

Protecting My Wildlife Friends at Night

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I live here in this house. This is my family. We live on the coast of Australia and also next to a small forest. Many animals live around the house. My parents tell me that some of them are endangered. That means they need help! I can't always see the animals, but I know they are there.



In the ocean, there are many turtles. They come on the sand to lay their eggs. In the forest there are bugs. My favorite are the fireflies because they glow in the dark. In the sky, birds fly around. I like to look out of the window to watch what the animals are doing. During the day they are all having fun! And I am having fun too!

Now it is night time. The moon is bright in the sky. We turn on the lights so we can see. There are also lamps along the path outside. The ocean and forest are clearly visible with so many lights during the night. I am tired, but I still look out the window to see what is happening.



But something weird is happening.
I think something is wrong.

The baby sea turtles hatched from the eggs and are coming out of the sand. But some of them are going the wrong way. They are coming towards the house instead of going to the ocean.

Don't come this way to my home! Your home is in the water!



Turtle families live in the ocean. It will be terrible if the baby turtles get lost and can't return to their parents! How can I help them?

I yell at them and point to the sparkling horizon, "Look at the ocean! Your family is there!"

But they won't turn around.

I look around more and see the forest. The trees look lonely tonight. Normally there are so many fireflies flashing together in beautiful patterns. Today there are only a few and they look lost. I wonder where all of the fireflies went? Just yesterday it looked like a firework show!



I shine my flashlight into the trees in the hopes that the bugs will want to come out.

Come out! Don't leave your friends all alone!

But that is not working either.

Now I look up
and there is
even more
trouble! The
birds should
be sleeping
because it is
night time but
they are still
flying around.
Some other
birds are
gathering in the
trees close to
the lights. I
hear the
beautiful songs
of the birds,
the same ones
they sing in the
mornings.



I hum the
lullaby my mom
sings for me
when I don't
feel tired but
the bird's eyes
are still wide
open. The
flying birds are
still soaring
above.

Frowning, I give
the birds
advice: "Count
some sheep!"

None of my ideas worked for the animals outside that need help. I go back into the house to find my parents. Maybe they know more about what is going on!

My mom looks up from the book she is reading. "What's wrong?" she asks.

"Something is wrong outside! The baby turtles hatched but they're coming towards the house instead of the ocean where the turtle families live. Most of the fireflies are gone, and the birds are not going to sleep."



My mom nods, "You're right, that's unusual behavior. What have you tried to do to help them?"

"I yelled at the turtles to turn around, I shined a light at the fireflies, and I sang a song to the birds. None of them worked!"

Together we searched up information about these beautiful animals and here is what I learned!

Baby turtles use the reflection of the moonlight on the ocean's surface to lead them home. So they are mistaking the lights from the house for the right direction.



Fireflies communicate using their flashing lights. If it is too bright at night they have a difficult time talking to each other.

Birds use the light to tell them what time of day it is. If birds see bright lights at night they will go there and might tire themselves out because they should be resting.

The best way to help these animals is to turn off lights that you don't need!



My family turned off the lights outside and blocked light from inside the house going outside. As I closed the curtains, I could see the turtles stopping and the birds landing on the trees.

Tomorrow my family will put better covers on the pathway lights to prevent the lights from disturbing the animals.

I'm so happy that we figured out how to help the animals near our home!

Afterword

Protecting My Wildlife Friends at Night was created in partnership by students in the "Collection and Analysis of Skyglow Data" research summer class at Carnegie Mellon University. The class aims to raise awareness of the adverse effects of artificial light at night (ALAN).

Many outdoor lighting installations are brighter than necessary, not properly shielded, and inefficient. This leads to unintentional damages to wildlife that use light patterns for circadian rhythm. We're still constantly learning about how artificial light, especially in the blue-light spectrum, affects plants, animals, and humans!

Additional information about light pollution and the effects on wildlife can be found on the International Dark-Sky Association (IDA) website, darksky.org