Supplementary Materials

Table S1 Accuracy of OBIA Classification

Dataset (S2tile)	Date / Time	Tidal Stage
S2 (T16QCE)	13/12/2018 16:16 pm	+0.10m
S2 (T16QDE)	13/12/2018 16:16 pm	+0.10m
UAV Site A	23/01/2019 08:30 am	+0.10m
UAV Site B	25/01/2019 15:30 pm	+0.12m
UAV Site C	24/01/2019 16:00 pm	+0.08m
UAV Site D	26/01/2019 15:00 pm	+0.14m

Table S2 Class confusion matrix OBIA

		Actual					
	CATEGORY	**1-10**	**10-40**	**40-70**	**70-100**	**Coral**	**Sand**
Predicted	1-10	*9*	*9*	*5*	*2*	*2*	*2*
	10-40	*20*	*31*	*29*	*12*	*1*	*5*
	40-70	*8*	*24*	*33*	*21*	*1*	*4*
	70-100	*8*	*9*	*28*	*60*	*1*	*3*
	Coral	*0*	*0*	*0*	*0*	*21*	*2*
	Sand	*7*	*7*	*1*	*0*	*2*	*46*

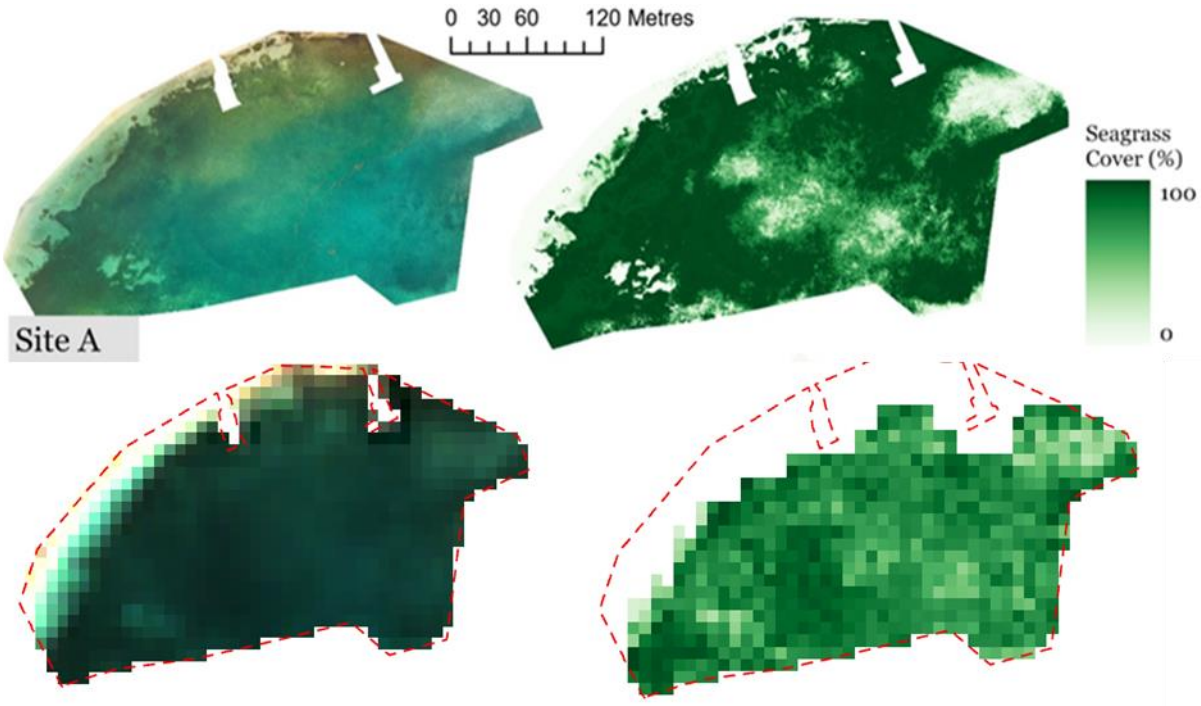

Figure S1 (a). UAV and Sentinel-2 composites and classifications for each study area (Site A).

