

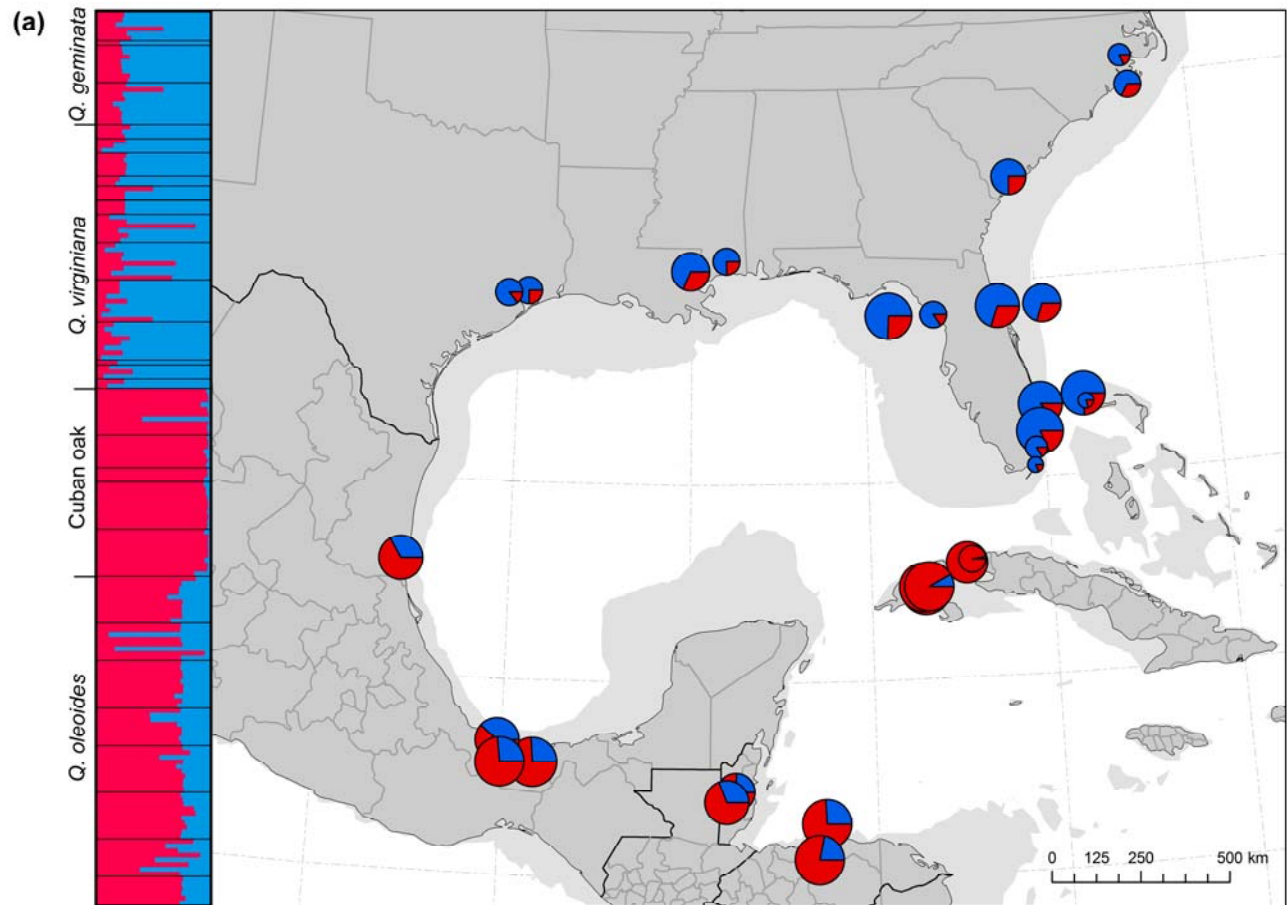
SUPPORTING INFORMATION
Molecular and morphological support for a Florida origin of the Cuban oak
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Appendix S1 Sample site coordinates, species composition, sample sizes, and whether or not morphological data were measured.

