You have questions?

We invite everyone, including stakeholders, locals, conservation managers, anglers, NGOs, the general public etc. to get in touch with us. We are happy to answer any question you might have.

You have made observations which might be relevant for our project? We are happy to hear of them. Sent us an email or phone us.

Thank you for your cooperation!

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BELMONT FORUM

People, Pollution and Pathogens

Mountain ecosystems undergoing change

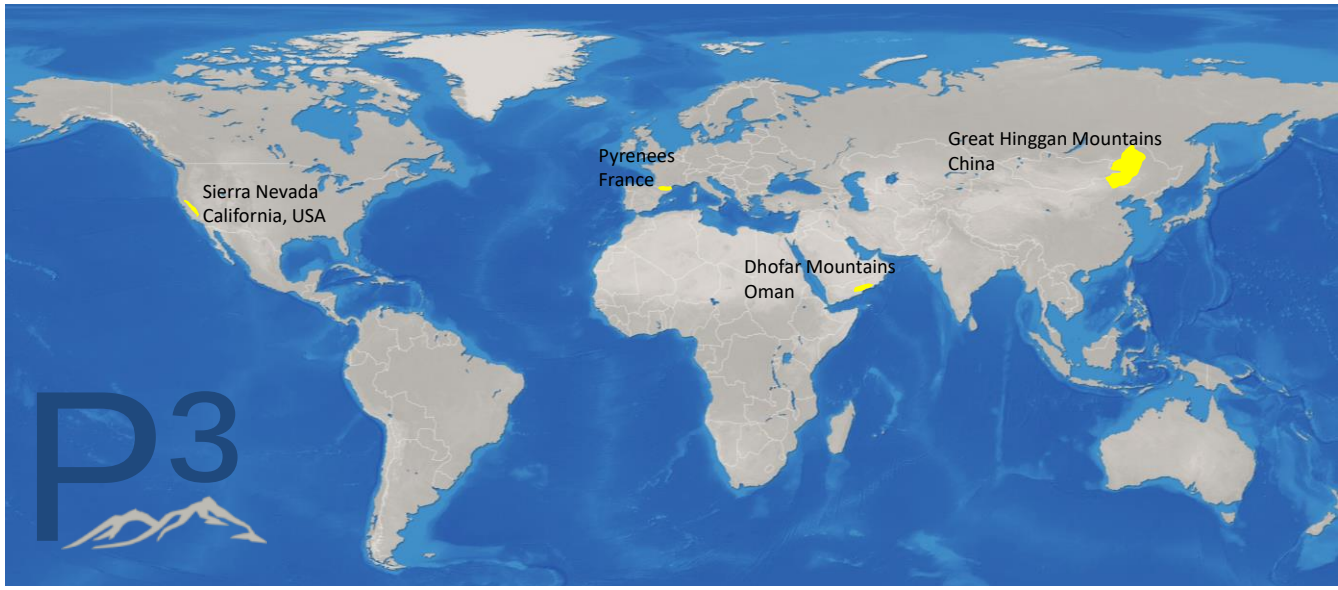
Mountains are providing the livelihood for many people. They provide important resources, such as water, wood and grasslands for livestock. Mountains also provide a recreational landscape which is used by many tourists around the world. However, globally the negative impacts of global change on mountain freshwater ecosystems and their biota are expected to greatly outweigh potential benefits.

P3

http://www.p3mountains.org/

Mountain ecosystems

Mountains are expected to be largely untouched, far away from any source of pollution and human impact. Many tourists see mountains as prime recreational landscapes far away from civilization and modern life. Others see mountains as source of water, wood, and food. More generally, mountains provide the livelihood for millions of people around the world. Despite the appearance, mountain ecosystems and the services they provide to society face multiple threats. Mountain ecosystems are seen as particularly sensitive to global change because they are influenced not only by altered environmental conditions but also by climate extremes.



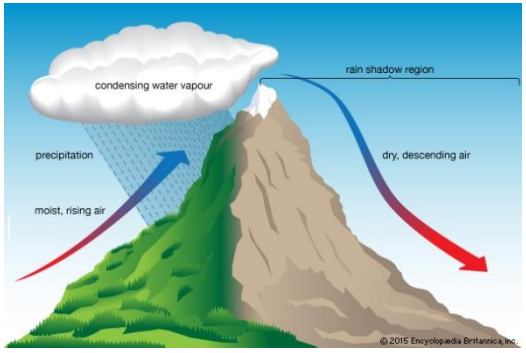
P³ integrates studies in the Pyrenees (France), the Dhofar Mountains (Oman), the Sierra Nevada (USA) and the Great Hinggan Mountains (China) to compare anthropogenic and environmental impacts in mountain watersheds

People

Since long, human settlements occur in mountain ranges. The main exploitations of mountains include pasture for livestock, mining activities, and wood logging. All these activities impacted on the ecosystem and changed our mountains.

Pollution

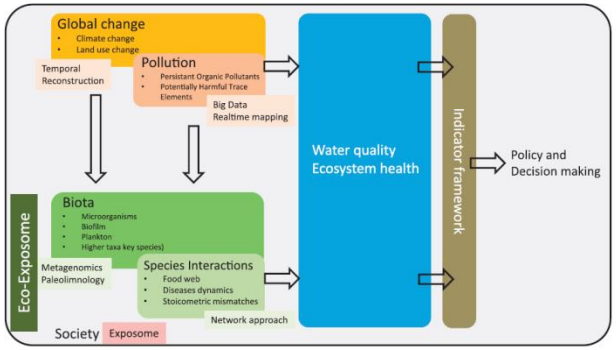
Human activites, even those carried out far away from mountains, pollute pristine mountain areas at high altitudes. Potentially harmful chemicals can be transported to mountains by orographic effects and may enrich in lake sediments and peat bogs. Habitat destruction can therefore lead to profound disturbances in entire mountain ecosystems with strong impacts on the human society.



Pathogens

Food webs in destabilized mountain ecosystems can be strongly altered. That might lead to an increase of both wildlife as well as human pathogens, leading to a higher rate of e.g. diarrhetic diseases.

Mountain freshwater ecosystems as sentinels of change



A comprehensive research approach to establish mountain freshwater ecosystems as sentinels of change. Drivers and pressures (orange) of biodiversity change need to be reconstructed. Recent pollutant distributions need to be mapped in real-time.

Schmeller, D.S et al. (2018). People, pollution and pathogens - global change impacts in mountain freshwater ecosystems. *Science of the Total Environment* 622–623: 756-763