

The ECLIPSE

May 2026

The Newsletter of the Barnard-Seyfert Astronomical Society

It's Galaxy Time!

Spring skies offer a wealth of opportunities to explore galaxies. Whether you enjoy observing striking nearby systems like the Whirlpool Galaxy (M51)—beautifully captured in the image below by BSAS member Keith Rainey—or prefer the challenge of hunting faint “fuzzies” in Virgo, Leo, and beyond, there is no shortage of targets.

The word *galaxy* comes to us through French and Medieval Latin from the Greek term for the Milky Way, *galaxias* (*kýklos*)—literally “milky circle”—a reference to the soft, luminous band stretching across the night sky. I recently picked up a small but excellent book simply entitled *Galaxies* by Or Grauer (MIT Press, 2024) that provides a concise, readable survey of the history and research related to galaxies.

For those interested in contributing to real astronomical research, consider joining Galaxy Zoo, where volunteers help identify and classify galaxies. It's an accessible way to take part in ongoing scientific discovery:

<https://www.zooniverse.org/projects/zookeeper/galaxy-zoo>

Or you can simply enjoy the view. In this month's issue, we'll tour the constellation Canes Venatici and explore some of its many unusual galaxies.



M51 Photo by Keith Rainey

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Contact BSAS officers at bsasnashville.com/contact, or email info@bsasnashville.com.

About BSAS

Founded in 1928, the **Barnard-Seyfert Astronomical Society** is an association of amateur and professional astronomers who have joined together to share their knowledge and love of the night - *and day* - sky! We welcome everyone from beginners to pros alike!

BSAS meets on the third Wednesday of each month at the **Warner Park Nature Center** in Nashville, TN. Experienced members or guest speakers usually talk about some aspect of astronomy or sky observing. Subjects range from how the universe first formed to how to build your own telescope, to “Pluto: Dog, planet, or KBO?...”

The meetings are very casual and time is allotted for coffee, hang out and general astro-tivity! Meetings are free and open to the public, you do NOT need to be a member to attend!... Join us!

BSAS membership entitles you to several perks such as subscription discounts to Astronomy and Sky & Telescope magazines, access to the club’s Equipment Loan Program, invitations to private club events, participation in our Google chat forums, and much more!

In addition to the regular meetings, BSAS also sponsors many public astronomy events, such as our famous monthly public star parties, Astronomy Day school events, collaborations with the Dyer Observatory, tents and displays at local festivals, and “Pop-Up” star parties!

More information about BSAS can be found on our website bsasnashville.com. If you have any questions, please email us anytime at info@bsasnashville.com.

Equipment Loan Program

Did someone say **FREE** telescope loans??... Why yes, yes they did!!

BSAS has telescopes ranging from 2.5” to 10”, from beginner to advanced, that members can borrow for up to 60 days at a time! We also have other items such as H-alpha solar telescopes, Dobsonians, educational CDs, tapes, DVDs, and more!

BSAS will not be held responsible for lost sleep or gear addiction from use of this excellent astronomy equipment! For information on what’s currently available, contact info@bsasnashville.com.

President's Corner

By Steve Hughes

Greetings B-SASsters!

As BSAS continues to grow, it's exciting to see more members exploring both traditional visual astronomy and the rapidly evolving world of *Electronically Assisted Astronomy (EAA)*. While nothing can replace the thrill of seeing Saturn's rings or Jupiter and the Galilean Moons with your own eyes, EAA opens the door to faint deep-sky objects many might never see otherwise.

Both approaches are welcome here, and we encourage everyone to try new techniques and share their experiences with the group!

We are also working on and will soon present an updated version of our bylaws to improve operations and leadership. Stay tuned!

Finally, we are ***always in need of volunteers!*** Whether it's helping with star parties, setting up gear, outreach events, or yelling at the clouds, every contribution matters! If you have a few hours to give, please reach out — *we'd love to have you on the team!*

As always, be safe, be kind, and keep looking up!

Steve Hughes
President, BSAS

"Every star may be a sun to someone..." - Carl Sagan

Upcoming Events

May Member Meeting

Bill McClain - Space Weather
Wednesday, May 20
7:00 - 9:00 p.m.
Warner Park Nature Center
7311 Highway 100 Nashville

Public BSAS/Dyer Star Party

Saturday, May 23
9:00 - 11:00 p.m.
Warner Park Model Airplane Field
50 Vaughn Road
Nashville

June Member Meeting

Wednesday, June 17
7:00 - 9:00 p.m.
Warner Park Nature Center
7311 Highway 100 Nashville



The *Eclipse* is the monthly newsletter of the Barnard-Seyfert Astronomical Society, Nashville, Tennessee.

