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Nota di contenuto	Chapter 1: Concept of molecular systematics -- Chapter 2: Parasitic helminths of medical and veterinary importance -- Chapter 3: Overview of parasitic helminth diversity: how molecular systematics is involved -- Chapter 4: Molecular evolution of parasitic helminths -- Chapter 5: Challenges of species delimitation for parasitic helminths -- Chapter 6: Molecular genetic markers: general use in parasitic helminth researches -- Chapter 7: PCR and DNA sequencing: guidelines for PCR, primer design, and sequencing for molecular systematics and identification -- Chapter 8: DNA sequence alignment and phylogenetic inferences: guidelines for analysis and the selection of appropriate methods for molecular systematics -- Chapter 9: Parasitic helminth sample preparation for taxonomic study -- Chapter 10: Molecular systematics of nematodes -- Chapter 11: Molecular systematics of trematodes --

Chapter 12: Molecular systematics of cestodes -- Chapter 13: DNA taxonomy of parasitic helminths -- Chapter 14: Implementation of genetic markers from molecular systematics to DNA taxonomy and field applications -- Chapter 15: Concluding remarks and further prospective.

Sommario/riassunto

This book aims to provide fundamental knowledge and information for research in molecular systematics on parasitic helminths (nematode, trematode, cestode). The shreds of evidence of molecular systematics studies will be compiled and discussed in terms of the utilities and pitfalls of the genetic marker used for various purposes, which have been implemented for molecular systematics of parasitic nematodes, cestodes, and trematodes. Moreover, this book will also provide the procedure for research on molecular systematics and DNA taxonomy as the guideline to explore parasitic helminths. Finally, the further perspectives of utilizing genetic markers for molecular studies on parasitic helminths will be addressed in the context of applications from the laboratory to fieldwork such as DNA barcoding and environmental DNA metabarcoding of parasitic helminths. The book will benefit postgraduate students and researchers requiring the detailed knowledge of molecular systematics, as well as researchers desiring a guideline to select genetic markers and analyze DNA sequences to make phylogenetic inferences.