

The Objective Lens

University Lowbrow Astronomers Monthly Newsletter Supplement

September 2023

Theme: Clusters



From **DONOVAN DREW**. Double Cluster
Orion 203mm f/4.9 (SkyView Pro 8")
ZWO ASI294MC
Celestron Advanced VX
ZWO UV IR CUT
Baader 2" MPCC Mark III Newton Coma Corrector (2458400A) ×
Orion 50mm Mini Guide scope
Orion StarShoot AutoGuider



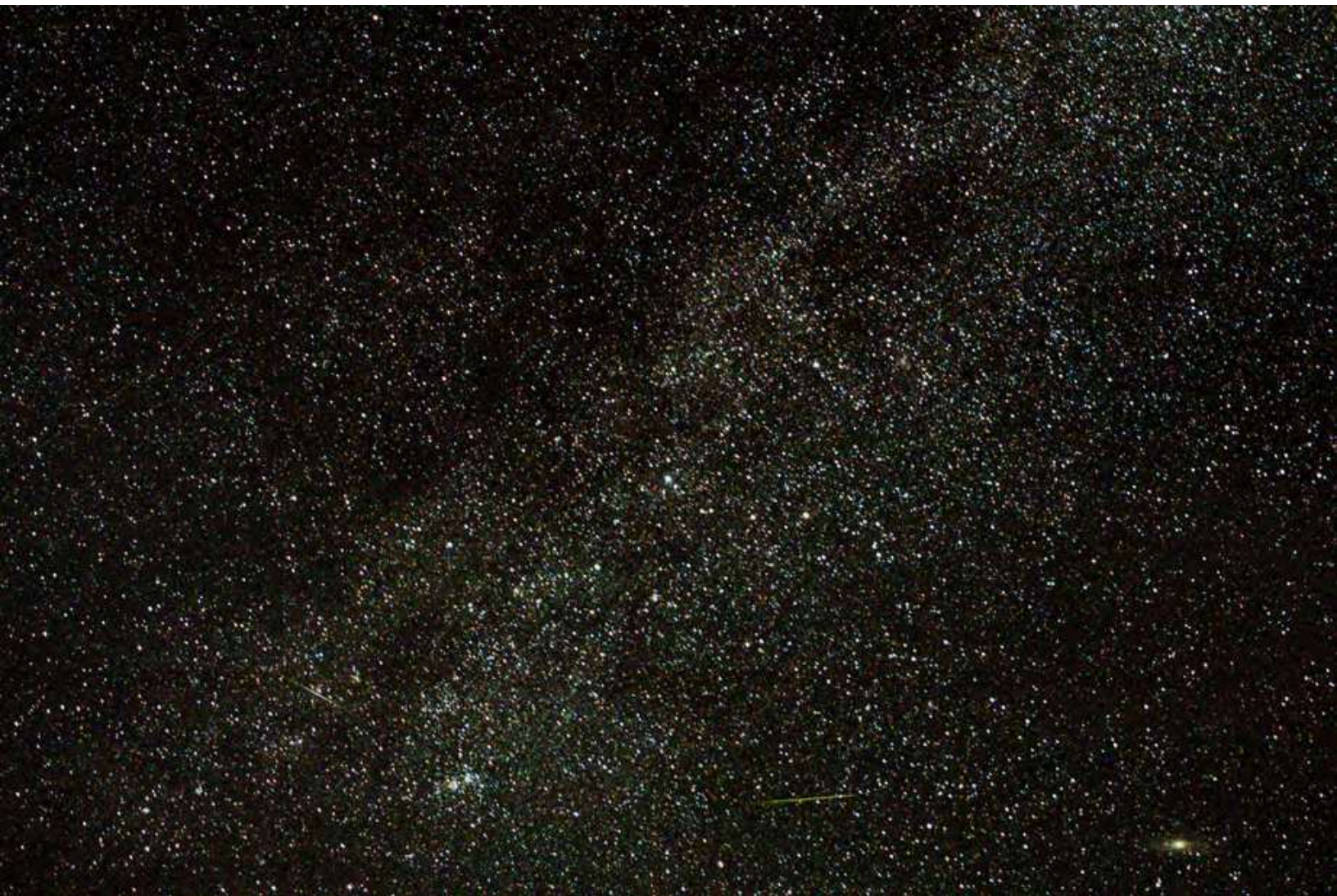
From **GARY NICHOLS**. M22.



