



# Penobscot Valley Star Gazers

An Astronomical Society of Central Maine



<http://www.gazers.org>

Now dreary winter's piercing cold, floats on the northern gale,  
And trees, though green, look dry and old; snow covers hill and dale.

January 2019

## Another Year for PVSG

Welcome to the beginning of PVSG's 29<sup>th</sup> full calendar year! We start by meeting on Monday, January 14<sup>th</sup> at John Bapst Memorial High School at 6:30 pm. The program is unknown at this time; perhaps Dwight will give his Birr Castle presentation.

Thanks for last month's program go to Dwight for arranging the Christmas/Holiday party held at Kosta's Restaurant and for the video presentation by Dr. Jackie Fatherty on the significance of the data from ESA's GAIA observatory satellite. Also, thanks to all those who shared some memories of club events.

### Dinner and a Show

December 10, 2018



PVSG Meeting: Kosta's Restaurant, December 10, 2018.

Attendance:  
Scott Burgess, Vice President & Julie & daughter Elizabeth  
Dave Clark, Treasurer & Ann  
Alan Davenport &

Beth

Dwight Lanpher, President  
Ralph Mallett  
Phil Normand, Secretary & Laurie  
Wade and Donna Smith  
Carolyn and Stephen Vose  
Julie Brownie

Meeting was brought to order at approximately 7:31.

Dwight announced that the Emera Planetarium had been offered to the club to have a meeting in February or March. He suggested that we take them up on their offer for our February meeting.

Dwight led a discussion of Comet 46P/Wirtanen. Dwight sent out a link earlier in the day with info on finding the comet. Alan mentioned that the Internet Site – [spaceweather.com](http://spaceweather.com) has daily finder charts.

Monthly newsletter was approved unanimously.

**Treasurer's Report:** Current balance is: \$683.07. Dues are due. Treasurer's report was approved.

Observers' reports:

### Wade & Donna:

Observed the Comet over several nights this past week using several different binoculars.

**Dwight:** Announced that Bill Shackelford sent an email to Dwight with a correction to his 'Observe the Sky' newsletter column. The moon this month is not a supermoon. Dwight also brought the bino viewers that he showed a picture of at the last meeting.

They have 1<sup>st</sup> surface dielectric mirrors instead of prisms.

Member info-sharing:

**Phil:** Mentioned star chart that office co-workers gave of sky over Keene, NH when grandchild was born.

**Wade:** Recounted memories of Roland Cormier and all the assistance he gave members of the club.

**Donna:** Spoke of when she 1st saw a bolide when sitting on the deck at the house with Wade.

**Scott:** Talked about his involvement with the American Association of Variable Star Observers and the observation of Betelgeuse. Said that professional team that he is working with has been granted time on the Hubble Telescope. Project is a 3-year project with members from around the world.

**Dave:** Spoke of a night where there was a star

### On the Schedule

(Items Subject to Change)

#### PROGRAMS

February 11: Meeting at Emera Center

#### STAR PARTIES

?January 20: Lunar Eclipse public star party  
?March 30, April 6, 27, or May 4: Bangor Land Preserve

? Tentative; (rs) rain or shine; (co) clear only; (rd) rain date

party at his house and he was trying to determine if he had seen Pluto. He had to re-observe a few days later and the object had moved. Saw a naked eye comet on a night when there was a power outage and everything was dark.

**Stephen & Carolyn Vose:** Steve talked about their cottages in Downeast Maine in the summer – Their current cottage has a beautiful southwestern exposure. Nice view of planets over the lake. Would go out on boat with visitors and would point out things in the sky as the sky darkened.

**Alan:** 32 years of memories with the club and many of the members present at the meeting.

**Dwight:** Talked about going to the Megantic Observatory with several of the members present at the meeting. Dwight mentioned that he had gone to several holiday gatherings over the last few days with other clubs in Maine.

New business:

Dwight brought a recording of a presentation from an astrophysicist from the American Natural History Museum in New York.

Meeting adjourned at 8:44

Phil

---

## Observe the Sky This Month Some Selected Objects January 2019

**General sky comments** – After a wait of a few years this is the month when there is finally a total eclipse of the moon visible in the United States. It is unfortunately happening at a time many of us like to be in a warm bed doubly important because it will be cold too. Bundle up anyway and get out to see this eclipse with 62 minutes of totality. Here are the particulars of this lunar eclipse. On the evening of January 20 the moon enters the outer portion of the Earth's shadow called the penumbra at 9:36 pm. The moon enters the central part of the Earth's shadow called the umbra at 10:33, totality starts at 11:42 and ends at 1:50 am on the 21<sup>st</sup> when it re-enters the penumbra. The eclipse ends at 2:48. An additional plus for this eclipse is its overhead position. All the objects noted in December are still well placed for observing this month. If you missed observing some of these object get out there and observe. New constellations such as the constellations Orion the hunter, Lepus the Hare, Canis Major, and Columba the Dove a constellation unknown to most will

