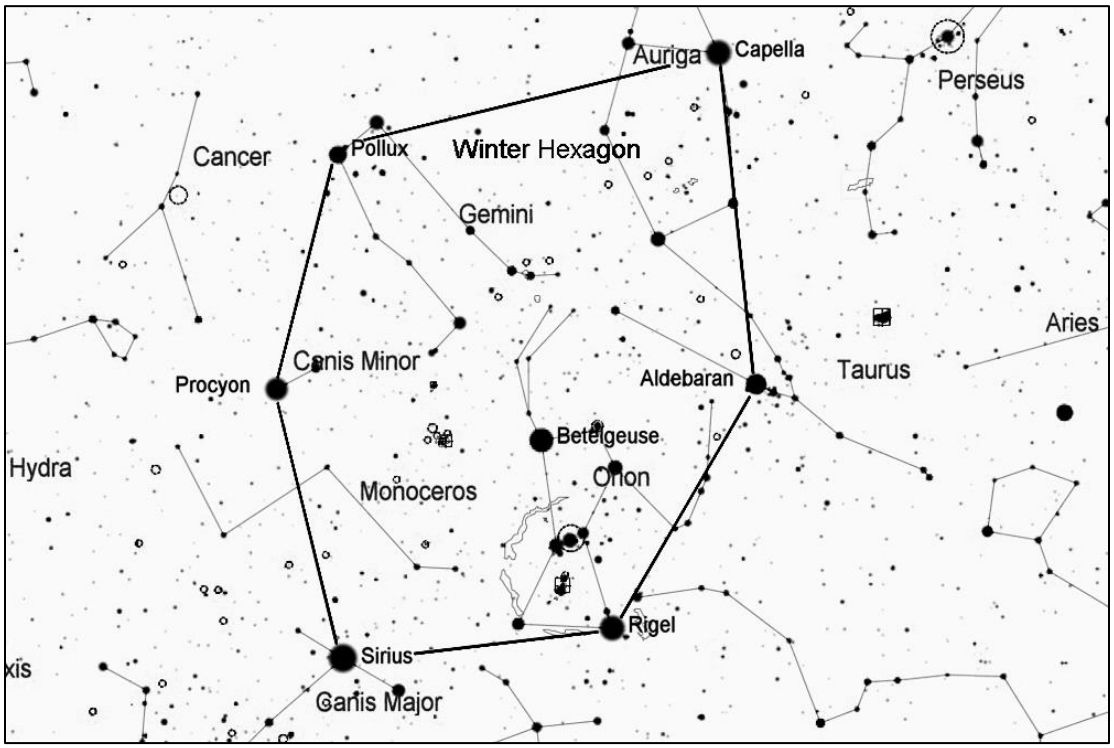
Messier 36, 37, and 38, Open Clusters in Auriga

