

# Contents

<b>Chapter 1</b>	<b>Introduction: organisms, sediments, and water movements</b>	1
	Life in soft shores versus life on rocky shores	2
	The distribution of sediments	5
	Water movements	6
<b>Chapter 2</b>	<b>The world of particles: a variety of habitats</b>	12
	Sediments as places to live	12
	How organisms affect sediments	19
	Conditions in water above the sediment	27
	Suspended particles	32
	Techniques for analysing sediments	34
<b>Chapter 3</b>	<b>The coarse extreme: life on sandy beaches</b>	35
	Some physical features of sandy shores	35
	The distribution of sandy-shore organisms	36
	Organisms and their adaptations	38
	Vertical distribution on the shore: 'zonation' and its causes	46
	Biological interactions	49
	Food webs and energy flow	54
	Techniques	56
<b>Chapter 4</b>	<b>A fine option: life on mudflats and in seagrass beds</b>	58
	Some physical features of mudflats	59
	The diversity and distribution of muddy-shore organisms	60
	Organisms and their adaptations	65
	Distribution on the mudflats: Why are organisms found where they are?	76



	Food supply and biological interactions	79
	Food webs and energy flow	88
	Techniques	89
<b>Chapter 5</b>	<b>Salt marshes and mangrove swamps</b>	91
	Distribution of salt marshes and mangrove swamps	91
	Formation and morphology	93
	Distribution of flora and fauna	95
	Organisms and their adaptations	98
	Biological interactions and food webs	107
	Techniques	116
<b>Chapter 6</b>	<b>Life at the bottom: sublittoral sediments and community structure</b>	119
	Benthic diversity	119
	Sublittoral communities: what governs species distributions?	121
	Techniques	129
<b>Chapter 7</b>	<b>Estuarine habitats and coastal lagoons</b>	132
	What are estuaries?	132
	Estuarine tides	133
	Types of estuary	135
	Types of habitat	142
	Techniques	150
<b>Chapter 8</b>	<b>The estuarine benthos and its distribution</b>	151
	Species distribution in estuaries	151
	Salinity as a controlling factor	155
	Effects of substratum, water movements, and water quality	160
	Effects of biological interactions	162
	Conclusions: factors governing distribution of the benthos	167
	Techniques	168
<b>Chapter 9</b>	<b>Life in the estuarine water column</b>	170
	The distribution of the plankton	170
	What controls phytoplankton growth?	173
	The zooplankton and their predators	179
	Estuaries as nurseries for fish and crustaceans	181
	The migrants	185
	Techniques	185



<b>Chapter 10</b>	<b>Estuarine ecosystems</b>	187
	Food webs: who eats what?	187
	Energy flow	191
	Modelling and predictions	195
	Techniques	198
<b>Chapter 11</b>	<b>Uses and abuses: human impacts and counter-measures</b>	200
	Detecting damage—Has there been pollution?	200
	The problems: impacts on estuarine and lagoonal ecosystems	201
	The answers: treating, minimizing, and preventing damage	215
	<b>Further reading</b>	220
	<b>References</b>	222
	<b>Glossary</b>	237
<b>Appendix</b>	<b>A brief classification of selected organisms</b>	239
<b>Index</b>		243