



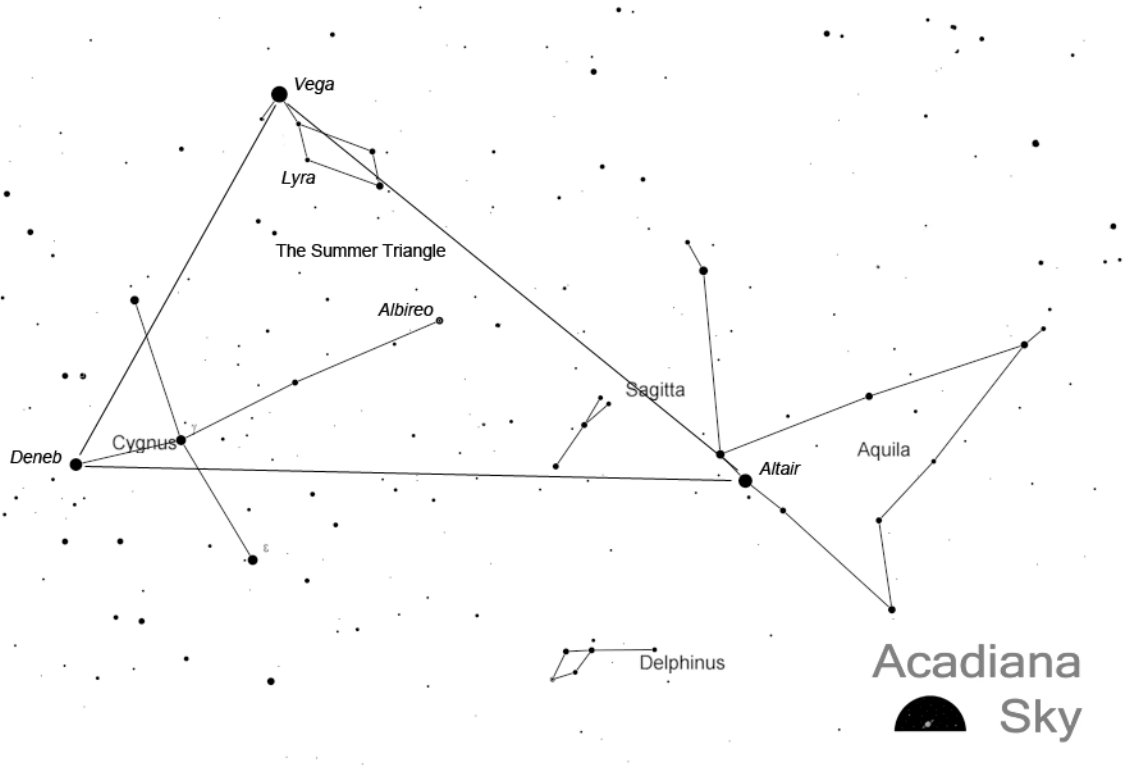
Albireo

Find this part of the sky using
Acadiana Sky Star Maps

What It Is

Also called β (Beta) Cygni, Albireo is one of the most popular and colorful double stars in the sky.

Where It Is



Albireo marks the head of Cygnus, the Swan, and is visible to the unaided eye. It's high overhead this time of year near the center of the asterism called The Summer Triangle, marked by the very bright stars Vega, Altair, and Deneb. It can be split with your low power eyepiece, and there's no mistaking it for other stars!

Why It's Cool

The stars of Albireo are roughly 400 light years from Earth, but the measurements are uncertain enough that astronomers aren't sure whether Albireo is a *binary star* (meaning that the components orbit each other), or an *optical double* (meaning the stars are at different distances in virtually the same direction as seen from Earth). Albireo's colors are striking, with yellow and turquoise components. Different observers may judge the colors differently. The yellow component is about 950 times more luminous than the sun while the other component is about 150 times. Both are more massive than the sun.



