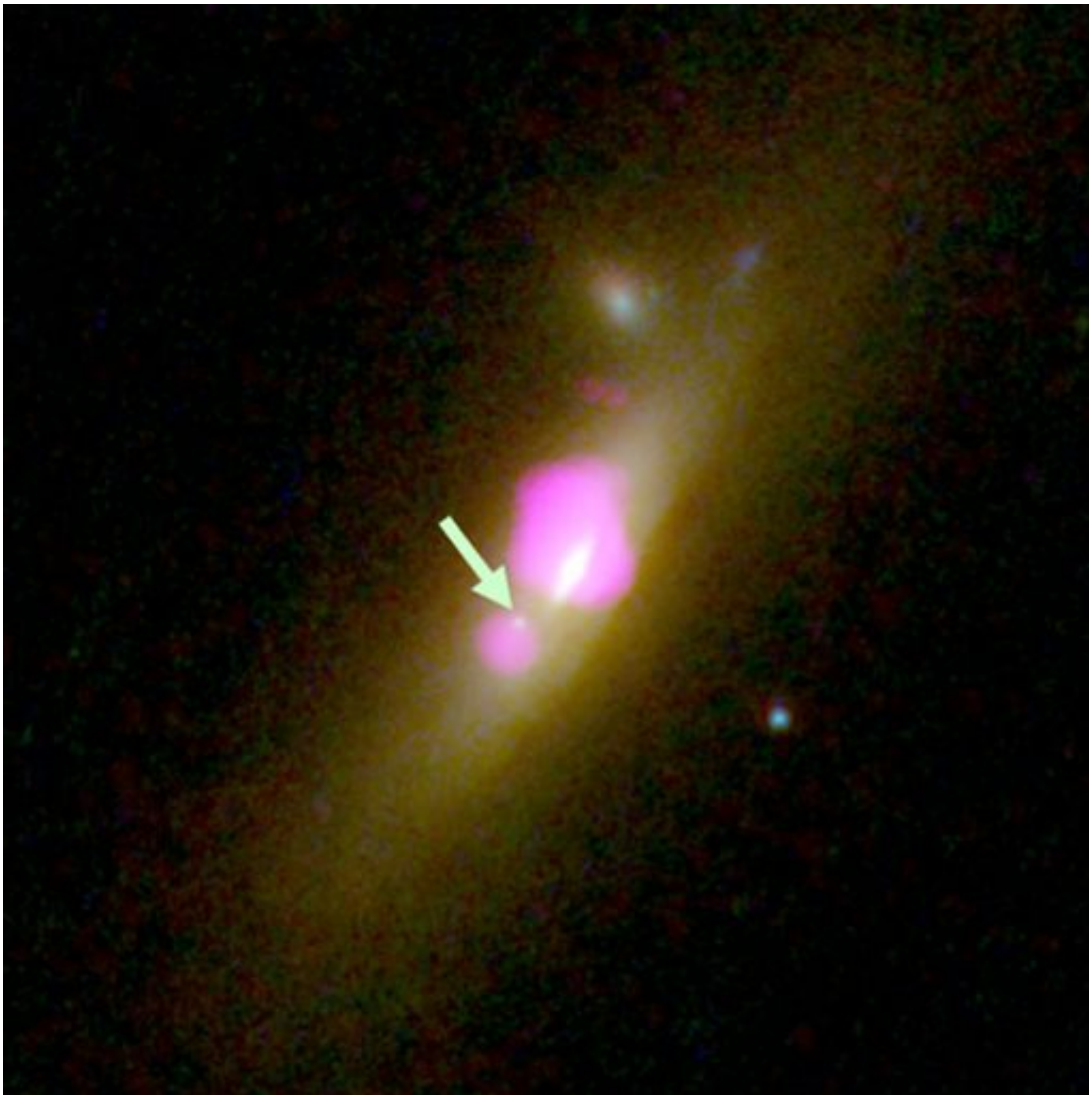


# Rare galaxy with 2 black holes has 1 starved of stars

January 5 2016, by Marcia Dunn

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This image provided by CU-Boulder shows the galaxy SDSS J1126+2944 taken with the Hubble Space Telescope and the Chandra X-ray Observatory, with an arrow placed by the source pointing to a black hole that lost most of its stars. The

University of Colorado's Julie Comerford has discovered something even rarer than a double-black hole galaxy: a skinny black hole. Her findings were reported Tuesday, Jan 5, 2016 at the American Astronomical Society's annual meeting. (NASA/CU-Boulder via AP)

An astrophysicist has discovered something even rarer than a double-black hole galaxy: a skinny black hole.

The University of Colorado at Boulder's Julie Comerford reported her findings Tuesday at the American Astronomical Society's annual meeting in Kissimmee, Florida.

To date, only 12 galaxies are known to exist with two [black holes](#) in their midst, Comerford said. Normally galaxies have a single [supermassive black hole](#) at the center, equivalent to 1 million to 1 billion times the mass of our sun.

But in this newly identified galaxy about 1 billion light-years away, one of the two black holes is significantly smaller than the other and apparently starved of stars. Black holes typically are surrounded by stars; this one appears "naked."

Comerford speculates the slim black hole lost mass in the collision of two galaxies that merged into this one —" a crash diet." Or it's a rare example of an intermediate-sized black hole that likely will morph over time into a supermassive monster.

Astronomers have yet to confirm an intermediate-size black hole, which makes Comerford's streamlined target extra tantalizing. Intermediate black holes are 100 to 1 million times the mass of our sun.

Comerford used the Hubble Space Telescope and NASA's Chandra X-ray Observatory in her study. She discovered this latest two-black hole galaxy—her fourth—last year. Finding a potential intermediate-size black hole inside was "an extra bonus," she told reporters.

The first double-black hole galaxy was found in 2003 by accident, according to Comerford. She is trying to systematically uncover more. The findings should shed light on the evolution of black holes.

This particular galaxy is catalogued as SDSS J1126+2944.

**More information:** American Astronomical Society:  
[aas.org/meetings/aas227](https://aas.org/meetings/aas227)

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Citation: Rare galaxy with 2 black holes has 1 starved of stars (2016, January 5) retrieved 21 June 2024 from <https://phys.org/news/2016-01-rare-galaxy-black-holes-starved.html>

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