

### APRIL 2008 (VOLUME 16, NO. 4) Visit our website at www.ccas.us

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# Important April 2008 Dates

1 Backyard Observing class meets at West Chester University. Class starts at 7:00 p.m. EST. Topic: *Targets of Opportunity.* 

See page 4 for details.

- **4/5 CCAS Observing Session** Location: **Brandywine Valley Association** Time: sunset, or earlier (see page 3 for more details.)
  - 5 New Moon

# 8 CCAS Meeting

Location: West Chester University Room 113, Boucher Building

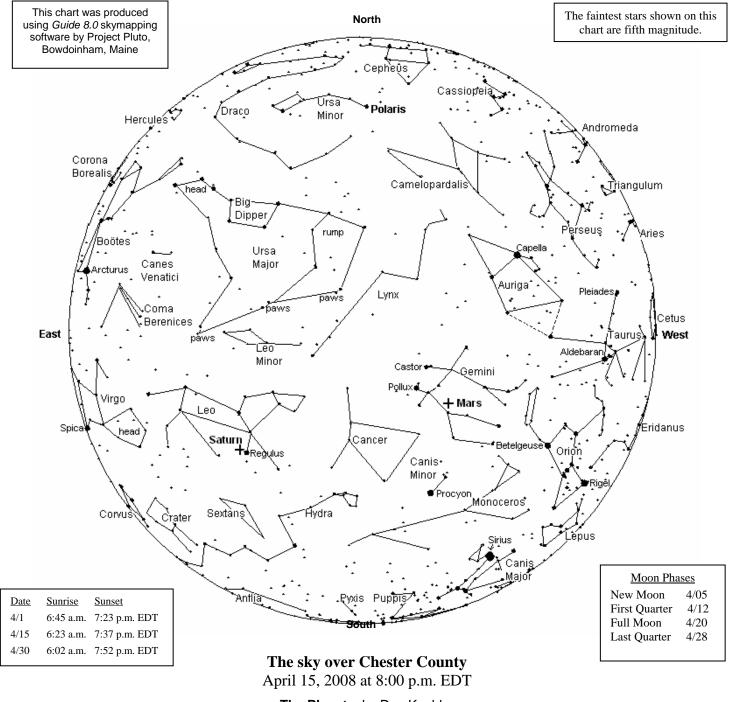
- 7:00 "Cosmic Powerhouses of the Distant Past." (DVD).
- 7:30 Regular Meeting Starts Constellation of the Month: Canis Major Main Presentation: "Members' Night"

See page 3 for more details.

- **12** First Quarter Moon.
- **12 CCAS** Star Party at Anson Nixon Park in Kennett Square. See page 5 for details.
- **15 Backyard Observing class** meets at West Chester University. Class starts at 7:00 p.m. EST. Topic: *Observing Stars*

See page 4 for details.

- 20 Full Moon.
- 22 Lyrid Meteor Shower peaks
- 28 Last Quarter Moon.



#### The Planets, by Don Knabb

**Mercury:** Mercury is behind the sun on the 16th and is not visible until the end of the month when you can look low in the evening sky as the light of the sun fades.

**Venus:** The "Morning Star" sinks toward the sun during April and will soon be lost in the glow of the morning sun.

**Mars:** Although Mars is considerably smaller in a telescope than it was a month or two ago it is still a beautiful naked eye object in the southwest as twilight turns to night. On April 11th around midnight Mars is very close to the Moon. If you want to see the Moon occult Mars that night you will need to take a trip to the Arctic!

**Jupiter:** Bright Jupiter is rising around 1:30 a.m. and remains low in the sky until dawn. It will be a few months until we can enjoy Jupiter at a reasonable hour.

**Saturn:** Saturn is nearly straight up during April evenings so enjoy it while you can – there is nothing else in the sky like the ringed beauty.

**Uranus & Neptune:** The outer gas planets are in the dawn sky but are too low to be observed easily.

**Pluto:** The "ex-planet" Pluto can be found before dawn above Sagittarius if you have steady, clear skies and a really big telescope.

Note: the constellation stick figures used on the chart above were adapted from the book *The Stars: A New Way to See Them*, by H. A. Rey. This excellent guide to learning the constellations can be purchased at many area book stores, or from online booksellers.

