

Ever since the time of Aristotle, people have been interested in how animals work. In his wide-ranging studies of animals, Aristotle wondered specifically about how fish swim and how they function in their watery world, and he even applied basic ideas of mechanics and engineering to the study of biology. This type of research, now called biomechanics, has emerged in the past twenty years as a burgeoning enterprise that integrates approaches from engineering with studies of animal function.

With over 25,000 species, fishes are the largest clade of vertebrates and demonstrate remarkable diversity in body form, ecology, behavior, and physiology. Fishes are critical components of the earth's environment and understanding how fishes function is essential for future advances in conservation and fisheries biology, understanding major patterns in the evolution of fishes, and in the construction of new underwater robots based on principles of fish functional design.

In **FISH BIOMECHANICS**, leading workers in the area of biomechanics review major functional systems in fishes, and provide an overview of new approaches and techniques that are allowing long-standing questions about fish functional design to be addressed. Chapters are written to allow the non-specialist in biomechanics to understand the approaches and concepts that underlie the remarkable recent advances in our understanding of fish respiration, locomotion, prey capture, physiology, and sensing of the environment.

Coverage includes:

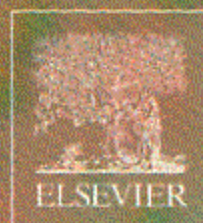
- Full color summary figures and explanatory diagrams
- Extensive coverage in rapidly expanding area of biomechanics research
- Comprehensive review of recent literature on fish biomechanics
- First volume in over twenty years on this subject
- Contributions by leaders in the field

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