BIODIVERSITY VIDEO - TRANSCRIPT

Why is biodiversity so important? - Kim Preshoff

Our planet's diverse thriving _____ may seem like permanent fixtures, but they're actually vulnerable to collapse.

Jungles can become _____, and _____ can become lifeless rocks, even without cataclysmic events, like volcanoes and asteroids.

What makes one ecosystem _____ and another _____ in the face of change? The answer, to a large extent, is _____.

Biodiversity is built out of _____ intertwined features: _____ diversity, _____ diversity, and _____ diversity.

The more intertwining there is between these features, the denser and more _____ the weave becomes.

Take the _____, one of the most biodiverse regions on _____ due to its complex ecosystems, huge _____, and the genetic _____ within those species.

Here are tangled liana vines, which crawl up from the forest floor to the canopy, intertwining with treetops and growing thick wooden stems that support these towering trees.

Helped along by the vines, _____ provide the _____, _____ and leaves to _____, such as the tapir and the agouti, which disperse their seeds throughout the forest so they can grow. Leftovers are consumed by the millions of _____ that _____ and recycle nutrients to create rich soil.

The rainforest is a huge system filled with many smaller systems, like this, each packed with interconnected species.

Every link provides _____ to the next, strengthening biodiversity's weave.

That weave is further reinforced by the _____ within individual species, which allows them to cope with changes.

Species that lack genetic diversity due to isolation or low population numbers are much more _____ to fluctuations caused by _____, disease or habitat fragmentation.

Whenever a species disappears because of its weakened gene pool, a knot is untied and parts of the net disintegrate.

So, what if we were to remove one species from the rainforest? Would the system fall apart? Probably not.

The volume of species, their genetic diversity, and the _____ of the ecosystems form such rich biodiversity in this forest that one species gap in the weave won't cause it to unravel.

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The forest can stay resilient and recover from change. But that's not true in every case.
In some environments, taking away just one important component can undermine the entire system.
Take _____, for instance. Many organisms in a reef are dependent on the coral. It provides key microhabitats, shelter and breeding grounds for thousands of species of ____, crustaceans and mollusks.
Corals also form interdependent relationships with _____. The **coral** itself is a loom that allows the tangled net of biodiversity to be woven. That makes coral a keystone _____, one that many others depend on for their survival.
So what happens when destructive fishing practices, _____ and _____ acidification weaken coral or even kill it altogether?
Exactly what you might think. The _____ of this keystone species leaves its dependents at a loss, too, threatening the entire fabric of the reef.
Ecosystem, species and genetic diversity together form the complex tangled weave of biodiversity that is _____ for the survival of organisms on Earth. We humans are woven into this biodiversity, too. When just a few strands are lost, our own well-being is threatened. Cut too many links, and we risk unraveling it all.
What the _____ brings is unpredictable, but biodiversity can give us an insurance policy, Earth's own safety net to safeguard our survival.

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