



# ASTROFILES

## Auburn Astronomical Society Newsletter

**April 2024**    Newsletter Editor — John Wingard — [jwin1048@gmail.com](mailto:jwin1048@gmail.com)

### Moon Phases

- May 1 — Last Quarter
- May 7 — New Moon
- May 15 — First Quarter
- May 23 — Full Moon
- May 30 — Last Quarter
- June 6 — New Moon
- June 14 — First Quarter
- June 21 — Full Moon

### News and upcoming activities

Without question the big astronomical event of 2024 was the total solar eclipse on April 8th. Although we were far removed from the path of totality, we still enjoyed seeing approximately 80% or so of the Sun’s disc obscured by the Moon. Although the weather conditions varied by location, most of us had a fairly decent view of the event. The AAS participated in two events in our area. First, we aided the W.A. Gayle Planetarium in Montgomery with public eclipse viewing. Club president Allen Screws manned the club’s solar telescope and assisted others in viewing the eclipse. Up in Alexander City, AL, AAS member Mike Lewis had an impressive array of solar-equipped scopes set up on the campus of Central Alabama Community College (CACC) to give students and the public views of the eclipse. Check out more photos of these two events on the following pages.



Above— AAS President Allen Screws at the club’s Coronado solar scope at the Gayle Planetarium in Montgomery.



Above—AAS member John Wingard captured the partial eclipse from Columbus, GA.



At Right— Eclipse viewing on the CACC campus in Alexander City, AL arranged by AAS member Mike Lewis.

### Stay in touch with us

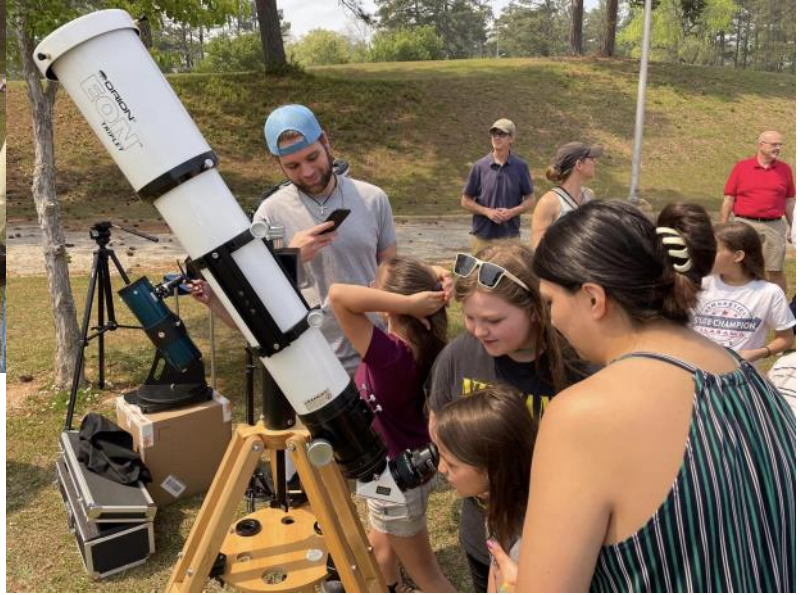


<http://www.auburnastro.org>

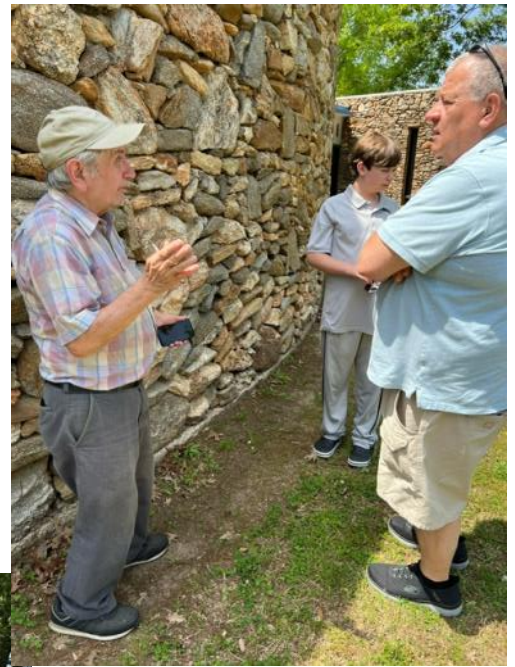


<https://www.facebook.com/groups/79864233515/>

Additional photos taken during the eclipse viewing event on the campus of Central Alabama Community College (CACC) in Alexander City, AL. Thanks to AAS member Mike Lewis for arranging the event and bringing an array of solar-equipped scopes!



