

ANIMALS AND LIGHT POLLUTION

Animals and plants live their lives by a rhythm, which fits in to our planet's 24 hour rotation. (We all know that it takes the Earth 24 hours to spin on its axis, so that gives us a 24 hour day.) This is a trait that has evolved over many years, and is passed on in the genes from one generation to the next.

We often notice a change to our circadian rhythm when we fly back from our holidays over a number of time zones. We are sleepy during the day or wide awake at night. We feel lazy and really off! We call it jet-lag.



Wildlife finds it the same if there is too much artificial light at night. Some behaviour can be altered. Breeding behaviour, migration, sleep and finding the daytime and night time. When there is too much light pollution, it disrupts these natural processes.

Mammals: The bright lights from towns and cities can cause nocturnal mammals to lose their night time



and cities can cause nocturnal ecosystem.

Animals like badgers and bats can see a fall in reproduction, which leads to a smaller population. They can have difficulty foraging for food because of the light. They can become more exposed to predators that can see them better. Their night vision can be damaged, so that they *don't* see as well, which can lead to accidents.



Birds: Many species of birds hunt or even migrate at night. They are very vulnerable to bright lights in areas that would be naturally dark. Birds are often drawn to light sources, sometimes with terrible consequences.

Many birds die in collisions with lit buildings and towers.

Once in the light, they often don't want to go back to the dark. They will continue to fly in a light beam until they are exhausted or are caught by predators.



Migrating birds can wander off course and never reach their proper destinations.

Sea birds often collide with lighthouses, wind turbines and drilling rigs out at sea.

Amphibians: The haze from the flow in the sky passes beyond the towns and cities. It spreads for miles into the wetlands, where amphibians live. The amphibians become confused and lost.

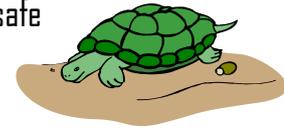
They don't breed as well, so populations fall.

They have problems foraging, so lose body weight.

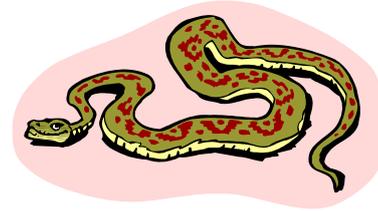
They become confused in their natural instincts, so are not as protected from predators and the weather.



Reptiles: Reptiles suffer a lot from light pollution. Female turtles like to nest on dark beaches. Lights from coastal towns interfere with their ability to navigate and find safe beaches. Turtle hatchlings crawl towards the safety of the ocean because it reflects the moon and stars. But artificial town lights confuse them, and they crawl towards the towns and the busy roads.



Reptiles also lose their appetite and lose weight. There is a decrease in breeding, so populations fall. They are more vulnerable to predators.



Insects: Moths and other insects are attracted to light. They move toward artificial light, and might stay there all night.



This means that they use too much energy and it interferes with breeding, so populations fall. It makes them easy prey for bats and other predators. It affects all species who rely on insects for food, or for pollination.



So, what can we do? Things *you* could do include:

- Shielding your outdoor lights.
- Only using the lights when you need to.
- Use dimmers and timers.
- Turn off all lights whenever you can.
- Use only the amount of light you need to get a job done safely.
- Use long-wavelength light, with a red or yellow tint, to minimise the impact on wildlife.

With thanks to:

www.darksky.org

Remember: a shielded light uses less energy (wattage) and saves money, and the climate. **Why not ask your local council and the government what they can do to keep the skies dark.** We will all save money and help the wildlife around us.

The IDA The International Dark-Sky Association is an educational organisation that seeks to preserve the natural night skies around the world. Light pollution is an increasing problem threatening astronomical facilities, sensitive habitats, all wildlife, our energy use and our climate.

The worst problems are:

- Urban sky glow: the brightening of the night sky over towns and cities.
- Light trespass: light that falls where it is not wanted or needed.
- Glare: excessive brightness that causes discomfort. It can reduce visibility for drivers.
- Clutter: bright, confusing lights, often in urban areas. It contributes to all of the above.

Discuss this with your group. What can you do to help?

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