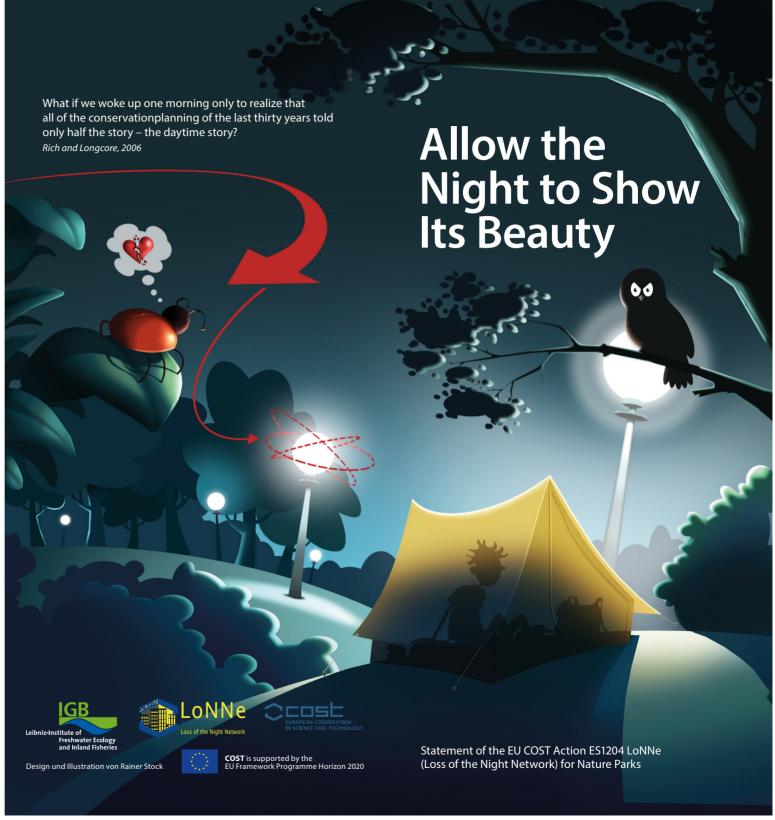


Light pollution is an increasing problem in protected areas worldwide. It is excessive, poorly directed or unnecessary artificial light at night, which:

- · wastes energy and money,
- affects the natural day-night / light-dark cycle under which all species and ecosystems have evolved,
- endangers night time habitats and disrupts biological (e.g. circadian and seasonal) rhythms of both diurnal and nocturnal species,
- destroys the natural darkness of nocturnal landscapes ("nightscapes") and obscures the view of the star-filled sky, disorients insects and other animals, thereby reducing ecosystem services,
- affects human well-being and health through its association with e.g. insomnia, obesity, metabolic disorder and hormonal cancers,
- potentially decreases safety due to glare,
- causes annoyance and reduces privacy by obtrusive light.

With this flyer we offer practical recommendations to avoid most common mistakes in lighting at night.

Find the full statement and more information at: www.cost-lonne.eu



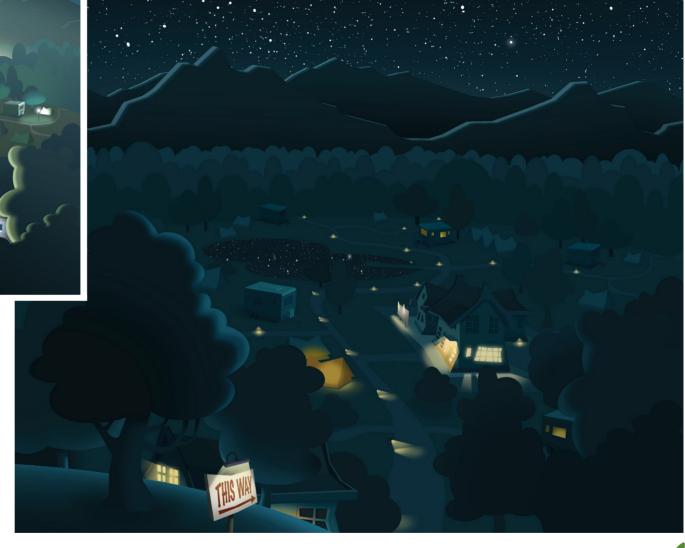








- Light must be directed carefully, so that it only shines on the target to be illuminated (especially traffic areas).
- 2 Light sources shall not be visible at large distances in any direction beyond the target area, which means that additional shielding is necessary in some cases (for example on slopes).
- No light may be emitted directly towards the sky. Ground-recessed floodlights and searchlights must therefore not be used, and any illumination of signs must be directed from top to bottom.
- Choose low overall brightness level and apply it uniformly. The human eye is capable of adapting to low levels of light, if it is not disturbed by bright light sources.



Avoid "cold white" light in wavelengths shorter than 500 nm, or with a correlated colour temperature (cct) of more than 3000 K. Prefer even cct of 2000 K or less (like sodium vapour lamps, narrowband amber or pc amber LEDs).

