



Land invasion by the mudskipper in fresh and saline waters of the Mekong River

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There has been a long-standing controversy about whether vertebrates emerged from coastal, estuarine or riparian areas in the Paleozoic. Here, we report the ecology of a living amphibious fish *Periophthalmodon septemradiatus* that is in the process of niche expansion into terrestrial habitats from estuarine to freshwater environments along the Mekong River, Vietnam. Adult fish are highly terrestrial and never venture into the water. The smallest fish collected from the river mouth were juveniles shortly after starting an amphibious life, suggesting that reproduction occurs in both brackish and freshwater. In contrast, otolith Sr:Ca ratios indicate larval hatching only in brackish water. Analysis of mitochondrial cytochrome c oxidase subunit II and the mitochondrial D-loop demonstrated no genetic segregation between fish populations. The fish provides a unique opportunity to study how ambient salinity conditions affects the biology and ecology of a living vertebrate during the transition from water to land.



Tuesday February 26th at 13.15
Room 127 (zoofys kaffestue), building 1131