

Gathering the Evidence...

Darwin's theory tied together a seemingly unrelated set of facts concluded by others, but after its publication, people from many scientific fields brought forward their own information in support of it.

1. The fossil record :

Is the massed collection of prehistoric life we've uncovered in sedimentary rock strata.

- ☞ It shows that fossils that are younger are more similar to the species we have today (make sense...they have had less time to change), and really old fossils are remarkably different.

The fossil record also provides a **chronological time line** for when species appeared. (we can make statements about their “**relative ages**” and “**absolute ages**”)...

Ex. Relative age

Bacteria existed before birds. Birds existed before mammals.

Ex. Absolute age

Stromatolites....ring structures left behind by ancient blue-green algae on the shores of Lake Superior.....1, 900, 000, 000 years old.

- ☞ The fossil record also **proves that not all creatures were alive at the same time**. That supports the idea that one group evolved out of another group.

- ☞ “**Transitional fossils**” have been discovered....these “in-between” links have characteristics of two groups, and support the idea that one group can give rise to another.

(Ex. Archaeopteryx)

Dating fossils.....

Relative dating.....acknowledging their position in the rock strata.

Absolute dating.....radioisotope decay tests.