

## THE STARRY SIDE

## Wandering stars

BY GREELEY WELLS

Well, ah...where are we? Has this been winter? Did it start? Is it over? Then maybe this is spring coming up. I guess even if the weather is funny, the stars still do their thing—and for them it's definitely spring.

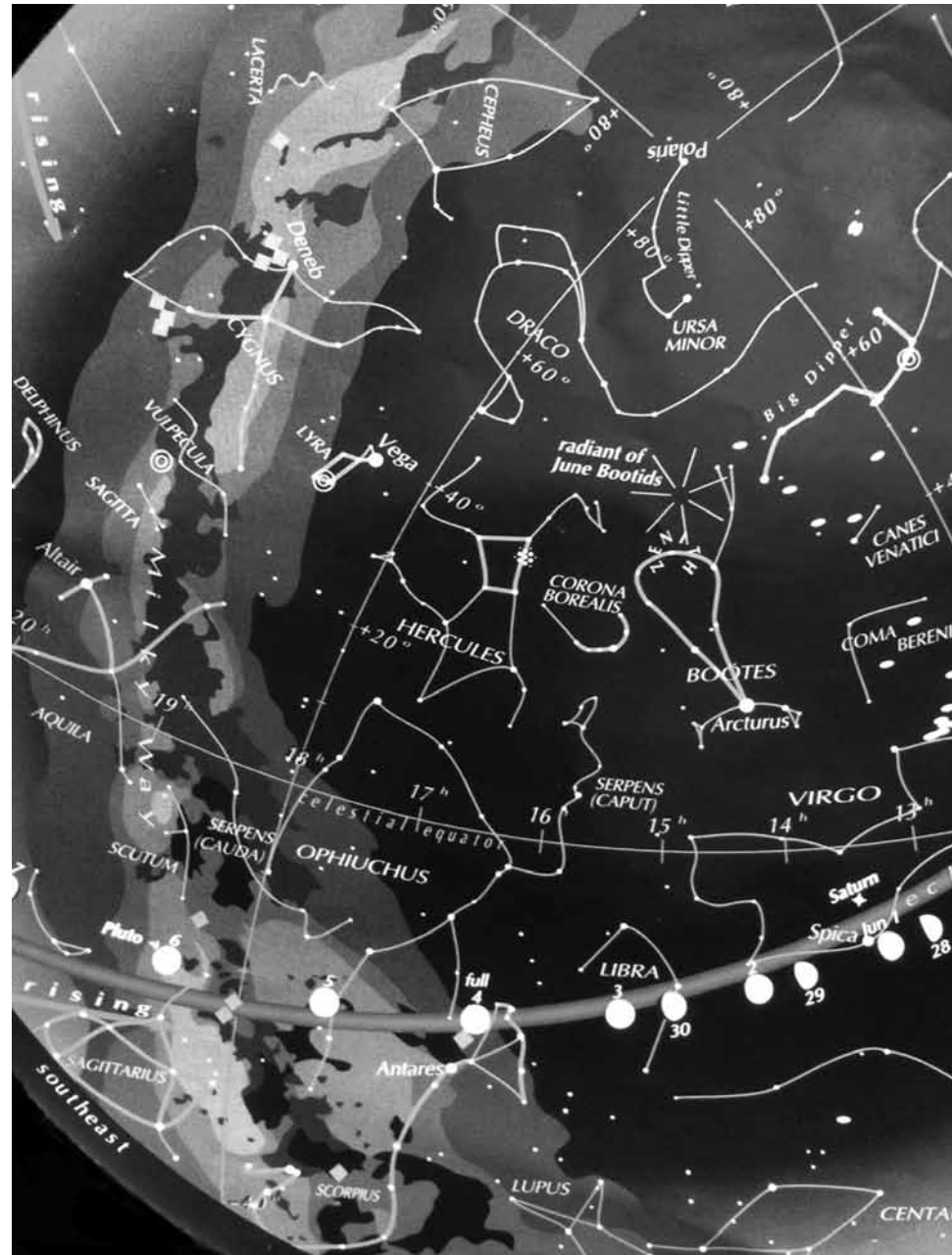
So what's up there, overhead? The summer triangle is seen as I write this only around dawn, but when you read this it's beginning to rise late in the evening. The Summer Triangle is formed from three bright stars: Vega, Deneb and Altair. Here's how to find them. By May, Vega is pretty far up the northeastern horizon. Vega is a bright star in Lyra, those odd sets of two-by-two stars about equal distance to each other. (By the way, does anyone see a lyre, an ancient stringed instrument, in Lyra? I sure don't.) Below Lyra is Deneb, the top of the Northern Cross. (The Northern Cross is officially Cygnus the swan; in May the swan is flying flat on the eastern horizon, with Deneb as its tail.) By June we should also be seeing Altair in Aquila the eagle. Aquila is a three-in-a-row set similar to Orion's belt but the middle star, Altair, is brightest. That's the full summer triangle.

