参考译文

Planting Milkweed for Monarchs? Make Sure it's Native

相生相克

Monarch butterflies depend on milkweed. They lay their eggs on milkweed, and their caterpillars eat only the leaves of the plant. No milkweed means no monarchs. So the best way to help declining monarch populations—and to preserve their epic, multi-generational migration—is to plant milkweed. Seems simple, right? But the reality is far more complicated.

帝王蝶以乳草为生.研究人员把鸡蛋放在乳草上，毛毛虫只吃植物的叶子。没有乳草就意味着没有帝王蝶。因此，保持帝王蝶其史诗般的多世代迁移的最佳方式，是种植乳草。这听起来似乎很简单，对吧?但现实情况要复杂得多。

Milkweed is slightly toxic—the plant evolved its noxious substances to keep herbivores from chowing down on the leaves. But monarch butterflies evolved tolerance. In fact, they arm themselves with the stuff."Monarchs sequester these toxins as an anti-predator defense and anti-parasite defense."Louisiana State University biologist Matt Faldyn.

乳草具有轻微的毒性——植物进化出有毒物质，以防止食草动物在树叶上啃食。 但帝王蝶进化了宽容。实际上，他们用武器武装自己。“帝王蝶把这些毒素隔离为一种反捕食者防御和反寄生虫防御。”路易斯安那州立大学生物学家Matt Faldyn说。

So, by ingesting the toxin, the caterpillars become toxic themselves. That keeps them safe—as long as they don't ingest too much of the poison. The problem is there are different types of milkweed. And one that’s native to the tropics is now growing in the southern U.S. As these plants sense warming temperatures, they produce more of the toxin—so much more that the monarch butterflies begin to suffer.

因此，通过摄取毒素，毛虫自己变得有毒。这可以保证他们自身安全——只要不摄入太多的毒物即可。问题是有多种类型的乳草。而现在热带地区的一种植物，现在在美国南部种植。由于这些植物感受到温度升高，它们产生了更多的毒素——多到以至于帝王蝶开始受到影响。

To gauge the threat, Faldyn and his team raised monarchs on either the non-native tropical milkweed or on a native milkweed. And they also tested the effects of current environmental conditions as well as temperatures expected for the southern U.S. by the year 2080.

为了评估威胁，Faldyn和他的团队，在非本地热带乳草或本地乳草上培育帝王蝶。 他们还测试了当前环境条件的影响，以及到2080年美国南部预计的温度。

Monarchs that ate native milkweed had comparable survival rates at both current and higher temperatures. But under those future warmer conditions, monarchs raised on the tropical milkweed survived at only one-fifth the rate of butterflies raised under current conditions.

在当前和更高温度下，吃本地乳草的帝王蝶，具有相当高的存活率。但在未来温暖的条件下，吃热带乳草生长的帝王蝶，存活率只有当前条件下饲养的蝴蝶的五分之一。

The monarchs could thus find themselves in what's known as an ecological trap. The butterflies seek out milkweed, but what is already the most common type of milkweed in the southern US will eventually kill them.

帝王蝶主因此可以发现自己处于所谓的生态陷阱之中。蝴蝶寻找乳草，但美国南部最常见的乳草，最终会杀死它们。

The tropical species is prettier than the native ones, which is why many people prefer to plant it. But there’s still time to change that."What we show is that maybe there should be more of a focus on having native species to your area preferentially planted in your gardens."

热带物种比本地的更漂亮，这就是为什么许多人喜欢种植的原因。但是现在还有时间来改变这种状况。“我们展示的是，也许应该更多地关注在您的园地，优先种植本地物种。”

By switching to the native species, home gardeners across the country can each do their part to ensure that monarch butterflies will avoid fluttering their way into the ecological trap—which could be fatal.

通过切换到本地物种，全国各地的家庭园丁可以各尽其能，确保帝王蝶避免进入生态陷阱——这可能是致命的陷阱。

听力原文

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