Record Nr. UNINA9910253900303321 Autore Dantzler William H Titolo Comparative Physiology of the Vertebrate Kidney / / by William H. **Dantzler** New York, NY:,: Springer New York:,: Imprint: Springer,, 2016 Pubbl/distr/stampa **ISBN** 1-4939-3734-0 Edizione [2nd ed. 2016.] 1 online resource (X, 292 p. 17 illus., 1 illus. in color.) Descrizione fisica 571.1 Disciplina Soggetti Animal physiology Vertebrates Animal anatomy **Biochemistry** Animal Physiology Animal Anatomy / Morphology / Histology **Animal Biochemistry** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Introduction -- Renal Morphology -- Initial Process in Urine Formation -- Transport of Inorganic Ions by Renal Tubules -- Transport of Fluid by Renal Tubules -- Transport of Organic Substances by Renal Tubules -- Diluting and Concentrating Mechanism -- Integrative Summary of Renal Function. Sommario/riassunto This second edition offers a comprehensive overview of the physiological functions of vertebrate kidneys from a comparative viewpoint, with particular emphasis on nonmammalian vertebrates. The topics covered include renal structure; glomerular ultrafiltration; tubular transport of inorganic ions, organic substances, and fluid; and urine dilution and concentration. Mammalian renal function is only considered for purposes of comparison with nonmammalian renal function and as a frame of reference for some of the discussions. The major findings on nonmammalian renal function and the important

unanswered questions raised by those findings are described in detail. As such, the book provides comprehensive information on comparative

renal function for biological scientists and advanced students of biology with some knowledge of physiology and a desire to know more about renal function in vertebrates, and for mammalian renal physiologists who wish to obtain a broader view of renal function.