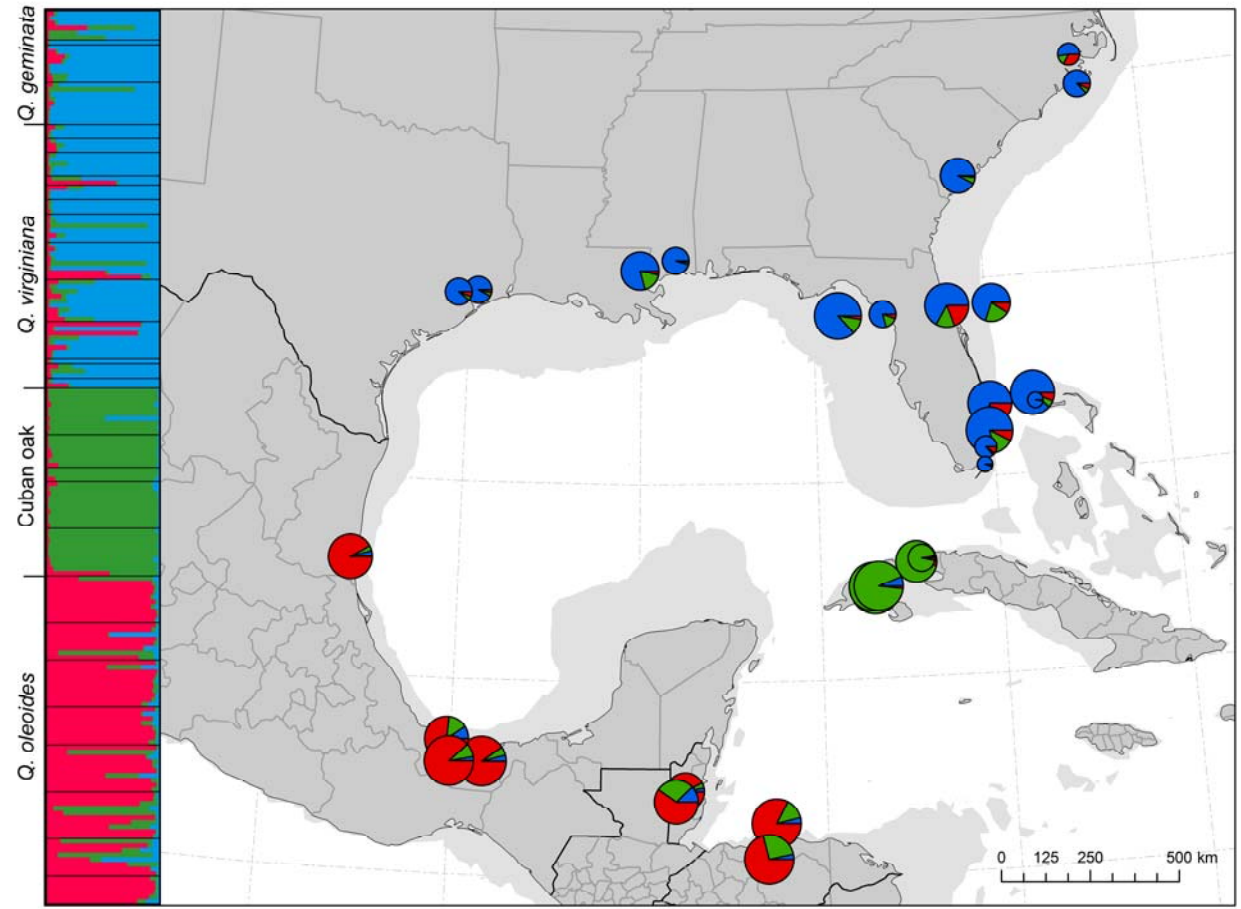
Population code	Country/State	Locality	Latitude	Longitude	Taxon	Sample size	Morphology
CUCA	Cuba	Cabezas	22.281153	-83.523505	Cuban oak ¹	10	yes
CUMM	Cuba	Minas de Matahambre	22.353153	-83.565257	Cuban oak	10	yes
CUPA	Cuba	La Palma	23.024656	-82.214388	Cuban oak	3	yes
CUSV	Cuba	San Vicente	22.940115	-82.364504	Cuban oak	7	yes
CUVN	Cuba	Viñales	22.365991	-83.430021	Cuban oak	10	yes
BZBB	Belize	Burrell Boom	17.2412	-88.7467	<i>Q. oleoides</i>	5	yes
BZMPR	Belize	Mountain Pine Ridge	16.9796	-88.9864	<i>Q. oleoides</i>	8	yes
HNOL	Honduras	Olanchito	15.48099995	-86.56900024	<i>Q. oleoides</i>	10	yes
HNRO	Honduras	Roatán	16.40025507	-86.356908	<i>Q. oleoides</i>	10	yes
MXCH	Mexico	Las Choapas/Coatzacoalcos, Veracruz	17.92917453	-94.1500458	<i>Q. oleoides</i>	9	yes
MXMB	Mexico	Mono Blanco, Veracruz	18.46011478	-95.10607319	<i>Q. oleoides</i>	8	yes
MXSA	Mexico	La Cruz/Sayula, Veracruz	17.90929081	-95.01801543	<i>Q. oleoides</i>	10	yes
MXBT	Mexico	Aldama, Tamaulipas	22.94248092	-97.98714571	<i>Q. oleoides</i>	6	no
FLBA	Florida	Barnacle Historic State Park	25.72624994	-80.24401766	<i>Q. virginiana</i>	2	yes