Comments, questions, and submissions for future issues are welcome and may be sent to eclipse@bsasnashville.com.

Don Filer, Editor

Canes Venatici: The Hunting Dogs of the Northern Sky

Tucked between the familiar outlines of Ursa Major and Boötes lies a small, often overlooked constellation with a rich observing legacy: Canes Venatici, the Hunting Dogs. The constellation offers a wealth of deep-sky objects that make it a springtime favorite.

Unlike most classical constellations, Canes Venatici is a relatively recent addition to the sky map. It was introduced in the late 17th century by the Polish astronomer Johannes Hevelius. Prior to that, the stars now within the boundary of Canes Venatici were considered part of Boötes. Hevelius reimagined them as two hunting dogs held on a leash by Boötes, the herdsman, as he chases the great bear, Ursa Major, around the pole.

Finding Canes Venatici is relatively straightforward. Start with the familiar handle of the Big Dipper in Ursa Major. From there, draw a line toward the bright star Arcturus in Boötes—the classic “arc to Arcturus” motion. Canes Venatici lies just to the right of this path as shown below, nestled in the curve of the Big Dipper’s handle.



Three Interesting Stars

The brightest star in the constellation, Cor Caroli, was given its name, meaning “Heart of Charles,” in honor of King Charles I of England. Cor Caroli shines at magnitude 2.9 and is an easily split double. The primary is a blue-white and the fainter companion is subtly creamy-white. What we cannot see in our telescopes is that the primary has one of the strongest known magnetic fields of otherwise normal main sequence dwarf stars.

The second brightest star, Chara, is dimmer but still visible to the naked eye under good conditions. It is notable because it is very similar to the sun (except 2 billion years older) and has long been considered a top candidate for harboring planets and possible life. So far none have been found, but not for lack of trying.

The third star of note is Y Canum Venaticorum, often called La Superba. This red giant star is notable for its deep red color, which is easily visible in small telescopes. Its hue is directly due to being a giant carbon star, a star in its late hydrogen fusion phase, which is beginning to fuse helium to carbon in its core.

Continued on Page 5

Canes Venatici, continued from Page 4

One Spectacular Globular Cluster

Canes Venatici is also home to M3, one of the most impressive globular clusters in the northern sky. It lies near the border with Boötes and is easily visible in binoculars. Through a telescope, it resolves into a dense swarm of stars, offering a striking view that rivals more famous clusters like M13 in Hercules. M3 is particularly rich in variable stars and “blue stragglers.” The latter are huge, luminous stars that should have moved off the main sequence long ago but have increased their mass and luminosity and lingered on the main sequence longer than normal.



Photo by Don Filer

Galaxies and More Galaxies

Where Canes Venatici truly shines is in its deep-sky offerings. Despite its small size, it contains numerous galaxies, including some unusual ones, that are well within reach of amateur equipment.

Arguably the most famous is the Whirlpool Galaxy (M51), located near the border with Ursa Major (see page 1). This grand-design spiral galaxy is interacting with a smaller companion (NGC 5195), creating a striking visual even in modest telescopes. Under dark skies, observers can detect hints of its spiral structure, and astrophotographers capture its sweeping arms and connecting bridge of material. This system was the subject of groundbreaking work in the early 1970s that showed how interacting galaxies would interact and launched the study of merging, colliding, and interacting galaxies.

Other galaxies that should not be missed include:

- The Sunflower Galaxy (M63)
- The Cat's Eye Galaxy (M94)
- M106, another striking barred spiral
- NGC 4151, one of the nearest and brightest Seyfert galaxies
- The Whale Galaxy (NGC 4631) with its small companion sometimes called the “calf”
- The Hockey Stick Galaxy (NGC 4656) with its distinctive shape
- The Silver Needle Galaxy (NGC 4244), a very thin edge-on galaxy
- The Cocoon Galaxy (NGC 4485) interacting with NGC 4490



Image of M106 by Ron Ladd

Although it may lack the easily recognized star pattern of other constellations, Canes Venatici rewards those who explore it. Whether you're sweeping the area with binoculars or diving deeper with a telescope, the Hunting Dogs offer plenty to chase.

