# ASTROGATOR

## June 2025

**Grand Strand Astronomers**

An Astronomical Journal of the Grand Strand Astronomers
of the Greater Myrtle Beach Area
GSA Founded on September 24, 2020

Grand Strand Astronomer's Monthly Events:
General Membership Meeting:
Thursday June 5, 2025 @ 7:00 pm
Meeting: VIA Zoom.
Please see email or Facebook for link

Observing Sessions:
Saturday June 21, 2025
Location: Hampton Plantation
Gates open @ 6:00 pm

Sunflower Galaxy M63

Photograph Taken By Ken Legal

**Grand Strand Astronomer's Social Media**

Grand Strand Astronomer's Facebook

Grand Strand Astronomer's Website

# GSA Leadership

Executive Officer
Ian Hewitt

Treasurer
John Defreitas

Photograph not available at this time

Secretary
Gerald Drake

Social Media Coordinator
Denise Wright

Photograph not available at this time

Newsletter Coordinator
Tim Kelly

## Contents

## Picture of the Month

Ken Legal

Features of camera and processing:

Messier 63, The Sunflower Galaxy.

6" f/6 Newtonian reflector on AVX mount, Canon 60Da camera at ISO 1600. 48 total minutes of exposures. Unguided, no filter.

Stacked in DeepSkyStacker, minimal processing in GIMP.

## Call For Volunteers

Tim Kelly

Grand Strand Astronomers are looking for volunteers to help with the social media platforms such as Facebook, YouTube and Twitter if the need arises. Presently Facebook needs a new face lift and be brought up to present time activities. Our website can also use some TLC and someone responsible to keep it updated with club activities and astronomy related items. If anyone would like to help in these categories, please contact Ian Hewitt at the email address below.

We are looking for new and older club members to help contribute articles for the GSA Newsletter. You can be a novice level, medium level, or a experienced level astronomer. Knowledge such as types and location of numerous stars, nebula or galaxies to share with other club members. GSA would like to provide topics for all level of members and non-members that are both hands-on projects and educational sharing. You can either write you own or use one already written and published. See previous articles on older issues for contributions for self written articles. See Tim's contributions for an example of non-written subject matter or from an article written from another person. Please provide the title, name of the originator and website link that the original article can be found. You will not be required to submit articles every month, however every second or third month would be nice and a benefit to all members and non-members. Please send articles to **t.m.kelly349@outlook.com**

## GSA Telescope Loaner Program

Gerald Drake

Did you know our club has telescopes available for loan? They are Dobsonians that were donated to the club when we first started. These are available for club members to use at no charge. All you have to do is take care of them and return them if someone else wants to borrow one. The first one is an Orion XT 8. It's in great shape. It gives beautiful views of the moon, planets, and galaxies. Comes with accessories that include a 2X Barlow, 25mm eyepiece, 9mm eyepiece, and laser collimator tool. The other one is an Orion Skyquest XT 10 with Orion's IntelliScope computerized object locator. It includes more than 14,000 objects in its database so you'll be able to locate those dim galaxies. Should be hours of fun. Accessories are included. Both of these are begging to be used. Send us an email if you're interested in borrowing one.

# GSA Monthly Newsletter Articles

Tim Kelly

This is our club and our newsletter. Lets help each topic to continue to grow.

Grand Strand Astronomer's is looking for individuals who would like to participate in submitting newsletter articles dealing with anything astronomy. We can not rely on the same four (4) members to write and send in articles month after month. New thoughts and ideas make for good reading and beneficial growth for the club and the public of the Greater Myrtle Beach area.

One member's simple advancement could just be what a newbie is looking for to get over a hurdle that has been impeding their progress forward. The expertise by many members can be a form of mentoring.

# Grand Strand Astronomers May Meeting Recap

Gerald Drake

The Grand Strand Astronomers held their monthly meeting on May 8, 2025 from 7:00 to 8:00 PM via Zoom. The meeting was called to order by Ian Hewitt, the executive officer. The meeting was lightly attended.