From **ADRIAN BRADLEY**. Sagittarius highlighted in the Milky Way core.



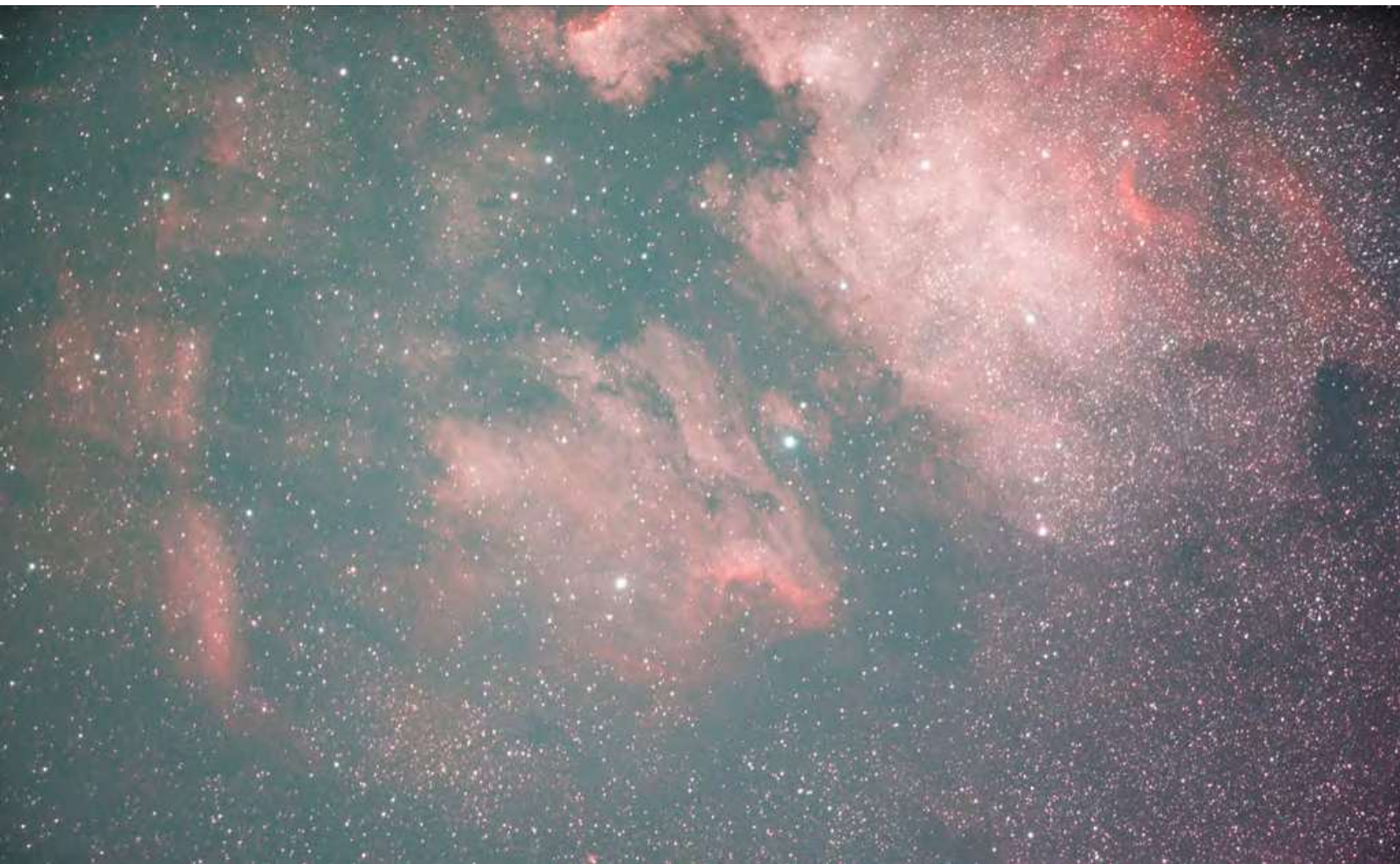
From **BRIAN OTTUM**. Perseids Meteor Shower. Low-res composite taken at the Glennie Sportsman's Club.



