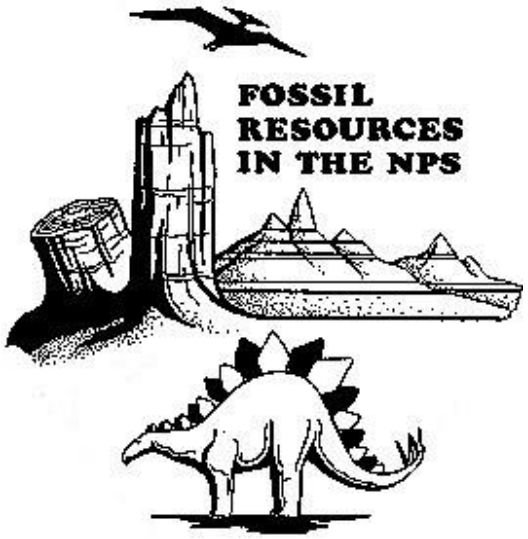
PREHISTORIC LIFE IN THE NATIONAL PARKS

National Park Service
U.S. Department of the Interior



COLORING BOOK

PREHISTORIC LIFE IN THE NATIONAL PARKS COLORING BOOK



National Park Service, Geologic Resources Division, Paleontology Program
https://www.nps.gov/subjects/fossils/index.htm

DEDICATION

This Prehistoric Life in the National Parks Coloring Book is dedicated to Georgia Hybels, a National Park Service geographer who shared her time to foster children's interests in fossils, caves and national parks.

PRECAMBRIAN

“before the Cambrian”

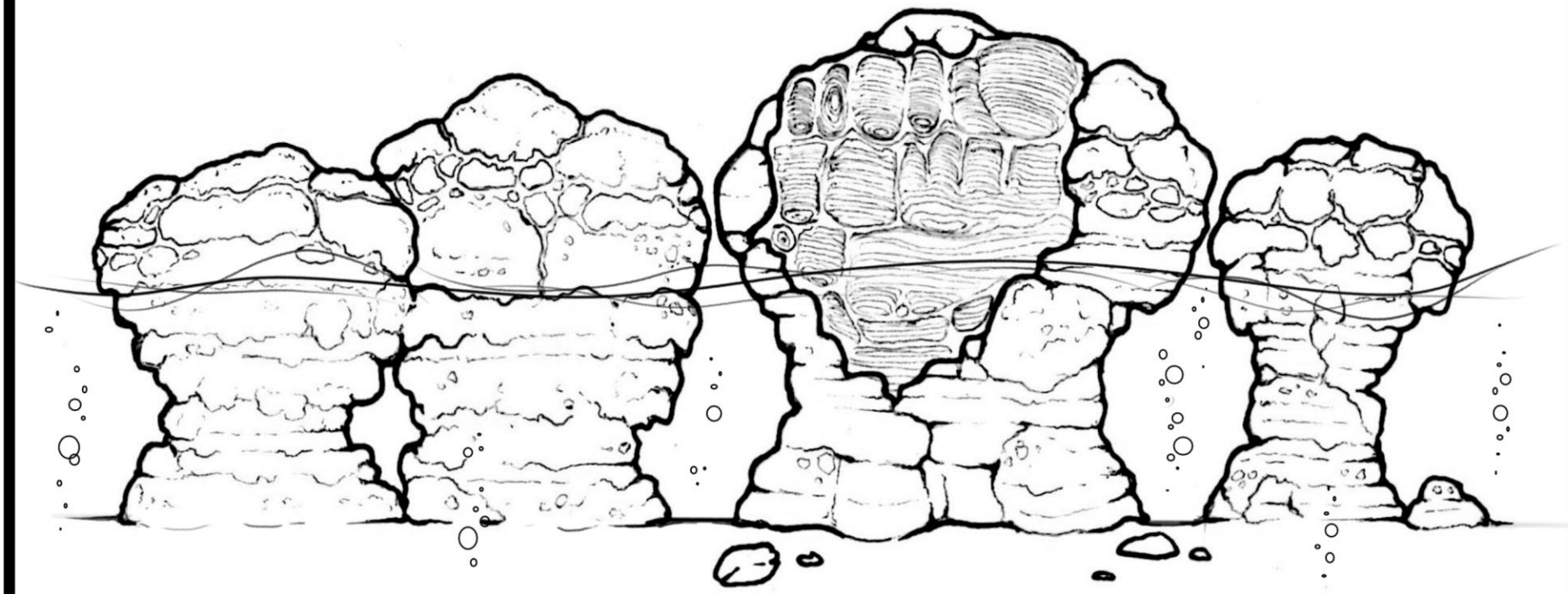
The Precambrian Eon is part of Earth’s history. It spans from approximately 4.6 billion years ago to 541 million years ago.

This section includes a Precambrian life form found in some of our national parks in the United States.

Collenia symmetrica is an early fossil. It shows layers of sand trapped by tiny organisms (mostly cyanobacteria) into mounds that we call stromatolites. Stromatolites are some of the earliest and most widespread forms of early prehistoric life. Fossils of *Collenia* have been found at Glacier National Park, Montana.

Collenia symmetrica

Stromatolites



PALEOZOIC ERA

"ancient animal life"

The Paleozoic Era is part of Earth's history that spans approximately 541 million years ago to 252 million years ago. This era began with an explosion of new life. New and different ocean animals lived during the Cambrian. Over time, plants and animals evolved to live in the oceans and on land. The Paleozoic ends after a large die off (extinction) of many early lifeforms at the end of the Permian.

This section includes some Paleozoic life which have been found in some of our national parks in the United States.

Ehmania weedi is an extinct group of arthropods known as a trilobite that lived during the Cambrian. Fossils of *Ehmania* have been found at Yellowstone National Park, Wyoming.

Pycnocrinus multibrachiatus is a crinoid (sea lilly) that lived during the Ordovician. Fossils of *Pycnocrinus* have been found at Mississippi National River and Recreation Area, Minnesota.

Hughmilleria shawangunk is an extinct arthropod called an eurypterid from the Silurian. Fossils of *Hughmilleria* have been found at Delaware Water Gap National Recreation Area, New Jersey and Pennsylvania.

Eleutherokomma reidfordi is a brachiopod (lamp shell) that lived during the Devonian. Fossils of *Eleutherokomma* have been found at Death Valley National Park, California.

PALEOZOIC ERA
(continued)

Saivodus striatus is an early shark that lived during the Mississippian. Fossil of *Saivodus* have been found at Mammoth Cave National Park, Kentucky.

Lepidodendron sp. is an early complex plant, sometimes called a scale tree. It lived during the Late Paleozoic. Fossils of *Lepidodendron* have been found at Mammoth Cave National Park, Kentucky, and New River Gorge National River, West Virginia.

Amaradontus santuccii is an early shark that lived during the Mississippian. Fossils of *Amaradontus* have been found at Grand Canyon National Park, Arizona.

Barytichisma zaphrentiforme is a horn coral that lived during the Pennsylvanian. Fossils of *Barytichisma* have been found at Dinosaur National Monument, Colorado and Utah.

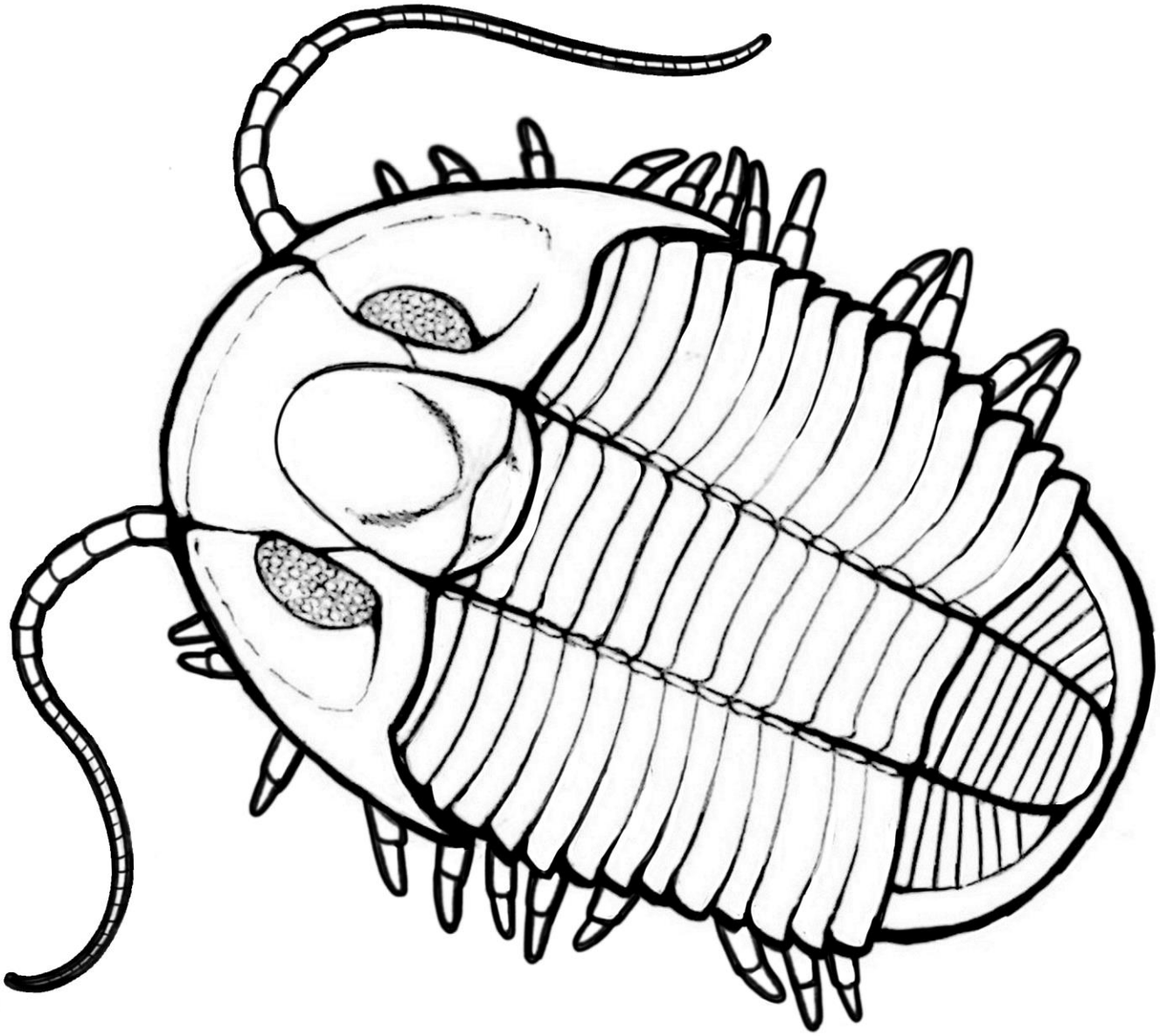
Tupus whitei is an early dragonfly that lived during the Permian. Fossil remains of *Tupus* have been found at Grand Canyon National Park, Arizona.

Supaia merriami is a fern-like plant that lived during the Permian. Fossils of *Supaia* have been found at Grand Canyon National Park, Arizona.

Cooperoceras texanum is an ocean animal known as a nautiloid. It lived during the Permian. Fossils of *Cooperoceras* have been found at Guadalupe Mountains National Park, Texas.