It was noted that observation opportunities have been terrible. Ian announced that our June meeting will have a special speaker, Dr. Patricia Graig, who will bring us up to date on the Mars Rover program. Other clubs will be invited to join us.

Our next Hampton outing is May 24. Hoping for clear skies. Ken discussed Myrtle Beach State Park viewing opportunities. The park closes at 10:00 which is about sundown in the middle of the summer, so that makes viewing though. However, if you rent a camp space, then you have no restriction on time and can stay out all night if you'd like. Ken rented a camp site on Friday, May 23. His hope was to get a good image of Omega Centauri from there. Others can join, if you let him know ahead of time, and of course space is limited to the one camp site. Ken was able to see Omega Centauri from Huntington Beach State Park with binoculars. It is very bright

Ian thanked Ken and Gerald for supporting the Aynor Middle School Outing. The staff there were very appreciative of our club sharing their telescopes and knowledge with the students and parents. It was a good night and well attended.

There is a seperate write up on that event. It was noted that public outings are great when the moon and planets are visible. Even in marginal conditions, the public will have something to look if it is interesting.

Ken shared what is coming up in May:

Not a lot to report. Jupiter and Mars are still visible in the PM. Of course there are some deep sky objects to be seen:

The Pinwheel Galaxy (M101)
Whirlpool Galaxy (M51)
Owl Nebula (M97)
Cigar Galaxy (M82)
Bode's Galaxy (M81)

All of these are good targets for Hampton Plantation outings

Ken shared some images

Also of note, Kosmos 482, the Russian Venus probe never left orbit because of a rocket misfire, is coming down. Since it was built very robust for Venus' atmosphere, there is a good chance that it will stay intact during reentry into earth's atmosphere. Not sure where it will come down. (Note: it came down in the Indian Ocean on May 9, without harm).

Ian shared some images of the Sombrero Galaxy (M104) as taken through James Webb's infrared telescope. You can check it out on line on the James Webb Space Telescope web page: https://webbtelescope.org/. Astronomers noticed a lot of structure not visible in the previous Hubble Images. You can see a comparison of the two on the web page. They are using these images to try and determine what the spiral arm structure looks like.

Ian shared about **NIAC** (NASA Innovative Advanced Concepts). See the web page: https://www.nasa.gov/about-niac/#:~:text=About-,NIAC. Groups or individuals can apply for grants to research space related topics. If approved by NIAC, they present their study at a conference, then if there is interest further funding is granted in phases for the study to continue. You can see the studies that are approved and what phase they are in on the web site. One such study is proposing a Venus probe that uses mechanical computing rather than electronic. It was a wild idea, but is gaining traction because it offers an alternative to electronics that may not withstand the harsh Venus environment.

Other projects focus on propulsion and construction of habitats on the moon. Check it out!

There are no big events in the night sky this year. Saturn will appear close to Neptune. Saturn returns to the night sky in July and is in opposition in September.

Ken reported that he camped at Huntington Beach State Park recently and was able to do some observing from the dunes. He was able to observe Omega Centura with binoculars. It is big and bright (36 arc minutes across; for comparison, M13 is 20 arc minutes across) . Omega Centura is low in the horizon and will be right under Spica on May 25, around 10:00 PM

Also, at Garden City Beach, there is a little turnaround with beach access off of South Waccamaw Dr. that might be a good place to observe

Gerald shared information on Cape Lookout National Seashore in N.C. About 4-hour drive from Myrtle Beach. It was designated a National Dark Sky Site in 2021. Depending on where you stay, it is Bortle 3. Harkers Island is where the visitors center is. You can drive to it.

They use warm lights and have removed any unnecessary lighting to achieve dark sky status. They use red lights at night. The local astronomy club is Crystal Coast Star Gazers. They hosted a star party at Harkers Island this past April. You can take a ferry over to the island where there is beach camping and rustic cabins available if you want to stargaze further out into the ocean.