From **DOUG SCOBEL**. Meteors in the Milky Way, taken during Meteor Shower. Canon EOS 5D Mark IV, Canon EF24-70mm f/4.0L IS USM set to 24mm, tracked. 30 seconds at f/4 ISO 3200. RAW (.CR2) data processed in Photoshop elements 2020, cropped. Combined in ImagesPlus.



From **DONOVAN DREW**. Barnard's Galaxy imaged with an ZWO asi294mc pro looking through an UVIR filter and 8" F5 Newtonian on a Celestron AVX mount.



From **MARCUS CLARKE**. IC5070.



From **GLENN KAATZ**. These are two HaLRGB images of M101 made approximately a year apart. The left one was done in July 2022 (18 hrs integration time) and the right one July-August 2023 (14 hrs integration time). Each image was obtained with the same equipment and processing was done using Pixinsight and Photoshop. SN 2023ixf is indicated by the arrowhead in the right image.

Imaging details: Celestron Edge Hd 8 inch SCT, CGX mount, off-axis guider

ASI1600 MM pro imaging and ASI 174 guide cameras

ASIAIR Plus, ZWO electronic filter wheel and electronic focuser

2022 image included 4 hrs each of LRGB filters and 2 hrs of Ha; 2023 image included 3 hrs L and R, 2.5 hrs G and B, and 3 hrs Ha.



"Saturn Opposition" Ken Leitch 08/27/23, Meade 8" LX90, ZWO ASI185MC Gain=403 Exp=30ms, ZWO ADC, 2x Barlow, 2.4% of 27500 Frames, SW: SharpCap Pro, PIPP, Autostakkert, Topaz Denoise AI, GIMP.

From **KENNETH LEITCH**. Saturn at Opposition, captured August 27.



From **BRIAN WAIT**. M33 / NGC598 - The Triangulum Galaxy, taken 2023-08-15
William Optics FLT132 / 655mm FL / f5.0 - w/.72x F/R; Ioptron CEM40EC mount; Canon Ra Full Frame Camera; Optolong L-Pro; 1
Hour+ Integration (33 x 120sec) @ 1250 ISO



From **GARY NICHOLS**. COMET C/2023 P1 (NISHIMURA)

