OF NEW YORK STATE

Time Distribution of Fossils
(including important fossils of New York)

The center of each lettered circle indicates the approximate time of existence of a specific index fossil (e.g. Fossil (A) lived at the end of the Early Cambrian).

TRILOBITES, NAUTILOIDS, AMMONOIDS, CRINOIDS, DINOSAURS, MAMMALS, BIRDS, VASCULAR PLANTS, CORALS, GASTROPODS, BRACHIOPODS, GRAPTOLITES, EURYPTERIDS, PLACODERM FISH

Important Geologic Events in New York

Advance and retreat of last continental ice

Sands and clays underlying Long Island and Staten Island deposited on margin of Atlantic Ocean

Dome-like uplift of Adirondack region begins

Initial opening of Atlantic Ocean
North America and Africa separate

⟨ Intrusion of Palisades sill ⟩

Pangaea begins to break up

Alleghenian orogeny caused by collision of North America and Africa along transform margin, forming Pangaea

Catskill delta forms
Erosion of Acadian Mountains

Acadian orogeny caused by collision of North America and Avalon and closing of remaining part of Iapetus Ocean

Salt and gypsum deposited in evaporite basins

Erosion of Taconic Mountains; Queenston delta forms

Taconian orogeny caused by closing of western part of Iapetus Ocean and collision between North America and volcanic island arc

Widespread deposition over most of New York along edge of Iapetus Ocean

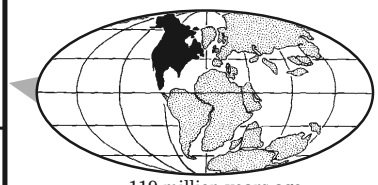
Rifting and initial opening of Iapetus Ocean

Erosion of Grenville Mountains

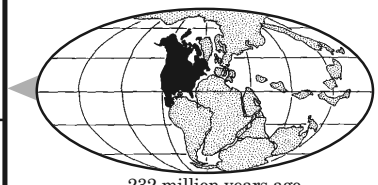
Grenville orogeny: metamorphism of bedrock now exposed in the Adirondacks and Hudson Highlands

Inferred Positions of Earth's Landmasses

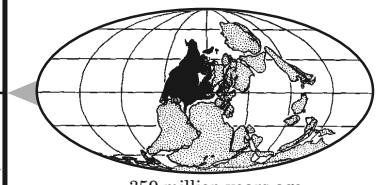
59 million years ago



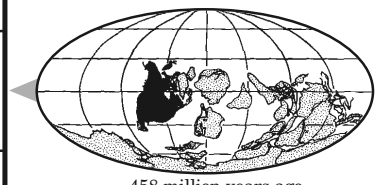
119 million years ago



232 million years ago

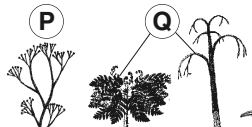


359 million years ago

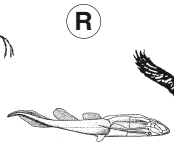


458 million years ago

Mastodont
Beluga Whale



Cooksonia
Aneurophyton
Naples Tree



Bothriolepis

Condor
Lichenaria

Cystiphyllum
Pleurodictyum

Maclurites
Platyceras

Eospirifer

Mucrospirifer