But look—there's more! Parallel with the big dipper high over our heads and heading west is the big lion, Leo, with the planet Mars still below it continuing its dance back and forth. Mars has gone toward Regulus, then paused, moved away, and now is coming back. What's with all this weird movement? Can you visualize what it might look like to follow a particular planet from our viewpoint going around the sun? It's really hard to visualize, so here's a way to think about it. If you were to watch from the side a horse on a rope being walked around a center post (the sun) it would go left for a while, seem to slow down and then go right, only to do the reverse on the other side of the circle. Of course, there are many horses (planets) all on various lengths of rope from the pole. Now imagine you, yourself have a rope attached to the same pole, and you're also going around the pole. Your rope is shorter than some and longer than others, but you're going around the same post. See how complicated that would be? Now imagine it's night and each of you carries a differently powered and slightly differently colored lamp: now all you see are the lamps. Sometimes the lights are close to you, sometimes far; some are fast, some are slow; and some are really, really far away. It's totally confusing. This is the kind of thing scientists and great thinkers work on for years and build complicated charts, models and theories for. So it's no wonder the Greeks just called these wandering stars, and today we call them planets.

Leo is not the only constellation harboring a planet. Virgo has Saturn playing with her brightest star, Spica, in the same confusing way. Follow the arch of the big dipper handle to Arcturus [the bright one] and the same arch further on to Spica [pretty bright] and the similarly bright but not blinking "star" nearby is the planet Saturn. It was going away from Spica last year and is still playing around it because it slowed, stopped, and came back—and is about to do it again.

In the south, close to the horizon, is Scorpio up in the southeast in June. Scorpio is characterized by another set of three stars twice! The "shoulders" of the

scorpion are a vertical three in a row. The other three-in-a-row set is to the left and is curved slightly downward to form the back of the scorpion. In this row of three is the famous red rival of Mars: Antares. The rest of the constellation sweeps left and down to the horizon and comes up farther left with the stinger: two stars tightly together in just the right spot and with the right look for an end-of-tail stinger. Scorpio is followed closely on the left by the teapot, or Sagittarius the archer, which marks almost



exactly the center of our Milky Way galaxy. Scorpio and Sagittarius bracket the Milky Way in the south as it curves gently all the way across the sky through the summer triangle overhead and north to Cassiopeia.

## THE PLANETS

VENUS starts May as the ornament of the sunset, bright and alone. Caster and Pollux are above it as it slowly sinks into the sunset. That's bright Capella to the upper right. Watch for a tiny and growing crescent moon May 22 - 25, passing Venus. Venus begins strong in May but is falling to the horizon and fading in intensity all month.

On the first of June, both Venus and Mercury slip into the sun and disappear for a while. This is the setup for the transit of Venus across the sun; you can't see Venus in our sky when it's "in" the sun.

