

This is the first book to describe the ecology of high latitude lakes, rivers, and glacial environments in both the North and South polar regions. From the lake-rich floodplains of the Arctic to the deep, enigmatic waters of Lake Vostok, Antarctica, these regions contain some of the most extraordinary aquatic ecosystems on Earth. They provide a fascinating diversity of habitats for plant, animal, and microbial communities, and are proving to be valuable model systems for exploring many ecological themes including landscape-lake interactions, adaptation of life to environmental extremes, and controls on the structure and functioning of aquatic ecosystems. Some of these waters also have direct global implications, including permafrost thaw lakes as sources of greenhouse gases, subglacial aquatic environments as a storehouse of ancient microbes, and Arctic rivers as major inputs of freshwater and organic carbon to the World Ocean. Given that many polar areas are experiencing greater climate warming than at lower latitudes, these ecosystems can also be viewed as sentinels of global change.

This timely volume brings together many of the world's leading researchers in polar limnology to describe these diverse aquatic environments and their ecology. It introduces each major ecosystem type, examines the similarities and differences between Arctic and Antarctic systems as well as their responses to environmental change, and describes new frontiers for future research. A glossary of terms is provided for non-specialists, and a set of colour plates introduces the ecosystems and their biota.

Polar Lakes and Rivers will be of value to students and specialist researchers alike, as well as to those with a more general interest in aquatic ecology, polar environments, or global change who require an authoritative overview of this fast emerging topic.



Ward Hunt Ice Shelf, Canada (Photo © D. Sarrazin)

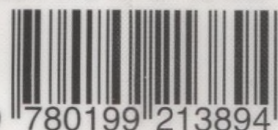
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