

SEMINAR

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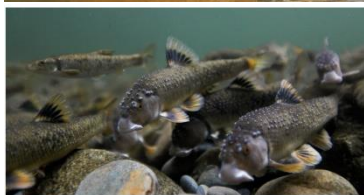
Conserving freshwater biodiversity in a rapidly changing world



By Xingli Giam

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Rapid, large-scale environmental change is the new normal in the Anthropocene. My goal is to conduct interdisciplinary research that identifies and mitigates the impact of current and emerging environmental stressors on biodiversity. In this seminar, I first consider Southeast Asia, where forest conversion to oil palm monoculture, is the dominant environmental change. Through fieldwork, I show that forest conversion to oil palm devastates fish communities, but that retention of forested riparian reserves prevents species losses. However, getting oil palm growers to retain forested riparian buffers will require regulations and/or incentives. Using market surveys, I show that consumers are willing to pay a premium for palm oil products from companies committed to zero deforestation. I then present a global meta-analysis to test the efficacy of forested riparian reserves in conserving a wide range of taxa at both local and landscape scales across different production landscapes. Finally, I present results from ongoing work on the community assembly of freshwater fishes across the US and their implications for species responses to environmental change.



About the Speaker

Xingli Giam is a postdoctoral research associate in the School of Aquatic and Fishery Sciences at University of Washington. His research aims to identify and mitigate some of the world's most pressing and emerging anthropogenic threats on the environment by integrating field investigations with modern quantitative methods. Other active areas of research include macroecology, community ecology, and ecological statistics. Xingli received his undergraduate and MSC degrees in Biology from the National University of Singapore before completing a Ph.D. in Ecology at Princeton University.