

Global Relation of Mangrove Canopy Height to Frequency of Geophysical Variables

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A recent article published in Nature Geoscience describes the work performed by researchers of the South Central CASC. This research advances the determination of robust quantitative relationships between forest canopy height and the magnitude of carbon storage in coastal regions. Although mangrove wetlands have been recognized as the most productive and carbon-dense forest in the world,

there has been limited information on actual measurements of potential carbon dioxide sequestration. This work applied a new approach using remote sensing techniques that allowed not only the accurate estimation of canopy height using radar and laser-based systems, but also the assessment of the relatable impact of rainfall, temperature and cyclone frequency on tree height; the tallest (68.2 m) mangrove trees were found in Gabon, Africa, which is an area not impacted by cyclones and with low human population density.

Results from this work help set a critical baseline for quantifying the effect of climate mitigation efforts and reduce uncertainties of mangrove carbon storage estimates, that are essential for global carbon management and ecosystem conservation initiatives in the future.

Weblink to this research can be found:

https://www.nature.com/articles/s41561-018-0279-1?WT.feed_name=subjects_earth-and-environmental-sciences