

**ESTIMATING BIODIVERSITY OF DRY FORESTS AND  
CORAL REEFS WITH HYPERPECTRAL DATA:  
A NASA EPSCOR PROJECT AT UPRM**

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The objective is to develop effective biodiversity assessment methodologies for a gradient of Neotropical habitats from coastal marine to upland forest ecosystems using innovative hyperspectral image processing techniques. Our goal is to develop remote-sensing derived surrogates of biodiversity that are applicable across different ecosystems and across different spatial scales. The proposed work uses multi-temporal and multi-scale satellite and airborne hyperspectral imagery, and in situ data to characterize the distribution, abundance, and phenology of biodiversity in the Guánica Dry Forest and La Parguera Reef in Puerto Rico. This work is expected to train graduate and undergraduate students in remote sensing, advanced processing tools, hyperspectral imaging, and terrestrial and coastal ecology. This work strengthens the collaboration between faculty in Science, Agriculture and Engineering Departments and includes collaboration with NSA, GRC, GSFC, ARC, and JPL and the US Forestry Service in PR and PR department of Natural Resources.