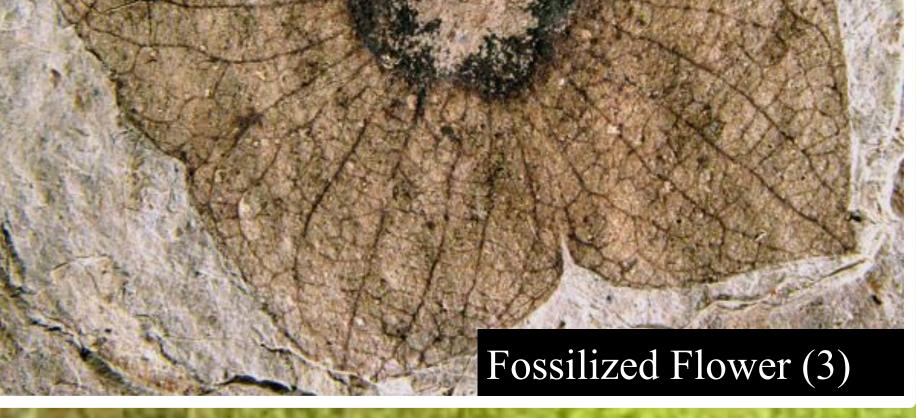
• Fossils found in shale, siltstone, mudstone, and tuff • Study found that type of sediment does not impact quality of fossils

Insect specimens found here are prevalent through geologic time and can be used to indicate climate (2, 4)

GEOL 204: The Fossil Record Spring 2019 Section 0103 Zoe Budacz, Andrew Gingerich, Meghan Quinn, Sophia Zipparo

#### **Description of the Past Ecosystem**

- Eocene, about 34 Ma
- Forest-like environment
- Nearby Lake Florissant and active Guffey volcano
- About  $9^{\circ}$ C (1)



#### Modern Ecosystem of the Park

- 30 petrified redwood stumps
- Variety of small fossils
- Footprint of Lake Florissant
- Animals such as birds, squirrels, rabbits, elk, coyotes, black bears, antelope, and beavers (5)