## **April Observing Highlights**

by Don Knabb, CCAS Observing Chair

- April 1 7 Watch for the zodiacal light in the west as twilight fades away.
- April 5 New Moon, 11:55 p.m.
- April 8 A thin crescent Moon is near the Pleiades at dusk and occults some of the stars in the cluster. This is a really enjoyable telescopic event. Don't miss seeing the stars of the Pleiades "wink out" as the Moon comes between us and them.
- April 11 The Moon passes very near Mars tonight.
- April 12 First quarter Moon, 2:32 p.m.
- April 20 Full Moon, 6:25 a.m., the Full Pink Moon. This native American name came from the herb moss pink, or wild ground phlox, which is one of the earliest widespread flowers of the spring to bloom.
- April 22 The Lyrid meteor shower peaks.
- April 28 Last quarter Moon, 10:12 a.m.

**Planets:** Saturn and Mars are the planetary highlights of the evening skies during April. If you get up before dawn you can see Venus early in the month low in the east and bright Jupiter in the south.

**Constellations:** Say good-bye to our friend Orion setting in the west as his pal Hercules rises in the east. Bright Arcturus in Bootes is also rising in the east, followed by the lovely Corona Borealis. Leo the Lion is at center stage with bright Saturn under his chest.

**Messier/Deep sky:** April is a good month to go galaxy hunting. Look for M64 in Coma Berenices, M51, M81 and M82 in Ursa Major and M104 near bright Spica in Virgo. Of course, you will need to go hunting on a night without a bright Moon.

**Comets:** Just as in the last few months we had a chance to see Comet 46P/Wirtanen, we can do so again in April if we look for the comet when the Moon is not bright in the sky. In early April the comet is near M36. *Astronomy* magazine has a finder chart for this short period comet. You'll need dark skies and a telescope to see this comet

**Meteor shower:** The Lyrid meteor shower occurs on April 22. Expect up to 20 meteors per hour at the peak of the shower. Unfortunately the Moon is just two days past full which will wash out many of the smaller shooting stars.

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## Welcome!

This month we welcome a new family to the Society: Gaston Baudat and Family of Glenmoore. We're glad you decided to join us under the stars! Clear Skies to you all!

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#### **CCAS April Meeting**

DATE:	Tuesday April 8, 2008
PLACE:	Room 113 – Boucher Building
	West Chester University
LOCATION:	South Church Street
	West Chester, PA
TIME:	7:00 p.m. EDT for Cosmology Class
	7:30 p.m. EDT for regular meeting

A map of the campus is on page 14.

Cosmology Class: Cosmic Powerhouses of the Distant Past

This month's Constellation of the Month (COM) will be **Canis Major**, presented by Jim Anderson.

This month's meeting is **Member's Night:** any member can give a brief talk on any astronomy subject (5-15 minutes long), or share observing experiences. Have you acquired any new gear or books lately? Perhaps you could tell the other members about it, tell us what you think are the good points and the drawbacks.

Also, questions will be taken on any astronomy topic. The members present will try to come up with an answer. Any that cannot be answered at the meeting will be researched later and published in the May newsletter.

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# CCAS Observing Session April 2008

The Observing Session will be on Friday April 4 at the Brandywine Valley Association, starting at sunset, if the weather is good enough. In case of bad weather ("mostly cloudy" qualifies as bad weather for stargazing, even if it's not raining) then we will observe on Saturday April 5 (if the weather cooperates). If the weather is good both nights, we can observe both nights. You can arrive before sunset to set up if you want to. CCAS Observing Sessions are free and open to the public. You can bring friends and family.

If you have any questions write to **observing@ccas.us** or **dknabb00@comcast.net**, or call Don Knabb at **484-888-1831**. Directions to the BVA are on page 13.

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## **CCAS Observing Sessions in 2008**

May 10: Astronomy Day at Hoopes Park in West Chester

June 6/7

July 5 (Saturday only, due to holiday)

August 1/2

September 5/6

October 3/4

November 28/29

December 26/27

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## Treasurer's Report

by Bob Popovich

#### February 2008 Financial Summary

Beginning Balance	\$1,702
Deposits	186
Disbursements	622
Ending Balance	\$1,266

#### Membership Renewals Due

04/2008: Popovich Reynolds Richter Seago 05/2008: Aziz Kutta Long 06/2008: Churchman Hebding Siskind

#### **Membership Renewals**

You can renew your CCAS membership by writing a check payable to "Chester County Astronomical Society" and sending it to our Treasurer:

### Bob Popovich 416 Fairfax Drive Exton, PA 19341-1814

The current dues amounts are listed in the CCAS Information Directory on page 12 in this newsletter.

