CMS Technical Workshop on Light Pollution

Draft Agenda

Session One – 29 March 2022 7am-10am BST (https://dateful.com/eventlink/4708120603)

- Introductions (aims of the workshop, further explanations and practical aspects)
- CMS and light pollution – an overview from the CMS Secretariat
- CMS and World Migratory Bird Day (WMBD) – an introduction from the CMS Secretariat
- Keynote presentation – **'Light Pollution and Wildlife'** – **Professor Travis Longcore**, Institute of the Environment and Sustainability, University of California Los Angeles
- Review of guidelines providing generic advice on reducing the impacts of light pollution on wildlife (see key questions below)
- Any general observations from participants
- Development of other recommendations, including advice to WMBD

Session Two – 30 March 2022 8pm-11pm BST (https://dateful.com/eventlink/1472829362)

- Keynote presentation – **'Birds and Light Pollution'** – **Dr Barbara Helm**, Swiss Ornithological Institute and University of Glasgow
- **'Insights from the lighting industry'** – **Dr Maurice Donners**, Signify
- Review of guidelines to reduce the impacts of light pollution on migratory birds (see key questions below)
- Any general observations on issues discussed to this point
- Further consideration of WMBD
- Further development of other recommendations

Session Three – 31 March 2022 5pm – 8pm BST (https://dateful.com/eventlink/1170920233)

- Keynote presentation – **'Diversity and conservation of bats'** – **Dr Rodrigo Medellín**, Instituto de Ecología, National Autonomous University of Mexico
- Keynote presentation – **'Bats and Light Pollution'** – **Professor Danilo Russo**, Wildlife Research Unit, Università delgi Studi di Napoli Federico II
- Keynote presentation – **'Developing guidelines for bats'** – **Dr Christian Voigt**, Leibniz Institute for Zoo and Wildlife Research
- Any general observations
- Review of guidelines to reduce the impacts of light pollution on bats (see key questions below)
- Further development and conclusion of other recommendations, including advice related to WMBD

ANNEX ONE – Key questions for workshop

Some questions to be investigated during the workshop – other suggestions are welcomed.

1. **ALL GUIDELINES**

Determine when to use the terms "light pollution" and "artificial light at night."

Can we say that light pollution has an impact at the level of the ecosystem?

To what extent is light pollution an issue for the marine environment?

2. **GENERIC GUIDELINES**

Can we recommend types of lights to use / avoid? LEDs, HPS, LPS, metal halide etc.

When recommending the use of low light levels / intensity, should we seek to specify lumen limits? If so, should we specify lumen levels for different light locations? Do we want to include specific lumen levels for light spill?

Do we want to specify different CCTs (correlated colour temperatures) for different situations/locations/taxa?

What is the relative importance of colour versus intensity?

Regarding some lighting, for example street lighting, there are some very specific recommendations available, such as distance between lights and levels of light. Do we want to include these kinds of specific recommendations, or should we keep the recommendations at a more general level?

Should we add more details regarding floodlight specifications?

Should we recommend dimming controls for street lighting? What further details should we include in the guidelines regarding this?

3. **MIGRATORY BIRD GUIDELINES**

Can we clarify the mechanisms by which birds are attracted to light in cities? Skyglow v lights from individual windows? This will help give specific recommendations for stakeholders about how to protect birds.

Input and clarification is required regarding different light colours/wavelengths/intensity

Can we recommend particular types of lamps to use or not use? Are these recommendations the same as the generic ones?

Regarding light intensity – are the recommendations for birds the same as the generic recommendations or can we be more specific?

Timing of lighting - are the first few hours of darkness critical?

Can we recommend something about dimming of lights to help migratory birds? (For bats, there is a specific recommendation about the use of dimmable streetlights in certain areas.)

Can we compensate for artificial light at night for birds? For bats, for example, we can compensate by making sure that there is dark, connected habitat available.

Should the guidelines include more details about glass and reflections? What is the relationship between light pollution and glass and other reflective surfaces? Does this need more consideration in the guidelines?

4. BAT GUIDELINES

Can we recommend light colours/intensity for bats? How dependent is this on species, habitat and time of year (for example, if bats are migrating or not)?

Does the diversity of bats mean that more than one set of guidelines needs to be developed for them?

What specific things need monitoring? What further research needs to take place (for example more research regarding how artificial light impacts fruit eating/ nectar eating bats)?

Are glass and reflective surfaces an issue for bats as they are for birds?

GLOSSARY

A glossary of technical terms used in the guidelines needs to be fully developed and contributions to this are welcomed.