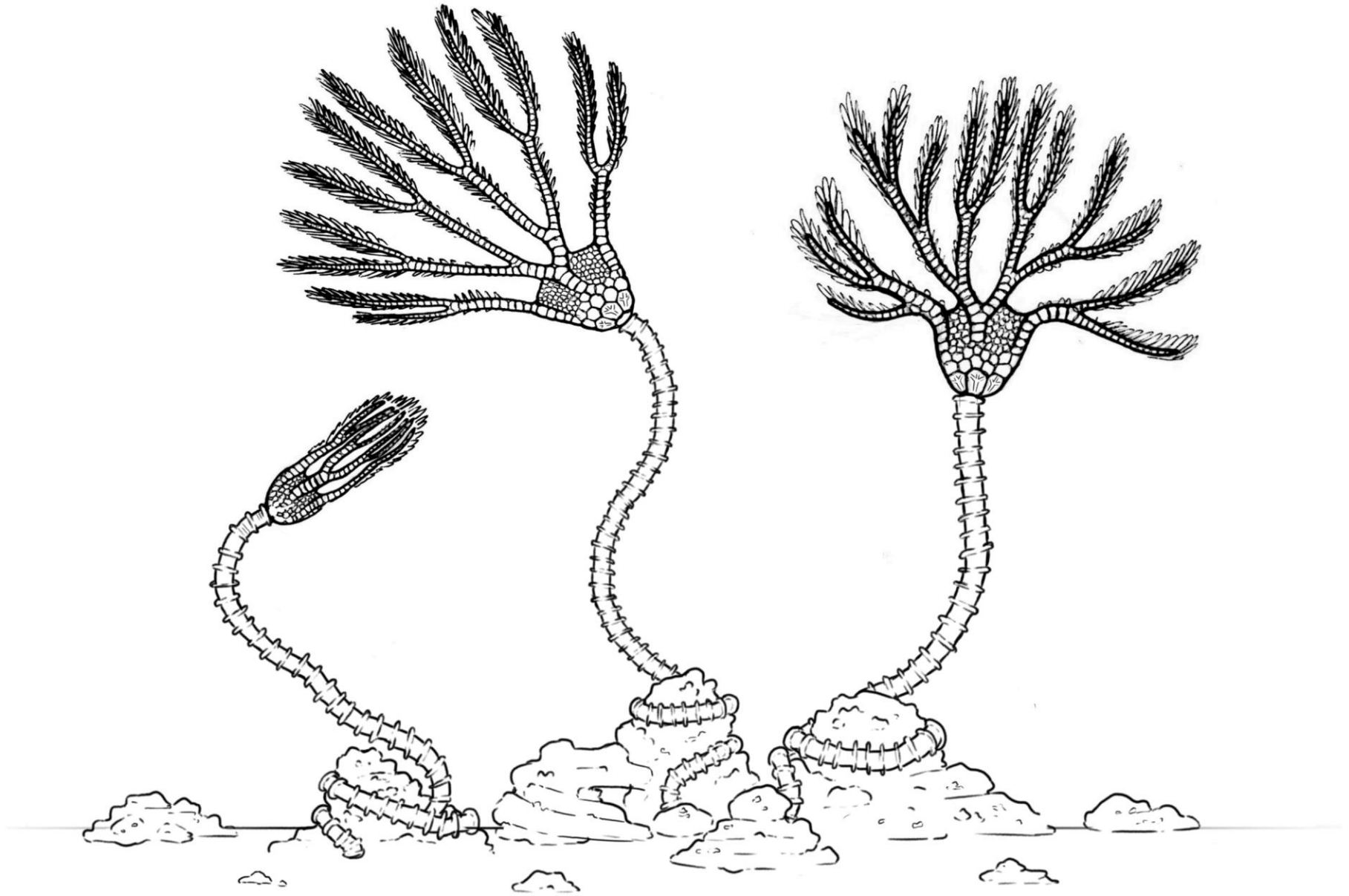
Ehmania weedi

Trilobite



Pycnocrinus multibrachiatus

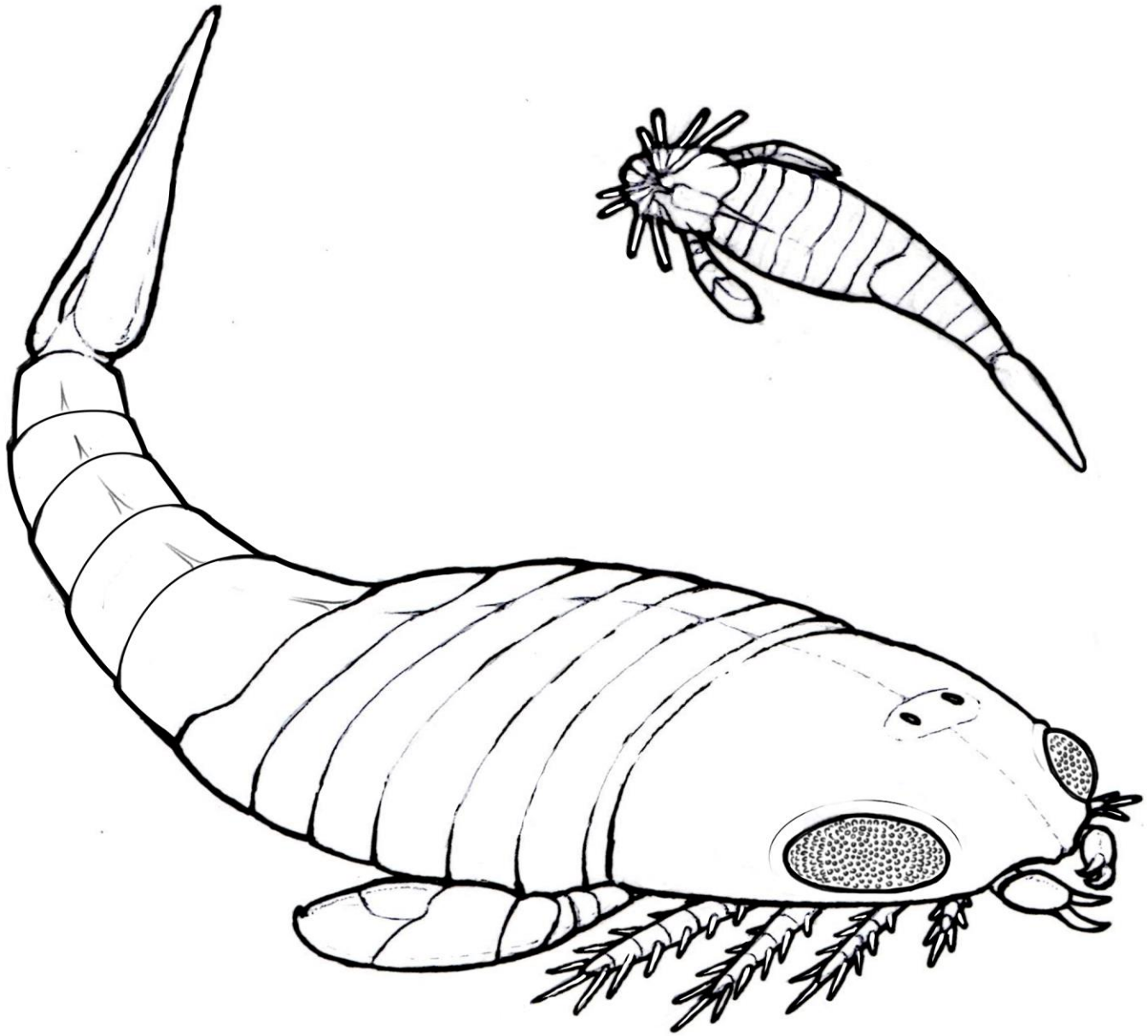
Crinoid



NPS Paleontology

Hughmilleria shawangunk

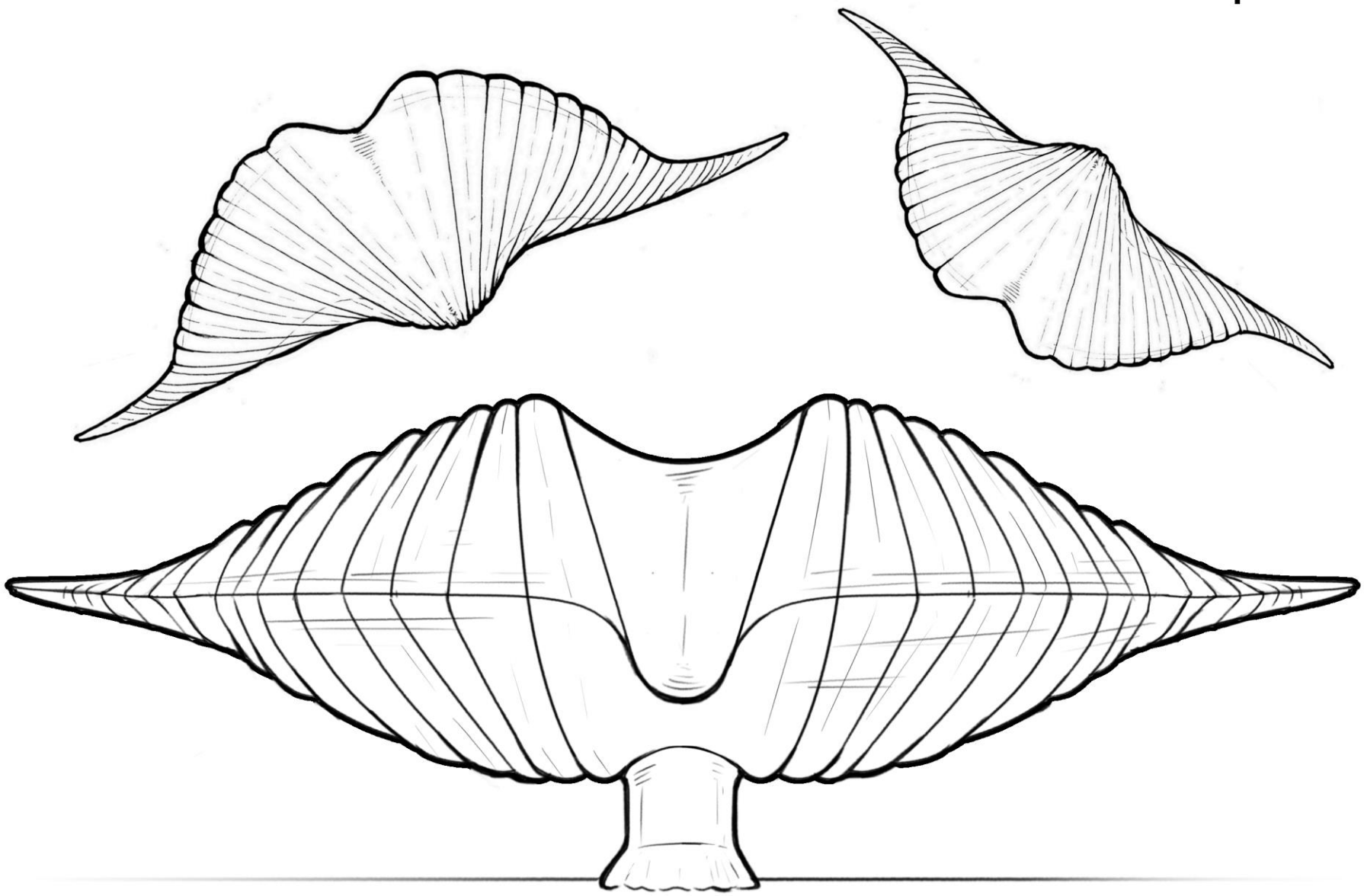
Aquatic Arthropod



NPS Paleontology

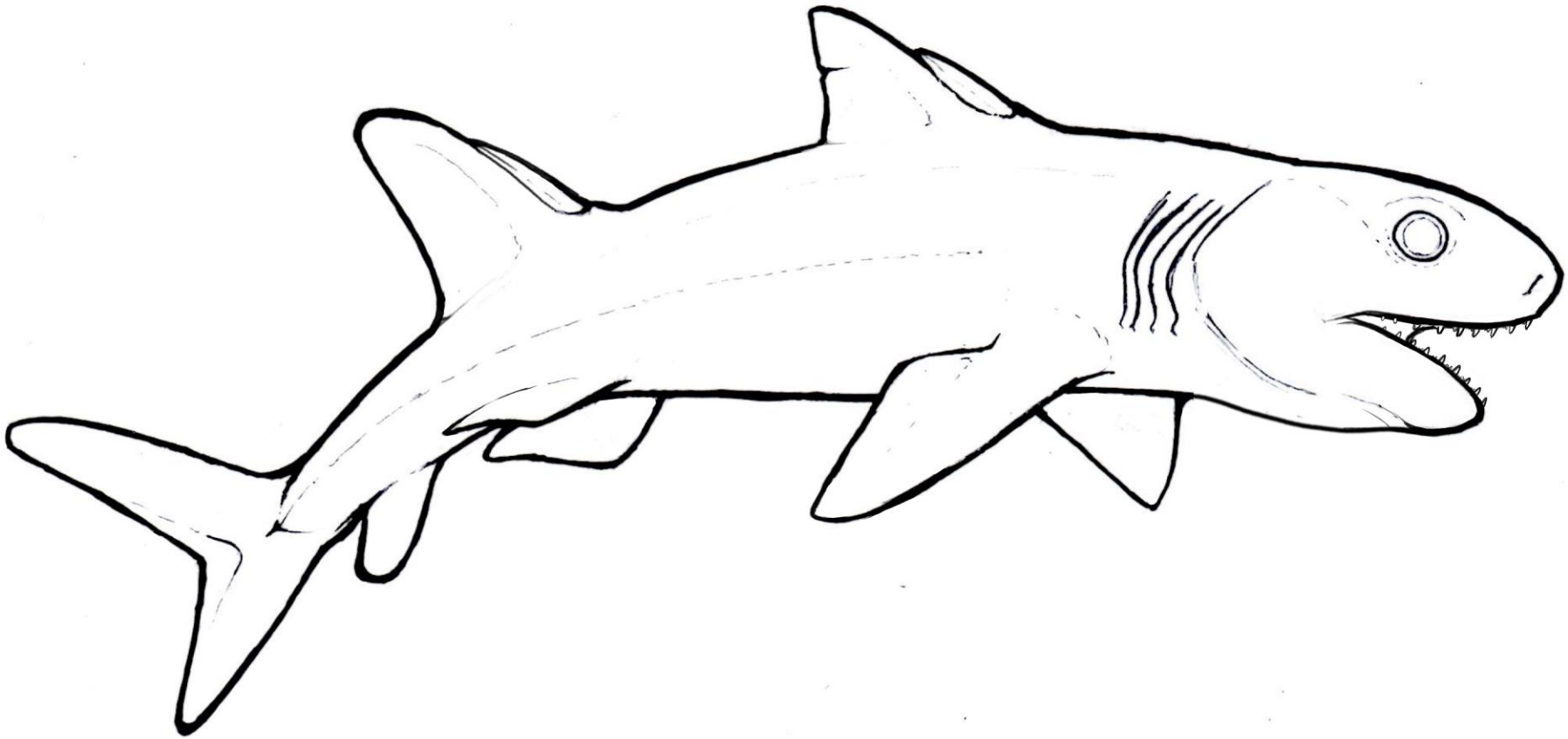
Eleutherokomma reidfordi

Brachiopod



Saivodus striatus

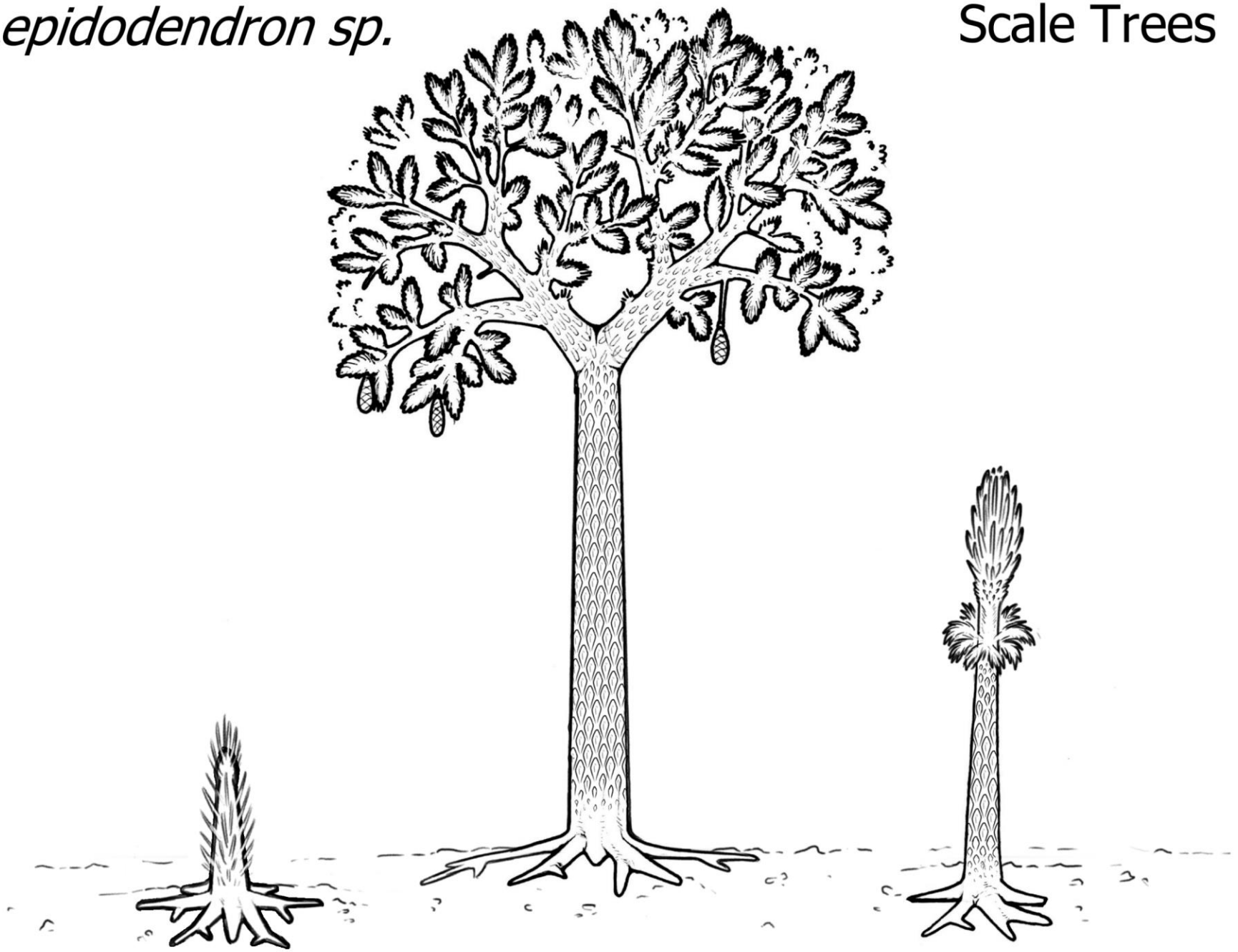
Ancient Shark



NPS Paleontology

Lepidodendron sp.

