

WCC-2020-Res-124-EN

Taking action to reduce light pollution

NOTING that artificial night lighting has expanded considerably worldwide generating light pollution that continues to increase by an estimated 2 to 6 % per year, and reducing darkness everywhere including in protected areas;

NOTING that the impacts of artificial light at night affect many biological groups, both flora and fauna, vertebrate and non-vertebrate, and affect the functioning of ecosystems and the free services that they provide to human societies, including pollination;

RECALLING that a large proportion of animals live partially or exclusively at night and a daily period of darkness is essential for all living organisms to alternate periods of rest and activity;

RECOGNISING that the outdoor lighting alters the chronobiology of living organisms and their synchronisation with their environment, in animals and plants, for example for trees by delaying the fall of leaves;

RECOGNISING that artificial lighting disrupts the orientation of many animal species with severe adverse effects (marine turtles, migrating birds, etc.) and reduces the quality of habitats and connectivity within landscapes, with consequences for the viability of populations;

RECOGNISING that artificial lighting affects trophic relationships between species, increasing foraging time available for diurnal species while diminishing it for nocturnal ones and reducing the cover of darkness for both predators and prey;

NOTING that artificial light obscures the anti-predator, luring and courtship signals of diverse bioluminescent organisms including fireflies and glow-worms;

RECOGNISING that the impacts of light wavelengths on biological groups are very diverse (e.g. orientation, growth, phototaxis, circadian clock, activity modification) and that a biological group can be affected by several types of impact;

RECOGNISING that some wavelengths have more impact on biological groups than others;

NOTING that the outdoor lighting fleet is now either gradually being replaced or newly installed using light-emitting diode (LED) technologies that can lead to an increase in lamp intensity and a significant proportion of blue in their light spectrum that presents a risk for living organisms and increases sky glows, and that finally often results in an increase in the intensity of light together with the energy savings they provide;

RECOGNISING that awareness of light pollution is still low among most states, local authorities and private actors;

ACKNOWLEDGING that the purpose of some lighting is to protect human life, as well as property;

NOTING the importance of urban development and the number of places lit at night with no purpose and their contribution to energy waste and then to climate change; and

NOTING that a volume on dark skies and nature conservation in the IUCN Best Practice Protected Area Guidelines Series is being prepared by the Dark Skies Advisory Group of the Urban Conservation Strategies Specialist Group of the World Commission on Protected Areas;

The IUCN World Conservation Congress 2020, at its session in Marseille, France:

1. CALLS ON the Director General to assist efforts of Members and Commissions to reduce light pollution;

2. RECALLS that it is everyone's duty to ensure the protection of the nocturnal environment;
3. CALLS ON all IUCN Members and agencies that manage land and water areas to develop, disseminate and implement engagement, education and outreach programmes to explain the harmful impacts of light pollution, the benefits of preserving natural darkness, and methods to reduce light pollution, with such programmes being directed at all appropriate stakeholders, including but not limited to, visitors, users, private and corporate residents;
4. ENCOURAGES authorities in charge of the planning and management of outdoor lighting to examine the utility of existing lighting and then i) to remove the unnecessary light points (i.e. those not necessary to ensure the safety of humans or property) and ii) to adapt the remaining lighting as closely as possible to the needs, incorporating several options:
 - a. defining the useful illumination level, so as not to risk over-lightning, which may cause biodiversity perturbations;
 - b. reducing the lighting time at night, in particular by switching off in the middle of the night;
 - c. avoiding upward lighting by choosing a fixture with the light fully shielded and ground-level downward-directed;
 - d. avoiding any illumination of a natural environment (unless safety is at stake);
 - e. limiting the risk of glare for nocturnal species avoiding outdoor lights that exceed international agreed standards; and
 - f. choosing wavelengths that have the least impact on terrestrial species according to the knowledge, which indicates to this day to favour amber lights with little blue;
5. RECOMMENDS that natural environments should not be illuminated in order to reduce or avoid pollution, unless safety is at stake;
6. RECOMMENDS that authorities identify, preserve and restore naturally dark infrastructure (i.e. ecological networks formed by cores linked by corridors which are both characterised by a natural level and periodicity of night-time darkness) to facilitate the functioning of healthy, species-rich nocturnal environments;
7. RECOMMENDS that agencies funding research support research and evidence synthesis on the effects of artificial night lighting on species and that research organisations and universities set up corresponding research programmes; and
8. RECOMMENDS that agencies raise awareness by collaborating with states, local authorities and private actors on educational programmes that address the effects of artificial night lighting and measures to reduce light pollution.