

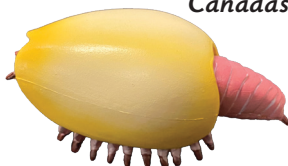
Explosion of Arthropods

Arthropods are a good example of large morphological differences (disparity) appearing in the fossil record without evidence of large numbers of species (diversity) in the underlying sediments: *"Disparity before Diversity."*

This pattern is unexpected in evolutionary theory, but is compatible with the idea that different morphologies were created separately. Four disparate kinds of Cambrian arthropods are illustrated below.



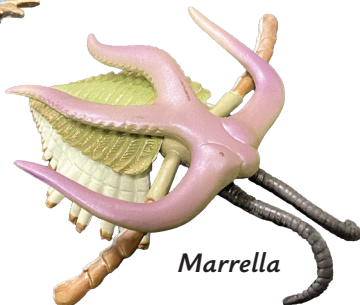
Opabinia



Canadaspis



Anomalocaris



Marrella

Artistic portrayals of Cambrian fossil arthropods

Images: GRI