

# Redding Garden Club Conservation



## Light Pollution: Is it Really 'Nighty Night'?

**November 2011**  
**by Jill Kotch**

Most of us creatures run on a circadian rhythm which regulates the best time for reproduction, resting, etc. Did you ever wonder whether there could be some adverse effect from all the artificial lighting at night everywhere? Astronomers have been complaining about not being able to see the night sky as well as they used to. Forty percent of Americans no longer see a fully dark night sky!

Now scientists are studying how the lack of a truly dark night is affecting animal life cycles. Millions of night migrating birds collide with the brightly lit buildings. Spawning times for some fish and even corals have been affected. Fireflies (when did you last see one?) can't see their mating signals. Near a football stadium when they played night games, tree frogs' mating calls went silent while the stadium lights were aglow.

Insects, especially moths, are dramatically impacted when attracted to newly installed lights, like at a gas station. It has been noticed that after a year or two, the insect populations around the lights plunged. No adult insects, no sex, then no larvae, therefore no food for many other animals in the food chain. Reduced numbers of moths mean less pollination.

This is now being called Ecological Light Pollution, and Germany is leading the study. When the night is cloudy, the light emanating from buildings brightens the night sky tenfold in cities and threefold in the countryside. There are many suggestions about how to reduce the amount of light pollution, from changing the type of light bulbs to turning off such non-essentials as neon ads at a given time, to shielding outdoor lighting so it does not radiate directly into the sky. Oh, we have a lot to learn yet again!

The Audubon Society tells consumers to "close your blinds at night and turn off lights you aren't using. Some birds use constellations to guide them on their annual migrations, and bright lights from windows and skylights can disrupt their steering senses."

For more information, here's a link to a light pollution map of the USA: <http://astro-observer.com/dark/lpmapusa.html>