Abstracts

Is the future-proofing of biodiversity conservation an unattainable oxymoron?

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Conservationists managing the impacts of global environmental change have adopted the concept of 'future-proofing' from the field of engineering to explicitly describe management of an ecosystem or other conservation target where the goal is its enduring, unbounded resilience. While this concept is extremely attractive, future-proofing conservation is inadequately conceived, undermining its application as a policy response to global change. Future-proofing is never assured, despite being framed as such, because it has proven impossible to accurately predict the trajectory of global change and its biological consequences. Management and policy decisions made without considering this uncertainty can result in cascading and sometimes deleterious consequences for conservation targets. Here, we deconstruct and reframe the concept of future-proofing to ensure the term can be applied realistically to biodiversity conservation. We anchor the future-proofing concept to promote a clear and functional definition within a logical and transparent framework. This framework identifies the primary drivers of change influencing the ongoing resilience of a conservation target and incorporates three categories of knowledge associated with the conservation at hand. Adoption of this framework will promote realistic expectations and increase the chance of long-term success for land managers, stakeholders and policy developers responding to the significant challenges associated with global environmental change.

Biography:

Bruce explores the effect of global environmental change on plant-resource allocation and plant-ecosystem interactions to better understand range shifts, landscape connectivity and plant fitness. He leads projects that translate novel research findings into improved management solutions to address the biggest challenges at the nexus of landscape change, species invasions and native species resilience.