The big deal is the transit of Venus across the Sun on June 5. It's the second and last such transit of the 21st century. A transit occurs when a planet comes between us and the sun, making a circular black shadow across the sun's surface. It's very hard to see and dangerous to look at directly. The best way is this: get a white board or thick card material, make a pinhole in another card for sunlight to come through, hold it over the board, and then adjust distance to focus. It will act like

a camera with the pinhole as the lens, and it will give you an upside-down image of what's happening, completely and safely, as you look only at the board below it. Never look at the sun. Only a few very expensive, specific and hard-to-find filters can be used safely. Here are the details: the event starts with Venus touching the sun at 2 pm on the June 5. The midpoint is 7:30 pm, and then the sun sets for us before the end point. If you do this, please be careful and have fun. On one level there's not much

after sunset at the beginning of May. On May 20, Saturn has dimmed and

passes above about five degrees above Spica. She'll swing by again a little closer in August. On May 31, see the moon join them for a threesome lineup. Saturn comes to a halt only five degrees from Spica on June 26, and then begins another easterly movement. Go figure. Remember those horses?

MARS is high in the May sky as the month starts, but by the time it ends, Mars is way lower in the west. It's also getting dimmer and moving away from Regulus. In June, Mars is moving east against the background stars. So this is the third planet/star dance going on these days!

MERCURY reappears in the evening sky the second week of June, very low, of course.

## OF SPECIAL NOTE

In May, the full moon appears on the 6th and is called the Milk Moon or Planting Moon. On May 26, the moon is close to the beehive cluster in the evening sky and worth a gander.

June's full moon comes on the 4th and is called the Flower, Rose or Strawberry Moon, and will have a partial eclipse. It's a predawn event during which about two-fifths of the moon will enter the earth's dark central umbra shadow. It will start about 2 am; the middle of the eclipse will occur at 3 am; and it ends about 4 am. So if you manage any of those times, especially the middle, you'll have a good show. Ever seen an eclipse of the moon? I saw the last one a few months ago and got some film of it, too.

Also on June 28, the moon's right next to Spica in the evening sky, and Saturn will be around, too.

Go to [www.shadowandsubstance.com](http://www.shadowandsubstance.com) for a nice daily show of the night sky events; the eclipse is illustrated beautifully here as well as the Venus transit—maybe better than the real thing.

In spring, the Milky Way is under—or rather all around below us—but not yet up in our sky. It's beginning to show on the eastern horizon, and as Cygnus the swan rises, she brings the Milky Way with her up into our sky. By summer, the Milky Way will be overhead.

June 20 is the summer solstice: the longest day with the earliest sunrise. (Because the latest sunset falls on June 27, it seems like this is the longest day; this is because we tend to pay more attention to evening time than to dawn.) This is also the first of many June 20 solstices to come in the years ahead.

Greeley Wells

541-840-5700

[greeley@greeley.me](mailto:greeley@greeley.me)

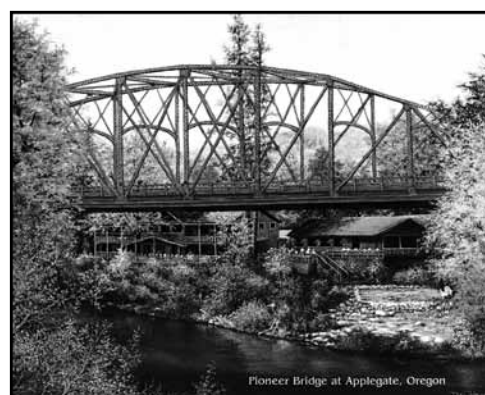
Greeley Wells

to see: a black spot on the face of the sun very slowly moving across it. However, this very rare event is pretty amazing when you imagine just what's happening and you are the witness. I plan to give it a go somewhere near the middle of the event, and watch for a while.

By mid-June, Venus has risen in the morning below Jupiter and they join the crescent moon on the morning of the June 16 for a nice show. By June 30, Venus is catching up with Jupiter. Aldebaran is bright nearby, too, just below Venus.

JUPITER is out of sight behind the sun in May. Jupiter is first into the morning sky as June begins, however. On June 17, the crescent moon is very close to Jupiter at dawn, with Venus below and the Pleiades above.

SATURN is high in the south well

Applegate River Ranch  
Lodge & Restaurant

Restaurant open 4-9 Tuesday through Sunday  
Lodge open 7 days a week  
Wednesday Night Live Music, open till 11 pm

[www.applegateriverlodge.com](http://www.applegateriverlodge.com)  
Lodge-541-846-6690 • Restaurant-541-846-6082  
Wedding/Special Events-541-660-0244