Note: there are vehicle permits to obtain and 4-wheel drive is required to drive on the beach. There are other camp grounds like Ocracoke on the island seashore. Most visitors arrive at the islands of Cape Lookout National Seashore through one of the authorized ferry services. Might be an interesting star gazing experience. Look it up at:
https://www.nps.gov/calo/index.htm

Ian reminded all that next month's meeting will be on the Mars Rover. You won't want to miss.

Meeting adjourned.

## Picture of the Month

Ken Legal

Messier 63, also known as the Sunflower Galaxy, is a spiral galaxy located approximately 27 million light-years from Earth in the constellation Canes Venatici. It is a prominent member of the M51 group of galaxies and is known for its bright yellow core and winding, blue-white spiral arms, which resemble the pattern of a sunflower.

Features of camera and processing:

Messier 63, The Sunflower Galaxy.

6" f/6 Newtonian reflector on AVX mount, Canon 60Da camera at ISO 1600. 48 total minutes of exposures. Unguided, no filter.

Stacked in DeepSkyStacker, minimal processing in GIMP.

# Aynor Middle School outing with Grand Strand Astronomers

Gerald Drake

Aynor Middle School's Adrianne Bostic, an Eighth Grade Science teacher, reached out to the Grand Strand Astronomers to help with an astronomy night on May 5, 2025. They have been studying astronomy and telescopes and wanted to give the students some hands-on experience. This was the first time they have held such an event.

Gerald and Ken represented our club. We brought telescopes and set up behind the school in their sports field. Adrianne asked the school to keep the perimeter lights off while we there, so we had some darkness. The moon was about ½ full and pretty bright. It was visible before sundown so we focused our scopes on it for those arriving early to see. Many said this was their first time looking in a telescope, and the moon is a great target.

You can see in the pictures below that we had a decent horizon. The tree line did not block our view much. As dark was approaching, Jupiter became visible so we trained our telescopes on it along with some prominent stars. It was good that we had a variety of telescopes for the students and others to look through. Some brought their own telescopes and we were able to help them and answer any questions they had.

Mars was visible without much detail, and we were able to show a few globular clusters. Gerald and Ken stayed busy sharing views in their telescopes and answering questions. The students were great. Adrianne said they taught them how to look through telescopes in class and how not to grab onto the eyepiece. They learned well. There was about 38 in attendance so it was a decent crowd. The staff was very appreciative. Below is an excerpt from the email sent thanking us:

The photographs with in this article are (shared with permission) of the event:

*Good morning. I would like to extend our heartfelt gratitude for your participation in our Astronomy Night. You and Ken helped make the event a memorable experience for our students and their families.*
*Thank you for bringing your telescopes and sharing your extensive knowledge of astronomy. The hands-on experience you provided not only ignited curiosity among our students but also deepened their understanding of the universe we live in.*

*We appreciate your support and dedication to fostering a love for science and exploration. It is community partnerships like yours that enrich our educational programs and inspire the next generation of astronomers. I have included pictures from the evening. The students enjoyed the evening!*
*Once again, thank you for your invaluable contribution to our Astronomy Night. We look forward to future collaborations and hope to see you again soon!*

*Adrianne*

## May Observing At Hampton Plantation

Ian Hewitt

2025 has been a challenging year for observing! The skies finally cooperated for our May observing session at Hampton State Park. The sky was mostly clear and the temperatures were very mild.

We had a good turnout for the event from our members and even a guest or two. Most members were doing imaging, so we look forward to see some pictures coming soon! We are hoping we get some more good weather this summer?

## Mars Rover Pre-Meeting Review

Tim Kelly

*Here is simple explanation in line with the June 5th GSA Zoom meeting. Don't miss this scientific marvel to study our red planet.*

A Mars rover is a robot sent from Earth to explore the surface of Mars. It drives around on wheels and takes pictures, studies rocks and soil, and looks for signs of past life or water.

It has tools like:

→ Cameras to take photos and videos
→ Arms to dig or move things
→ Scientific instruments to study Mars' weather, surface, and atmosphere
→ NASA sends commands to it from Earth, and the rover sends back information. Some famous rovers include:
→ Sojourner (1997) – the first rover on Mars
→ Spirit and Opportunity (2004) – twin rovers that explored for years
→ Curiosity (2012) – still exploring
→ Perseverance (2021) – looking for signs of ancient life and collecting samples

Basically, Mars rovers are like robot explorers helping us learn more about the Red Planet!