FLCK	Florida	Cedar Key	29.20578078	-82.98855191	<i>Q. virginiana</i>	3	yes
FLCKg					<i>Q. geminata</i>	9	yes
FLJD	Florida	Jonathan Dickinson State Park	27.01701583	-80.10978224	<i>Q. geminata</i>	8	yes
FLMA	Florida	MacArthur Beach State Park	26.82720152	-80.04515181	<i>Q. virginiana</i>	8	yes
FLMAg					<i>Q. geminata</i>	1	yes
FLTB	Florida	Taylor Birch State Park	26.14044369	-80.10506951	<i>Q. virginiana</i>	9	yes
FLWO	Florida	Washington Oaks State Park	29.34604	-81.11188	<i>Q. virginiana</i>	8	yes
FLWOg					<i>Q. geminata</i>	6	yes
FLKL	Florida	Key Largo	25.28634771	-80.29833717	<i>Q. virginiana</i>	1	no
LALC	Louisiana	Lacombe	30.41143533	-90.05347233	<i>Q. virginiana</i>	5	no
MSBX	Mississippi	Biloxi	30.67472233	-89.00388867	<i>Q. virginiana</i>	3	no
NC1-3	North Carolina	Morehead City	34.72659234	-76.74844457	<i>Q. virginiana</i>	3	no
NC4-5	North Carolina	Goose Creek State Park	35.49316062	-76.91716776	<i>Q. virginiana</i>	2	no
SCCU	South Carolina	Cumbahee	32.60153049	-80.55078576	<i>Q. virginiana</i>	4	no
TXHO	Texas	Houston	29.76744865	-95.34647447	<i>Q. virginiana</i>	2	no
TXWV	Texas	Wallisville	29.83551962	-94.76975393	<i>Q. virginiana</i>	2	no

