Experimental hydrodynamics of fast-floating aquatic animals

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Résumé ou extrait : "[P]resents the latest research on the physiological, morphological, and evolutionary factors in aquatic animal locomotion. Beginning with an overview of how to best conduct experiments on swimming aquatic animals, assessing hydrodynamic forces, resistance, and geometric parameters of animal bodies, this book goes on to detail how aquatic animals, such as fast-moving dolphins, can achieve high speeds without over-expelling their energy resources. It provides insight into investigations of how animals, including dolphins, sharks, and swordfish, can maneuver through water at high speeds, offering a natural model for improving human and technological underwater locomotion, which is discussed in detail ... Key features: Analyzes the locomotive benefits of bodily structures in aquatic animals such as cetacean species, penguins, sharks, and fast-swimming fish species like the swordfish. Features the latest research and firsthand investigative studies of aquatic animal hydrodynamic factors including skin elasticity, fin shape and movement, bioenergy, and more. Profvides a comparison of human to animal hydrodynamics, detailing how energy is spent differently due to evolutionary advances in the latter"--Page 4 of cover

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