

Stargazing

by Geoff Gaherty, Toronto Centre (geoff@foxmead.ca)

Frequently I see questions from beginners similar to this: “I’m interested in astronomy and would like to buy a telescope to look at stars.”

Many beginners have the impression that the main things amateur astronomers look at through their telescopes are stars. Yet, when did you last look at a star through your telescope? Not a cluster of stars, not a galaxy of stars, but just a star. About the only time I ever look at a plain old star through my telescope is when I’m star-testing a telescope. So, the idea that astronomers look at stars is a major misconception among beginners and the public.

This leads me to the opposite question: What do amateur astronomers actually look at through their telescopes? There are two main areas: Solar System objects and deep-sky objects.

Solar System objects observed by a large number of amateurs include the Sun, the Moon, and the planets. They also include the smaller and more exotic members of the Solar System, such as comets, asteroids, and meteors. Aurorae are Solar System objects, though they’ve been rather scarce around solar minimum. Solar System observers are going to be deprived of two of their favourite targets for the next few years. Saturn’s rings are about to turn edge on to us, and Saturn will turn into a plain ordinary gas giant for the next two years, a bit larger than Uranus or Neptune, but without the exciting meteorology of Jupiter. Mars is now on the far side of the Sun, but when it returns next it will be the first of several perihelic oppositions, with a disk not much larger than that of Mercury (14 arc-seconds vs. 12 arc-seconds for Mercury at its largest).

Deep-sky objects are the other main love of amateur astronomers. First come the Messiers, then the Finest NGCs. Other lists follow, including the RASC’s deep-sky challenges and dark nebulae, and David Levy’s new list. However, I must confess that, after struggling through the Herschel 400 list, I realized I would be quite happy if I never saw another nondescript faint galaxy!

So why don’t we look at stars? Amateur astronomers a century ago used to spend a lot of time looking at stars, often

with refractors so small that we wouldn’t even think of using them as finders on our giant Dobs of today. When I first got involved in astronomy 50 years ago, there still were observers who specialized in double stars, but they were a dying breed. Until very recently, double star observers were pretty much extinct, but a few people like Sue French have been successfully rekindling an interest in doubles and multiples. It almost feels as if we’ve been forced to shift our attention to brighter objects as light pollution makes hunting faint fuzzies an increasing challenge. The availability of high-quality refractors at reasonable prices has also contributed to the return to doubles and multiples. There really is nothing quite so pretty as a multicoloured double star viewed through a high-quality refractor.

I’ve saved the best for last: variable stars! I find variables a constant source of excitement because I never know what they’re going to do next. Every night at the eyepiece is filled with adventure as I seek out my favourite stars to see how they have changed since my last visit. Many of the variables I study are red giants — some of the most deeply coloured stars in the sky, such as U Cygni, one of my all-time favourites.

As soon as I start talking about variables, I start saying “my favourite this” and “my favourite that,” much as my son David did when he was four years old: “my favourite one!” And that’s what keeps me hooked on astronomy: having so many favourites keeps my interest stoked and my enthusiasm high. It doesn’t matter what your favourites are: Solar System, deep-sky, doubles, or variables. There’s just so much up there in the skies to be enthusiastic about! ●

Geoff Gaherty is the recipient of the Society’s Chant Medal for 2008. Despite cold in the winter and mosquitoes in the summer, he still manages to pursue a variety of observations, particularly of Jupiter and variable stars. Though technically retired as a computer consultant, he is now getting paid to do astronomy, providing content and technical support for Starry Night software.

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