National Aeronautics and Space Administration

Cosmic Reef

Undersea and space worlds combine in this famous Hubble picture. Commonly called the “Cosmic Reef,” this image of the nebulae NGC 2014 (red) and NGC 2020 (blue) resembles masses of bumpy coral growing on the ocean floor.

A collection of bright stars 10 to 20 times more massive than our Sun reside in the middle of NGC 2014, emitting ultraviolet radiation that heats and pushes nebulous gas into bubble-like shapes. The red gas is cooler hydrogen and nitrogen, while the blue gas toward the upper right is oxygen heated to nearly 20,000 degrees Fahrenheit. By contrast, a single mammoth star 200,000 times brighter than our Sun created the smaller nebula NGC 2020 as it cast off its outer layers of gas in a series of eruptive events.

Hubble Space Telescope – Wide Field Camera 3
NASA, ESA, and STScI