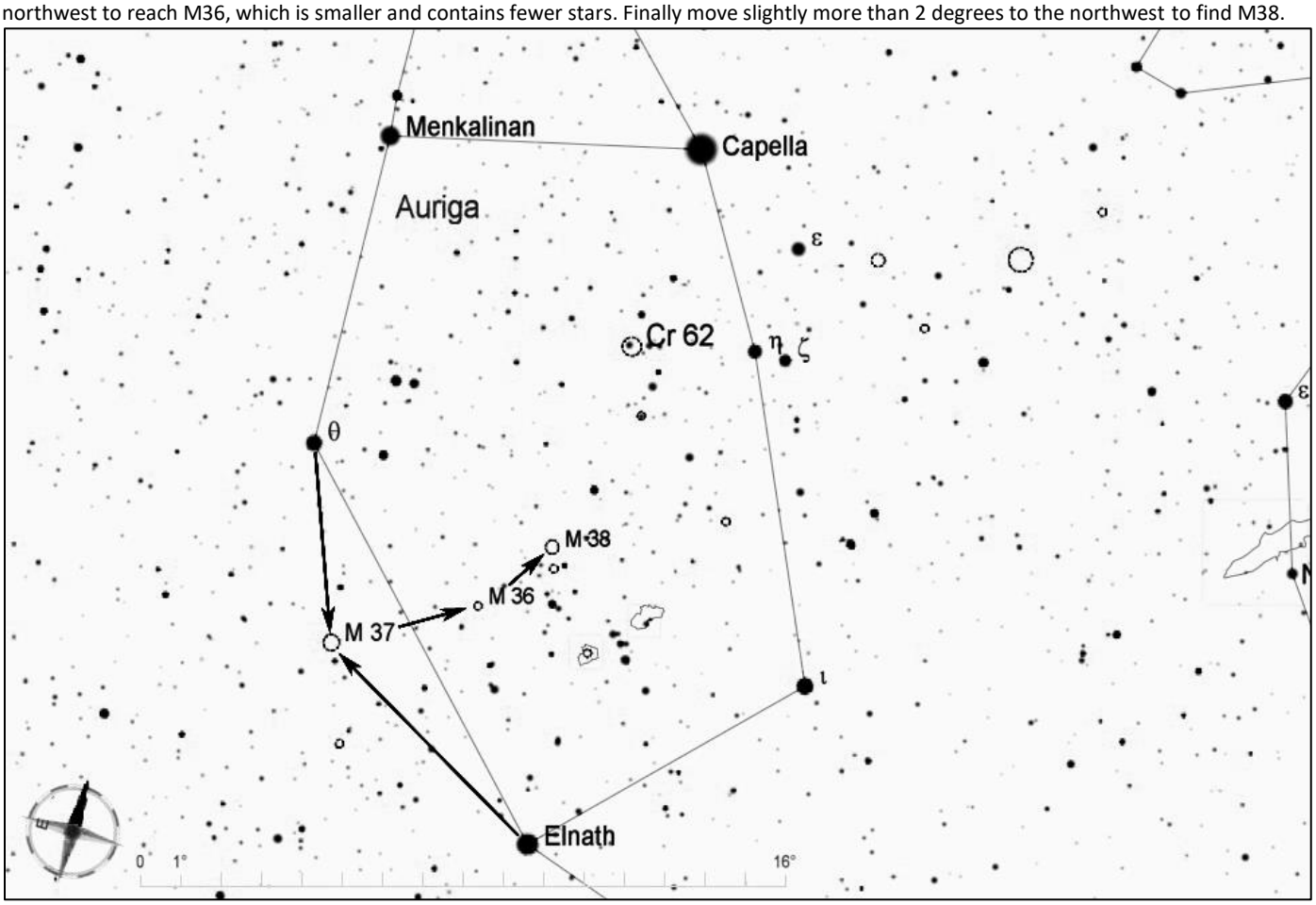
These three attractive clusters present interesting variations in size and appearance. Messier 36 is the smallest, about 12 arcminutes across. Messier 37 is about twice as large and is more densely packed with stars. Messier 38 is about as large as M37, but its stars are more widely spaced. All three clusters are fairly bright, and they can be observed in succession by sweeping from one to the next, as described below.



Find the Winter Hexagon, which is composed of six of the brightest stars in the sky--Sirius, Procyon, Pollux, Capella, Aldebaran, and Rigel. On mid-winter evenings, these stars form a large oval stretching from low in the south to nearly overhead. As spring begins, the Winter Hexagon sinks toward the west. The constellation Orion and its bright red star Betelgeuse are inside the Hexagon.

For this star hop, find Capella, the most northerly of the six stars in the Hexagon, and the brightest star in the constellation Auriga.

The brightest stars of Auriga form the shape of a slightly crooked house. Look for the two stars that are on the opposite side of this house from Capella (θ and Elnath). Use these two stars to form the base of a long, thin triangle, with the third point just outside the house, as shown below. This will be the location of M37, the largest and brightest of these three clusters. Once you have observed M37, move 4 degrees to the west-northwest to reach M36, which is smaller and contains fewer stars. Finally move slightly more than 2 degrees to the northwest to find M38.



Star hop from www.skyledge.net by Jim Mazur. Star charts created with *Cartes du Ciel.*