

# Protecting the Night

**A**rtificial light at night can have a negative effect on both plants and animals. Here we look at some of the disruptions to nighttime behaviors. To read about how optics can help reduce light pollution, see "25 Years of Dark Skies" (p. 46).

## Pollinators

Many plants depend on nocturnal visitors, like bats, beetles and moths, for pollination. Moths are especially important, visiting a wide variety of flowering plants during the night. Artificial light can draw moths away from feeding areas and disorient them, reducing pollination rates.

## Sea turtles

Baby sea turtles hatch at night on the beach and depend on moonlight and starlight reflecting off the ocean to find the water. Streetlights can draw hatchlings inland toward roads and parking lots where they dehydrate or get crushed.

## Underwater

Artificial light can penetrate several meters below the water's surface, keeping zooplankton at greater depths, which affects animals up the food chain that subsist on them. Light also disrupts coral reproduction cycles, which depend on moonlight for timing.

## Migratory birds

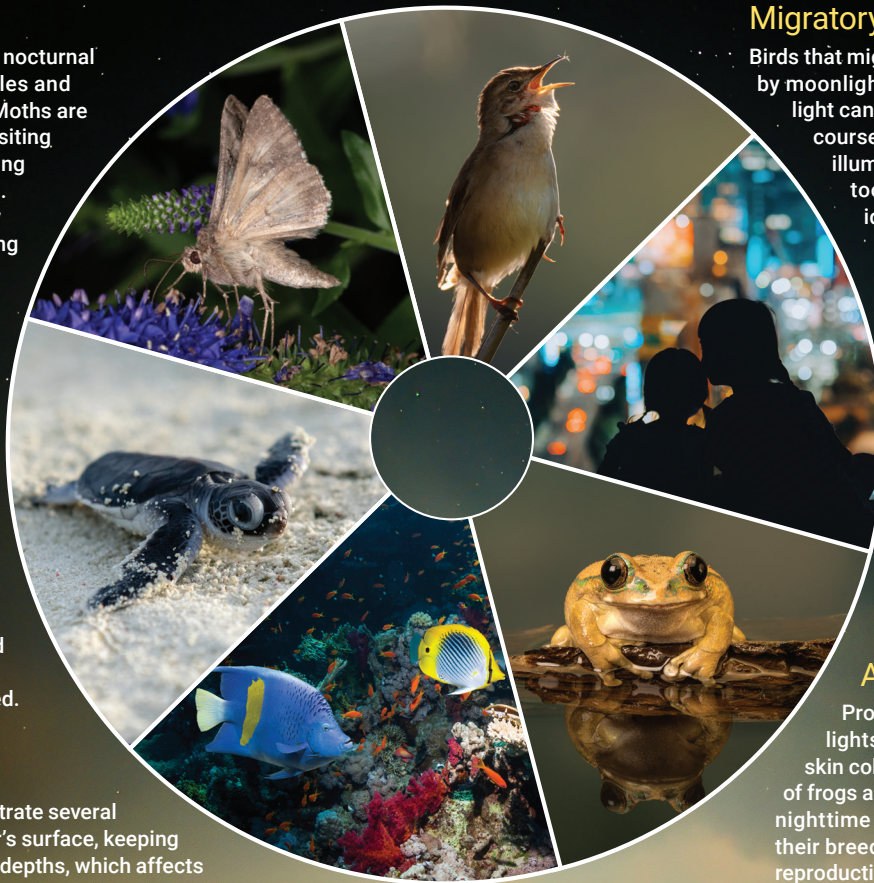
Birds that migrate or hunt at night navigate by moonlight and starlight. Artificial light can cause them to wander off course toward cities, colliding with illuminated buildings, or to migrate too early or too late, missing ideal climate conditions for nesting and foraging.

## Humans

Artificial light interferes with the body's circadian rhythms by suppressing melatonin and increasing cortisol levels, making it difficult to fall asleep or experience deep sleep, which our immune systems need to fight illness and disease.

## Amphibians

Prolonged exposure to bright lights can affect hormone levels, skin coloration and thermoregulation of frogs and toads. Light also disrupts nighttime croaking, which is part of their breeding ritual, interfering with reproduction and reducing populations.



### How can we help protect the night?

- Install responsible outdoor lighting that points downward, turns off when not in use and is warm-colored.
- Plant a pollinator-friendly garden that blooms at night.
- Support dark-sky conservation in your community.