

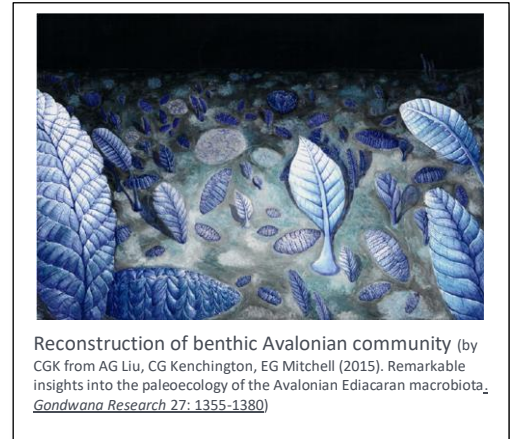


Early evidence for life

What are the earliest known ecosystems?

What evidence do we have of these?

Outline the evidence of early multicellular life



Avalon Explosion

When did the Avalon Explosion occur?

Stages of the Avalon Explosion

Stage	Major Fossil Location(s)	Types of Organisms	Evolutionary Innovations
1 – Avalon			
2 – White Sea			
3 – Nama			

Outline features of the animals and ecosystems of the Ediacaran time period.

Cambrian Explosion

When did the Cambrian begin?

What fossils have helped scientists define the Cambrian?



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Compare Cambrian ecosystems

Stage	Overview of diversity	Dominant group (%)	Features of ecosystem
Early (Chengjiang)			
Middle (Burgess Shale)			

Outline features of the animals and ecosystems of the Cambrian time period.

What caused the changes?

Summarise the role of:

- Increasing oxygen
- Burrowing (Agronomic Revolution)
- Predation
- More complex nervous systems

Why is it difficult to identify just one factor that caused the Cambrian explosion?

Glossary:

Assemblage: group of fossils found very close together in a single layer of rock, indicating that they all lived together

Lagerstätten: fossil sites with extraordinary preservation and (usually) diversity. Famous sites include the Ediacara Hills of South Australia, the Burgess Shale of Canada and the Rancho La Brea Tar Pits in California. Learn more from the [Virtual Fossil Museum](#).

Metazoan: multicellular animal

Microbialites: microbial mat fossils including stromatolites, thrombolites, dendrolites and MISS (microbially induced sedimentary structures).

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