



*Supplement of*

## **Terrestrial liming to promote Atlantic Salmon recovery in Nova Scotia – approaches needed and knowledge gained after a trial application**

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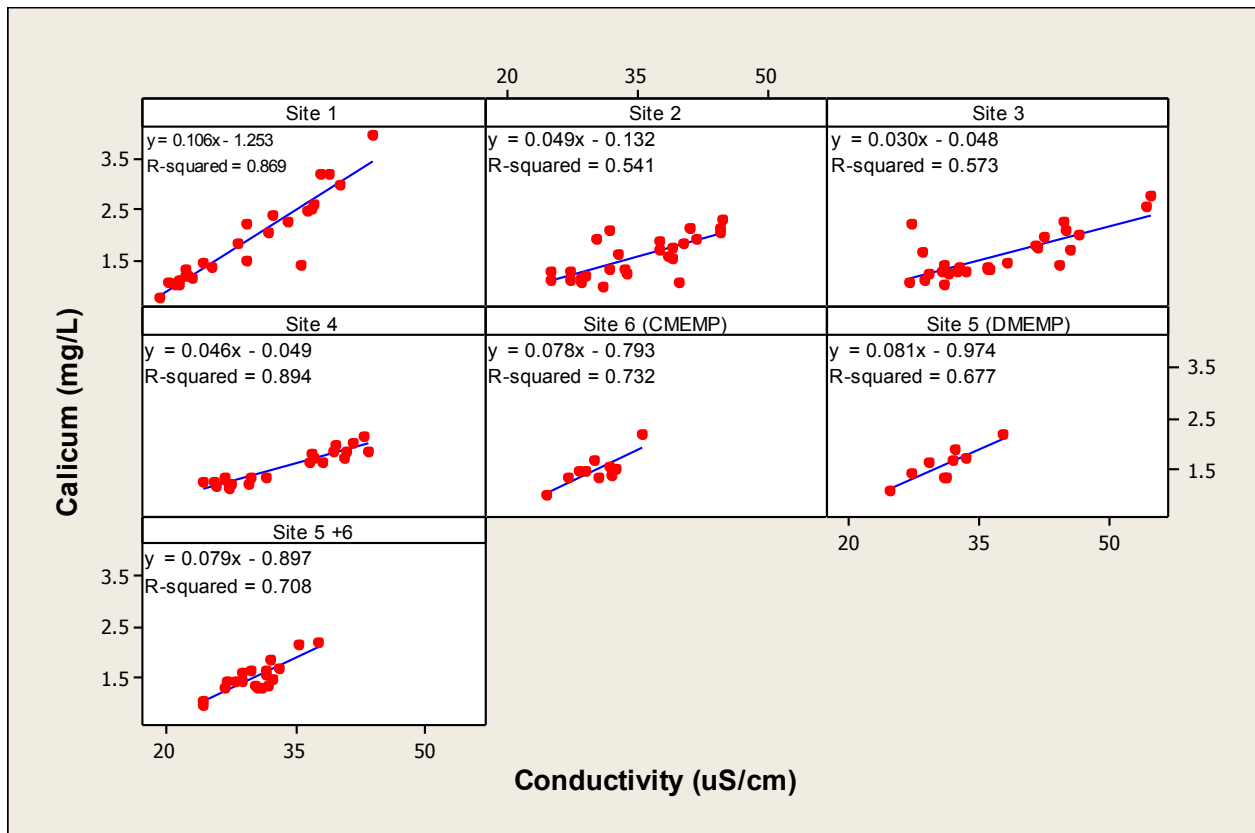
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### Models for predicting calcium ion concentrations from specific conductivity at the six sites.

A parametric linear regression analysis reveals significant relationships between calcium ion concentration ( $[Ca^{2+}]$ ) and specific conductivity (SC) in grab samples at the six sampling sites (Supplementary Table 1 and Supplementary Figure 1). An Anderson Darling Normality test was performed for specific conductivity and calcium ion concentrations to determine the appropriate regression analysis for the data set and a box plot analysis to determine any outliers, following Government of Newfoundland and Labrador (2012). The majority of the data are normally distributed (Supplementary Table 1).

**Supplementary Table 1.** Results of Anderson Darling normality test and ordinary least squares regression model for the relation between  $[Ca^{2+}]$  ( $mg \cdot L^{-1}$ ) and specific conductivity (SC) ( $\mu S \cdot cm^{-1}$ ). All  $[Ca^{2+}]$  and SC measurements are from grab samples collected in the Maria Brook and Cross Brook and analysed at ALET laboratory.

Site	n	AD Normality Test (SC/Calcium)	Dates of Data Collection	Regression Model	R-squared	p-value
1	26	Normal/Normal	Dec. 2010 to Oct. 2012	$(Ca) = 0.106(Cond) - 1.253$	87%	<0.001
2	27	Normal/Non-Normal	Dec. 2010 to Oct. 2012	$(Ca) = 0.049(Cond) - 0.132$	54%	<0.001
3	27	Normal/Normal	Dec. 2010 to Oct. 2012	$(Ca) = 0.030(Cond) - 0.048$	57%	<0.001
4	22	Normal/Normal	May 2011 to Oct. 2012	$(Ca) = 0.047(Cond) - 0.049$	89%	<0.001
5	9	Non-normal/Non-Normal	May 2012 to Oct. 2012	$(Ca) = 0.078(Cond) - 0.793$	73%	0.003
6	10	Non-Normal/Non-Normal	May 2012 to Oct. 2012	$(Ca) = 0.081(Cond) - 0.974$	68%	0.003
5 + 6	19	Non-Normal/Non-Normal	May 2012 to Oct. 2012	$(Ca) = 0.079(Cond) - 0.897$	71%	<0.001



**Supplementary Figure 1.** Scatterplots of Calcium ion concentration ( $\text{mg}\cdot\text{L}^{-1}$ ) vs. specific conductivity ( $\mu\text{S}\cdot\text{cm}^{-1}$ ) with regression lines for Sites 1 to 6.  $[\text{Ca}^{2+}]$  and SC values are from grab samples analyzed at ALET laboratory.