DEEP SKY OBJECTS
FOURTH OF A SERIES

A PLEASANT SURPRISE IN SCULPTOR

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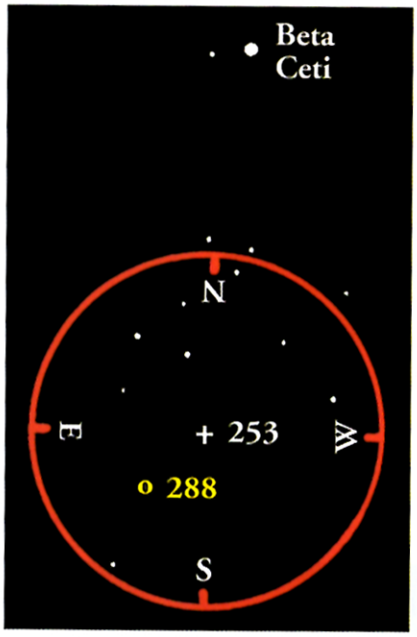
As an avid observer for more than thirty years, I love the fact that I can still "discover" new objects that I have never before captured in a telescope. My favorite times of the year to explore are in the spring and fall when the humidity is low, providing great atmospheric transparency, and the nights are not too frigid. Autu mn nights provide great views of many familiar objects like the Andromeda Galaxy (M31), the Pinwheel Galaxy (M33) and myriad deep-space objects throughout Cygnus, Lacerta, Cepheus, Cassiopeia and Perseus.

NGC 253, the Sculptor Galaxy. 60-minute exposure by the author using an SBIG ST-2000XCM CCD camera on a 190mm f5.3 Maksutok-Newtonian telescope.

With all this eye candy at northern declinations, I never took the time to explore fainter constellations south of the celestial equator. Then one night in October 2009, I was at my friend Dave's observatory in Grover, NC. Dave has this great roll-off observatory and I don't mean the roof. His entire structure, literally a single car garage, rolls down parallel tracks along a large concrete slab uncovering a garage full of astronomical equipment. While Dave was readying his 8-inch telescope for some CCD imaging, I popped an eyepiece into his 12-inch Dob and started exploring the southern skies above the treetops. This direction happened to be the darkest part of the sky due to lights from a larger city to his north.

With my eye glued to the Dob's eyepiece, I happened across a magnificent bright and large spiral galaxy that I had never before seen. I said "Wow, what do we have here?!!" It was the galaxy NGC253, otherwise known as either the Sculptor Galaxy or the Silver Dollar galaxy. I was in shock. How could such a splendid object have escaped my notice for so many decades?

Sculptor is a fairly indiscrete constellation lying south of Aquarius and Cetus. It contains no stars brighter than 4th magnitude. Because of its southern declination, the Sculptor Galaxy never rises 30 degrees above the horizon for anyone living north of the 35th parallel, although it is observable throughout the lower 48. For these reasons, the constellation never caught my attention. What I saw that night was well worth the wait.



Locating NGC 253 through an 8 x 50 finderscope. First find Beta Ceti, and then move the scope one finder field south.

NGC253 is one of the largest and brightest galaxies in our skies. It shines at 7th magnitude. We see it tilted 53 degrees from face-on and it spans nearly a half a degree, the same as our Moon! In dark skies with an 8-12 inch instrument, the spiral structure is evident. The core of the galaxy is not so overly bright that it dominates the eyepiece. Many dark nebulae are found scattered around the spiral arms, providing great viewing contrast. Caroline Hershel, the keen-observer sister of William Herschel, discovered the Silver Dollar Galaxy in the fall of 1783.

The Sculptor Galaxies lies outside of the Local Group, of which the Milky Way Galaxy is a member, but not by much. Estimates place it 10 million light years away. The galaxy is very close in size to the Milky Way. However, NGC253 is regular spiral galaxy while our home galaxy is a barred spiral galaxy. NGC253 is the brightest galaxy in the Sculptor Group, the galaxy group next-door, so to speak.

The south galactic pole resides in the constellation Sculptor. Thus, looking perpendicular to our galactic disk's obscuring dust, many other galaxies wait to be "discovered" in this constellation. Also, after finding NGC253, don't pass on the opportunity to view the 8th magnitude globular cluster NGC288 located 1.7 degrees to the southeast! ✳