be added to the winter constellations to be observed. These constellations contain sufficient objects of interest to more than fill our discussion this month. Orion the hunter with his shield in one hand and his club held upright in the other is the easiest winter constellation to recognize by most observers. Did you notice the brightest star in earth's sky, Sirius was seen directly south at midnight when you were out celebrating the New Year? Interesting. This was first noticed by Jack Horkheimer when he was on public television every night discussing objects currently visible in the sky with his program "Star Gazer" from the Miami Space Transit Planetarium.

**Planets this month** – The Moon is new on Saturday the 5<sup>th</sup>, is at first quarter on Monday the 14<sup>th</sup>, full on the 20<sup>th</sup>, and at last quarter on Sunday the 27<sup>th</sup>. Mercury is visible in the morning sky until mid-month when it gets too close to the Sun to observe. Venus is easily observed in the morning sky but becomes lower during the month and is close to Jupiter on the 22<sup>nd</sup>. Mars is in the evening sky in the constellation of Pisces. Jupiter rises about 2 hours before the Sun. It is in Ophiuchus and low in the southern sky. Saturn is too close to the Sun to be observed this month. Uranus is well placed for viewing high in the sky in Pisces at magnitude 5.8. Neptune is rather low in the evening sky in Aquarius. The dwarf planet Pluto is too close to the sun to be viewed.

**Featured star** – Adhara ( $\epsilon$ ) Canis Major is one of the back legs of the dog and shines at Magnitude 1.5 making it the second brightest star in the constellation. Strangely it was listed as epsilon the fifth letter in the Greek alphabet by Bayer not beta. It is located 431 +/- 30 light years distant and is one of the brightest extreme ultraviolet sources in the sky and the 19<sup>th</sup> brightest star. It is about 200 times brighter than Sirius and if located in Sirius's position it would be the brightest star in the sky by far.

**Featured Constellation** – Lepus the Hare is easy to find immediately below the two stars Rigel and Saiph at the base of Orion, but hardly noticed by most sky watchers. Where I grew up we had both hares and rabbits wild on the prairie. The hare was the Jack Rabbit and the true rabbit was the Cotton Tail. Hares have long ears, and legs, are born with hair, can see, and hop around. Rabbits have shorter ears, legs, and are born naked with unopened eyes. The sky appearance of the constellation was strange to me because Lepus has rather short ears and long legs but still it has always been one of my favorite constellations be-

cause it looks like a running hare except for the short ears. The constellation is not very bright with 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> magnitude stars but before so much bright lighting I had little trouble observing it from my back yard. Lepus does contain one Messier objects M79 a nice globular and one of the few easily observed in the winter sky.

**Featured Messier object** – Within Orion is the great Orion Nebula M42 the finest emission nebula in the northern sky. My observing comments with my 25 x 100 binocular are as follows. “Almost the entire nebula is spread across the field of view like some great bird or bat with its wings spread out enclosing the central star cluster as its glowing heart. The leading edge appears folded back on its self with that edge pushing another emission nebula "M43" before it as the birds' head and hooked beak ready to strike”. Also within is the star cluster known as “The Trapezium”. A good project is to see how many stars you can observe.

**Other sky objects of interest** – Besides M42 and M43 Orion contains several other objects worth observing. There are several objects on my observing list I have not seen but here are the ones I have observed. Five degrees ESE of Betelgeuse the brightest star in Orion is the open clus-

ter NGC 2186 a cluster of some 15+ stars in two groups. M78 is a small patch of nebulosity surrounding a couple of stars located 2.5 degrees NE of Alnitak. Not an impressive nebula considering the part of the sky. I searched for NGC 2022 a planetary nebula two degrees SE of Meissa the double star at the head of Orion but was never sure I saw it. I have not given up. I have also looked for the dark Horsehead Nebula several times. I can locate the star field but am not sure of the nebula. I am going to try a nebula filter next time. The same goes for NGC 2024 the Flame Nebula in the same field as the Horsehead. Below Lepus and SW of Canis Major is the small constellation of Columba the Dove. It is barely visible in the sky at this latitude but does have a small globular cluster NGC 1851 I have not observed. Canis Major the greater dog contains five objects on my observing list but I have only observed one, M41. Not a lot of stars visible but there are a few red stars. About a dozen bright stars with another dozen more dimmers stars noted. M41 is listed to have up to 80 stars most dim. The brightness of nearby Sirius does interfere to a certain extent.

Bill