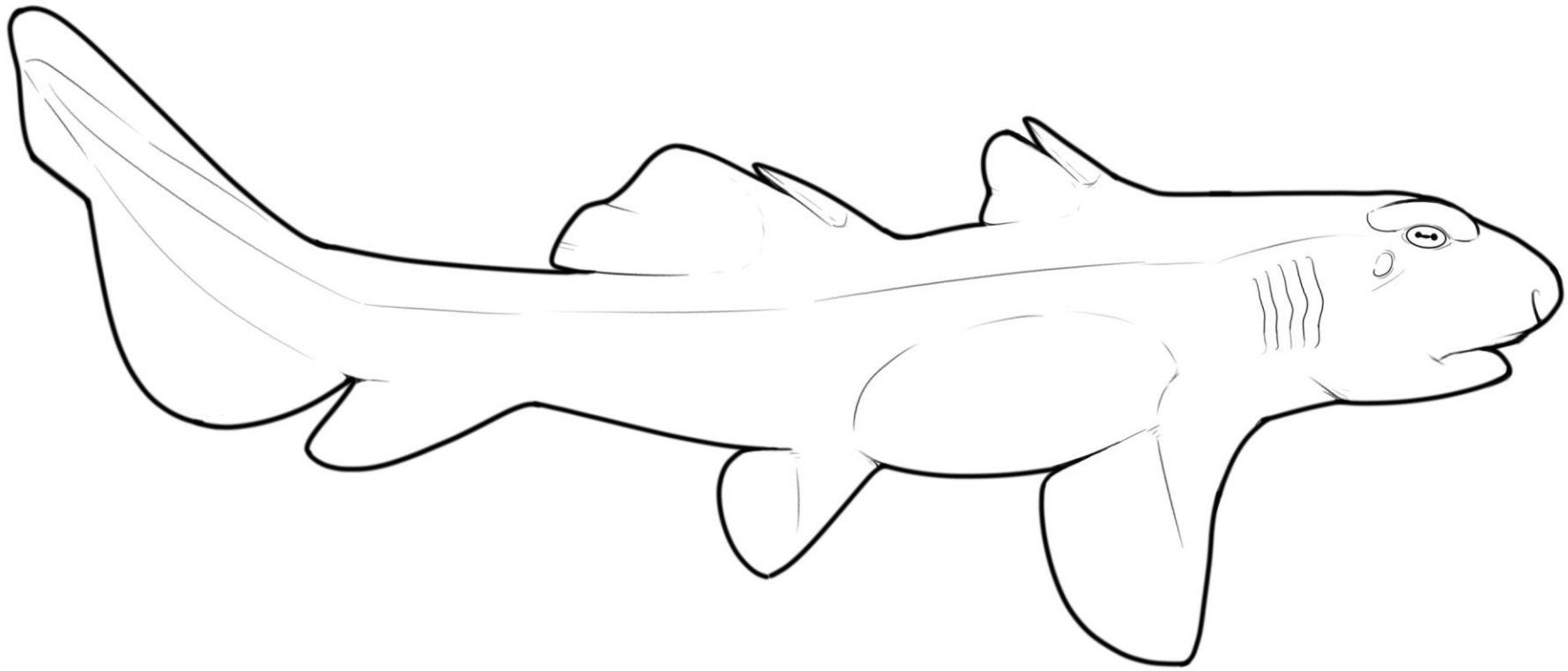
Scale Trees



NPS Paleontology

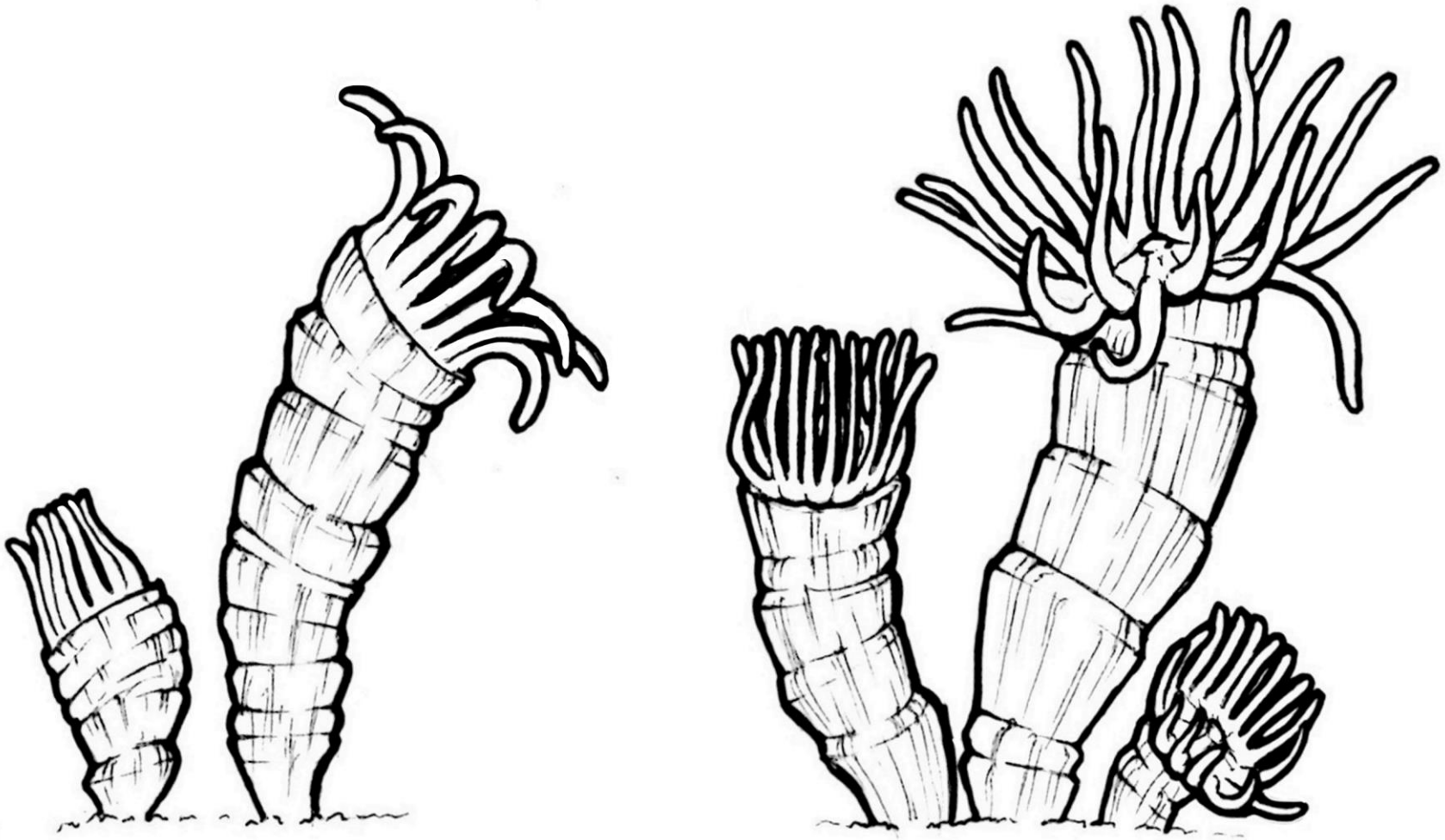
Amaradontus santuccii

Ancient Shark



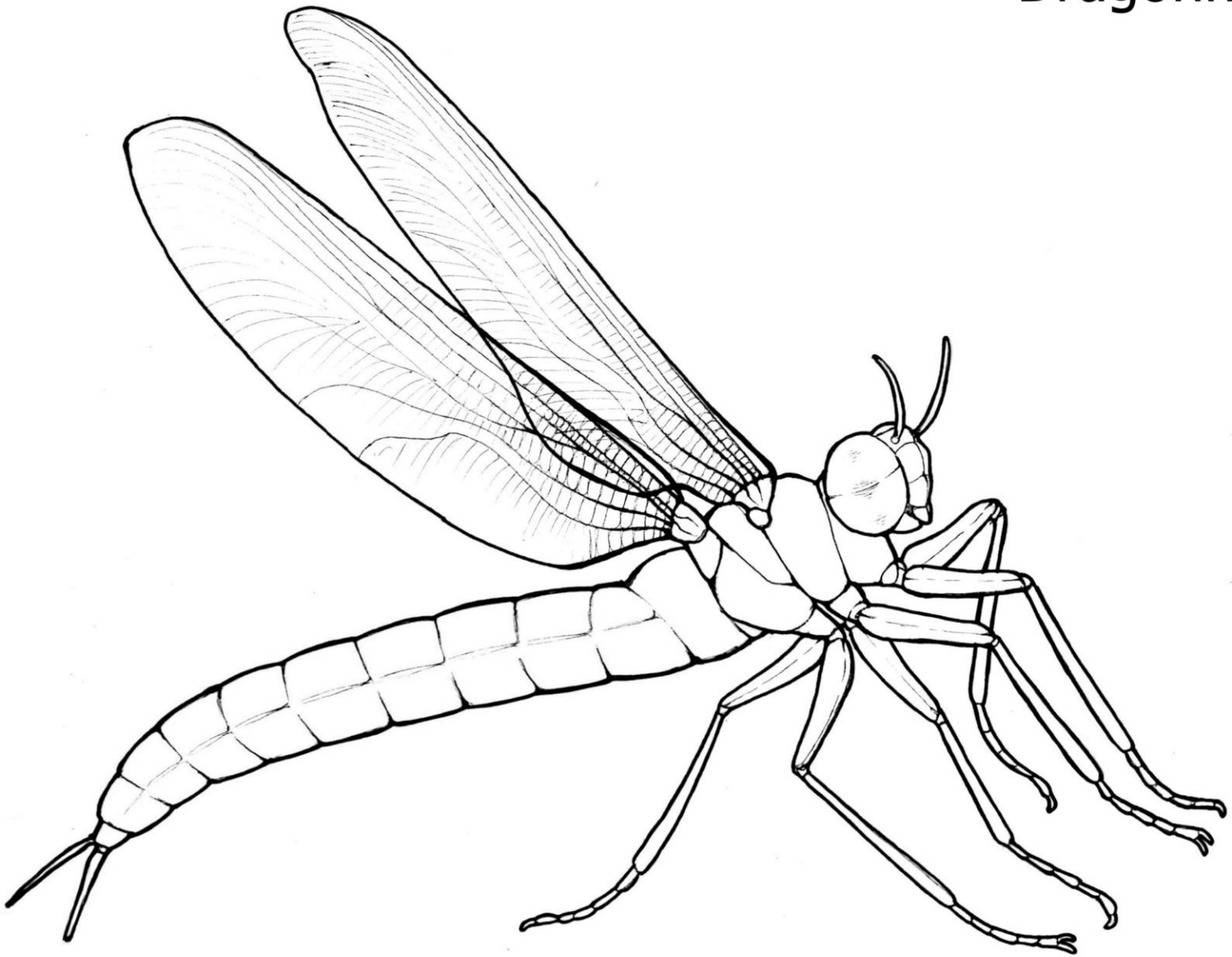
NPS Paleontology

Barytichisma zaphrentiforme Horn Coral



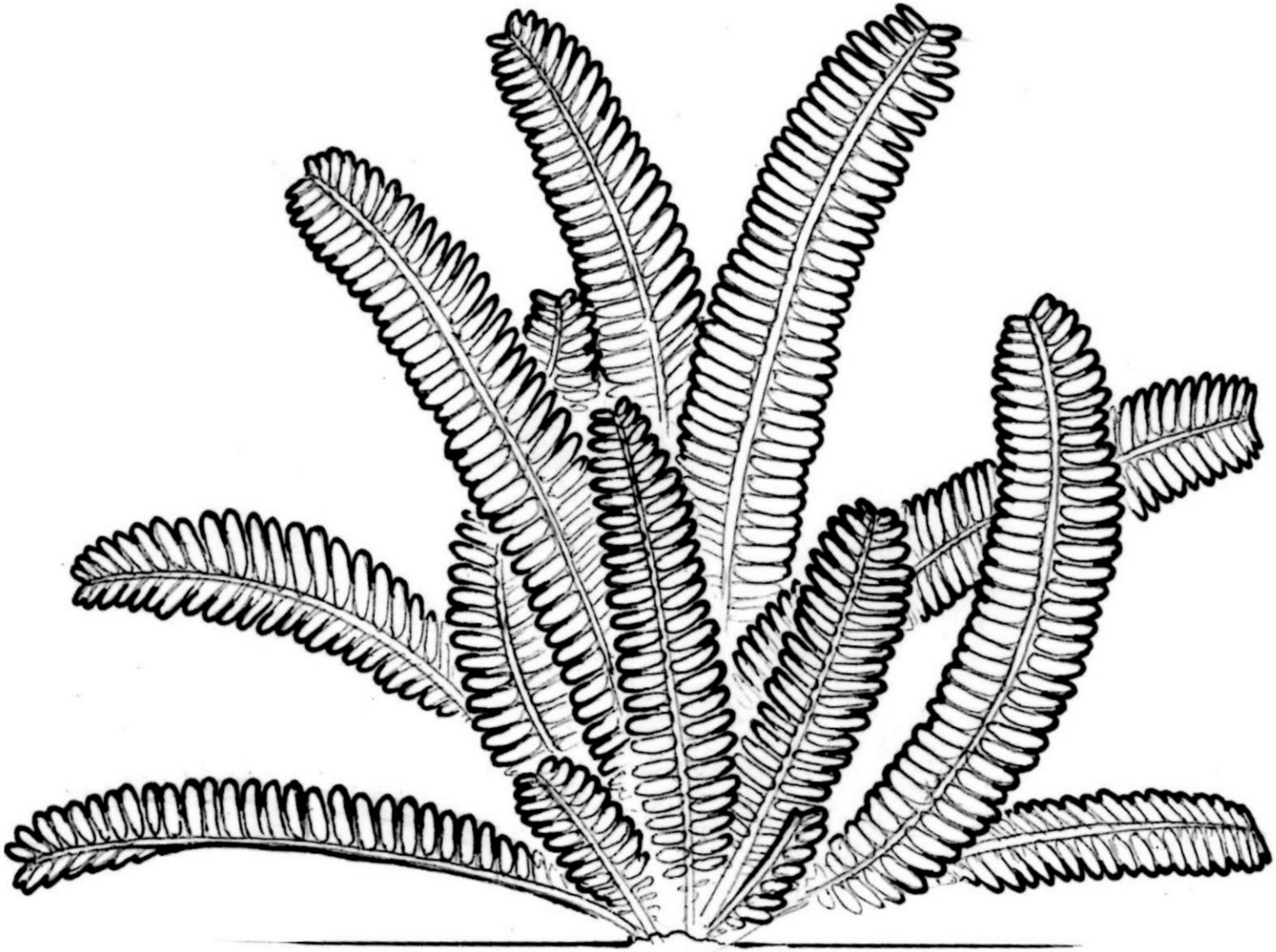
Tupus whitei

Dragonfly



Supaia merriami

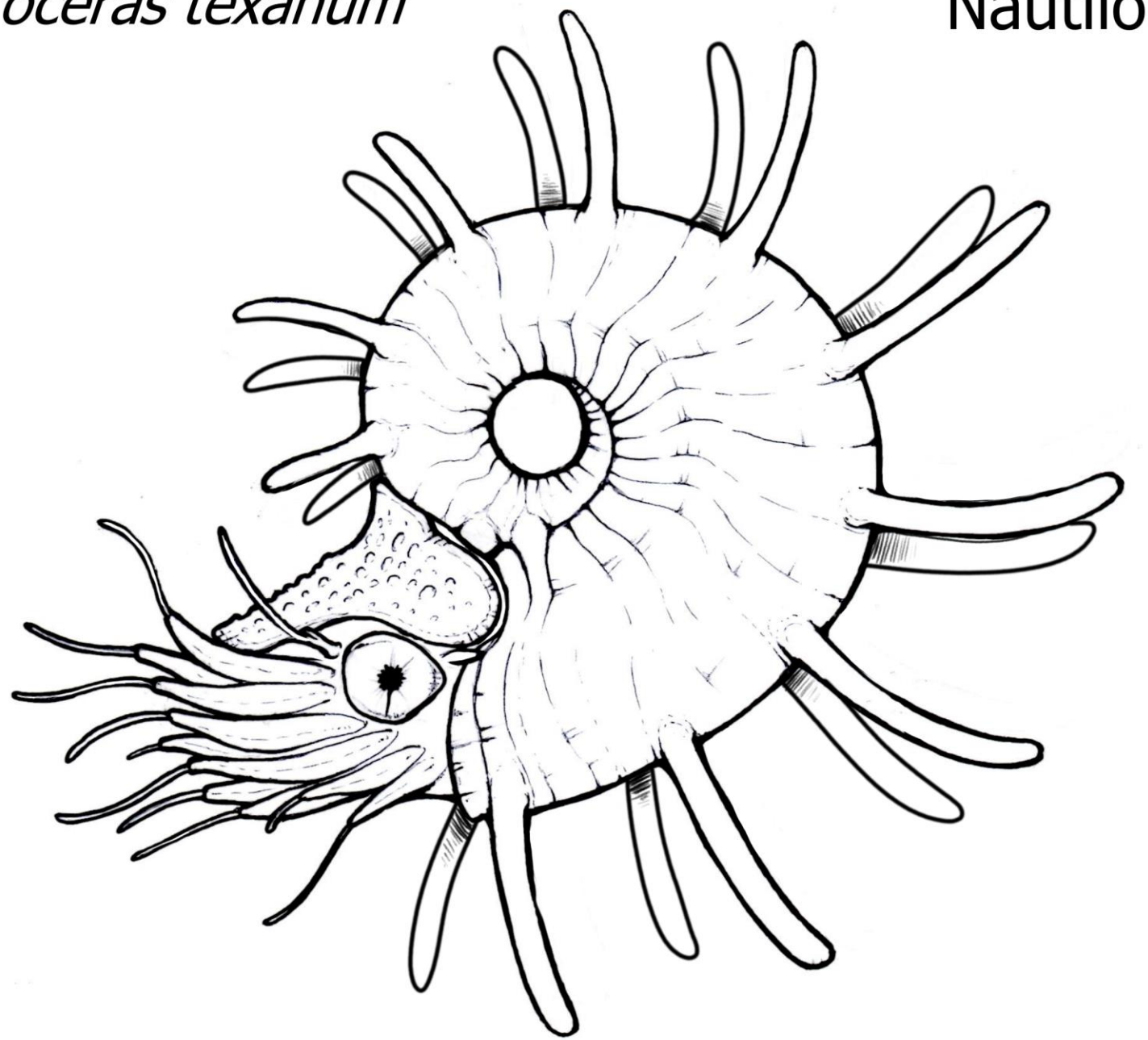
Fern-like Plant



NPS Paleontology

Cooperoceras texanum

Nautiloid



MESOZOIC ERA

"middle animal life"

The Mesozoic Era is part of Earth's history that spanned approximately 252 million years ago to 66 million years ago. The Mesozoic begins after the Permian extinction at the end of the Paleozoic. This period of "middle animal life" is sometimes also referred to as the "Age of Reptiles". This is due to the many types of ocean and land reptiles, including the dinosaurs, which evolved during this time.

This section includes Mesozoic life that have been found in some of our national parks in the United States.

Anaschisma browni is a large amphibian that lived during the Triassic. Fossils of *Anaschisma* have been found at Petrified Forest National Park, Arizona.

Desmatosuchus spurensis is a plant-eating reptile (aetosaur) that lived during the Triassic. Fossils of *Desmatosuchus* have been found at Petrified Forest National Park, Arizona.

Enoploclytia porteri is a prehistoric crayfish that lived during the Triassic. Fossils of *Enoploclytia* have been found at Petrified Forest National Park, Arizona.

Apatosaurus louisae is large plant-eating sauropod dinosaur that lived during the Jurassic. Fossils of *Apatosaurus* have been discovered at Dinosaur National Monument, Colorado and Utah.

MESOZOIC ERA
(continued)

Stegosaurus ungulatus is a plant-eating dinosaur that lived during the Jurassic. The drawing shows an adult and juvenile *Stegosaurus.* This is based on fossils from the Morrison Formation at Dinosaur National Monument, Colorado and Utah.

Cycadeoidea pulcherrima is an example of an extinct group of seed plants known as cycadeoids. These plants lived during the Cretaceous. A small dinosaur known as *Hypsilophodon wielandi* is shown with the cycadeoid. Fossils of *Cycadeoidea* are known from an abolished national monument that was called Fossil Cycad National Monument, South Dakota.

Dolichorhynchops osborni is a reptile that swam in the oceans. This reptile was a short-necked plesiosaur that lived during the Cretaceous. Fossils of *Dolichorhynchops* have been found at Little Bighorn Battlefield National Monument, Montana.

Pachydiscus hazzardi is an ocean animal known as an ammonite. It lived during the Cretaceous. Fossils of *Pachydiscus* have been found at Katmai National Park and Preserve, Alaska.

Quetzalcoatlus northropi is a flying reptile known as a pterosaur. It lived during the Cretaceous. This prehistoric creature is the largest known flying animal in Earth's history. Fossils of *Quetzalcoatlus* have been found at Big Bend National Park, Texas.

Nanuqsaurus hoglundi is a large meat-eating dinosaur. It lived during the Cretaceous. Fossil footprints of *Nanuqsaurus* (or a close cousin) have been found at Denali National Park and Preserve, Alaska.