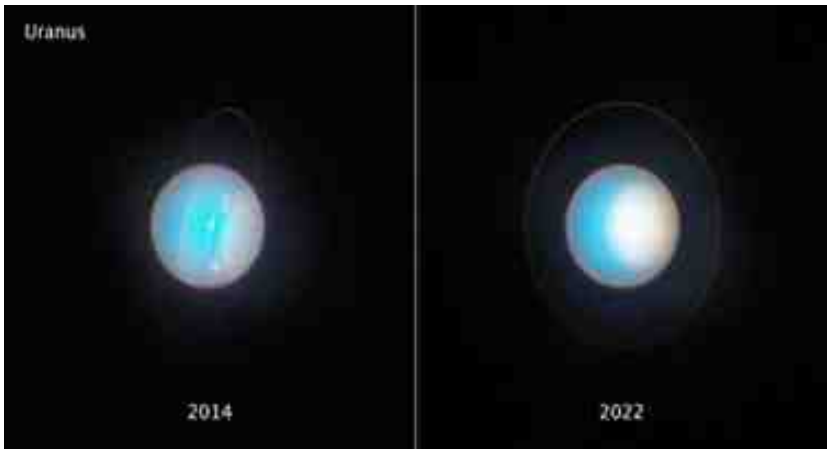
# June's Night Sky Notes: Seasons of the Solar System

By: Kat Troche

*Uranus rolls on its side with an 84-year orbit and a tilt just 8° off its orbital plane. Its odd tilt may be from a lost moon or giant impacts. Each pole gets 42 years of sunlight or darkness. Voyager 2 saw the south pole lit; now Hubble sees the north pole facing the Sun. Credit: NASA, ESA, STScI, Amy Simon (NASA-GSFC), Michael Wong (UC Berkeley); Image Processing: Joseph DePasquale (STScI)*

Here on Earth, we undergo a changing of seasons every three months. But what about the rest of the Solar System? What does a sunny day on Mars look like? How long would a winter on Neptune be? Let's take a tour of some other planets and ask ourselves what seasons might look like there.

**Martian Autumn**




*An artist's rendition of Mars' orbit around the Sun, and its seasons. Credit: NASA/JPL-Caltech*

Although Mars and Earth have nearly identical axial tilts, a year on Mars lasts 687 Earth days (nearly 2 Earth years) due to its average distance of 142 million miles from the Sun, making it late autumn on the red planet. This distance and a thin atmosphere make it less than perfect sweater weather. A recent weather report from Gale Crater boasted a high of -18 degrees Fahrenheit for the week of May 20, 2025

Saturn has a 27-degree tilt, very similar to the 25-degree tilt of Mars and the 23-degree tilt of Earth. But that is where the similarities end. With a 29-year orbit, a single season on the ringed planet lasts seven years. While we can't experience a Saturnian season, we can observe a ring plane crossing here on Earth instead. The most recent plane crossing took place in March 2025, allowing us to see Saturn's rings 'disappear' from view.

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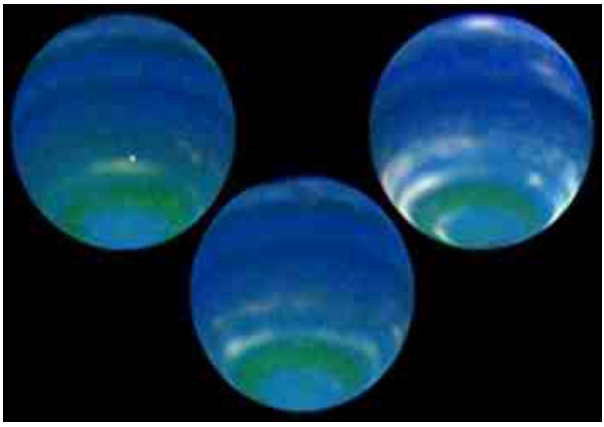
**A Lifetime of Spring**



