

Handle nature's contributions with care

A renewed focus on nature's utility is intended to enhance biodiversity protection. To avoid undermining conservation goals, this must be accompanied by safeguards on resource extraction, as well as meaningful acknowledgement and integration of Indigenous knowledge.

Whether to value and preserve nature for its own sake or for what it can provide to humans is an age-old debate in conservation biology. Beginning in the 1960s, a more utilitarian approach to the value of nature saw the idea of 'ecosystem services' emerge, and it has remained prominent ever since. But, perhaps recognizing that the ecosystem services concept insufficiently captures the reciprocal relationship between humans and nature and less monetizable benefits, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has recently adopted an alternative term: 'nature's contributions to people' (NCP)¹. Many conservationists express some unease with the term^{2,3}, feeling that it is still too focused on a utilitarian and extractive perspective, or that it is barely different from the ecosystem services conceptualization. Nonetheless, the NCP concept has taken root and is prominently featured in the zero draft of the Convention on Biological Diversity's post-2020 biodiversity framework⁴. NCP is also the focus of several articles in this month's issue of *Nature Ecology & Evolution*.

Molina-Venegas et al. describe in a [Brief Communication](#) how assemblages of plants with higher phylogenetic diversity capture a wider array of human uses of the plants, such as in food, fuel, medicine and clothing, than assemblages selected by chance. In an associated [News & Views](#), Mooers and Tucker highlight the implications of these findings for NCP by reminding us that evolutionary or phylogenetic diversity can preserve not only existing usages, but also those that

people have not yet conceived. While they note that this perspective speaks directly to the utilitarian view of nature, they argue that conserving evolutionarily diverse species is prudent by any measure.

Des Roches et al. also contribute a [Perspective](#) synthesizing the evidence that intraspecific genetic variation can increase material, non-material and regulating functions, three separate components of NCP. Following on from recent concerns⁵ that the post-2020 biodiversity framework's goals related to maintenance of genetic diversity lack specific targets and recommendations, the authors also suggest ideas for maintaining intraspecific diversity in populations and strengthening the evidence base that intraspecific diversity provides tangible benefits. Knowing that habitat loss and climatically driven range shifts can [homogenize communities](#) at the species and trait level raises the spectre that loss of phylogenetic and intraspecific genetic diversity will concomitantly remove associated benefits to people.

While emphasizing the benefits of genetic diversity or phylogenetic diversity to humans (largely for purposes of consumption) may incentivize and stimulate conservation, we must take care in framing them as 'new reports', when Indigenous communities worldwide have managed ecosystems to maintain and utilize diversity for thousands of years. Indeed, Díaz et al.¹ argue that the "use of NCP elevates, emphasizes, and operationalizes the role of indigenous and local knowledge in understanding nature's contribution to people." We think it is crucial that discussions of NCP better acknowledge and incorporate Indigenous

and local knowledge, and will strive to make this a more consistent editorial requirement for publication.

Another ongoing concern about emphasizing the utility of wild organisms for human needs is that it could exacerbate consumption and extraction and thus undermine conservation goals. This concern is perhaps why two of the post-2020 biodiversity framework's five goals⁴ focus on the sustainable use of beneficial wild and domesticated biodiversity and the equitable sharing of these benefits as critical aspects of NCP. The draft also rightly notes that traditional knowledge is central not only to identifying nature's beneficial organisms but also shaping the strategies for their sustainable use.

It remains to be seen whether the conservation community and humanity in general will be able to operationally define sustainable use and achieve balance between the use and abuse of nature. But in the meantime, we are hopeful that studies highlighting the diverse uses of wild species and their benefits to humanity will continue to advance the conservation agenda. □

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References

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