

New Braunfels Astronomy Club

Texas, USA

May 17th, 2018

228th Meeting

Larry's

Celestial Calendar & Newsletter

May 17th, 2018 to June 21st, 2018 251st Edition

Lunar and Planetary Pairings

Jupiter!

Sun Party at TPML on June 2nd 11 am-1 pm

Sum-sum-Summertime...June 21

Observer's Highlight Calendar for Clear Skies

Month Date Time Event

Month	Date	Time	Event
May	17-19	Dusk	A waxing crescent Moon is close to Venus on the 17 th , then Gemini, and is in Cancer, 6° below M44 (the Beehive Cluster) on the 19 th
May	20	Dusk	Venus is less than 1° to the right of star cluster M35 in Gemini
May	21	10:49 pm CDT	First Quarter Moon
May	28-31	Around 10 pm CDT	A waxing, full, then waning Moon slides through Scorpius and Sagittarius, getting close to Saturn on the 31 st
May	29	9:20 am CDT	Full Moon
June	3	Pre-dawn	A waning gibbous Moon is close to Mars
June	6	1:32 pm CDT	Last Quarter Moon
June	13	2:43 pm CDT	New Moon
June	15	Dusk	A waxing crescent Moon is just below Venus
June	19	Dusk	Venus gets within 1° north of M44 (the Beehive Cluster) in Cancer
June	20	5:51 am CDT	First Quarter Moon
June	21	5:07 am CDT	Summer Solstice

