

OBSERVING GALAXIES

By Forrest Lockhart

Here in the dark winter skies of the foothills, a pearly ribbon still casts a soft glow in the night sky. Known by a myriad of names over millennia past, we know it as the Milky Way. With the birth of telescopic astronomy, thousands of faint objects were discovered in the sky. These misty cloudlike objects were generally referred to as Nebulae. In an effort to determine just what these objects were, in 1845 Irish nobleman William Parsons, the 3rd Lord of Rosse, constructed the largest telescope in the world, a 72" giant known as the Leviathan of Parsonstown. With this telescope, Parsons was able to detect hints of spiral structure in several of these mysterious nebulae.

But until the year 1925, even these spiral objects were considered to be merely a part of our Milky Way universe. In that year, Dr. Edwin Hubble used the famous 100" telescope at Mount Wilson, California to prove that these grand spirals did not reside within our galaxy, but incredibly far beyond it. Thus began the era of modern astronomy and cosmology that downgraded the Milky Way galaxy from the center of all things to one of uncounted billions of other galaxies in the universe.

To get a glimpse of these distant wonders we need to look past the glow of our own galaxy and out into deep, dark space. A favorite season for galaxy hunters is in early spring, when the constellations of Virgo and Coma Berenices rise from the eastern horizon, offering a plethora of galaxies for amateur astronomers. A mid-sized scope at low magnification can sometimes show dozens of faint galaxies in one field of view.

Unfortunately, to the majority of non-astronomers, the first glimpse of a galaxy can be disappointing. In place of the glowing spiral arms seen in the professional photos, we see, or sometimes don't, a faint blur that tantalizes but does not reveal the complexity of the structure.

So why get dressed up in snow gear and venture out into the cold to see...nothing? Consider this: the nearest galaxy to our own is over two million light years away, and a mid-sized telescope can reveal galaxies that are more than 60 million light years distant. To put it in perspective, the light from these most distant galaxies was sent our way when the dinosaurs still ruled the earth. But science and technology have come to the rescue.

At our local Cameron Park Rotary Club Community Observatory located in Placerville behind the El Dorado Center of the Folsom Lake College, we are able to see the true structure of spiral galaxies using a 14" telescope equipped with a low-light camera that projects a live image on a TV monitor next to the scope. Docents are on hand to provide interesting information regarding the objects on display and answer your astronomical questions. So as spring approaches, come visit the observatory for a peek at the distant past. For more information about the observatory, driving directions and weather closure notices go to www.communityobservatory.com

