

PERSEUS, THE HERO

BY CHRIS BECKETT & RANDALL ROSENFELD

Below the feet of Andromeda, in the northeast, appears Perseus, her rescuer, hurrying to the combat with the oncoming Sea Monster, and carrying the blood-freezing head of Medusa in one hand and his diamond-hilted sword in the other. He wraps the glory of the Milky Way around him like a flying mantle, and brandished in the direction of Cassiopeia, the maiden's mother, and of King Cepheus, her father, is seen his magic blade, made splendid in the sky by one of the finest assemblages of small stars that can anywhere be seen.

— Round the Year with the Stars, Garrett P. Serviss

Home to the annual Perseid meteor shower radiant, the Perseus Arm of the Milky Way stretches from Cassiopeia, through Auriga, to the winter sky beyond. The plane of our Milky Way Galaxy passes through Perseus, where an observing session doesn't feel complete without a view of the Double Cluster, NGC 869, and to the southeast, NGC 884. Known since antiquity, this bright, naked-eye "misty spot" was noted in Ptolemy's *Almagest* and represents the jewelled handle in the sword that Perseus used to slay Medusa. NGC 869's blue-white stars shine at mag. 3.7, while 3.8-mag. NGC 884 shows many tiny orange stars. To the southeast is OC Trumpler 2, a small but bright cluster surrounding a red star. Using a wide field and low power adds B201 to the scene, a dark nebula noted by Barnard, along with "crack-like marking in the immediate neighbourhood of the two clusters."

To the west, M76, the little Dumbbell Nebula, at 10th mag. is the most challenging Messier object, located on the Andromeda border just north-northwest of Phi Persei. From the darkest sites, binoculars and telescopes of all sizes using OIII filters will reveal the double-lobed dumbbell shape. Moving north, we come to 3.8-mag. Miram, Eta Persei, orange to the eye with a companion star shining at mag. 8, making this a nice double star. Farther north we find 1.8-mag. Mirfak, Alpha Persei, and Mellotte 20, the Alpha Persei moving group. This large, nearby group of related stars in Perseus appears as a chandelier known as an OB3 association. To the west is Beta Persei; more widely known as Algol, the famous demon star shines at mag. 2.1. It is an eclipsing binary, and the first such star to be discovered, known as the Demon Star for regularly dipping to mag. 3.4. M34 is a 5.5-mag. open cluster in Perseus found just north of the line from Algol (β Per) to Almach (γ And), seen best in binoculars or small telescopes at the lowest power with three arms of stars radiating from a central point. There is a string of 3 galaxies running southwest of M34: 11th-mag. NGCs 1003 and 1058 sandwich 9.5-mag. NGC 1023. To the east, the Perseus galaxy cluster, also catalogued as Perseus A for its radio and X-Ray emissions, is centred on 11th-mag. NGC 1275. Moving north is Y Persei, a Mira-type variable, which fluctuates between mag. 8 and 11, a deep-red carbon star visible in small scopes when at its brightest.

Sixth-mag. NGCs 1528 and 1545 are favourite non-Messier targets among visual observers. Dave Chapman noted them as "a large cluster that looks like it might have hundreds of stars. Nearby is a smaller, sparser cluster; NGC 1545 has a nice reddish wide double star S445 within it." Just to the north is the Fossil Footprint, Finest NGC 1491, a faint nebula surrounding an 11th-mag. star; the nebula is best in larger instruments using a filter.

The California Nebula, NGC 1499, is a huge, 2.5° emission nebula observable in binoculars from excellent sites and best seen in small wide-field telescopes using an H β filter. If NGC 1499 is easily seen and you seek a greater challenge, try for Sh2-216, the largest and 2nd closest planetary nebula—well visible in a medium-sized telescope using low power and an OIII filter.

Lastly, for astro-imagers, a great photography region surrounds Omicron Persei; aim your wide-field rig here to capture NGC 1333, Barnard 2, 3, & 5, and IC 348 surrounding Atik.

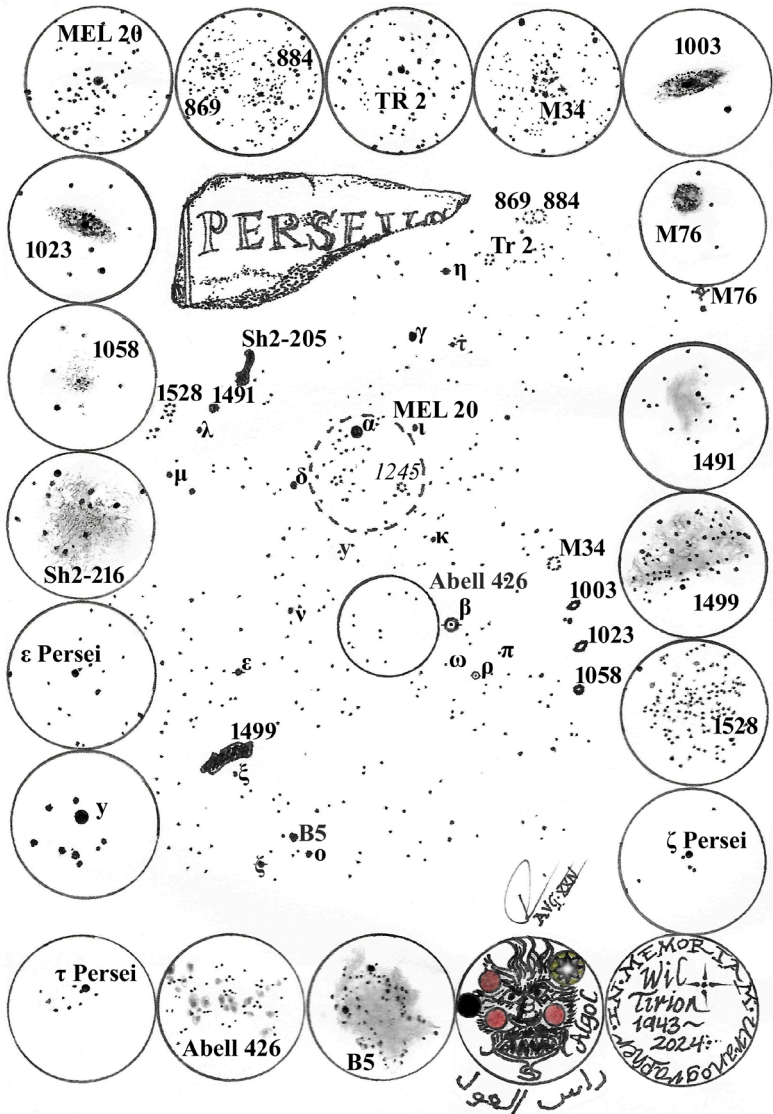


Diagram by Randall Rosenfeld

Editor's Note: The diagram includes a small tribute to recently passed Wil Tirion (1943–2024), a Dutch uranographer (celestial cartographer). His most famous work is *Sky Atlas 2000.0*.