

Montane forest facts

- Forests in mountain areas are already threatened by habitat degradation and destruction caused by logging, fuelwood collection, farming and mining.
- Climate change is adding to these pressures, as montane tree species are particularly vulnerable to changes in temperature and rainfall.
- As average temperatures increase, ecosystem integrity and water availability is affected, forcing species to shift to higher latitudes and altitudes and increasing the risk of extinction.
- Mountains cover 24.3% of the global land area and are inhabited by about one fifth of the world's population. Roughly one quarter of the global mountain area is covered by forests.
- Tropical montane forests are currently one of the major global conservation priorities due to their biological richness, high level of endemism and because data availability in these regions is still comparatively limited.

Chiapas, Mexico

For further information about this project please contact:

Natalia Tejedor and Professor Adrian Newton
School of Applied Sciences
Bournemouth University
Talbot Campus, Fern Barrow
Poole, Dorset, BH12 5BB
ntejedor@bournemouth.ac.uk
anewton@bournemouth.ac.uk

Sara Oldfield
Secretary General
BGCI – Plants for the Planet
Descanso House, 199 Kew Road
Richmond, Surrey, TW9 3AB, UK
sara.oldfield@bgci.org

Cover images: Cloud forest in Quito, Ecuador
and aerial view of the Alps, Europe



Alps, France

Trees at the top of the world...

...no place to go?





Chiapas, Mexico

Are **montane tree** species at risk from climate change?



Ceroxylon quindiuense, Quindío, Colombia



Ceiba pentandra, San Gil, Colombia

A joint research project undertaken by **BGCI** and the **Centre for Conservation Ecology and Environmental Change at Bournemouth University (BU)** is assessing the impact of climate change on the world's montane tree species.

Assessing extinction risk

BGCI is leading global efforts to assess the conservation status of tree species. The approach involves undertaking regional and global Red List assessments, following the categories and criteria developed by IUCN.

The IUCN Red List is the leading global assessment of the extinction risk of species. Although the list includes over 12,000 plant species, many tree species have yet to be assessed. In order to conduct an assessment, information is needed on current patterns and trends in the status and distribution of individual species.

A major focus of the project is the tropical Andes. Here, the project aims are:

- Work with the Missouri Botanical Garden to assess the conservation status of trees in the montane forests
- Produce a regional IUCN Red List, which will identify those species at risk of extinction
- Involve partners throughout the region in the development of distribution maps, and in conducting the assessment
- Analyse maps of current and projected climate to determine the potential impacts of climate change on the distribution of montane tree species

Assessing global risks to montane forests

The project will also examine risks to montane forests and their tree species throughout the world, specifically focusing on climate change. This will be performed through an analysis of forest cover maps in conjunction with climate data, and information on current patterns of tree species richness.