BOOK OF
ABSTRACTS

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Peatlands of Amazonia: current knowledge, distribution and threats

T2.34 Tropical Peatland Forest Conservation and Sustainability: Challenges and Opportunities

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Abstract: Substantial peat deposits are known to exist across Amazonia. The peatlands of the Pastaza-Marañon Foreland Basin in Northern Peru have received increasing attention from researchers in the past decade, however, peatlands found in other Amazonian countries remain relatively unstudied. Most notably the peatlands of Brazil and Venezuela, which are predicted to cover 260,000 km^2 and 39,000 km^2, respectively. Peatlands are known to be the most carbon dense terrestrial ecosystem, once soil carbon is accounted for, and due to the remote and inaccessible location of many Amazonian peatlands most of them are believed to remain relatively intact. Thus, these ecosystems are likely to harbour large stocks of carbon and unique biodiversity, which need to be protected. We undertook a systematic review to determine the current state of knowledge of Amazonian peatlands. We then used remotely sensed and spatial datasets to assess the potential threats to peatlands from fire, deforestation, oil and gas exploration and hydroelectric dam construction, based on our current understanding of peatland distribution. Our systematic review found 169 studies published about Amazonian peatlands, with 70% of studies published in the last 10 years. Most research was done in Peru (48% of all studies), followed by Venezuela (15%) and Brazil (12%). Analysis of peatland threats found that between 2015 and 2020, 13,400 km^2 of peatlands were burnt and 4000 km^2 of forested peatlands were cleared of tree cover. The greatest threat to peatlands from dam construction and oil and gas production were in Western Amazonia where several large dams are operational and large areas of land are either being exploited or have the potential for oil & gas exploitation. Our analysis highlights that whist research into Amazonian peatlands has increased in the past decade, there are still large gaps in our knowledge and as some areas are under threats of different forms. This analysis allows us to highlight key areas where further research is needed and make recommendations for policy makers, to help improve our knowledge of this important ecosystem.