

The shape of eggs helps birds fly well

25th June, 2017



Scientists believe they know why birds' eggs are different shapes. Some eggs are quite round; some are kind of potato-shaped; and

others are longer and pointy. Two thousand years ago, the Greek philosopher Aristotle said flatter eggs had female chicks inside them and rounder eggs contained male chicks. But he was wrong. A new study from Princeton University in the USA suggests that the shape of the egg depends on how well and how fast the female bird flies. Professor Mary Stoddard said: "It has not gone unnoticed that birds have evolved to [lay eggs with] shapes that are quite diverse in form - everything from a spherical owl egg to a pointy sandpiper egg."

Professor Stoddard and her colleagues created a mathematical formula to map the shape of different eggs. They looked at almost 50,000 eggs from 1,400 different bird species. The researchers put the shape, length and height of the eggs into a computer database. They also looked at how oval the eggs were. The researchers found that the birds that laid the most-oval-shaped eggs were the best fliers. Professor Stoddard said: "We were shocked to see that one of the best explanations for egg shape variation was flight ability." The researchers found that hummingbirds and sandpipers laid the most-oval-shaped eggs; owls laid the roundest eggs; and sea birds laid the pointiest eggs.

Sources: nationalgeographic.com / xinhuanet.com / popsci.com

Writing

Eggs are among the most amazing things in the world. Discuss.

Chat

Talk about these words from the article.

scientists / birds / eggs / potato / female / chicks / university / flies / diverse / owl / colleagues / formula / species / computer / database / shocked / ability / oval

True / False

- a) Scientists are not sure why bird eggs have different shapes. T / F
- b) Aristotle said flatter eggs contained female chicks. T / F
- c) The shape of an egg affects how well a bird flies. T / F
- d) Owl eggs are spherical. T / F
- e) Researchers looked at nearly 50,000 eggs. T / F
- f) The researchers looked at 14,000 bird species. T / F
- g) The researchers were not shocked at what they found. T / F
- h) Eagles laid the pointiest eggs. T / F

Synonym Match

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

- | | |
|----------------------|---------------|
| 1. believe | a. held |
| 2. quite | b. co-workers |
| 3. contained | c. chart |
| 4. fast | d. fairly |
| 5. evolved | e. skill |
| 6. colleagues | f. developed |
| 7. map | g. think |
| 8. shocked | h. circular |
| 9. ability | i. quickly |
| 10. round | j. amazed |

Discussion – Student A

- a) What do you know about bird eggs?
- b) How often do you eat eggs?
- c) Why are eggs different colours?
- d) What are the tastiest eggs?
- e) What do you think of eating raw eggs?
- f) What's your favorite way of cooking eggs?
- g) Are there any interesting customs in your country using eggs?
- h) Do you think eggs are good value for money?

Phrase Match

- | | |
|--|----------------------|
| 1. Scientists believe they know | a. bird species |
| 2. some are kind of potato- | b. bird flies |
| 3. rounder eggs contained male | c. were |
| 4. how fast the female | d. formula |
| 5. shapes that are quite diverse | e. chicks |
| 6. created a mathematical | f. ability |
| 7. 50,000 eggs from 1,400 different | g. shaped |
| 8. They also looked at how oval the eggs | h. in form |
| 9. flight | i. the roundest eggs |
| 10. owls laid | j. why |

Discussion – Student B

- What do you think about what you read?
- Have you had eggs from birds other than chickens?
- Do you prefer the egg white or the yolk?
- Do you usually buy free range eggs or those from battery chickens?
- What have you eaten in the past few days that contained eggs?
- Do you prefer soft- or hard-boiled eggs?
- What would your life be like without eggs?
- What questions would you like to ask the researchers?

Spelling

- Scientists bilveee they know
- the Greek rhlohepipos Aristotle
- rounder eggs contained male hisckc
- esneddp on how well
- shapes that are quite rveseid
- a hriceaspl owl egg
- Professor Stoddard and her lecsolaeuq
- a mathematical mrolfua
- 1,400 different bird siepces
- thiegh of the eggs
- fhtlig ability
- The aserrserhec found that

Answers – Synonym Match

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

Role Play

Role A – Raw

You think the best way to eat eggs is raw. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least tasty of these (and why): fried, boiled or an omelet.

Role B – Fried

You think the best way to eat eggs is fried. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least tasty of these (and why): raw, boiled or an omelet.

Role C – Boiled

You think the best way to eat eggs is boiled. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least tasty of these (and why): fried, raw or an omelet.

Role D – Omelet

You think the best way to eat eggs is making an omelet. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least tasty of these (and why): fried, boiled or raw.

Speaking – Cooking

Rank these with your partner. Put the best ways of eating eggs at the top. Change partners often and share your rankings.

- | | |
|---------------|---------------|
| • omelet | • raw |
| • poached | • fried |
| • baked | • scrambled |
| • soft-boiled | • hard-boiled |

Answers – True False

a	F	b	T	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.