GEOLOGIC HISTORY OF NEW

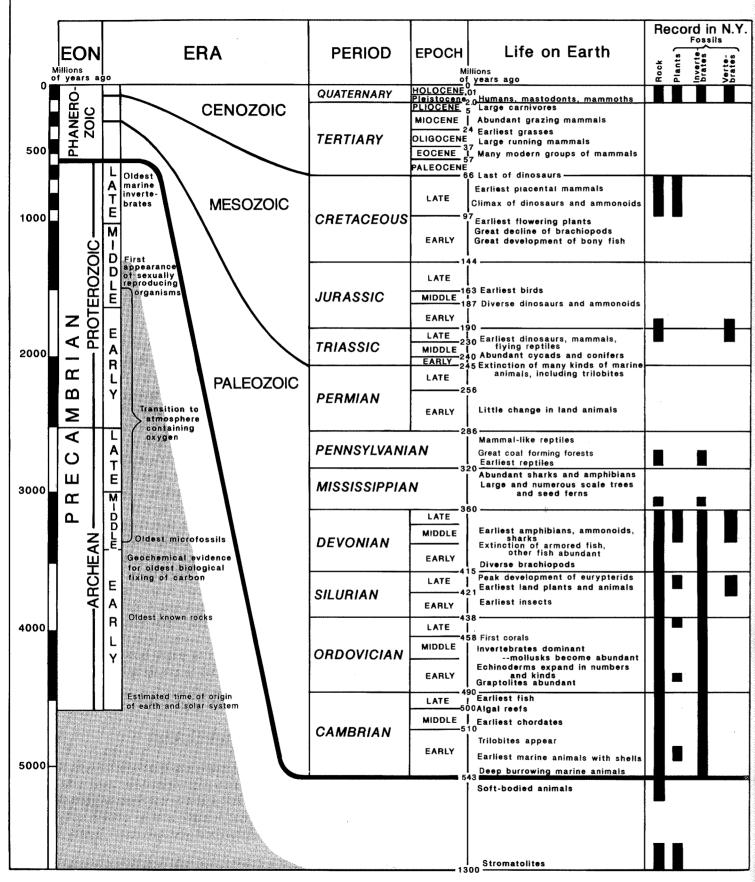


Figure 2.1. This figure includes the geologic time scale. In the left-hand part of the chart, the columns headed "EON," "ERA," "PERIOD," and "EPOCH" make up the relative time scale. The two columns headed "Millions of years ago" convert it to the quantitative time scale. The rest of the figure summarizes important events in the geo-

YORK STATE AT A GLANCE

!			
Important Fossils of New York	Tectonic Events Affecting Northeast North America	Important Geologic Events in New York	Inferred Position of Earth's Landmasses
CONDOR MASTODONT FIG-LIKE LEAF		Advance and retreat of last continental ice Uplift of Adirondack region	TERTIARY 59 million years ago
		Sandstones and shales underlying Long island and Staten Island deposited on margin of Atlantic Ocean Development of passive continental margin	CRETACEOUS 119 million
·		Kimberlite and lamprophere dikes	years
3	issive Margin	Atlantic Ocean continues to widen	
COELOPHYSIS	0	Initial opening of Atlantic Ocean Intrusion of Palisades Sill Rifting	
44 💝	g. Tri	Massive erosion of Paleozoic rocks	TRIASSIC 232 million years ago
CLAM		Alleghanian Orogeny caused by collision of North America and Africa along transform margin	
			PENNSYLVANIAN 306 million years
NAPLES BRACHIOPOD TREE PLACODERM FISH	8	Catskill Delta forms Erosion of Acadian Mountains Acadian Orogeny caused by collision of North America and Avalon and closing of remaining part of lapetus Ocean Evaporite basins; salt and gypsum deposited	ago
CORAL GRAPTOLITE	Sion	Erosion of Taconic Mountains; Queenston Delta forms Taconian Orogeny caused by closing of western part of lapetus Ocean and collision between North America and volcanic island arc	DEVONIAN/MISSISSIPPIAN 363 million years ago
TRILOBITE	3	lapetus passive margin forms Rifting and initial opening of lapetus Ocean	ORDOVICIAN 458 million years ago
STROMATOLITES	D a	Erosion of Grenville Mountains Grenville Orogeny; granite and anorthosite intrusions Subduction and volcanism Sedimentation, volcanism	

logic history of the world and of New York State. (The words used in the column "Tectonic Events Affecting Northeast North America" are explained in Chapter 3. The term transform collision refers to a collision that takes place along a transform margin.)