¹Present taxonomic treatment of the Cuban oak is *Q. oleoides* var. *sagraeana* (Muller, C.H. (1961) The live oaks of the series *Virentes*. *American Midland Naturalist*, **65**, 17-39).

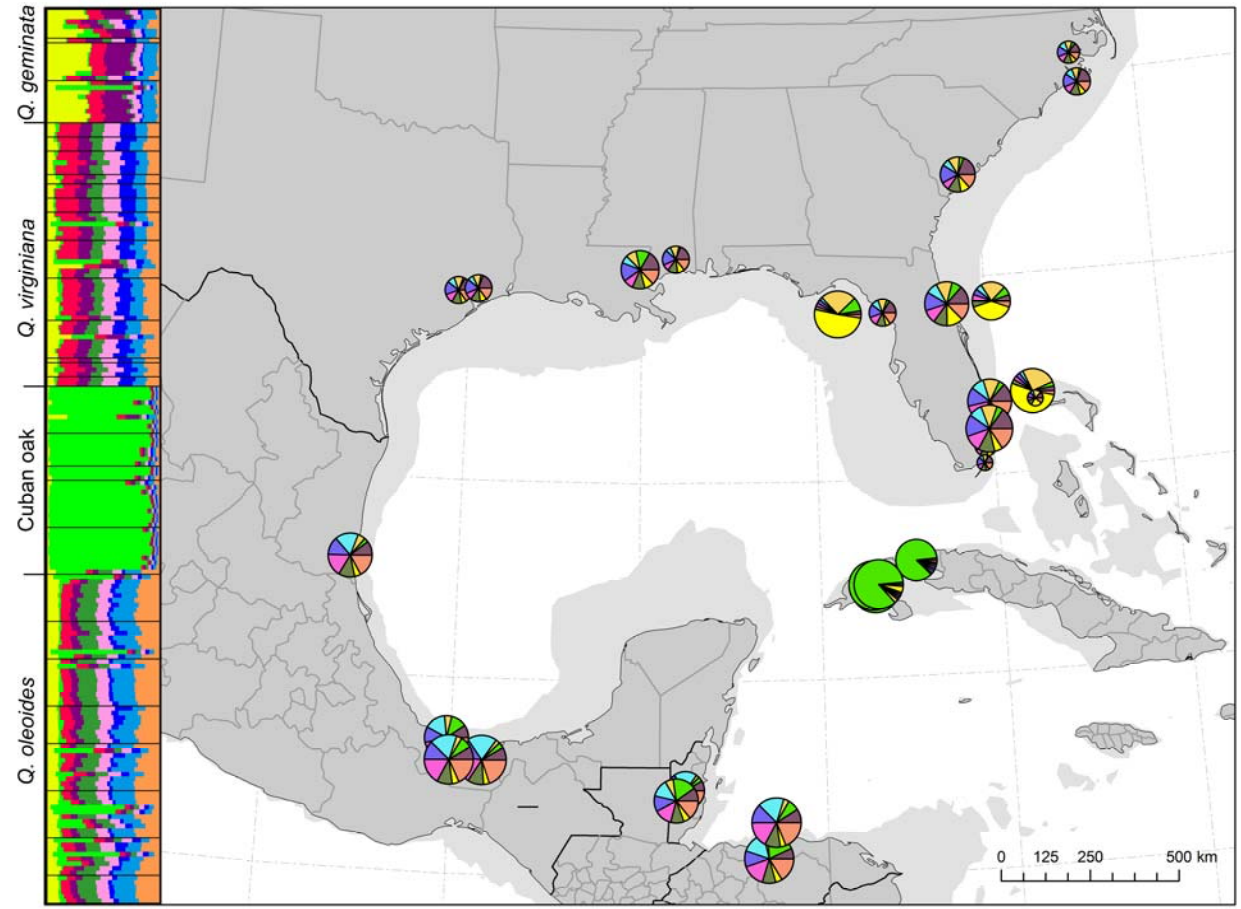
Appendix S2 Maps and admixture plots for (a) two, (b) three, and (c) nine (lowest deviance information criterion) population clusters of *Quercus virginiana*, *Q. geminata*, *Q. oleoides*, and Cuban oak defined by INSTRUCT.



(b)



(c)



Appendix S3 Supplementary morphological analyses

Table S1 Mean trait index values and percent contribution to total dissimilarity of each leaf trait for each pairwise comparison among taxa from similarity percentage (SIMPER) analysis. Traits contributing > 20% to dissimilarity among pairs of taxa are highlighted in bold.

	Trait ¹	Mean trait index value	Cuban oak	<i>Q. virginiana</i>	<i>Q. oleoides</i>	<i>Q. geminata</i>
Cuban oak	Area	0.65				
	Length:width	0.47				
	Mass/area	0.32				
	Midvein	0.08	-			
	Pubescence	0.73				
	Revolute	0.1				
	Rugose	0.21				
<i>Q. virginiana</i>	Area	0.58	18.11			
	Length:width	0.44	11.35			
	Mass/area	0.26	13.35			
	Midvein	0.07	3.9	-		
	Pubescence	0.51	22.23			
	Revolute	0.03	11.47			
	Rugose	0	19.59			
<i>Q. oleoides</i>	Area	0.41	25.54	35.58		
	Length:width	0.41	7.64	13.59		
	Mass/area	0.35	12.53	20.48		
	Midvein	0.04	4.11	6.13	-	
	Pubescence	0.6	21.56	13.64		
	Revolute	0.02	9.3	6.55		
	Rugose	0.03	19.32	4.03		
<i>Q. geminata</i>	Area	0.75	5.25	6.45	10.57	
	Length:width	0.59	6.15	6.24	6.38	
	Mass/area	0.65	12.48	12.01	9.59	
	Midvein	0.2	4.78	4.06	4.95	-
	Pubescence	0.94	10.23	13.1	11.05	
	Revolute	0.94	31.19	27.46	27.88	
	Rugose	1	29.92	30.68	29.58	

