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Social dimensions to biodiversity

The international body set up to address the loss of biodiversity must take account of more than just science if it is to fulfil its mission.

In a Comment article on page 454 of this issue, a group of researchers writing about the future direction of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) note that the organization is “promoting a predominantly science-based understanding of biodiversity”.

This is to be expected, you probably think. *Nature*, after all, is the international weekly journal of science. Science-based understanding is what *Nature* does.

Yet, that line from the Comment is not an endorsement of that ‘science-based’ approach. It is a criticism. In the same article the authors dismiss a reliance on peer-reviewed science as “tunnel vision” and argue that “knowledge that has been standardized and scientifically validated” is insufficient to set useful policy. Above all, they insist, the IPBES must take a different approach from that of the Intergovernmental Panel on Climate Change (IPCC). The desire of the IPCC to produce standardized assessments (it is now working on its fifth) has limited its success, the authors argue, because it has “overshadowed arguably more important tasks: synthesizing wider perspectives about changing climates and spurring action by multiple policy actors”.

This provocative stance raises many questions. First of all, is the criticism of the IPCC fair? The answer is yes and no. That body is set up to draw fire from all sides — the more so because of its clumsy handling of claimed mistakes and the waning of political support for policies to restrict greenhouse-gas emissions. Yet critics of the IPCC too often overlook its heterogeneous nature: goals and practices vary

across the three separate working groups, so much so that some have argued convincingly that the IPCC should release not a combined report but three distinct ones. The political clout of speaking with one voice is greater, but a larger target is also easier to hit.

Hostility towards the IPCC’s perceived approach perhaps flows in part from how climate change is often presented: as a problem to solve; as something large and external to tackle; and so as something for science to quantify. But it can be viewed instead as a consequence of millions, if not billions, of separate decisions by individuals.

Here, there probably are lessons for the IPBES. If people are seen as major contributors to the problems of climate change and loss of biodiversity, then people’s behaviour and attitudes must be a major part of the solutions. That view makes both the problem and the solution more fuzzy and less susceptible to standardization, but it perhaps also makes the problem more realistic and the solution more practicable.

Discussion of values, stakeholders, community partners and engagement — the language of the social sciences — can make some traditional scientists uncomfortable. So what does this approach mean in practical terms for the IPBES? On one level, as the Comment authors suggest, the answer could be as simple as broadening the criteria of what counts as admissible material — learning to value local knowledge and expertise. The challenge of protecting biodiversity from a cumulative death by thousands and thousands of cuts is surely a good place to test this approach. One size cannot fit all. And it does not need to. ■

The name game

Nomenclature rules can disrupt planetary scientists’ fun, but they serve a purpose.

After the Soviet spacecraft Luna 3 retrieved the first pictures from the far side of the Moon in 1959, the justifiably proud Soviets started to call one of the lunar lava plains Mare Moscoviense, after their capital. The move seemed to defy a decades-old tradition that such maria are named after mental states (Tranquillitatis, for example, or Serenitatis), or words for water. At the 1961 meeting of the International Astronomical Union (IAU), French astronomer Audouin Dollfus was able to restore tranquillity in the astronomical community with a serene move. Moscoviense worked as a name, he said, because Moscow is, in fact, a “state of mind”.

To avoid further disputes as proud pioneers sought to thank benefactors, curry favour or merely indulge themselves, the IAU went on to establish working groups to set rules and conventions for nomenclature.

Procedures now make sure that mountains on Mercury are named with words for ‘hot’ in various languages, canyons on Venus christened after goddesses and small craters on Mars twinned with villages on Earth. Just last month, a 39-kilometre-wide Martian crater was named Moanda, after a town in Gabon.

However, as the News story on page 442 makes clear, those who seek to explore often remain (pleasingly) reluctant to follow the rules. The disputes are minor, but it is no surprise that those scientists working on NASA missions to Mars and Vesta, flushed with discovery, are annoyed by the apparently hidebound rules of the IAU. The row over Vesta centres, quite literally, not on a name but on issues of how to apply systems of longitude and latitude and mapping coordinates. On Mars, NASA researchers have taken to calling a prominent mountain that will be tackled by their Curiosity rover Mount Sharp, after a late colleague, rather than using the official title, Aeolis Mons.

Still, rules are rules. What’s in a name? Quite a lot, actually. Think how it would have been had the namers of planets not yielded to tradition. After discovering Uranus in 1781, astronomer William Herschel wanted to name the planet after George III, the king of Great Britain. And what a loss that would have been to generations of sniggering schoolchildren. ■