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### CCAS Backyard Observing Class

The Backyard Observing class is underway, with all seats filled. The remaining four classes will be held on the first and third Tuesdays of each month, starting at 7:00 p.m. and ending at 8:00 p.m. These are the dates on which classes will be held:

April 1 Targets of Opportunity

- April 15 Observing Stars
- May 6 Finding Faint Fuzzies, Part I
- May 20 Finding Faint Fuzzies, Part II

The classes will be held in Room 113 in the Boucher Building at West Chester University. This is the room where we hold our monthly meetings.

If you would like to help, either as an instructor (or perhaps as an instructor's assistant), or with "logistics" (set up, clean up, registration, etc.), please call **Kathy Buczynski at 610-436-0821.** We can always use some extra help.

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#### Astronomy Day Plans for May 10

Planning for the CCAS International Astronomy Day program on Saturday May 10 is well underway. We have teamed up with West Chester's Department of Recreation to host a star party at Hoopes Park in West Chester. The Recreation Department will do advertising of the event, in addition to providing support staff at the park that evening. We will provide the telescopes and program. Try to arrive before sunset, which on May 10 will be about 8:00 p.m. EDT. We will have a variety of handouts for the public. We really need as many members as possible to show up to help: with or without telescopes.

Don Knabb is leading the planning for this event. If you can bring a telescope, let him know ASAP. Also let Don know if you can help with making handouts, or help with "crowd control" on the night of the event (basically just helping direct people to the right places).

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### Steve Leiden Earns Messier Observing Award



At the March Society meeting, President Kathy Buczynski had the pleasure of presenting member Steve Leiden his Messier Award from the Astronomical League. Steve located 70 of the 110 Messier objects, and logged his observations. Congratulations Steve!

The Astronomical League is a nationwide federation of over 300 amateur astronomy clubs; the CCAS is a member Society. One of the benefits of AL membership is the opportunity to pursue one or more of the AL's 27 observing programs. When a member completes the requirements for one of these awards, the AL provides an award certificate and lapel pin. For more information on AL Observing programs, see their website at:

#### http://www.astroleague.org/



## CCAS Star Party at Anson Nixon Park: April 12

On Saturday April 12, 2008 at 7:30 p.m. we will be hosting a star party at Anson B. Nixon Park in Kennett Square.

#### http://www.ansonbnixonpark.org/index.html

The gathering will begin at 7:30 p.m. There will be a first quarter Moon to observe, along with the late winter and spring constellations. Anson B. Nixon Park hosts many community events for southern Chester County residents. Let's try to get out as many CCAS members as possible for this event. You don't need a telescope or binoculars, but bring them if you have them. Don Knabb will bring star charts to hand out to everyone.

A map of the park is on page 12. If you head west into Kennett Square on State Street ("Old Route 1") you will see North Walnut Street heading to the right just as you enter town. Follow that road to the right, bypassing the main park entrance. Go to what is labeled "athletic fields" on the map. Parking spaces and portable toilets are available. Just watch for the "Y" as in YMCA signs on the left as you head north, and turn in to the parking lot on the left.

We held a star party here last September and had a wonderful turnout of perhaps 65 star gazers! Kathy Buczynski wrote an article about the event in the October newsletter. The observing space is a wide open field with an excellent western horizion.

If you have any questions write to <a href="mailto:observing@ccas.us">observing@ccas.us</a> or <a href="mailto:dknabb00@comcast.net">dknabb00@ccas.us</a>

In the event of bad weather a "CCAS members" email will be sent no later than 6:00 p.m. on the day of the event. You can also call Don Knabb at 484 888 1831 for the "go/no-go" decision.

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## **CCAS Lending Library is OPEN**

The Society has an extensive library of books on astronomy and space exploration; we even have an extensive collection of back issues of *Sky & Telescope* magazine. CCAS members can borrow any of these books by contacting our Librarian Linda Lurcott-Fragale at 610-269-1737.

The catalog of the available books is available online at the Scoiety's website, **www.ccas.us**.

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# **CCAS Lending Telescopes**

The Society has several sizes and types of telescopes available for use by CCAS members. We also have some "jumbo" binoculars available. Members can borrow any of these telescopes by contacting our Observing Chair Don Knabb at 610-436-5702. Don can also be reached by e-mail at

#### observing@ccas.us or dknabb00@comcast.net

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## Minutes of CCAS Meeting on March 11, 2008

The regular meeting started at 7:30 following the DVD presentation. 18 members were in attendance.

Steve Leiden was presented with his Messier award certificate – congratulations Steve!

