



**Figure S1.** Linear discriminants 1 and 2 for  $\delta^{13}\text{C}$  values of five essential amino acids: isoleucine, leucine, phenylalanine, threonine, and valine. 95% ellipses are drawn points representing basal energy sources. Colors represent the different sources. POM = particulate organic matter.

**Table S1.** Posterior pairwise comparison matrix for relative source contributions to soil organic matter (SOM), grass shrimp (*Palaemonetes* spp.), and marsh periwinkle snails (*Littoraria irrorata*), within marsh, mixed, and mangrove habitat. Comparisons represent the likelihood that one source is contributing more than another, and are presented using the majority percentage and likelihood that the proportional contribution of the row is greater than the column to the mixture. Comparisons are based on bulk  $\delta^{13}\text{C}$  (SOM), bulk  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  (consumers; “Bulk”), and essential amino acid  $\delta^{13}\text{C}$  (consumers; “CSIA-AA”) data.

	Soil Organic Matter			Grass Shrimp						Marsh Periwinkle Snail							
	<i>Spartina</i> Bulk	<i>Avicennia</i> Bulk	Algae Bulk	<i>Spartina</i>		<i>Avicennia</i>		Algae		<i>Spartina</i>		<i>Avicennia</i>		Algae			
				Bulk	CSIA	Bulk	CSIA	Bulk	CSIA	Bulk	CSIA	Bulk	CSIA	Bulk	CSIA		
Marsh	<i>Spartina</i>	-	99.4%	54.1%	<i>Spartina</i>	-	-	99.8%	59.0%	<i>Spartina</i>	-	-	100%	100%	100%	96.6%	
	<i>Avicennia</i>		-		<i>Avicennia</i>			-	-	<i>Avicennia</i>			-	-			
	Algae		89.2%	-	Algae	53.5%	100.0%	84.9%	99.9%	-	-	Algae		97.1%	99.9%	-	-
Mixed	<i>Spartina</i>	-	98.6%		<i>Spartina</i>	-	-	98.4%		<i>Spartina</i>	-	-	100%	100%	100%	97.6%	
	<i>Avicennia</i>		-		<i>Avicennia</i>		60.9%	-	-	<i>Avicennia</i>			-	-			
	Algae	66.8%	91.4%	-	Algae	62.6%	99.8%	85.2%	97.4%	-	-	Algae		93.3%	100%	-	-
Mangrove	<i>Spartina</i>	-			<i>Spartina</i>	-	-	57.8%	70.9%	69.3%			<i>Spartina</i>	-	-		
	<i>Avicennia</i>	97.2%	-	81.4%	<i>Avicennia</i>			-	-	73.7%			<i>Avicennia</i>	98.6%	69.6%	-	-
	Algae	90.4%		-	Algae		100.0%		99.7%	-	-	Algae	93.1%	100%	72.0%	100%	-

**Table S2.** Posterior pairwise comparison matrix for relative source contributions to soil organic matter (SOM), grass shrimp (*Palaemonetes* spp.), and marsh periwinkle snails (*Littoraria irrorata*), between marsh, mixed, and mangrove habitat. Comparisons represent the likelihood that likelihood that the contribution of a given source is greater in one habitat than another, and are presented using the majority percentage and likelihood that the proportional contribution of the row is greater than the column to the mixture. Comparisons are based on bulk  $\delta^{13}\text{C}$  (SOM; “Bulk”), bulk  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  (consumers; “Bulk”), and essential amino acid  $\delta^{13}\text{C}$  (consumers; “CSIA”) data.

	Soil Organic Matter			Grass Shrimp						Marsh Periwinkle Snail							
	Marsh Bulk	Mixed Bulk	Mangrove Bulk	Marsh		Mixed		Mangrove		Marsh		Mixed		Mangrove			
				Bulk	CSIA	Bulk	CSIA	Bulk	CSIA	Bulk	CSIA	Bulk	CSIA	Bulk	CSIA		
<i>Spartina</i>	Marsh	-	64.2%	97.8%	Marsh	-	-	58.3%	55.3%	57.0%	Marsh	-	-	57.6%	100%	100.0%	
	Mixed		-	99.1%	Mixed			-	-		Mixed	51.0%	-	-	100%	100.0%	
	Mangrove			-	Mangrove		70.8%	51.5%	78.2%	-	-	Mangrove			-	-	
<i>Avicennia</i>	Marsh	-			Marsh	-	-	52.8%			Marsh	-	-	53.8%			
	Mixed	54.2%	-		Mixed		65.4%	-	-	58.1%	Mixed	57.3%	-	-			
	Mangrove	97.7%	97.5%	-	Mangrove	93.0%	58.6%	92.3%	-	-	Mangrove	99.7%	81.2%	99.5%	83.3%	-	-
Algae	Marsh	-		69.6%	Marsh	-	-	60.7%	79.2%	71.4%	Marsh	-	-	53.8%			
	Mixed	60.6%	-	77.4%	Mixed	56.0%		-	-	80.6%	58.6%	Mixed		58.3%	-	-	
	Mangrove			-	Mangrove					-	-	Mangrove	97.3%	100.0%	97.3%	100%	-