

**Table S3a:** AMOVA design and results: for the 16S rDNA sequence marker under different settings (no groupings vs. 3 groups<sup>1</sup>).

No grouping						3 groups				
	Source of variation	d.f.	Sum of squares	Variance components	Percentage of variation	Source of variation	d.f.	Sum of squares	Variance components	Percentage of variation
Alignment 1	Among populations	6	101.43	2.66	80.80	Among groups	2	84.01	2.53	62.83
	Within populations	42	26.55	0.63	19.20	Among populations within groups	4	17.42	0.86	21.45
	Total	48	127.98	3.29		Within populations	42	26.55	0.63	15.72
	<b>Fixation Index</b> FST: 0.81**					Total	48	127.98	4.02	
Alignment 2	Among populations	5	195.92	6.97	96.75	<b>Fixation Indices</b> FSC: 0.58** FST: 0.84** FCT: 0.63				
	Within populations	33	7.72	0.23	2.25	Among groups	2	176.46	6.70	77.28
	Total	38	203.64	7.20		Among populations within groups	3	19.47	1.73	20.02
	<b>Fixation Index</b> FST: 0.97**					Within populations	33	7.72	0.23	2.7
Alignment 3	Among populations	6	741.52	6.53	93.53	Total	38	203.64	8.66	
	Within populations	138	42.23	0.31	4.47	<b>Fixation Indices</b> FSC: 0.88** FST: 0.97** FCT: 0.77*				
	Among populations	6	741.52	6.53	93.53	Among groups	2	590.26	5.45	66.14
	Within populations	138	42.23	0.31	4.47	Among populations within groups	4	151.26	2.48	30.15

					Within populations	138	42.23	0.31	3.72
Total	144	783.75	6.84		Total	144	783.75	8.23	
<b>Fixation Index</b>					<b>Fixation Indices</b>				
FST: 0.96**					FSC: 0.89**				
					FST: 0.96**				
					FCT: 0.66**				

**Table S3b:** AMOVA design and results: for the CO1 sequence marker under different settings (no groupings vs. 3 groups<sup>1</sup>).

No grouping						3 groups				
	Source of variation	d.f.	Sum of squares	Variance components	Percentage of variation	Source of variation	d.f.	Sum of squares	Variance components	Percentage of variation
Alignment 2	Among populations	6	285.80	12.99	98.90	Among groups	2	248.94	15.51	85.42
	Within populations	22	3.17	0.14	1.10	Among populations within groups	4	36.86	2.50	13.78
						Within populations	22	3.17	0.14	0.79
	Total	28	288.97	13.14		Total	28	288.97	18.16	
	<b>Fixation Index</b>					<b>Fixation Indices</b>				
	FST: 0.99**					FSC: 0.95**				
						FST: 0.99**				
						FCT: 0.85*				
Alignment 3	Among populations	6	1430.61	13.59	98.58	Among groups	2	1289.57	14.36	83.62
	Within populations	128	24.98	0.20	1.42	Among populations within groups	4	141.04	2.62	15.24
						Within populations	128	24.98	0.20	1.14
	Total	134	1455.59	13.79		Total	134	1455.59	17.18	

**Fixation Index**

FST: 0.99\*\*

**Fixation Indices**

FSC: 0.93\*\*

FST: 0.99\*\*

FCT: 0.84\*

---

\* significance level = 0.05

<sup>1</sup> Groups (if applicable) Group 1: Biosphere Reserve Los Tuxtlas, Mexico (RBLT); Group 2: Cusuco National Park, Honduras (HN), Nicaragua (NI-b), Biological Research Station La Selva, Costa Rica (LS), Barro Colorado Island, Panama (BCI), Rio Canande Reserve, Ecuador (CAN); Group 3: Nicaragua (NI), Corcovado National Park 'Field Station Sirena', Costa Rica (CNP)

---