The “Cosmos” Mistake: The Galaxy of M33.

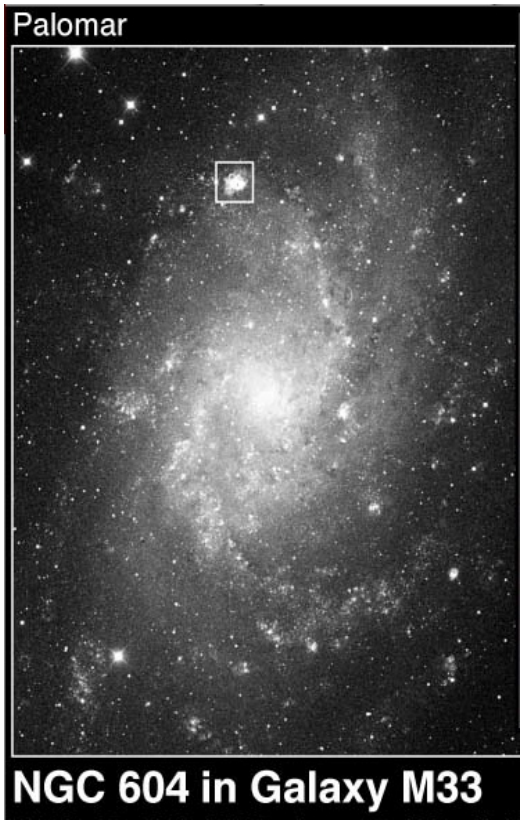
The other night I was fortunate enough to catch a re-run of the old PBS series “Cosmos” which was narrated by Dr. Carl Sagan. Dr. Sagan invited his viewers to take a journey with him through the universe in an imaginary spacecraft. When the spacecraft ventured outside our galaxy, the camera turned to face it. Dr. Sagan said in his uniquely deep and nasal intonations ”Behold our home galaxy - the Milky Way, a spiral galaxy some one hundred thousand light years across containing some two hundred billion stars.”
When he said this and I saw the image on my television screen I suddenly sat up in my chair I realized that he wasn’t showing us the Milky Way. What was on the Television screen was a picture of M33 - the Triangulum Galaxy (also known as the Pinwheel Galaxy).