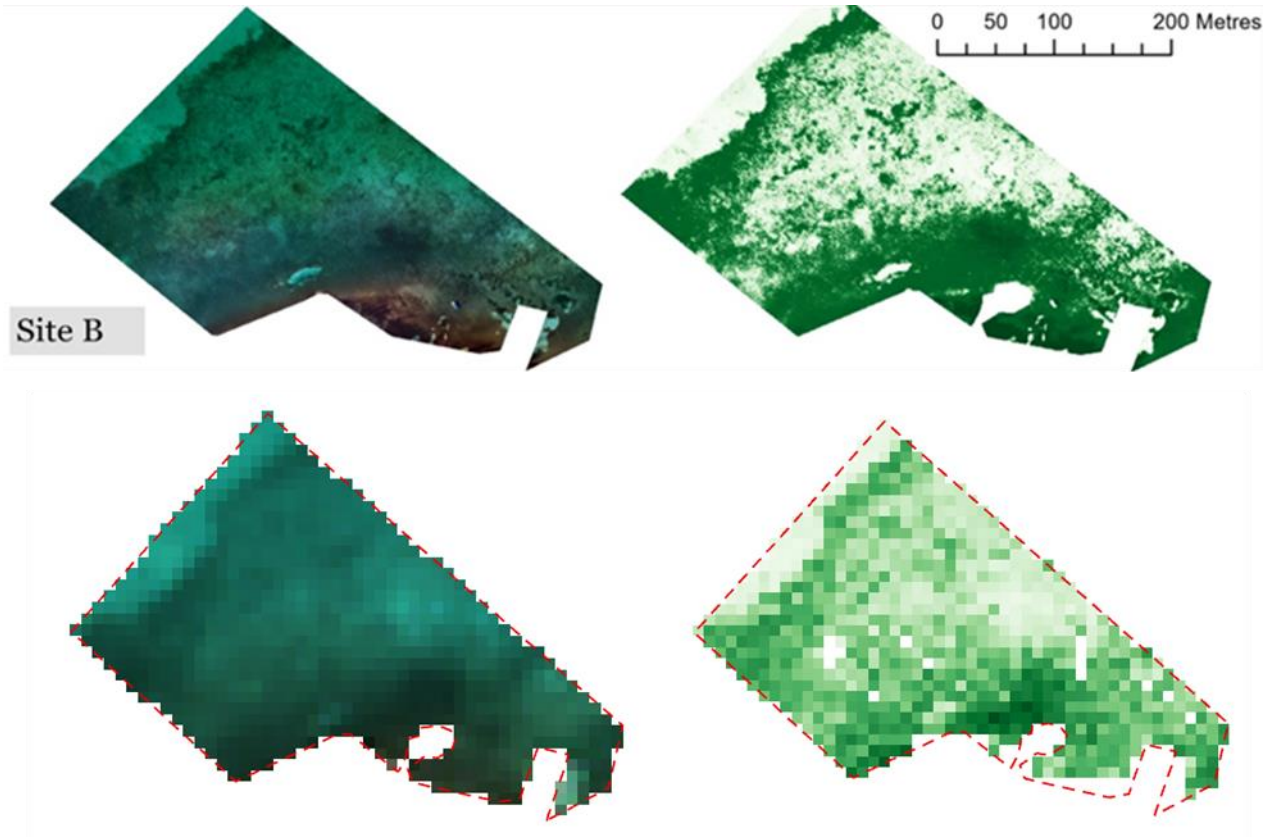

Figure S1 (b). UAV and Sentinel-2 composites and classifications for each study area. (Site B)

