The following metadata refer to the spreadsheet "Salt Marsh Soil Salinity Data.xlsx"; each section heading refers to a worksheet tab within the spreadsheet.

Table 1 Metadata
Site is the location at which the data was collected: NAR = Narrow river marsh, Narragansett, RI; PAS = Passeonkquis marsh, Cranston, RI
Sample Date is the date on which the data was collected
Latitude is the latitude of the point within the marsh where the sample data was collected, reported in decimal degrees
Longitude is the longitude of the point within the marsh where the sample data was collected, reported in decimal degrees
Apparent Conductivity is the soil apparent conductivity measured by a Geonics Model EM38-MK 2 Conductivity Meter (Geonics Ltd, Mississauga, Ontario, Canada); it is the Q/P reading from the instrument in mS m^{-1} (milliSiemens per meter)
Porewater Salinity is the salinity of water drawn from 25 cm under the marsh soil surface using a standard porewater sipper device and measured in ppt using a refractometer
Calculated Salinity was derived from apparent conductivity data that were converted to calculated salinity values using marsh and survey-specific calibration curves constructed from a least-squares regression of apparent conductivity values and measured porewater salinities at points where sipper measurements were taken, and reported in ppt

Tables 2 and 3 Metadata
Site is the location at which the data was collected: NAR = Narrow river marsh, Narragansett, RI; PAS = Passeonkquis marsh, Cranston, RI
Date is the date on which the data was collected
24 hr Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 24 hour period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence, RI for PAS
36 hr Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 36 hour period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence, RI
1 Month Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 1 month period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence, RI
2 Month Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 2 month period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence,
3 Month Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 3 month period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence,
Tide State is the tide level at the time of sampling as a proportion of the total tide range on the sample date
Calculated Salinity was derived from apparent conductivity data that were converted to calculated salinity values using marsh and survey-specific calibration curves constructed from a least-squares regression of apparent conductivity values and measured porewater salinities at points where sipper measurements were taken, and reported in ppt
Spearman's Rank Correlations are the results of correlation of the different precipitation amounts with calculated salinity; correlation coefficients and 2-tailed p values are reported and significant results are highlighted in red

Tables 2 and 3 Models Metadata
SITE is the location at which the data was collected: NAR = Narrow river marsh, Narragansett, RI; PAS = Passeonkquis marsh, Cranston, RI
Variable is the collection of variables used as dependent variables in the multiple regression models; each row represents a different multiple regression model

r2 is the correlation coefficient of the multiple regression model
RSS is the residual sum of squares of the multiple regression model
AIC is the Akaike information criterion value for the model, calculated by the equation: N*ln(RSS/N) + 2K
df is the degrees of freedom of the multiple regression model
K is df + 1
N is the number of samples in the multiple regression model
result is the correction factor to calculate small sample size AIC values; calculated by the equation 2*K*(K+1)/(N-K-1)
AICc is the small sample size-adjusted AIC; calculated by the equation AIC + (2*K*(K+1)/(N-K-1))
d_AICi is a normalized AICc value calculated by subtracting the lowest AICc value for the set of models being evaluated from each of the AICc values in the set
-.5(d_AICi) is used in calculating the model weight; calculated by multiplying d AICi by -0.5
exp is used in calculating the model weight; calculated by taking the exponent of -.5(d AICi)
AICwt is the model weight used in evaluating the relative importance of the model; calculated by dividing the exp value of the model by the sum of exp values for all the models being evaluated
Further information about the variables reported in Tables 2 and 3 is found in: Burnham KP, Anderson DR. 2002. Model selection and multimodel inference: a practical information-theoretic approach, 2nd edition. Springer-Verlag, New York, 488 pp.

Table 4 Metadata
Core ID is the identifier for the bulk density core: NAR = Narrow river marsh, Narragansett, RI; PAS = Passeonkquis marsh, Cranston, RI; LM = low marsh, MM = mid-marsh, HM = high marsh
Total Core Length is the total length of the bulk density core in cm
Core Section is the range of lengths in cm included in the specific core sub-section to which the data corresponds
Core Width is the width of the core section in cm
Core Height is the height of the core section in cm
Core Depth is the depth of the core section in cm
Pan # is the number of the aluminum pan in which the core section was dried
Pan Tare is the tare weight of the aluminum pan in g
Pan + Wet is the weight of the pan plus that of the core section before drying in g
Pan + Dry is the weight of the pan plus that of the core section after drying in g
Wet is the wet weight of the dried core section in g
Dry is the dry weight of the dried core section in g
Volume is the volume of the core section in cm^3