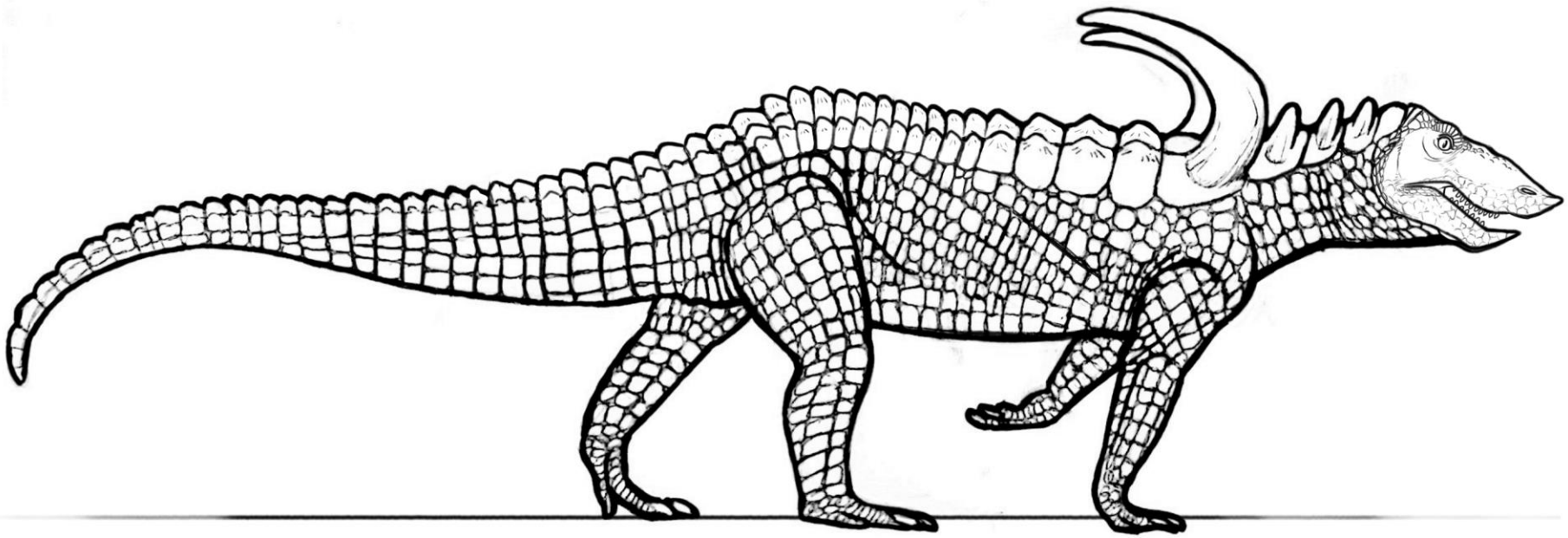
Anaschisma browni

Giant Amphibian



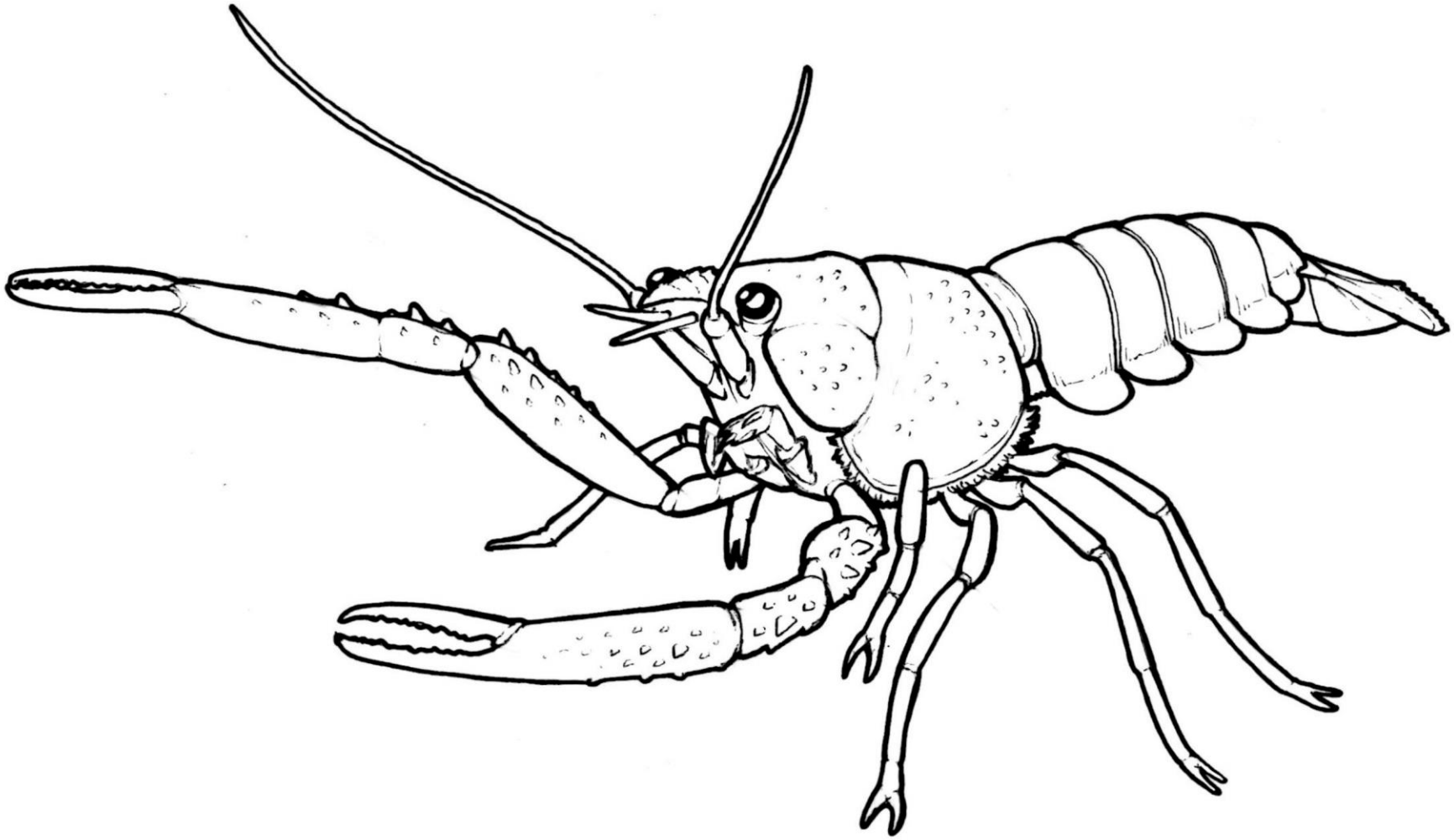
Desmatosuchus spurensis

Aetosaur



Enoploclytia porteri

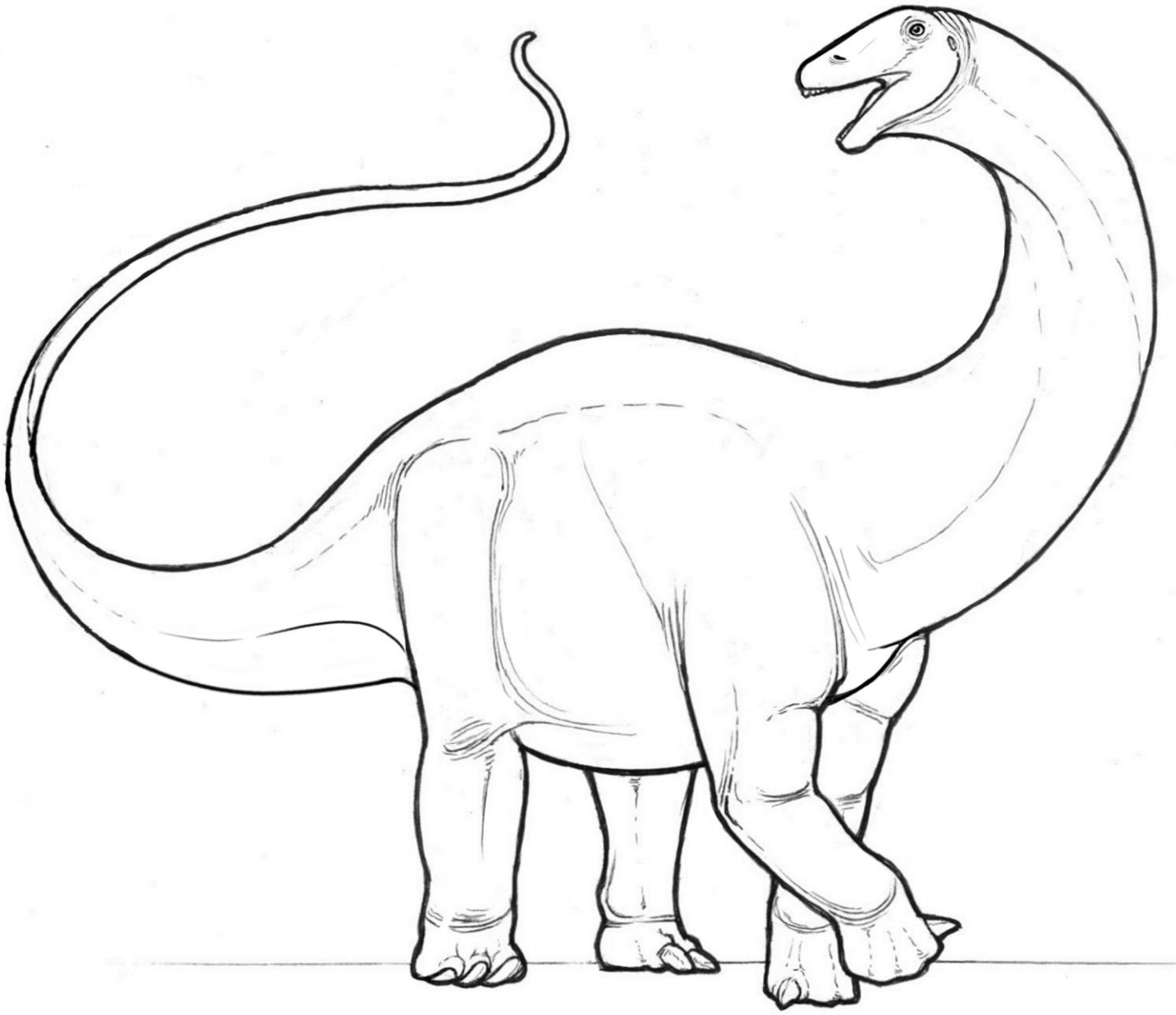
Crayfish



NPS Paleontology

Apatosaurus louisae

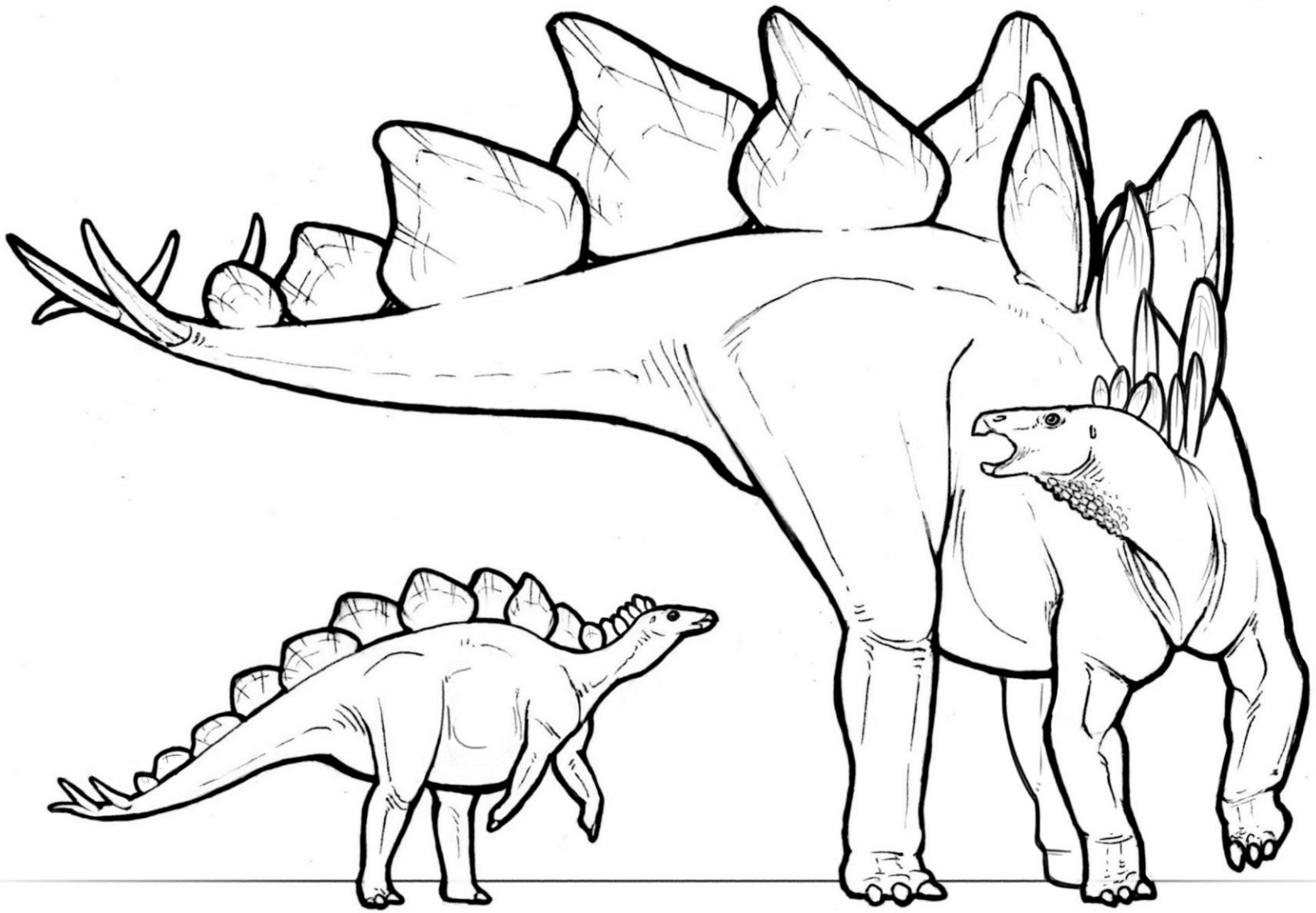
Sauropod Dinosaur



NPS Paleontology

Stegosaurus ungulatus

Stegosaur Dinosaur



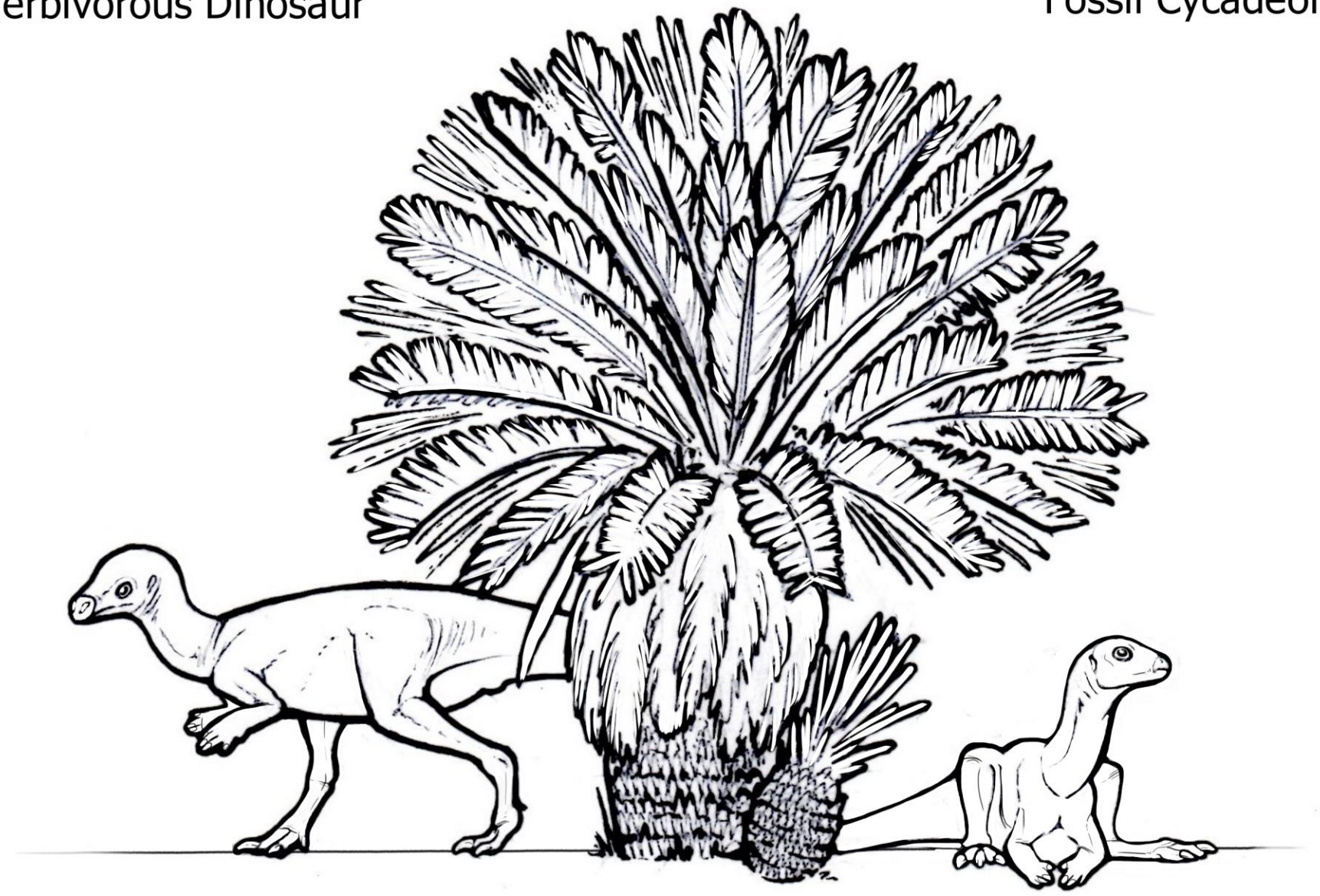
NPS Paleontology

Hypsilophodon wielandi

Herbivorous Dinosaur

Cycadeoidea pulcherrima

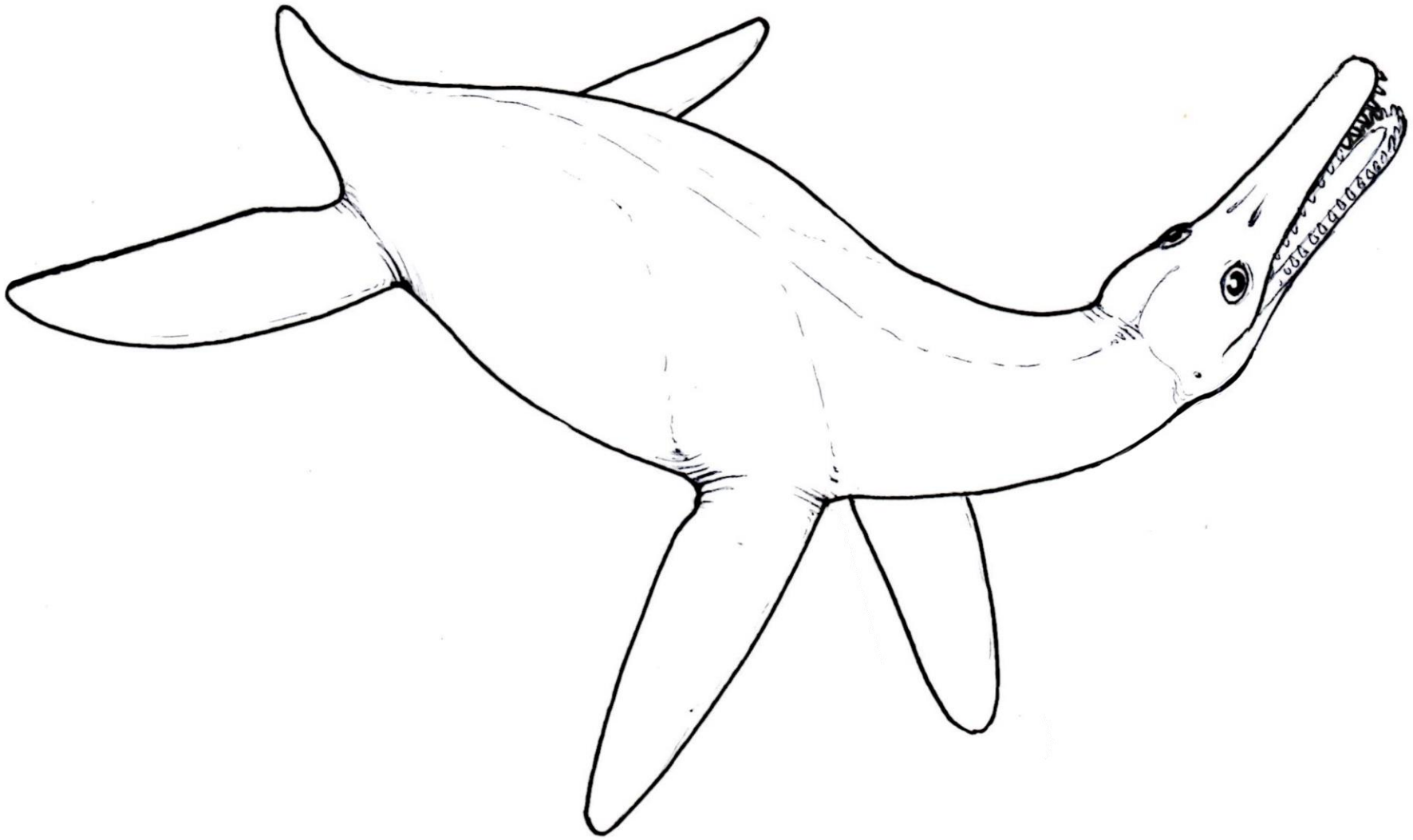
Fossil Cycadeoid



NPS Paleontology

Dolichorhynchops osborni

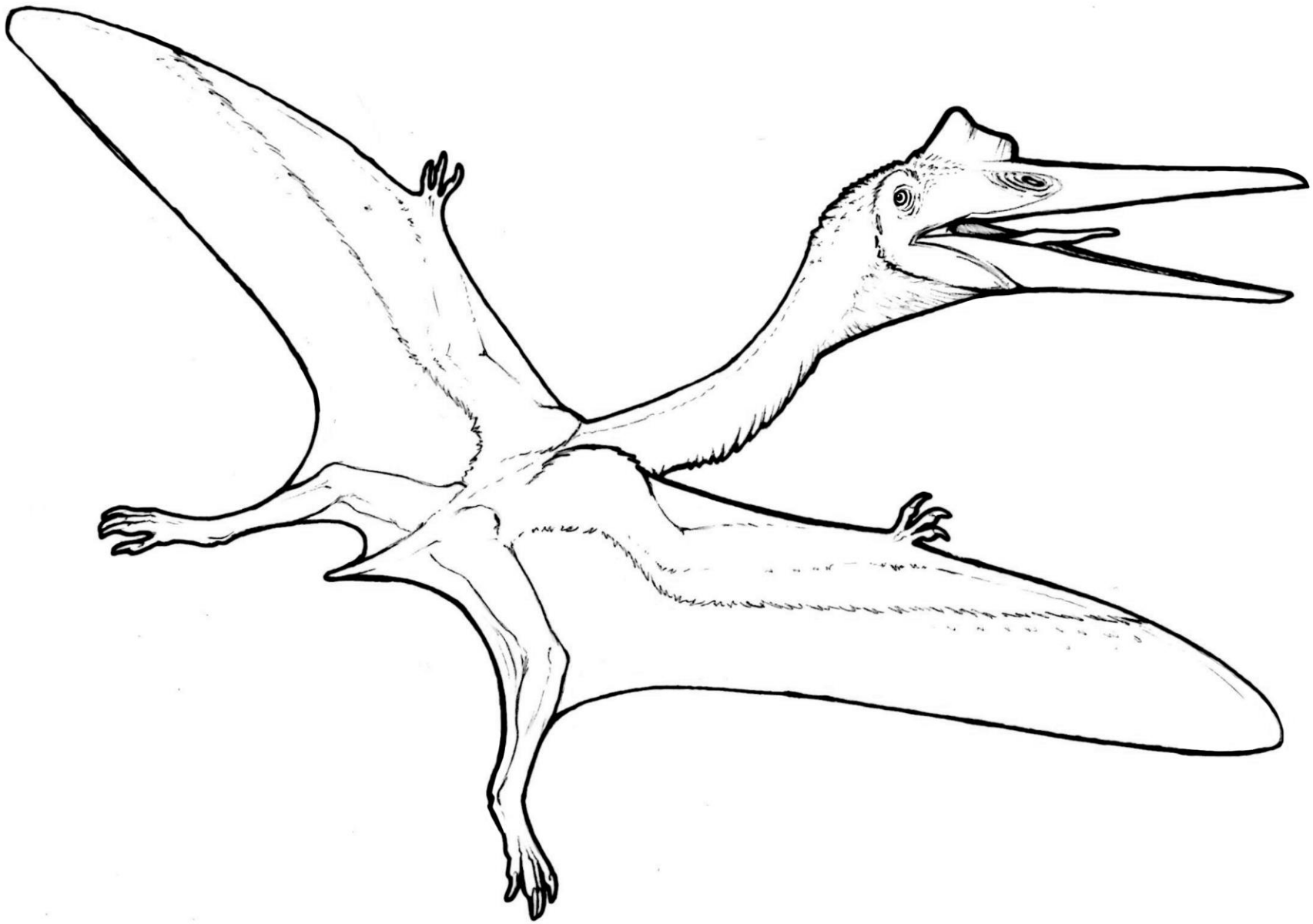
Plesiosaur



NPS Paleontology

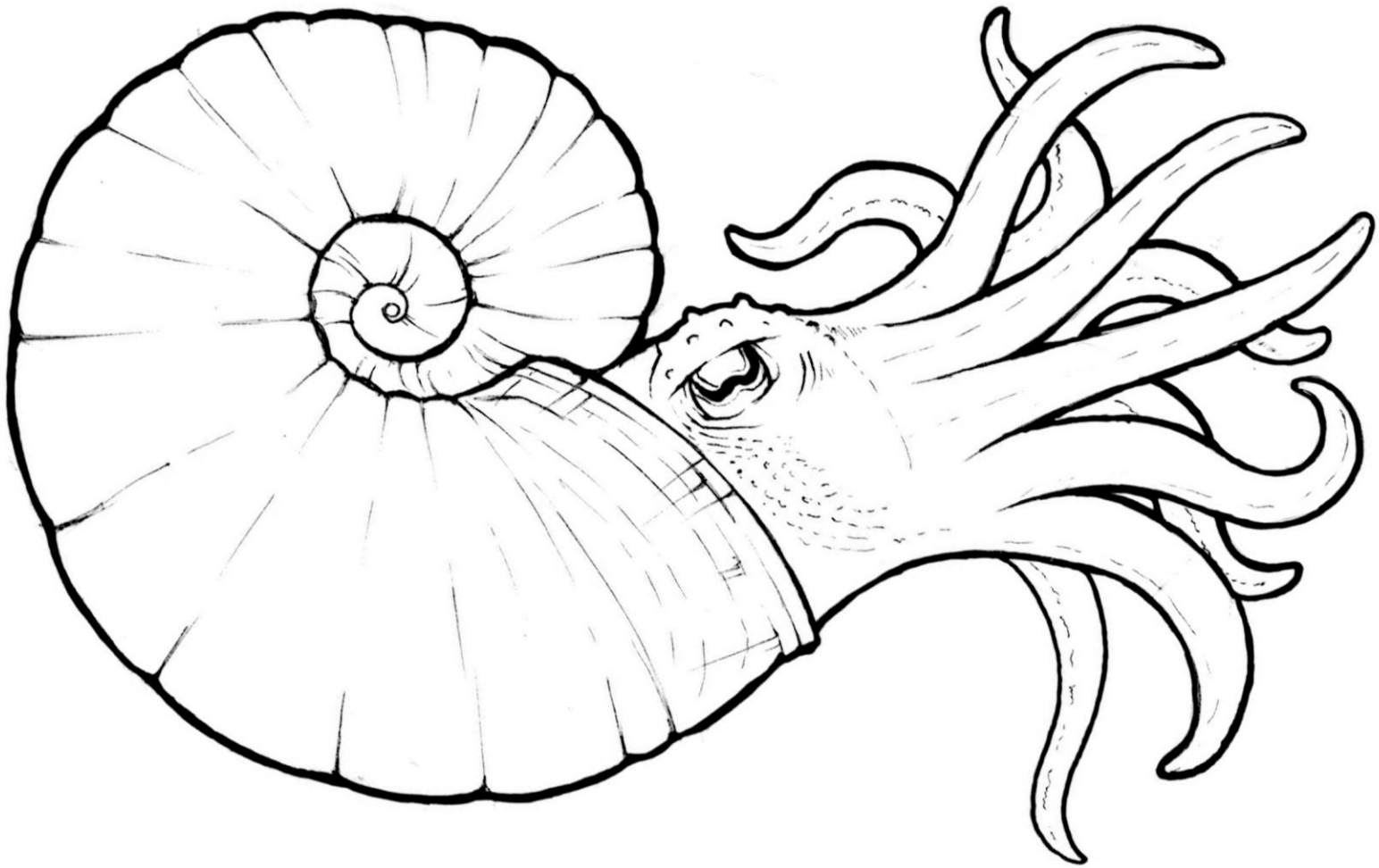
Quetzalcoatlus northropi

Pterosaur



Pachydiscus hazzardi

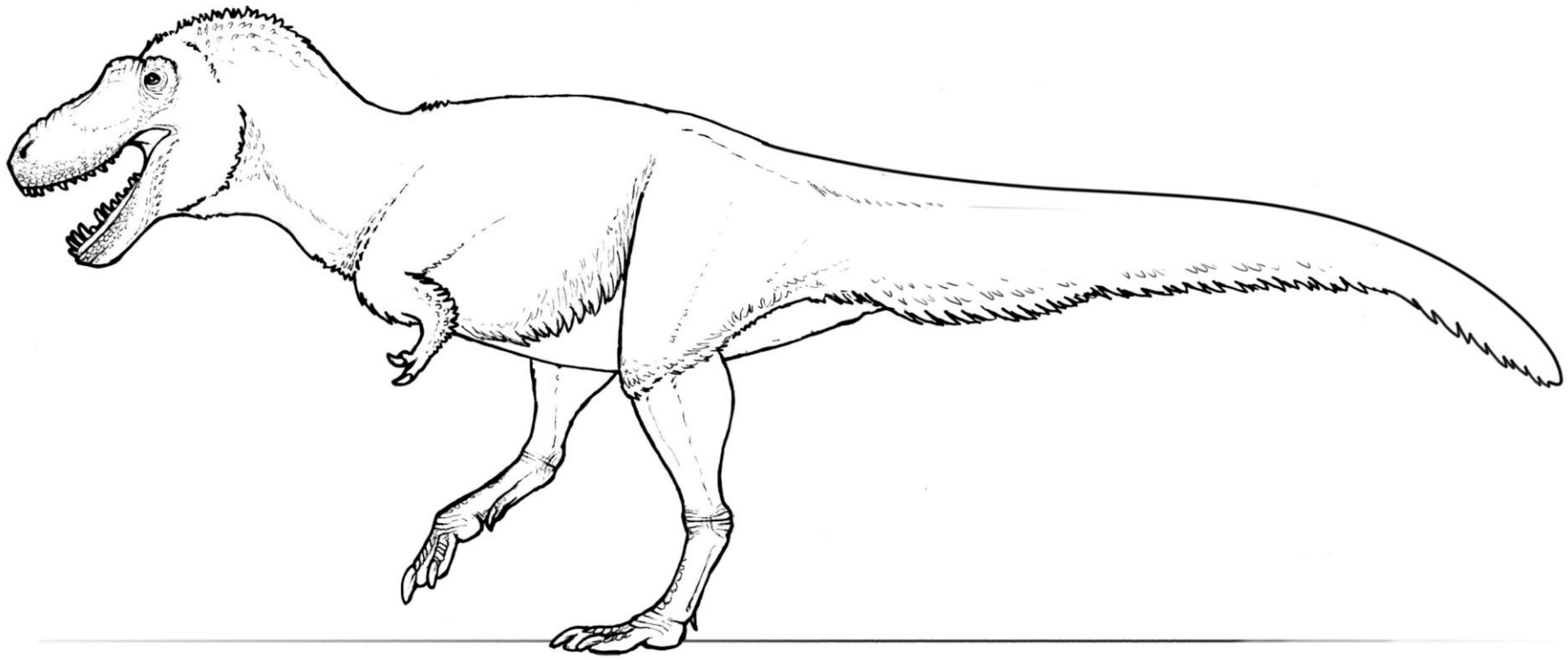
Ammonite



NPS Paleontology

Nanuqsaurus hoglundi

Theropod Dinosaur



CENOZOIC ERA

"recent animal life"

The Cenozoic Era is part of Earth's history which spans from 66 million years ago to the present. The Cenozoic began after the extinction of the dinosaurs and many other lifeforms at the end of the Cretaceous. This period of "recent animal life" is sometimes also referred to as the "Age of Mammals". This is due to the variety of mammals which evolved during this time.

This section includes some Cenozoic life which have been found in some of our national parks in the United States.

Plesiadapis gidleyi is an early primate that lived during the Paleocene. Fossils of *Plesiadapis* have been found at Big Bend National Park, Texas, and Theodore Roosevelt National Park, North Dakota.

Champsosaurus gigas is a crocodile-like reptile that lived during the Paleocene. Fossils of *Champsosaurus* have been found at Theodore Roosevelt National Park, North Dakota.

Megacerops coloradensis is a large rhino-like mammal known as a brontothere. This animal lived during the Eocene. Fossils of *Megacerops* have been found at Badlands National Park, South Dakota, and Florissant Fossil Beds National Monument, Colorado.

Heliobatis radians is a prehistoric stingray which lived in fresh-water lakes during the Eocene. Fossils of *Heliobatis* have been found in rocks within and around Fossil Butte National Monument, Wyoming.

CENOZOIC ERA
(continued)

Diplomystus dentatsus is a prehistoric herring-like fish. It lived in fresh-water lakes during the Eocene. Fossils of *Diplomystus* have been found in rocks within and around Fossil Butte National Monument, Wyoming.

Palaeovespa florissantia is a prehistoric wasp. This flying insect lived during the Eocene. Fossils of *Palaeovespa* have been found in rocks within and around Florissant Fossil Beds National Monument, Colorado.