Resources

1. *Annals of the Deep Sky, Volume 3, Jeff Kanipe and Dennis Webb, 2016*
2. SkySafari the app

Upcoming Events & Activities

May Member Meeting

Bill McClain - Space Weather
Wednesday, May 20th, 7:00 - 9:00 pm
Warner Park Nature Center
7311 Tennessee Highway 100, Nashville

Other Upcoming Events

The joint-venture BSAS/Dyer star parties will continue for the next few months while the observatory is undergoing renovations. Be sure to join us at our next BSAS/Dyer Star Party on **Saturday, May 23**, at the Warner Park Model Airplane Field, 61 Vaughn Road, Nashville. We are expecting 400–500 sky-loving visitors! The event runs from 8:30–11:00 PM, with set-up starting around 6:30 PM.

Call for Volunteers!!

BSAS is a non-profit, 100% volunteer operated organization. Please consider giving us a hand if you can!

Specifically, we could use some help with the following:

- Monthly Meeting Setup: Help set up the space and tech for the meetings.
- Program Committee: Help research content for our monthly meetings.
- Event Crew: Help with setting up our various events.

If you have an interest in helping with any of the above, or in any other way, please email us at volunteer@bsasnashville.com.

Night Sky Network

The Night Sky Network (NSN) program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.org to find local clubs, events, and more! You can catch up on all of NASA's current and future missions at nasa.gov. With articles, activities and games NASA Space Place encourages everyone to get excited about science and technology. Visit spaceplace.nasa.gov to explore space and Earth science!

Looking For Meeting Minutes?

Regular- and Board-Meeting minutes are stored on the BSAS Google Drive, and available for review once posted.

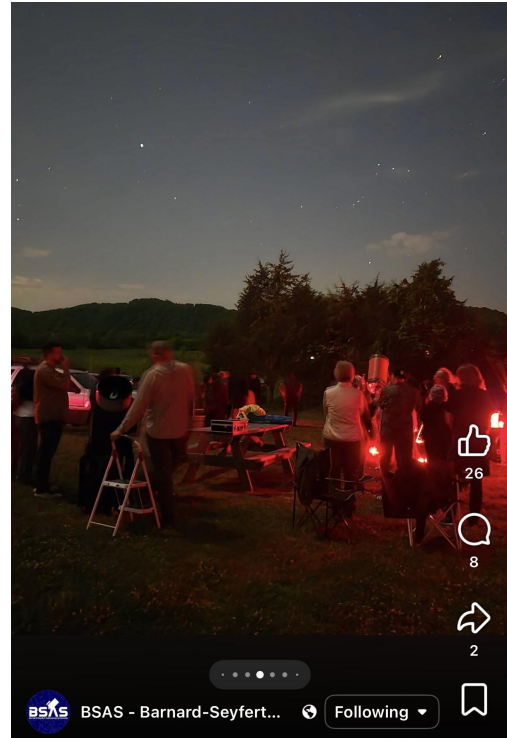
BSAS Outreach

April was another successful month for our joint BSAS - Dyer Observatory star parties. We had approximately 300 enthusiastic guests at the April 25 star party at Bells Bend.

Prior to the arrival of many guests, we watched the Moon occult Regulus in Chuck Schlemm's scope. Dyer's Billy Teets managed to capture a video of Regulus "blinking" out. Cool!

Once guests started flooding in, BSAS members showcased a variety of night sky objects and enjoyed answering tons of visitors' questions throughout the evening. Steve Hughes noted, "I had great views of Pinwheel, M3, Bode's, but Whirlpool was the big hit!"

As usual, the BSAS Welcome Table team loaned out red light keychains, passed out kids astro crosswords, answered questions, and gave out NASA-provided lithographs.



Chuck Schlemm recalled that "I started early with views of 7 groups of sunspots just before sunset, then the Moon and it occulting the star Regulus in Leo the Lion. I moved to views of Venus, maybe Uranus, Jupiter and its 4 Galilean moons lined up on one side in orbital order with Io and Europa "coming together as one" at 11:00. I also showed Betelgeuse, Pleiades, the Orion Nebula and Mizar A&B and Alcor.

"I had a family, who will probably join BSAS, view several targets. I showed the father how to aim and focus the BSAS 8" DOB loaner telescope."

The BSAS 2026 Member Wall Calendar is **SOLD OUT!!**

But fear not!.. We will continue to take orders and print more batches as orders come in! Just head over to bsasnashville.com and order one today! Again a VERY special thanks to all the BSAS members who shared some of their amazing images to make this project possible!! Calendars are \$20 for members, \$25 for non-members.

