



Friday 9th of December 2016, 02:30pm

at the CRIOBE library - Moorea



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Aerobic metabolic scope: the answer to life, the universe, and everything climate change related?

Temperature-induced limitations on the cardio-respiratory oxygen supply capacity of fish and other aquatic ectotherms have been suggested as a universal driver of performance and distribution under climate change. This 'oxygen- and capacity-limited thermal tolerance (OCLTT)' concept – and associated measurements of oxygen supply capacity (i.e., aerobic scope; the difference between maximum and resting aerobic metabolic rates) – has become a popular tool for assessing the impacts of temperature and other environmental stressors on aquatic ectotherms, particularly for fish physiologists and ecologists worldwide. However, recent experimental work has failed to find links between oxygen supply capacity and performance of fishes, including growth, temperature preference, and temperature tolerance. This has led to heated discussions in the scientific community about the overarching relevance and usefulness of the OCLTT concept. In this talk I give you my take on the topic and discuss why OCLTT and aerobic scope is important for both science and policy making.