

What are the Scleractinia?

They are known as stony corals because of the hard calcareous skeleton that formed by the polyps. At present there have been 1,334 scleractinian coral species described, of which 672 lack symbiotic light-dependent algae. Of these, only 26% are found in shallow water (< 40 m), with the majority found at greater depths.

Only a quarter of non-symbiotic corals are colonial, the rest are solitary, encasing a single polyp in a calcareous skeleton. Only colonial corals can create extensive framework reefs, and it is these that the Scleractinia are famous for.

Key species of this group

There are 497 cold-water stony corals described so far. Of these, there are only six species known to create extensive framework reefs. The key cold-water coral reef-builders are *Lophelia pertusa*, *Madrepora oculata*, *Enalopsammia profunda*, *Goniocorella dumosa*, *Solenosmilia variabilis* and *Oculina varicosa*.

Life and death of a reef

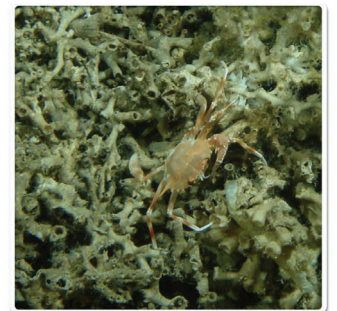
Reef-building stony corals start life on a piece of hard substrate. Providing the new recruit is not dislodged, the coral will grow and form a new colony. Reef-building corals have intricate branching, which allows for the reef structure to be strengthened as new coral colonies become engulfed by a developing reef.

The living reef can sustain a high diversity of different animals, but coral rubble (the bits broken off by bioerosion or physical damage) has the highest associated biodiversity. These dead coral areas support animals from squat lobsters to sedentary sponges. So is there life after death on a cold-water coral reef? The answer is no, as the rubble areas need to be replenished by new coral as the rubble areas are gradually eroded over time.

What are the pictures?

Images from top: A specimen of *Madrepora oculata*, South Carolina (© NOAA Ocean Explorer, 2005). *Lophelia pertusa* collected from the Mingulay Reef Complex (© G. Newman, 2005). A crab lives among coral rubble, Porcupine Seabight (© Ifremer & AWI, 2003). *Goniocorella dumosa* and *Desmophyllum dianthus* (© exploretheabyss.com, 2005).

This fact-sheet was downloaded from www.lophelia.org and produced for the Deep-sea Conservation for the United Kingdom Project.



Scleractinia are stony corals, they are characterised by a hard, calcareous skeleton.

