



ASTROPHOTOS – MEASURING LIGHT POLLUTION

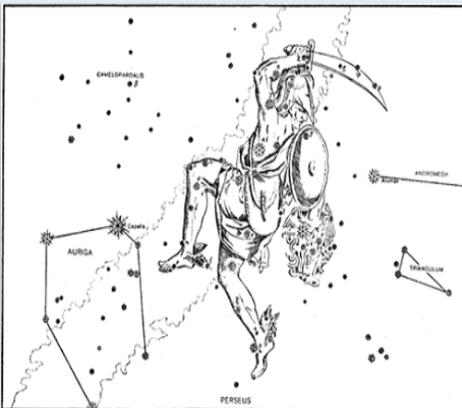
**Help astronomers study light pollution
by taking photos of the sky with your
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ASTROPHOTOS – MEASURING LIGHT POLLUTION

Help astronomers study light pollution by taking photos of the sky with your smartphone.

Thousands of people around the world are studying how city light pollution is robbing us of a view of the starry sky. The Globe at Night program and the International Dark Sky Association coordinate these world-wide observing sessions either by having you use star maps and figuring out the faintest star visible, or using a specially-designed light meter to measure the sky's brightness. A third way is to photograph the sky and use the image data to calculate a sky brightness. Here's how to participate in this research and take some spectacular photos of the starry night sky...while it lasts!

Observations should be taken on a clear night when the Moon is not up and when the Sun has set for at least an hour. Use an app such as Planets (by Dana Peters) to find Orion (winter), Scorpius (summer) or The Big Dipper (anytime) in the sky. If you can see another constellation more easily make a note of its name.



MATERIALS NEEDED

Camera or smartphone with camera, Computer or smartphone with internet access, Aneccdata app.
Optional: Clip-on lens kit

STEP 1

Go to scistarter.org/darksky and sign up for an account, or log in to your existing account. A SciStarter account helps you track your contributions and find relevant projects to participate in.

STEP 2

Click the “Astrophotos - Measuring Light Pollution” icon at scistarter.org/darksky and follow the instructions to download the Aneccdata app and watch a brief video about the project. Tip: To earn credit on SciStarter for your participation in this project, create your account on Aneccdata using the same email address you used to create your SciStarter account.

STEP 3

Point your smartphone in the direction of the constellation you selected and use your ‘camera’ app to take a photo. NOTE: It is recommended to put your camera in manual mode and select an ISO of 800 and an exposure speed of 1 seconds to get a near-naked eye picture but you can also use the 10-second exposure on a tripod to get some really nice pictures of even fainter stars if your camera is good enough!

(Continued on reverse)

STEP 4

Get your camera's 'Exposure time' and 'ISO speed' in the photo. NOTE: If you know your camera's 'Exposure time' and 'ISO speed', you can skip this step. Then, download the photo to your laptop or desktop, and with your mouse, right-click the image file and select 'Properties' and in the window open the 'Details' tab. Write down the information for 'Exposure time' and 'ISO speed.'

STEP 5

Open the Night Sky Light Pollution project under the Anecdota icon on your phone. Tap the camera symbol and select 'Upload from camera roll.' Then, find your image and tap it to upload. Fill in the information about the Exposure time and ISO speed, and click on the appropriate check boxes. Tap 'save' on the upper-right corner of the data page to upload your observation.

QUESTIONS?

Please visit scistarter.org/darksky-faq.

LOOKING FOR MORE?

Please visit scistarter.org/darksky-faq.

PROJECT MATERIALS: CAMERA OR SMARTPHONE WITH CAMERA, COMPUTER OR SMARTPHONE WITH INTERNET ACCESS, ANECDATA APP. OPTIONAL: CLIP-ON LENS KIT

