

Acadiana Sky



Night Sky Checklist

April–May–June

Unaided Eye Astronomy

The Night Sky checklists were originally developed for the Lafayette Science Museum, Lafayette, LA.

Constellations & Asterisms

| Observation | ✓ | Date | Comments |
|----------------------|---|------|----------|
| Big Dipper | | | |
| Boötes | | | |
| Corona Borealis | | | |
| Virgo | | | |
| Corvus | | | |
| Crater | | | |
| Leo | | | |
| Sickle of Leo | | | |
| Coma Berenices | | | |
| Hercules | | | |
| Keystone of Hercules | | | |

Stars

| Observation | ✓ | Date | Comments |
|---------------|---|------|----------|
| Alcor & Mizar | | | |
| Pointer Stars | | | |
| Arcturus | | | |
| Spica | | | |
| Regulus | | | |
| Denebola | | | |

Deep Sky Objects

| Observation | ✓ | Date | Comments |
|----------------------|---|------|----------|
| Coma star cluster | | | |
| Omega Centauri | | | |
| M13 globular cluster | | | |

What is This Stuff?

A Guide to the Night Sky Checklists April–May–June Objects

The following information may help you understand why these objects are on the Night Sky Checklists.

Constellations and asterisms (Astronomers recognize 88 official constellations, but asterisms are unofficial and made from parts of one or more constellation. All are imaginary dot-to-dot drawings in the sky. See the Lafayette Science Museum’s web site for monthly star maps showing their shapes and positions.)

The Big Dipper is only a part of the large constellation Ursa Major, the Larger Bear, and seems to be known as a dipper only in North America and parts of Africa. This prominent group has had many other names in other parts of the world and in other times in history. The stars at the front of the Dipper’s cup point to the North Star while the Dipper’s handle points to the bright stars Arcturus in Boötes and Spica in Virgo (“Follow the arc to Arcturus and speed on to Spica”). Other lines can be created to use the Big Dipper to point to other stars and constellations. It may be the best overall guidepost in the sky.

Boötes, the Herdsman, is a fairly large group shaped like a kite with the bright reddish-orange star Arcturus at the bottom.

Corona Borealis, the Northern Crown, represents the crown of Queen Ariadne. It is roughly “C-shaped.”

Virgo, the Girl, is a large, very faint constellation. Only its brightest stars may be visible in or near town. Because Virgo lies along the ecliptic, the plane of Earth’s orbit projected into the sky, it lies along the strip of the sky where the sun, moon, and planets can appear.

Corvus, the Crow, is a challenging lozenge-shaped constellation not far from Spica, the brightest star in Virgo.

Crater, the Cup, represents the goblet of Apollo in Greek mythology. It has been accepted as a constellation for at least 18 centuries! It's faint, but with some imagination it really does look like a wide goblet.

Leo, the Lion, is another ecliptic constellation. It looks like a backward question mark with a triangle to its left. With enough imagination, you can see it as a lion with the backward question mark marking the head and shoulders. Imagine it facing the other way, and it becomes a mouse! Add a few stars, and the backward question mark becomes the central part of a coat hanger. It can be anything you want — it's just an imaginary dot-to-dot drawing in the sky.

The Sickle of Leo is the backward question mark that makes up the right side of Leo. There is a bright star at the base of the Sickle.

Coma Berenices represents the Hair of Queen Berenike of Egypt and is one of the few constellations based on an actual historical figure. Berenike is said to have offered her beautiful hair as a sacrifice to Aphrodite in exchange for her husband's safety in battle. When the hair disappeared from the temple, a quick-thinking priest pointed at these stars and proclaimed the goddess had placed the hair in the sky for all to enjoy. Fortunately for the priest, the King and Queen accepted that as a reasonable explanation! Prior to that, these stars had been considered to be the tuft on the tail of Leo, the Lion.

Hercules, the Hero, is in the sky defending Corona Borealis from Draco, the Dragon.

The Keystone of Hercules is a roughly box shaped group of the four main stars of Hercules.

Stars (The stars on the checklist are easily visible to the unaided eye except in the most light-polluted parts of cities.)

Alcor & Mizar are a double star pair second from the end of the Big Dipper's handle. Initially only the brighter of the two, Mizar, is noticed, but careful observers under clear skies can generally see fainter Alcor very close to it. In a telescope, Mizar itself turns out to be a binary star. Professional research has revealed that Alcor and Mizar are part of a system of at least 5 stars. Alcor and Mizar are about 78 light years away.

The Pointer Stars are the stars at the front of the cup of the Big Dipper. Following the line of the Pointers from the base of the Dipper to its top, then extending that line by a distance equal to five times the distance between the Pointers will take you to Polaris, the North Star (which is *not* a particularly bright star).

Arcturus is the brightest star in Boötes, the Herdsman. It is a red giant star about 25 times bigger than the sun, at a distance of about 36 light years. It has a distinctly

reddish-orange color and is the fourth brightest star in the night time sky (and the third brightest that can be seen from Acadiana).

Spica is a blue-white star, the brightest star in Virgo. It's about 260 light years away.

Regulus was one of the Royal Stars of ancient Mesopotamia 5000 years ago, not only because it is fairly bright but also because at that time its position in the sky was near that of the sun at the summer solstice. It can be found at the base of the backward question mark in Leo.

Denebola is a moderately bright star marking the tail of Leo. It is in the triangular part of that constellation, the farthest star of the triangle from Regulus.

Deep Sky Objects (DSOs are interesting objects beyond our solar system. Those identified with "M-numbers" are on a popular list compiled by the French comet hunter Charles Messier roughly around the time of the American Revolution. Most deep sky objects look like "faint fuzzies" to the unaided eye, and many are attractive in binoculars or a low power telescope.)

The Coma Berenices Star Cluster is a faint open cluster of about 40 stars about 280 light years distant. The group is visible to the unaided eye under clear skies well away from lights, and is a striking site in binoculars.

Omega Centauri is a globular cluster, a family of close to a million stars whose gravity holds the whole group together in what appears in binoculars or a low power telescope as a ball of stars. It can be seen as a faint fuzzy with the unaided eye under clear, dark conditions, but a very clear southern horizon is needed because the cluster never rises very high as seen from Acadiana. Omega Centauri is some 15,800 light years away.

M13 may be the most famous globular cluster in the sky. Situated about 25,000 light years away in the direction of the constellation Hercules, it is visible to the unaided eye under ideal conditions as a fuzzy-looking star. It's easy to spot in binoculars and even better in a telescope.