

Module 11 Biodiversity Crisis
Unit 02 Types of Biodiversity
Species diversity

Estimates of the Numbers of Described and Predicted Species by Taxonomic Group

	Described	Predicted	Described	Predicted	Described	Predicted
Animalia	1,124,516	9,920,000	1,424,153	6,836,330	1,225,500	10,820,000
Chromista	17,892	34,900	25,044	200,500	-	-
Fungi	44,368	616,320	98,998	1,500,000	72,000	1,500,000
Plantae	224,244	314,600	310,129	390,800	270,000	320,000
Protozoa	16,236	72,800	28,871	1,000,000	80,000,	600,000
Prokaryotes	-	-	10,307	1,000,000	10,175	-
Total	1,438,769	10,960,000	1,897,502	10,897,630	1,657,675	13,240,000

Describing species is a complex process by which biologists determine an organism's unique characteristics.

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Conceptual Models



Biodiversity hotspots are geographical areas that contain high numbers of endemic species. The purpose of the concept was to identify important locations on the planet for conservation efforts. By protecting hotspots, governments are able to protect a larger number of species.

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Unit 03 Biodiversity Change through Geological Time
The Five Mass Extinctions

Geological Period	Mass Extinction Name	Time (Millions of Years)
Ordovician-Silurian	end-Ordovician O-S	450-440
Late Devonian	end-Devonian	375-360
Permian-Triassic	end-Permian	251
Triassic-Jurassic	end-Triassic	205
Cretaceous-Paleogene	end-Cretaceous K-Pg	65.5

The fossil record of the **mass extinction events** was the basis for defining periods of geological history. They typically occur at the transition point between geological periods.