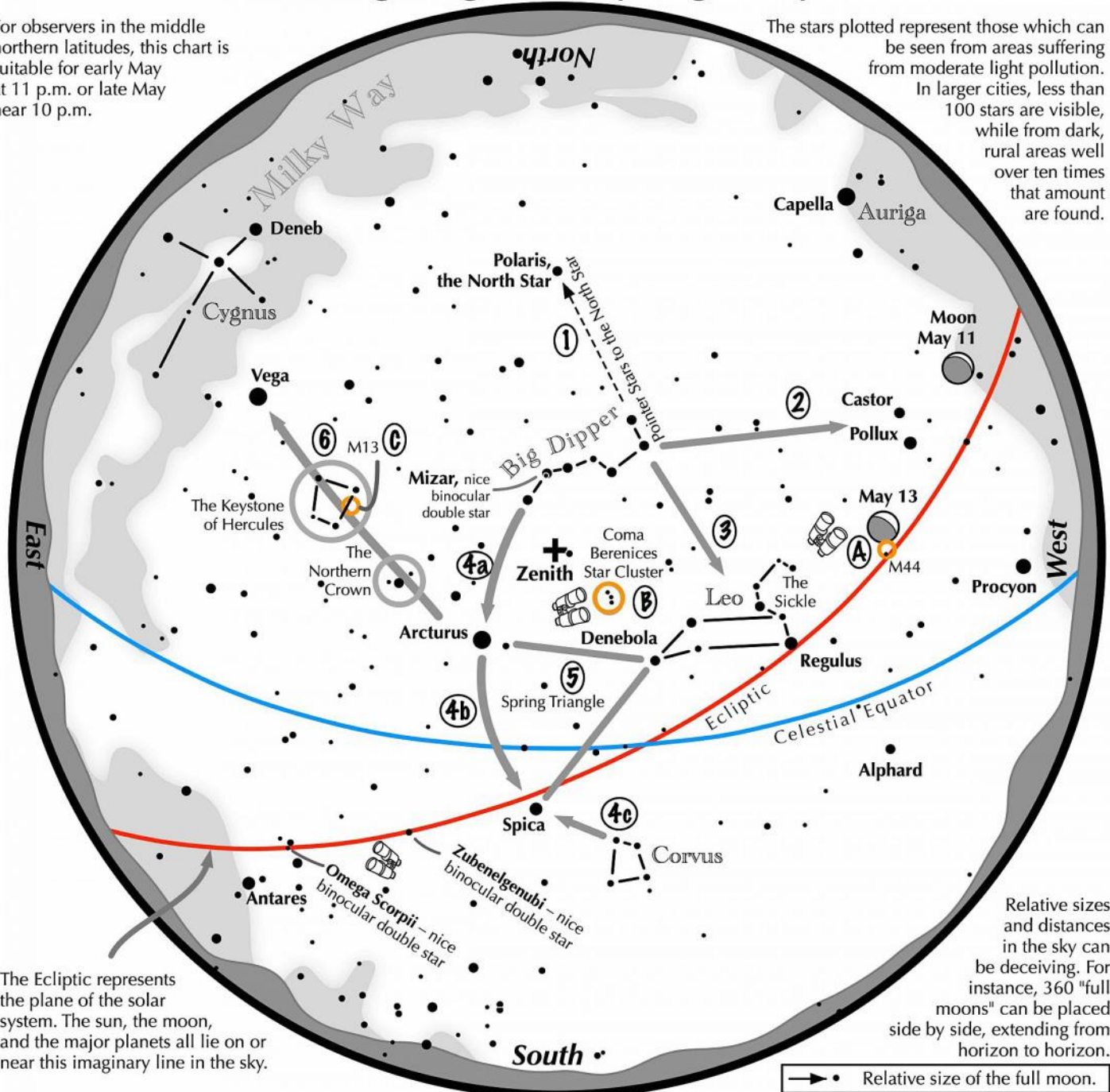
Additional photos taken during the public eclipse viewing event at the W.A. Gayle Planetarium in Montgomery, AL.



# Navigating the May Night Sky

For observers in the middle northern latitudes, this chart is suitable for early May at 11 p.m. or late May near 10 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

→ • Relative size of the full moon.

