Record Nr. UNINA9910416128003321 Autore Lund-Hansen Lars Chresten **Titolo** Arctic Sea Ice Ecology: Seasonal Dynamics in Algal and Bacterial Productivity / / by Lars Chresten Lund-Hansen, Dorte Haubierg Søgaard, Brian Keith Sorrell, Rolf Gradinger, Klaus Martin Meiners Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 **ISBN** 3-030-37472-6 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XIV, 178 p. 130 illus., 103 illus. in color.) Collana Springer Polar Sciences, , 2510-0475 Disciplina 919.8 Soggetti Polar regions Aquatic ecology Oceanography Climate change Conservation biology **Ecology** Geoecology Environmental geology Polar Geography Freshwater & Marine Ecology Climate Change Conservation Biology/Ecology Geoecology/Natural Processes Ecologia marina Llibres electrònics Regions polars Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia

Chapter 1. The Book, and Ecology of Sea Ice -- Chapter 2. Autumn,

-- Chapter 5. Sea Ice in a Climate Change Context -- Chapter 6.

Development and Consolidation of Sea Ice -- Chapter 3. Winter, Cold and Mature Sea Ice -- Chapter 4. Spring, Summer and Melting Sea Ice

Nota di contenuto

Methods and Techniques in Sea Ice Ecology.

Sommario/riassunto

The book on sea ice ecology is the ecology of sea ice algae and other microorganism as bacteria, meiofauna, and viruses residing inside or at the bottom of the sea ice, called the sympagic biota. Organisms as seals, fish, birds, and Polar bears relies on sea ice but are not part of this biota. A distinct feature of this ecosystem, is the disappearance (melt) every summer and re-establishing in autumn and winter. The book is organized seasonally describing the physical, optical, biological, and geochemical conditions typical of the seasons: autumn, winter, and spring. These are exemplified with case studies based on author's fieldwork in Greenland, the Arctic Ocean, and Antarctica but focused on Arctic conditions. The sea ice ecosystem is described in the context of climate change, interests, and effects of a decreasing summer ice extent in the Arctic Ocean. The book contains an up to date description of most relevant methods and techniques applied in sea ice ecology research. This book will appeal to university students at Masters or PhD levels reading biology, geosciences, and chemistry.