iDiv Annual Conference 2019

Workshop

Kim, HyeJin

Martin Luther Universität Halle-Wittenberg

Integrated modelling for multi-scale Nature Futures

For research to impact conservation, scientific knowledge needs to reach where societies make decisions for the future of nature and humanity. To date, most scenarios for large scale assessments have explored impacts of society on nature using integrated assessment models (IAMs) but have neglected multi-dimensional and dynamic roles of nature in societal development. To address this gap, the IPBES scientific community started developing the first biodiversity-centric scenarios and modelling framework - Nature Futures - which builds on pluralistic human-nature relationships. Nature Futures seeks to achieve the ambition of integrating socio-ecological feedbacks across drivers of change, biodiversity, ecosystem functions and services, and human wellbeing, across spatial scale with projections into the future. This workshop invites all iDiv researchers to diversify the perspectives necessary to make Nature Futures scientifically rigorous, integrating the advancement made in biodiversity science over the last decades. Participants will map where iDiv's research contributes to the new scenarios and modelling framework and evaluate their scalability (local to global) and applicability (conservation context). This workshop aims to identify opportunities to use models and expert knowledge of iDiv in integrated modelling of biodiversity and ecosystem functions, social-ecological feedbacks, and the response of biodiversity to drivers to better inform global conservation.

Co-Authors:
Kim, HyeJin; Pereira, Henrique

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Ma, Xuanlong

Max Planck Institute for Biogeochemistry

Trait and more: what functional aspect of plant diversity can we remotely sense?

The global loss of biodiversity, the so-called "biodiversity crisis", is one of the most pressing global change issues. Today, there are high hopes on satellite data to observe plant diversity systematically over large areas and frequently in time. But the question which facets of plant diversity can be reliably observed from space is not trivial. Can we expect to remotely sense functional diversity (FD)? Is there any other "hidden" functional component of plant diversity that is remotely retrievable, functionally relevant, but not necessarily be part of FD? Is the answer in the joint exploitation of these data sources from different remote sensing platforms? We feel it is of uttermost importance of discussing these pressing questions between the remote sensing and the ecology community in depth so that the full potential of multi-source data coming from remote sensing can be exploited. On behalf of the Remote Sensing Taproot of the iDiv, we propose this workshop to brainstorm above questions within a broader iDiv community. We believe that this workshop will be of general interest to colleagues working on "Biodiversity and the Functioning of Ecosystems", "Biodiversity Change", and "Data - New Tools, New Codes, New Prospects".

Co-Authors:
Ma, Xuanlong; Mahecha, Miguel; Migliavacca, Mirco; Richter, Ronny; Dokter, Daniel; Huth, Andreas; Wirth, Christian