

# Light Pollution: A Nightmare for Wildlife

– Mrityika Das, B.Sc., 3<sup>rd</sup> Year

The year was 2010, the current was off, a nine-year-old was running in her terrace chasing fireflies. Fast-forwarding ten years it was 2020, Cyclone Amphan had just devastated Kolkata, there is no supply of electricity for 4 days. The nine-year-old is nineteen now, still full of wonder as she was before. However, this time there are no fireflies to chase.

So, what exactly happened this past decade which has led to this? Before we answer this question let us look at a few more peculiar changes around us.

We have always known that owls and



bats are nocturnal animals (i.e., they are active at night) while some others like sparrows and crows are diurnal (i.e., they are active during the day). But in recent years it is seen that



crows, house-sparrows are active even during night-time hours. This not only disrupts their own biological clock but also affects other nocturnal animals and the predator-prey relationships.

These particular changes have largely resulted from what we call “light pollution”. Living in 2021 we cannot fathom a day without using artificial lights. But have we ever pondered just exactly how much it affects the wildlife around us? Let me answer that for you - we haven’t.

We have forgotten the importance of night-time environment and moonlight.

The glare of artificial light significantly affects photosynthesis and growth in trees and plants. Exposure to light during night affects flowering and adjustment of trees to seasonal changes. Night flowers like jasmine, tuberose do not bloom due to



the presence of harsh lights at night.

Moonlight is an essential component for the sustenance of marine life – from corals to sea turtles many marine organisms are influenced by moonlight. Coastline illumination has posed a serious threat to such organisms in the shallow seas because it masks the moonlight and disrupts their biological clocks.

With the recent discovery of almost all small rodents and carnivores, 80% of marsupials, and 20% of primates being nocturnal, light pollution if left unchecked will pose a very serious threat to the functioning of various

ecosystems around us.

The most alarming thing about light pollution is that over-illumination resulting in sky glow affects areas which may actually be far away from the brightly lit place. For e.g.: National Parks and Wildlife Sanctuaries also receive the glow of artificial light that are present in nearby cities.

In India New Delhi, Kolkata and Bengaluru have been ranked the three most light polluted cities. At **Convention on Migratory Species of Wild Animals thirteenth meeting of the Conference of Parties (CMS COP13)** in 2020 the topic of light pollution was considered for the first time.

It is now more important than ever to develop wildlife friendly, sustainable modes of lighting. Building cities and towns with proper planning is the need of the hour. Not much is in our hands but what matters is that we are aware of exactly how we are continuously harming our nature and environment.