

Table 1: Listing of the variables used in the regression models at Hika beach. For each variable, the listing indicates what summary statistics were computed, and over what time scale.

Covariate	Statistic	1h	2h	6h	12h	24h	48h	72h	120h
Sheboygan River Discharge									
	Diff			x					
Manitowoc River Discharge									
	Diff			x					
log Manitowoc River Discharge									
	Mean	x	x	x	x	x	x	x	x
	Min	x	x	x	x	x	x	x	x
	Max					x			
log Sheboygan River Discharge									
	Mean	x	x	x	x	x	x	x	x
	Min	x	x	x	x	x	x	x	x
	Max					x			
Cloud cover									
	Mean	x	x	x	x	x	x		
Lake level									
	Mean	x				x			
	Max	x				x			
	Min	x				x			
	Diff					x			
Surface current, perpendicular									
	Mean	x	x	x	x	x	x	x	x
Surface current, parallel									
	Mean	x	x	x	x	x	x	x	x
Subsurface current, perpendicular									
	Mean	x	x	x	x	x	x	x	x
Subsurface current, parallel									
	Mean	x	x	x	x	x	x	x	x
Wave height									
	Mean	x	x	x	x	x			
Wave height speed, perpendicular									
	Mean	x	x	x	x	x			
Wave height speed, parallel									
	Mean	x	x	x	x	x			
Wave speed, perpendicular									
	Mean	x	x	x	x	x			
Wave speed, parallel									
	Mean	x	x	x	x	x			
Wind speed, perpendicular									
	Mean	x	x	x	x	x			
Wind speed, parallel									
	Mean	x	x	x	x	x			
Air temperature									
	Mean	x	x	x	x	x	x	x	x
	St. Dev.		x	x	x	x	x	x	x
Water temperature									
	Mean	x	x	x	x	x	x	x	x
	St. Dev.			x	x	x	x	x	x
<i>sqrt</i> Rainfall over Manitowoc River									
	Sum	x	x	x	x	x	x	x	x
<i>sqrt</i> Rainfall over Hika									
	Sum	x	x	x	x	x	x	x	x
log Turbidity		Manual							
Wind speed, perpendicular		Manual							
Wind speed, perpendicular		Manual							
People in water		Manual							
People on beach		Manual							
Air temperature		Manual							
Water temperature		Manual							
Wave height		Manual							
Algae near shore		Manual							
Algae on beach		Manual							
Julian date		Manual							