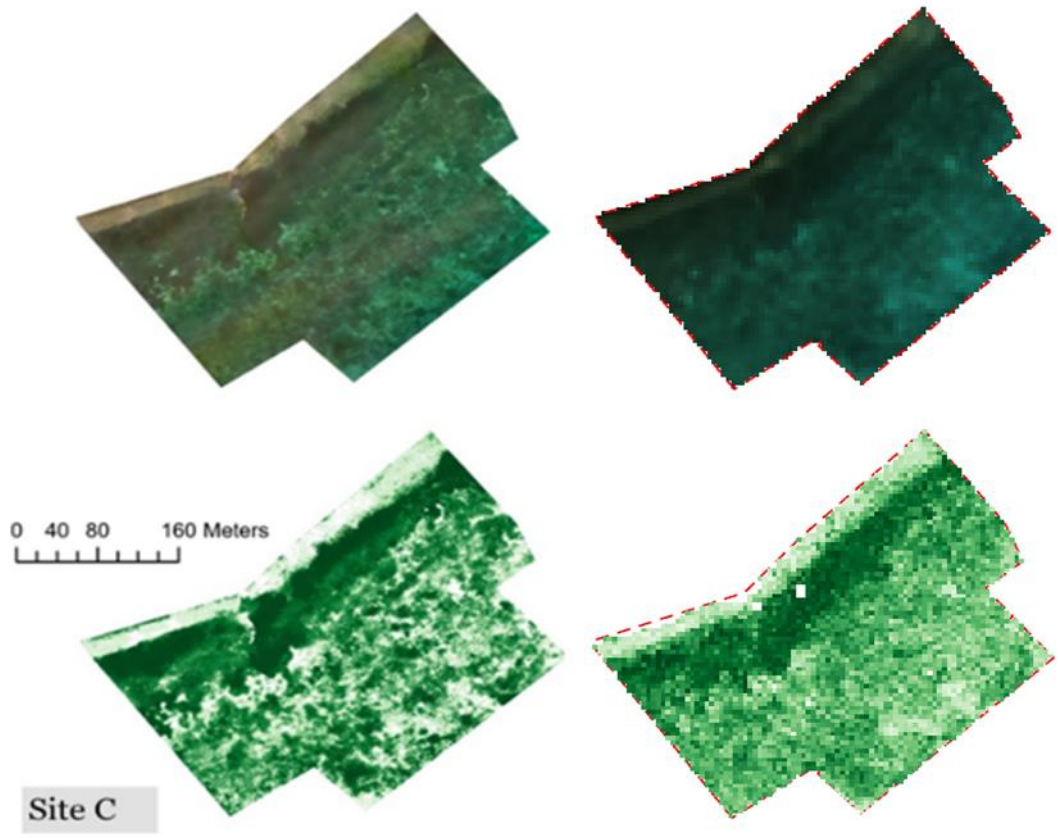

Figure S1 (c). UAV and Sentinel-2 composites and classifications for each study area. (Site C)

