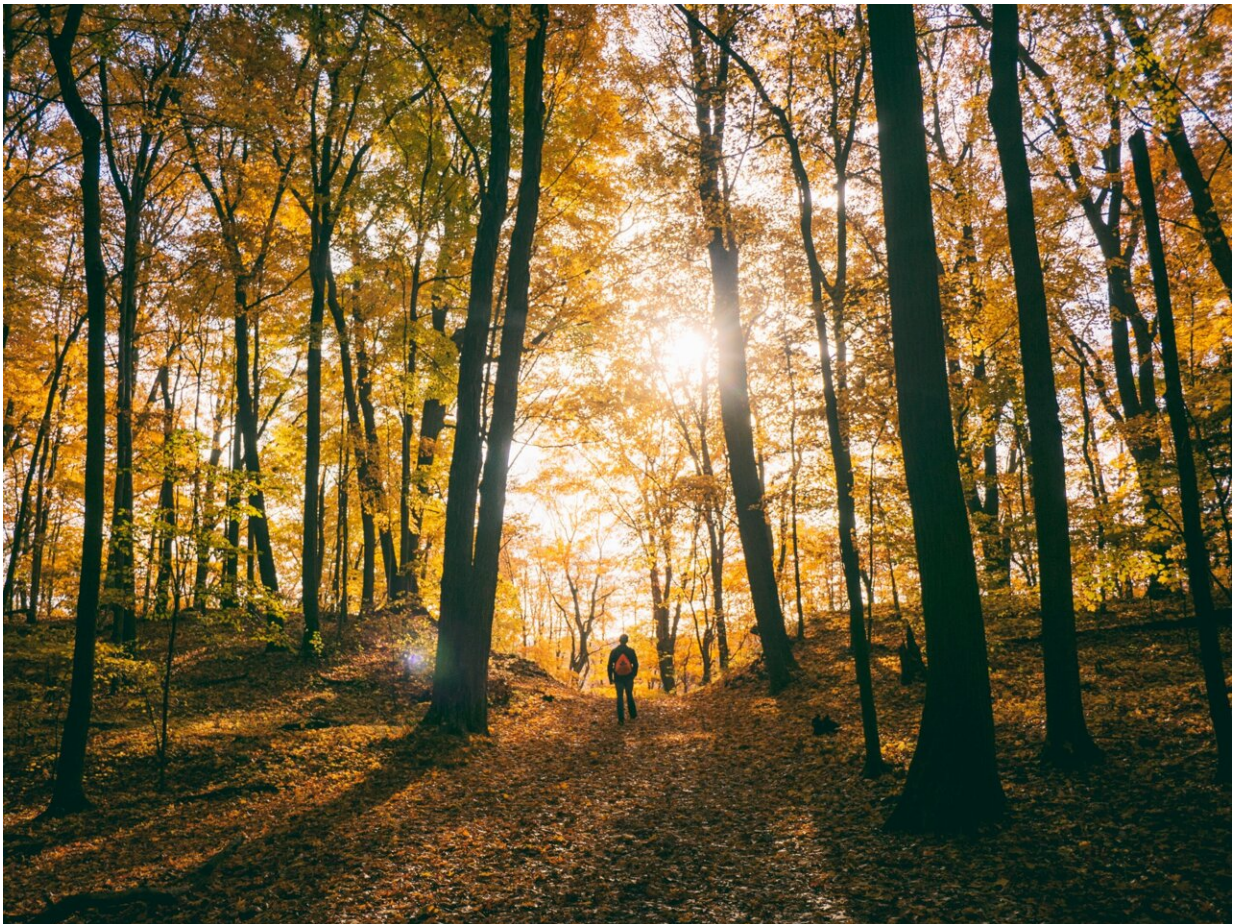


# Why diversity in nature could be the key to mental well-being

May 4 2024, by Andrea Mechelli

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By the time you have finished reading this article, at least one species on

our planet [will be lost](#) forever.

Humans rely on a wide range of animals, plants and microorganisms for healthy living environments. Research has shown that the continuing decline in biodiversity—the variety of life on Earth—is a threat to humanity's existence. [A study](#) my colleagues and I conducted takes this knowledge further. We have shown that biodiversity can also play a critical role for people's mental well-being.

Previous studies [have demonstrated](#) that contact with nature benefits mental well-being, especially for those who live in cities. For example, the risk of developing the two most prevalent mental disorders in the world, depression and anxiety, is [71% lower](#) in urban dwellers who live near green spaces. Most of these studies, however, haven't considered the extent to which these benefits depend on [natural diversity](#).

To address this gap in research, we examined whether environments with a wealth of natural features, such as trees, plants, waterways and wildlife, would bring greater mental health benefits than those with a smaller range of natural features.

Between April 2018 and September 2023, we gathered data through the [Urban Mind app](#), which measures [user experience](#) of urban and rural living. 1,998 people submitted 41,000 assessments of their environment and mental well-being throughout the day.

We found that [green spaces](#) with high natural diversity have more mental health benefits than those with [low natural diversity](#). Participants attributed nearly a quarter of this positive impact to natural diversity—and reported that the benefits can last for up to eight hours.

## **Wilding and well-being**

The results of our study suggest that the benefits of nature for mental well-being can be maximized by protecting and promoting biodiversity in our natural environments. This means moving away from heavily curated pockets of greenery—such as landscaped gardens and parks of mown grass, which are typically associated with low biodiversity—towards spaces such as wild meadows and waterways which provide a more attractive habitat for a range of plants and animals.

Our findings are consistent with other studies on the beneficial impacts of diverse natural habitats for mental health. A recent [survey of 15,000 households](#) found that those who lived near natural areas rich in plant and bird species report lower rates of mental health issues—even after accounting for social and economic differences between participants.

Our study expands this evidence by showing that, to experience the mental health benefits of biodiversity, we do not have to live near a diverse green space over a long period of time. In fact, benefits can be experienced through daily brief incidental encounters with biodiverse nature.

## **Stimulation for the senses**

There are many ways that nature, particularly biodiversity, can benefit mental health.

Biodiverse nature offers more stimulation for the senses, which may improve concentration, reduce mental fatigue and restore cognitive resources—such as memory and attention span. Also, people living in or near a natural space tend to spend more time exercising or socializing outdoors, both of which promote the release of endorphins and other mood-boosting hormones.

Diverse natural environments also play essential roles in reducing

pollutants and moderating temperatures. This helps protect against chronic physical conditions such as allergies and asthma, while decreasing stress levels and enhancing mental well-being.

The science, then, is clear: biodiversity is critical not only for the health of our planet but also for human mental health. Our research shows [biodiversity](#) must be considered part of the vital infrastructure of our cities.

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