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Sommario/riassunto

Fish lives in environments with a wide variety of chemical characteristics (fresh, brackish and seawater, acidic, alkaline, soft and hard waters). From an osmoregulatory point of view, fish have developed several mechanisms to live in these different environments. Fish osmoregulation has always attracted considerable attention and in the last years several studies have increased our knowledge of this physiological process. In this book several specialists have analyzed and reviewed the new data published regarding fish osmoregulation. The chapters present an integrative synthesis of the different aspects of this field focusing on osmoregulation in specific environments or situations, function of osmoregulatory organs, general mechanisms and endocrine control. In addition, interactions of osmoregulatory mechanisms with the immune system, diet and metabolism were also reviewed. New emerging techniques to study osmoregulation has also been analysed.