

Electric light has revolutionized human society, but it has also brought us health risks, endangering species and natural ecosystems, even far from big cities.

! Birds such as Cory's Shearwaters are dazzled by lights, falling to the ground. Even if the fall is not fatal, they may be injured, become vulnerable to predators or risk being run over. **It is estimated that every year 1100 birds die due to light pollution** in Macaronesia (Madeira, Azores and Canary Islands).

! Bats such as the Madeira Pipistrelle are adapted to hunting at night and avoid brightly lit areas. **When the insects they feed on are attracted by light pollution, bats are left with no food.** On the other hand, when artificial light sources are placed next to their dormitories, this "continuous day" can prevent them from going out to feed, so they eventually starve.

! The African Death's-head hawkmoth and other nocturnal insects are attracted to artificial lights, which compromise their sense of orientation, making them more vulnerable to predators. **Thus, light pollution can have a devastating effect on the 170 species of nocturnal butterflies in Macaronesia**, with consequences that echo through ecosystems, from the plants these insects pollinate to the animals that feed on them.



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# For a night full of life

REDUCE LIGHT POLLUTION  
IN MADEIRA, AZORES  
AND CANARY ISLANDS

# The dark side of the light

! **99% of people in Europe and the US live under night skies that are brighter than they would naturally be.** This continuous exposure to light leads to problems such as sleep deprivation, fatigue, headaches, stress and anxiety. There is also evidence that, by reducing the production of the hormone melatonin, light pollution can increase the risk of cancers such as breast cancer and prostate cancer.

! Our wallet also suffers from lamps that emanate light in all directions instead of directing it to where it is needed (for example on sidewalks or roads), lights that are switched on unnecessarily (for example in buildings) and inefficient lighting: according to estimates, in Madeira, the Azores and the Canary Islands, **bad practices in public lighting waste 92 million euros of public funds every year.**

! Electricity wasted on inadequate or **unnecessary lighting releases tons of CO<sub>2</sub> into the atmosphere**, contributing to climate change.





"Near cities, cloud skies are now hundreds of times brighter than they were 200 years ago. We are only beginning to learn what a drastic effect this has had on nocturnal ecology."

Crystopher Kyba  
LIGHT POLLUTION  
RESEARCH SCIENTIST

## Pioneering actions

In Madeira, the Azores and the Canary Islands, we are pioneers in reducing light pollution and mitigating its impacts.



**To implement more efficient, targeted and selective public lighting,** we work with municipalities and regional governments, bringing light pollution to the agenda and contributing to the preparation of Lighting Master Plans and other municipal regulations, as well as regional legislation. We want these pioneering initiatives to serve as an example for other regions and countries.

**To identify sensitive areas where it is urgent to reduce light pollution,** we measure and map light pollution in these archipelagos and study its impact on birds, insects, bats and other unique nature on these islands.

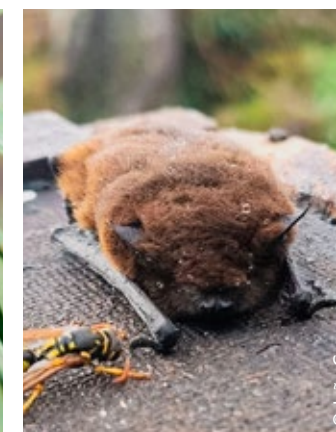
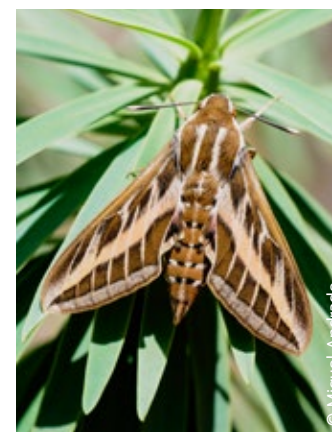
**To develop and implement innovative technologies,** we join forces with lighting companies and local authorities. Together, we look for solutions that enable, for example, to reduce the power of lighting in low-traffic areas or after peak hours in our streets, public spaces, and monuments.

**And, to ensure that solutions are compatible with people's lives,** we consult the population and work closely with fishermen, hotel and tourism companies, and local communities.



"Light pollution is not just a problem for astronomers, it affects all living organisms that depend on the natural cycles of light and dark."

John Barentine  
ASTRONOMER



## How to help

With small gestures and simple choices, we can bring more life back to the night:

### Use warm colored LED bulbs



Avoid white light, in addition to saving energy, you enjoy a light that is more comfortable for the eyes and that does not spread too much glare at night, affecting other living beings.

### Turn off lights when they're not needed



Beyond the simple act of flipping the switch, you can turn to technology: timers, motion detectors and dimmers can help you save electricity, sleep better, and care for the planet.

### Support well-planned street lighting



Well-planned cities are cities with ordered streetlights, whose lights are directed at the floor or which have shields that prevent light being emitted into the atmosphere. Support the implementation of these measures by participating in public consultations and taking an active voice as a citizen.

### Help save seabirds



Volunteer in campaigns to rescue stranded birds in Madeira and the Azores, helping to look for, care for and return these birds to the sea. You can also contribute to the work of rescuing birds and reducing light pollution by making a donation.

FIND OUT MORE AT:  
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