## Navigating the May night sky: Simply start with what you know or with what you can easily find.

- 1 Extend a line northward from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
- 2 Through the two diagonal stars of the Dipper's bowl, draw a line pointing to the twin stars of Castor and Pollux in Gemini.
- 3 Directly below the Dipper's bowl reclines the constellation Leo with its primary star, Regulus.
- 4 Follow the arc of the Dipper's handle. It first intersects Arcturus, then continues to Spica. Confirm Spica by noting that two moderately bright stars just to its southwest form a straight line with it.
- 5 Arcturus, Spica, and Denebola form the Spring Triangle, a large equilateral triangle.
- 6 Draw a line from Arcturus to Vega. One-third of the way sits "The Northern Crown." Two-thirds of the way hides the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.

### Binocular Highlights

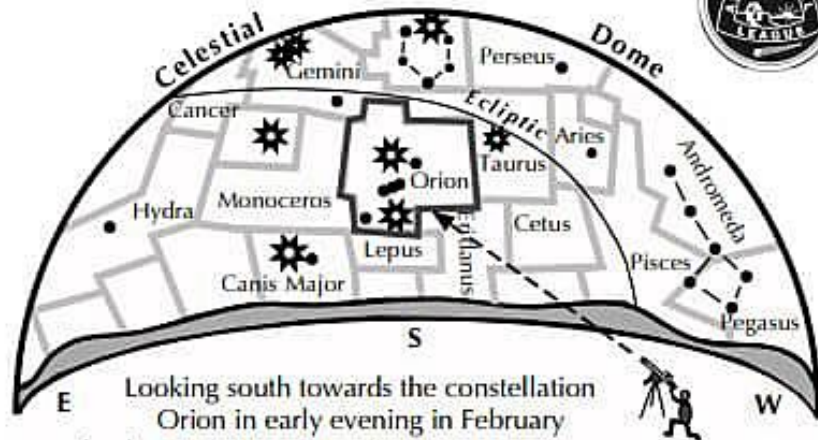
**A:** M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux. **B:** Look near the zenith for the loose star cluster of Coma Berenices. **C:** M13, a round glow from a cluster of over 500,000 stars.



## Constellations & Asterisms



**A constellation** is an officially recognized section of the celestial sphere that has established boundaries, containing stars, planets, and other astrophysical objects. It is much like a state of the United States which contains many cities of different sizes, rivers, and mountains.

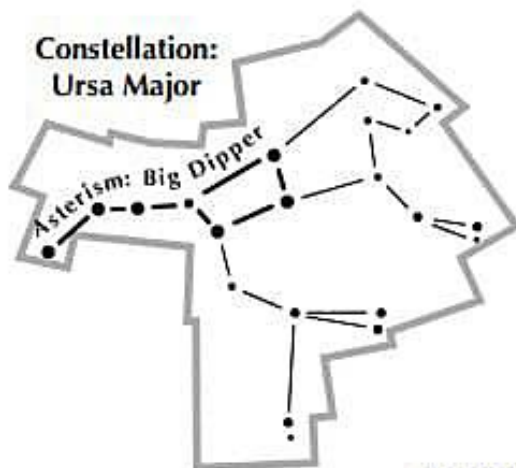


Looking south towards the constellation Orion in early evening in February

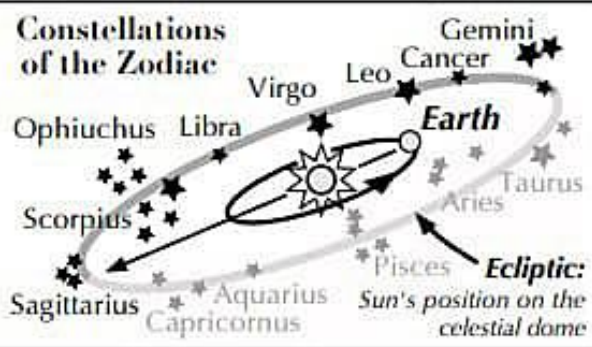
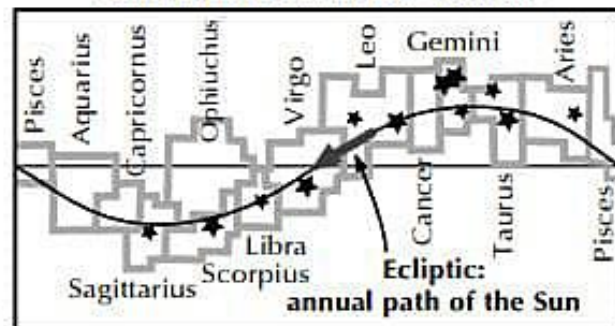
- 88 constellations are officially recognized.
- The Sun appears to travel throughout the year among 13 constellations along the ecliptic.
- Stick figures of most constellations do not closely resemble what they are said to represent.
- Some, but not all constellations contain bright stars. They all contain many dim stars visible to the unaided eye.
- The Moon and planets are found in or near the constellations of the Zodiac.