Miniochoerus gracilis is a small plant-eating mammal known as an oreodont. This animal lived during the Late Eocene and Early Oligocene. Fossils of *Miniochoerus* have been found at Badlands National Park, South Dakota, and Scotts Bluff National Monument, Nebraska.

Hypertragulus hesperius is a small deer-like, plant-eating mammal. This animal lived during the Oligocene. Fossils of *Hypertragulus* have been found at Badlands National Park, South Dakota, and John Day Fossil Beds National Monument, Oregon.

Eurhinodelphis longirostrus is a primitive long-nosed dolphin. This animal lived during the Miocene. Fossils of *Eurhinodelphis* have been found at George Washington Birthplace National Monument, Virginia.

Daeodon hollandi is a large pig-like mammal known as an entelodont. This animal lived during the Miocene. Fossils of *Daeodon* have been found at Agate Fossil Beds National Monument, Nebraska.

CENOZOIC ERA
(continued)

Equus simplicidens is an extinct species of horse known as the "Hagerman Horse". This animal lived during the Pliocene. Fossils of *Equus simplicidens* have been found at Hagerman Fossil Beds National Monument, Idaho.

Chesapecten jeffersonius is an extinct scallop that lived during the Pliocene. It is the Virginia State Fossil. Fossils of *Chesapecten jeffersonius* have been found at Colonial National Historical Park, Virginia.

Mammuthus columbi is a large elephant-like mammal that lived during the Pleistocene. Fossils of *Mammuthus* are known from many national parks. The best specimens are preserved at Waco Mammoth National Monument, Texas.

Bison latifrons is an extinct species of bison (buffalo) that lived during the Pleistocene. Fossils of *Bison latifrons* have been found at Lake Meredith National Recreation Area, Texas, and Tule Springs Fossil Beds National Monument, Nevada.

Miracinonyx trumani is known as the American Cheetah that lived during the Pleistocene. Fossils of *Miracinonyx* have been found at Grand Canyon National Park, Arizona.

Gymnogyps californianus is a large bird known as a condor. This animal lived during the Pleistocene. Fossils of *Gymnogyps* have been found in caves at Grand Canyon National Park, Arizona.

CENOZOIC ERA
(continued)

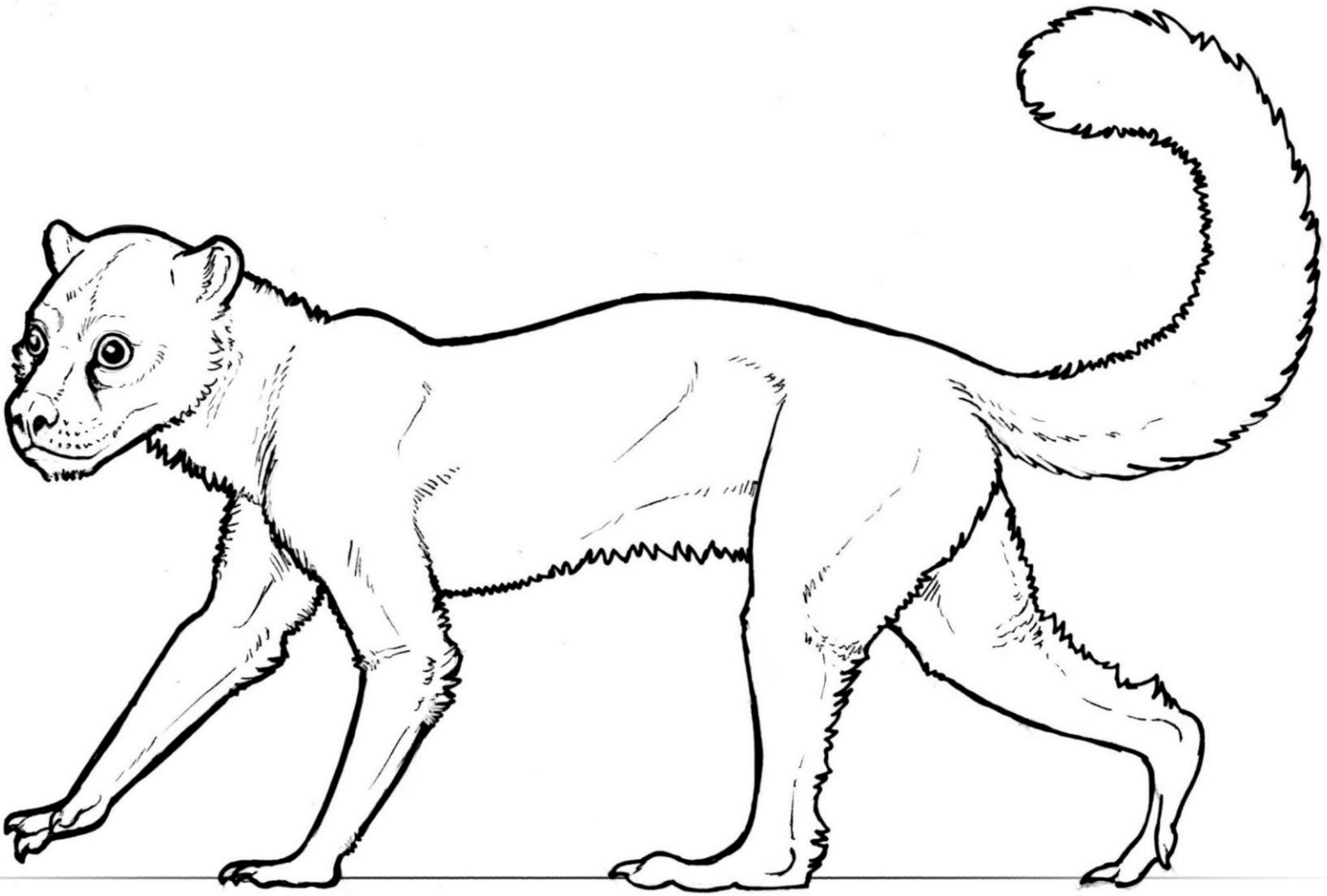
Nothrotheriops shastensis is known as the Shasta Ground Sloth. This large animal lived during the Pleistocene. Fossils of *Nothrotheriops* have been discovered in many national parks. This list includes Carlsbad Caverns National Park, New Mexico, Grand Canyon National Park, Arizona, Guadalupe Mountains National Park, Texas, and White Sands National Park, New Mexico.

Smilodon gracilis is a saber-tooth cat. This big cat lived during the Pleistocene. Fossils of *Smilodon* have been found at Tule Springs Fossil Beds National Monument, Nevada, and Valley Forge National Historical Park, Pennsylvania.

