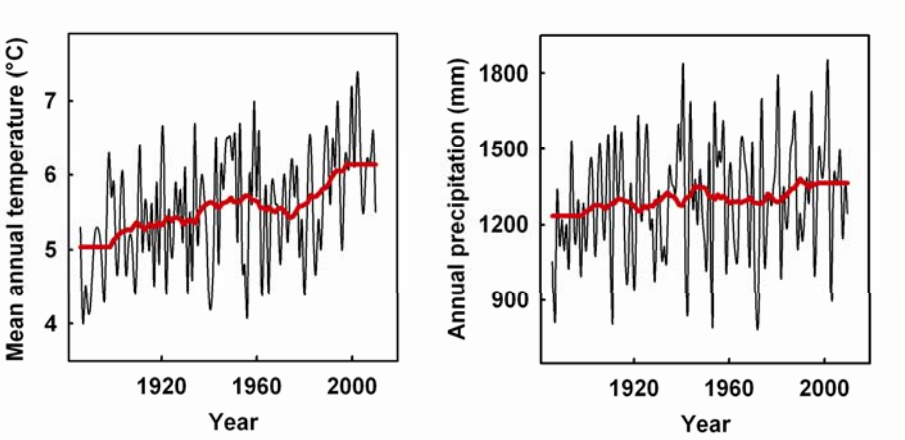
Roermond, 2013 June 5th, Maria Hußlein

Climate change and biodiversity

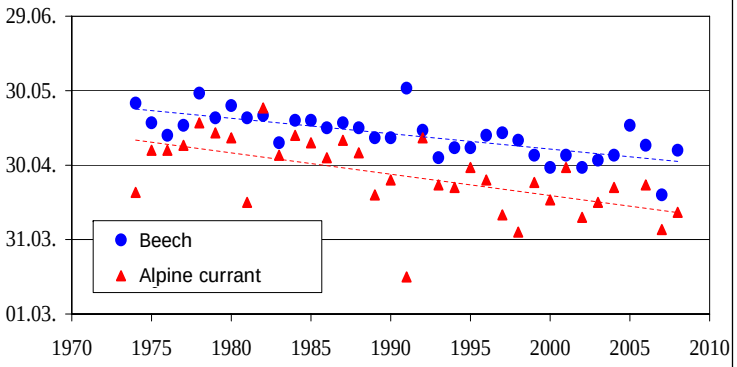
Nationalpark Bayerischer Wald

Temperature - notable trends



Bässler 2008

Phenological change



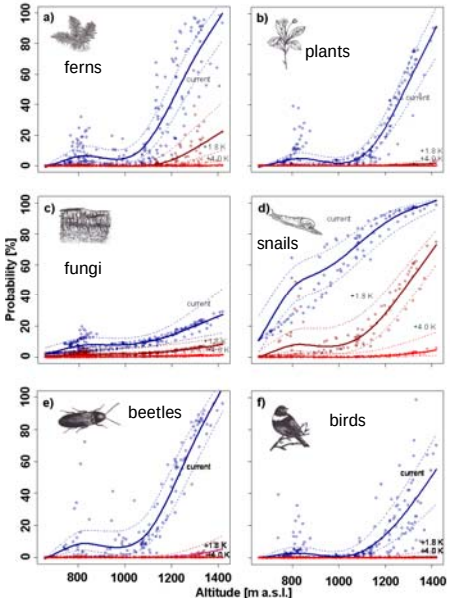
Beudert 2009

Ecological indicators


Arthyrium distentifoilium


Hymenochaete fuliginosa


Ampedus auripes




Trientalis europaea


Semilimax kotulae

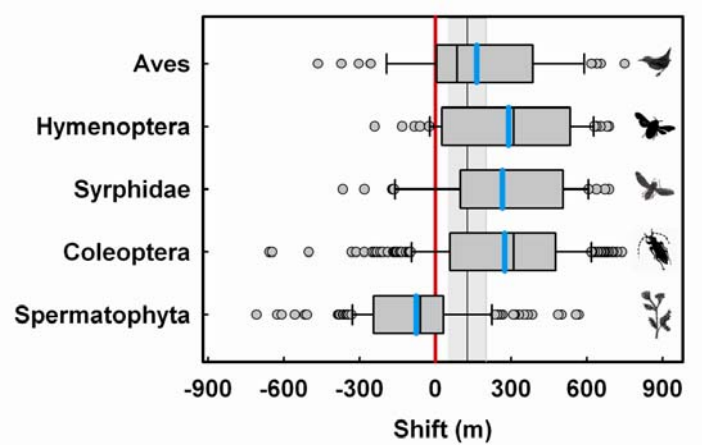

Turdus torquatus

Bässler et al. 2009

High montane species pressurised

As a rough assessment and prognosis, from 1.5 - 23.4 % of the species in the target groups may become extinct in the study area due to climate change. High montane and red listed species are disproportionately sensitive, with an extinction risk ranging from 3.3 % to 75.0%.

Relocation of communities



Newcomer

Oxythyrea funesta

Rose chafer
(rare steppe inhabitant)

Volvariella bombycina

Silver-silk straw mushroom

Results

- Communities are undergoing a process of reorganization in their species compositions.
- Our results support the view that mobile ectothermal arthropods show a direct response to climate fluctuations, but not birds and plants.
- Species from mountains are disproportional sensitive to climate change. There are some obvious cases of species that with climate change should lose parts of their range.

Thuiller et al. 2005