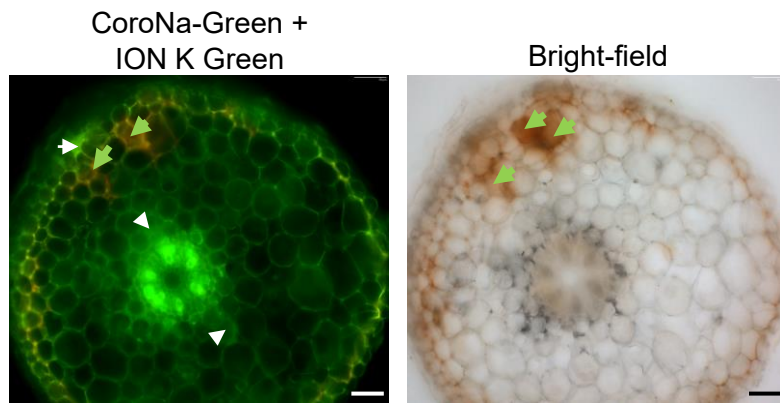
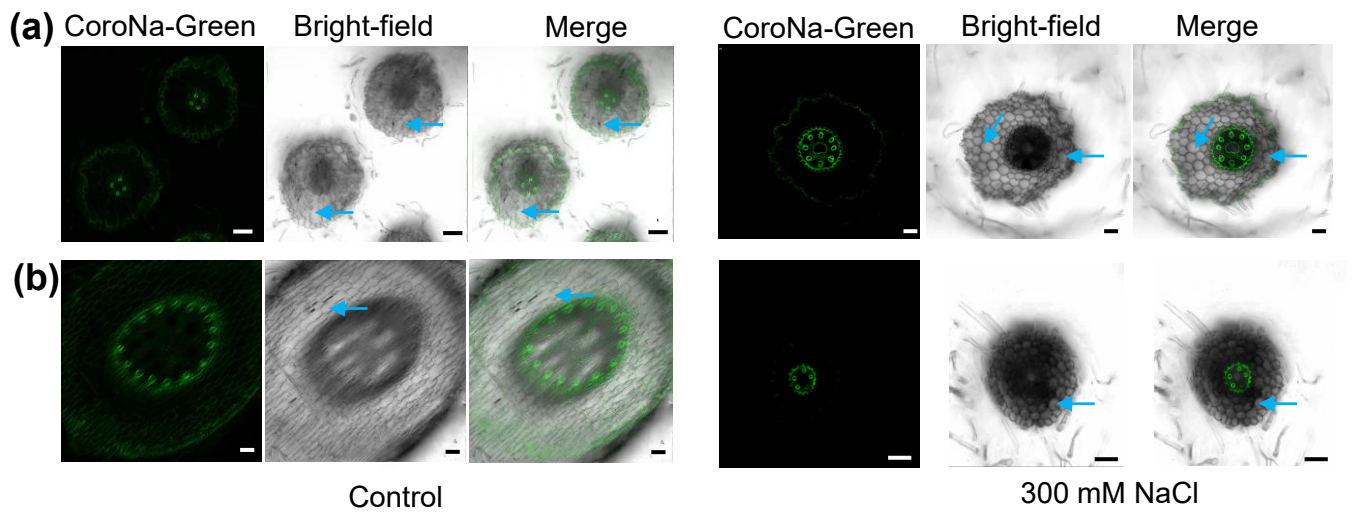