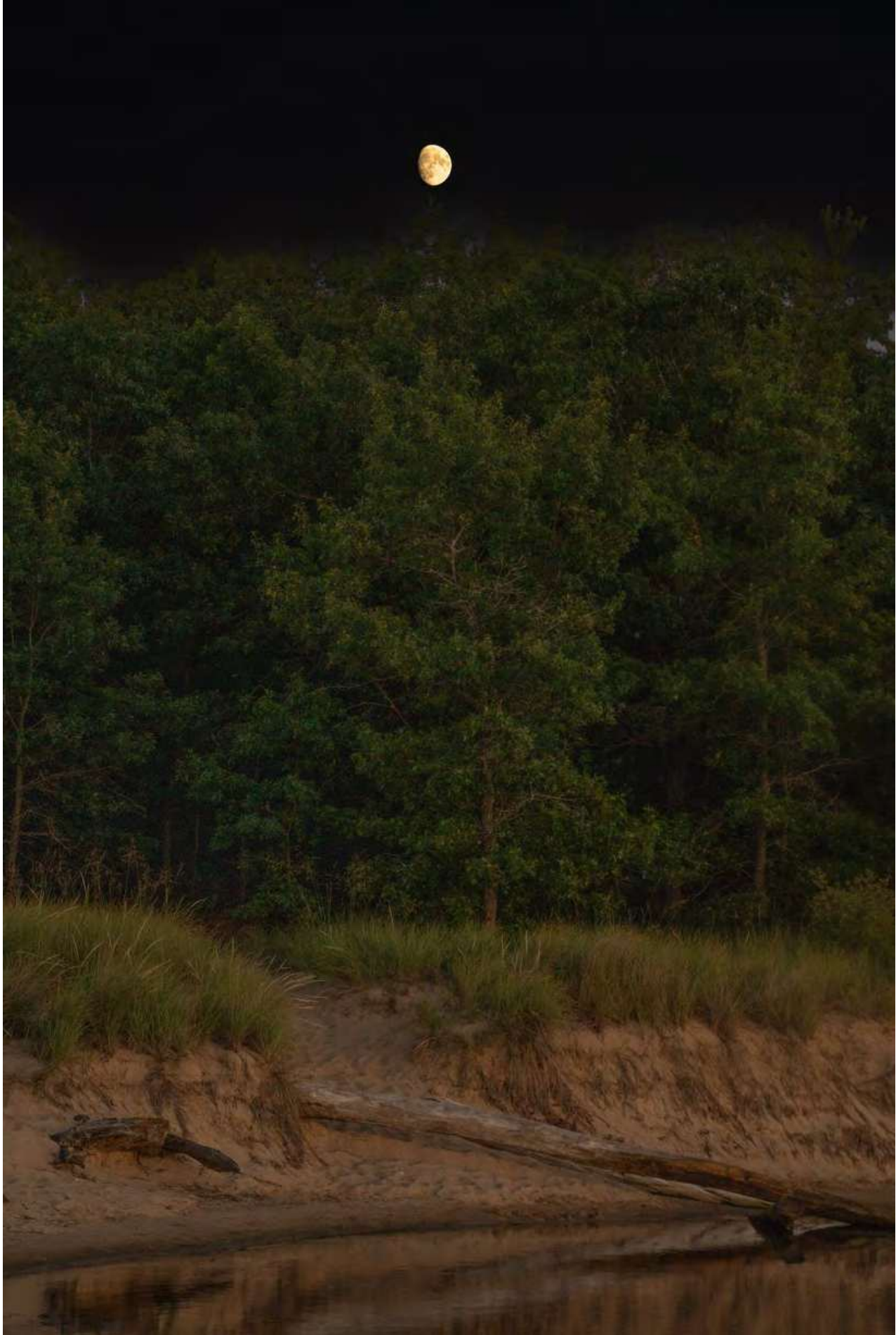


From **BRIAN OTTUM**. Full Eagle Nebula.



From **JEFF KOPMANIS**. Detroit Beach Boat Club on the shore of Lake Erie in Monroe. This is from the docks of the boat club which is in a small inlet where Sterling State Park's boat launch exits into Lake Erie.





From **ADRIAN BRADLEY**.



From **GARY NICHOLS**. NGC 6946.



From **MATTHEW WEST**. Drawing of M31.



From **MATTHEW WEST**. The Moon.



From **GARY NICHOLS**. M20.



From **ADRIAN BRADLEY**. Blue Moon.



From **BRIAN WAIT**. Milky Way - Sagittarius / Ophiuchus to Vulpecula. Taken 2023-08-15/
- Rokinon 14mm FL @ f3.5; Ioptron SkyGuider Pro mount; Canon 60Da APS-C Camera; Optolong L-Pro Filter; 1 Hour
Integration (30 x 120sec) @ 800 ISO



From **BRIAN WALKOWSKI**. Camping at Eight Lake in the Adirondack mountains in upstate New York.

