

# Stars over Sisters

By Alex Burroughs  
Correspondent

Lying in the lower, southern sky is the constellation Fornax, which means furnace in Latin. Fornax is composed of very faint stars, making it more difficult to spot. It rises in the south around 9 p.m. and sets around 2 a.m., sitting under the constellations Eridanus and Cetus.

It was added to a list of already-existing constellations by the French astronomer Nicolas Louis de Lacaille in the mid-18th century.

The constellation of Fornax has many objects to view. The Fornax Cluster, an amazing group of 58 galaxies and other deep-sky objects can be seen southeast of the star Alpha Fornacis. NGC 1399, an elliptical galaxy, is at the center of the Fornax Cluster and is round and smooth-looking, with a magnitude of 9.9. A black hole

at the center of this galaxy ripped apart a star that ventured too close, producing an ultra-luminous x-ray source.

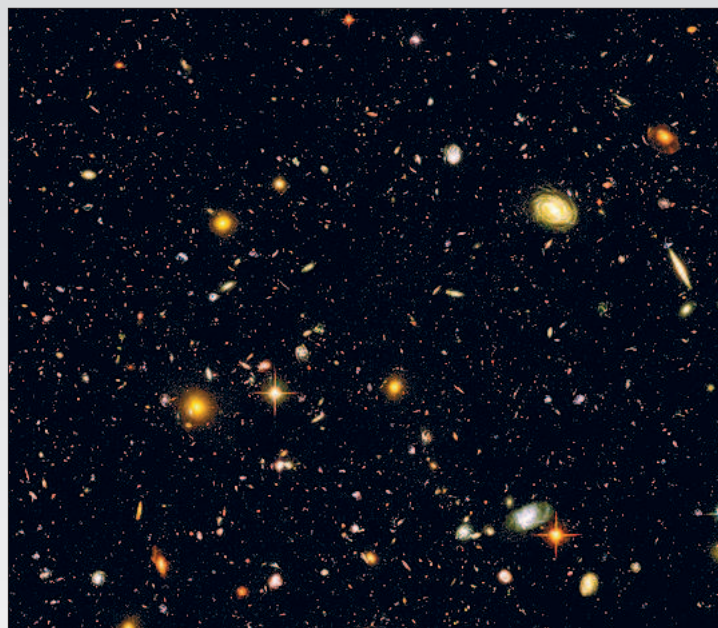
Another prominent galaxy is NGC 1097 or Caldwell 67. It is a barred spiral galaxy about 45-million light-years away with a magnitude of 10.2. Orbiting the galaxy are two satellite galaxies, similar in nature to the large and small Magellanic Clouds that circle our Milky Way Galaxy.

Also within the constellation of Fornax, the ultra deep-field photograph was taken by the Hubble Space Telescope. The telescope was pointed to a small area of space that appeared to be completely dark and empty. When the images came back, the light from over 3,000 galaxies, some that were over 13-billion light-years away, had finally reached our planet. The second most distant object in the universe from earth, UDFy-38135539, can be seen in this image.

As you may already know, the earth's axis of rotation is on a tilt of 23.5 degrees. This tilt is what causes our seasons. As we revolve around the sun, the North Pole seems to move back and forth. On June 21, or the summer solstice, the North Pole is pointed toward the sun, making it summer in the northern hemisphere and winter in the southern hemisphere. The winter solstice is just opposite of that, when the North Pole is pointed away from the sun, marking the first day of winter. This occurs on December 21 at 8:49 p.m. PST this year. This is also the shortest day of the year, with less than nine hours of daylight at our latitude on this day.

The new moon will be on December 11, growing larger to the first quarter on December 18 and the full moon will illuminate us on Christmas day.

In the month of December



NASA IMAGE OF THE ULTRA-DEEP FIELD TAKEN BY THE HUBBLE SPACE TELESCOPE

Except for the four objects with spikes, every dot and smudge in this photo taken by the Hubble Space Telescope is a separate galaxy.

nearly all five visible planets can be seen. Throughout the month, early in the morning in the eastern sky, Jupiter, Mars and Venus can be seen in a nearly perfect line, with Jupiter in the constellation of Leo and Venus in the constellation of Virgo. The first of the month the waning crescent moon will also be within this line, starting at

the top near Jupiter and each day falling lower and lower toward Venus.

In mid-December around 7 a.m., just before the sun rises, Saturn can be seen in the southeastern sky in the constellation Scorpius. Mercury will just barely be visible toward the end of the month, also in Scorpius, just as the sun sets.

## has a **diagnosis** thrown you?

**We're here  
for you throughout  
the journey -  
wherever it  
may lead.**

Being diagnosed with an illness or disease can be devastating. But we're here to help. With visiting specialists, rehabilitation and treatment programs, support groups and ready access to specialized services from St. Charles Health System, we help ease your mind so the healing can begin.

Schedule an appointment with one of our providers today.

St. Charles  
Center for  
**Women's Health**

**NOW OPEN IN BEND** | 2600 NE NEFF RD. | 541-706-5920  
REDMOND and PRINEVILLE | 541-526-6635  
[StCharlesHealthCare.org/womenshealth](http://StCharlesHealthCare.org/womenshealth)