

Table 1: Generalized breakdown rates in oxic and anoxic conditions for coastal ecosystems (from Lovelock et al 2017b) as well as rates reported here and summarized data from the literature.

Ecosystem	Details	Breakdown rate, k (day ⁻¹)			
		Oxic	Anoxic		
<i>Generalized Rates (Lovelock et al 2017b)</i>					
Tidal marsh	Aboveground biomass	0.01	0.005		
	Blowground biomass	0.007	0.0032		
	Sediment C _{org}	0.0005	0.00005		
Mangrove	Leaves	0.06	0.03		
	Wood	0.0007	0.0004		
	Sediment C _{org}	0.0005	0.00005		
Seagrass	Aboveground biomass	0.02	0.01		
	Blowground biomass	0.002	0.001		
	Sediment C _{org}	0.0005	0.00005		
<i>This study</i>	Seagrass	Canvas strip assay	Breakdown rate, k (day ⁻¹)		
			Surface Deployed	Buried	
			0.00083 ± 0.00008	0.0010 ± 0.00007	
<i>Summarized literature</i>	Seagrass	Various conditions (see Online Resource 10)	Breakdown rate, k (day ⁻¹)		
			Average ± SE	Min	Max
			0.0117 ± 0.0014	0.0002	0.0394