Zoophysiology Seminar at Aarhus University

Experimental versus evolutionary losses of the ß1-adrenergic receptor in teleost fish

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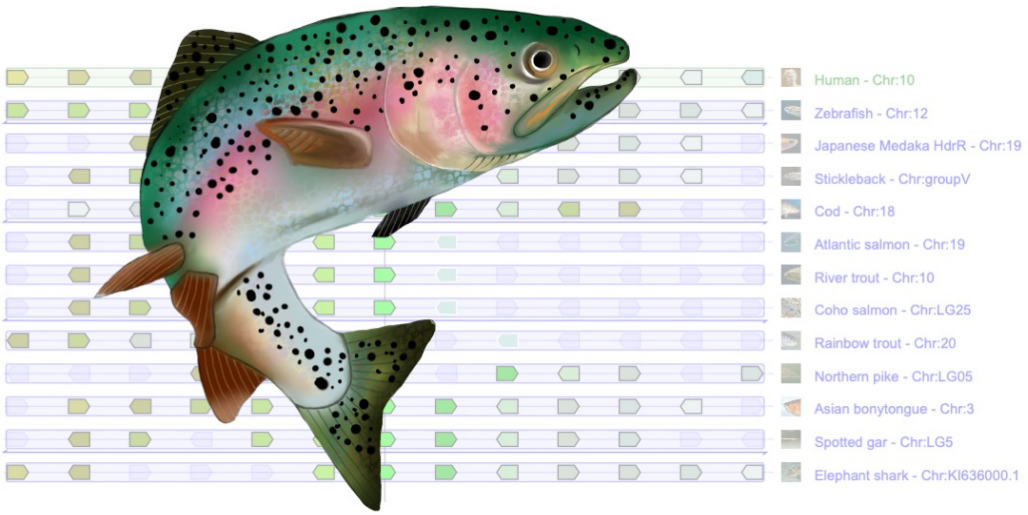
In most vertebrates, including mammals, stimulation of cardiac ß1-adrenergic receptors is synonymous with the increased heart rate and cardiac contractility that occurs during exercise or stress. Decades of equivalent research in teleost fish has reached ambiguous conclusions, wherein many classic studies, mainly on rainbow trout, implicated only ß2-receptors in the heart, whilst modern work in zebrafish has found evidence for expression of ß1-adrenergic receptors. This talk will showcase how recent advancements in molecular biology (CRISPR-Cas9 knockout of ß1-adrenergic receptor in zebrafish) and comparative genomics has begun to reveal the basis for interspecific differences in adrenergic control of the teleost heart.



Friday, June 9th from 13.00 to 14.00 in the Zoophysiology Seminar Room (1131-127)