[Click here for a preview!](#)

Dark Sky International Contest

Did you know that Dark Sky International is conducting a contest called Capture the Dark? There are nine categories, including nighttime adventure photography, nightscapes, nocturnal flora and fauna, International Dark Sky Places, good and bad lighting examples, deep space imagery, and more. See their website for more information:

<https://capturethedark.darksky.org/contest2026>

It would be great to see some BSAS members winning! And if you are not a member, consider joining today.

Astronomy on Tap

There are still two more Astronomy on Tap Nashville events before summer. If you have not been yet, you get to hear 1-2 short talks, participate in a quiz for prizes, meet others interested in astronomy, and enjoy Fait La Force's beverages (there is food too). Starts at 7:00 but arrive early!

ASTRONOMY ON TAP NASHVILLE
UPCOMING EVENTS 2026

- TUES JAN 27
- TUES FEB 24
- TUES MAR 31
- TUES APR 28
- WED MAY 27
- TUES JUNE 30

FAIT LA FORCE BREWING
1414 3RD AVE S. ST 101

The poster features a dark background with a starry sky and two photographs of astronomy events. The top photo shows a person presenting at a screen, and the bottom photo shows a group of people gathered around a table. There are social media icons for Facebook and Instagram on the right side.

The Galaxy

By Henry Wadsworth Longfellow

*Torrent of light and river of the air,
Along whose bed the glimmering stars are seen
Like gold and silver sands in some ravine
Where mountain streams have left their channels bare!
The Spaniard sees in thee the pathway, where
His patron saint descended in the sheen
Of his celestial armor, on serene
And quiet nights, when all the heavens were fair.*

*Not this I see, nor yet the ancient fable
Of Phaeton's wild course, that scorched the skies
Where'er the hoofs of his hot coursers trod;
But the white drift of worlds o'er chasms of sable,
The star-dust that is whirled aloft and flies
From the invisible chariot-wheels of God.*

A Note About Our Natchez Trace Observing Site

Natchez Trace bridge that goes over Highway 96 will be closed through Spring 2027 for updates. It will be closed from mile marker 440 to 437. The rest of the Parkway is open, just the bridge is closed.

Anyone who normally enters the Natchez Trace Parkway at the Highway 100/McCrory Lane entrance near the Loveless Cafe will only be able to go to the pull off before the bridge and will have to turn back. To get to our private star party locations, you will have to enter the Parkway from the Highway 96 entrance. If coming from I-40 or Bellevue area, you'll have to go down HWY 100 past the Natchez Trace entrance to the HWY 96 intersection and turn left. It's about a mile or 2 further distance, but actually a little faster this way as the speed limit is 55 mph on 100/96 vs 35 or 40 mph on the Parkway. If coming from the Franklin or Fairview area, you probably already enter from HWY 96, so nothing should change.

Thanks to Tony Drinkwine for this reminder!

Observing Page

What's Up This Month

Key Astronomy Events:

- May 14: Mercury in superior conjunction
- May 16: New Moon
- May 18–20: A waxing crescent moon pairs with Venus and Jupiter in the western sky after sunset
- May 22: The half-lit Moon passes near the star Regulus in the western sky after sunset
- May 31: Venus reaches greatest altitude as Evening Star
- May 31: Second Full Moon of May— a Blue Moon!

Planetary Visibility

- Mercury: Visible low in west at month's end
- Venus: Bright evening star in the west after sunset.
- Jupiter: Visible during the beginning of the night near Castor and Pollux.
- Mars & Saturn: Observable in the east-northeastern sky before sunrise.



Theo Wellington used her new Pentax K1 camera to capture Comet Panstarrs at 5am on April 16 from Datil, NM. The camera was on a tripod, 50mm stacked set of 28 images of 20 seconds each. She reported it was not naked eye visible.

Want to see your images here? Send with a short description to eclipse@bsasnashville.com.

Become a Member of BSAS! Visit bsasnashville.com to join online. All memberships have a vote in BSAS elections and other membership votes.

Also included are subscriptions to the BSAS and Astronomical League newsletters. Annual dues: • Regular: \$25 • Family: \$35 • Senior/Senior Family: \$20 • Student:* \$15 * To qualify as a student, you must be enrolled full time in an accredited institution or home schooled.