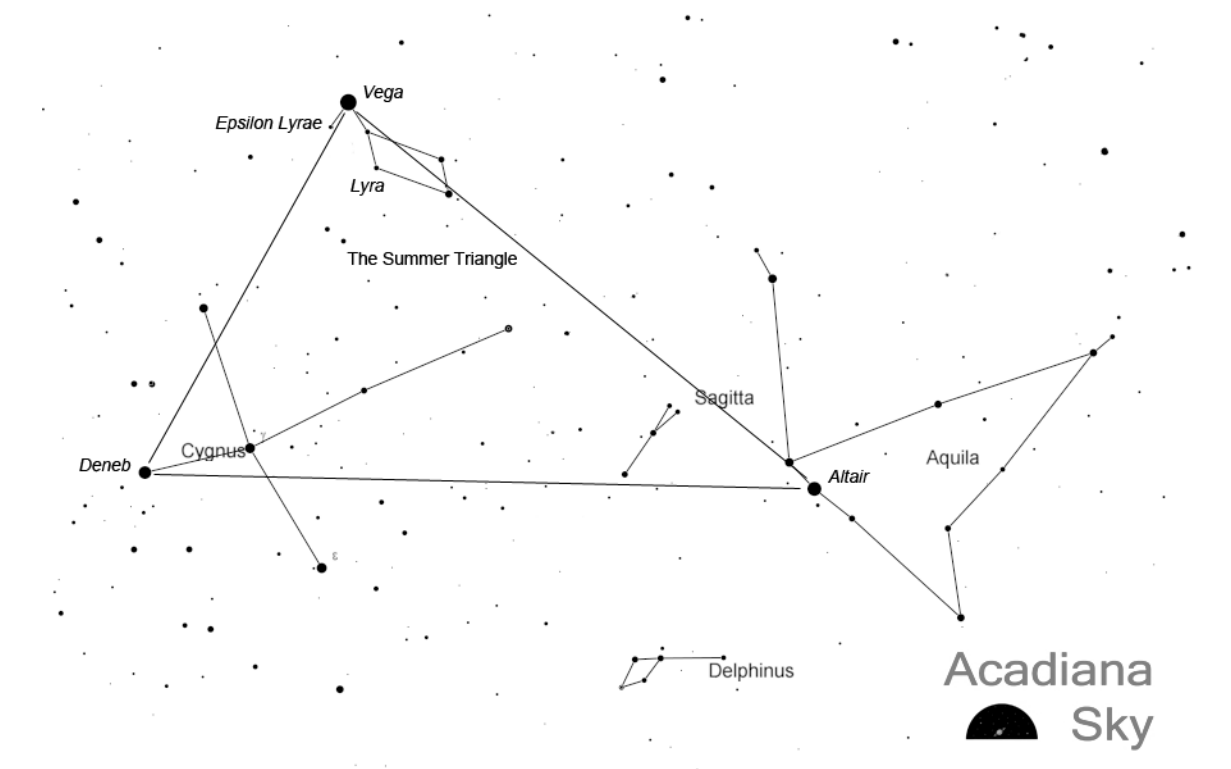
Epsilon Lyrae

*Find this part of the sky using
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What It Is

Epsilon Lyrae is a multiple star, at least 4 stars orbiting each other in two pairs. Binoculars and small telescopes show the pairs, but splitting those pairs requires a telescope of about 4" (114mm) diameter.

Where It Is



Look for The Summer Triangle high overhead this time of year. Its brightest star is Vega, in the constellation Lyra, the Harp. Epsilon Lyrae is beside Vega. It can be seen in the same view as Vega in binoculars or a lensed finder scope, and looks like two stars. Locate it using low power. Seeing the pair is easy, but splitting all 4 stars requires 100 – 200 power, a steady night, and a telescope big enough to handle that power. It's a challenge!

