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	Sommario/riassunto	This book introduces a monograph deconstructing morphological model of river fish communities. It provides a new method and develops morphological modeling, software analysis, and applications for studies of fish community niches. Over long-term evolution, fish interactions with their environment can result in the formation of new species, the exploitation of various ecological niches, and the development of species communities. Although the organisms in the ancient fish can be recognized through their fossils, the niche composition of fish communities 200 years ago remains unknown. The lack of data on the evolution of ecosystem structure and function become an obstacle in the studies of ecology. The purpose of this book is to establish a systematic method for determining niches based on species morphology and the morphological characters of fish communities, as well as to discuss the niche composition of community species through historical records of "qualitative" species. This book attempts to provide a method to clarify community species structure in a given ecosystem and to establish a standard for evaluating ecosystem changes based on community species structure. This book provides a

community structure reference system for river ecosystem assessment and restoration based on natural attributes. Using fish morphological data, we established a model for fish community studies based on morphological characters. This book also examines the relationships between fish species in communities from the perspective of ecological niches, and it attempts to establish a fish community research tool for the ecological restoration of rivers.--