

Nutrient and streamflow fluxes in the Espiritu Santo River, a tropical watershed in the Luquillo Mountains

The Espiritu Santo River is located in Northeast Puerto Rico, an ecological diverse region of different land uses, protected lands, developed lands, and minor agriculture that connects the Luquillo Mountains, floodplains and coastal ecosystems. Also mountain wetlands, a tropical rain forest, coastal forest, and a mangrove forest cover the basin. Gradients in temperature and rainfall are created by the steep elevational relief (McDowell et al., 2021) on the upper watershed. El Yunque National Forest receives between 5,000 and 6,350 mm of precipitation annually but water extraction for human consumption is extensive. Nutrient export in tropical streams is influenced by a variety of factors, including the local geology. This poster analyzes nutrients export and streamflow patterns over 3 years in the Espiritu Santo River.

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