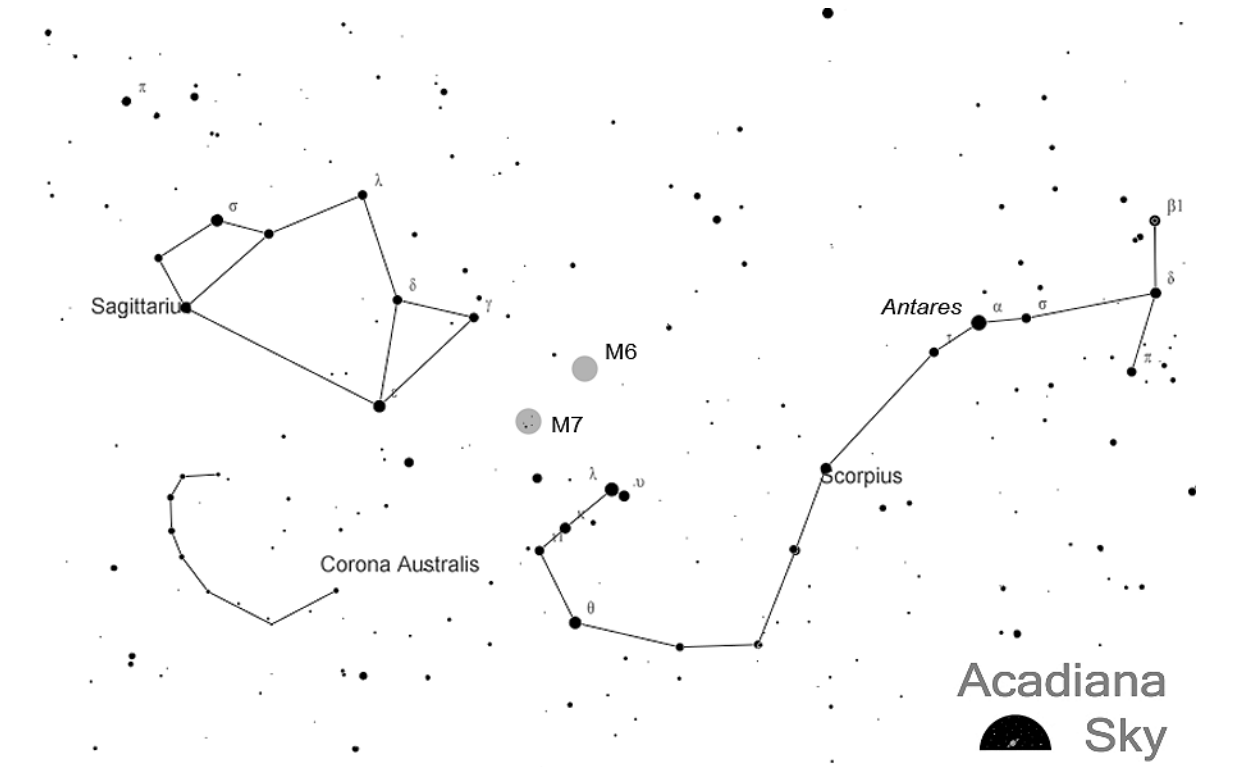
Why It's Cool

About 161 light years distant, Epsilon Lyrae can be seen with the unaided eye. On very dark, steady nights, sharp-eyed observers can just barely see it as two stars! Each of those two is in fact a binary system, one with an orbital period of perhaps 1200 years and the other with a period of about 600 years. You could put a couple of solar systems between the stars of each pair, and about 130 solar systems between the pairs!

What It Is

Although Messier 6 (M6) and Messier 7 (M7) are two separate objects, amateur astronomers often think of them together because they are similar and near each other in the sky. These are open star clusters, “families” of stars born together and moving together through space.

Where It Is



M6 and M7 can be seen with the unaided eye on clear, dark nights, and the distinctive shapes for Scorpius and the “Teapot” of Sagittarius help locate. They may be seen in the same view in binoculars and some lensed finder scopes, appearing as faint groups of stars or fuzzy blobs (depending on your optics). In your low power eyepiece, they should resolve into groups of many stars. As always, start with your lowest power, then change to higher powers until your optics no longer focus satisfactorily.

Why It's Cool

M6 is estimated to be nearly 1600 light years away, with M7 about 980 light years away. Based on the types of stars each cluster contains, they are thought to be about 95 and 200 million years old, respectively. Some 120 stars have been identified as being part of M6, while only about 80 have been identified in M7. These are the 6th and 7th objects on a list compiled by French astronomer Charles Messier (1730 – 1817), a list that is now probably the most popular list of objects for amateur astronomers to see.