1. Trait values are standardized between 0 and 1 (see Materials and Methods). Area is standardized so that larger area is closer to 0; all others values are larger for values closer to 1

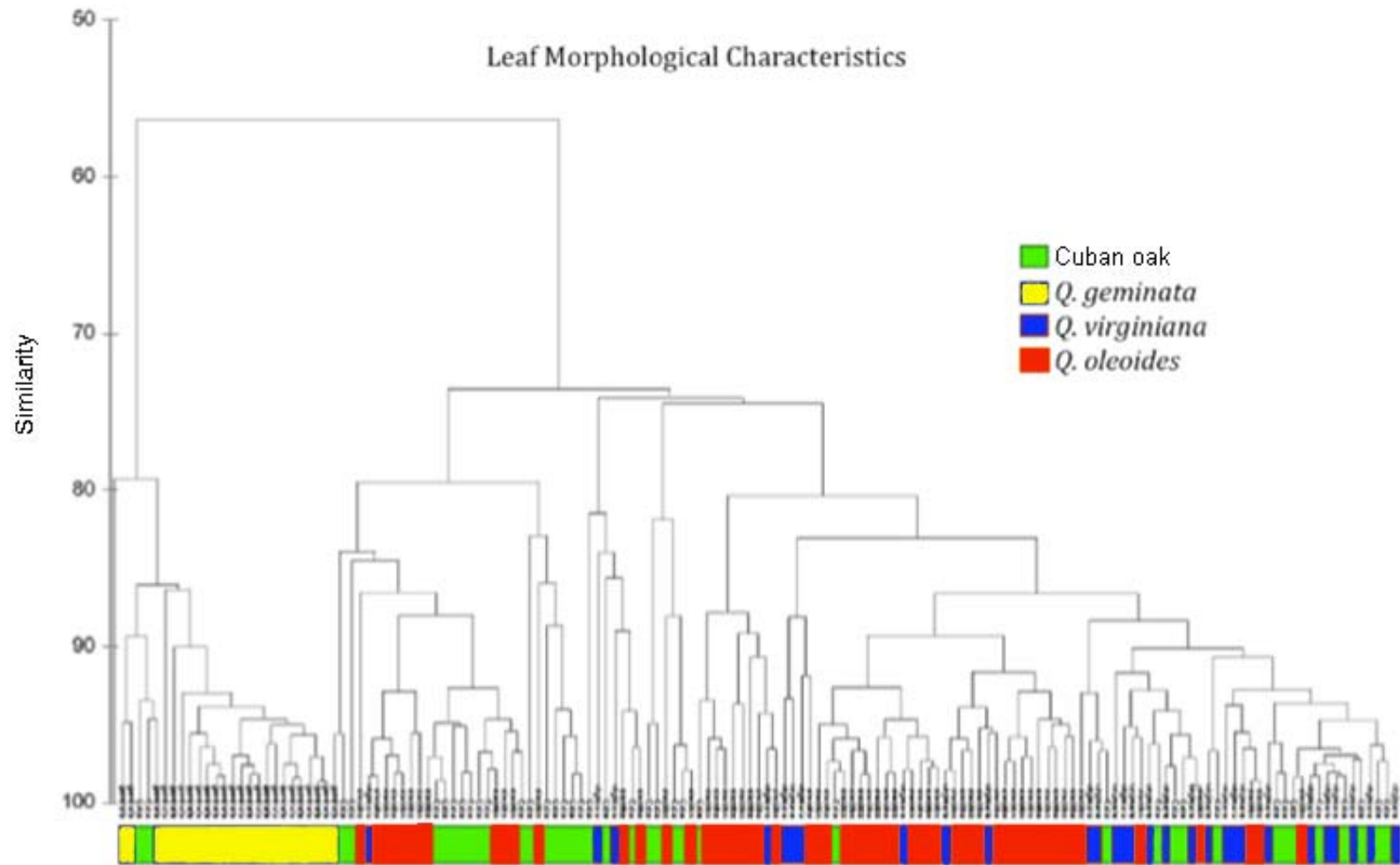


Figure S1 Hierarchical clustering based on Bray–Curtis similarities of seven leaf morphological traits performed in PRIMER5 (Primer-E Ltd., Ivybridge, UK).