

PREFACE

Histology is the discipline of biology that involves the microscopic examination of tissue sections in order to study their structure and correlate it with function. Histology can detect signs of disease not easily recognized on gross examination and can therefore be of interest in fish health supervision.

This book will provide the readers with the most contemporary and useful text possible. The book describes the most important recent developments in sciences of fish histology. I am also recognizing that the readers are faced with the tasks of learning an ever-increasing number of facts in an ever-decreasing period of time. Because of this, every attempt has been made to shorten the text wherever possible and to organize information in a way that will facilitate learning.

Fish constitute nearly 60% of all vertebrate species and are economically of major importance. The reporting of normal histology of fish tissues and organs serves as a foundation upon which to gather and build our ichthyopathology knowledge base.

The aim has been to present a general reference guide providing an extensive set of histological images of fishes. Although several studies treat histological aspects in relation to pathology, no recent synthesis on the normal histology of fish is available. Therefore, I believe that this textbook will be a main contribution to this field. The book is designed to provide students with a foundation in understanding and interpreting histologic and cytologic preparations and normal tissue components.

A text and colored atlas of histology of fish is designed for use by students and researchers, biologists, ichthyologists, fish farmers, veterinarians working in fisheries and, of course, by comparative histologists who want to learn more about the fish world. As a further aid to learning, numerous photomicrographs and electron micrographs amplify the text in addition to particular emphasis on diagrams and tables to summarize morphologic and functional features of cells, tissues, and organs.

All photomicrographs are original. Light microscopy has been illustrated with color photomicrographs. Tissue and organ samples chosen to illustrate this work have been selected from reared food fish, as well as from species in the aquarium and in the wild.