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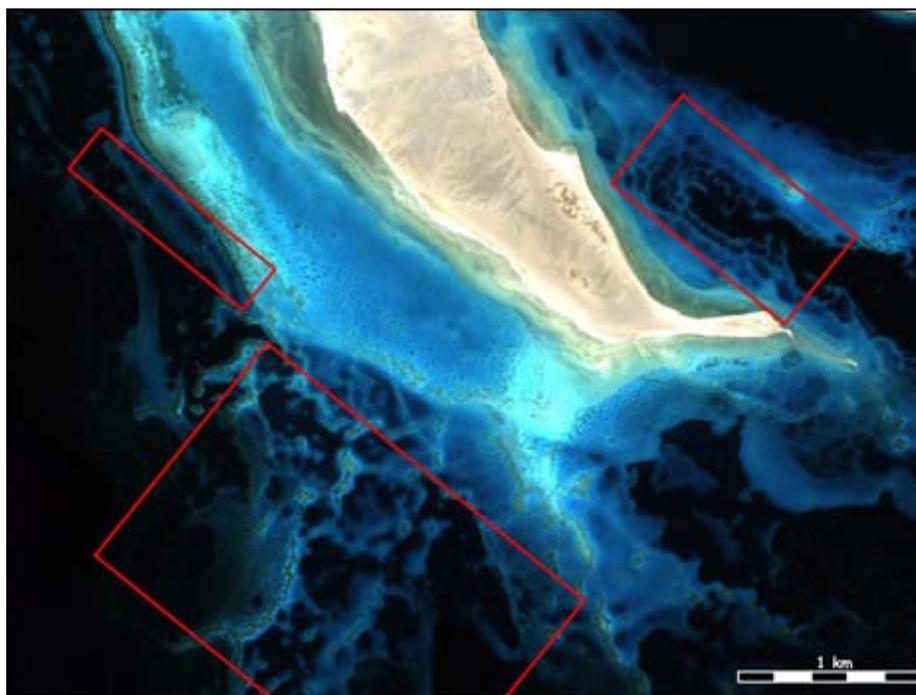
NEWS

Coral reefs form on 'ancient template'

Victoria Gill

Science reporter, BBC News, Portland

February 23, 2010



The honeycomb reef shape dominates the region

Red Sea coral reefs get their complex shape from an ancient 'seabed template', say scientists.

Their distinctive appearance can be seen clearly in satellite images of the region and has its origin in seabed erosion thousands of years ago.

The scientists say the corals have simply adopted and accentuated the pattern created in once-exposed rock moulded by heavy rains.

They presented the findings at the Ocean Sciences meeting in Portland, US.

Dr. Sam Purkis from the National Coral Reef Institute in Florida, US, led the research. He explained that, in most cases, reefs did not form on a template.

"They are their own template," he said. "Corals simply settle on other corals and the reef forms in the ideal shape to suit the ecosystem.

"In the Red Sea it seems, for the most part, to be rather different."

Dr Purkis explained that 15,000 years ago sea levels were much lower in the region and rocks that are now under

water, were exposed.

"In that period, we also had monsoonal conditions in that region, and the rainfall on to exposed carbonate rocks eroded them in these characteristic honeycomb patterns," he said.

When the sea level increased, the reefs formed and "settled" on to that eroded template.

"The corals adopted the template and just accentuated it and that's what we see to be one of the dominant reef shapes in the region," said Dr Purkis.

He explained that there was some concern that these reefs might be more sensitive to climatic change than reefs that had "built their own houses".

He and his team are planning a global reef expedition. "In five to six years' time, we will return to the Red Sea and re-map the area, to find out how these reefs are dealing with changing climate," he said.

John Brock, a scientist from the US Geological Survey (USGS) Coastal and Marine Technology Programme, said the findings and the planned global study were "very important".

"Knowing how these reefs formed in the past can help us understand the behaviour in the future - in response to climate change and to sea level rise," he told BBC News.
