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Penobscot Valley Star Gazers

An Astronomical Society of Central Maine

Around, above the world of snow
The light-heeled breezes breathe and blow.
-James Berry Bensel

February 2026

February Meeting

The February 2026 meeting of the PVSG will be held at John Bapst Memorial High School on Monday the 9th at 6:30 pm. Zoom will be available with the regular ID. (Zoom meeting ID 862 9984 6478 Password: PVSG.)

PVSG Monthly Meeting Minutes
January 12, 2026

Hi folks,
Please find the meeting minutes for January's meeting.

Club leadership:

- Andy Royal volunteered to serve as interim secretary due to the current secretary's absence.
- No objections were raised; Andy will serve temporarily and may run officially in the May elections.

Treasury and finances:

- The club has roughly $650–$670 in funds.
- Annual costs (insurance and Astronomical League membership) are rising and may soon exceed income.
- A past large donation (~$250 from a stargazing event years ago) has been sustaining the club, but funds may run out next year.
- Options discussed: raise dues, drop Astronomical League membership, increase outreach/donations, or find new funding sources.

Insurance and Astronomical League:

- Insurance is considered essential for liability during outreach events.
- Astronomical League membership provides publications, observing programs, badges, and outreach support, but may be expendable short-term if costs become prohibitive.

Outreach and growth:

- Strong interest in increasing visibility through Facebook, the website, and event promotion.
- Andy offered to help manage social media, outreach, and membership growth, drawing on sales and outreach experience.
- Discussion of using Night Sky Network materials, handouts, and public events to attract new members.

Activities and events:

- Past events included star parties, solar events, and public outreach, which declined during the pandemic.
- Hope to resume more frequent events when weather and conditions allow.

Education collaboration:

- Plans were discussed to help Bangor High School get a remotely operated telescope system running again.
- A meeting is scheduled (Jan 26) with volunteers to assess equipment and support student astronomy programs, potentially benefiting other schools.

Technical and communication challenges:

- Difficulty setting up a new email list server via the University of Maine.
- Discussion of alternative platforms (Google tools, Zoom-like services).

General discussion:

- Side conversations about cold-weather observing, batteries, astrophotography, equipment, and personal observing experiences.
- A positive anecdote about observing atmospheric phenomena (sundogs and halos).

- Overall, the meeting focused on club governance, financial sustainability, outreach growth, educational partnerships, and reviving activities.

Andrew Royal

Observe the Sky This Month

Some Selected Objects
February 2026

General sky comments – The 2nd of this month was Ground Hog Day and he saw his shadow meaning six more weeks of winter. For many Christians it was Candlemass. For astronomers it was the first quarter day meaning halfway between the winter Solstice and the spring Equinox. On the 10th the bright star North of the last quarter Moon is Antares. The Sun has been setting later every day and rising sooner all through February while traveling north towards the equinox on March the 20th. The 12th will be a good time to observe Jupiter satellites Io and Ganymede transit with their shadows on Jupiter. This month is the best time to observe the planet Mercury. On the evening of the 18th Mercury

and the Moon are visible 45 minutes after sunset low in the western sky. Look for the Moon as a very slim crescent "smile" with a bright planet Mercury above. Next month Daylight Saving Time begins the Sunday before the club meeting. On Tuesday March 3rd there is a total eclipse of the Moon. For North America it will be the last total lunar eclipse visible until June 29th, 2029. In Maine the Moon sets during totality, but a large part of the total umbra phase can be observed. This month is the first opportunity to observe the zodiacal light this year beginning one day after the full Moon and continuing for two weeks. It will be tilted to the left.

Planets and Moon this month – The full Moon was on Sunday the 1st before the meeting on the 9th. The last quarter Moon is on Monday the 9th, new Moon (lunation 1276) is on Tuesday the 17th, and there was an annular eclipse of the Sun visible in Antarctica. First quarter is on Tuesday the 24th. In March before the club meeting on the 9th the full Moon is on Tuesday the 3rd. The Moon that night is totally eclipsed. Mercury was at superior conjunction on the 9th and becomes visible in the evening sky very late in February. It has a close conjunction with a 28 hour old Moon on the evening of the 28th. On the 1st of March Mercury passes extremely close north of the young crescent Moon and is occulted far southwest of us. Venus dominates the evening sky all month and reaches greatest illumination of magnitude -4.9 on the 14th. Venus has a very nice conjunction with a young crescent Moon on the 28th. Arabs will be very happy. Mars is in Gemini making a triangle with Castor and Pollux as it slowly dims in brightness while distancing itself from the close conjunction with Earth last month. Jupiter is now visible in Taurus north of Aldebaran. A series of weekly double shadow transits begin on the 25th early in the evening this month. Saturn is visible in evening twilight early in the month before being lost to view near the Sun by the end of the month. Uranus [Ούρανός] is beginning prograde and visible before midnight in Aries. Neptune is fading in evening twilight approaching its conjunction with the Sun on March 20. Pluto is in the morning sky in Sagittarius.

