

# Restoration science does not need redefinition

**To the Editor** — In a recent Correspondence to *Nature Ecology & Evolution*, Higgs et al.<sup>1</sup> call for an open and flexible approach to ecological restoration, arguing that the current focus of the international standards published by the Society for Ecological Restoration (SER)<sup>2</sup> may contribute to a narrowing of the scope of restoration that is detrimental in times of change. Several of the authors of that Correspondence, together with others, recently detailed their proposal for a revamping of conservation and restoration principles, definitions and standards<sup>3</sup>.

We beg to differ. We agree that modifications and improvements to the SER standards document are necessary; in fact, a concerted effort is now underway to produce an improved second edition. However, the problems are not in the area of definitions and principles. The currently accepted definitions of ecological restoration and ecological rehabilitation, as presented in the SER primer<sup>4</sup>, are robust: “Restoration seeks to re-establish the pre-existing biotic integrity, in terms of species composition and community structure, while rehabilitation aims to reinstate ecosystem functionality with a focus on provision of goods and services rather than restoration”<sup>2</sup>. Both of these activities can

be planned and executed simultaneously, as advocated by the United Nations Convention to Combat Desertification document<sup>5</sup> cited by Higgs et al. Indeed, on landscape and larger scales, several ‘restorative’ activities can be undertaken jointly<sup>6–9</sup>.

By contrast, creating or repairing human-made systems designed to meet short-term human needs and desires belongs to the realm of ecological engineering or urban/landscape design, not ecological restoration<sup>2,4,8</sup>. Ecological engineering, urban and landscape design, and ecological restoration and rehabilitation are all valuable, and can be complementary<sup>9</sup>; but to be effective on large spatial scales, we need to distinguish clearly among these activities. Relaxing the rigour in the existing definition of ecological restoration, and that of ecological rehabilitation, will only sow more confusion precisely at a time when the ‘stakes’ are rising, to borrow a phrase used by Higgs et al. Any plea to change the basic definition of restoration is unhelpful to policymakers.

James C. Aronson<sup>1\*</sup>, Daniel Simberloff<sup>2</sup>,  
Anthony Ricciardi<sup>3</sup> and Neva Goodwin<sup>4</sup>  
<sup>1</sup>*Center for Conservation and Sustainable*

*Development, Missouri Botanical Garden, St Louis, MO, USA.* <sup>2</sup>*Department of Ecology and Evolutionary Biology, University of Tennessee Knoxville, Knoxville, TN, USA.* <sup>3</sup>*Redpath Museum, McGill University, Montreal, Quebec, Canada.* <sup>4</sup>*Global Development And Environment Institute, Tufts University, Somerville, USA.*

\*e-mail: [james.aronson@mobot.org](mailto:james.aronson@mobot.org)

Published online: 26 March 2018  
<https://doi.org/10.1038/s41559-018-0536-0>

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## Competing interests

The authors declare no competing interests.