参考译文

High-Elevation Hummingbirds Evolved a Temperature Trick

蜂鸟的“假死”

If a hummingbird has ever visited your garden, you’ve no doubt seen it flit from flower to flower, hovering midair as it sips on nectar. That activity requires plenty of energy. So hummingbirds need a lot of nectar to feed their hungry metabolisms.

如果一只蜂鸟曾经造访过你家花园，那么你一定见过它在花丛间飞来飞去，在空中盘旋，吮吸着花蜜。这种活动需要大量的能量。所以蜂鸟需要大量的花蜜来满足饥饿的新陈代谢。

“In fact, some of them probably drink two or three times their body mass in nectar each day.”

“事实上，它们中的一些可能每天要喝两到三倍于自身体重的花蜜。”

Andrew McKechnie, an ornithologist at the University of Pretoria in South Africa.

南非比勒陀利亚大学的鸟类学家安德鲁·麦基奇尼说道。

McKechnie and his colleagues have studied hummingbirds at extreme elevations in the Peruvian Andes. To survive there, the tiny birds have developed a few tricks. For one, their blood cells are unusually efficient at transporting oxygen. Also, it’s more difficult to hover in the high-altitude thin air. And so ...

麦基奇尼和同事们研究了秘鲁安第斯山脉极端海拔地区的蜂鸟。为了在那里生存，这些小鸟学会了一些技巧。首先，它们的血细胞运输氧气的效率非常高。尤其是在高空稀薄的空气中悬停更加困难。所以…

“The hummingbirds at those high elevations are much more prone to perching while they feed. And that does seem to be one way they try and reduce energy expenditure.”

在那些高海拔地区，蜂鸟觅食时会更多的休息。这似乎是它们试图减少能源消耗的一种方式。”

Now McKechnie and his colleagues have found another energy-saving adaptation: the high-mountain hummingbirds can lower their body temperature by extreme amounts at night—going into a state called torpor.

现在，麦肯基尼和同事们发现了另一种节能适应:高山蜂鸟可以在夜间大量降低体温——进入一种被称为麻痹的状态。

“For all intents and appearances, they’re essentially dead. They’re that unresponsive.”

无论从本质上还是表面上看，它们都已经死了。基本不做反应。

The scientists caught six species of Andean hummingbirds and monitored their temperatures through the night and day. And they found that all six species could enter some type of torpor—they lower their body temperatures from about 100 degrees Fahrenheit by day to as low as 38 degrees Fahrenheit at night. And being “essentially dead” conserves energy.

科学家们捕捉了六种安第斯蜂鸟，并对它们日夜的温度进行了监测。他们发现所有的6个物种都能进入某种迟缓状态——它们能将自己的体温从白天的100华氏度降低到晚上的38华氏度。“基本死亡”可以节约能源。

The details are in the journal Biology Letters.

研究结果发表在《生物学快报》杂志上。

Although some of the birds’ low body temperatures are on par with those of hibernating mammals, it’s important to note that this isn’t full-fledged hibernation—which is a longer-term response. True hibernation has only ever been documented in one bird, so far at least: the common poorwill in the U.S. Southwest.

尽管一些鸟类的低体温与冬眠中的哺乳动物差不多，但需要注意的是，这并不是完全的冬眠，而是一种长期的反应。到目前为止，只有一种鸟类存在真正的冬眠，那就是美国西南部的一种普通的可怜鸟。

“One of my career goals is to find a second hibernating bird.”

“我的职业目标之一就是找到第二只冬眠的鸟。”

And the Andes, he says, is going to be the first place he looks.

他说，安第斯山脉将是自己首先要去的地方。

听力原文

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