Bulk Density is the dry weight of the core divided by the volume, reported in g/cm^3
Proportion Moisture is the moisture content to the core section expressed as a fraction between 0 and 1

Table 5 Metadata
Site is the location at which the data was collected: NAR = Narrow river marsh, Narragansett, RI; PAS = Passeonkquis marsh, Cranston, RI
Sample Date is the date on which the data was collected
Latitude is the latitude of the point within the marsh where the sample data was collected, reported in decimal degrees
Longitude is the longitude of the point within the marsh where the sample data was collected, reported in decimal degrees
Calculated Salinity was derived from apparent conductivity data that were converted to calculated salinity values using marsh and survey-specific calibration curves constructed from a least-squares regression of apparent conductivity values and measured porewater salinities at points where sipper measurements were taken, and reported in ppt
Elevation is the measured elevation at the sample point in ft

Figure 4 Metadata

Site is the location at which the data was collected: NAR = Narrow river marsh, Narragansett, RI; PAS = Passeonkquis marsh, Cranston, RI

Day of Sampling is the date on which the data was collected expressed as an sequential interger with the first day of sampling in the study set equal to 1

Mean Calculated Salinity is the mean of the calculated salinity values from all of the sampling points on that date, in ppt

Sample Dates Metadata

First column is the date on which the data was collected

Second column is the year during which the data was collected

Third column is the month during which the data was collected

Fourth column is the date on which the data was collected expressed as a serial number, based on the convention that January 1, 1900 is serial number 1

Precip Metadata

First column is the date for which precipitation data is reported

NAR Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the sample date at the closest National Climate Data Center reporting site in Kingston, RI

PAS Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the sample date at the closest National Climate Data Center reporting site in Providence, RI

NAR Temp is the mean temperature in degrees F reported for the sample date at the closest National Climate Data Center reporting site in Kingston, RI

PAS Temp is the mean temperature in degrees F reported for the sample date at the closest National Climate Data Center reporting site in Providence, RI

Cells G2 - BK7 are a work area for calculating cumulative precipitation

Cells L14 - AD41 are the calculated cumulative precipitation values:

Columns P and X are the dates on which the data was collected

24 hr Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 24 hour period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence, RI for PAS

36 hr Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 36 hour period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence, RI

1 Month Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 1 month period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence, RI

2 Month Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 2 month period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence,

3 Month Precipitation is the cumulative precipitation amount in liquid volume (inches) reported for the 3 month period immediately preceeding the sample date at the closest National Climate Data Center reporting site: Kingston, RI for NAR and Providence,

Tide State is the tide level at the time of sampling as a proportion of the total tide range on the sample date

Calculated Salinity was derived from apparent conductivity data that were converted to calculated salinity values using marsh and survey-specific calibration curves constructed from a least-squares regression of apparent conductivity values and measured porewater salinities at points where sipper measurements were taken, and reported in ppt

Tides Metadata

Sample date

Elapsed time since low tide NAR (min)

Inches tide height increase per minute NAR

Height difference at time of sampling NAR (inches)

Tide height at time of sampling NAR (inches)

Time of low tide NAR

Time of sampling NAR

Tim of high tide NAR

Time of high tide PAS

Time of sampling PAS

Time of low tide PAS

Elapsed time since high tide PAS (min)

Inches tide height increase per minute PAS

Height difference at time of sampling PAS (inches)

Tide height at time of sampling PAS (inches)

Height at high tide (inches)

Height at low tide (inches)

Proportion of tide range at time of sampling (value used in AIC modeling)

1/29/2016	Low	10	High	12	Low		
time	416	1000	1101				
	0	344	405				
			1118	1200	1613		
			0	42	295		
height							
0.07	0		30			0.14	
25.48			42		0	5.98	
25.5	0.85	flood		ebb	0.86	36.0	
NAR	prop				prop	PAS	

Mean Seawater Salinty Metadata

First column is the date on which the data was collected

Second column is the year during which the data was collected

Third column is the month during which the data was collected

Day is the date on which the data was collected expressed as a serial number, based on the convention that January 1, 1900 is serial number 1

NAR SW Sal is the seawater reported during the US EPA AED Bay Ecosystem Time Series sampling event at Station 5, GSO Dock, closest to the date on which the salinity data was collected

PAS SW Sal is the seawater reported during the US EPA AED Bay Ecosystem Time Series sampling event at Station 1, Pawtuxet Cove, closest to the date on which the salinity data was collected