Measuring the Sky By Hand

By Randy Oakes

You have binoculars, or your first telescope without a go-to system, or have one, but have been asked by someone where in the sky is your scope pointed. Now, you are trying to find M41, or M22, or M81/82 because you have read that they are interesting views for your optics. In the case of M41, you've read that's 4° from Sirius, or M22, 2.5° from the top of the Sagittarius teapot asterism, but what's that mean? The answer is often as close as your hand.

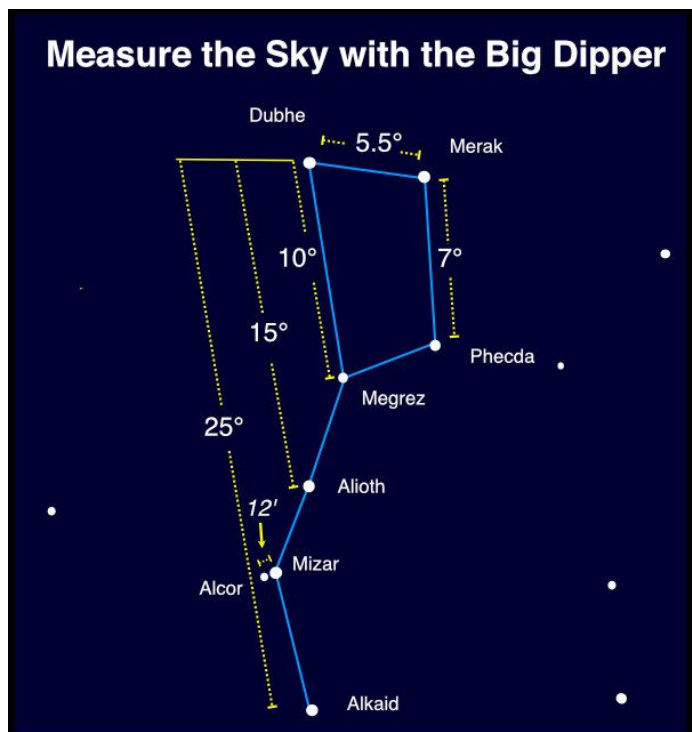
Standard measurements are: pinky 1°, other 3 fingers 5°, fist 10°, index to pinky 15°, outstretched pinky to thumb 25°. But what if your hand isn't average. The Big Dipper, a readily visible and identifiable collection of stars, an asterism, will help with calibrating your hand. The pointer stars, for finding Polaris are 5.5 degrees apart. Megrez to Dubhe, top 2 stars of bowl, are 10°, Phecda to Dubhe, a week bit more than 10°, Alkaid, first star in handle, to Dubhe, top outer star of the bowl is 25°. So hold your hand outstretched to the Big Dipper and size your hand against the various star pairs.



Unfortunately M41 in Canis Major as you read this is dropping into the sunset, but even better, the magnificent Coma cluster in Coma Berenices is high in the sky 10-12°, the width of your fist at just above 9:00 from Denebola in Leo.

If you're interested in pursuing one of the Astronomical League observing programs which prohibit use of go-to systems and setting rings, or simply hunt the sky without computer aid, your hand becomes a very handy tool in the arsenal of navigating the sky.