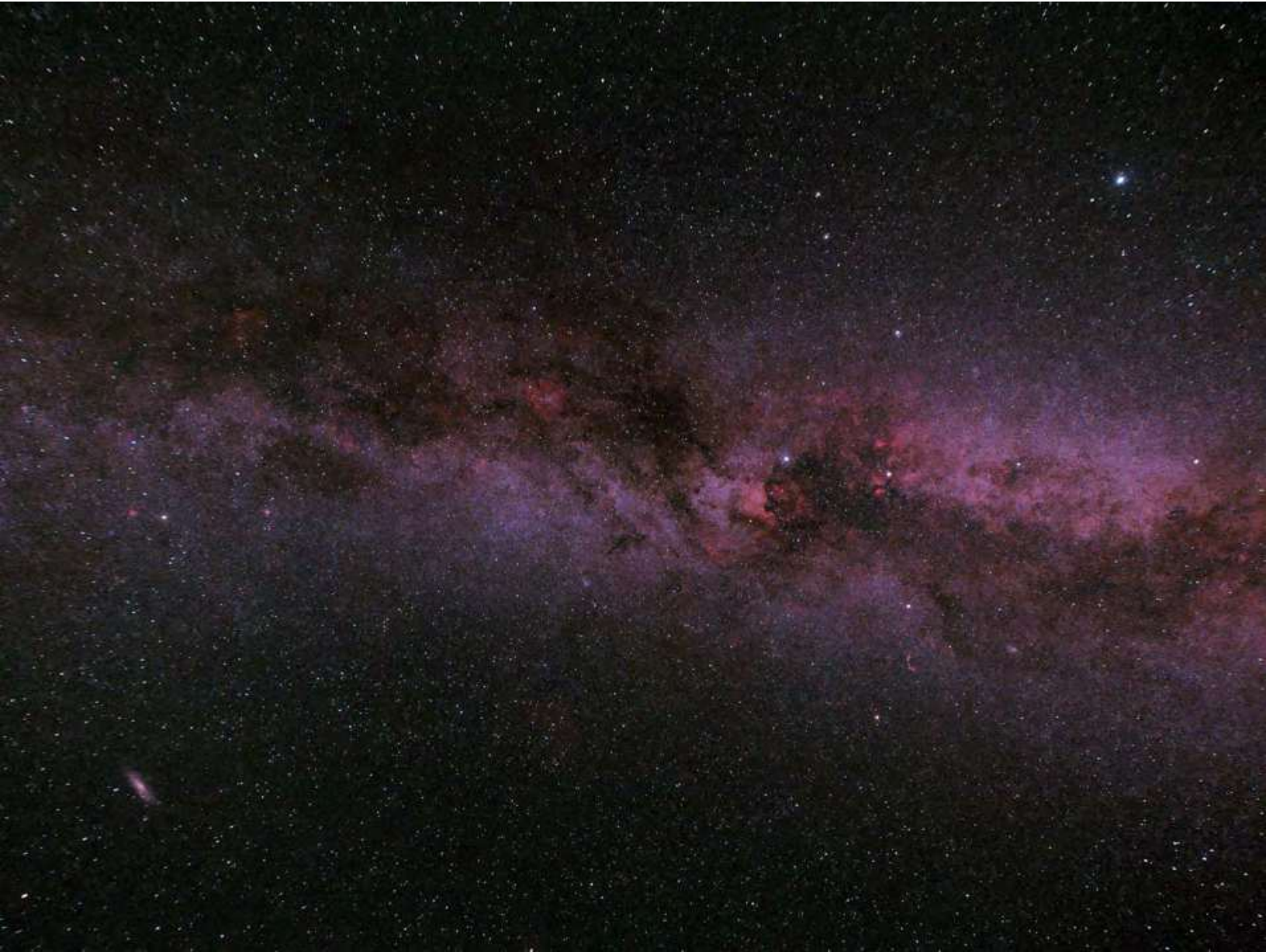


From GARY NICHOLS. M27.



From **BRIAN WAIT**. 2023-08-15 NGC7000/C20 North America w/Cygnus Wall and IC5070 Pelican Nebula - 655mm FL
- William Optics FLT132 / 655mm FL / f5.0 - w/.72x F/R; Ioptron CEM40EC mount; Canon Ra Full Frame Camera; Optolong L-Pro;
28 Min Integration (14 x 120sec) @ 1250 ISO

