



Light Pollution

Earth's growing population and the increase in artificial outdoor lighting has resulted in light pollution—a brightening of the night sky that prevents much of the world from viewing the stars. You have probably noticed the nighttime **glow** of a city, but did you know it has been tied to safety, health, and behavioral changes in the natural world?

Impacts of Light Pollution

- Excessive neighborhood lighting can disorient the body's circadian rhythms, affecting biological systems such as digestion, immune systems and sleep disorders; one **study** even links nighttime brightness and breast cancer.
- The impacts are even more pronounced in other animals, affecting patterns of migration, life cycle, foraging habits, and reproduction in animals such as birds, sea turtles, frogs, toads, insects, bats, and many more.
- Excessive and bright lights are often used for safety reasons, but **research** has shown they actually have the opposite affect. Glare reduces reaction time, visibility, and the ability of your eye to detect shadows and movement.
- City lights impact our ability to see the stars and observe astronomical phenomena.

What Can I Do?

Reducing light pollution is easy and economical.

- Turn off unnecessary nighttime lights; minimize light use with timers and motion detectors.
- Use only as much light as needed; select the correct lamp wattage for your needs.
- Shine lights down, not up; select new fixtures that are fully shielded; retrofit or replace poor quality fixtures. Learn more about selecting **dark-sky friendly fixtures**.
- Educate others. Share what you know about the value and effectiveness of quality outdoor lighting with your friends and neighbors.
- Participate in the annual **Earth Hour** event and turn off all non-essential electricity on the last Saturday of March, 8:30 pm to 9:30 pm.



Learn More

- The **International Dark-Sky Association** has an array of useful fact sheets, including one on **writing city ordinances for light regulation** and other **resources for city governments**.
- Read this **National Geographic** cover story article on light pollution.
- Read this article from **The New Yorker** magazine that discusses how the City of Tucson is combating light pollution.
- The **Royal Astronomical Society** has a global map of light pollution.

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