

The mystery behind the viability of the only 'immortal' creature on Earth

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Boil in boiling water for 150 degrees, freeze below 0 degrees Celsius, throw it out into space, dry . almost every other creature cannot survive if it is in one of these environments. Can still survive comfortably even to do "sex" and " *childbirth* ". Now scientists from the University of North Carolina have figured out the mystery behind their hegemony.



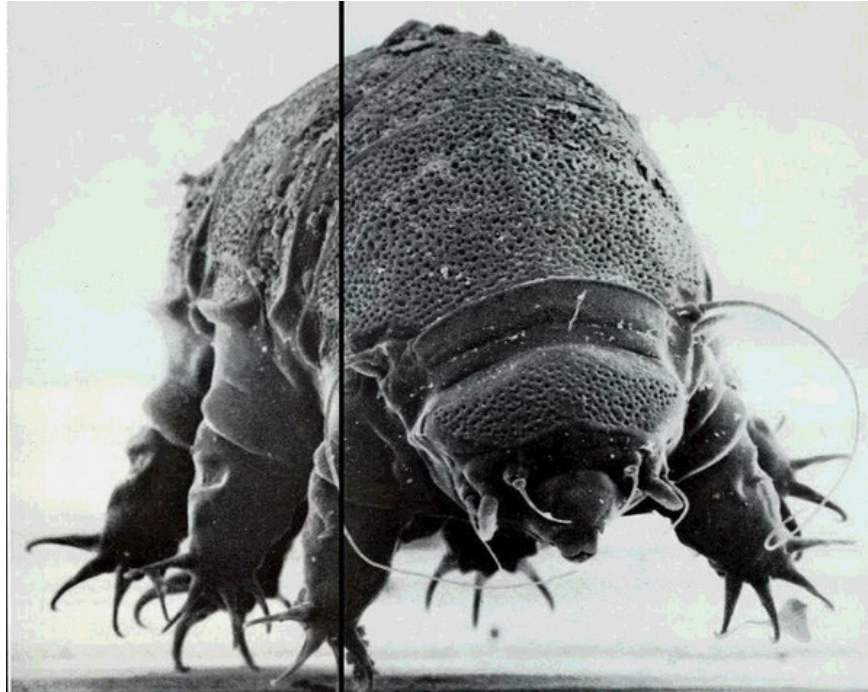
Tardigrades water bears.

The only species on Earth that is nearly impossible to destroy and can approach this term "immortal" is **Tardigrades** , also known as **water bears** . They are found in the harshest places on Earth, such as in Japanese hot springs, at the bottom of the ocean, on mountains of up to 5.5 km of the Himalayas and even as ice as the South. Pole.

Dr Thomas Boothby from the University of North Carolina, the research director, said: " *The study's biggest discovery this time is that water bears have developed special genes, allowing them to survive in drought conditions. most* ".

Previously, scientists thought that the terrifying ability of water beetles was due to trehalose, a sugar commonly found in the body of shrimp. This type of sugar helps water bears to survive even in a water-free environment for up to a decade.

But in a recent study, they found a secret to help the "immortal" bear beetle thanks to a unique gene and that of its own less than 1mm long creature.



The protein encoded by the genes of this animal is unique and is named TDP. This special protein species has a glass-like structure that surrounds its body like a covering when the surrounding environment is completely drained of water. This helps them maintain basic functions at extremely slow speeds. This is why this creature can survive for decades without food or water. When there is water, this membrane will automatically melt.

According to Dr. Boothby, this finding is extremely important and meaningful. Experiments show that TDP has the same effect for other biological materials: bacteria, cells . Scientists hope that in the future we can use this protein to protect the soil. Plant from drought, store the medicine without refrigeration.

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