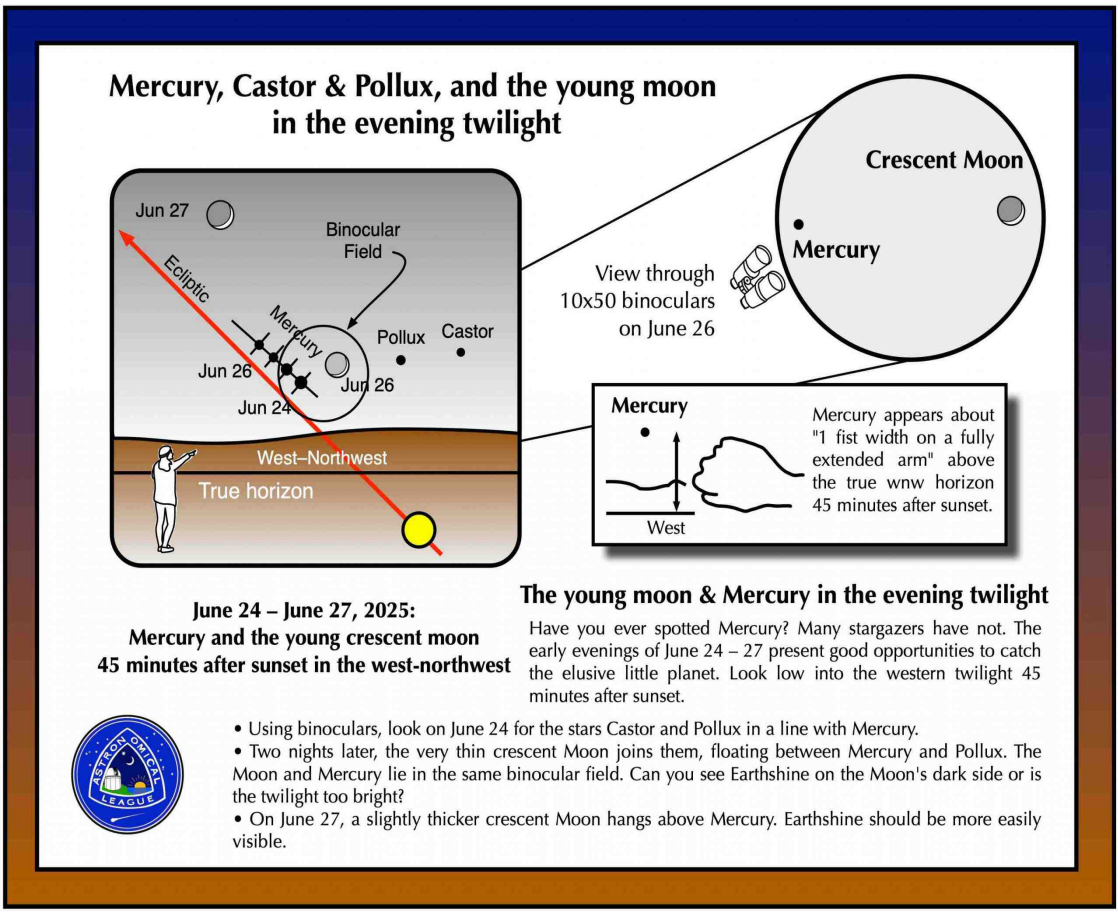
*NASA Hubble Space Telescope observations in August 2002 show that Neptune's brightness has increased significantly since 1996. The rise is due to an increase in the amount of clouds observed in the planet's southern hemisphere. Credit: NASA, L. Sromovsky, and P. Fry (University of Wisconsin-Madison)*

Even further away from the Sun, each season on Neptune lasts over 40 years. Although changes are slower and less dramatic than on Earth, scientists have observed seasonal activity in Neptune's atmosphere. These images were taken between 1996 and 2002 with the Hubble Space Telescope, with brightness in the southern hemisphere indicating seasonal change.