NPS Paleontology

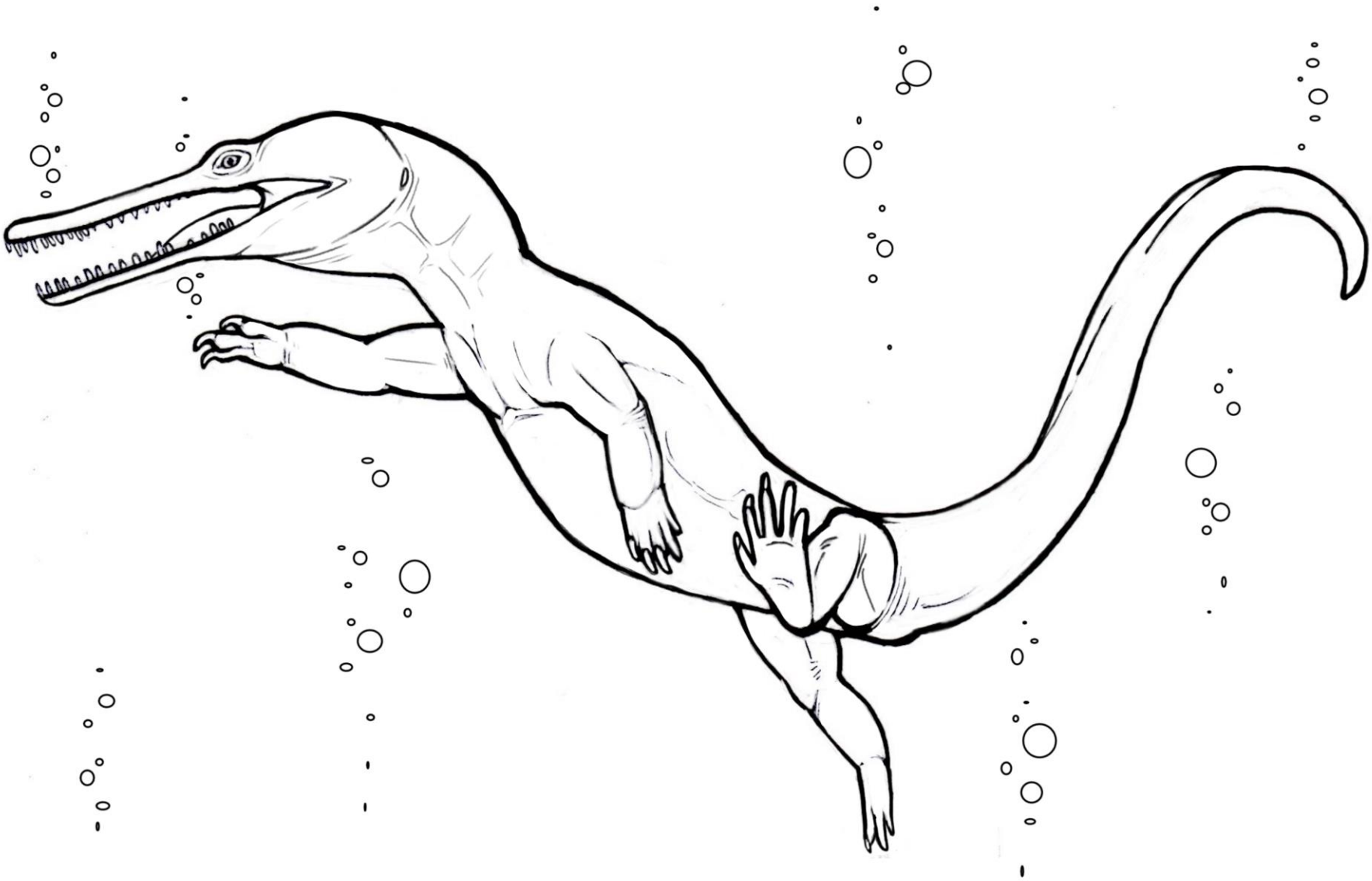
Plesiadapis gidleyi

Early Primate



Champsosaurus gigas

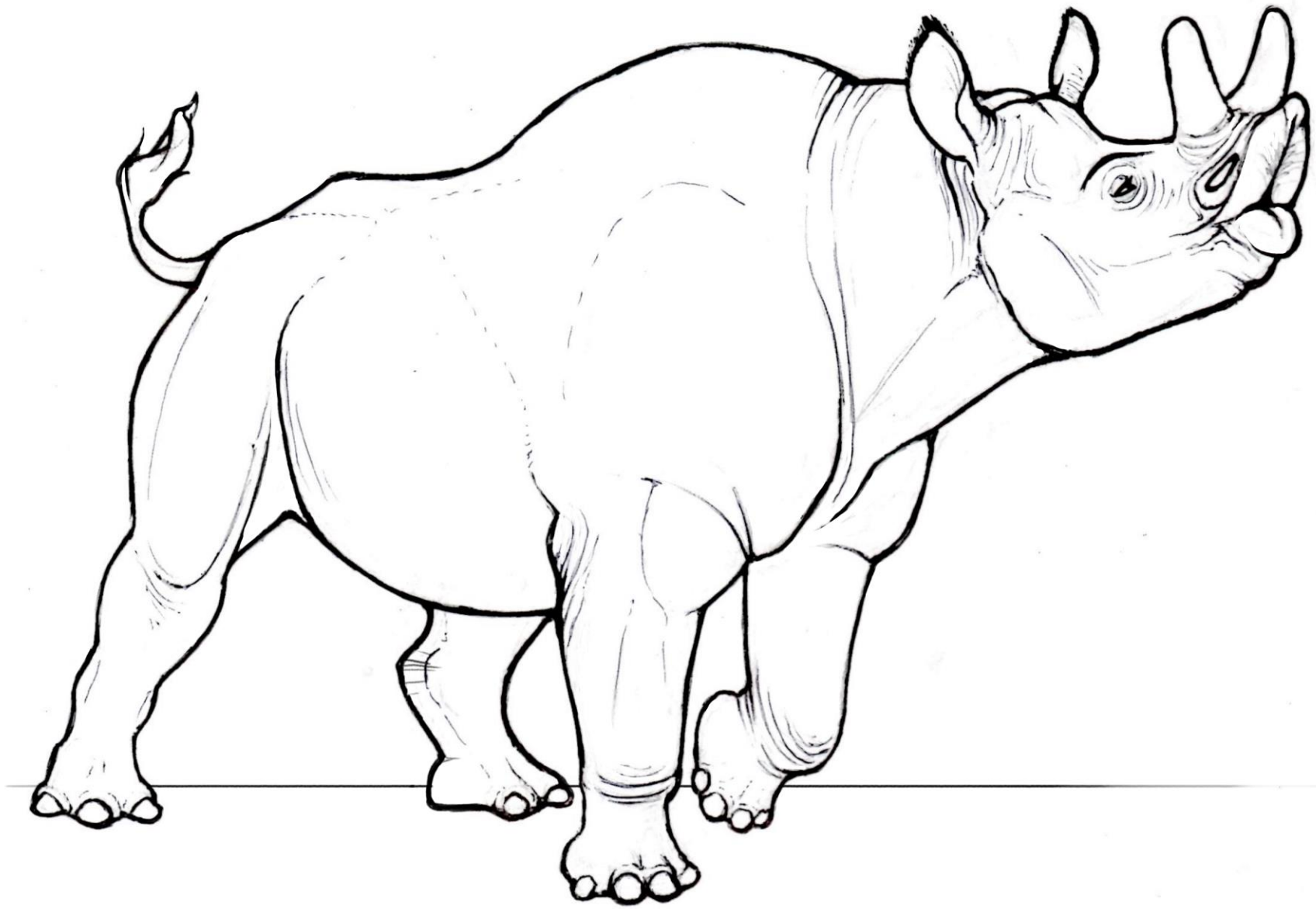
Fresh Water Reptile



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Megacerops coloradensis

Brontothere



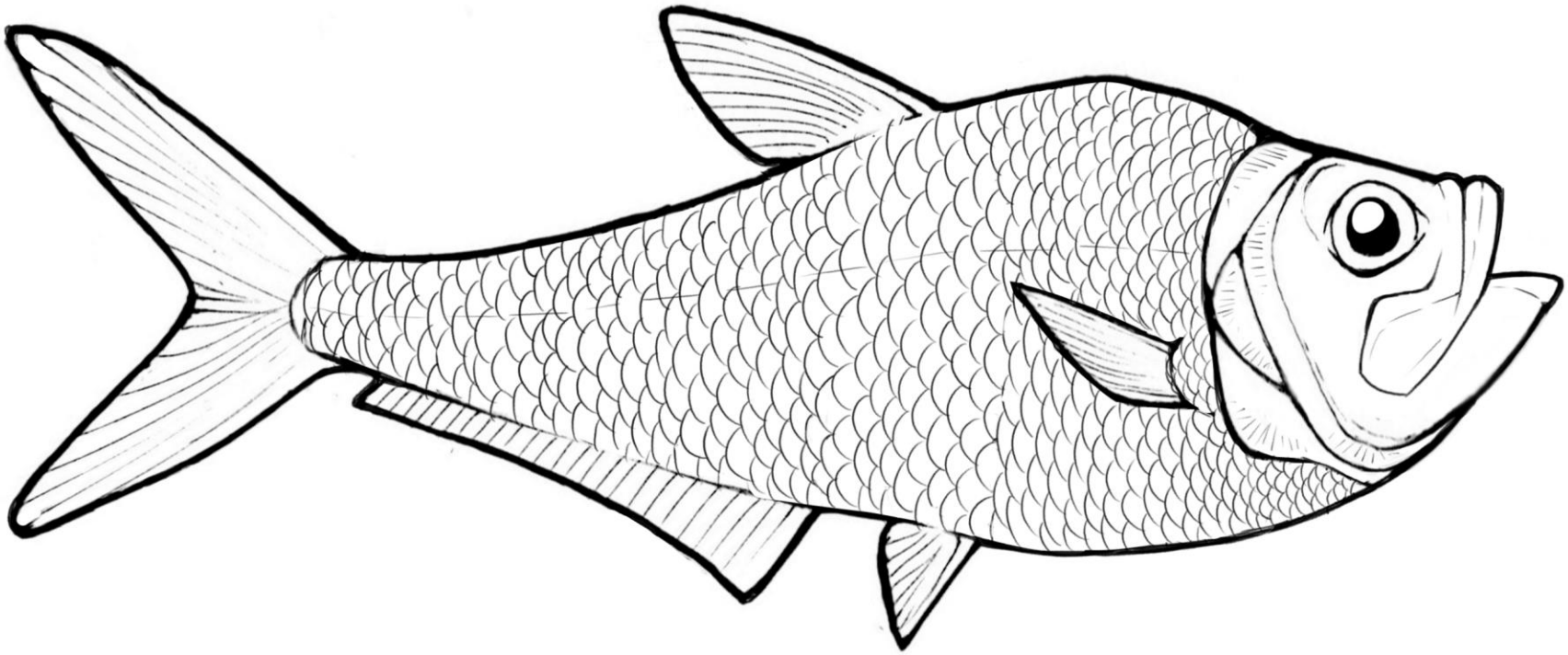
Heliobatis radians

Fresh Water Ray



Diplomystus dentatus

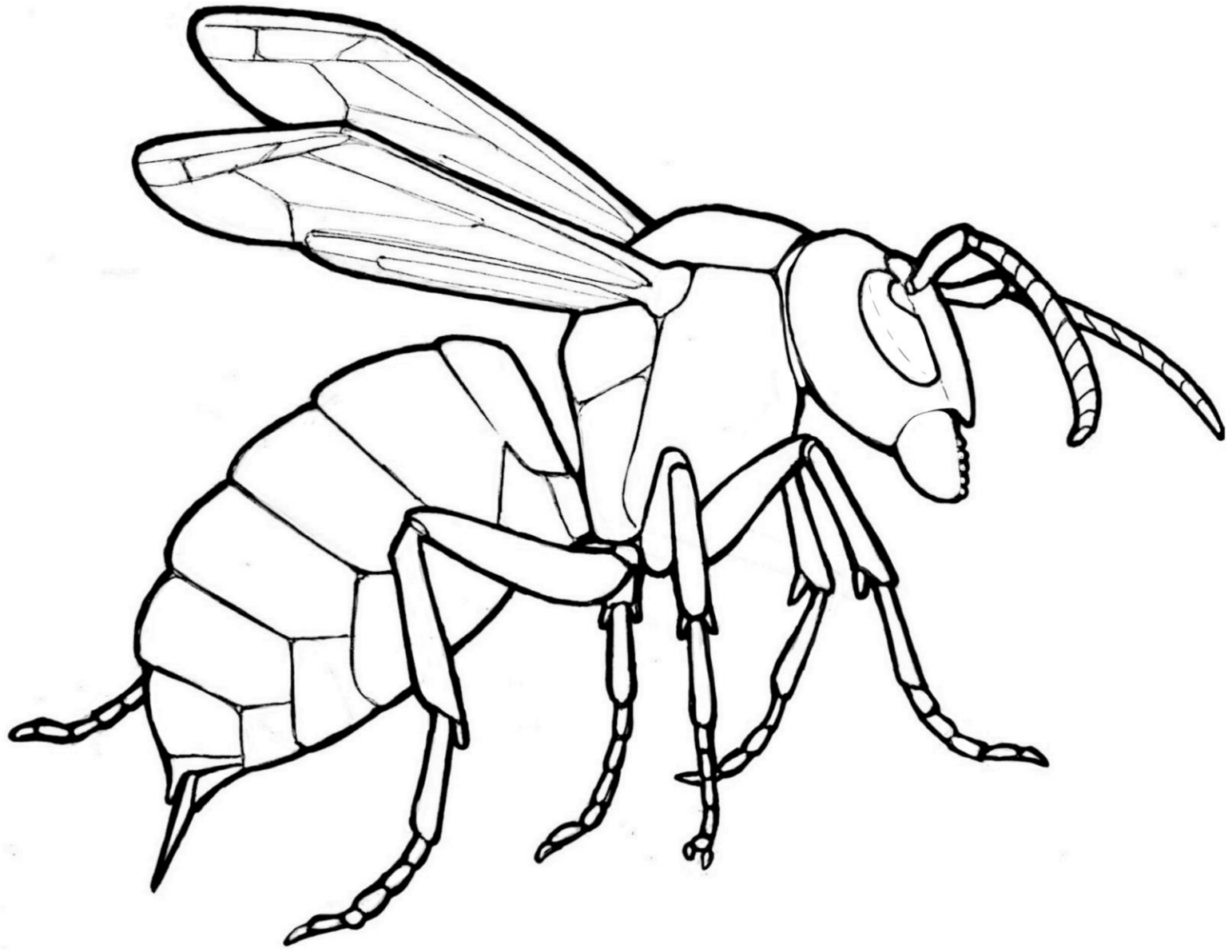
Fresh Water Fish



NPS Paleontology

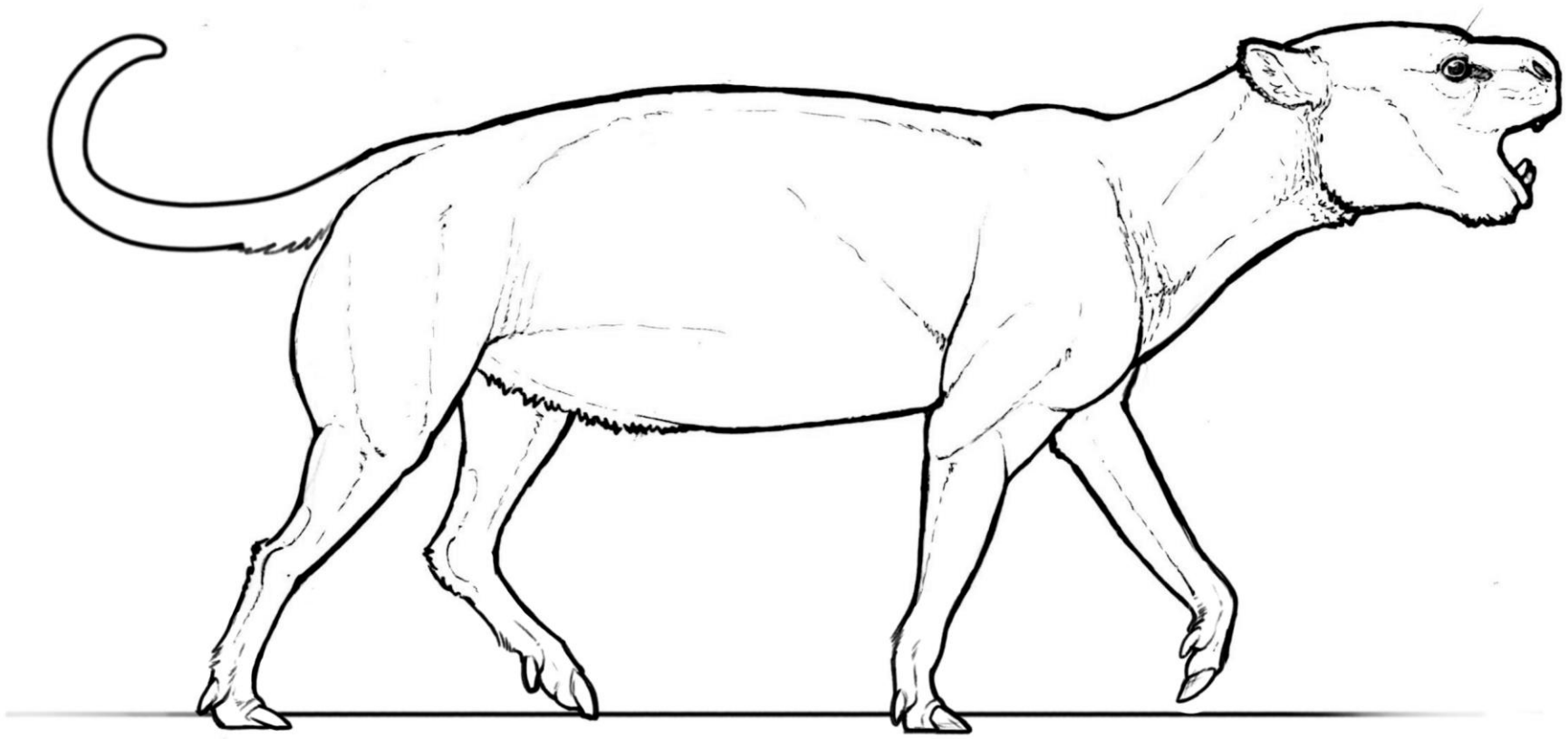
Palaeovespa florissantia

Ancient Wasp



Miniochoerus gracilis

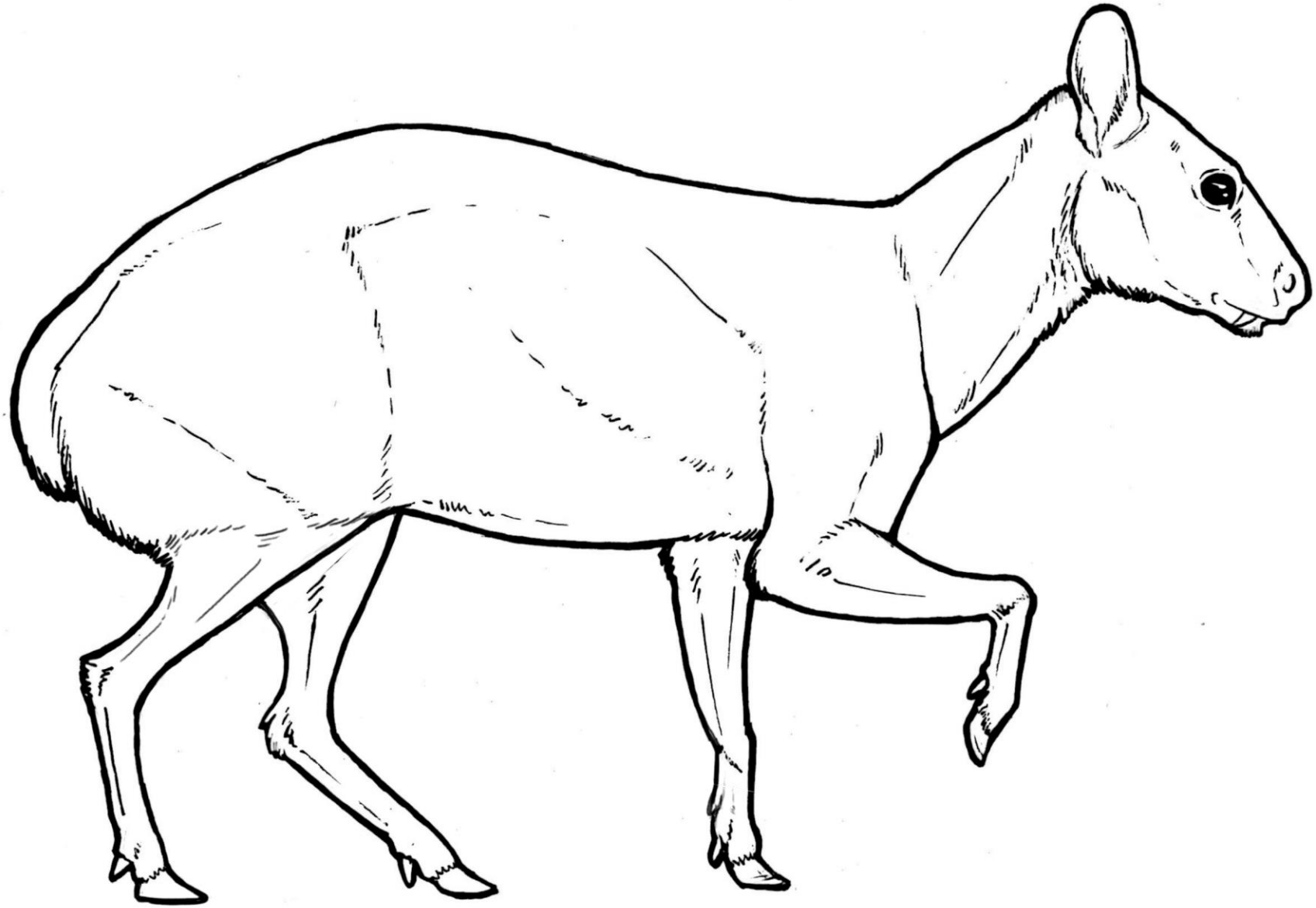
Oreodont



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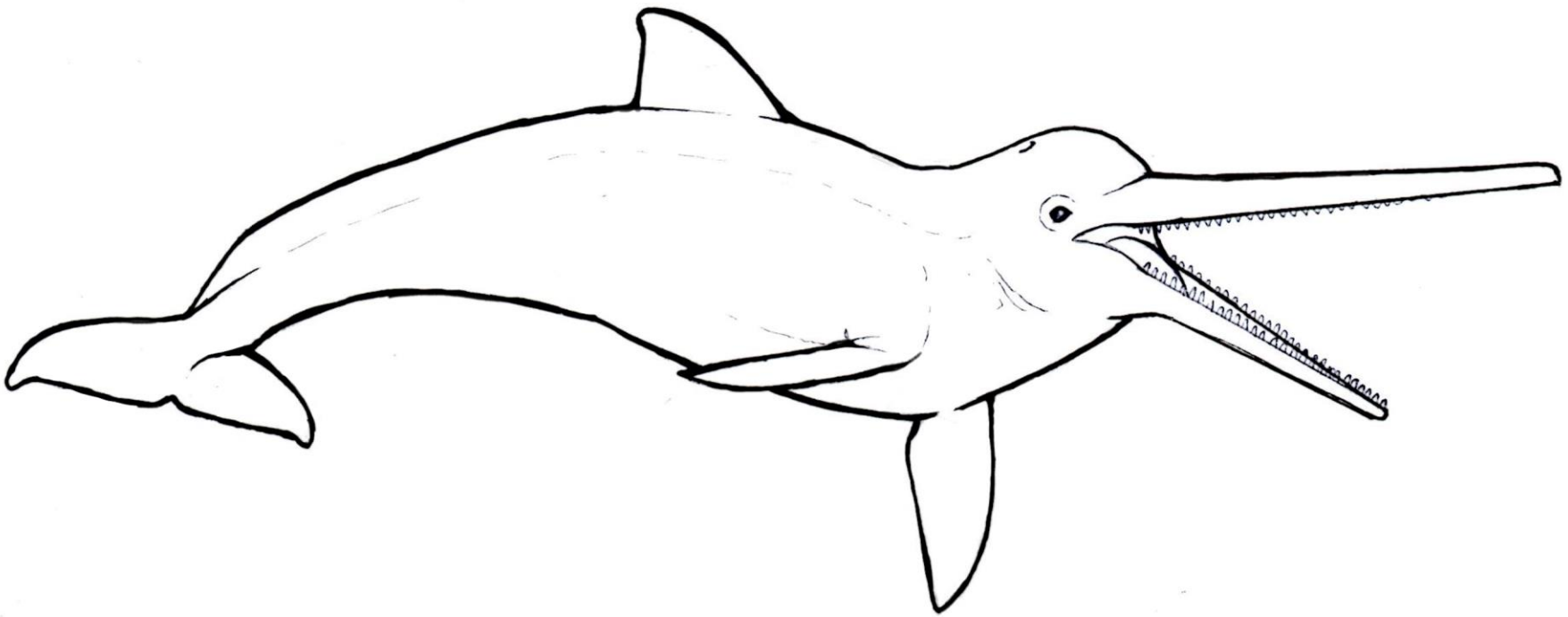
Hypertragulus hesperius

