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	REGENERATION; WHAT ARE PROPERTIES OF A GOOD NATURAL REGENERATIVE SUBSTRATE?; SUMMARY; CHAPTER 5: Tissue Interactions in Regeneration; THE AMPHIBIAN LIMB; HUMAN FINGERTIPS AND THE MAMMALIAN LIMB; ANTLER REGENERATION; MAMMALIAN EAR HOLE REGENERATION; CATFISH BARBEL REGENERATION; MAMMALIAN EAR HOLE REGENERATION; CATFISH BARBEL REGENERATION; MAMMALIAN SKELETAL MUSCLE REGENERATION; LENS REGENERATION IN NEWTS; SUMMARY; CHAPTER 6: Role of the Nerve in Regeneration; EPIMORPHIC REGENERATION; TISSUE REGENERATION; SUMMARY; CHAPTER 7: Morphogenesis of Regenerating Structures TYPES OF MORPHOGENETIC PHENOMENA MAJOR CONCEPTS IN MORPHOGENESIS; EXAMPLES OF MORPHOGENETIC CONTROL IN REGENERATING SYSTEMS; SUMMARY; CHAPTER 8: Reintegrative Processes in Regeneration; SKELETAL TISSUES; SKELETAL MUSCLE; NERVOUS SYSTEM; ANGIOGENESIS; REGENERATING LIMB; MORPHALLAXIS; SUMMARY; CHAPTER 9: Regeneration and Embryonic Development; AMPHIBIAN LIMB; AMPHIBIAN TAIL; AMPHIBIAN LENS; MAMMALIAN SKELETAL MUSCLE; SUMMARY; CHAPTER 10: Regeneration and Aging; AGING AND REGENERATION IN INDIVIDUAL ORGAN SYSTEMS; EPIMORPHIC SYSTEMS; GENERAL CHARACTERISTICS OF REGENERATION IN OLD AGE MAJOR ISSUES IN REGENERATION AND AGING SUMMARY; CHAPTER 11: Influence of the Environment on Mammalian Regeneration; WHAT IS MEANT BY ENVIRONMENT?; THE INFLUENCE OF SUBSTRATE; CELLULAR ENVIRONMENT; IOCAL GROWTH FACTORS; VASCULAR ENVIRONMENT; SYSTEMIC HORMONAL INFLUENCES; ROLE OF THE OVERALL BODY ENVIRONMENT; BIOELECTRIC ENVIRONMENT; MECHANICAL ENVIRONMENT; BIOELECTRIC ENVIRONMENT; SUMMARY; CHAPTER 12: Stem Cells, Plasticity, and Regeneration; WHAT IS A STEM CELLS; WHERE ARE ADULT STEM CELLS FOUND?; PROPERTIES OF ADULT STEM CELLS; STEM CELLS IN REGENERATION AND TISSUE RECONSTRUCTION EXAMPLES OF STEM-CELL PARTICIPATION IN REGENERATION
Sommario/riassunto	With the explosion of knowledge from molecular biology and the burgeoning interest in generating or regenerating tissues or organs through various bioengineering or stem cell approaches, many scientists and students have shown a renewed interest in the phenomenon of regeneration. Because relatively few have had the luxury of being able to approach the phenomenon of regeneration from a broad biological perspective, Dr. Carlson has produced a book that outlines the fundamental principles of regeneration biology. Subject matters focus principally on regeneration in vertebrate systems, but also in