

Stars Over Sisters

By Ron Thorkildson
Correspondent

One of the lesser-known constellations of summer is Scutum, The Shield. Surrounded by the more familiar stellar patterns of Aquila, Sagittarius and Serpens Cauda, it is neither big nor bright.

In fact, unlike many other constellations that date back to antiquity, Scutum is a relative newcomer.

In 1684 Polish astronomer Johannes Hevelius found space on the celestial sphere for Scutum to commemorate the victory of the Christian forces led by Polish King John III Sobieski in the Battle of Vienna in 1683. Scutum's three brightest stars are generally aligned north-south in a way that does somewhat resemble a primitive shield.

The constellation is easy to locate because a bright portion of the Milky Way, called the Scutum Star Cloud, is found here. From just above the teapot's spout in Sagittarius, follow the Milky Way northeastward until you encounter a denser patch of "milky," a distance of about twenty degrees.

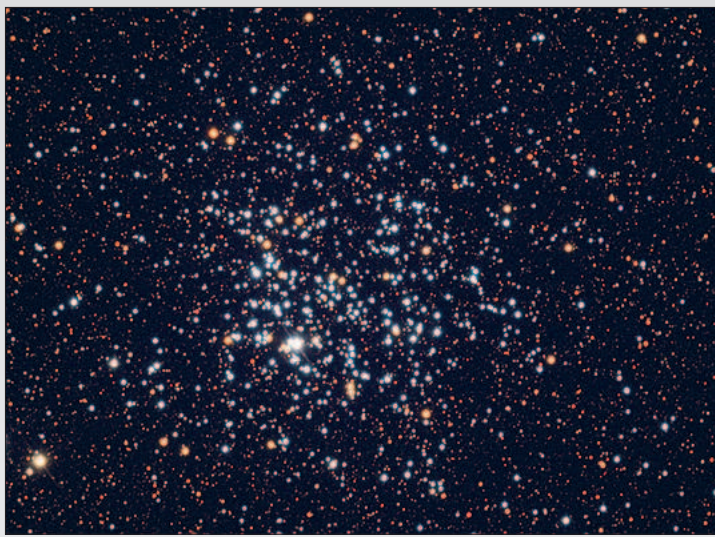
There are a couple stars of note in this constellation. Delta Scuti is a bluish-white giant star that is approaching our solar system. Within the next 1.3 million years it will come as close as 10 light-years from the earth, and

will be much brighter than Sirius, currently the brightest star in the sky.

UY Scuti is a red supergiant pulsating variable star. If placed at the center of our solar system, this star's photosphere would engulf the orbit of Jupiter, making it the largest star currently known.

Although the constellation is exceedingly small, it still contains several worthy deep-sky objects. The most prominent of these by far is M11, generally regarded as the finest example of an open star cluster in the entire sky. It is a dazzling collection of about 2,900 bright stars estimated to be no older than about 220 million years. It is sometimes known as the Wild Duck Cluster because its triangular shape reminds some observers of a flight of wild ducks. The object lies at a distance of about 6,200 light-years.

When the New Horizons spacecraft was launched in January 2006, Pluto was still the ninth member of the sun's family of major planets. The remote orb enjoyed that status for more than 76 years until August of 2006 when the International Astronomical Union demoted it to the rank of dwarf planet. Regardless of Pluto's controversial reclassification, the space probe will arrive in its vicinity by mid-July. The mission's highest priority is to map the global geology of Pluto and its largest moon, Charon,



M11, located in the constellation of Scutum, is one of the best examples of an open star cluster.

to determine their surface composition, and to study Pluto's thin atmosphere. At 4:50 a.m. PDT on July 14 New Horizons will make its closest approach to Pluto at a distance of 7,767 miles.

On July 1 Venus and Jupiter are still separated by just a half a degree, creating a spectacularly beautiful sight in the western sky after sunset. Throughout the remainder of the month the two planets slowly separate as Venus moves back toward the sun, reaching inferior conjunction by mid-August.

On July 16 Mercury and Mars are only 0.1 degrees apart in the sky and appear very low on the eastern horizon about 45 minutes before sunup. But the light of dawn will make the pair hard to spot. By July 23 speedy Mercury will slip behind the sun and be at superior conjunction relative to the earth. Saturn is low in the southern sky by evening, appearing about nine degrees north of

the red-giant star Antares in the constellation of Scorpius, and well placed for observing its ring system through a telescope.

The Full Buck Moon occurs on July 1, bathing the dark side of the earth in reflected sunlight. Now on the wane, our only natural satellite passes through third quarter on July 8 on its way to becoming dark (new) on July 15. The moon waxes for the remainder of the month; first quarter by July 23 and, yes, another full moon on July 31, officially making it a "blue moon."

Join the Sisters Astronomy Club for an evening under the stars on Saturday, July 18. Following an astronomy-related presentation at the Sisters Park & Recreation District building located at 1750 W. McKinney Butte Rd., telescopes will be made available for viewing treasures of the summer night sky.

Oregon governor signs testing opt-out bill

SALEM (AP) — Oregon Gov. Kate Brown has signed a bill making it easier for parents to opt their children out of standardized tests.

Brown's signature on Tuesday followed warnings by federal officials that Oregon could lose education funding if too many students opt out.

The Democratic governor says in a statement that teachers should be sure parents understand the value of tests and the consequences of opting out.

Oregon currently allows parents to opt their children out of standardized tests for religious reasons or a disability. The bill would permit opting out for any reason.

Testing critics say the assessments waste class time and are stressful for some students.

Education reform advocates oppose the bill. They say testing is an important way to measure progress and raise standards.

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