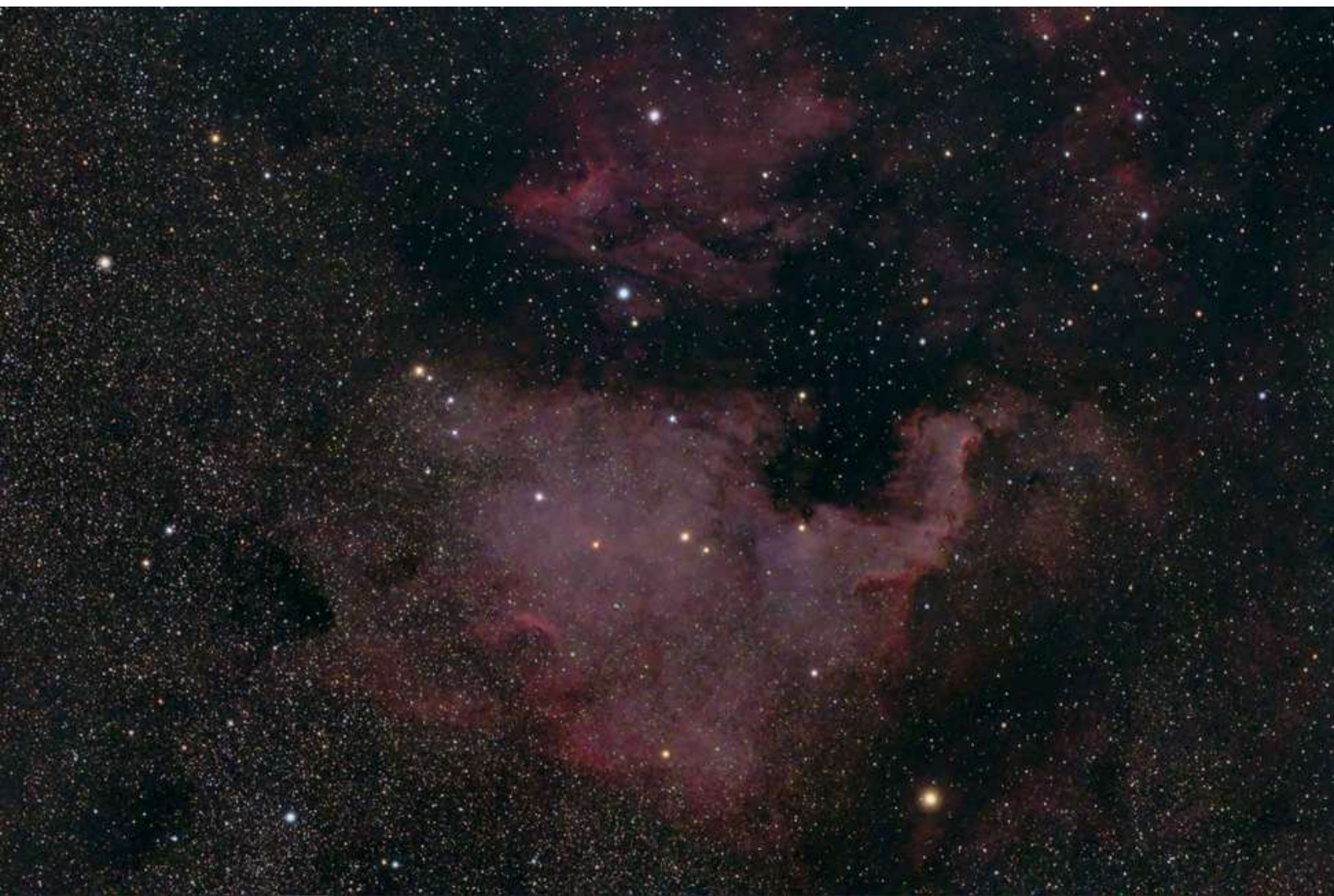
This last shot of the nebulosity around Deneb is the deepest I've done of this region, and my best capture of the Cygnus Wall in NGC7000 - though I will keep at it! I really had to dodge the clouds on this one. This is only 28 minutes of full spectrum integration data - I wanted to do 1/2 hour of Full Spectrum (w/LPro general light pollution filter) subs for Star Colors, and 1 hour or more with a Narrowband filter for details, but clouds kept rolling in, so I stopped and started a lot. Then I worked on the M33 Triangulum Galaxy for an hour, and came back to this. I dumped many subs due to clouds, but ended up happy with this.



