

de Mairan's Nebula

Sometimes overlooked, due to the proximity of its bigger brother the Orion Nebula, is the diffuse nebula M43. You'll find it just to the north of M42. Nik Szymanek sings its praises.

The winter constellation of Orion is home to many famous deep sky marvels. Pride of place goes to the magnificent M42 Orion Nebula, a beautiful sight through any optical instrument.

Deep exposures show that both M42 and M43 are just part of a huge complex of gas and dust that virtually engulfs the entire constellation of Orion.

First discovered in 1731 by Jean-Jacques Dortous de Mairan, M43 is occasionally known as de Mairan's Nebula and lies at a distance of about 1500 lightyears. Charles Messier included M43 in his famous catalogue of deep sky objects in 1769. If M43 were visible as an isolated nebula it would be considered one of the sky's showpiece Messier objects. The nebula is powered by the hot young variable star NU Orionis, visible in the centre, which is emitting vast quantities of energy, causing the diffuse material to shine. Visible to the upper right of NU Orionis is a star that appears to have a bow-shockwave associated with it. A dark dividing band of dust along M43's eastern border gives the nebula a classic comma shape.

This highly detailed portrait of M43 was taken with the 2.5-metre Isaac Newton Telescope on La Palma. The INT is regularly used with the Wide Field Camera, a large format multiple CCD survey instrument. This image was secured as a test of the telescope's autoguiding system and consists of a single five-minute monochrome exposure through a Hydrogen-Alpha filter. The image was processed and combined with colour information from an amateur CCD image taken by the author.

Image: Simon Tulloch (ING) and Nik Szymanek (University of Hertfordshire)

