1. Record Nr. UNINA9910814258603321

Titolo North by 2020 : perspectives on Alaska's changing social-ecological

systems / / edited by Amy Lauren Lovecraft and Hajo Eicken

Pubbl/distr/stampa Fairbanks, : University of Alaska Press, c2011

ISBN 9781602231436

1602231435

Edizione [1st ed.]

Descrizione fisica 1 online resource (754 p.)

Altri autori (Persone) LovecraftAmy Lauren

EickenHajo

Disciplina 304.209798

Soggetti International Polar Year, 2007-2008

Research - Polar Regions

Climatic changes - Detection - Polar Regions

Polar regions Research Congresses Arctic regions Research Congresses Antarctica Research Congresses

Polar regions Environmental conditions Congresses

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Description based upon print version of record.

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Foreword; Preface; 1. A Holistic Approach for a Changing North; 1.1

Introduction; 1.2 Transdisciplinary Collaboration in the Fourth International Polar Year: Connecting Studies of Arctic Change across the Sciences and the Arts; 1.3 Scenarios as a Tool to Understand and Respond to Change; 1.4 Contextualizing Alaska's Climate Change from Global to Local Scales: The Boreal Forest, People, and Wildfire; 2. Indigenous Knowledge, Climate Change, and Sustainability; 2.1 Introduction; 2.2 The Anchorage Declaration; 2.3 My Place, My Identity. 2.4 A Changing Sense of Place: Climate and Native Well-Being2.5 Values of Nushagak Bay: Past, Present, and Future; 2.6 Food Systems, Environmental Change, and CommunityNeeds in Rural Alaska; 2.7 Indigenous Knowledge and Global Environmental Politics: Biodiversity, POPs, and Climate; 2.8 Indigenous Contributions to Sustainability; 2.9 Climate Change and Creative Expression; 3. Alaska's Freshwater Resources; 3.1 Introduction; 3.2 Alaska Freshwater Policy Development

since Statehood; 3.3 The State of Water Science; 3.4 The Role of Fresh Water in Alaska's Communities; 3.5 Planning for Change.

4. The Arctic Coastal Margin4.1 Introduction; 4.2 The Physical Environment of Alaska's Coasts; 4.3 Humans in the Coastal Zone of the Circumpolar North; 4.4 Case 1: Newtok, the First Village in Alaska to Relocate Due to Climate Change; 4.5 Case 2: Flood Waters, Politics, and Relocating Home: One Story of Shishmaref, Alaska; 4.6 Case 3: Finding Ways to Move: The Challenges of Relocation in Kivalina, Northwest Alaska; 4.7 Case 4: Current Situations and Future Possibilities: Issues of Coastal Erosion in Kaktovik, Alaska; 4.8 Case Studies: Summary, Conclusions, and Prospects.

4.9 The Arctic Coastal System: An Interplay of Components Human, Industrial, and Natural5. Management of Living Marine Resources; 5.1 Introduction; 5.2 Marine Fisheries off Alaska; 5.3 Climate Change Brings Uncertain Future for Subarctic Marine Ecosystems and Fisheries; 5.4 Conservation of Marine Mammals in Alaska: The Value of Policy Histories for Understanding Contemporary Change; 5.5 Addressing Rural Livelihood and Community Well-Being in Alaska's Fisheries; 5.6 Tracking Changes in Coastal-Community Subsistence to Improve Understanding of Arctic Climate Change.

6. Marine Infrastructure and Transportation6.1 Introduction; 6.2 A Historical Perspective on the United States Coast Guard Presence in the Arctic; 6.3 The Arctic: A Growing Search-and-Rescue Challenge; 6.4 Traffic Management in the Bering Strait; 6.5 The Effect of Unregulated Ship Emissions on Aerosol and Sulfur Dioxide Concentrations in Southwestern Alaska; 6.6 Strengthening Institutions for Stakeholder Involvement and Ecosystem-Based Management in the US Arctic Offshore; 6.7 Futures of Arctic Marine Transport 2030: An Explorative Scenario Approach.

## Sommario/riassunto

Originating from a series of workshops held at the Alaska Forum of the Fourth International Polar Year, this interdisciplinary volume addresses a host of current concerns regarding the ecology and rapid transformation of the arctic. Concentrating on the most important linked social-ecological systems, including fresh water, marine resources, and oil and gas development, this volume explores opportunities for sustainable development from a variety of perspectives, among them social sciences, natural and applied sciences, and the arts. Individual chapters highlight expressions of climate change.