



Tradeoffs to respiratory gas-exchange in fishes
Christian Damsgaard
Zoophysiology, Aarhus University

The cardiorespiratory system displays tremendous plasticity within and between species allowing acclimation and adaptation to novel environments. Thus, gas-exchange capacity at respiratory surfaces and tissues differ markedly between species and possibly reflect physiological adaptations that supported major transitions in vertebrate evolution. In this talk, I present data on gas-exchange the gills and retinae to illuminate limitations and tradeoffs to gas-exchange at both ends of the oxygen transport cascade. Specifically, I will talk about the evolution of air-breathing that imposed significant morphological and functional changes to the gill, and I will talk about mechanisms for oxygen delivery to the retina of fishes and their implications for the evolution of vision.



Friday March 6th at 13.15

Seminar room at Zoophysiology (1131-127)