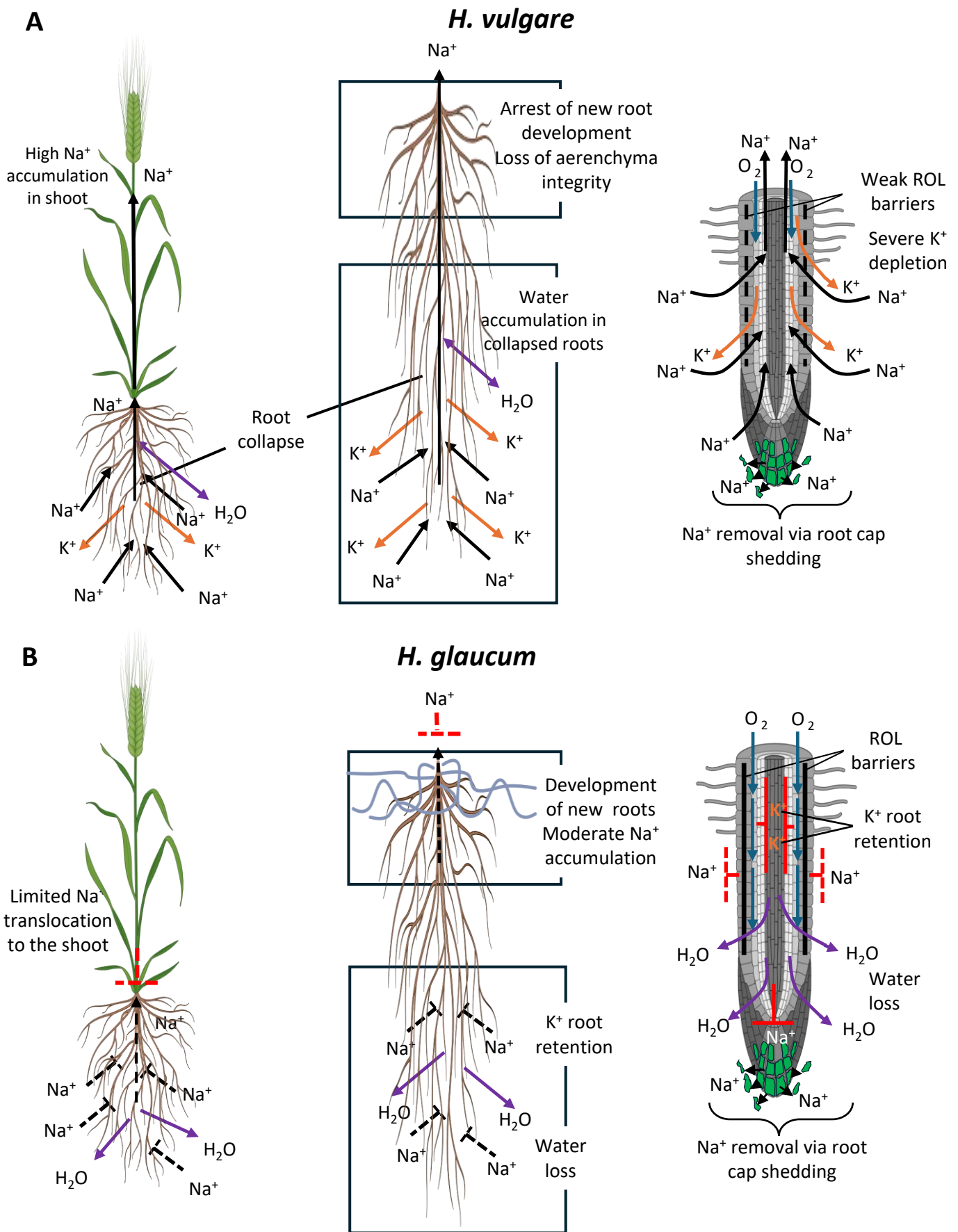
**Figure S1.** Changes in content of metabolites involved in glycolysis and TCA cycle in roots and shoots of *H. vulgare*, *H. glaucum* and *H. marinum* plants grown under control and salinity stress conditions. Data are shown as LOG<sub>2</sub> values of the relation salinity to control, negative values mean decreased metabolite content, positive values – increased metabolite content. Adjusted p-values were calculated using Benjamini-Hochberg correction and significantly different values are indicated by \* at  $P < 0.05$  ( $n = 6$ ).



**Figure S2.** Distribution of  $K^+$ -specific ION Potassium Green and  $Na^+$ -specific CoroNa Green AM stains in salt-stressed *H. maritimum* root.  $Na^+$  labeled by CoroNa Green AM is indicated by white arrowheads,  $K^+$  labelled by ION Potassium Green - by green arrowheads. Bars, 50  $\mu m$ .



**Figure S3.**  $\text{Na}^+$  distribution in the upper parts of *H. vulgare* (a) and *H. glaucum* (b) roots grown under control (left panel) and salinity stress (right panel) conditions. Aerenchyma presence is indicated by blue arrowheads. Bars, 50  $\mu\text{m}$ .



**Figure S4.** A schematic overview of the main processes occurring during salinity stress in stagnant hydroponic conditions in *H. vulgare* (A) and *H. glaucum* (B) at the plant level (left), across different root zones (middle) and within a root (right). Black arrows indicate the directions of  $\text{Na}^+$  movement, orange arrows indicate movement of  $\text{K}^+$ , blue arrows reflect the movement of  $\text{O}_2$ , purple arrows highlight the water movement, and green patches indicate  $\text{Na}^+$  within cells. Abbreviation: ROL, radial oxygen loss. (Created in <https://BioRender.com>).