Galaxy in the Hubble Deep Field
Hubble Space Telescope • WFPC2 • NICMOS

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COMPARATIVE VIEW OF GALAXY'S STELLAR POPULATIONS

A galaxy can look quite different in visible vs infrared light. This is a comparison view of a spiral galaxy in the Hubble Deep Field – Hubble Space Telescope’s view of the faintest galaxies ever seen in the universe.

The galaxy is disk-shaped like our Milky Way and tilted obliquely along our line of sight. It is located in the constellation Ursa Major. The smaller clumps in the picture are likely other galaxies.

[Left]
In the visible-light picture, taken with the Wide Field and Planetary Camera 2 (WFPC2) in 1995, the galaxy looks uncharacteristically lumpy. That's because only the bright blue knots of starbirth are detected by the WFPC2.

[Right]
The underlying disk structure, containing older stars, is seen clearly in this infrared Deep Field image taken with Hubble's Near Infrared Camera and Multi-Object Spectrometer (NICMOS) in January 1998.

These types of comparative observations will help astronomers better understand the evolution of galaxies.

Credit: Rodger I. Thompson (University of Arizona), and NASA