

# **Do rivers have rhythm?**

## **Measuring the pulse of stream ecosystems**

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While global models and satellite imagery have been calculating the productivity of terrestrial ecosystems and the ocean for decades, we know very little about the magnitude, timing and patterns of productivity in the world's rivers. Through synthesis, new data collection and modeling the StreamPULSE project has now estimated annual productivity for several hundred US rivers with dozens of new rivers from throughout the world to be added in the coming years. We are beginning to learn new things about river ecosystem productivity at the scale of individual rivers and are making new, empirically derived estimates of the role of rivers in the global C cycle. These new measurements make possible a wide variety of new research frontiers. This talk will summarize what we knew about river metabolism two years ago, what we have recently learned, and what new questions we are beginning to answer.