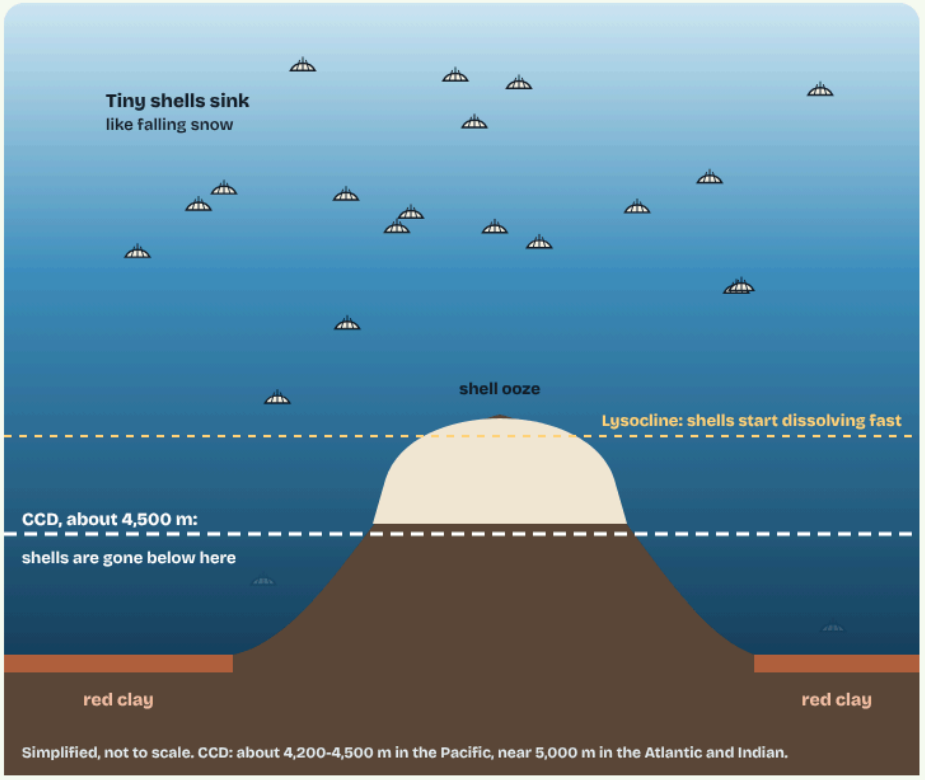
That is why

Why do shells dissolve in the deep ocean?

Cold, high-pressure deep water can dissolve calcium carbonate, so below a certain depth shells vanish before they land.

A A snow line in the deep



B Why the deep dissolves

1 Colder

Calcium carbonate dissolves more easily in cold water.

2 Higher pressure

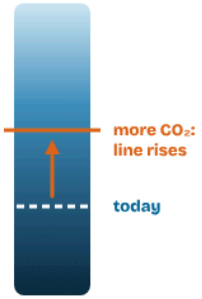
It also dissolves more easily under high pressure.

3 More CO_2

Cold water takes up carbon dioxide easily, which forms carbonic acid.

Near the surface, water is already full (saturated) with dissolved calcium carbonate, so shells last.

C A line that moves



1 More CO_2

Bottom water gets more corrosive; the CCD moves up.

2 Less CO_2

In ice ages, carbonate built up deeper.

Shells fall like snow, but below the snow line the ocean takes them back.

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