As we welcome summer here on Earth, you can build a Suntrack model that helps demonstrate the path the Sun takes through the sky during the seasons. You can find even more fun activities and resources like this model on NASA's Wavelength and Energy activity.

# Astrological League

## Mercury, Castor & Pollux, And The Young Moon In The Evening Twilight



# Astrological League

## Seahorse Asterism

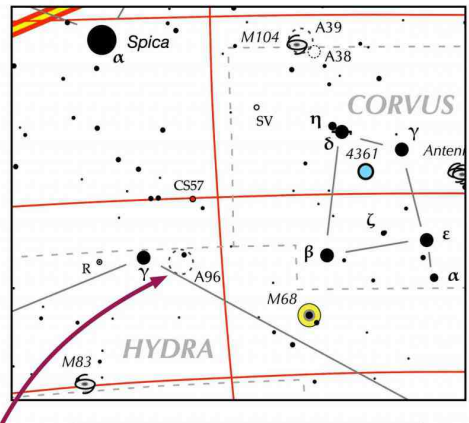
### Seahorse Asterism

*On the Astronomical League's Asterism list as no. 96*

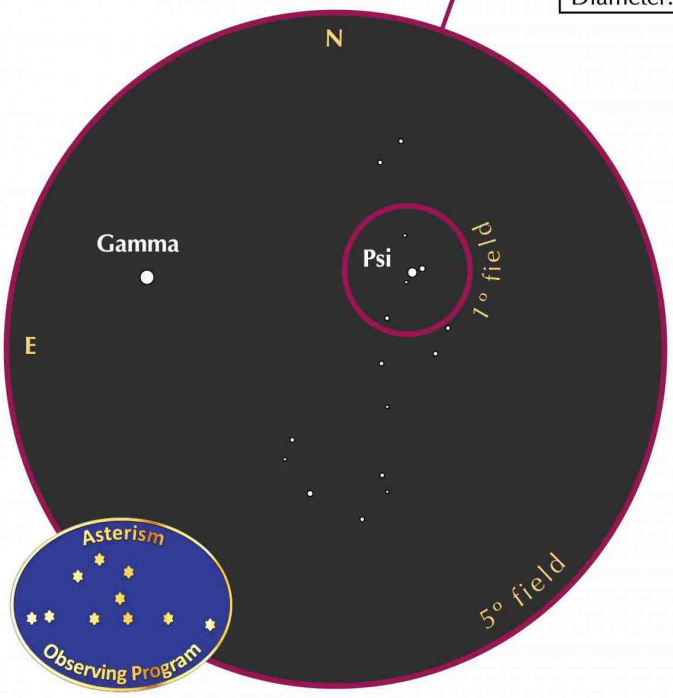
**How to find the Seahorse ...**

1. 10° south of Spica lies 3rd magnitude Gamma Hydrae. (10° is the angular width of your fist on your outstretched arm.)
2. Place Gamma at the center of the finder (or binocular) field.
3. At the west edge of the finder (or binocular) field lies the 4.9 magnitude Psi Hydrae.
4. Aim the finder (or binoculars) at Psi.
5. Follow the string of 7th, 8th, and 9th magnitude stars as it roughly traces the outline of a seahorse.

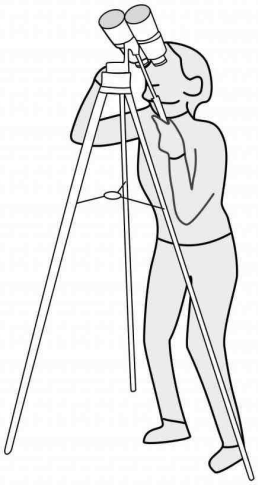
To see it through a finderscope or binoculars, clear, dark skies are a must!




96 Asterism: Seahorse
Magnitudes: 4.9 – 9.6
Diameter: 15 x 90 arc–minutes




Use a tripod to help bring in the asterism's 7th, 8th, and 9th magnitude stars.





