Slow Italian, Fast Learning

Ep.406: Australia's trees are dying faster than they're being replaced

Italian	English
La professoressa Belinda Medlyn dell'Istituto per l'Ambiente dell'Università di Western Sydney studia gli alberi dagli anni '90.	Professor Belinda Medlyn, from Western Sydney University's Institute for the Environment, has been studying trees since the 1990s.
È la principale autrice di un nuovo rapporto che ha rilevato un diradamento delle foreste australiane.	She's a senior author of a new report which has found Australia's forests are thinning.
"It's concerning because the increase in tree mortality suggests that our forests are under increasing stress, and that's likely to have impacts on all the things that we rely on our forests for. So biodiversity, habitat provision, carbon sequestration, timber production - all of those things that make forests so important."	**"It's concerning because the increase in tree mortality suggests that our forests are under increasing stress, and that's likely to have impacts on all the things that we rely on our forests for. So biodiversity, habitat provision, carbon sequestration, timber production - all of those things that make forests so important."**
Lo studio si basa su 83 anni di registrazioni provenienti da oltre 2.700 appezzamenti forestali.	The study draws on 83 years of records from more than 2,700 forest plots.
È il primo a utilizzare dati relativi all'intero continente per mostrare quanti alberi stanno morendo naturalmente e non a causa di incendi o disboscamento, in quattro tipi di ecosistemi, tra cui foreste pluviali tropicali, savane e foreste temperate di eucalipto.	It's the first to use continent-wide data to show how many trees are dying naturally, not from fire or logging, across four types of ecosystems including tropical rainforests, savannas, and temperate eucalypt forests.
"We've looked at how that rate of tree mortality has changed and what we found is that it has increased over time in all of the forest types that we looked at and we had data from Southern Tasmania all the way up to the Northern Territory. All of them are showing this increase in tree mortality over time. And we've been able to associate that with the rise in temperature. So it's really a result of the changing climate."	**"We've looked at how that rate of tree mortality has changed and what we found is that it has increased over time in all of the forest types that we looked at and we had data from Southern Tasmania all the way up to the Northern Territory. All of them are showing this increase in tree mortality over time. And we've been able to associate that with the rise in temperature. So it's really a result of the changing climate."**
Lo studio mostra che le perdite sono state maggiori nelle regioni aride e nelle foreste	The study shows losses were highest in dry regions and in dense forests, despite the trees being well-adapted to tough conditions.

fitte, nonostante gli alberi fossero ben adattati alle condizioni difficili.	
Allo stesso tempo, ha rilevato che i nuovi alberi non crescono più velocemente, il che significa che quelli che muoiono non vengono sostituiti allo stesso ritmo di prima.	At the same time, it found new trees aren't growing faster, meaning those that die aren't being replaced at the same rate as before.
Lo studio fa seguito a una precedente ricerca che ha scoperto che le foreste pluviali tropicali australiane sono passate dall'essere spugne di carbonio a fonti nette di anidride carbonica.	The study follows previous research which found Australia's tropical rainforests had switched from carbon sponges to net sources of carbon dioxide.
Ciò è dovuto all'aumento della mortalità degli alberi, poiché quando questi muoiono e si decompongono, il carbonio che hanno immagazzinato viene rilasciato nell'atmosfera.	That is due to this increase in tree mortality as, when trees die and decay, the carbon they have stored is released into the atmosphere.
Per Lesley Hughes, professoressa alla Macquarie University e consigliera dell'indipendente Climate Council, si tratta di una tendenza profondamente preoccupante.	Lesley Hughes, a professor at Macquarie University and a councillor at the independent Climate Council, says it's a deeply concerning trend.
"Unfortunately, in many forests, they're actually producing more carbon than they are storing. So when we lose trees it's an example of a positive feedback, unfortunately, to the climate system. So not only is climate change apparently driving the loss of trees, every time we lose a tree, we are less able to deal with climate change in itself."	**"Unfortunately, in many forests, they're actually producing more carbon than they are storing. So when we lose trees it's an example of a positive feedback, unfortunately, to the climate system. So not only is climate change apparently driving the loss of trees, every time we lose a tree, we are less able to deal with climate change in itself."**
L'aumento della mortalità degli alberi non è un fenomeno esclusivo dell'Australia, poiché tendenze simili si osservano anche nelle foreste pluviali come quella amazzonica.	Rising tree deaths are not unique to Australia, with similar trends seen in rainforests like the Amazon.
Tuttavia, con i suoi ecosistemi diversificati e il clima variabile, ricercatori come la professoressa Medlyn sostengono che l'Australia sia un caso di studio fondamentale per comprendere i modelli globali.	However, with its diverse ecosystems and variable climate, researchers like Professor Medlyn say Australia is a key case study to help understand global patterns.
"One thing that concerns us is that the data that we use have mostly been collected by	**"One thing that concerns us is that the data that we use have mostly been collected by state forest agencies. And with the shift**

state forest agencies. And with the shift away from native forest harvesting, a lot of that work has actually been de-funded and is not being picked up by other agencies. So one thing we would really like to see is continued monitoring of forests over time." Il dottor Bruce Webber è direttore esecutivo per la scienza e la conservazione presso Bush Heritage Australia. Webber ha dichiarato che questi dati saranno fondamentali sia per i governi che per i gruppi ambientalisti per capire come aiutare al meglio le foreste ad adattarsi ai cambiamenti climatici. **"It's a real call to arms to work out how we can better understand monitoring of this mortality going forward and to sure ensure that we have enough monitoring plots around Australia, whether that's with the existing networks in forestry regimes or with new partnerships with private land conservation, for example, who monitor landscapes in an ongoing way. We need to look at all these opportunities to ensure that we get this insight going forward into the future and are then able to respond to it."**	**away from native forest harvesting, a lot of that work has actually been de-funded and is not being picked up by other agencies. So one thing we would really like to see is continued monitoring of forests over time."** Dr Bruce Webber is executive manager of science and conservation at Bush Heritage Australia. He says this data will be crucial for both governments and environmental groups to learn how to best help forests adapt to the changing climate. **"It's a real call to arms to work out how we can better understand monitoring of this mortality going forward and to sure ensure that we have enough monitoring plots around Australia, whether that's with the existing networks in forestry regimes or with new partnerships with private land conservation, for example, who monitor landscapes in an ongoing way. We need to look at all these opportunities to ensure that we get this insight going forward into the future and are then able to respond to it."**

Report by Sam Dover and Sophie Bennett for SBS News.