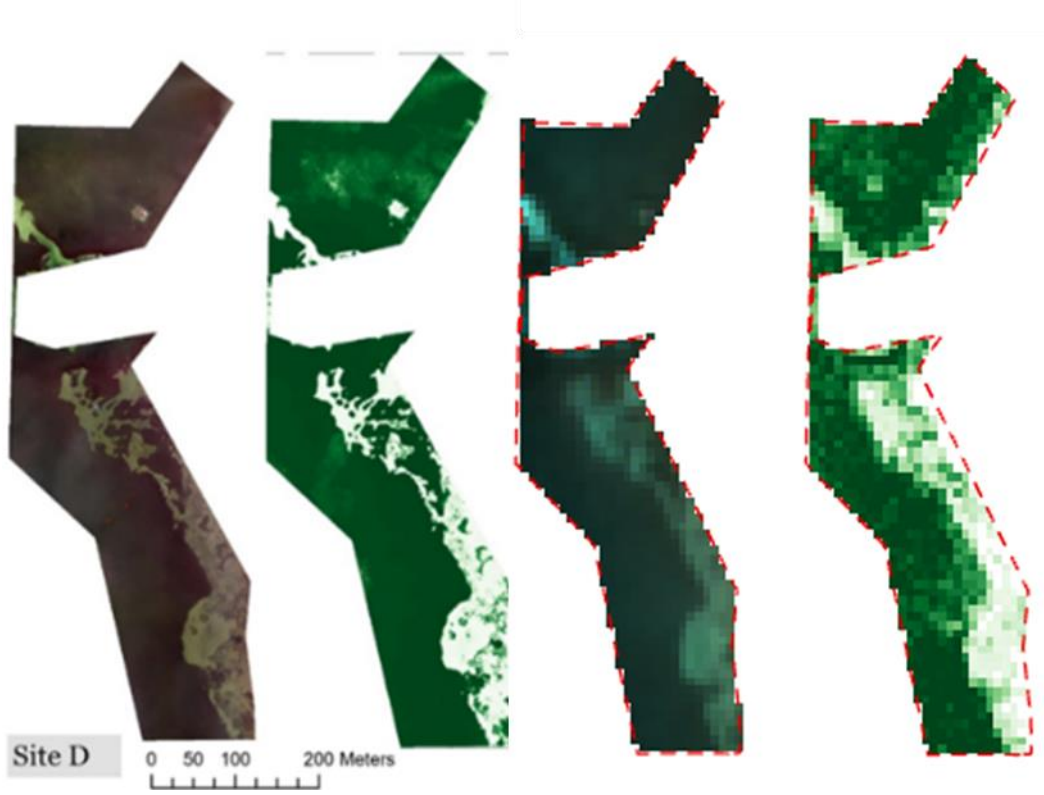

Figure S1 (d). UAV and Sentinel-2 composites and classifications for each study area. (Site D)

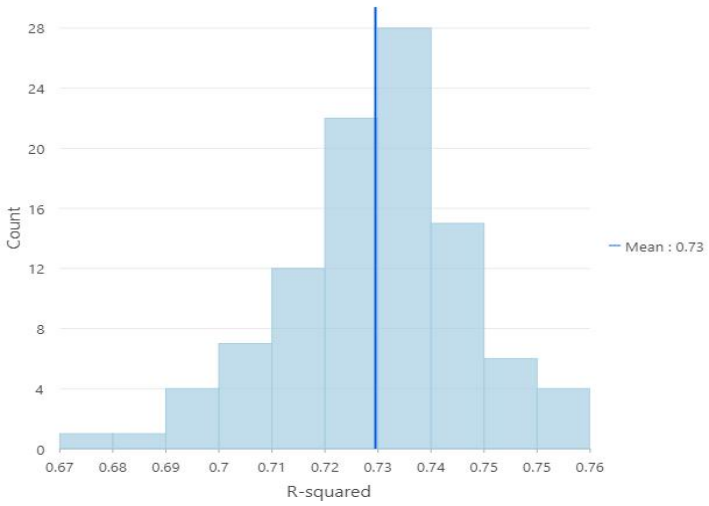

Figure S2. Distribution of R^2 values across 100 validation runs.

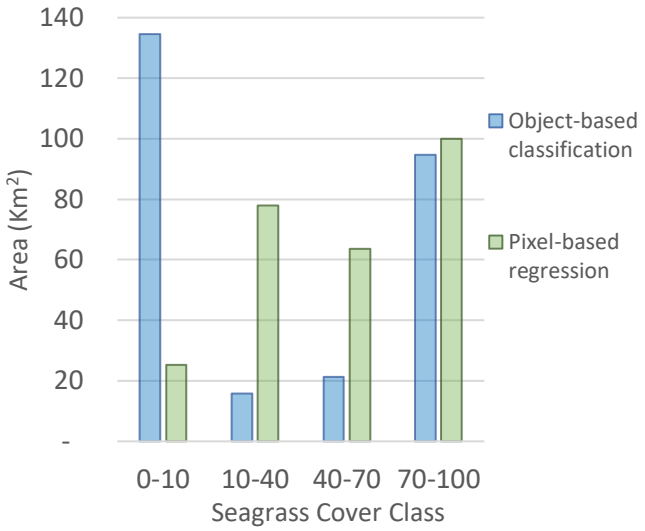

Figure S3. Distribution of seagrass cover classes for the first-stage (OBIA) and second-stage (pixel) classifications. Sand is included as 0-10% cover class.

Table S3.

Seagrass cover inner lagoon (17.2735862, -87.8478274)	
	
	