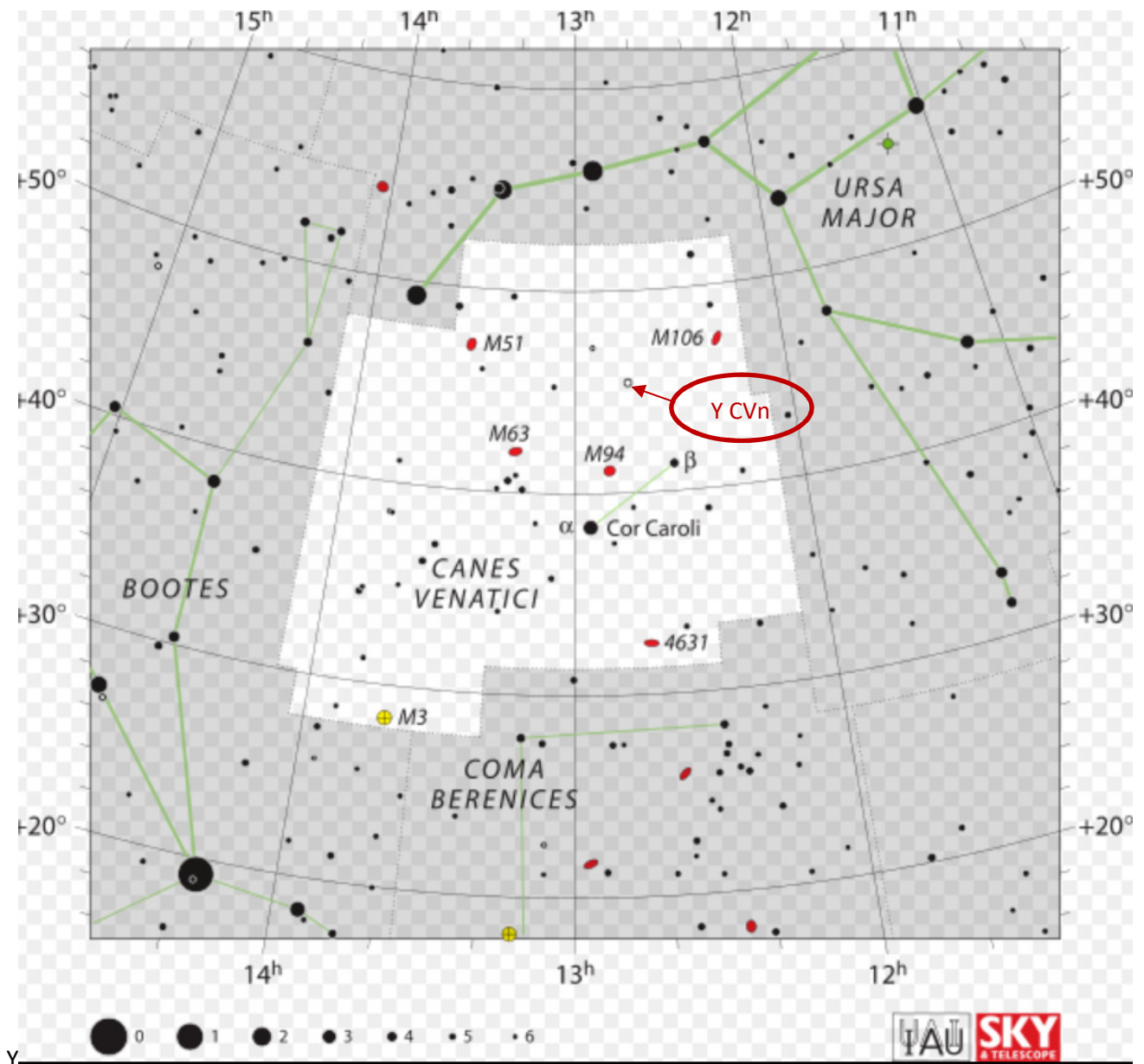
Solar System Roundup

- ✚ **Mercury** is with the Sun until mid-June and even then, is low and difficult
- ✚ **Venus** is brilliant in the western sky before and after sunset.
- ✚ **Earth** still spins, and we are still here to marvel at the wonders of our universe.
- ✚ **The Moon** slides through the southern constellations and makes a few nice pairings with Venus, Saturn, and Mars
- ✚ **Mars** is a morning “star” and rising higher in the southern sky, to the left of Saturn.
- ✚ **Asteroid(s)** Ceres is the closest dwarf planet to Earth and in Leo heading southeast. It is just south of Kappa (κ) Leonis on May 18th, and Epsilon (ϵ) Leonis on June 3rd.
- ✚ **Jupiter** is rising before 10pm now and is a beauty!
- ✚ **Saturn** is a morning “star” and teams up with the Moon and Mars in Sagittarius
- ✚ **Uranus** is lost in the Sun’s glare.
- ✚ **Neptune** is in conjunction with the Sun and not well placed for observing
- ✚ **Comet(s)** PANSTARRS (C/2016 M1) is another dim (mag 10) comet, but if you like, check it out. It slips between Zeta (ζ) Sagittarii and M54 on June 8th, then on 11-13 it slips past M70.
- ✚ **ISS Viewing for New Braunfels (works for Canyon Lake too)**

Date	Start Time	Start Location	Travel
05/19	21:29:46	SSW	E
05/20	22:14:05	WSW	NE
05/21	21:21:30	SW	NE
05/22	22:07:39	W	NE along the horizon
05/23	21:14:08	W	NE
05/25	21:08:21	W	NE along the horizon
06/08	21:50:47	NW	E
06/09	20:59:00	NW	SE along the horizon
06/10	21:41:59	NW	SE high in the sky
06/12	21:33:49	NW	S

My Observing Pick: Canes Venatici

The “Hunting Dogs” constellation created by Johannes Hevelius in the 17th century, Canes Venatici is small, dim, and far north. It looks nothing like dogs. Apparently, a mis-translation of Arabic text led to it being labeled dogs instead of hooks. So, instead of spearshafts with hooks we have spearshafts with dogs. Hevelius decided to just call them dogs. Its two brightest stars indicate the dog’s collars. The dogs, in mythology are Boötes’ companions.



Name	Object Type	Location	Description
M51	Galaxy	Just SE of Eta (η) Ursa Majoris	Called the “Whirlpool”, this beautiful face on spiral is interacting with NGC 5195. Mag 8.4
M106	Galaxy	About an hour Due east of M51	Mag 8.4 spiral galaxy
M94	Galaxy	About 8° SE of M106	Mag 8.9 face on spiral galaxy
M63	Galaxy	About 30' NE of M94	Called the “sunflower” galaxy. Mag 9.3
M3	Globular Cluster	About 10° NW of Arcturus, α Boötis	Dense Globular Cluster. Mag 6.3
NGC 4631	Galaxy	About 10° SW of M94	Called the “Whale” galaxy due to distortion. Mag 9.8
La Superba	Star	Y Canum Venaticorum (Y CVn)	Variable Carbon star, very red, Mag 5-6.5

What is it?

Black Body Radiation

Thermal electromagnetic radiation within or surrounding a body in thermodynamic equilibrium with its environment.

Example: A body in thermal equilibrium with its environment at room temperature, in the absence of light, appears black. The only radiation it emits is infrared, invisible to the eye. Once the body reaches about 500° C it starts to emit visible light (grayish to the eye).

All normal matter emits and absorbs electromagnetic radiation when its temperature is above absolute zero. An object that absorbs all radiation contacting it is called a black body. When this black body is at a uniform (equilibrium) temperature it will emit radiation with a predictable frequency distribution.

This is useful for determining the temperatures of distant objects, based on their radiation frequency distribution.

Opportunities for NBAC Reach out

- Sun Party at Tye Preston Memorial Library in Canyon Lake
 - Saturday, June 2nd, from 11 am – 1pm
- New Braunfels and Guadalupe Master Naturalists

The New Braunfels and Guadalupe Master naturalists do not have any lectures on the night sky. Astronomy is in their curriculum, but they have no one to present. They are looking for someone to present a 45-minute talk + 15 minute Q&A at one of their monthly meetings.

New Braunfels: lindheimermn@gmail.com

Guadalupe: txmn.org/guadalupe/

Coming up: OUR 229th ASTRONOMY CLUB MEETING

Thursday, **June 21st**, 2018, from 7 – 9:00 p.m., held in the conference room of TJ's restaurant on Loop Road (337). Have dinner, snack, dessert, and/or a beverage if you like.

The New Braunfels Astronomy Club can be reached at www.astronomyntx.org

Eric Erickson ewandnl@yahoo.com