



# Satellite-based Analysis of ***River Morphology and Riparian Vegetation*** Changes: Insights from the Vistula River case study

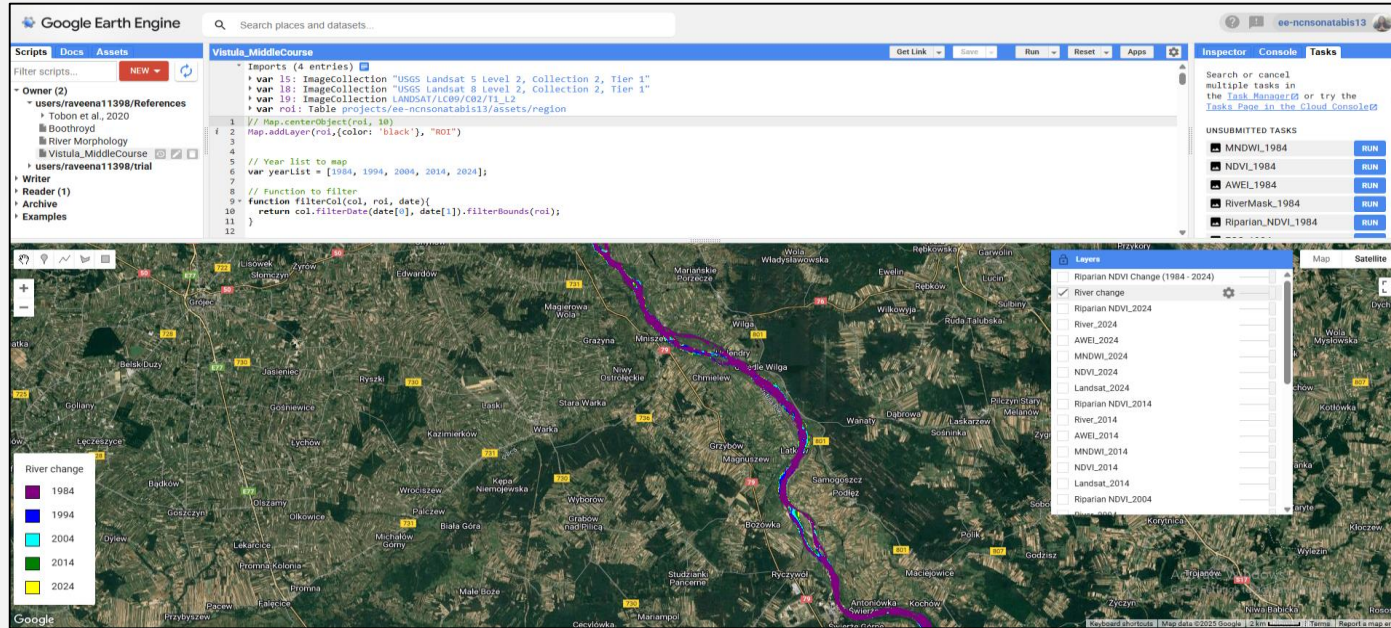
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Polish Academy of Sciences  
Warszawa, Poland*

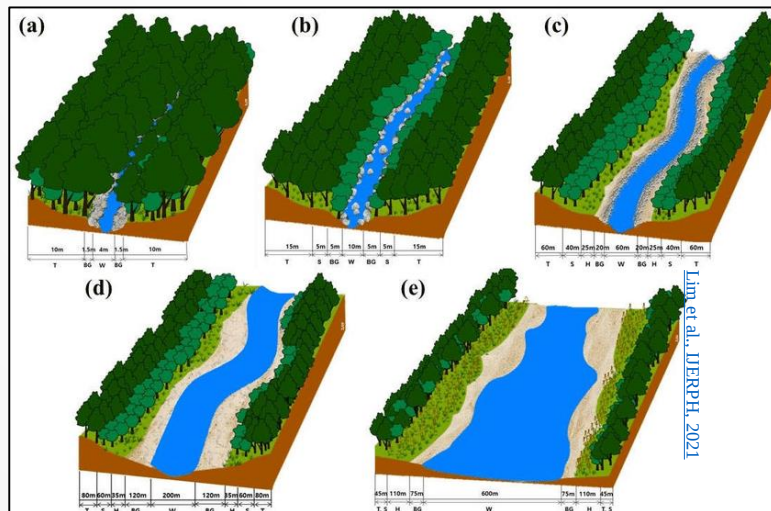
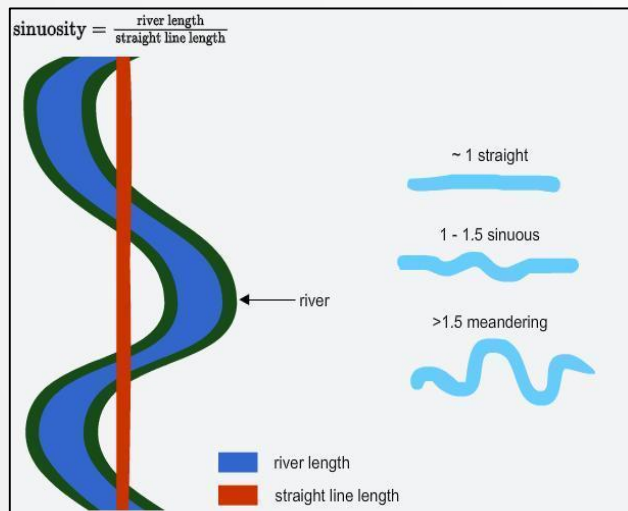
**20 May 2025**



i. Multi-temporal (1984-present) **Landsat** data on **Google Earth Engine**



ii. Pixel-based tracking of **river sinuosity patterns** and **riparian vegetation**



iii. Initial Focus: **Vistula River** → scalable to other river systems **globally**



**"FRESHWATER SYSTEM HEALTH: A HYDRAULIC PERSPECTIVE"**