From **BRIAN WAIT**. 2023-08-15 Milky Way from Casseopeia to Cygnus - 14mm FL

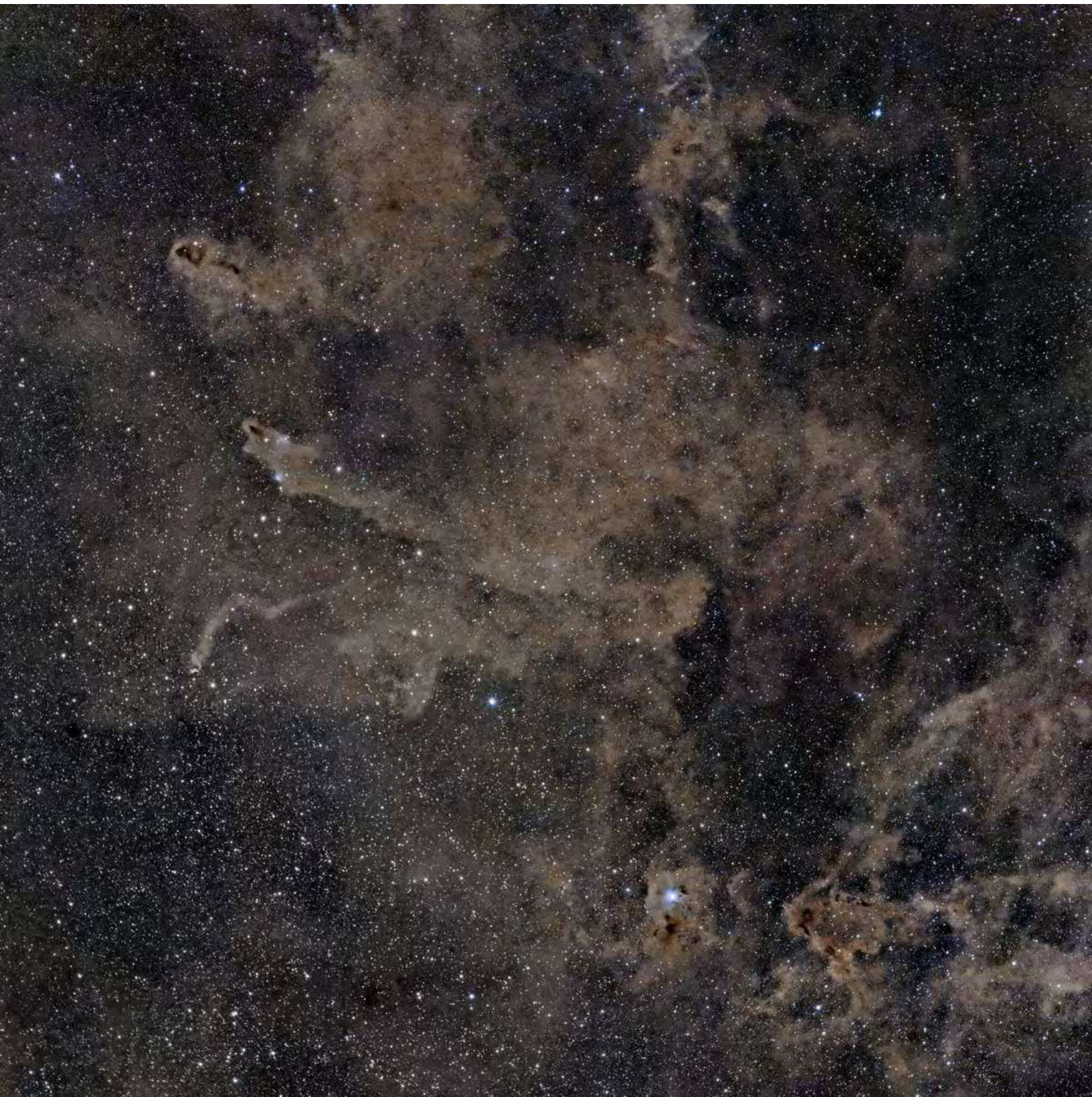
- Rokinon 14mm FL @ f3.5; Ioptron SkyGuider Pro mount; Canon 60Da APS-C Camera; Optolong L-Pro; 1 Hour Integration (31 x 120sec) @ 800 ISO

A couple nights later (the Big Night) was the clearest, though there were intermittent clouds that caused me to pause capture, then resume or switch targets for a while. I set this capture up to try to see how many Perseid Meteors I would capture in the subframes - but I could find hardly any! They would have been pulled out during stacking (as processed), and also would be full frame streaks for these 2 minute exposures, but I was still surprised not to find much. Of course, North America and Pelican are prominent near the center of this shot - and I made sure you will find Cygnus!

