10.1071/FP15213_AC

Supplementary Material: *Functional Plant Biology*, 2016, 43(7), 643–655.

Supplementary Material

Tripogon loliiformis elicits a rapid physiological and structural response to dehydration for desiccation tolerance

Mohammad Reza Karbaschi[A], *Brett Williams*[A], *Acram Taji*[B] *and Sagadevan G. Mundree*[A,C]

[A]Centre for Tropical Crops and Biocommodities, Queensland University of Technology, PO Box 2434, Brisbane, Qld 4001, Australia.

[B]School of Earth, Environmental and Biological Sciences, Science and Engineering Faculty, Queensland University of Technology, M Block Level 5, 528, Brisbane, Qld, 4001, Australia.

[C]Corresponding author. Email: sagadevan.mundree@qut.edu.au

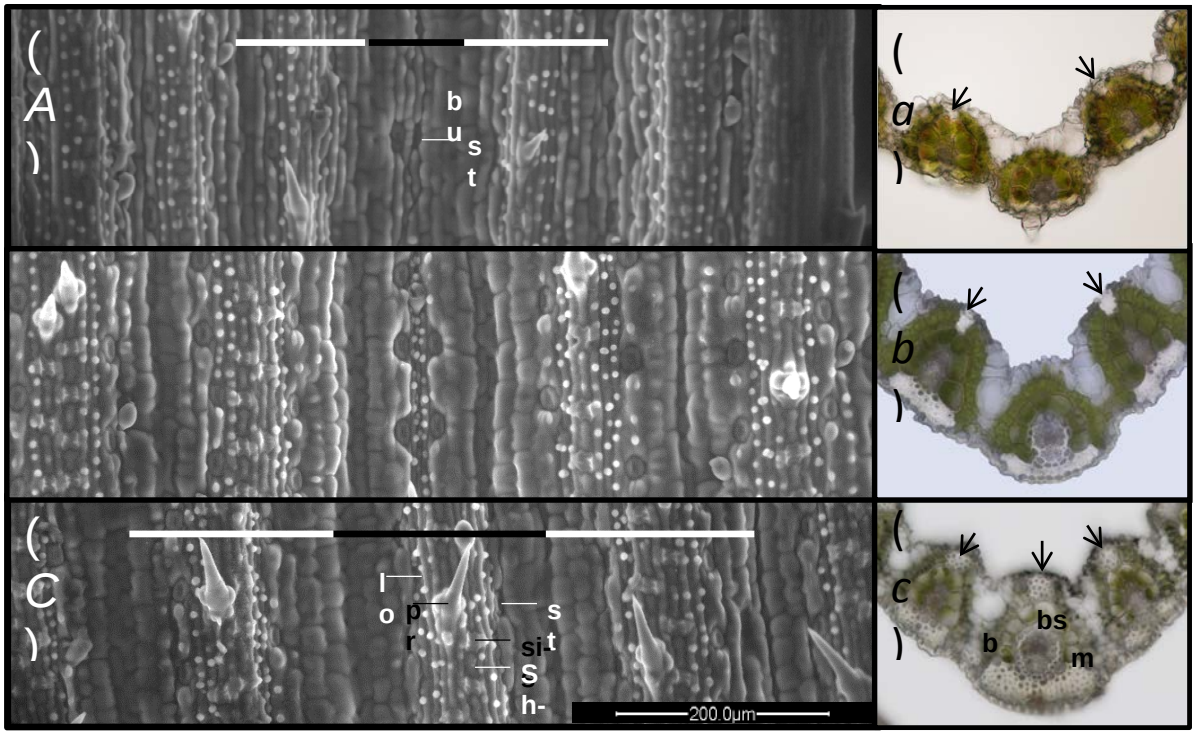

Fig. 1. Internal and external structural changes from apical to basal regions of *Tripogon loliiformis* leaves using environmental scanning electron microscope (ESEM) imaging and freehand sectioning light microscopy. Adaxial surface apical (A), middle (B) and basal (C) regions of the leaf. Internal structure of apical (a), middle (b) and basal (c) regions of the leaves using freehand sectioning. The