

## Table of Contents

<b>Acknowledgements</b>	<b>v</b>
<b>Foreword</b> <i>Norman B. Snow</i>	<b>vii</b>
CHAPTER 1 <b>An Introduction to the Canadian Arctic Shelf Exchange Study</b> <i>Louis Fortier, David G. Barber</i>	<b>1</b>
CHAPTER 2 <b>Seasonal Circulation over the Canadian Beaufort Shelf</b> <i>R. Grant Ingram, William J. Williams, Bon van Hardenberg, Jordan T. Dawe, Eddy C. Carmack</i>	<b>13</b>
CHAPTER 3 <b>The Ocean-Sea Ice-Atmosphere (OSA) Interface in the Southern Beaufort Sea</b> <i>David G. Barber, Byong Jun. Hwang, Jens K. Ehn, John Iacozza, Ryan Galley, John Hanesiak, Tim Papakyriakou, Jennifer V. Lukovich</i>	<b>37</b>
CHAPTER 4 <b>Light, Nutrients and Primary Production</b> <i>Michel Gosselin, Sonia Brugel, Serge Demers, Thomas Juul-Pedersen, Pierre Larouche, Bernard LeBlanc, Christine Michel, Christian Nozais, Michel Poulin, Neil Price, Andrea Riedel, Magdalena Róžańska, Kyle Simpson, Jean- Éric Tremblay</i>	<b>69</b>
CHAPTER 5 <b>Microbial Communities and Carbon Fluxes</b> <i>Warwick F. Vincent, Carlos Pedrós-Alió, Curtis Suttle, Connie Lovejoy, Jody Deming, Chris Osburn, Lance Lesack, Huixang Xie, Marcel Babin, Annick Wilmotte</i>	<b>85</b>

CHAPTER 6	
<b>The Pelagic Food Web: Structure, Function and Contaminants</b>	<b>101</b>
<i>Don Deibel, Louis Fortier, Gary Stern, Lisa Loseto, Gérald Darnis, Delphine Benoit, Tara Connelly, Pascale Lafrance, Lena Seuthe, Yvan Simard, Piotr Trela</i>	
CHAPTER 7	
<b>Organic and Inorganic Fluxes</b>	<b>113</b>
<i>Alfonso Mucci, Alexandre Forest, Louis Fortier, Mitsuo Fukuchi, John Grant, Hiroshi Hattori, Philip Hill, Gwyn Lintern, Ryosuke Makabe, Cédric Magen, Lisa Miller, Makoto Sampei, Hiroshi Sasaki, Bjorn Sundby, Tony Walker, Paul Wassmann</i>	
CHAPTER 8	
<b>Historical Variability-Paleoclimates</b>	<b>143</b>
<i>David B. Scott, André Rochon, Trecia M. Schell, Guillaume St. Onge, Steve Blasco, Robbie Bennett</i>	
CHAPTER 9	
<b>The Benthic Environment</b>	<b>159</b>
<i>Alec E. Aitken, Kathleen Conlan, Paul E. Renaud, Ed Hendrycks, Christine McClelland, Philippe Archambault, Mathieu Cusson, Nathalie Morata</i>	
CHAPTER 10	
<b>An Ocean of Data: The CASES Legacy</b>	<b>201</b>
<i>Josée Michaud, Leah Braithwaite, Marie-Ève Garneau, Christine Barnard, Warwick F. Vincent</i>	