

MARINE FOSSILS

Underwater workings

Our underwater origins are difficult to imagine, but evidence is etched into the landscape around us. Marine fossils help us paint a picture of the past.

During the Devonian period, 390-million-years ago, eastern Queensland was covered by a warm shallow sea. Erupting lava gradually built up islands (the Calliope Island arc) that provided a perfect base for corals, sponges, crinoids and shell fish to grow. Their calcareous skeletons accumulated on the sea floors to form the sedimentary Mount Etna limestone, of which our caves are a part.

The rocks tell this story of a shallow sea floor with abundant corals and sponges. Initially sediments from the land and volcanic activity killed the corals, but they later thrived when suitable conditions returned. Sea levels rose and the sea floor became deeper, causing new organisms to flourish.

Marine fossil snapshot

Corals (1–5): These are not the reef building corals that we see today but extinct tabulate and rugose corals.

Stromatoporoid sponges (7): Sponge-like filter-feeding organisms, with hard skeletons that build mounds.

Crinoids (11): These sea lilies are echinoderms (modern sea urchins or star fish). They live on stalks made up of individual disc-like pieces stacked like checkers.

Brachiopods (8): These filter-feeding organisms look like clams but they are different organisms. The muscles holding the shells together and the feeding mechanism are different. The shell of the brachiopod is calcite—not aragonite like our bivalves.