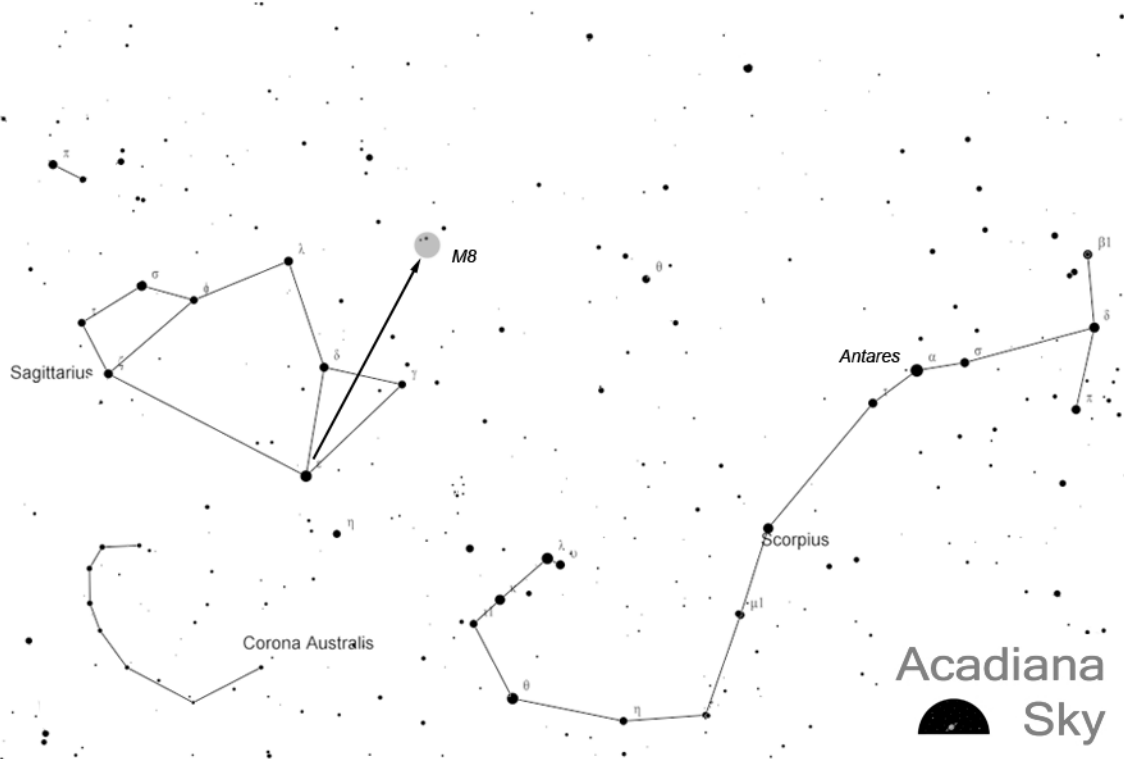
Messier 8

*Find this part of the sky using
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What It Is

Messier 8 is a diffuse nebula, a vast region of gas and dust where stars are forming. Sometimes called the Lagoon Nebula, it contains an open star cluster.

Where It Is



Follow a line from the bottom of the spout of the Teapot of Sagittarius, through the top of the spout, and then about the same distance further to find M8. It can be seen with the unaided eye on clear, dark nights. With an equatorially-mounted telescope, you can also point at the top star of the Teapot's lid, then sweep westward looking through your finder to find it. Use your low power telescope eyepiece first, and increase power if that gives a nice view. The Lagoon Nebula will appear as a softly glowing region littered with stars.

Why It's Cool

The Lagoon Nebula is about 5000 light years distant. Remember that this means we see it as it was about 5000 years ago, its light that we are seeing having traveled that long to get here. There is some uncertainty about whether its associated star cluster is in the nebula itself, or just a little in front of it. At its distance, M8 must have a size of about 50 x 110 light years.



