

The Observer's Challenge Objects

Submitted by Larry McHenry, Pittsburgh, PA, USA. <http://stellar-journeys.org>

June: **NGC 5981/5982/5985** – Galaxy trio – Draco; mag_v=11.9; RA: 15h 38m Dec: +59° 21'

The galaxy trio **NGC5981/5982/5985** known as the “Draco Triplet”, is located in the spring constellation of Draco - 'The Dragon'. **NGC5981** is a +mag 14 spiral, located about 192 million light years distant, and about 100,000 light-years in size. **NGC5982** is a +mag 12.7 E3 elliptical galaxy, located about 130 million light years distant, and about 100,000 light-years in size. Finally **NGC5985** is an SAB spiral located about 120 MLY and about 192,000 LY in diameter.

NGC5981 was discovered in 1850 by astronomer J. Stoney using the 72" at Birr Castle, Ireland. William Herschel discovered NGC5982 (H2 764) and NGC5985 (H2 766) on May 25th 1788 using his 20 ft reflector telescope in his backyard garden at his home in Slough, near Windsor Castle. He probably also discovered NGC5981 the same evening, but does not list it separately. In Herschel's notes, he describes both NGC5985 and NGC5982, but in his description for NGC5982, Herschel mentions another object that matches how NGC5891 would look. “One proceeding suspected, very faint, a little extended”. Specifically for NGC5982, Herschel describes it as “Pretty bright, small, irregularly round”. For NGC5985 he writes “Pretty bright, considerably large, irregularly extended, resolvable”. A bit of a Herschelian mystery!

EAA Observation:

04/27/2025 from dark-sky location of the ORAS Observatory, PA.

Using an 8" SCT optical tube @ f6.3 on a GEM mount, with a CMOS/USB color camera and broadband filter @ 180-second guided exposure livestacked for 30 minutes.



Using EAA techniques, All three galaxies fit nicely in the FOV. NGC5981 is a small, faint, edge-on spiral. A slightly brighter core can be seen. NGC5982 is a bright diffuse somewhat oval elliptical galaxy, and NGC5985 is a bright moderately-inclined spiral galaxy that displays multiple spiral arms with dust lanes and a bright core. An interesting view of different types of galaxies!