

# Big Bend Ranch State Park

## Dark Sky Survey



You live in an area with the lowest amount of light pollution in the United States! That means that people living in Presidio and Brewster Counties can see more features in the night sky than most people in the United States. We want to keep it that way and we need your help to protect our night sky.

Did you know that light pollution has a negative impact on human health, crime rates, our ecosystems, and your electric bill? Answer the following questions to learn more about how you can help protect the communities and dark skies where we live in West Texas and Northern Mexico.

<b>Observer's Name:</b>	<b>Grade:</b>	<b>Date:</b>	<b>Time of day:</b>
<b>County:</b>	<b>Street Address:</b>		

What is light pollution?		
Name an example of <i>natural</i> light:		
Name an example of <i>artificial</i> light:		
How many artificial lights can you see from where you live? _____	These lights are (circle all that apply): house lights      street lights      decorative lights      other	Are the artificial lights facing directly to the ground? Yes      No
Is there any light "escaping," or glowing, above the lamp post or light bulb? Yes      No	Do any of your neighbors' lights emit (leak) light into your yard or windows? Yes      No	
Circle all of the following that are present where you live:      Trees      Shrubs      Grasses      Rocks      Bare Soil		

### Survey Key

<b>Artificial Light</b>	Artificial light is light produced by electric lamps. Examples include light produced by street lamps, neon signs on buildings, decorative string lights, or car headlights.		
<b>Light Pollution</b>	Light pollution is defined as brightening of the night sky caused by streetlights and other man-made sources of artificial light. Light pollution has a negative effect on natural cycles and inhibits the observation of stars and planets.		
<b>Animal</b>	For the purpose of this survey, "animal" applies to birds, insects, reptiles, amphibians, and mammals.		
Tree	Shrub	Grass	Rock    Bare Soil

**Observation Exercise: Sit in your yard quietly for 15 minutes, listening and watching.  
Based on your observations, answer the following questions.**

How many animals did you hear?	What types of animals did you hear?
How many animals did you see?	What types of animals did you see?
If you did not see or hear any animals, why do you think this is?	
Did you notice any animals near the lights in your yard?	If so, what kind of animals were near the light?
Did you notice any animals avoiding the lights in your yard?	If so, what kind of animals avoided the light?
How do you think animals use the lights in your yard? How do animals use natural light?	
Insects are drawn to the lights in your yard. Sometimes large groups of insects can attract bats and birds. Why do bats and birds follow insects?	
Animals use various stages of the lunar (moon) cycle to their advantage in hunting, migratory, and mating strategies. Name the current moon phase:	Sketch a small picture of the current moon phase.
Animals, such as song birds and dung beetles, also use constellations and the light of the milky way to guide their migration routes. Name one constellation you can see from where you live.	Sketch a constellation that you can see.
Based on the questions in this survey, do you think the lights in your yard have an anthropogenic (human-caused) impact on ecosystems?	
What is one action you could take to decrease light pollution where you live?	

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