**An asterism** is an unofficial group of stars contained within one or more constellations. Asterisms range in size from being seen only through a telescope to stretching across appreciable portions of the sky. The Big Dipper, for instance, is an asterism. It lies within Ursa Major, a constellation.

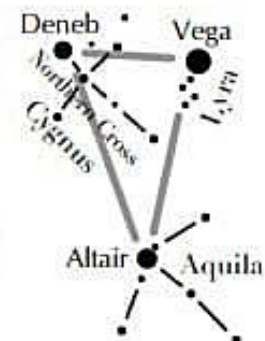
**Constellation:**  
Ursa Major



### Constellations of the Zodiac



Asterisms can cover more than a single constellation. The **Summer Triangle** contains stars from Lyra (Vega), Aquila (Altair), and Cygnus (Deneb). Portions of Cygnus form another asterism called the **Northern Cross**.





This article is distributed by NASA's Night Sky Network (NSN).

The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit [nightsky.jpl.nasa.gov](https://nightsky.jpl.nasa.gov) to find local clubs, events, and more!

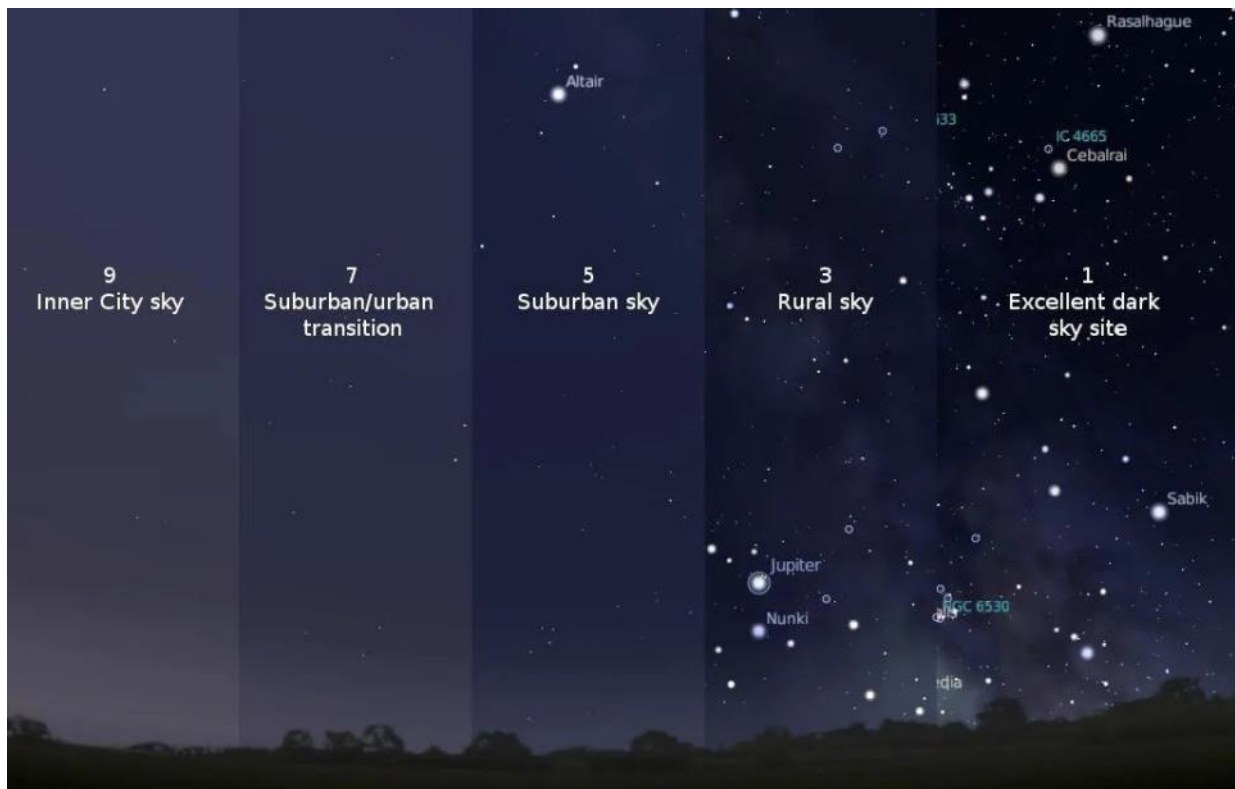
## May's Night Sky Notes: Stargazing for Beginners

