

Supplementary data

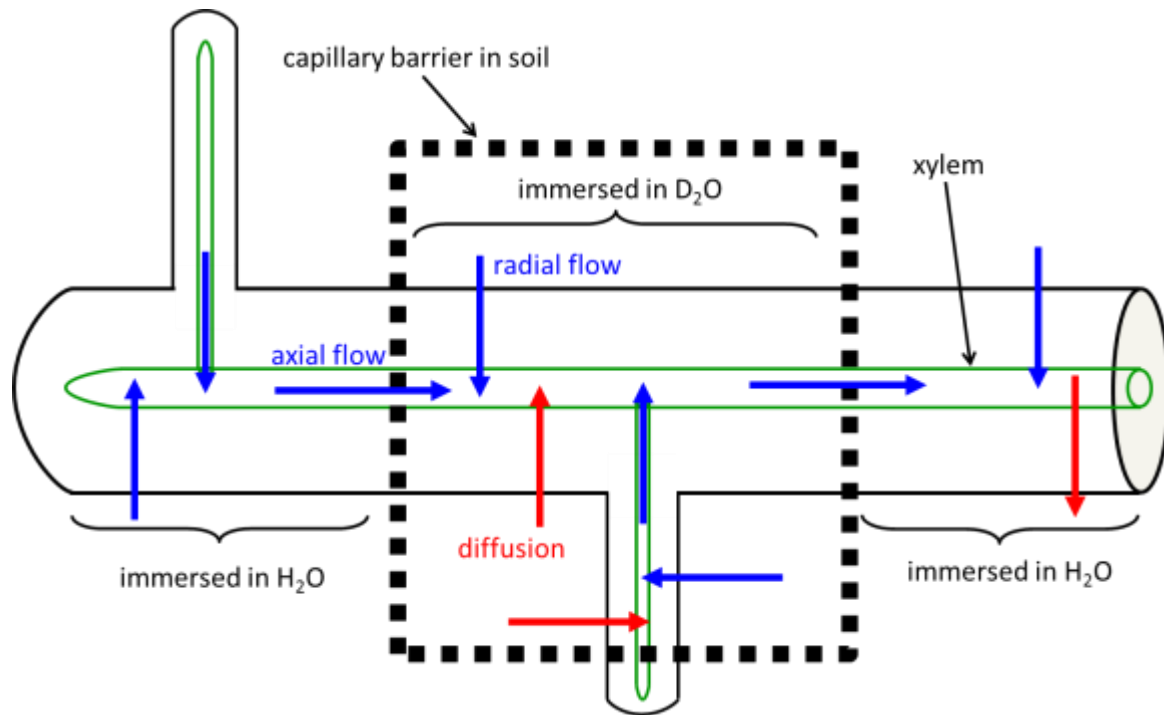


Fig. S1. Illustration of deuterated water (D_2O) transport into a root that is partially immersed in D_2O . The radial transport of D_2O into the root is driven by the concentration gradients between the soil and roots (diffusion, red arrows) and by convection following the transpiration stream (blue arrows). As D_2O reaches the xylem, it mixes with the incoming water flow and flows axially along the root. The capillary barriers were used to limit D_2O diffusion in soil.