

Artificial top soil drought hardly affects water use of *Picea abies* and *Larix decidua* saplings at treeline in the Austrian Alps

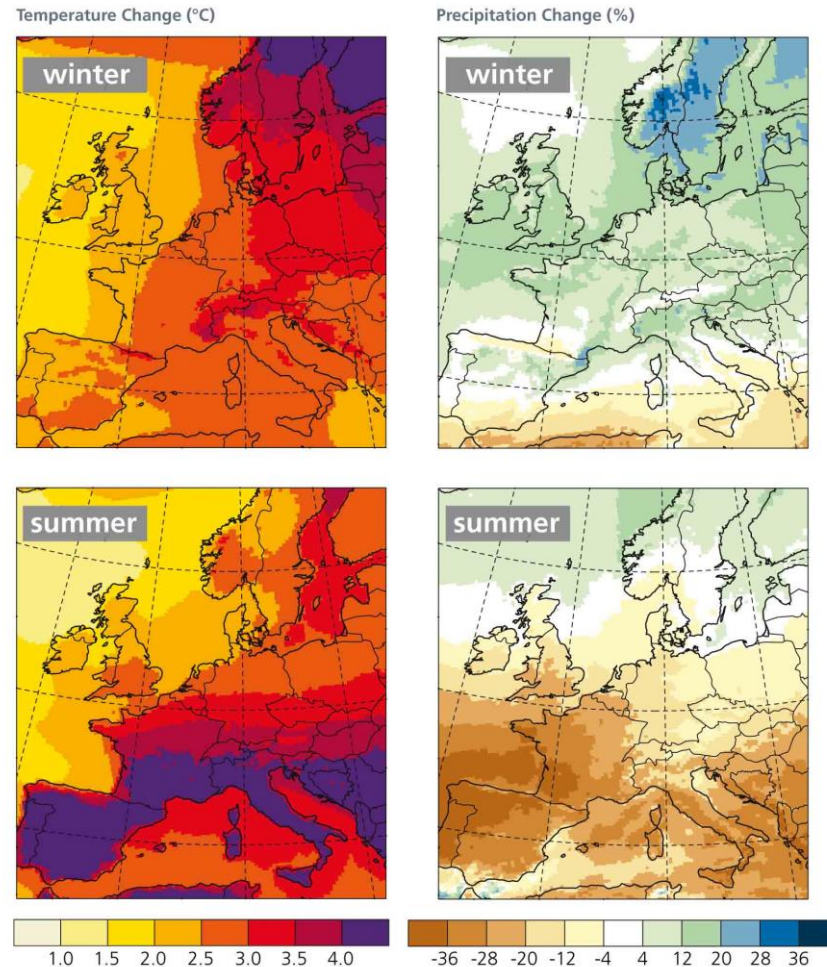
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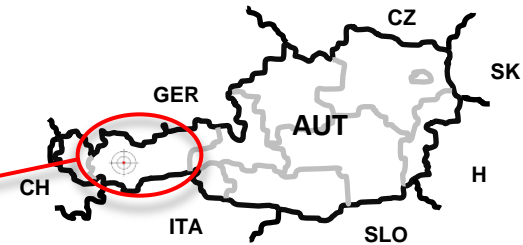
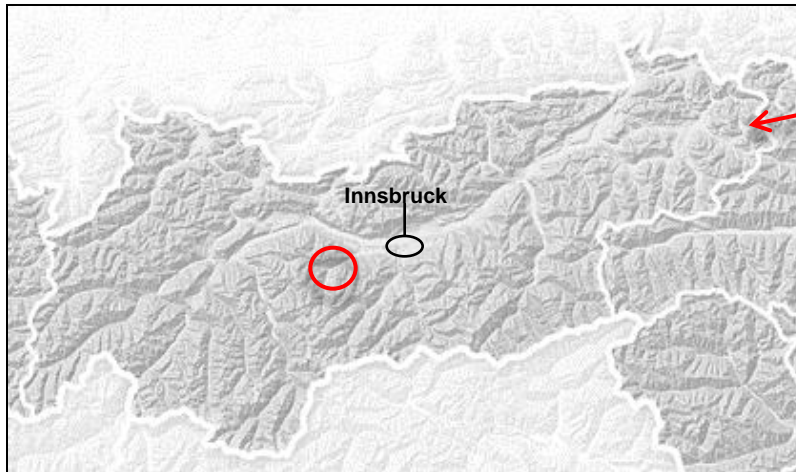
Global change models