The main program was by Deb Goldader: *Long Nights and the Northern Lights*. This was a multi-media presentation on Deb's December trip to Alaska to see the Northern Lights. Wow!

Constellation of the Month: Orion by Jim Anderson, well done Jim!

Observing: Our next BVA observing session is on April 4/5. On April 12 we are hosting a star party at Anson B. Nixon Park in Kennett Square and on May 10 we are hosting an Astronomy Day star party at Hoopes Park in West Chester.

Website: No report

Finance: No report

Education: The Backyard Observing classes are underway. Great participation so far!

Library: An extensive library of astronomy books is available. The list is posted on the web site.

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### Mason-Dixon Star Party 2008

#### 19th Annual MDSP: July 30 to August 3, 2008

The 19th Annual Mason Dixon Star Party is a fun event for all members of the family. This location offers a large and level camping and observing area with unlimited space for attendees in southern York country, with reasonably dark skies. This event will also bracket a new moon to provide optimal observing.

The Milky Way is easily seen at this site and stars can be seen less than 10 degrees above the horizon!



This is a fun filled Star Party geared for everyone! There will be workshops, speakers, vendors, field trips and raffle prizes for all ages. We also have camping areas, bunk houses, food, showers and facilities, horse shoe pits, sand volley ball courts and a swimming pool too!

For more information and on-line registration see:

## http://masondixonstarparty.org/

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## Cherry Springs Star Party: May 29-June 1, 2008 Black Forest Star Party: Sept. 5-7, 2008

Both of these star parties are held at Cherry Springs State Park in Potter County, Pennsylvania. Cherry Springs State Park is one of the darkest sites in the state of Pennsylvania and has been designated as Pennsylvania's first Dark Sky Park by the PA Department of Conservation and Natural Resources (DCNR). CCAS members who have attended past Star Parties at Cherry Springs have attested to the excellent observing conditions at the Park. The featured speaker at the Cherry Springs Star Party is Al Nagler, world-famous designer of excellent eyepieces and telescopes, and founder of Tele-Vue Optics. Registration for the Cherry Springs Star Party is now open.For more information and on-line registration see:

## http://www.cherrysprings.org/

Registration for the Black Forest Star Party is expected to open during the week of April 14. More information and on-line registration is at:

### http://www.bfsp.org



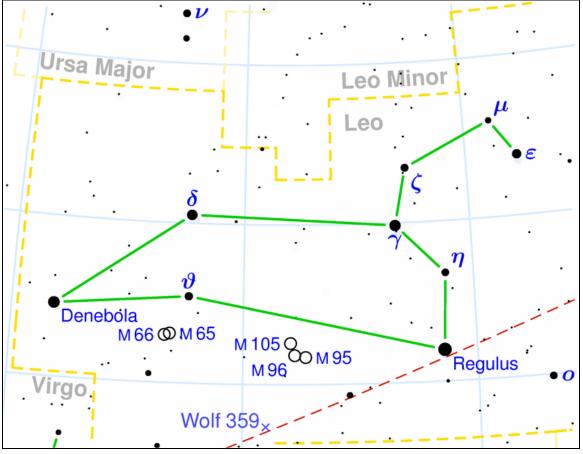
# Through the Eyepiece: The Leo Triplet

by Don Knabb, CCAS Observing Chair

The Leo Triplet, also known as the M66 group, is a small group of galaxies in the constellation Leo. The galaxies are estimated to be about 35 million light years away. The group consists of two Messier objects (M65, M66) along with NGC 3628. All three galaxies are spiral galaxies, similar in structure to our own Milky Way.

One needs a telescope to see this group of galaxies from our Chester County skies, although at a dark sky site you should be able to just pick them out with a pair of large binoculars.

You can use the star chart below to find the Leo Triplet. NGC 3628 is not shown on the chart, but it will be in the same field of view with a low power eyepiece.



Sky map credit: http://en.wikipedia.org/wiki/Image:Leo\_constellation\_map.png

The photo below shows the three galaxies. M65 is at the top right, M66 at the bottom right and NGC 3628 is on the left. They all have a unique appearance because their galactic disks are tilted at different angles to our line of sight.



Photo credit: Rochus Hess, homepage: http://astrofotografie-hess.heim.at/

Further east of the Leo Triplet is a group known as the M96 group. This group contains between 8 and 24 galaxies! With a telescope you should be able to see the three Messier objects shown on the chart, M95, M96 and M105.

