Table S1. Information about species, specimens, and its integration in the different dataset used in this study. Accession numbers of partial COI sequences obtained from GenBank and BOLD, the locality of origin, reference when is available, and haplotype code.

Species	Locality	Dataset			Haplotype code	Accession number		Reference
		SF1 645 bp	SF2 496 bp	LF 1190 bp		GenBank	BOLD	
R. microplus (outgroup)		X				MK234703.1		[78]
T. tridentatus	East China Sea	X				HQ588752		[17]
T. gigas	Bay of Bengal	X				MZ262422		[38]
T. gigas	South China Sea	X				HQ588749		[17]
T. gigas	Andaman Sea	X				HQ588748		
C. rotundicauda	Andaman Sea	X				HQ588754		
C. rotundicauda	South China Sea	X				HQ588746		
C. rotundicauda	Gulf of Thailand	X				HQ588750		
L. polyphemus	Florida	X			SF1_H11		AMINV019-08	
	Florida	X			SF1_H12	HQ588753		[17]
	Connecticut	X			SF1_H13		GBA4024-09	
	Maryland	X			SF1_H14		SERCI133-12	
	Maryland	X			SF1_H15		SERCI135-12	
	Florida		X		SF2_Lim A	LPU09391		[60]
	North Atlantic		X		SF2_Lim B	LPU09392		
	Chesapeake and Delaware Bay		X		SF2_Lim C			[26]
	Chesapeake and Delaware Bay		X		SF2_Lim D			
	Delaware Bay		X		SF2_Lim E			
	Chesapeake Bay		X		SF2_Lim F			
	Chesapeake Bay		X		SF2_Lim G			
	Chesapeake Bay		X		SF2_Lim H			

	Chesapeake Bay		X		SF2_Lim I			
	Yucatán Peninsula	X	X	X	LF_H1	PV425933		This work
	Champotón	X	X	X	LF_H2	PV425934		
	Champotón	X	X	X	LF_H3	PV425935		
	Champotón	X	X	X	LF_H4	PV425936		
	Ría Celestún	X	X	X	LF_H5	PV425937		
	Laguna de Términos and Ría Celestún	X	X	X	LF_H6	PV425938		
	Ría Celestún	X	X	X	LF_H7	PV425939		
	Ría Celestún and Yum Balam	X	X	X	LF_H8	PV425940		
	Yum Balam	X	X	X	LF_H9	PV425941		
	Yum Balam	X	X	X	LF_H10	PV425942		
	Yum Balam	X	X	X	LF_H11	PV425943		
	Chuburná, Chelem and Yum Balam	X	X	X	LF_H12	PV425944		
	Yum Balam	X	X	X	LF_H13	PV425945		
	Laguna de Términos	X	X	X	LF_H14	PV425946		
	Laguna de Términos	X	X	X	LF_H15	PV425947		
	Laguna de Términos	X	X	X	LF_H16	PV425948		