Temperature increase and more frequent and severe drought
for upcoming decades

Study site and rain exclusion

Kaserstatt Alm, Tirol, Österreich (1980 m a.s.l.; 47° 7' N, 11° 18' E)



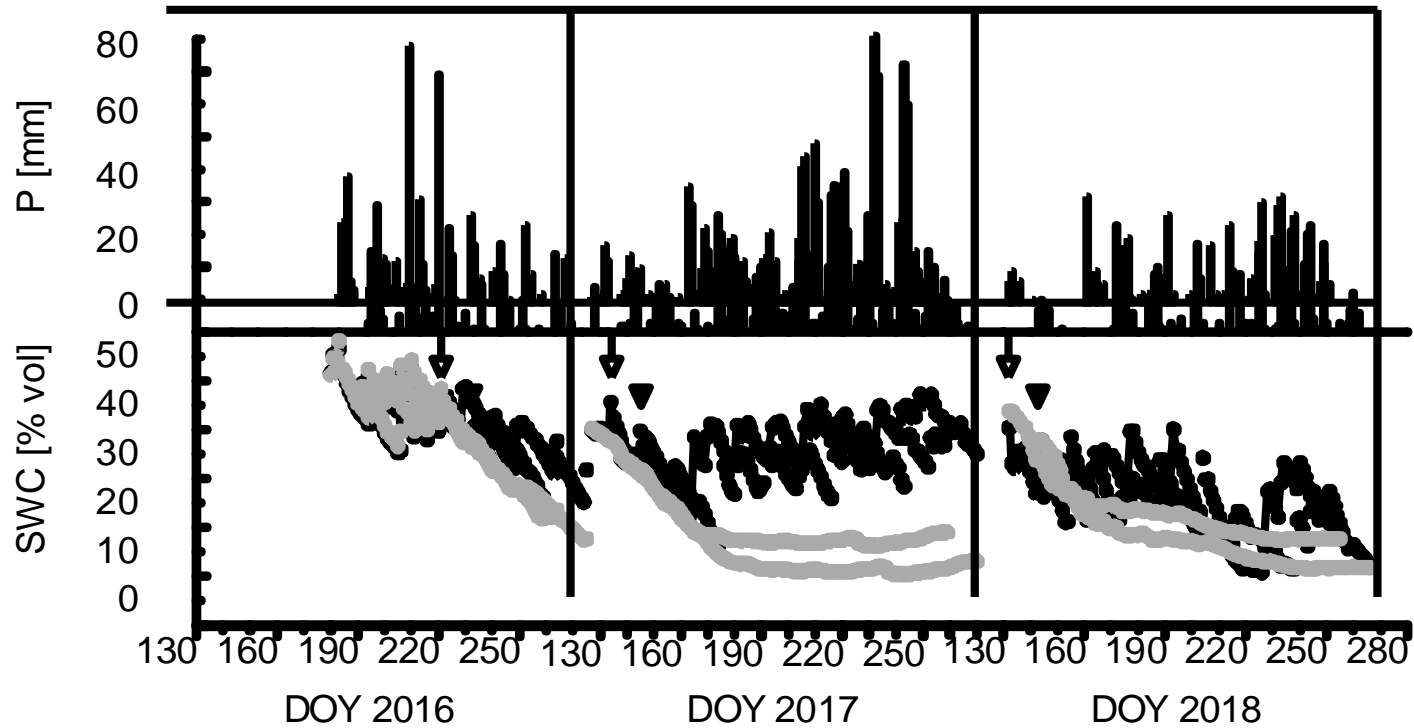
transparent roof 16 m²

6 roofed 3 *P. abies*, 3 *L. decidua* saplings

6 controls

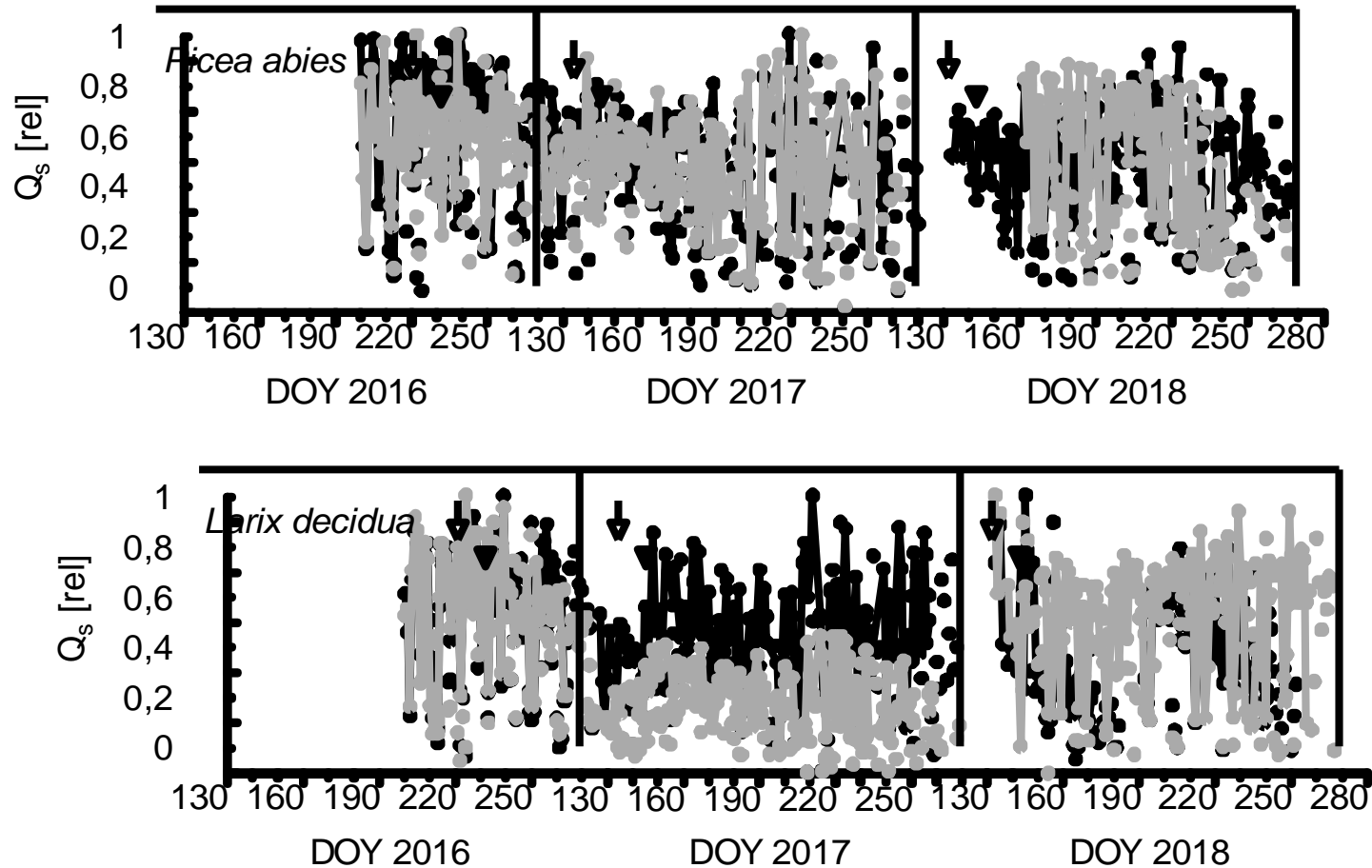
Rain exclusion August-October 2016, May - September during 2017 and 2018

Environmental conditions



	2016	2017	2018
Control	35	32	30
Roofed	27	15	16

Sap flow density



Conclusions

Rain exclusion did not considerably influence Qs of pine and larch saplings

More details:

Poster

Paper Artificial top soil drought hardly affects water use of *Picea abies* and *Larix decidua* saplings at the treeline in the Austrian Alps

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Special Issue website:

https://www.mdpi.com/journal/forests/special_issues/Alpine_Polar_Treelines

Mining area opened 1272 closed 1967



Thank you for your attention



Photo K-H Häberle