

## **ASTRONOMICAL LEAGUE**

## A FEDERATION OF ASTRONOMICAL SOCIETIES A NON-PROFIT ORGANIZATION

- ★ To promote the science of astronomy:
- ★ By fostering astronomical education;
- ★ By providing incentives for astronomical observation and research;
- ★ By assisting communication among amateur astronomical societies.

## **ASTRO NOTES**

Produced by the Astronomical League

#### **Note 8: Winter Star Watching Project – Pleiades**

This project is undertaken to assist International Dark-Sky Association. IDA, in turn, is cooperating with the Environmental Protection Agency in Japan to determine the extent of light pollution around the world.

Besides getting people to look up at the night sky, there are several purposes behind this program: First is to get measurements of the amount of sky brightness at many locations. Second is to build awareness to a wide audience of the problems of light pollution. Third is to get some measure of air pollution and develop awareness of this issue also.

#### When do we watch?

Any time during the months of February and March. Do it yourself or hold a Star Watching Party during these dates. There is no limitation to who may join, how many participate in any one location or how many such parties are held. Observations are best done on a moonless night, without fog or clouds or more than average amount of haze or smog. The best time is one and a half hours after sunset when the Pleiades is high in the sky.

#### What do we watch?

- 1. The Pleiades, a star cluster in our own galaxy.
- 2. The Milky Way, the unresolved mass of faint stars in our galaxy.

#### How do we watch?

- 1. First, we watch with our naked eye. Can you see the Milky Way in Perseus? In Gemini? In Monoceros? Refer to star maps in Sky & Telescope or Astronomy magazines or such for sky locations. Write down what you see on the data sheet. You are free to make copies.
- 2. Then, count the number of stars you see in the Pleiades, first with your naked eye and then with binoculars. How many stars can you see within the area of the chart. This is not a test of eyesight, but of how faint the average person can see in the sky conditions of your location. Write down what you see on the data sheet. Note the other information that is requested on the data sheet as well.
- 3. For those with cameras and an interest in photography, you can also send in photographic observations. These are the requirements: a 35mm camera with a lens of 50mm focal length and an f/ stop of 4, a color slide film with an ISO 400; one exposure each of 80, 150 and 300 seconds (use a tripod, no guiding is necessary); center the Pleiades in the field; have the film processes by any photo shop that has Kodak standard processing. Send in the slides with your data sheet.

# International Dark-Sky Association - Winter Observing Project Report Form Return completed form to: IDA, Inc., 3225 N. First Avenue, Tucson, AZ 85719-2103.

You can visit their website at www.darksky.org

<u>D</u>	ate:		
Local Time:		to	
Occupation:			
Age:	Sex: M F	Eyesight:	
Address:			
Place of observation (be as spoint, etc. Example: North ed		ifying by street intersections, m 234 Main St, Any town, US):	ileage from known
Comments on the location (E	xample: Only one street	light within 200 yards and it is	shielded by trees):
Comments on sky condition (	————————————— (Examples: Light clouds	to north, some haze but norma	l for this location ):
Comments on sky condition (	Examples. Eight clouds	to north, some haze out norma	r for time focution.).
Experience of observer (Exar	mples: First time I ever 1	ooked up at night. Active amate	eur astronomer.)
Please note if you use averted	l vision:		
cord of the observation:			
	av in: a. Perseus b. Gem	ini c. Monoceros d. Not at all	
2. Binocular specification			
	ec.:		
Make of b	inoculars:		
3. Two charts of the Plei	ades are given below. F	ill in the circle or mark with ar	1 X the stars you can
see with certainty, first w	ith your naked eyes and	then with binoculars.	
4. Number of slides inclu	ided: (Label with	n your name and the exposure!)	I
Cam	nera used:		
Lens:	Fi	lm:	
		ded:	
	1 0 1		