Paleoclimatic Recorder	Climate Variable Recorded	Property Measured
Ice	Atmospheric composition	Trapped bubbles
	Windiness	Dust grain sizes
	Source strength of wind-blown materials	Abundance of pollen, dust, sea salt
	Temperature	Ice isotopic ratios
		Borehole temperatures
		Gas isotopes
		Melt layers
	Snow accumulation rate	Thickness of annual layers
		In-situ radiocarbon
Ocean sediments and corals	Temperature	Species assemblages
		Shell geochemistry
		Alkenone ($U_{37}^{K'}$) thermometry
	Salinity	Shell isotopes after correction for temperature and ice volume
	Ice volume	Isotopic composition of pore waters
		Shell isotopes after correction for temperature and salinity
	pH	Boron isotopes in shells
	Ocean circulation	Cd/Ca in shells
		Carbon-isotopic data
	Corrosiveness/chemistry of ambient waters	Shell dissolution
Lake and bog sediments	Temperature	Species assemblages
		Shell geochemistry
	Atmospheric temperature and soil moisture	Washed- or blown-in materials including pollen and spores
		Macrofossils such as leaves, needles, beetles, midge flies, etc.
	Water balance (precipitation minus evaporation	Species assemblages
		Shell geochemistry
Tree rings	Temperature and/or moisture availability	Ring width or density of trees stressed by cold or drought
	Variations in the isotopic ratio of water related to temperature	Cellulose isotopic ratios
Speleothems/cave formations	Moisture availability	Growth rate of formations
	Isotopic ratios of water related to temperature or precipitation rate	Oxygen isotopic composition
	Overlying vegetation	Carbon-isotopic composition

Paleoclimatic Recorder	Climate Variable Recorded	Property Measured
Terrestrial sediment types/ nature of erosion	Temperature	Glaciers
		Permafrost
	Snowfall/rainfall	Lakes
		Sand dunes
		Glaciers
		Loess
	Windiness	Loess
		Sand dunes
	Soil formation rate/moisture availability	Soil profiles
		Loess
Boreholes	Temperature	Direct measurements
Old groundwater	Temperature	Isotopic and noble gas composition of water
Desert varnish	Moisture availability	Growth rate
		Chemistry

NOTE: Past climate conditions can be measured only through "proxies," characteristics that give insights about past conditions. For example, gas bubbles trapped in ice can be analyzed to understand the atmosphere at the time the bubbles were trapped. This table lists examples of paleoclimatic proxies, what the proxy measures, and from where the proxy data originated.