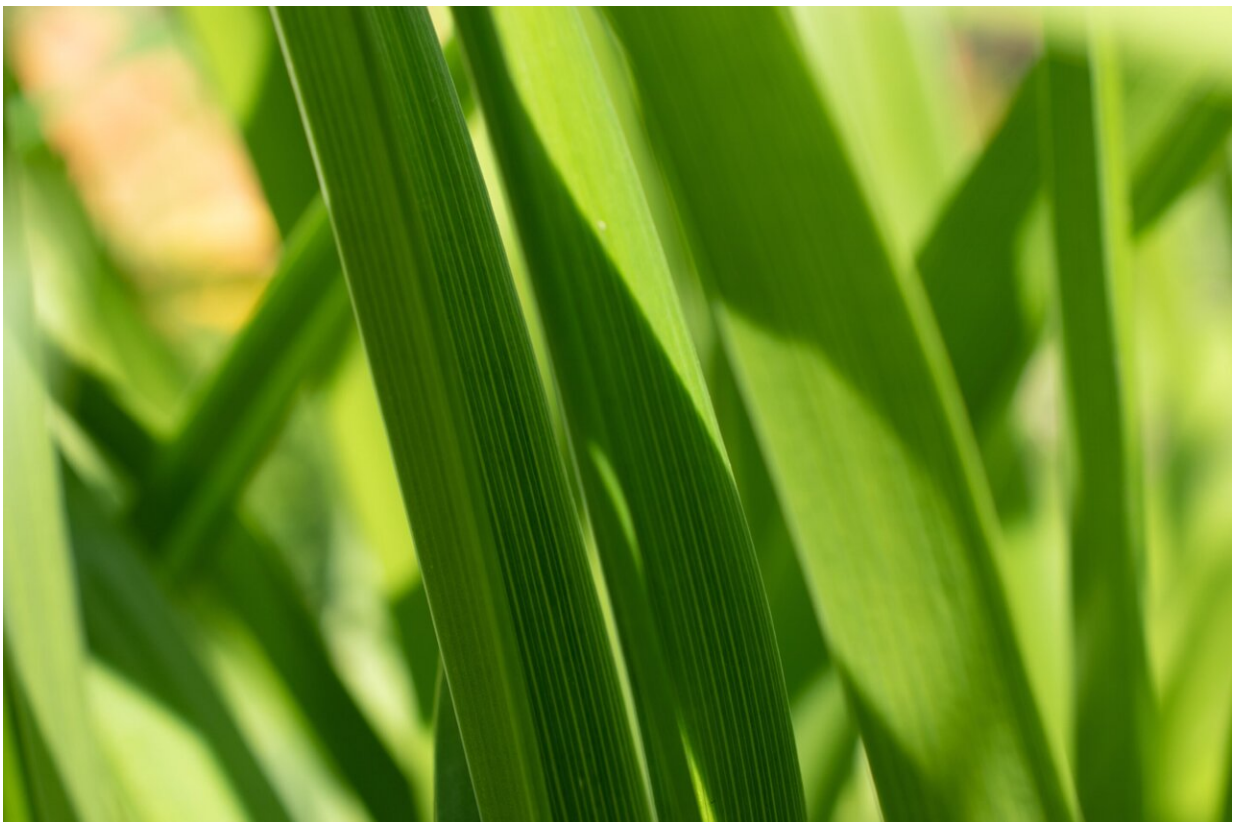


Botany must feature more prominently on the school curriculum to promote awareness of climate change, study warns

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Children must be taught more about the importance of plants if education about climate change and sustainability is to be effective,

experts have warned.

Botany should feature more heavily in the school curriculum, and be a greater focus of educational policy, [the study](#) in the *Journal of Biological Education* says.

It warns neither the importance of [plants](#) for [sustainability](#) nor the threats facing many of them are adequately represented in science [education](#). While the problem has been identified for some time, attempts to address it have often struggled to gain a foothold in [science education](#) practice.

Dr. Bethan Stagg from the University of Exeter and Professor Justin Dillon from UCL argue teachers should get support and training to challenge their existing assumptions about plants and their importance, so they can demonstrate the critical role of plants in the environment.

Plant diversity is crucial to ecosystems functioning effectively but many species are vulnerable to extinction, mainly due to [habitat loss](#), direct exploitation, and [climate change](#). The researchers have previously found people's plant awareness develops when they have frequent interactions with plants that have direct relevance to their lives.

Dr. Stagg said, "Plants provide an excellent opportunity for developing nature connections, since wild plants are ubiquitous in even the most built-up environment and can be reliably accessed at all times.

"But connecting with plants does not just have to be part of outdoor learning. Plants in the classroom are a valuable resource and can include local [wild plants](#) to foster connections with the biodiversity that children encounter every day.

"Focusing on learners' local environments may render their experiences

with plants more relevant and meaningful and allow for a growing appreciation and empathy towards plants.

"Embedding plants in sustainability education is no small challenge, since [biological diversity](#) and the ecological crisis are already sidelined in many sustainability policies and debates. Biodiversity is often treated as a sub-topic of climate change. The problem is evident in society more generally. We therefore need educational approaches that raise awareness about biodiversity more broadly."

Professor Dillon and Dr. Stag have been championing this approach in a series of webinars and a forthcoming open access course for educators.

Professor Dillon said, "Understanding plants' role in sustainability requires more than knowledge of species and awareness of their importance—it requires practical skills ranging from identification to habitat management and horticultural production, as well as a personal motivation to take action, and a social commitment to support others in wider-ranging activities, whether that be citizen science, food growing or protecting pollinators.

"Knowledge alone does not modify behavior. We cannot expect the current approach to plants in education to either foster plant awareness or contribute to action. Yet, many educational interventions continue to focus primarily on improving cognitive learning gains while paying limited attention to impacts on actions. But it is the behavioral change we need for both addressing the lack of plant awareness and developing learners' ecological literacy and agency."

More information: Bethan C. Stagg et al, Plants, education and sustainability: rethinking the teaching of botany in school science, *Journal of Biological Education* (2023). [DOI: 10.1080/00219266.2023.2264617](#)

Provided by University of Exeter

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