Ancient Deer



Eurhinodelphis longirostrus

Well-nosed Dolphin



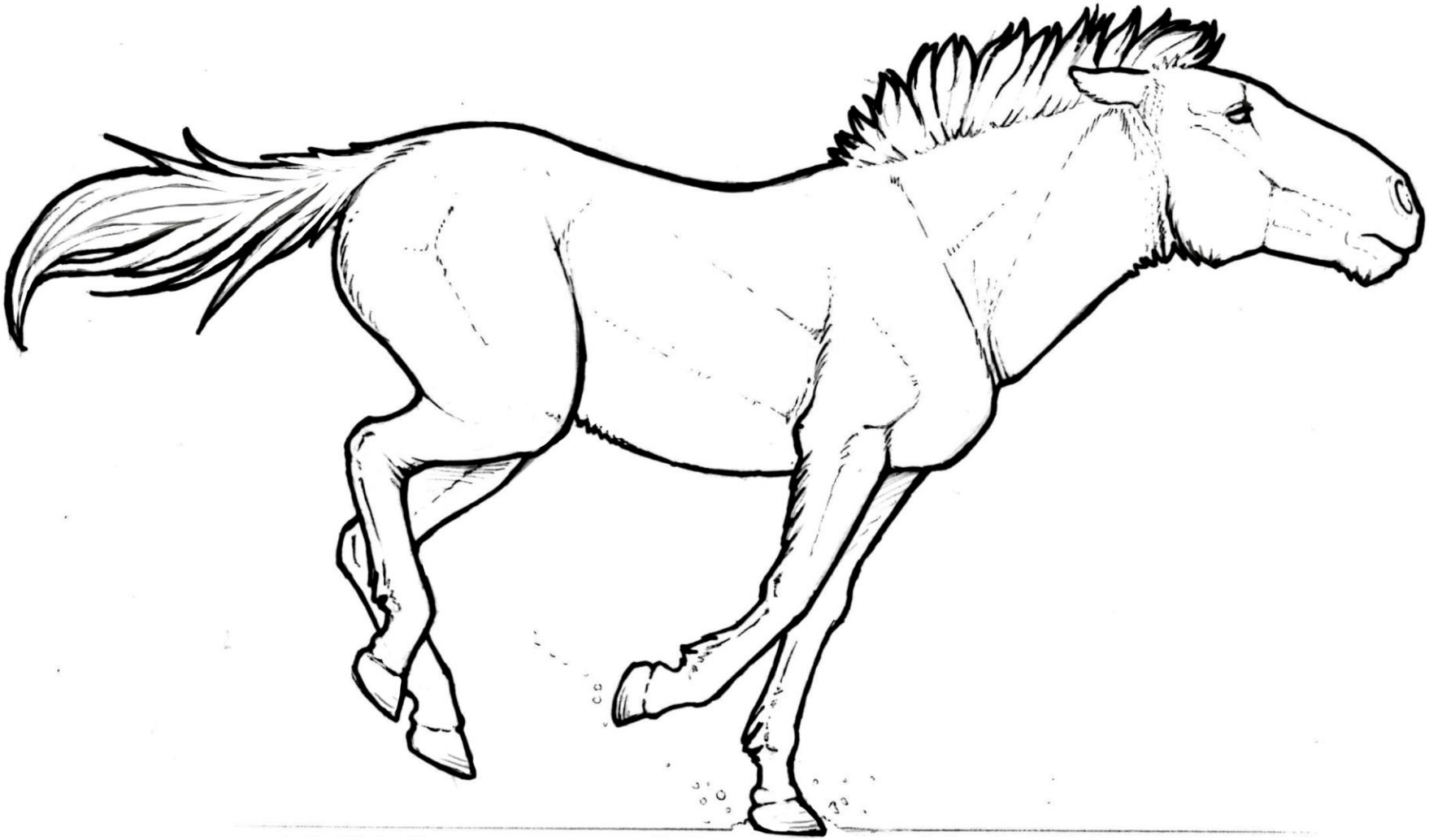
Daeodon shoshonensis

Entelodont



Equus simplicidens

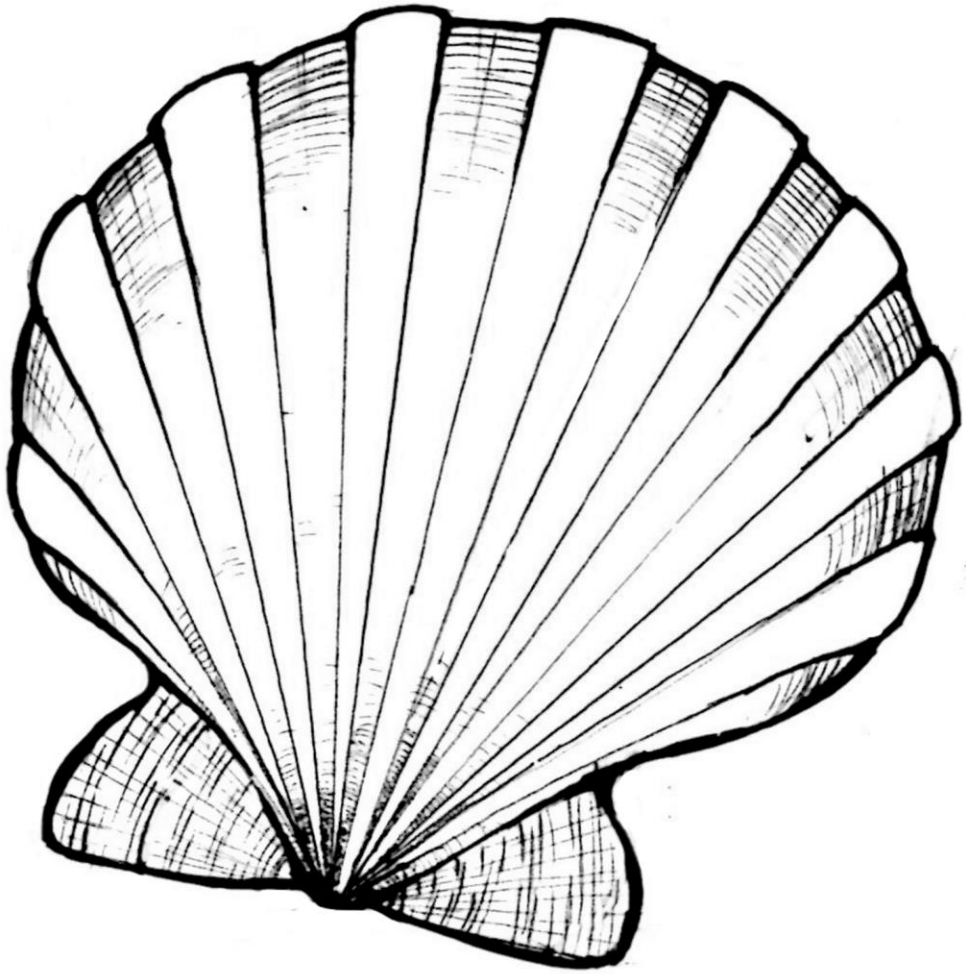
Hagerman Horse

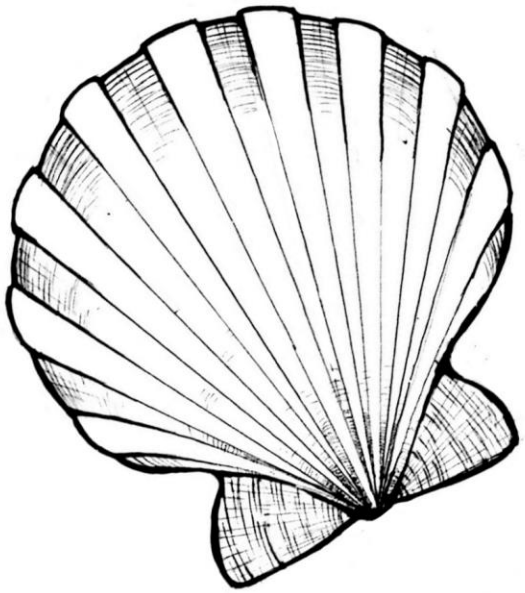


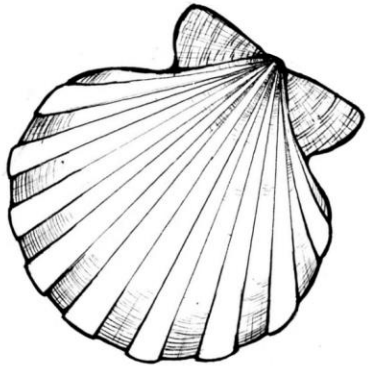
NPS Paleontology

Chesapecten jeffersonius

Scallop

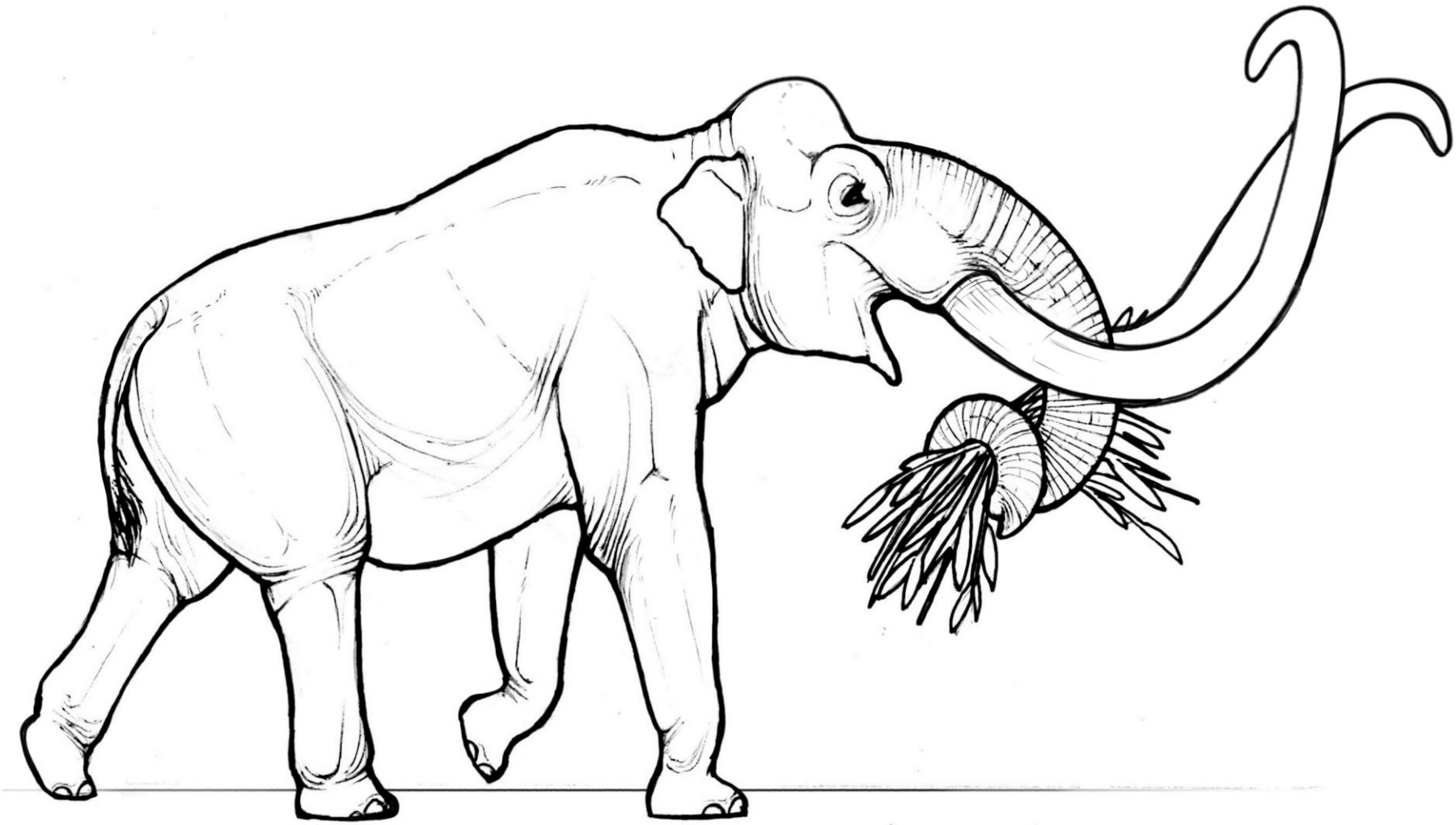






NPS Paleontology

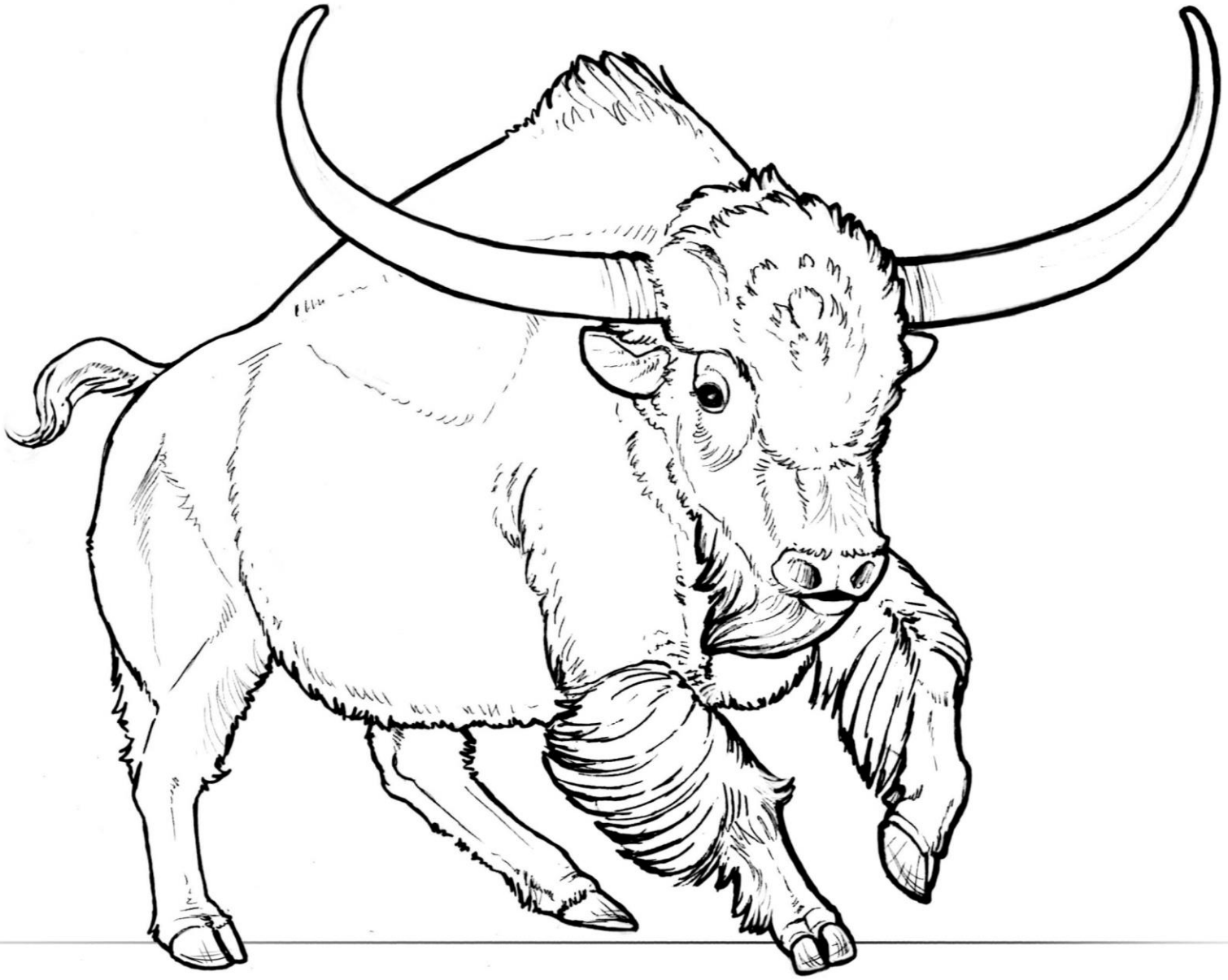
Mammuthus columbi Columbian Mammoth



NPS Paleontology

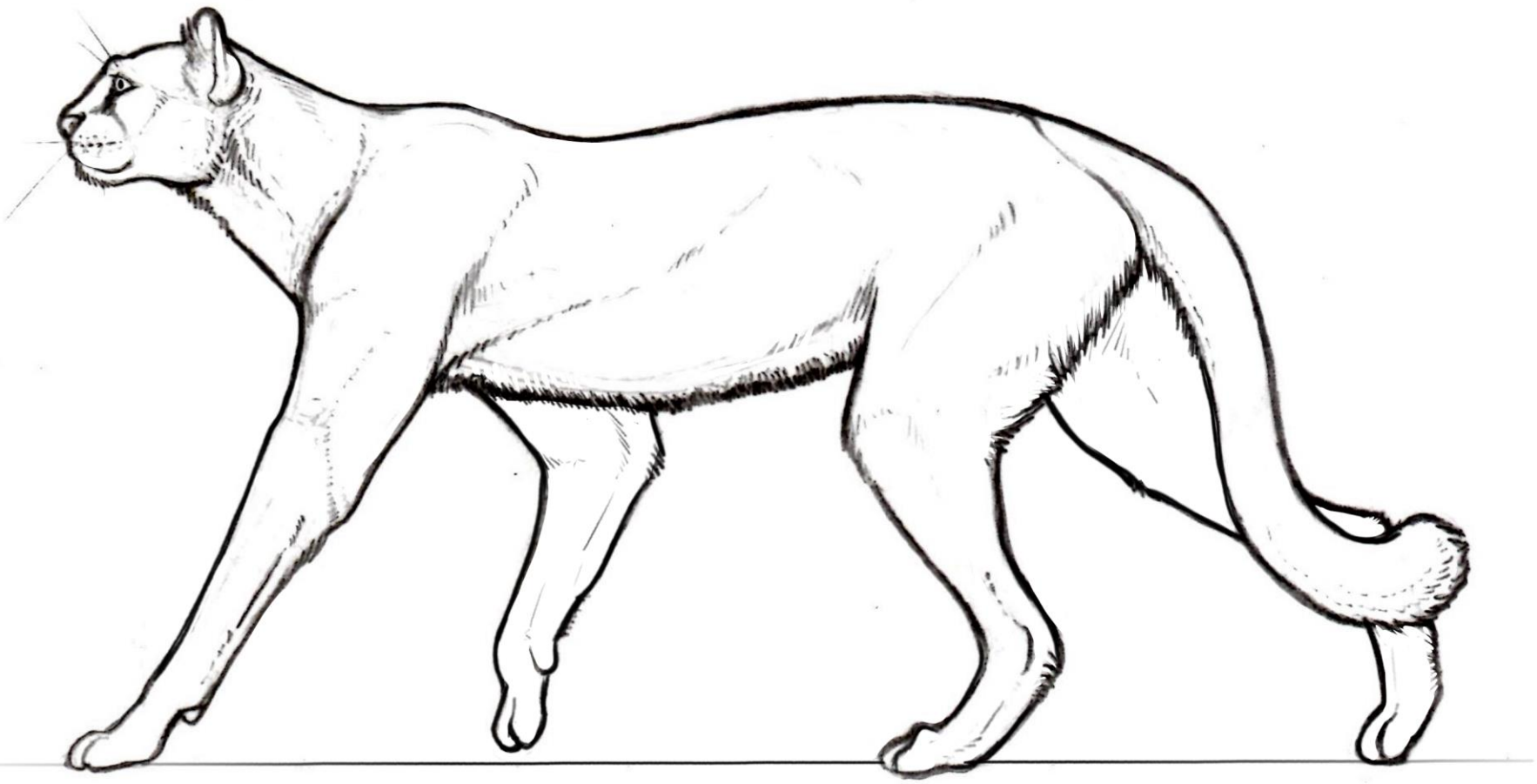
Bison latifrons

Long-horned Bison



Miracinonyx trumani

American Cheetah



NPS Paleontology

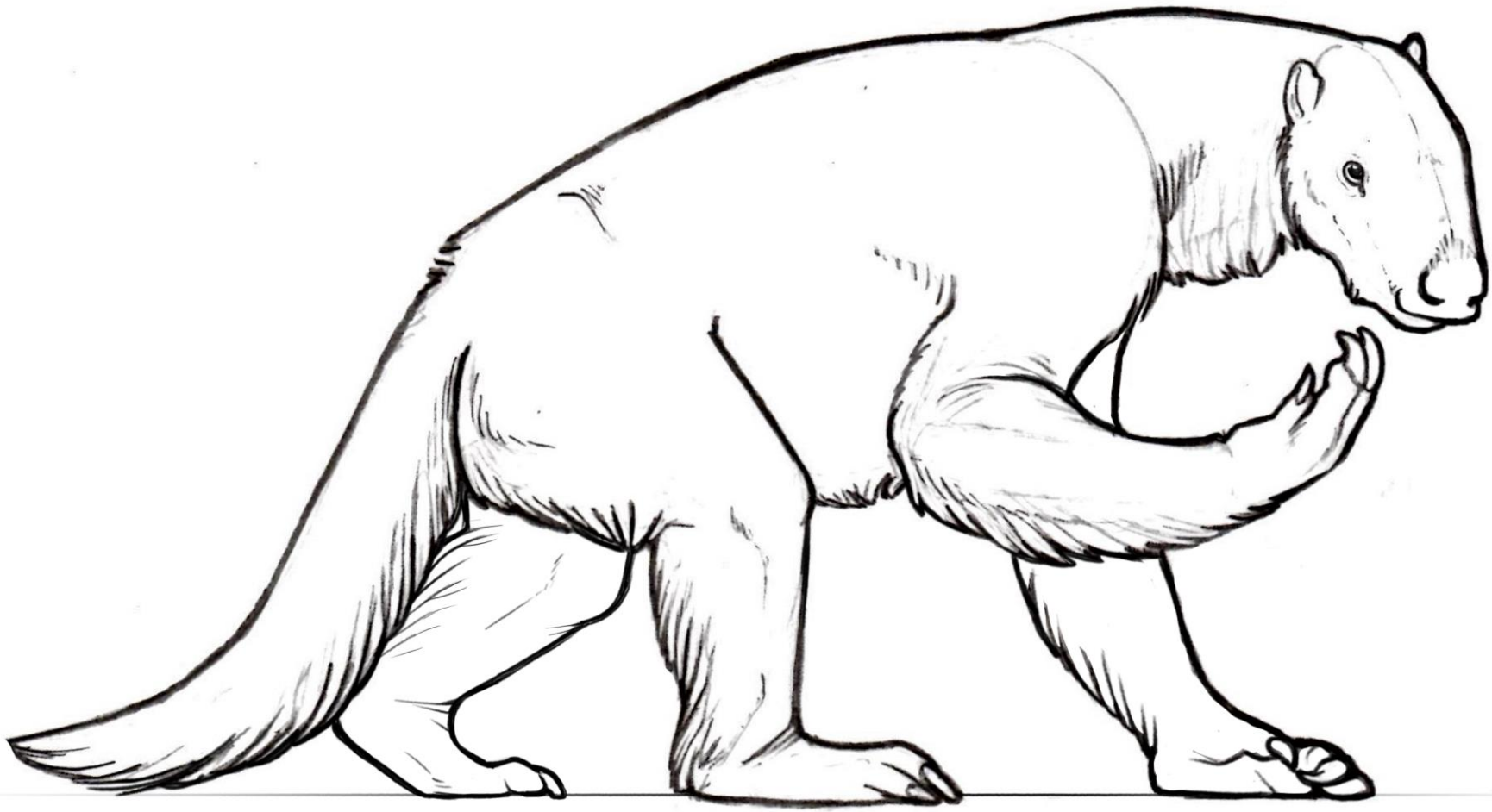
Gymnogyps californianus Condor



NPS Paleontology

Nothrotheriops shastensis

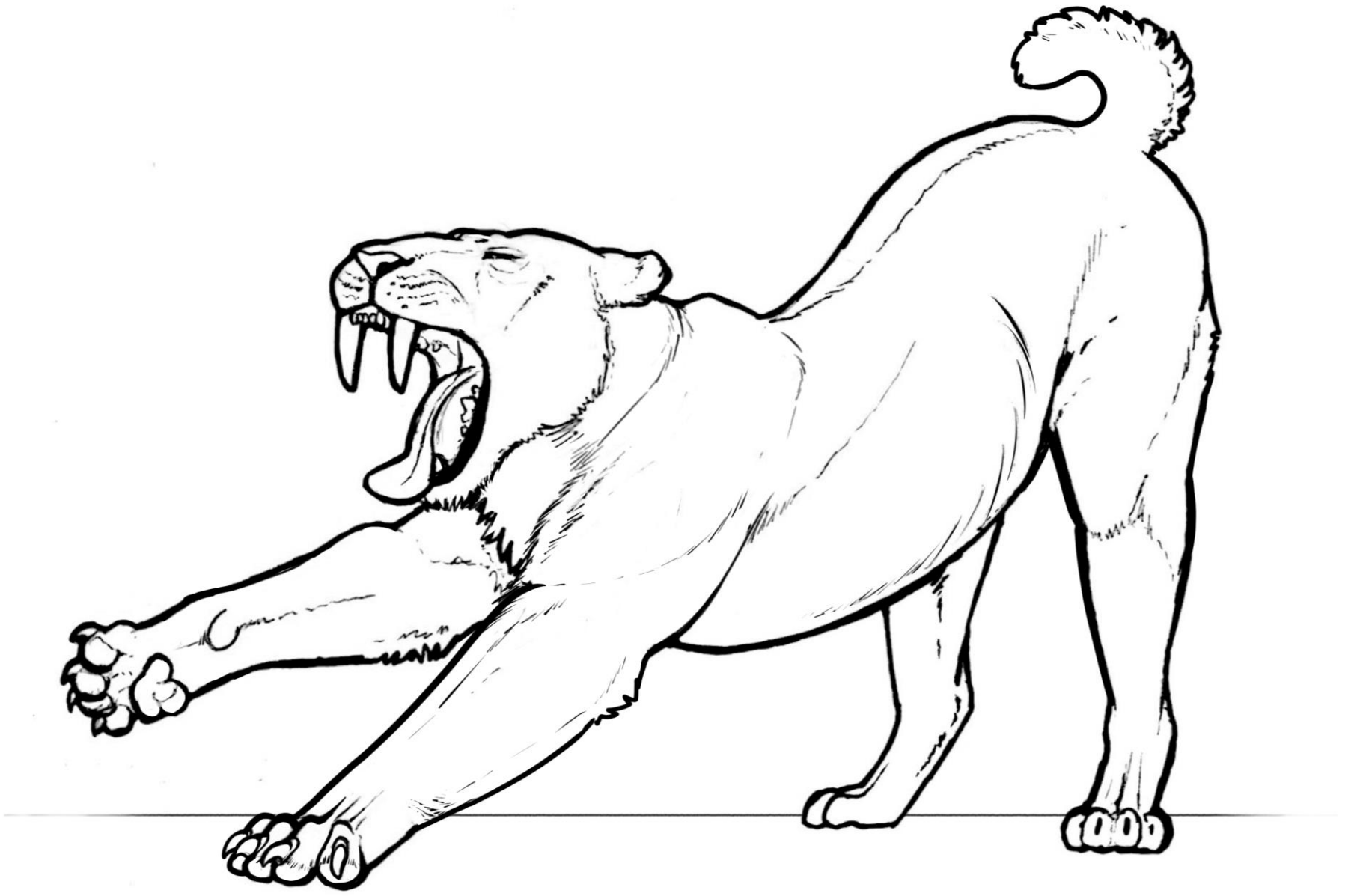
Shasta Ground Sloth

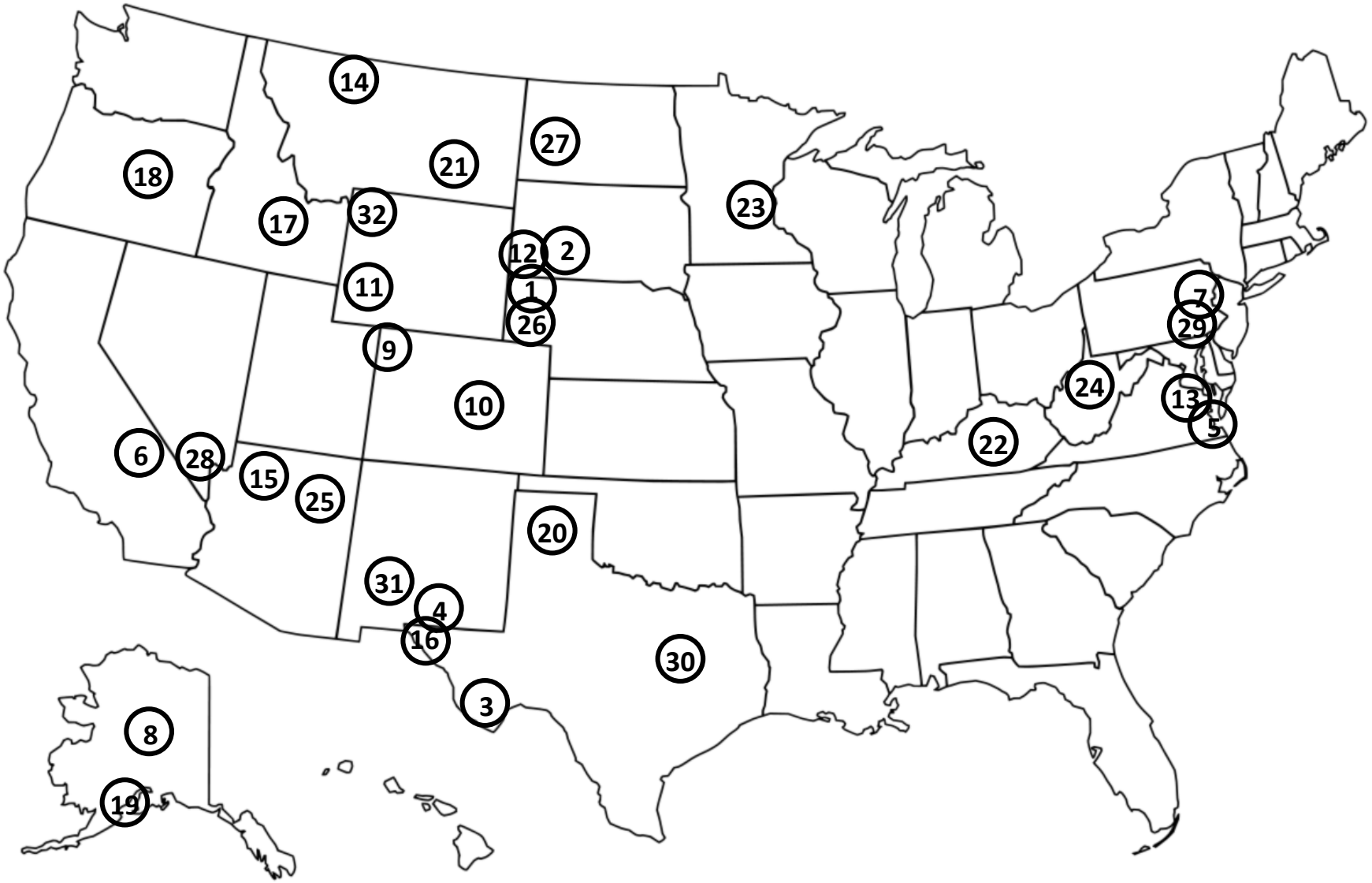


NPS Paleontology

Smilodon gracilis

Saber-toothed Cat





1. Agate Fossil Beds National Monument, NE
2. Badlands National Park, SD
3. Big Bend National Park, TX
4. Carlsbad Caverns National Park, NM
5. Colonial National Historical Park, VA
6. Death Valley National Park, CA
7. Delaware Water Gap National Recreation Area, NJ, PA
8, Denali National Park & Preserve, AK
9. Dinosaur National Monument, CO, UT
10. Florissant Fossil Beds National Monument, CO
11. Fossil Butte National Monument, WY
12. Fossil Cycad National Monument, SD (abolished)
13. George Washington Birthplace National Monument, VA
14. Glacier National Park, Montana
15. Grand Canyon National Park, Arizona
16. Guadalupe Mountains National Park, TX
17. Hagerman Fossil Beds National Monument, ID
18. John Day Fossil Beds National Monument, OR
19. Katmai National Park & Preserve, AK
20. Lake Meredith National Recreation Area, TX
21. Little Bighorn Battlefield National Monument, MT
22. Mammoth Cave National Park, KY
23. Mississippi National River & Recreation Area, MN
24. New River Gorge National River, WV
25. Petrified Forest National Park, AZ
26. Scotts Bluff National Monument, NE
