

Black wind-turbine blade cuts bird deaths

29th August, 2020



Image: Roel May / Torgeir Nygård / Ulla Falkdalen / Jens Åström / Øyvind Hamre / Bård G. Stokke

There are many advantages of wind turbines and wind farms. They are important in providing green energy. However, there are also some disadvantages. One of these is that the giant blades on turbines kill thousands of birds. Many birds accidentally fly into the blades and die. Researchers have found a solution. They say painting one blade black could help birds see the rotating blades. This could cut bird strikes by up to 70 per cent. Researcher Dr Roel May said: "The collision of birds...is one of the main environmental concerns related to wind energy development." The findings of the research have been published in the conservation journal "Ecology and Evolution".

Dr May and his team conducted research on how to reduce the death rate of birds due to wind-turbine blades. They painted one blade of four different turbines black. The data showed that over four years, the turbines with one black blade saw a reduction in bird deaths of over 71 per cent. Dr May said: "Few effective measures have been developed to reduce the risk of collision." The RSPB, a bird protection group, welcomed the idea. It stressed the importance of wind farms needing to "take place in harmony with nature". It added: "Wind turbines are the right technology when we find the right places for them." It said wind farms should be put in places where there is little risk to wildlife.

Sources: bbc.com / cnet.com / bgr.com

Writing

Wind farms should not be in areas of natural beauty. Discuss.

Chat

Talk about these words from the article.

advantages / wind / turbine / green energy / birds / solution / blade / development / research / death rate / black / effective / measure / protection / harmony / wildlife

True / False

- a) The article said there were very few advantages of wind farms. T / F
- b) The article said wind farms produce green energy. T / F
- c) Many birds die when they accidentally fly into wind-turbine blades. T / F
- d) The findings of the research have been published in a newspaper. T / F
- e) Researchers did their tests using four wind turbines. T / F
- f) The research was conducted over four years. T / F
- g) The RSPB is a company that produces wind turbines. T / F
- h) The RSPB said wind farms should pose little risk to wildlife. T / F

Synonym Match

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

- | | |
|----------------------|---------------|
| 1. advantages | a. figures |
| 2. providing | b. issued |
| 3. rotating | c. danger |
| 4. cut | d. supplying |
| 5. published | e. peace |
| 6. conducted | f. reduce |
| 7. data | g. did |
| 8. effective | h. benefits |
| 9. harmony | i. successful |
| 10. risk | j. turning |

Discussion – Student A

- a) What do you think of wind farms?
- b) Why can't birds see the blades of wind turbines?
- c) What advantages are there of wind farms?
- d) What other examples of green energy are good?
- e) Why might one black blade stop birds from flying into wind turbines?
- f) What other problems are there with wind farms?
- g) How important is conservation and nature to you?
- h) What other ways could wind farms keep birds safe?

Phrase Match

- | | |
|-----------------------------------|----------------------|
| 1. advantages of wind turbines | a. rate of birds |
| 2. there are also some | b. up to 70 per cent |
| 3. Many birds accidentally fly | c. concerns |
| 4. This could cut bird strikes by | d. to wildlife |
| 5. one of the main environmental | e. disadvantages |
| 6. his team conducted | f. with nature |
| 7. how to reduce the death | g. research |
| 8. effective | h. and wind farms |
| 9. take place in harmony | i. measures |
| 10. there is little risk | j. into the blades |

Discussion – Student B

- What do you think about what you read?
- Do you think wind turbines are beautiful or ugly?
- Are wind farms more important than birds dying?
- Would you like to join a bird protection group?
- How can wind farms be 'in harmony' with nature?
- What three adjectives best describe this story?
- Should a wind farm be destroyed if it is a risk to wildlife?
- What questions would you like to ask the researchers?

Spelling

- many aasteandvg of wind turbines
- the giant dalbse on turbines
- Many birds cdaacntileyl fly into the blades
- Researchers have found a iolnuots
- the main environmental sneorccn
- the conservation janrluo "Ecology and Evolution"
- Dr May and his team touneddcc research
- a duioctrne in bird deaths
- Few eetfcfive measures have been developed
- reduce the risk of noisoilcl
- in nyomrah with nature
- there is little risk to wdellfii

Answers – Synonym Match

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

Role Play

Role A – Overfishing

You think overfishing is the biggest danger to the environment. Tell the others three reasons why. Tell them why their problems aren't as bad. Also, tell the others which is the least worrying of these (and why): melting ice caps, water pollution or deforestation.

Role B – Melting Ice Caps

You think melting ice caps is the biggest danger to the environment. Tell the others three reasons why. Tell them why their problems aren't as bad. Also, tell the others which is the least worrying of these (and why): overfishing, water pollution or deforestation.

Role C – Water Pollution

You think water pollution is the biggest danger to the environment. Tell the others three reasons why. Tell them why their problems aren't as bad. Also, tell the others which is the least worrying of these (and why): melting ice caps, overfishing or deforestation.

Role D – Deforestation

You think deforestation is the biggest danger to the environment. Tell the others three reasons why. Tell them why their problems aren't as bad. Also, tell the others which is the least worrying of these (and why): melting ice caps, water pollution or overfishing.

Speaking – Environment

Rank these with your partner. Put the biggest environmental problems at the top. Change partners often and share your rankings.

- | | |
|-----------------|----------------------|
| • Deforestation | • Species extinction |
| • Overfishing | • Melting ice caps |
| • Air pollution | • GM crops |
| • Ozone hole | • Water pollution |

Answers – True False

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