Constellations for the month – The northern portion of Puppis, the ship's stern, protrudes into the Maine sky adjacent to the lower left portion of Canis Major, the big dog and contains 3 Messier open star clusters M46 (NGC 2436), M47 (NGC 2422), and M93 (NGC 2447). 60 some other open star clusters are listed in *Star Catalog 2000*, along with bright and dark nebulae, emission nebulae, and planetary nebulae. I have observed all the Messier objects plus one planetary nebula (NGC 2438) in Puppis. I have quite a few more available to observe. I urge you to obtain a good sky atlas. Canis Major contains one Messier object M41 an open cluster and the brightest star in the sky Sirius. Canis Major, the Big Dog one of the two hunting dogs of Orion sits beside Orion with his big 23Major is not a very big constellation, only 380 square degrees of sky but contains many interesting objects. The open star cluster M41 (NGC 2287) is easily seen 4° directly below Sirius. I noticed a couple of red stars along with the majority of blue-white stars. I have also observed open cluster NGC 2204 with 3 other open clusters on my observing list, NGC 2354, NGC 2360, and NGC 2362. The Big Dog also contains numerous double stars. Above Puppis and Canis Major is the constellation of Monoceros, The Unicorn. [See detailed description below.] Proceeding upward from Monoceros we come to the constellation Canis Minor containing the stars Procyon, "Before the Dog", alpha (α) CMi magnitude 0.4 along with Gomeisa (an old Arabic name for Procyon) beta (β) CMi magnitude 2.9. These two stars comprise almost all of the constellation Canis Minor. Next above is the constellation Gemini, The Twins. Gemini is an ancient constellation and one of the members of the Zodiac. The founding twins of Rome are characterized by the two stars Castor and Pollux representing the twin's heads and parallel strings of stars their bodies. Gemini contains one Messier object M35 (NGC 2168), numerous open clusters, and several planetary nebulae. Especially notable is NGC 2392, the Clown Face (formerly Eskimo) nebula. To find this planetary start at Pollux (the brighter of the two stars of Gemini). Then go 8° SW to 3rd mag. Wasat delta (δ) Gem. From Wasat proceed 2.5°SE to this nebula. This is one planetary I have noted on one rare occasion to have more than one color. Above Gemini is a modern era constellation Lynx, created by Johannes Hevelius. This constellation is long, covering almost 3 hours of R. A. but because it is so high in the sky toward the north all of it is easily observed. Lynx is dim but at a dark site easily traced in the sky. It contains some beautiful galaxies and many multiple star systems. If you have a dark sky Lynx is a real treat to observe and even part may be observed with a binocular. Among these galaxies in Lynx are NGC 2859 a bared spiral located next to a 7th magnitude star less than 1° ENE from alpha (α) Lynx and NGC 2683 an edge-on spiral galaxy located 6° WSW of alpha (α). If you have trouble finding NGC 2683 look a degree of so NW of the star grouping of 1-4 sigma (σ) Lynx, it can be seen with a binocular. Multiple star systems in Lynx include 5, 19, and 38. Do not dismiss this constellation. It is one of my favorites. Above Lynx is another modern era constellation Camelopardalis, the Giraffe was apparently invented in 1613 by the Dutch astronomer and clergyman Petrus Plancius. He introduced the figure as a giraffe on a celestial globe he designed around the year 1612. The constellation's two brightest stars are mag. 4.3 for the Alpha (α) star and mag. 4.0 for the Beta (β) star. Both are super giants. Alpha would be at least one magnitude brighter if it were not hidden behind interstellar dust. Beta has a mag. 7.4 optical double companion lying 1.4 arcminutes to the WSW. They are slowly separating but it has hardly been noticed in 100 years of observing. There is also another star located 15 arcseconds away from the secondary star which may also be a companion. Southern Camelopardalis contains one very fine open cluster NGC 1502 consisting of a mag 7 double star surrounded by 30+ 9th to 12th magnitude stars. Also a bright planetary nebula NGC 1501 located slightly more than 1° south of NGC 1502. From

NGC 1502 follow a string of ninth and tenth magnitude stars upward to the NW. Canadian Friar Lucian Kemble noticed this string of stars in 1980 with a 7x35 binocular and saw it tumbling down to NGC 1502. He reported it to Walter Scott Houston who mentioned it in the 1980 Sky & Telescope in his column "Deep Sky Wonders." He named it Kemble's Cascade. In the remainder of Camelopardalis there are many fine galaxies on my observing list. One I have observed is an easily observed one, NGC 2403. I recorded it as a nice open face spiral with a hint of structure. It is detectable with 10x50 or larger binoculars.