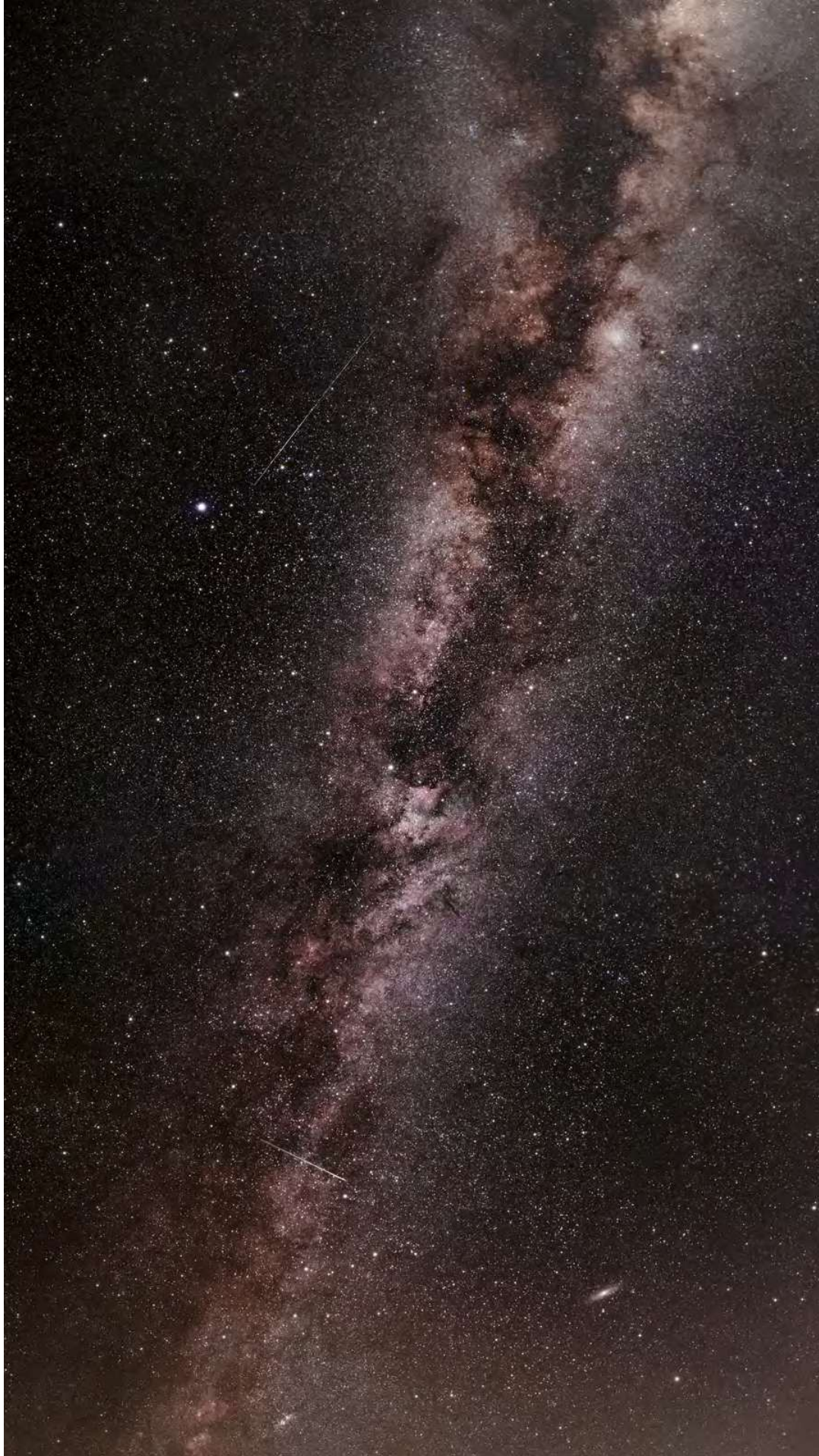


From **BRIAN WAIT**. 2023-08-13 NGC7000/C20 North America and IC5070 Pelican Nebulae - 250mm FL
- William Optics White Cat 51 / 250mm FL / f4.9; Ioptron SkyGuider Pro mount; Canon 60Da APS-C Camera; No Filter;
30 Min Integration (15 x 120sec) @ 1600 ISO

The first night I arrived at the cabin, the skies were not supposed to be very good, so I was surprised when I walked outside at 11pm and found some reasonably decent views! I scrambled to grab the SkyGuider RA Tracker and the smallest scope I had - a William Optics 'White Cat'. I had a hard time focusing with the Optolong L-Pro filter in the Canon 60Da camera, and pulled it out. Actually, I was first trying to capture Antares & Rho Ophiuchi, but failed due to general haze & clouds near the horizon. I saw many beautiful Perseid Meteors sail past throughout the evening, but didn't capture any.



From **AMY CANTU**. The Dark Shark Nebula, Rotten Fish Nebula, Eel Nebula, and Iris Nebula. Canon 6D (modified), Canon 85mm lens. ISO 1600, f/2.8. 180 lights @ 60 seconds, w/ 75 bias, 50 darks, 30 flats. SkyWatcher Star Adventurer 2i. Processed in PixInsight and Photoshop.



From **AMY CANTU**. Milky Way panorama during Perseid Meteor Shower. Taken in the Thumb region over Lake Huron. (Canon 6D, 16-35mm lens at 20mm. ISO 3200, f/3.2 30 seconds tracked and stacked. Stitched.)