## **Bright light at night**

Lucas Tatek from the Great Ouse Valley Trust explains how illumination can harm our wildlife and even affect us!

Until very recently, our world moved between darkness and light naturally, a timeless rhythm dictated by the rotation of the Earth around the Sun. The Sun set, and there was darkness, with the moon, stars and the breathtaking Milky Way. Now, artificial light plunges much of our planet into perpetual daylight, clearly visible from space, as human ingenuity rapidly transforms our planet for our benefit.

Or so we thought. Evidence shows that our reliance on artificial light has harmful impacts not only on our energy usage, but also on the health of the planet and even ourselves.

All living organisms have evolved to rely on the natural rhythm of night and day. Insects, birds, amphibians, plants and mammals all have critical activities such as feeding, reproduction, sleep and predator avoidance, which are drastically impacted by artificial light. Birds that migrate by night can get lost, confused by city lights. And remember the David Attenborough episode with the newly hatched sea turtles being run over in their thousands as they mistake bright city lights for the dawn over the ocean? Heart-breaking.

Nocturnal insects are attracted to bright lights, which affects their ability to feed, reproduce or escape predators. As we now belatedly realise, insect populations are currently in free-fall around the world. They are at the base of the food chain, and so affect every other species above them - amphibians, birds, mammals, and ultimately, us humans and our own food production.



And let's consider the impact on our own health from artificial light. We also evolved to the rhythms of night and day. Artificial light at night suppresses melatonin which is essential for our immune system, thyroid and pancreas. This

increases the risk of sleep disorders, stress, depression, obesity, diabetes and some cancers.

Thankfully, unlike some other man-made mistakes, light pollution is reversible. The Great Ouse Valley Trust is liaising with third parties to reduce the impacts of light pollution around the river, green spaces and nature reserves. This is something we all can and should do: limit the number of lights and reduce the brightness to the minimum required; reduce their height; use effective shielding to direct light only where it's needed; and prevent leakage and glare. Turn them off when they are not needed. You will save money and energy, improve your health, and - most importantly - protect our precious ecosystems!

The Great Ouse Valley Trust promotes for public benefit the conservation, restoration and enjoyment of the landscape, wildlife and heritage of the Great Ouse Valley and environs in the county of Cambridgeshire. For more information about the Trust please visit www.greatousevalleytrust.org.uk