Featured star – Sirius, the Dog Star is the brightest star in the sky with an apparent magnitude of -1.46. Its name came from the Greek name Σείριος loosely translated as "the scorching one". It is in the constellation of Canis Major and found 2.6 parsecs (8.6 ly) distant. It is a class A1 star that is fairly young at around 237 million years old. It is expected to live for another 27,000 years. Sirius was important for several ancient groups of people. For the Greeks the appearance of Sirius in the morning sky marked the beginning of the summer months and the so-called "Dog Days". In the Iliad Achilles called Sirius Orion's hound. For the Egyptians its appearance forecast the flooding of the Nile and the renewing of the land. Since ancient times the appearance of Sirius just before the rising sun hides it (known as the heliacal rising) has now changed due to precession to early August. The Polynesians used this later date of late July or early August for the appearance of Sirius as the beginning of winter and the start of the sailing season when it was an important navigational tool. The native people of the American plains also used the later late July to early August appearance to know it was time to leave the cool mountains and return to the prairie. Sirius is a double star with the companion being discovered on January 31, 1862 by Alvin Graham Clark while testing an 18.5" lens being built for the University of Mississippi. I read somewhere it was actually his son that first noticed the companion and told his father. Finally in 1889 the lens was installed in a new telescope in the Dearborn Observatory under the directorship of the Chicago Astronomical Society and the old telescope mount transferred to the Adler Planetarium. The ownership of the telescope has been transferred to Northwestern University where it is used to this day for astronomy classes and public observing on Friday nights much like the University of Maine uses their Clark telescope. The primary star Sirius A and the secondary Sirius B were likely originally a pair of blue-white stars with Sirius B slightly larger. Sirius B became a red giant star and eventually evolved into a white dwarf in orbit with Sirius A. It may be during this transformation Sirius A became rejuvenated into the younger star we see today.

Featured Messier object – M46 is an open cluster in the constellation of Puppis, the Ship's Stern. It was discovered by Messier in March 1771. It is a companion to and east of M47 and not difficult to observe. Both clusters are very large and bright with M46 noted for its rich collection of uniform sized faint stars. Observe these two open clusters with a 10x50 binocular to compare and appreciate the differences. Close up with small telescopes 4/6" M46 is fainter than M47 but more impressive. It shows about 75 stars at 50x uniform in brightness. The planetary nebula NGC 2438 can be noticed as a fuzzy "star". With larger 8" to 10" scopes at 75x there are more faint stars visible. The slightly annular planetary nebula is easily seen along with two stars within. These two stars are not the central star. It is not visible with most amateur scopes.

Featured constellation – Monoceros, the Unicorn was named by an unknown observer but it showed up first on a star globe made by the Dutch cartographer Petrus Kaerius in 1613. It has no pattern representing anything except maybe with a lot of imagination a unicorn. There are no bright stars but it is full of interesting items including open clusters, various nebulas of many different types, and even one spectacular triple star system Beta (β) Mon. Monoceros is dim but not hiding, mostly located west and northwest of Sirius. From Sirius start exploring Monoceros by going 8°NE of Sirius and you should find the Gum1 nebula and a couple of open clusters one on the right and one on the left sides of the nebula. If you have already found M50 Gum 1 is 2°SSE along with NGC 2335 and NGC 2343. Do not confuse the two with the nebula. NGC 2335 has more stars. If you have trouble finding Gum 1 look for the two open cluster less than 1°apart. To find two of the most interesting objects in Monoceros it is easier to start with stars in the constellation Gemini, the Twins. Begin at the foot of the twin Pollux. (Note the feet of both Castor and Pollux are formed by a line of 2nd, 3rd, and 4th magnitude stars). Begin at the lowest of the stars mag. 3.33 xi (ξ) Gemini and mag. 4.5, 30 Gemini then proceed 3° SE to NGC 2264 an emission nebula complex in Monoceros below the feet of Gemini comprising the Christmas Tree Cluster, the Cone Nebula, and Trumpler 5. The complete complex is best viewed with a 10X50 binocular or finder scope. With a reflector telescope under low power it resembles a Christmas tree with the cone nebula the topper. A non-reversing binocular makes the tree effect goes away. Below NGC 2264 is the Rosette Nebula surrounding NGC 2244 an easily seen open cluster. NGC 2244 contains about three dozen stars. The Rosette has low surface brightness thus best seen with a 10X50 binocular or a wide field telescope on dark nights at low power. It is almost 2° in size covering four times as much area as the moon. It has one Messier object M50 (NGC 2323), many nebulae, and open star clusters. For a real treat get out your binoculars, if you have more than one each of a different power and aperture so much the better, and observe this constellation. Monoceros also contains open clusters NGC 2232, 2286, 2324, and 2301 that I have observed. There are a couple of other items on my observing list.

Lens cover removed, enjoy the night
Bill Shackelford