Record Nr. UNINA9910825253403321
Titolo Fish osmoregulation / / editors, Bernardo Baldisserotto, Juan Miguel

Mancera Romero, B.G. Kapoor

Pubbl/distr/stampa Enfield, N.H., : Science Publishers, c2007

ISBN 0-429-52660-1

0-429-06390-3 1-281-73692-9 9786611736927 1-4398-4311-2 1-57808-555-1

Edizione [1st ed.]

Descrizione fisica xii, 527 p. : ill

Altri autori (Persone) BaldisserottoBernardo

Mancera RomeroJuan Miguel

KapoorB. G

Disciplina 571.1/7

Soggetti Fishes - Physiology

Osmoregulation

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali "First published 2007 by Science Publishers."

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Immune and Osmoregulatory System Interaction -- The Involvement of

the Thyroid Gland in Teleost Osmoregulation -- Diet and Osmoregulation -- The Renin-Angiotensin Systems of Fish and their

Roles in Osmoregulation -- Effect of Water pH and Hardness on Survival and Growth of Freshwater Teleosts -- Arginine Vasotocin and Isotocin: Towards their Role in Fish Osmoregulation -- Cellular and Molecular Approaches to the Investigation of Piscine Osmoregulation:

Current and Future Perspectives -- Osmoregulation and Fish

Transportation -- Special Challenges to Teleost Fish Osmoregulation in Environmentally Extreme or Unstable Habitats -- Energy Metabolism and Osmotic Acclimation in Teleost Fish -- The Renal Contribution to Salt and Water Balance -- Intestinal Transport Processes in Marine Fish Osmoregulation -- The Use of Immunochemistry in the Study of

Branchial Ion Transport Mechanisms -- Rapid Regulation of Ion Transport in Mitochondrion-rich Cells -- Control of Calcium Balance in

Sommario/riassunto

Fish -- Role of Prolactin, Growth Hormone, Insulin-like Growth Factor I and Cortisol in Teleost Osmoregulation.

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.