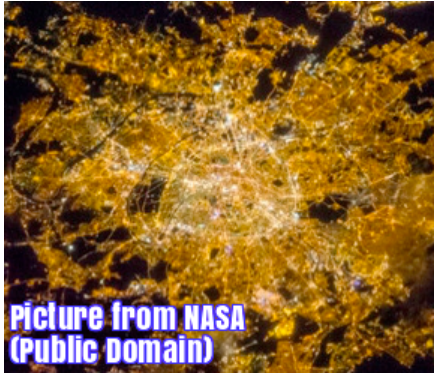


Light pollution is taking away night's darkness

26th November, 2017



The amount and brightness of light from towns and cities around the world is at such a high level that it is reducing the darkness of night. Once upon a time, when night-time fell, we were plunged into darkness. Things are different, and brighter today. A study published in the journal *Science Advances* reports that artificial light at night is increasing in most countries worldwide. Scientists say it grew by 2.2 per cent a year between 2012 and 2016. The intrusion of artificial light into our night-time is causing us many problems. The International Dark-Sky Association says it, "is not only impairing our view of the universe, it is adversely affecting our environment, our safety, our energy consumption and our health".

Study co-author Franz Holker said artificial light is a threat to our natural environment. He said: "Artificial light is an environmental pollutant that threatens nocturnal animals and affects plants and microorganisms." He added: "[It] has ecological and evolutionary implications for many organisms from bacteria to mammals, including us humans, and may reshape entire social ecological systems." Many environmentalists thought the introduction of LED lights would help the planet. However, cities are using more LED lights because they are cheaper, which is adding to the light pollution. Night-time light decreased in 16 countries, including war-torn nations such as Yemen and Syria.

Sources: usatoday.com / iflscience.com / skyandtelescope.com

Writing

How can we reduce the amount of light pollution? Discuss three ways.

Chat

Talk about these words from the article.

brightness / high level / darkness / once upon a time / artificial / worldwide / safety / natural / environment / nocturnal / mammals / ecological / LED lights / war-torn

True / False

- a) The article said levels of brightness were at high levels. T / F
- b) The article says the study was published in a newspaper. T / F
- c) Light pollution is impairing our view of the universe. T / F
- d) Light pollution is adversely affecting our safety. T / F
- e) The study said artificial light is a danger to night-time animals. T / F
- f) The study said bacteria are not affected by light pollution. T / F
- g) LED lights have helped reduce light pollution. T / F
- h) Light pollution has increased in every country in the world. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|-----------------------------|---------------------|
| 1. amount | a. danger |
| 2. reducing | b. use |
| 3. artificial | c. intensifying |
| 4. threat | d. imitation |
| 5. consumption | e. conservationists |
| 6. pollutant | f. quantity |
| 7. entire | g. devastated |
| 8. environmentalists | h. contaminant |
| 9. adding to | i. lessening |
| 10. war-torn | j. whole |

Discussion – Student A

- a) What kinds of pollution are there?
- b) How bothered are you by light?
- c) What damage does light pollution do?
- d) Do you prefer the light or the dark?
- e) Why are people afraid of the dark?
- f) How dark do you need it to be to sleep?
- g) How sad is it we can no longer see the stars?
- h) How can artificial light affect our safety?

Phrase Match

- | | |
|--|------------------------|
| 1. The amount and brightness | a. into our night-time |
| 2. we were plunged | b. torn nations |
| 3. The intrusion of artificial light | c. consumption |
| 4. impairing our view of the | d. natural environment |
| 5. energy | e. bacteria to mammals |
| 6. artificial light is a threat to our | f. into darkness |
| 7. nocturnal | g. systems |
| 8. many organisms from | h. of light |
| 9. reshape entire social ecological | i. animals |
| 10. war- | j. universe |

Discussion – Student B

- What do you think about what you read?
- What do you know about light pollution?
- How does artificial light threaten our natural environment?
- How much do you think artificial light is a pollutant?
- How might artificial light reshape our ecology?
- What is the answer to light pollution?
- What can you do to reduce light pollution?
- What questions would you like to ask the researchers?

Spelling

- The amount and nisersbhgt of light
- egnlpdu into darkness
- A study bisudlehp in the journal
- The nstuionir of artificial light
- vsyledrea affecting our environment
- our energy umnnpctosio
- a ahrtrte to our natural environment
- an environmental lpttoaunl
- ornnlutac animals
- organisms from bacteria to asalmmm
- light edrescade in 16 countries
- including rwa-trno nations such as Yemen

Answers – Synonym Match

1. f	2. i	3. d	4. a	5. b
6. h	7. j	8. e	9. c	10. g

Role Play

Role A – You Can Sleep

You think sleeping time is the best thing about the dark. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the least interesting of these (and why): quietness, looking at the stars or nightlife.

Role B – Quietness

You think quietness is the best thing about the dark. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the least interesting of these (and why): sleeping time, looking at the stars or nightlife.

Role C – The Stars

You think looking at the stars is the best thing about the dark. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the least interesting of these (and why): quietness, sleeping time or nightlife.

Role D – Nightlife

You think nightlife is the best thing about the dark. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the least interesting of these (and why): quietness, looking at the stars or sleeping time.

Speaking – The Dark

Rank these with your partner. Put the best things about the dark at the top. Change partners often and share your rankings.

- | | |
|-----------------------|-------------|
| • Cooler temperatures | • Romance |
| • Night creatures | • The stars |
| • Nightlife | • Quietness |
| • You can sleep | • Peace |

Answers – True False

a	T	b	F	c	T	d	T	e	T	f	F	g	F	h	F
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Answers to Phrase Match and Spelling are in the text.