July Tonight’s Sky

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Constellations

The warm nights of July provide endless summer treasures to enjoy.

Scuttling above the southern horizon is Scorpius, the scorpion who in Greek mythology stung Orion to death before being crushed.

Scorpius’ prominent fishhook star pattern resembles the creature’s outline.

The heart of the scorpion is marked by Antares, a reddish supergiant star nearing the end of its life.

Antares is one of the largest known stars.

If placed at the center of our solar system, its bloated bulk would extend past the orbit of Mars.

Next to Antares lies the globular star cluster M4.

NASA’s Hubble Space Telescope has resolved the center of the cluster, filled with thousands of ancient stars, all of which formed around the same time and are aging together.

Two other star clusters, the Butterfly Cluster and the Ptolemy Cluster, can be found on the other end of Scorpius, just above the stinger.

These are known as open clusters because they are much less compact than globular clusters.

Each of these contains only about a hundred stars, most of which are hot, blue, and much younger than those in globular clusters.

East of Scorpius is Sagittarius, the archer.

The main part of the pattern takes the outline of a teapot, from which the central regions of the Milky Way appear to rise like steam.

The glowing star clouds in Sagittarius are filled with star clusters, including M22, one of the nearest globular star clusters to Earth.

A Hubble image shows the core of the cluster.

Interactions in this crowded environment cause the massive corpses of stars, including black holes and neutron stars, to move toward the core.

Strung along the Milky Way above the teapot are numerous nebulas: glowing clouds of gas and dust where new stars are forming.
Three of the most prominent are the Swan Nebula, the Lagoon Nebula, and the Trifid Nebula.

NASA’s Spitzer Space Telescope collects infrared light from these regions, revealing cool and warm gas that is otherwise invisible to human eyes.

Over millions of years, the gas and dust in stellar nurseries like these will eventually come together to form new stars, adding to the constellations in the sky.

Explore our galaxy’s glittering star clusters, glowing nebulas, and legendary figures from your own backyard.

Celestial wonders await you in tonight’s sky.