

Truly high altitude aquatic ecosystems are found primarily at lower latitudes: vast regions in the tropical part of the Andes, the Himalayas and Tibet, considerable areas in East Africa, and minor zones of Oceania. However, despite their abundance in these regions, their biology and ecology have never been summarized in detail. A current synthesis of the topic is therefore timely. High altitude waters are ideal systems with which to address a broad range of key and topical themes in ecology, both at the regional and global scales. From specific functional adaptations of aquatic species to harsh environmental conditions through to global diversity patterns along altitudinal gradients and extinction risks of mountain populations due to vanishing glaciers, ecological patterns and processes found in high altitude waters are both diverse and singular. Although poorly considered in classical textbooks of ecology and limnology, high altitude waters have much to offer existing (aquatic) ecological theories and applications. These often threatened and exploited habitats are also ideal for studying the intimate interactions between social and ecological systems that characterize the majority of ecosystems in the Anthropocene.

This textbook is suitable for both senior undergraduate and graduate students taking courses in aquatic ecology, limnology, natural resource management, and physical geography. It will also appeal to the many professional ecologists, environmentalists, and conservation biologists requiring a concise, authoritative overview of the topic.



Cover image: Andean flamingos, Laguna Blanca (Bolivia, 4350 m) by Olivier Dangles

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