

Crowded universe? 在其它星球上的生命

Vocabulary: science 词汇: 科学

We might not be alone in the universe. Actually, it may be confirmed as a very crowded place by new **computer models** developed to help identify **habitable** planets.

Estimates of places that can **sustain** life have been based on the **likelihood** of them having **surface** water. But software recently developed by the Aberdeen University allows researchers to identify planets with **underground** water kept liquid by planetary heat.



Water is **fundamental** for life and planets too close to the sun lose water to the **atmosphere** through **evaporation**. **On the other hand**, planets located in distant reaches from their star have their surface water **locked away** as ice.

Sean McMahon, who is carrying out the work, explained: "Traditionally people have said that if a planet is in this **Goldilocks zone** – not too hot and not too cold - then it can have liquid water on its surface and be habitable."

But this perception might change when considering that planets can receive two sources of heat - heat direct from the star and heat generated deep inside the planet.

It is easy to observe it in our own planet. As you **descend** through the **crust of the Earth**, the temperature gets higher and higher. Even when the surface is frozen, water can exist below ground.

There could be immense quantities of water in fact - **teeming** with primitive life.

Professor John Parnell, also from Aberdeen University said: "There is a significant **habitat** for **microorganisms** below the surface of the Earth, extending down several kilometres."

"And some believe that the bulk of life on Earth could even reside in this deep **biosphere**."

So the Aberdeen team are developing models to predict which **far-flung** planets might **harbour** underground **reservoirs** of liquid water with the possibility of alien life.

词汇表请参看答案与词汇部分

Quiz 测验

阅读短文并回答问题。

1. What sign suggests to scientists that a planet can sustain life?
2. Where might the heat in a planet come from?
3. Is the following statement true, false or not given? *Even at high temperatures there is plenty of life deep below the surface of the Earth.*
4. What phrasal verb in the article means to put something in a place from where it cannot be removed easily?
5. What word is used to refer to beings that are very small?

Exercise 练习

请你在不参考课文的情况下完成下列练习。从每个表格中选择一个意思合适的单词填入句子的空格处。

1. My town is growing fast. There are new buildings everywhere and the streets are _____ with newcomers.

| | | | |
|------------|---------|------------|---------|
| descending | teeming | harbouring | teaming |
|------------|---------|------------|---------|

2. Ann looks tired. She's been working in a shoe shop ten hours a day. On the other _____, she's been earning a lot of money and might be able to retire soon.

| | | | |
|------|--------|------|------|
| foot | finger | side | hand |
|------|--------|------|------|

3. We can't say how much metal lies in the Earth's _____, the more we seek the more we find.

| | | | |
|-------|------|-------|---------|
| shell | peel | crust | habitat |
|-------|------|-------|---------|

4. Nowadays, it doesn't matter if you live in a city or a remote village. You can make friends in all the _____-flung corners of the Earth.

| | | | |
|-----|------|-----|------|
| far | long | big | deep |
|-----|------|-----|------|

5. Smoking is a bad habit. It increases the _____ of cancer.

| | | | |
|------------|------------|---------------|------------|
| livelihood | likelihood | neighbourhood | Robin Hood |
|------------|------------|---------------|------------|

Answers and Glossary 答案与词汇

Quiz 小测验

1. What sign suggests to scientists that a planet can sustain life? The existence of water.
2. Where might the heat in a planet come from? The heat can come directly from its star or be generated deep inside the planet.
3. Is the following statement true, false or not given? *Even at high temperatures there is plenty of life deep below the surface of the Earth.* True.
4. What phrasal verb in the article means to put something in a place from where it cannot be removed easily? To lock away.
5. What word is used to refer to beings that are very small? Microorganisms.

Exercise 练习

1. My town is growing fast. There are new buildings everywhere and the streets are teeming with newcomers.
2. Ann looks tired. She's been working in a shoe shop ten hours a day. On the other hand, she's been earning a lot of money and might be able to retire soon.
3. We can't say how much metal lies in the Earth's crust, the more we seek the more we find.
4. Nowadays, it doesn't matter if you live in a city or a remote village. You can make friends in all the far-flung corners of the Earth.
5. Smoking is a bad habit. It increases the likelihood of cancer.

Glossary 词汇表

| | |
|---------------------------|------------|
| computer model | 计算机模型 |
| habitable | 可居住的 |
| to sustain | 维持 |
| likelihood | 可能性 |
| surface | 地表 |
| underground | 地下 |
| fundamental | 基本的 |
| atmosphere | 大气层 |
| evaporation | 蒸发, 挥发 |
| on the other hand | 另一方面 |
| locked away | 锁了起来 |
| Goldilocks zone | 宜居带, 可居住地区 |
| to descend | 向下 |
| crust of the Earth | 地球的地壳 |
| to teem | 充满 |
| habitat | 生存环境 |
| microorganism | 微生物 |
| biosphere | 生物圈 |
| far-flung | 遥远的 |
| to harbour | 隐藏 |
| reservoir | 水库 |