

The drifting of supercontinents, such as Gondwana, over the surface of the Earth has resulted in major changes in Earth's climate. In turn climate change contributed to other major events, such as the evolution of single celled to multi-celled organisms.

Gondwana in particular had a remarkable 300 million year journey, as it drifted from equator to pole, passing through different climatic zones enroute, enabling it to be colonised by a wide range of new species.

What happened during this journey is recorded in Antarctica's rocks and is summarised below, from the most distant past to the present. (mya = million years ago).

- A period of mountain building brought deep rocks to the surface, including granites and metamorphic rocks.
- The mountain building stopped and erosion produced an extensive flat surface, called the 'Kukri Peneplane'
- A 2500 m thick sequence of sedimentary rocks, known as the Beacon Supergroup, was deposited on the peneplane. The oldest of these sedimentary rocks show that East Antarctica had large meandering rivers and was partly covered in lakes and shallow seas. At this time (Devonian), there was rapid evolution of