Data & Scripts featured in Fivash *et al.* 2020, ‘Elevated micro-topography boosts growth rates in Salicornia procumbens by amplifying a tidally driven oxygen pump: implications for natural recruitment and restoration’ in *Annals of Botany*.

These files include the raw data and scripts used to produce each figure and statistical result that appears in the manuscript, organized as follows:

*Manuscript figures*

Figure 1 – Anecdotal field examples (photo figure)

Figure 2 – Experimental design (photo figure)

Figure 3 – Results of Growth experiment #1

Processed dataset: ‘Individual-specific harvest.csv’

R Script: ‘Figure 3 - Growth Exp 1, 3-Way ANOVA.R’

Figure: ‘Figure 3.jpg’

Figure 4 – Results of Growth experiment #2

Processed dataset: ‘Salicornia growth time series.csv’

R Script: ‘Figure 4 - Growth Exp 2, Salicornia treatment-specific growth curves.R’

Figure: ‘Figure 4.jpg’

Figure 5 – Results of Ground water drainage experiment

Raw dataset: ‘CSV’ folder containing raw .csv data tables. Each data table contains the X-Y coordinates of water’s surface in photo time series from fixed camera position (repeated every 5 minutes). Treatment details are listed in the file’s name, for example: ‘hummock\_pot1\_tide1.csv’.

Processed dataset: ‘drainage\_experiment\_wooden\_sticks.csv’

R Script: ‘Figure 5 - Drainage wooden stick photo time series.R’

Figure: ‘Figure 5.jpg’

Figure 6 & 7 – Results of Soil oxygen experiment

Dataset:

R Script:

Figure:

*Supplementary figures*

Figure S1

Dataset:

R Script: ‘Figure 6.R’ & ‘Figure 7.R’

Figure: ‘Figure 6.jpg’ & ‘Figure 7.png’

Figure S2 – Experimental design: Growth exp. #2 (photo figure)

Figure S3 – Experimental design: Photo measurement method (photo figure)

Figure S4

Dataset:‘Figure S4 - Salicornia area - biomass calibration.csv’

R Script: ‘Figure S4 - Salicornia area-biomass calibration.R’

Figure: ‘Figure S4.png'

Figure S5 – Experimental design: Planar optode method (photo figure)

Figure S6

Processed dataset: ‘Processed planar optode data/CSV’

Hummock

Flat

Hollow

R Script: ‘Figure S6 - oxygen statistics.R’

Figure: ‘Figure S6.png’

Figure S7 & S8

Dataset: ‘Figure S7 - Sediment water content .csv’ &

‘Figure S8 - Sediment water content no depth.csv’

R Script: ‘Figure S7-S8 - Sediment water content.R’

Figure: ‘Figure S7.png’ & ‘Figure S8.png’

Figure S9

R Script: ‘Figure S9.R’

Movies: ‘Figure S9.gif’ & ‘Figure S9.mov’

Raw dataset: Planar optode data photos

Hummock

Flat

Hollow

*Other supplementary materials*

Supplementary figure legends (.txt)