white lines represent the side veins and black lines represent the midveins. Midvein in adaxial and (A) and (B) but protruded in (C). Arrow is pointing at sclerenchymatous tissue on adaxial surface in (a), (b) and (c). No sclerenchymatous tissue exists on adaxial part of the midvein in (A) and (B) but exists in (C). bu, bulliform cell; bs, bundle sheath; m, mesophyll; s, sclerenchyma; st, stomatal complex. Scale bar in (A), (B) and (C) = 200 µm and (a), (b) and (c) = 100 µm.

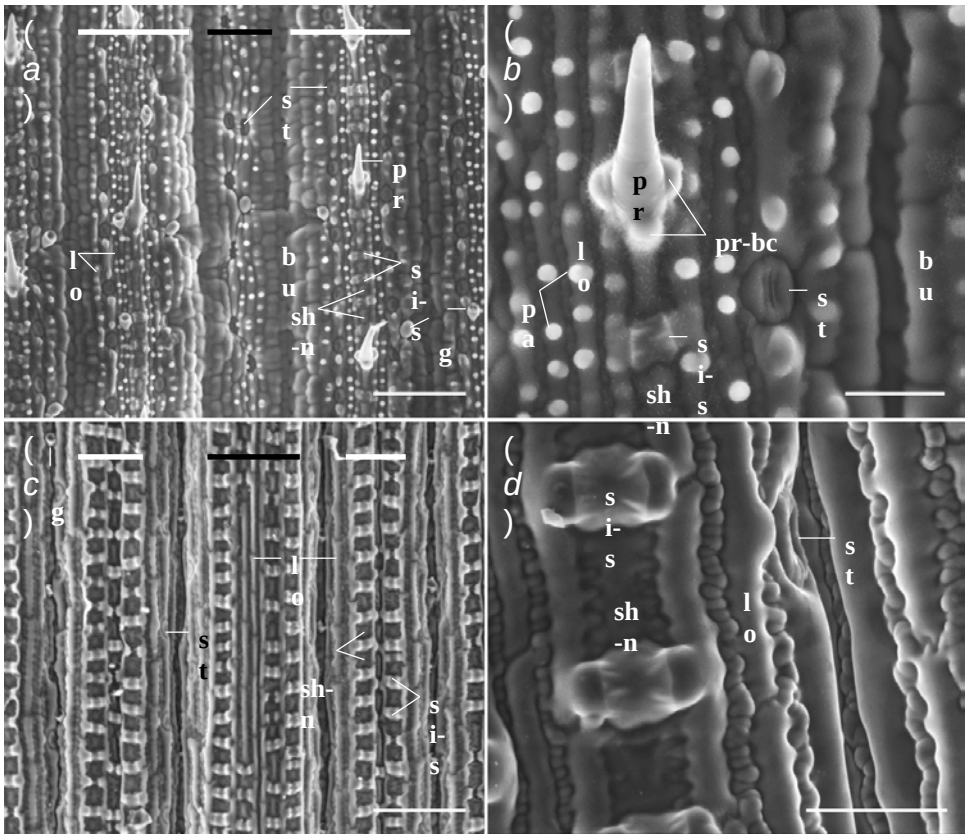

Fig. S2. Environmental Scanning Electron Microscopy (ESEM) images of hydrated leaves of *Tripogon loliiformis*. (A) and (B) show the adaxial surface and (C) and (D) show the abaxial surface. White lines on the top of (A) and (C) indicate the position of side veins and black lines indicates the position of midveins. Adaxial surface is covered with a thick layer of epicuticular wax (B). bu, bulliform cell; g, gland; lo, long cell; pa, papilla; pr, prickle hair; pr-bc, prickle-hair basal cell; si-s, saddle silica-cell; st, stomatal complex; sh-n, nodular short-cell. Scale bar (A) and (C) = 100 µm and in (B) and (D) = 25 µm.