

12.12.2019, 15:15

KlimaCampus Kolloquium

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Extreme climate events with ecological relevance: from droughts and floods on land to marine heat waves along the coast

Mounting evidence points towards an increase in intensity and frequency of extreme weather and climate events over recent decades. These changes are being linked to human-induced climate change, while impacts on individual extreme climate events are more difficult to quantify. Limitations in the observational network, both for physical climate system parameters and even more so for long-term ecological monitoring, have hampered progress in understanding the effect of extreme climate events on bio-physical interactions.

However, recent advances open new opportunities for developing a mechanistic understanding of how extreme climate events affect human and natural systems. This is illustrated with hydroclimatic extremes, such as droughts and floods, and their effect on terrestrial ecosystems for tropical rainforests, in semi-arid regions, as well as for marine heat waves in the coastal environment.

[Abstract shortened. Find the full abstract online at klimacampus-hamburg.de]

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