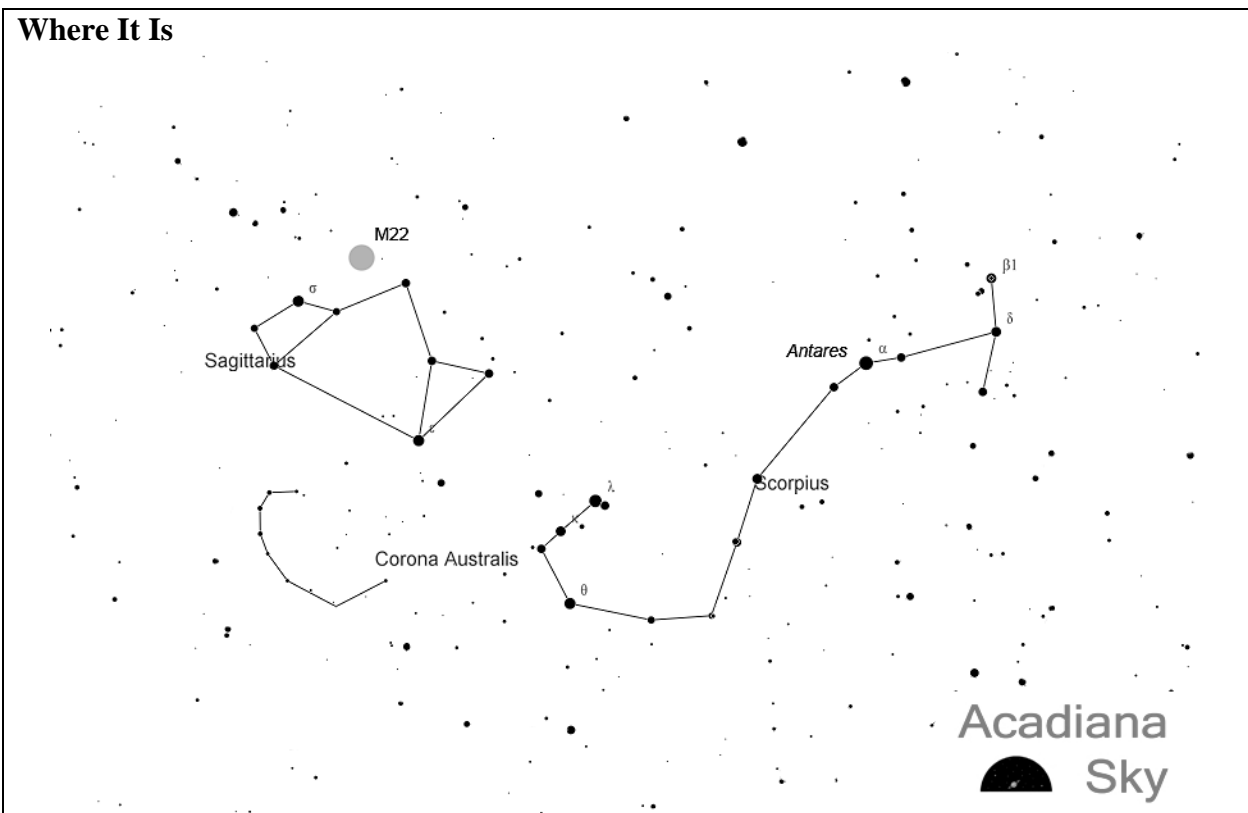
Messier 22

*Find this part of the sky using
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What It Is

Messier 22 is a globular cluster, a “family” of stars with so many members that their combined gravity holds the group together in a nearly spherical shape.

Where It Is



M22 can be seen as a fuzzy patch with the unaided eye on a dark, clear night. It will look like a little fuzzball in binoculars or a lensed finder scope. Aim your telescope at the top star of the Teapot of Sagittarius, then sweep to the as shown to find it in your finder. As always, start with the lowest power eyepiece in your telescope, but move upward in power once M22 is located.

Why It's Cool

M22 is about 10,500 light years distant, one of the nearest of the over 100 globular clusters in the Milky Way. It has over 70,000 stars, and is about 97 light years in diameter. It's the 3rd brightest globular visible from Earth, and visually one of the best. Expect it to resolve into myriad twinkling stars, but the number you see will depend on your telescope and the quality of the night. As with many objects, look in the eyepiece slightly away from M22 instead of right at it to bring more sensitive parts of your eye into use.