Leo and the Leo Triplet(s) are ideally located in the spring sky for evening viewing. Let's put these unique telescopic sights on our list for our next observing session on Friday April 4th at Brandywine Valley Association.

Information sources:

http://www.seds.org/messier/more/m066gr.html



## **Tracking Wildlife From Space**

By Patrick L. Barry

It's 10 o'clock, and do you know where your Oriental Honey Buzzard is?

Tracking the whereabouts of birds and other migrating wildlife across thousands of miles of land, air, and sea is no easy feat. Yet to protect the habitats of endangered species, scientists need to know where these roving animals go during their seasonal travels.

Rather than chasing these animals around the globe, a growing number of scientists are leveraging the bird's-eye view of orbiting satellites to easily monitor animals' movements anywhere.

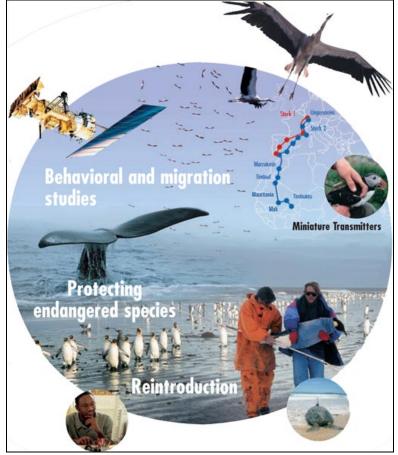
The system piggybacks on weather satellites called Polar Operational Environmental Satellites, which are operated by the National Oceanic and Atmospheric Administration (NOAA), as well as a European satellite called MetOp. Sensors aboard these satellites pick up signals beamed from portable transmitters on the Earth's surface, 850 kilometers below. NOAA began the project—called Argos—in cooperation with NASA and the French space agency (CNES) in 1974. At that time, scientists placed these transmitters primarily on buoys and balloons to study the oceans and atmosphere. As electronics shrank and new satellites' sensors became more sensitive, the transmitters became small and light enough by the 1990s that scientists could mount them safely on animals. Yes, even on birds like the Oriental Honey Buzzard.

"Scientists just never had the capability of doing this before," says Christopher O'Connors, Program Manager for Argos at NOAA.

Today, transmitters weigh as little as 1/20th of a pound and require a fraction of a watt of power. The satellites can detect these feeble signals in part because the transmitters broadcast at frequencies between 401 and 403 MHz, a part of the spectrum reserved for environmental uses. That way there's very little interference from other sources of radio noise.

"Argos is being used more and more for animal tracking," O'Connors says. More than 17,000 transmitters are currently being tracked by Argos, and almost 4,000 of them are on wildlife. "The animal research has been the most interesting area in terms of innovative science."

For example, researchers in Japan used Argos to track endangered Grey-faced Buzzards and Oriental Honey Buzzards for thousands of kilometers along the birds' migrations through Japan and Southeast Asia. Scientists have also mapped the movements of loggerhead sea turtles off the west coast of Africa. Other studies have documented migrations of wood storks, Malaysian elephants, porcupine caribou, right whales, and walruses, to name a few.

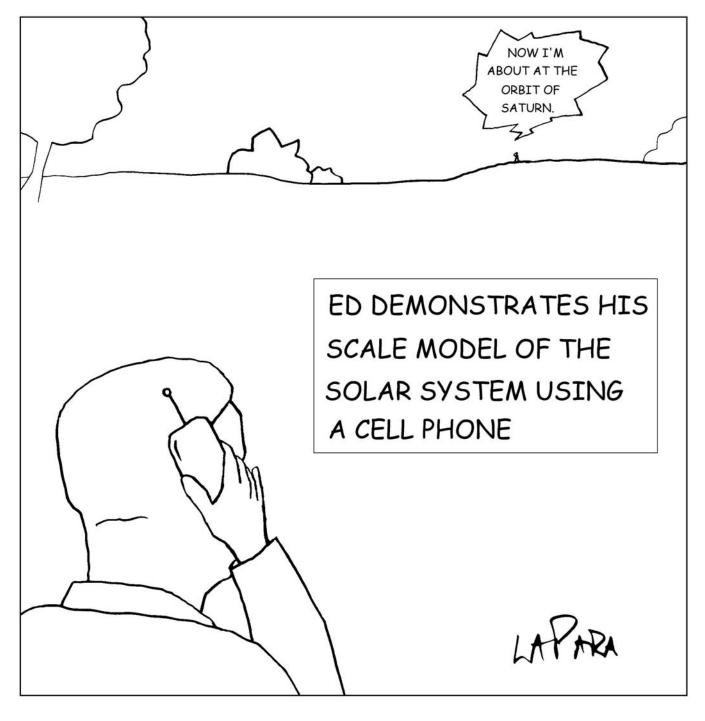


The ARGOS program tracks the whereabouts of endangered migrating animals via miniature transmitters on the animals and the POES satellites in orbit.

