



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 processed 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

Date: _____

Local Time: _____ to _____

Name: _____

Occupation: _____

Age: _____ Sex: M F Eyesight: _____

Address: _____

- Place of observation (be as specific as possible, identifying by street intersections, mileage from known point, etc. Example: North edge of my backyard at 1234 Main St, Any town, US):

- Comments on the location (Example: Only one streetlight within 200 yards and it is shielded by trees):

- Comments on sky condition (Examples: Light clouds to north, some haze but normal for this location.):

- Experience of observer (Examples: First time I ever looked up at night. Active amateur astronomer.)
Please note if you use averted vision: _____

Record of the observation:

1. I can see the Milky Way in: a. Perseus b. Gemini c. Monoceros d. Not at all

2. Binocular specifications (Example: 8 x 50, 7 x 50, or 10 x 70):

spec.: _____

Make of binoculars: _____

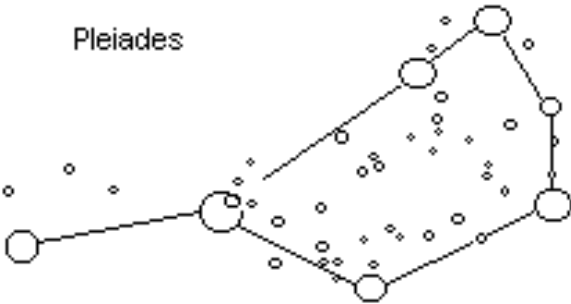
3. Two charts of the Pleiades are given below. Fill in the circle or mark with an X the stars you can see with certainty, first with your naked eyes and then with binoculars.

4. Number of slides included: _____ (Label with your name and the exposure!)

Camera used: _____

Lens: _____ Film: _____

Sign if you permit us to publish the photographs, if needed: _____

Naked Eye	Binocular
<p>Pleiades</p> 	<p>Pleiades</p> 