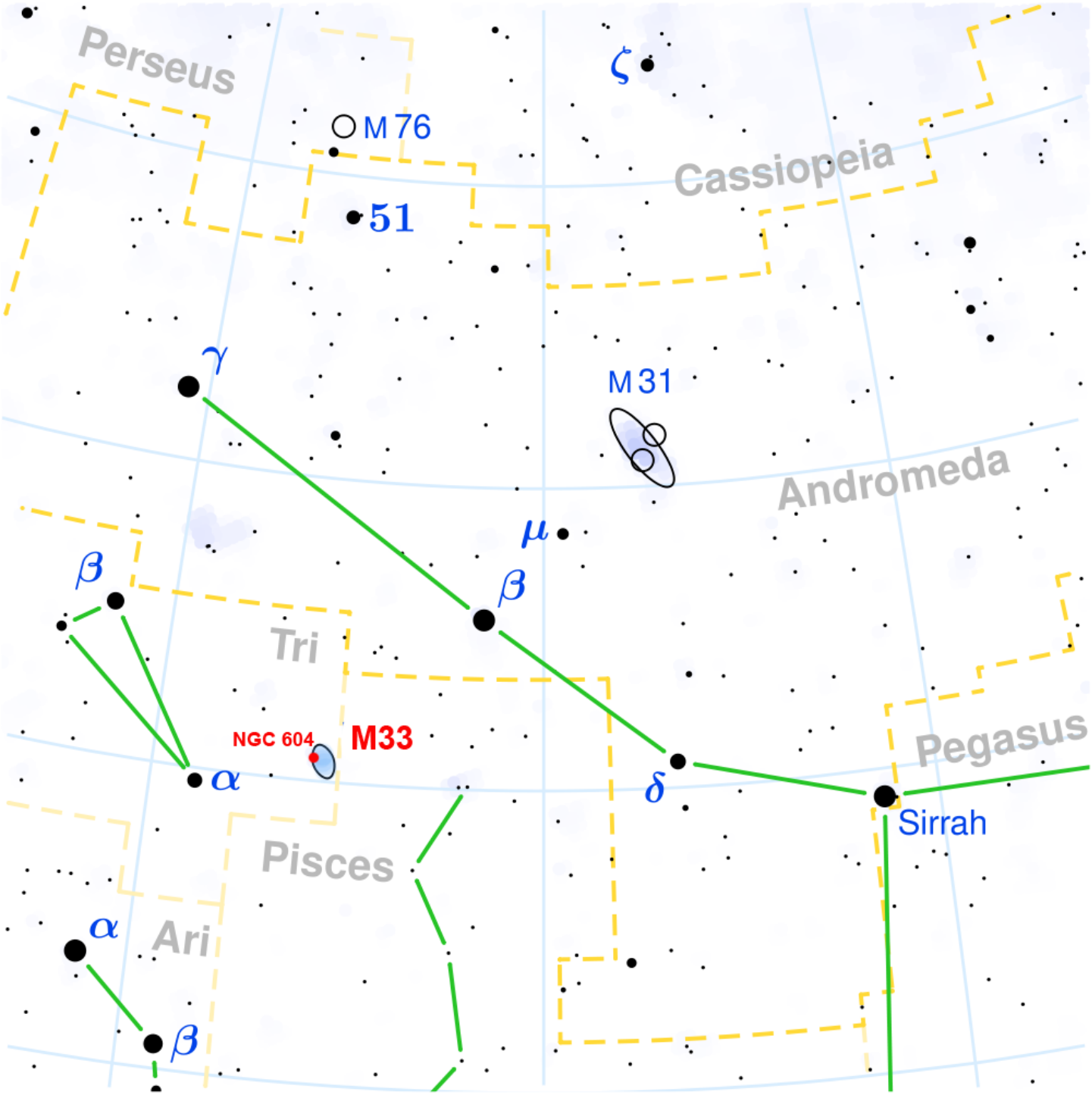
How did I know this? Because M33 has a feature so large and distinctive that it has it’s own catalog number - NGC 604, located at tip of one of its spiral arms. I first became acquainted with M33 on a night in September at Robert Moses Beach on Long Island. I was attempting to locate it without using a computerized locater. I finally found the object just 1 degree west of the constellation of Triangulum. It was completely new object to me. I had never seen pictures or sketches of that galaxy. I saw a dim diffuse object, roughly in the shape of a semi circle. But what surprised me was that there was another object in my field of vision: a smaller semi circle of nebulosity which appeared to be a separate object. I called over a few friends to view it also. We speculated that the smaller object was another galaxy or galactic remnant similar to the Megellanic Clouds which are near our own galaxy. Then one of the observers told us about NGC 604. He said NGC 604 is 1500 lights years across filled with massive bright burning new stars!

NGC 604 is an emission nebula similar in spectral frequency to M42 - the Orion Nebula. Both nebulas are stellar nurseries. Both nebulas glow from the UV light emitted from massive new star formation

M42 is known to anyone who has some familiarity with the night sky. It is located within our own galaxy in the constellation of Orion at a distance of about 1,600 light years and has a diameter of 31 light years with a visual magnitude of 4. NGC 604 along with the rest of M33 is about 2.4 million light years away and a visual magnitude of 5.7. NGC 604 is at least 50 times larger than M42 - a massive stellar formation.

So here is my challenge to all to who view the night sky. Locate the Triangulum galaxy and see if you can identify NGC 604. The late autumn months will be perfect for viewing this galaxy as it will begin to approach zenith late October and November. You may need a telescope with at least a 10 inch mirror to view M33 with NGC 604. Scopes with smaller apertures may be able to resolve M33 without the NGC object. See below for star map and pictures of the object.




Perseus
ζ
M 76
Cassiopeia
51
γ
M 31
Andromeda
μ
β
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NGC 604
M33
α
δ
Pegasus
Sirrah
Pisces
α
Ari
β