Argos data is available online at www.argos-system.org, so every evening, scientists can check the whereabouts of all their herds, schools, and flocks. Kids can learn about some of these endangered species and play a memory game with them at spaceplace.nasa.gov/en/kids/poes\_tracking.

The preceding article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.





Cartoon by Nicholas La Para																
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# **CCAS Information Directory**

## Join the Fight for Dark Skies!

You can help fight light pollution, conserve energy, and save the night sky for everyone to use and enjoy. Join the nonprofit International Dark-Sky Association (IDA) today. Individual memberships start at \$30.00 for one year. Send to:

International Dark-Sky Association 3225 North First Avenue Tucson, AZ 85719

> Telephone: 520-293-3198 Fax: 520-293-3192 E-mail: ida@darksky.org

For more information, including links to helpful information sheets, visit the IDA web site at:

# www.darksky.org

Note that our CCAS Webmaster John Hepler has a link to the IDA home page set up on our Society's home page at www.ccas.us.

## **Dark-Sky Website for PA**

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The Pennsylvania Outdoor Lighting Council has lots of good information on safe, efficient outdoor security lights at their web site:

### www.POLCouncil.org



## **Good Outdoor Lighting Website**

One of the biggest problems we face in trying to reduce light pollution from poorly designed light fixtures is easy access to good ones. When you convince someone, a neighbor or even yourself, to replace bad fixtures, where do you go for good lighting fixtures? Now there is a web site and business intended to address that very problem. At this site you can find information on all kinds of well-designed (that is, star-friendly) outdoor lighting fixtures. This company, Starry Night Lights, intends to make available all star-friendly fixtures they can find, and information on them, in one place. Check it out, and pass this information on to others. Help reclaim the stars! And save energy at the same time!

# http://www.starrynightlights.com/



# Local Astronomy Store: Skies Unlimited

There is an astronomy equipment store called *Skies Unlimited* in our area, in Pottstown to be specific, at:

# Suburbia Shopping Center

52 Glocker Way

#### Pottstown, PA 19465

Telephone: 610-327-3500 or 888-947-2673

## http://www.skiesunlimited.net/



# Another Good Outdoor Lighting Website



# http://www.greenearthlighting.com



## Find out about Lyme Disease!

Anyone who spends much time outdoors, whether you're stargazing, or gardening, or whatever, needs to know about Lyme Disease and how to prevent it. You can learn about it at:

### www.LymePA.org

Take the time to learn about this health threat and how to protect yourself and your family. It is truly "time well spent"!

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### New Astronomy Store Opens in Manayunk

### **Spectrum Scientifics**

## www.spectrum-scientifics.com

# **CCAS Information Directory**

## **CCAS Lending Telescopes**

Contact Kathy Buczynski to make arrangements to borrow one of the Society's lending telescopes. CCAS members can borrow a lending telescope for a month at a time; longer if no one else wants to borrow it after you. Kathy's phone number is 610-436-0821.

## **CCAS Lending Library**

Contact our Librarian, Linda Lurcott Fragale, to make arrangements to borrow one of the books in the CCAS lending library. Copies of the catalog are available at CCAS meetings, and on the CCAS website. Linda's phone number is 610-269-1737.

## Contributing to Observations

Contributions of articles relating to astronomy and space exploration are always welcome. If you have a computer, and an Internet connection, you can attach the file to an e-mail message and send it to

#### stargazer1956@comcast.net

Or mail the contribution, typed or handwritten, to:

Jim Anderson 1249 West Kings Highway Coatesville, PA 19320-1133

### Get CCAS Newsletters via E-mail

You can receive the monthly newsletter (**in full color**!) via e-mail. All you need is a PC or Mac with an Internet e-mail connection. To get more information about how this works, send an e-mail request to Jim Anderson, the newsletter editor, at:

#### stargazer1956@comcast.net

### **CCAS Website**

John Hepler is the Society's Webmaster. You can check our Website at:

# http://www.ccas.us/

John welcomes any additions to the site by Society members. The contributions can be of any astronomy subject or object, or can be related to space exploration. The only requirement is that it is your own work; no copying copyrighted material! Give your contributions to John Hepler (484-266-0699) or e-mail to webmaster@ccas.us

# **CCAS** Purpose

The Chester County Astronomical Society was formed in September 1993, with the cooperation of West Chester University, as a non-profit organization dedicated to the education and enjoyment of astronomy for the general public. The Society holds meetings (with speakers) and observing sessions once a month. Anyone who is interested in astronomy or would like to learn about astronomy is welcome to attend meetings and become a member of the Society. The Society also provides telescopes and expertise for "star nights" for school, scout, and other civic groups.

