

An angry bird in the sky

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This new image from the Wide Field Imager on the MPG/ESO 2.2-meter telescope shows the Running Chicken Nebula, a cloud of gas and newborn stars that lies around 6500 light-years away from us in the constellation of Centaurus (the Centaur). Officially called IC 2944, or the Lambda Centauri Nebula, its strange nickname comes from the bird-like shape of its brightest region. The star Lambda Centauri itself lies just outside the field of view. Credit: ESO



(PhysOrg.com) -- A new image from the Wide Field Imager on the MPG/ESO 2.2-metre telescope reveals the Lambda Centauri Nebula, a cloud of glowing hydrogen and newborn stars in the constellation of Centaurus (The Centaur). The nebula, also known as IC 2944, is sometimes nicknamed the Running Chicken Nebula, from a bird-like shape some people see in its brightest region.

In the nebula, which lies around 6500 light-years from Earth, hot <u>newborn stars</u> that formed from clouds of <u>hydrogen gas</u> shine brightly with ultraviolet light. This <u>intense radiation</u> in turn excites the surrounding hydrogen cloud, making it glow a distinctive shade of red. This red shade is typical of star-forming regions, another famous example being the <u>Lagoon Nebula</u>.

Some people see a chicken shape in pictures of this red star-forming region, giving the nebula its nickname -- though there is some disagreement over exactly which part of the nebula is chicken shaped, with various bird-like features in evidence across the picture.

Aside from the glowing gas, another sign of <u>star formation</u> in IC 2944 is the series of opaque black <u>clumps</u> silhouetted against the red background in part of this image. These are examples of a type of object called Bok globules. They appear dark as they absorb the light from the luminous background. However, observations of these dark clouds using infrared telescopes, which are able to see through the dust that normally blocks visible light, have revealed that stars are forming within many of them.





This chart shows the location of the Running Chicken Nebula (IC2944) in the large southern constellation of Centaurus (The Centaur). This map shows most of the stars visible to the unaided eye under good conditions and the location of the nebula itself is marked with a red circle. Although the star cluster IC 2948, associated with this nebula, is easily seen in a small telescope, the nebula is very faint and was only discovered photographically early in the 20th century. Credit: ESO, IAU and Sky & Telescope

The most prominent collection of Bok globules in this image is known as Thackeray's Globules, after the South African astronomer who discovered them in the 1950s. Visible among a group of bright stars in the upper right part of the image, these globules feature in a famous



image taken by the NASA/ESA Hubble Space Telescope.

While Hubble offers greater detail in its image of this small area, the <u>Wide Field Imager</u> on the MPG/ESO 2.2-metre telescope at ESO's La Silla Observatory captures a much larger panorama in its images, covering an area of sky roughly the size of the full Moon. Much like a zoom lens on a camera lets a photographer choose the most appropriate field of view when taking a picture, the dramatically different viewpoints offered by different telescopes can offer complementary data to scientists studying astronomical objects which cover an extended area of the sky.

If the stars cocooned in Thackeray's Globules are still gestating, then the stars of cluster IC 2948, embedded within the nebula, are their older siblings. Still young in stellar terms, at just a few million years old, these stars shine brightly, and their ultraviolet radiation provides much of the energy that lights up the nebula. These glowing nebulae are relatively short-lived in astronomical terms (typically a few million years), meaning that the Lambda Centauri Nebula will eventually fade away as it loses both its gas and its supply of ultraviolet radiation.

Provided by ESO

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