Images courtesy of NASA

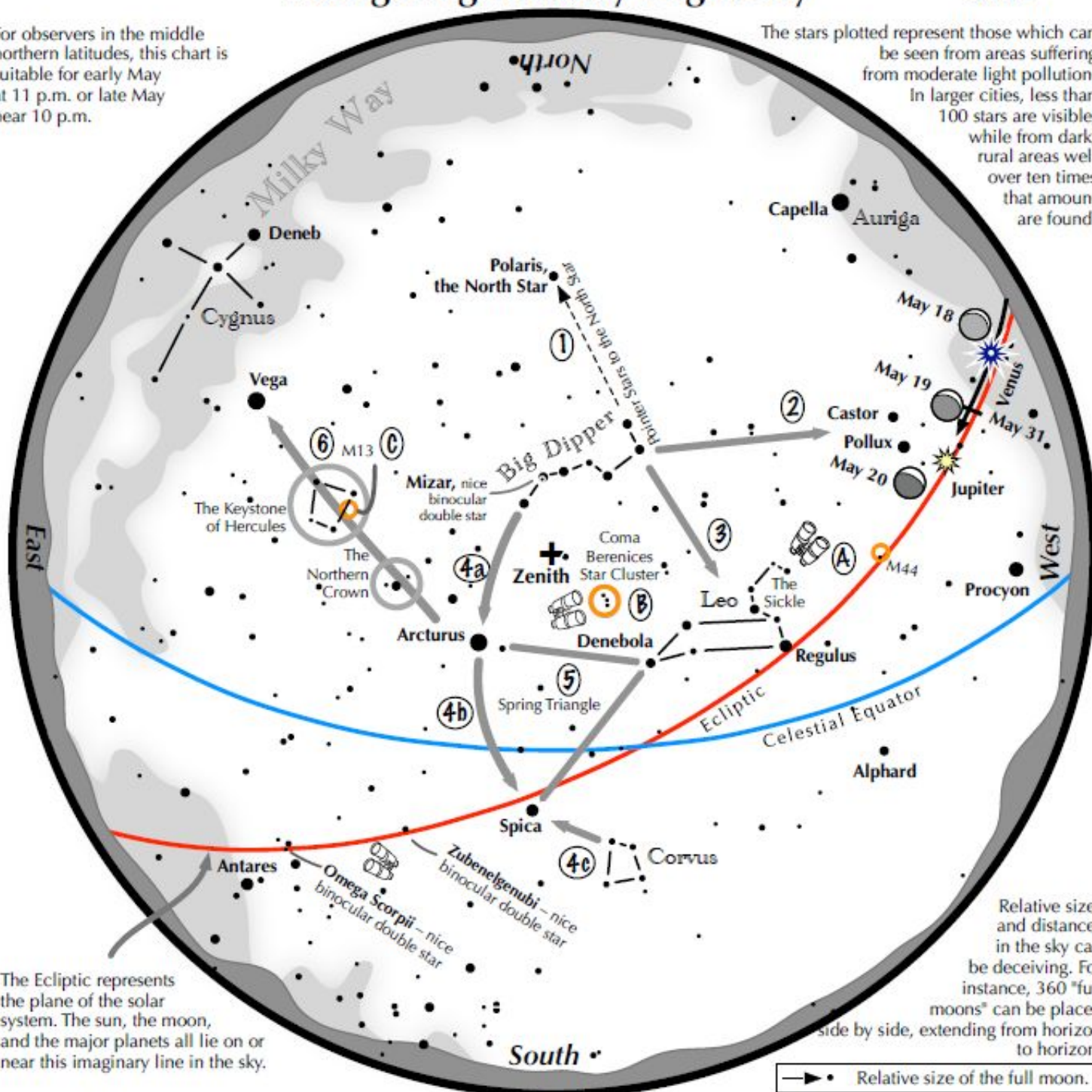


Navigating the May Night Sky

2026

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.






May 20  Pollux  Castor 

 Jupiter

 Procyon

 May 19

Capella 

Venus   May 18 

West

**If you can see only one celestial event this month,
see this one.**

The crescent moon passing Venus then Jupiter

Look to the west-northwest 60 minutes after sunset on May 18, 19, and 20.

- On the first evening, the crescent moon full with earthshine glows immediately next to brilliant Venus.
- The next evening finds a somewhat thicker crescent moon sitting midway between Venus and Jupiter.
- On May 20, the moon lies above Jupiter and in a line with Castor and Pollux.
- The bright stars Capella and Procyon act as boundaries helping frame the scene.

End your day with this magical scene!



In honor of the club's 90th anniversary we partnered with Hatch Show Print to create a unique poster that would honor the achievement of the club. For those who don't know Hatch Show has been making posters for a variety of events and concerts for 140 years. In all that time we are their first astronomy club. On the poster at the center is the moon. This was made from a wood grained stencil that the shop has used for over 50 years. To contrast that the telescope that the people are using is a brand new stencil made for our poster. The poster has three colors. First the pale yellow color of the moon was applied. Next the small stars, circles, and figures at the bottom were colored in metallic gold. The third color is a blue for the night sky. Where it overlaps with the metallic gold it creates a darker blue leaving the figures at the bottom looking like silhouettes.

This was a one-time printing so the 100 that we have are all that will be printed.

The prints are approximately 13 3/4" x 22 1/4" and are available for \$20 at our membership meetings, or \$25 with shipping by ordering through bsasnashville.com. Frame not included.



Next BSAS meeting
Wednesday, May 20, 7:00 p.m.

Warner Park Nature Center
7311 Tennessee Highway 100
Nashville, TN 37221