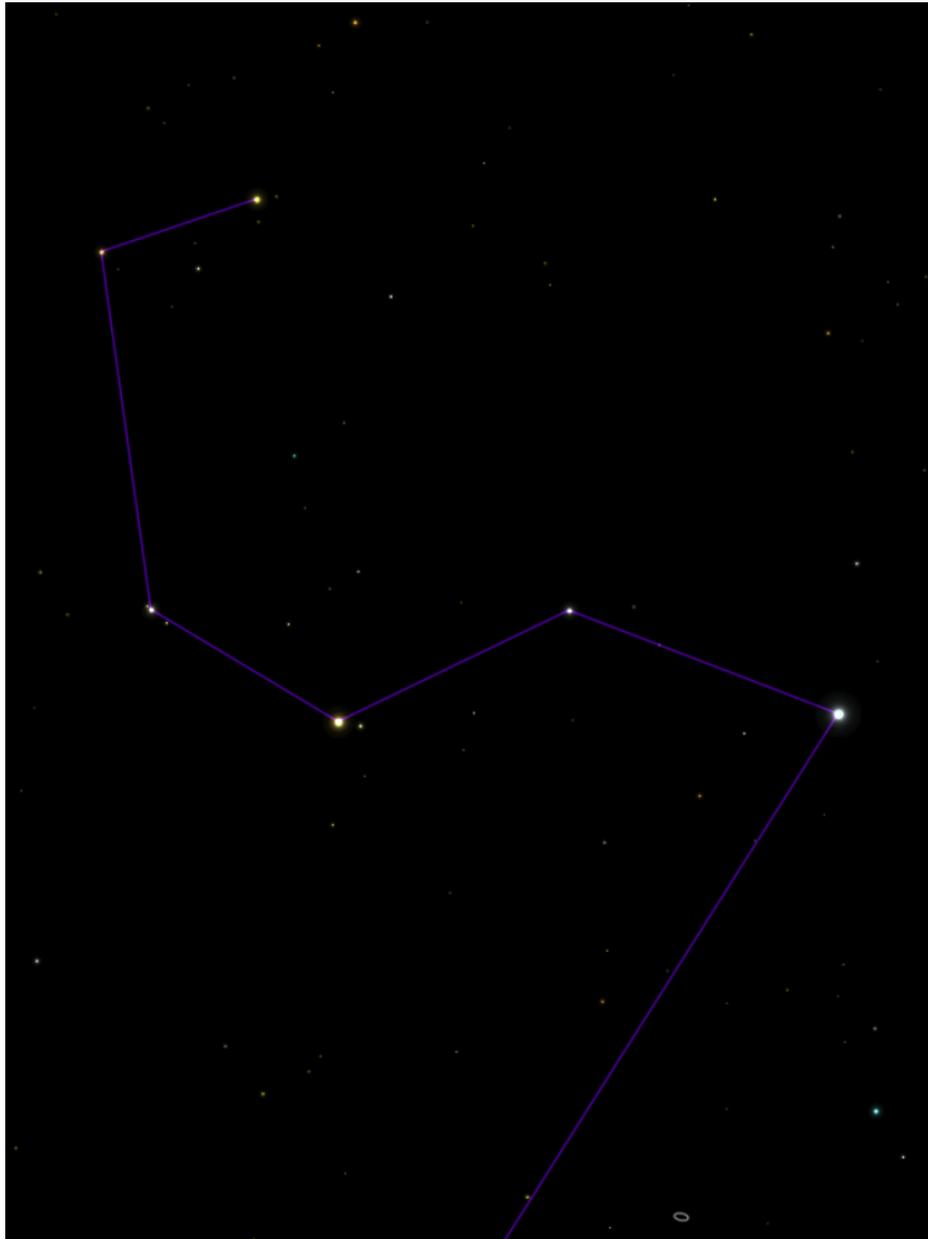


Sickle Cycles

By Sam Storch

Spring skies are heralded by the arrival of Leo's iconic sickle. Although visible in late evening during the coldest part of winter, when the sickle is high in the sky dueling mid-evening, it is literally the "high time" to begin planting and preparing for the coming season of green.

Leo's sickle begins with bright Regulus, and continues "up and back" to Algeiba, then up, around and "forward," westward, to its completion.



I always felt frustration on seeing the charts in magazines, books, and the *Observer's Handbook* showing how to judge your sky by counting the number of stars visible near Polaris. Doesn't everybody find at least a dozen dim stars in that spot? Maybe more?

My own experience with Long Island skies in recent years suggests that you should celebrate if you can even see Polaris itself, let alone the really faint surrounding stars!

Instead of being frustrated by all this, go outside and simply look at Leo- the stars of the sickle show you magnitudes 1, 2, 3, 4, 5, and even 6. Your sky condition can be instantly known just by looking at Leo's head!

Regulus shines at magnitude 1, lies along the ecliptic, and by the fact of its position on the sky, is located where the Sun will be on the ecliptic yearly on August 27 during our lifetime. As the precession of the Earth's axis slowly grinds on in its 25,800 year cycle, Regulus seems to "slide" along the ecliptic. In fact, planetarium operators often use this fact to check that the star machine is showing the sky for the current epoch.

If you have some software such as *Voyager*, *Starry Night*, or *The Sky*, why not try this for yourself? Set the display to show you the ecliptic and the meridian. Put Regulus on the meridian, center on it, "lock" the software to stay centered on it, and then adjust precession, say, at 100 year intervals. Go backwards or forward. You'll discover that the position of Regulus changes on the ecliptic by one calendar day about every 71 years. Keep going, perhaps even running continuously, and watch what happens as the constellations along the ecliptic slowly drift past the calendar dates. This is why your zodiacal "birth sign" changes with the centuries, and is a simple demonstration of why astrology is false- a "pseudo-science."

Algeiba itself has the same apparent brightness as Polaris, magnitude 2. Besides that, Algeiba is a fine, very satisfying gold-gold double star, an equally bright and rewarding pair, in fact.

Climbing "up" the sickle, Adhafera is the magnitude 3 star, and Ras Elased Borealis is the magnitude 4 star at the "top" of the Lion's head. The "front end" of the sickle, Ras Elased Australis, is magnitude 3. For the magnitude 5 and 6 stars, if you've run through all these on the sky, you'll have already run inside, cheering, to get your best star atlas, and you'll need no further help from me. I wish you those skies!

On the best nights, use your telescope to look for the rewarding galaxy NGC 2903 in the vicinity of the Lion's "eyes." In fact, this whole area of the sky is fairly rich in galaxies lying beyond our Milky Way, but if you find it tough to see stars fainter than magnitude 3 or 4, you'll want to save the galaxy hunting for a night with a darker sky.

Incidentally, the entire constellation of Leo really looks a lot better as a duck floating on a pond, and not a lion, but that is another story altogether. Can you imagine the sky watchers of ancient times putting a *duck* up in the sky? That quacks me up!

