

Publication

Ontology and Integrative Research on Global Environmental Change: Towards a Critical GEC Science

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Author(s) Emmenegger, Rony; Rowan, Rory; Zuppinger-Dingley, Debra; Krug, Cornelia; Parreño, Alejandra; Korf, Benedikt

Author(s) at UniBasel Emmenegger, Rony ;

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This paper addresses 'integration' at the level of ontology to reflect on the conception and conduct of integrative research in Global Environmental Change (GEC) science. First, it outlines how the Earth system has become the dominant conceptual framework within which to approach GEC, marginalizing other ways of understanding the world. The paper argues that in order to grasp GEC and develop more effective responses to it, it is necessary to move beyond the singular ontology offered by the Earth system and engage with plural ontologies. Second, the paper highlights that scientific knowledge is inherently situated within networks of social and institutional power and oriented towards various social ends, and that as a consequences GEC science needs to reflect more deeply on the politics of its own knowledge production and its relationship to the policy sphere. In conclusion the paper calls for a more critical GEC science that builds these reflections into its scientific practices, and provides some leading questions that integrative research initiatives can use to guide self-reflexive research practices.

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