

## Origin of our teeth dates back 400 million years

12th July, 2020



Researchers say they have discovered how humans got teeth. The researchers are from Uppsala University in Sweden. They say that human teeth "first evolved 400 million years ago". They believe our teeth came from an ancient fish called an

*acanthothoracid*. The researchers studied a fossil of the fish. It was difficult to study because the fish is encased in rock. The researchers had to use the strongest X-ray machine in the world to analyse it. They used the X-ray machine to "digitally dissect" the fish. The researchers discovered that the fish's teeth were amazingly similar to human teeth. The researchers also said humans and 60,000 species of jawed vertebrates living on Earth today come from this fish.

The researchers say the *acanthothoracid* was one of the earliest jawed vertebrates with teeth ever to live. They were very excited at seeing how similar its teeth were to ours. A co-author of the study, Professor Per Ahlberg, said: "These findings change our whole understanding of the origin of teeth." He commented on the similarity to the fish, saying: "Their jawbones resemble those of bony fish and seem to be directly ancestral to our own. When you grin at the bathroom mirror in the morning, the teeth that grin back at you can trace their origins right back to the first jawed vertebrates." Another researcher said: "Nobody expected to find teeth so deep on the evolutionary tree."

Sources: [dailymail.co.uk](http://dailymail.co.uk) / [inverse.com](http://inverse.com) / [earth.com](http://earth.com)

### Writing

It is important to have shiny, white, straight teeth. Discuss.

### Chat

Talk about these words from the article.

researchers / humans / teeth / ancient / fish / fossil / rock / X-ray / machine / Earth / vertebrates / jaw / study / understanding / similarity / bathroom / mirror / origins

### True / False

- a) Researchers from a university in Norway researched teeth. T / F
- b) Our teeth came from an ancient fish. T / F
- c) The researchers used the world's strongest X-ray machine. T / F
- d) The article said there are 60,000 species of fish living on Earth. T / F
- e) A fish called an *acanthothoracid* is the oldest fish ever to live. T / F
- f) Researchers were excited about the findings of their research. T / F
- g) Researchers recommended looking in the mirror at your teeth. T / F
- h) A researcher said they found a tree with teeth. T / F

### Synonym Match

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

- |                      |                |
|----------------------|----------------|
| 1. <b>discovered</b> | a. examine     |
| 2. <b>evolved</b>    | b. beginning   |
| 3. <b>ancient</b>    | c. developed   |
| 4. <b>analyse</b>    | d. thrilled    |
| 5. <b>species</b>    | e. thought     |
| 6. <b>excited</b>    | f. found       |
| 7. <b>findings</b>   | g. smile       |
| 8. <b>origin</b>     | h. type        |
| 9. <b>grin</b>       | i. of long ago |
| 10. <b>expected</b>  | j. conclusion  |

### Discussion – Student A

- a) What do you think of teeth?
- b) What are the functions of teeth?
- c) What do you think of your teeth?
- d) What do you do to look after your teeth?
- e) How did our teeth come from an ancient fish?
- f) How would you like to improve your teeth?
- g) Why do people study fossils?
- h) Would you like to study fossils?

## Phrase Match

- |  |                           |
|--|---------------------------|
| 1. they have discovered how              | a. of the study           |
| 2. teeth first evolved                   | b. machine in the world   |
| 3. the strongest X-ray                   | c. tree                   |
| 4. amazingly similar                     | d. humans got teeth       |
| 5. 60,000 species                        | e. their origins          |
| 6. one of the earliest jawed vertebrates | f. to human teeth         |
| 7. A co-author                           | g. with teeth             |
| 8. When you grin                         | h. of jawed vertebrates   |
| 9. you can trace                         | i. at the bathroom mirror |
| 10. so deep on the evolutionary          | j. 400 million years ago  |

## Discussion – Student B

- What do you think about what you read?
- How important are teeth?
- What would you like to know about teeth?
- What problems do people have with their teeth?
- How often do you grin in front of the mirror?
- Do you think our teeth should be sharper?
- What do you think of false teeth?
- What questions would you like to ask the researchers?

## Spelling

- they have ecordveids how humans got teeth
- first dlevveo 400 million years ago
- our teeth came from an ceiatnn fish
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- 60,000 species of jawed rttbvareese
- They were very dixete
- the nrioig of teeth
- commented on the imslayiirt to the fish
- Their jawbones smeeblre those of bony fish
- you can trace their iogirsn
- deep on the yevolouairtn tree

### Answers – Synonym Match

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

## Role Play

### Role A – Goldfish

You think goldfish are the best fish. Tell the others three reasons why. Tell them what is wrong with their fish. Also, tell the others which is the least interesting of these (and why): salmon, piranha or sharks.

### Role B – Salmon

You think salmon are the best fish. Tell the others three reasons why. Tell them what is wrong with their fish. Also, tell the others which is the least interesting of these (and why): goldfish, piranha or sharks.

### Role C – Piranha

You think piranha are the best fish. Tell the others three reasons why. Tell them what is wrong with their fish. Also, tell the others which is the least interesting of these (and why): salmon, goldfish or sharks.

### Role D – Shark

You think sharks are the best fish. Tell the others three reasons why. Tell them what is wrong with their fish. Also, tell the others which is the least interesting of these (and why): salmon, piranha or goldfish.

## Speaking – Fish

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

- |             |             |
|-------------|-------------|
| • Goldfish  | • Piranha   |
| • Clownfish | • Swordfish |
| • Carp      | • Shark     |
| • Salmon    | • Eel       |

### Answers – True False

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