Sperm of Indonesian fish that can acclimate different osmotic environment show distinctive response against extracellular Ca\(^{2+}\)([Ca\(^{2+}\)]\text{ex})

Goby (*Oxyeleotris marmorata*) can acclimate from fresh water to brackish water, other two species, Java carp (*Puntius javanicus*), and catfish (*Clarias batrachus*) cannot acclimate to brackish water. In the presence of [Ca\(^{2+}\)]\text{ex}, sperm of goby show motility in higher osmotic solution. [Ca\(^{2+}\)]\text{ex} do not induce motility in higher osmotic environment. Brackish water contain [Ca\(^{2+}\)]\text{ex}, thus the Ca\(^{2+}\) response among the three species appear to have evolved to adapt to either fresh water containing low Ca\(^{2+}\) content or brackish water containing reliably higher Ca\(^{2+}\).