By Kat Troche

Millions were able to experience the solar eclipse on April 8, 2024, inspiring folks to become amateur astronomers – hooray! Now that you've been 'bitten by the bug', and you've decided to **join your local astronomy club**, here are some stargazing tips!

### The Bortle Scale

Before you can stargaze, you'll want to find a site with dark skies. It's helpful learn what your Bortle scale is. But *what is the Bortle scale?* The Bortle scale is a numeric scale from 1-9, with 1 being darkest and 9 being extremely light polluted; that rates your night sky's darkness. For example, New York City would be a Bortle 9, whereas Cherry Springs State Park in Pennsylvania is a Bortle 2.



The Bortle scale helps amateur astronomers and stargazers to know how much light pollution is in the sky where they observe. Credit: International Dark Sky Association

Determining the Bortle scale of your night sky will help narrow down what you can expect to see after sunset. Of course, other factors such as weather (clouds namely) will impact seeing conditions, so plan ahead. Find Bortle ratings near you here: [www.lightpollutionmap.info](http://www.lightpollutionmap.info)

## No Equipment? No Problem!

There's plenty to see with your eyes alone. Get familiar with the night sky by studying star maps in books, or with a planisphere. These are great to begin identifying the overall shapes of constellations, and what is visible during various months.



A full view of the northern hemisphere night sky in mid-May. Credit: Stellarium Web.

Interactive sky maps, such as Stellarium Web, work well with mobile and desktop browsers, and are also great for learning the constellations in your hemisphere. There are also several astronomy apps on the market today that work with the GPS of your smartphone to give an accurate map of the night sky.

Keep track of Moon phases. Both the interactive sky maps and apps will also let you know when planets and our Moon are out! This is especially important because if you are trying to look for bright deep sky objects, like the Andromeda Galaxy or the Perseus Double Cluster, you want to *avoid* the Moon as much as possible. Moonlight in a dark sky area will be as bright as a streetlight, so plan accordingly! And if the Moon is out, check out this Skywatcher's Guide to the Moon: [bit.ly/MoonHandout](https://bit.ly/MoonHandout)



# Auburn Astronomical Society

## Application for Membership

To insure that our records are accurate, please print information clearly

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Phone: \_\_\_\_\_ Date of Application: \_\_\_\_/\_\_\_\_/\_\_\_\_

E-Mail: \_\_\_\_\_

Telescopes owned (if any): \_\_\_\_\_

Area(s) of special interest: \_\_\_\_\_

Enclose \$20.00 for regular annual membership, payable in January. *Full-time* student membership is \$10.00.

For **NEW** members joining after January, refer to the prorated dues table below for the month you are joining:

Jan \$20.00	Feb \$18.33	Mar \$16.66	Apr \$14.99	May \$13.33	Jun \$11.66
Jul \$10.00	Aug \$8.33	Sep \$6.66	Oct \$4.99	Nov \$2.33	Dec \$1.66

New—Just Joining

Renewal

Please make checks payable to: Auburn Astronomical Society and return this application with your payment to:

Auburn Astronomical Society  
c/o John Wingard, Sec/Treasurer  
5 Wexton Ct.  
Columbus, GA 31907

*Note: At this time we do not have an option for online payment of dues.*

The Auburn Astronomical Society is a member of the Astronomical League, the national organization representing astronomy clubs throughout the United States. As a club benefit, paid members of the Auburn Astronomical Society are eligible to received quarterly issues of *The Reflector*, the official publication of the Astronomical League. It will be mailed to the address that you provided above but could be delayed somewhat until their mailing lists are updated.

For additional information about our club, please go to our website [www.auburnastro.org](http://www.auburnastro.org) . You can also follow us on our Facebook page. Just search for "Auburn Astronomical Society."