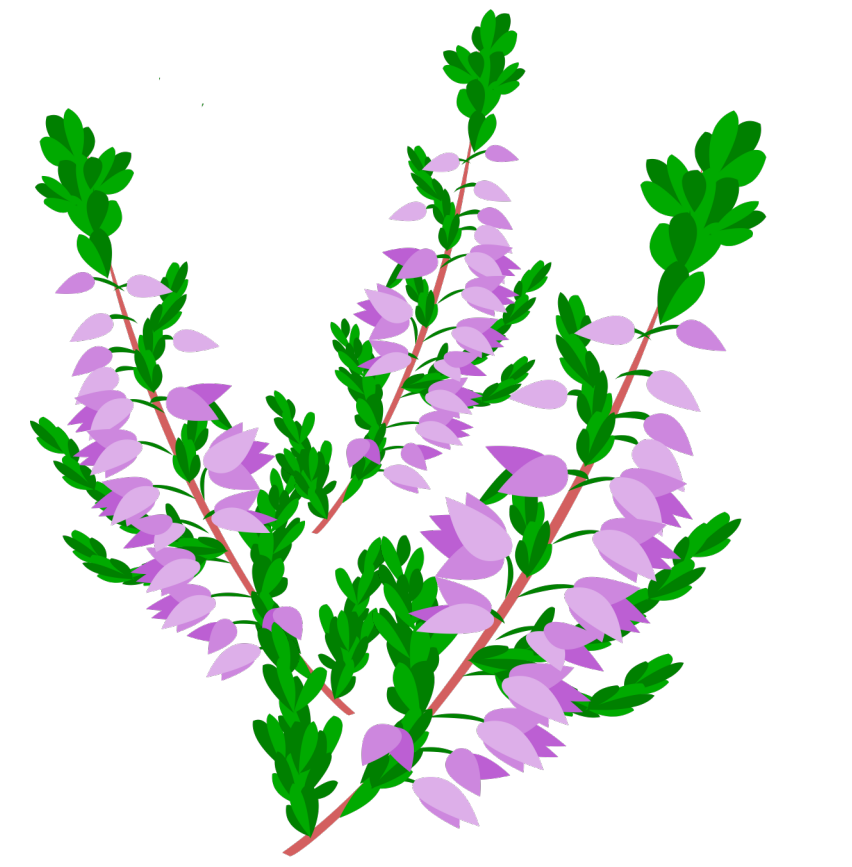
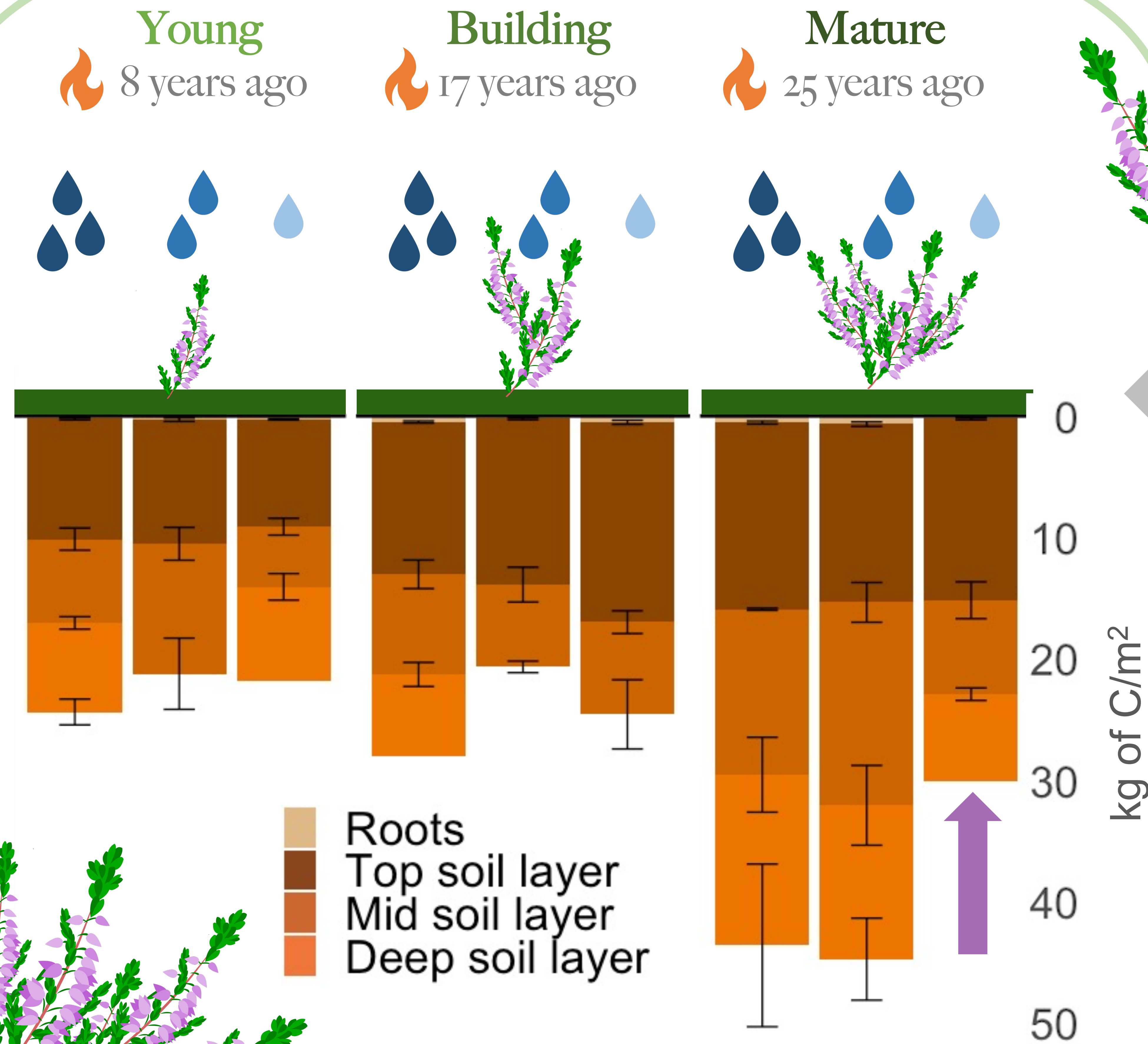


How does drought and succession affect the soil carbon stock of coastal heathlands?



Calluna



The Coastal Heathland

is a semi-natural nature type characterized by the key-stone species *Calluna vulgaris*. It is regularly burned to improve the grazing quality, which also prevents trees from re-establishing. Both the coastal climate and the land-use have resulted in accumulation of soil carbon, but we do not know how this stored carbon will be affected by climate change or change in land-use.

Experimental set-up

To simulate future climate scenarios such as drought, rain-out shelters were built over the plots to create **three levels of precipitation**:

wet – medium – dry

To simulate changes in land-use, the heathlands were burnt at different times to create **three succesional phases** of growth:

young – building – mature

While the soil carbon did not change significantly in the young and building phase, **the soil carbon in the mature phase was reduced when the climate was very dry.**



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References: Haugum PhD Thesis, Siri Haugum et al. 2020



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