# Mystery of radioactivity of Germany's wild boars

**4th September 2023**

Radioactive wild boars have been roaming the forests of Germany for decades. Scientists believed their radioactivity was due to the 1986 Chernobyl nuclear disaster. However, the animals' radioactivity has long mystified scientists because while levels of radioactive caesium in other animals has decreased over the years, radioactivity in wild boars has persisted at high levels. Scientists have dubbed this mystery the "wild boar paradox". New research now attributes the contamination of Germany's wild boars to nuclear weapons tests from the mid-20th century. The Chernobyl reactor produced caesium-137, which has a much shorter life than the caesium-135 created by nuclear weapons.

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Scientists believe the reason wild boars have remained so radioactive compared to other forest creatures is their love of the delicacy truffle mushrooms. Radioactive particles accumulate in these underground fungi, which form part of the boars' diet. The high levels of caesium in boars make the animals too dangerous to be eaten under German law. This has resulted in a reduction in the hunting of the animals, which has led to a proliferation of their numbers. Geochemist James Kaste asks why the effects of nuclear weapons testing on the environment have been "under-studied and largely forgotten". He said: "This is one of the ultimate case studies showing how legacy soil pollution can haunt generations to come."

Sources: science.org / *sciencealert.com* / *yahoo.com*

## Writing

Nuclear power causes too much damage to the environment. Discuss.

## Chat

Talk about these words from the article.

radioactivity / wild boars / forests / nuclear disaster / mystery / contamination / life / scientists / forest / creatures / delicacy / fungi / hunting / soil / pollution / legacy

## True / False

1) There have been radioactive wild boars in Germany for over a century.  T / F

2) Other creatures in the forest are just as radioactive as wild boars.  T / F

3) Scientists were puzzled as to why the wild boars were radioactive.  T / F

4) The radioactive materials caesium 137 has the longest life.  T / F

5) Mushrooms are the probable cause for the wild boars' radioactivity.  T / F

6) German law says the wild boars are too radioactive to be eaten.  T / F

7) The number of wild boars in Germany's forests has increased.  T / F

8) The effect of weapons tests on the environment has had little research.  T / F

## Synonym Match

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

| | | | |
|---|---|---|---|
| 1. | **roaming** | a. | animals |
| 2. | **mystified** | b. | nicknamed |
| 3. | **persisted** | c. | greatest |
| 4. | **dubbed** | d. | puzzled |
| 5. | **attributes** | e. | gourmet food |
| 6. | **creatures** | f. | credits |
| 7. | **delicacy** | g. | wandering |
| 8. | **proliferation** | h. | trouble |
| 9. | **ultimate** | i. | rapid increase |
| 10. | **haunt** | j. | continued |

## Discussion – Student A

a) What do you know about wild boars?

b) What do you think of radioactive wild boars?

c) What do you know about the Chernobyl nuclear disaster?

d) What do you know about radioactive caesium?

e) What are the benefits of nuclear power plants?

f) Should the wild boars be allowed to roam the forests?

g) What are the forests like in your country?

h) Should countries continue to test nuclear weapons?

## Phrase Match

1. Radioactive wild boars have been roaming
2. radioactivity was due to the 1986
3. the animals' radioactivity has long
4. radioactivity in wild boars has persisted
5. Scientists have dubbed this mystery
6. their love of the delicacy
7. led to a proliferation
8. the effects of nuclear weapons testing
9. This is one of the ultimate case
10. soil pollution can haunt generations

a. at high levels
b. mystified scientists
c. studies
d. the "wild boar paradox"
e. of their numbers
f. the forests of Germany
g. to come
h. truffle mushrooms
i. Chernobyl nuclear disaster
j. on the environment

## Discussion – Student B

a) What do you think about what you read?
b) What forest creatures do you like and dislike?
c) What do you think of truffles?
d) What are your favourite delicacies?
e) What do you think of the hunting of animals?
f) How can we deal with soil pollution?
g) What environmental problems are we leaving for future generations?
h) What questions would you like to ask the researchers?

## Spelling

1. _imaogrn_ the forests of Germany
2. _idtserspe_ at high levels
3. Scientists have _debudb_ this mystery
4. the wild boar _aaxdorp_
5. the _cinioatmnnato_ of Germany's wild boars
6. The Chernobyl _oetcarr_ produced caesium-137
7. other forest _rtcraseeu_
8. their love of the _aecdilyc_ truffle mushrooms
9. particles _ulcecamtau_ in these underground fungi
10. led to a _lrprfoonieait_ of their numbers
11. This is one of the _mtletiua_ case studies
12. _htanu_ generations to come

## Role Play

**Role A – Wild Boars**
You think wild boars are the best forest creatures. Tell the others three reasons why. Tell them what is wrong with their animals. Also, tell the others which is the least interesting of these (and why): bears, deer or squirrels.

**Role B – Bears**
You think bears are the best forest creatures. Tell the others three reasons why. Tell them what is wrong with their animals. Also, tell the others which is the least interesting of these (and why): wild boars, deer or squirrels.

**Role C – Deer**
You think deer are the best forest creatures. Tell the others three reasons why. Tell them what is wrong with their animals. Also, tell the others which is the least interesting of these (and why): bears, wild boars or squirrels.

**Role D – Squirrels**
You think squirrels are the best forest creatures. Tell the others three reasons why. Tell them what is wrong with their animals. Also, tell the others which is the least interesting of these (and why): bears, deer or wild boars.

## Speaking – Forest creatures

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

- Bears
- Raccoons
- Owls
- Rabbits
- Wild boar
- Deer
- Squirrels
- Foxes

**Answers – Synonym Match**

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

**Answers – True False**

| 1 | F | 2 | F | 3 | T | 4 | F | 5 | T | 6 | T | 7 | T | 8 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Answers to Phrase Match and Spelling are in the text.