

Rapid monitoring of seagrass biomass using a simple linear modelling approach, in the field and from space

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Table S1. Number of photos (n) acquired for each field survey between 2004 and 2013.

Date	June 2004	Aug. 2007	June 2011	Feb. 2012	June 2012	Feb. 2013	June 2013	Total
Photo n	2316	1476	4150	2737	3479	2938	4342	21438

Table S2. Model fit results for modelling total above ground seagrass biomass as a function of total seagrass percentage cover. Fit statistics include overall root mean square error (RMSE), k -fold ($k=2, 3, \dots, 10$) cross validation mean prediction RMSE, and repeated (100 iterations) k -fold cross validation mean prediction RMSE.

Model form <i>model(response ~ predictors)</i>	k	k -fold RMSE	Repeated k -fold RMSE
$lm(\log_e \text{biomass} \sim \text{cover})$	2	24	24
$lm(\log_e \text{biomass} \sim \text{cover})$	3	25	24
$lm(\log_e \text{biomass} \sim \text{cover})$	4	23	24
$lm(\log_e \text{biomass} \sim \text{cover})$	5	24	24
$lm(\log_e \text{biomass} \sim \text{cover})$	6	25	24
$lm(\log_e \text{biomass} \sim \text{cover})$	7	23	24
$lm(\log_e \text{biomass} \sim \text{cover})$	8	25	24
$lm(\log_e \text{biomass} \sim \text{cover})$	9	24	24
$lm(\log_e \text{biomass} \sim \text{cover})$	10	23	24

Figure S1. Effect of sample size on least squares regression statistics between seagrass percentage cover and seagrass above ground biomass, simulated from a random sample of size $n = 2, 3, \dots, 70$. Simulation was run 10,000 times; the figure shows permutation resampling mean (black points) and 95% intervals for bootstrap (black intervals) and permutation (red intervals) resampling.

