BIOLOGICAL EVOLUTION TIMELINE

From the formation of Earth to the Holocene

4.5 - 3.5 Gya
PRECAMBRIAN / ARCHEAN Origin of Life Formation of Earth; first prokaryotic cells and emergence of anaerobic metabolism.

2.5 Gya
PROTEROZOIC EON The Great Oxidation Event Cyanobacteria produce oxygen; evolution of eukaryotic cells through endosymbiosis.

541 Mya
PALEOZOIC ERA Cambrian Explosion Rapid diversification of marine invertebrates and major animal phyla.

Colonization of Land First land plants (Ordovician) and first tetrapods/insects (Devonian).

252 Mya
MESOZOIC ERA Age of Reptiles Dominance of Dinosaurs; emergence of mammals and first flowering plants (Angiosperms).

66 Mya
CENOZOIC ERA Rise of Mammals Radiation of mammals and birds following the K-Pg extinction event.

Hominid Evolution Emergence of Australopithecus (~4 Mya) and Homo sapiens (~300,000 years ago).

Present
HOLOCENE Anthropocene Influence Current epoch characterized by significant human impact on global biodiversity.