

Hubble sees a celestial swan and butterfly

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(Phys.org) -- This image from the Hubble Space Telescope shows planetary nebula NGC 7026. Located just beyond the tip of the tail of the constellation of Cygnus (The Swan), this butterfly-shaped cloud of glowing gas and dust is the wreckage of a star similar to the sun.

Planetary nebulae, despite their name, have nothing to do with planets.

They are, in fact, a relatively short-lived phenomenon that occurs at the end of the life of mid-sized stars. As a star's nuclear fuel runs out, its outer layers are puffed out, leaving only the hot core of the star behind. As the [gaseous envelope](#) heats up, the atoms in it are excited, and it lights up like a fluorescent sign.

Fluorescent lights on Earth get their bright colors from the gases with which they are filled. Neon signs, famously, produce a bright red color, while ultraviolet lights (black lights) typically contain mercury. The same is true for nebulae: their [vivid colors](#) are produced by the mix of gases present in them.

This image was produced by the Wide Field and Planetary Camera 2 aboard the [Hubble Space Telescope](#). A version of it was entered into the Hubble's Hidden Treasures Competition by contestant Linda Morgan-O'Connor. Hidden Treasures is an initiative to invite astronomy enthusiasts to search the Hubble archive for stunning images that have never been seen by the general public.

Provided by JPL/NASA

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