The sound of rattlesnakes 响尾蛇为迷惑接近者切换响动频率

科学家表示，响尾蛇已经进化出一种聪明的方法，让人类误以为危险比他们想象的更近。

The sibilant sound of the rattlesnake's tail has long been a cinematic cliche.

响尾蛇尾巴发出的嘶嘶声早已是大银幕上的常用套路。

That tell-tale rattle is made by the rapid shaking together of hard rings of keratin at the tip of the creature's tail. Keratin is the same protein that makes up our fingernails and hair.

这种具有警示作用的咔咔声是由该生物尾部末端坚硬的角蛋白环一齐快速摇动时产生的。这种角蛋白与构成我们指甲和头发的是同一种蛋白质。

In this study, the scientists found a distinctive switch to a higher frequency as objects move closer to a western diamondback snake.

在这项研究中，科学家发现，当有物体接近西部菱斑响尾蛇时，蛇尾发出的响动声会明显切换到更高的频率。

When human test subjects were exposed to this change in sound, they believed they were almost on top the snake, when in reality they were safely distant.

当人类受试者暴露在这种声音变化中时，虽然其实他们离蛇还有一段安全距离，但他们会以为自己几乎就站在蛇的上方。

The scientists believe rattlesnakes evolved this trait because it helped them to avoid being stepped on by humans.

科学家认为，响尾蛇进化出这种特性是因为这样可以帮助自己避免被人类踩到。

Despite this clever sound trick, hikers and walkers in the United States often find themselves in unwanted contact with these reptiles.

尽管响尾蛇有这种精明的声音花招，美国的徒步旅行者和步行者还是经常会意外遭遇到这些爬行动物。

Rattlesnakes are responsible for the majority of the 8,000 people bitten in the US every year.

美国每年有8000人被蛇咬，其中大部分的罪魁祸首都是响尾蛇。

**词汇表**

sibilant 嘶嘶作响的，此文指响尾蛇尾部摇动时发出的声音  
cliche 老套的内容  
rattle 咔咔声，短促尖厉的撞击声  
keratin 角蛋白  
frequency 频率  
exposed 暴露（在特定环境中）的  
distant 远处的  
evolved 进化出了  
reptiles 爬行动物

**阅读理解：请在读完上文后，回答下列问题。**

1. How do rattlesnakes make their sound?

2. In what way do rattlesnakes change the sound they make as objects get nearer?

3. What types of people in the US often encounter rattlesnakes?

4. How many people are bitten by snakes in the US each year?

**答案**

1. How do rattlesnakes make their sound?  
Rattlesnakes make their sound through the rapid shaking together of hard rings of keratin at the tip of the creature's tail.

2. In what way do rattlesnakes change the sound they make as objects get nearer?  
Scientists found a distinctive switch to a higher frequency as objects move closer to a western diamondback snake.

3. What types of people in the US often encounter rattlesnakes?  
Hikers and walkers in the US often find themselves in unwanted contact with these reptiles.

4. How many people are bitten by snakes in the US each year?  
Around 8,000 people are bitten in the US every year.