### **CCAS Executive Committee**

For further information on membership or society activities you may call:

President:	Kathy Buczynski 610-436-0821
Vice Pres:	Jim Anderson 610-857-4751
ALCor and Treasurer:	Bob Popovich 610-363-8242
Secretary:	Don Knabb 610-436-5702
Newsletter:	Jim Anderson 610-857-4751
Librarian:	Linda Lurcott Fragale 610-269-1737
Observing:	Don Knabb 610-436-5702
Education:	Kathy Buczynski 610-436-0821
Webmaster:	John Hepler 484-266-0699
Public Relations:	Deb Goldader



610-304-5303

## **CCAS Membership Information**

The present membership rates are as follows:

<b>REGULAR MEMBER</b>	\$25/year
SENIOR MEMBER	\$10/year
STUDENT MEMBER	\$ 5/year
JUNIOR MEMBER	\$ 5/year
FAMILY MEMBER	\$35/year

#### **Membership Renewals**

Check the Treasurer's Report in each issue of *Observations* to see if it is time to renew. If you need to renew, you can mail your check, made out to "Chester County Astronomical Society," to:

> Bob Popovich 416 Fairfax Drive Exton, PA 19341-1814

Phone: 610-363-8242 e-mail: B2N2@verizon.net

## Sky & Telescope Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$32.95**, much less than the newsstand price of \$66.00, and also cheaper than individual subscriptions (\$42.95)! Buying a subscription this way also gets you a 10% discount on other Sky Publishing merchandise.

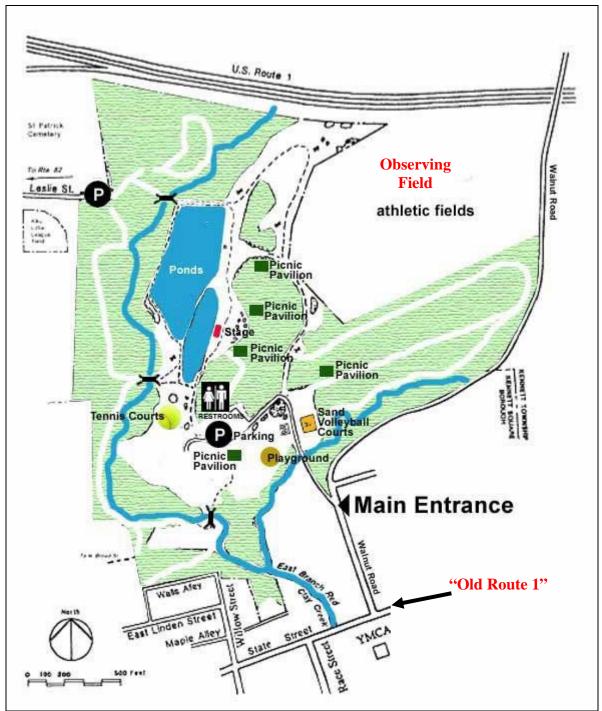
To **start** a **new** subscription, make **sure** you make out the check to the **Chester County Astronomical Society**, note that it's for *Sky & Telescope*, and mail it to Bob Popovich.

To **renew** your "club subscription" contact Sky Publishing directly. Their phone number and address are in the magazine and on their renewal reminders.