27. Theodore Roosevelt National Park, ND
28. Tule Springs Fossil Beds National Monument, NV
29. Valley Forge National Historical Park, PA
30. Waco Mammoth National Monument, TX
31. White Sands National Park, NM
32. Yellowstone National Park, ID, MT, WY

GEOLOGIC TIME SCALE

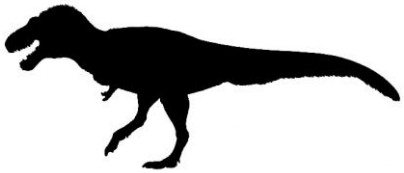
Eon	Era	Period	Epoch
Phanerozoic	Cenozoic	Quaternary	Holocene
			Pleistocene
		Neogene	Pliocene
			Miocene
		Paleogene	Oligocene
			Eocene
			Paleocene
	Mesozoic	Cretaceous	
		Jurassic	
		Triassic	
	Paleozoic	Permian	
		Carboniferous: Pennsylvanian	
		Carboniferous: Mississippian	
		Devonian	
		Silurian	
		Ordovician	
		Cambrian	
Precambrian		Proterozoic	
		Archean	
		Hadean	

11,700 YEARS AGO



"AGE OF MAMMALS"

66 MILLION YEARS AGO



"AGE OF REPTILES"

252 MILLION YEARS AGO



"AGE OF ANCIENT ANIMAL LIFE"

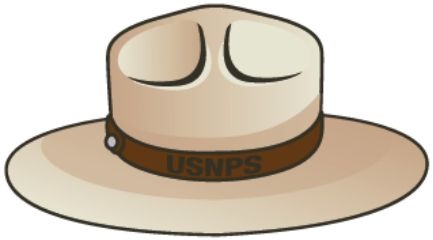
541 MILLION YEARS AGO

4.6 BILLION YEARS AGO

ORIGIN OF THE EARTH

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This *Prehistoric Life in the National Parks Coloring Book* is a collaborative project between the National Park Service (NPS) Paleontology Program and the American Geosciences Institute (AGI). The NPS and AGI share a vision and are committed to inspire children, of all ages, to embrace science and stewardship through their interests in dinosaurs and other prehistoric life.

This coloring book is available online at: https://www.nps.gov/subjects/fossils/coloring-book.htm

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Artwork: Studio 105 and Benji Paysnoe

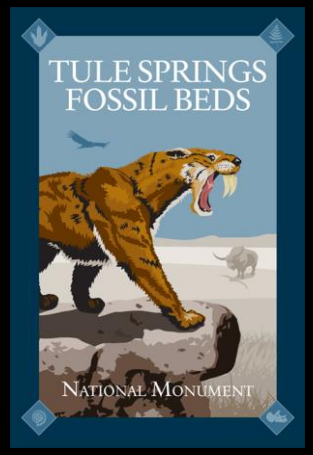
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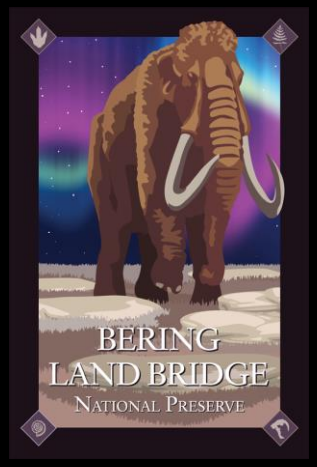
Website Development: Jim Wood

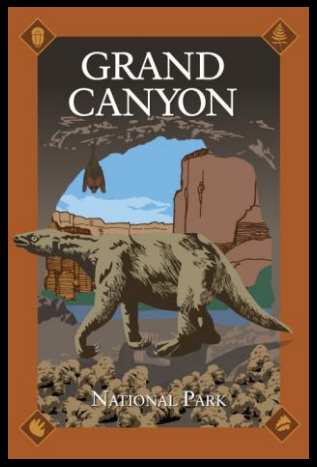
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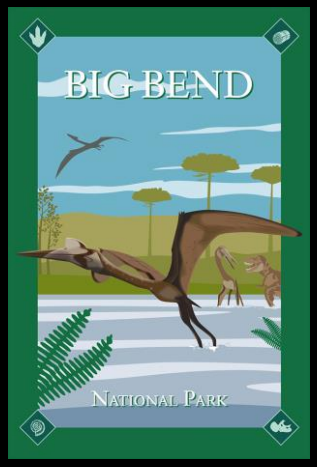


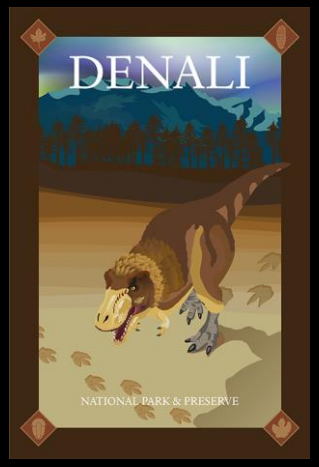


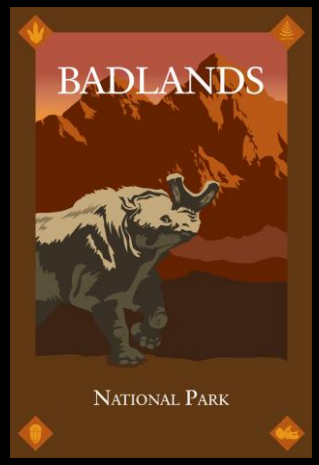


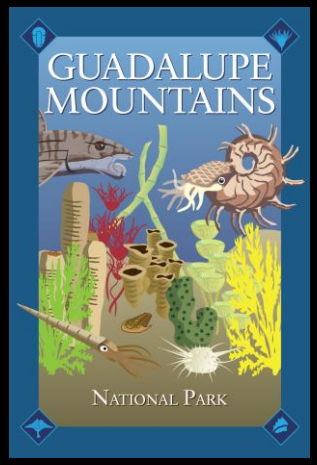












PREHISTORIC LIFE IN THE NATIONAL PARKS COLORING BOOK