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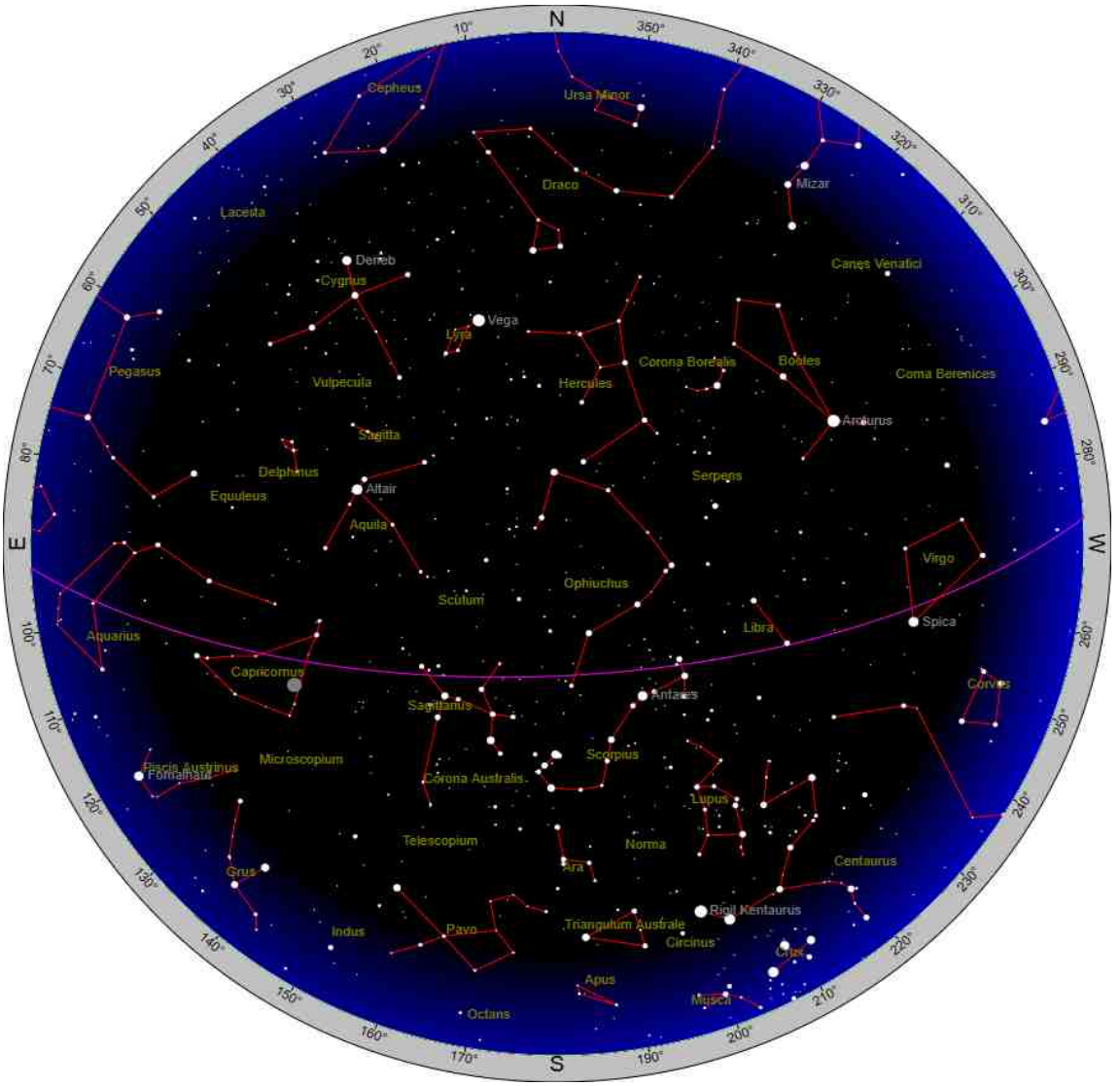
# Sky Chart

**Year**: 2025 **Month**: June **Day**: 15 **Hour**: 00 **Minute:** 00




Until next Month

Remember to always look up!