**CYANOLICHEN DIVERSITYIN EAST AFRICAN MONTANE ECOSYSTEMS**

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Cyanolichens are an integral part of many epiphytic communities. Our study area in the equatorial East Africa mainly includes the Taita Hills and Mt. Kasigau of the Eastern Arc mountain range in Kenya and Mt. Kilimanjaro in Tanzania. While the Eastern Arc mountains are ancient and the cloud forests of Taita Hills known for their high levels of endemism, the dormant volcano Mt. Kilimanjaro is geologically much younger, both are part of the global Eastern Afromontane Biodiversity Hotspot. The studied ecosystems span from tropical savanna at the base of the mountains through several montane forest zones to alpine heaths at ~4500 m alt, including both natural and disturbed habitat types. The cyanolichendiversity in the area is much higher than previously known. Especially genus *Leptogium* is extremely diverse with over 70 putative species, including nine established species previously known from the area and over 60 phylogenetically, morphologically, and/or ecologically defined Operational Taxonomic Units (OTUs). Additional diversity is also found, for example, among Lobariaceae and the lichen cyanobionts. Even though cyanolichens are present in almost all studied ecosystems, their diversity and abundance vary greatly, often diminishing quickly with intensifying disturbance. Many of thespecies also seem to have specific ecological requirements and/or limited distributions in the area and may hence be especially threatened by habitat loss and degradation and changing climate. Funding: UK (German Research Foundation, DFG, 408295270), UK & JR (European Union’s Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie grant agreement, 705777).