If you have **any** questions call Bob first **(610-363-8242).** 

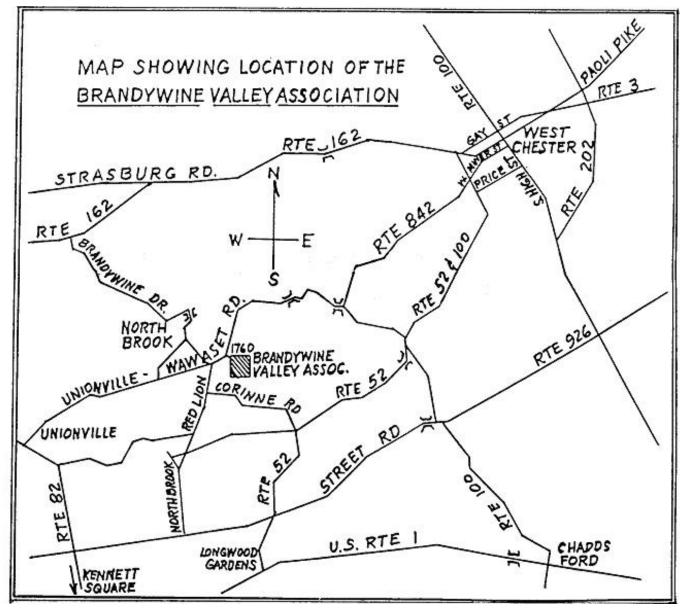
#### Astronomy Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$34.00** which is much less than the individual subscription price of \$42.95 (or \$60.00 for two years). If you want to participate in this special Society discount offer, **contact our Treasurer Bob Popovich.** 

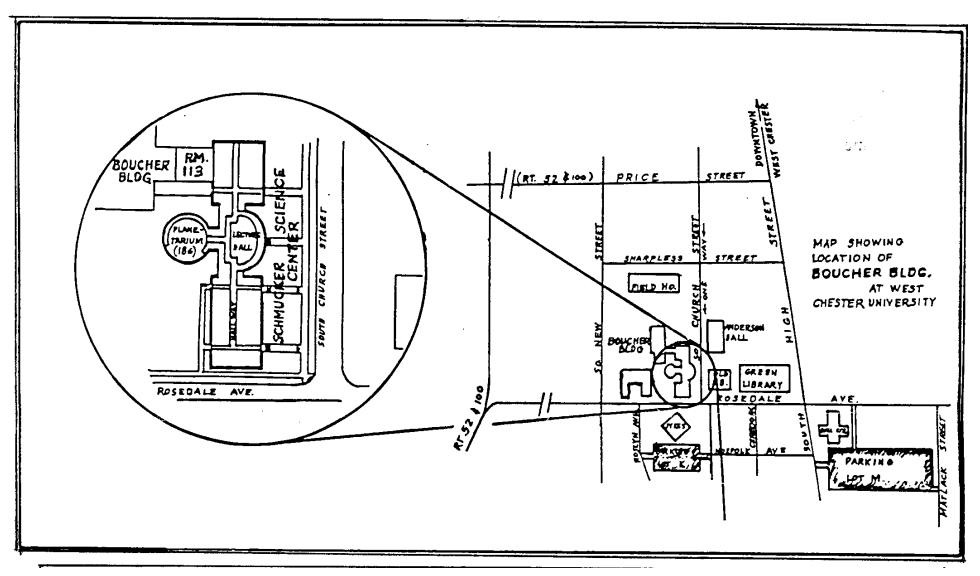


Map of Anson Nixon Park in Kennett Square, PA.

If you head west into Kennett Square on State Street ("Old Route 1") you will see North Walnut Street heading to the right just as you enter town. Follow that road to the right, bypassing the main park entrance. Go to what is labeled "athletic fields" on the map. There is parking space and portable toilets available. Just watch for the "Y" as in YMCA signs on the left as you head north, and turn in to the parking lot on the left.



To get to the Myrick Conservation Center of the Brandywine Valley Association from West Chester, go south on High Street in West Chester past the Courthouse. At the next traffic light, turn right on Miner Street, which is also PA Rt. 842. Follow Rt. 842 for about 6 miles. To get to the observing site at the BVA property, turn off Route 842 into the parking lot by the office: look for the signs to the office along Route 842. From that parking lot, go up the farm lane to the left; it's about 800 feet or so to the top of the hill. If you arrive after dark, please turn off your headlights and just use parking lights as you come up the hill (so you don't ruin other observers' night vision).



Parking is available behind Sykes Student Center on the south side of Rosedale Avenue (Parking Lot K), and behind the Bull Center at the corner of Rosedale Avenue and South High Street (Parking Lot M). If you arrive early enough, you may be able to get an on-street parking space along South Church Street, or along Rosedale Avenue. You can take the Matlack Street exit from Rt. 202 South; Matlack Street is shown on the map at the lower right corner with Rt. 202 off the map. If approaching West Chester from the south, using Rt. 202 North, you would continue straight on South High Street where Rt. 202 branches off to the right. This would bring you onto the map on South High Street near Parking Lot M, also in the lower right corner.