

Young Blue Hole (YBH)

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Recently the Carbon more than 8,000 years old has been found inside the world's deepest blue hole – the Yongle Blue Hole (YBH)

What are Blue holes?

- They are **marine caverns filled with water and are formed following dissolution of carbonate rocks**, usually under the influence of global sea level rise or fall.
- They are generally **circular, steep-walled and open to the surface.**

About Young Blue Hole

- It has a **depth of 300 metres, far deeper than the previously recorded deepest blue hole, Dean's Blue Hole in Bahamas, which had a depth of 202 metres.**
- The difference between Blue holes caverns and other aquatic caverns is that they are **isolated from the ocean and don't receive fresh rainwater.**
- YBH is influenced with some oceanic exchange in the surface water.
- However, **like most blue holes, it is anoxic** e. depleted of dissolved oxygen below a certain depth. This anaerobic environment is unfavorable for most sea life.

What researchers have found in YBH?

- The researchers found **low levels of dissolved organic carbon and high levels of dissolved inorganic carbon** in YBH, both with radiocarbon ages of more than 6,000 years.
- Such concentrations of carbon, usually found in deep marine holes like YBH, provide a natural laboratory to study carbon cycling and potential mechanisms

controlling it in the marine ecosystem.

Location of the Blue hole

- Yongle Blue Hole (YBH) was recently discovered in the South China Sea