1. Record Nr. UNINA9910484696703321 **Titolo** The lake charr salvelinus namaycush: biology, ecology, distribution, and management / / edited by Michael J. Hansen, 3 others Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2021] ©2021 **ISBN** 3-030-62259-2 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XXXVII, 497 p. 107 illus., 71 illus. in color.) Collana Fish & Fisheries Series;; 39 Disciplina 577.6 Soggetti Aquatic ecology Biotic communities Truites (Peixos) Ecologia aquàtica **Biocenosis** Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction. The Lake Charr: Biology, Ecology, Distribution, and Nota di contenuto Management -- Distribution -- Paleoecology -- Ecological Diversity --Genetic Diversity -- Habitat -- Movement Ecology and Behavior -- Life History and Population Dynamics -- Trophic Ecology -- Reproduction -- Contaminants and Ecotoxicology -- A General, Life History Based Model for Sustainable Exploitation of Lake Charr across their Range --Terminology Issues in Lake Charr Early Development. The lake charr Salvelinus namaycush is a ubiquitous member of cold-Sommario/riassunto water lake ecosystems in previously glaciated regions of northern continental U.S., Alaska, and Canada that often support important commercial, recreational, and subsistence fisheries. The lake charr differs from other charrs by its large size, longevity, iteroparity, toppredator specialization, reduced sexual dimorphism, prevalence of lacustrine spawning, and use of deepwater habitat. The species is remarkably variable in phenotype, physiology, and life history, some of which is reflected in its ecology and genetics, with as many as four

morphs or ecotypes co-occurring in a single lake. The lake charr is

often the top predator in these systems, but is highly adaptable trophically, and is frequently planktivorous in small lakes. The lake charr by their name highlights their common habitat, lakes both large and small, but often frequents rivers and occasionally moves into the Arctic Ocean. Movement and behaviour of lake charr are motivated by access to cool, well-oxygenated water, foraging opportunities, predator avoidance, and reproduction. Owing to their broad distribution and trophic level, the lake charr serves as a sentinel of anthropogenic change. This volume will provide an up-to-date summary of what is currently known about lake charr from distribution to genetics to physiology to ecology. The book provides a compilation and synthesis of available information on the lake charr, beginning with an updated distribution and a revised treatment of the paleoecology of the species. Understanding of ecological and genetic diversity and movement and behaviour of the species has advanced remarkably since the last major synthesis on the species over 40 years ago. Mid-sections of the book provide detailed accounts of the biology and life history of the species, and later sections are devoted to threats to conservation and fishery management practices used to ensure sustainability. A new standard lake charr-specific terminology is also presented. The book will be a valuable reference text for biologists around the world, ecologists, and fishery managers, and of interest to the angling public.