

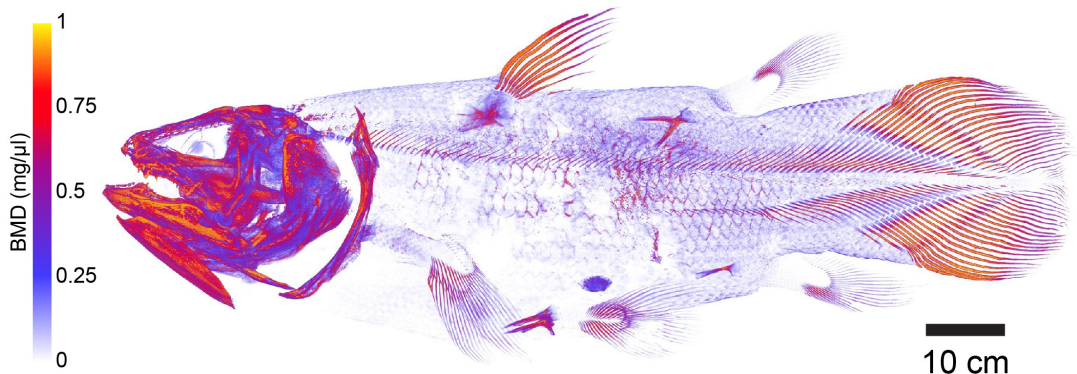


Buoyancy and balance in the coelacanth (den blå fisk)

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Buoyancy and balance are important parameters for slow moving, low-metabolic, aquatic organisms. The extant coelacanth has among the lowest metabolic rates of any living vertebrate and can afford little energy to keep station. We have been able to “show” (n=1), using non-invasive MRI and CT imaging, that coelacanth buoyancy closely matches its depth distribution. Its lipid filled fatty organ is well suited to support neutral buoyancy and due to a close-to-perfect balance, simple fin maneuvers allows the coelacanth to assume different body orientations with little physical effort. In the talk, I will integrate a historical overview of coelacanth observations with our results to demonstrate a close match between tissue composition, depth range and behavior. The collection-based approach could be used to predict depth range of less well-studied coelacanth life stages.



Friday, February 10th from 13:00-14:00
Zoophysiology Seminar Room 1131-127