

Ecography

ECOG-00719

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Supplementary material

Appendix 1. Weighted percent of geographic overlap between original and forward-projection models generated in Maxent. * Richmondian invader.

Taxon	Clade	Initial Analysis	Pre-Invasion		Invasion				Post-Invasion	
			C3-1 on C3-2	C3-2 on C3-3	C3-3 on C4-1	C4-1 on C4-2	C4-2 on C4-3	C4-3 on C5-1	C5-1 on C5-2	C5-2 on C5-3
<i>Ambonychia</i> sp.	Mollusca	Brame & Stigall, 2013				58.64	62.08	73.04		
<i>Aspidopora</i> sp.	Bryozoa	Brame & Stigall, 2013	83.31	84.44	69.71	55.55	43.57	50.18	75.76	
<i>Cincinnaticrinus pentagonus</i>	Crinoidea	Brame & Stigall, 2013	52.04	82.52	62.73	86.17	71.42	72.03		
<i>Cuffeyella arachnoidea</i>	Bryozoa	Brame & Stigall, 2013	92.58							
<i>Cyclonema</i> sp.	Mollusca	Brame & Stigall, 2013				79.96				
<i>Dalmanella meeki</i>	Brachiopoda	Malizia & Stigall, 2011			54.68	59.28	67.59	63.52		
<i>Ectenocrinus simplex</i>	Crinoidea	Brame & Stigall, 2013	81.13	83.54	60.94	84.56	32.93	65.83		
<i>Flexicalymene</i> sp.	Trilobita	Brame & Stigall, 2013	58.87	90.99	61.01	85.09	76.57	71.77	60.56	92.90
<i>Grewingkia canadensis</i> *	Rugosa	Brame & Stigall, 2013							69.48	36.78
<i>Hebertella occidentalis</i>	Brachiopoda	Malizia & Stigall, 2011	78.47	81.82			73.49	84.85	72.86	45.35
<i>Hiscobeccus capax</i> *	Brachiopoda	Malizia & Stigall, 2011							62.35	36.72
<i>Isotelus</i> sp.	Trilobita	Brame & Stigall, 2013	66.72	78.64	68.42	66.79	83.29	66.88		
<i>Lepidocyclus perlamellosus</i> *	Brachiopoda	Malizia & Stigall, 2011							67.03	69.57
<i>Leptaena richmondensis</i> *	Brachiopoda	Malizia & Stigall, 2011					76.90	69.80	76.81	
<i>Parvohallopora</i> sp.	Bryozoa	Brame & Stigall, 2013			63.86	85.94	43.38	64.03	52.61	
<i>Plaesiomys subquadrata</i> *	Brachiopoda	Malizia & Stigall, 2011							68.84	53.61
<i>Rafinesquina alternata</i>	Brachiopoda	Malizia & Stigall, 2011	81.04	87.58	69.92	68.58	81.18	74.19	63.27	45.94
<i>Vinlandostrophia laticosta</i>	Brachiopoda	Malizia & Stigall, 2011	80.11	86.74					63.26	
<i>Vinlandostrophia ponderosa</i>	Brachiopoda	Malizia & Stigall, 2011	79.94	89.72	59.99	66.94				
<i>Xenocrinus</i> sp.*	Crinoidea	Brame & Stigall, 2013							73.78	
<i>Zygospira modesta</i>	Brachiopoda	Malizia & Stigall, 2011	87.11	84.84	77.22	58.89	60.38	79.91	62.69	58.56
		mean	76.48	85.08	64.85	71.37	64.40	69.67	66.87	54.93
		interval mean	80.58		67.69				62.32	

Appendix 2. Bray-Curtis similarity values calculated by comparing environmental parameters of Maxent models of successive time slices. * Richmondian invader.

Taxon	Clade	Initial Analysis	Pre-Invasion		Invasion				Post-Invasion	
			C3-1 on C3-2	C3-2 on C3-3	C3-3 on C4-1	C4-1 on C4-2	C4-2 on C4-3	C4-3 on C5-1	C5-1 on C5-2	C5-2 on C5-3
<i>Ambonychia</i> sp.	Mollusca	Brame & Stigall, 2013				0.01	0.49	0.76		
<i>Aspidopora</i> sp.	Bryozoa	Brame & Stigall, 2013	0.97	0.00	0.30	0.00	0.31	0.20	0.03	
<i>Cincinnaticrinus pentagonus</i>	Crinoidea	Brame & Stigall, 2013	0.00	0.00	0.00	0.39	0.16	0.59		
<i>Cuffeyella arachnoidea</i>	Bryozoa	Brame & Stigall, 2013	0.00							
<i>Cyclonema</i> sp.	Mollusca	Brame & Stigall, 2013				0.30				
<i>Dalmanella meeki</i>	Brachiopoda	Malizia & Stigall, 2011			0.75	0.00	0.00	0.37		
<i>Ectenocrinus simple</i>	Crinoidea	Brame & Stigall, 2013	0.00	0.14	0.14	0.00	0.22	0.00		
<i>Flexicalymene</i> sp.	Trilobita	Brame & Stigall, 2013	0.00	0.60	0.00	0.48	0.02	0.41	0.62	0.48
<i>Grewingkia canadensis</i> *	Rugosa	Brame & Stigall, 2013							0.11	0.56
<i>Hebertella occidentalis</i>	Brachiopoda	Malizia & Stigall, 2011	0.29	0.45			0.18	0.13	0.27	0.77
<i>Hiscobeccus capax</i> *	Brachiopoda	Malizia & Stigall, 2011							0.48	0.58
<i>Isotelus</i> sp.	Trilobita	Brame & Stigall, 2013	0.00	0.00	0.00	0.40	0.43	0.16		
<i>Lepidocyclus perlamellosus</i> *	Brachiopoda	Malizia & Stigall, 2011							0.04	0.13
<i>Leptaena richmondensis</i> *	Brachiopoda	Malizia & Stigall, 2011					0.01	0.65	0.69	
<i>Parvohallopora</i> sp.	Bryozoa	Brame & Stigall, 2013			0.01	0.00	0.30	0.54	0.48	
<i>Plaesiomys subquadrata</i> *	Brachiopoda	Malizia & Stigall, 2011							0.04	0.65
<i>Rafinesquina alternata</i>	Brachiopoda	Malizia & Stigall, 2011	0.24	0.45	0.26	0.44	0.67	0.33	0.24	0.35
<i>Vinlandostrophia laticosta</i>	Brachiopoda	Malizia & Stigall, 2011	0.04	0.35					0.07	
<i>Vinlandostrophia ponderosa</i>	Brachiopoda	Malizia & Stigall, 2011	0.06	0.32	0.21	0.12				
<i>Xenocrinus</i> sp.*	Crinoidea	Brame & Stigall, 2013							0.65	
<i>Zygospira modesta</i>	Brachiopoda	Malizia & Stigall, 2011	0.01	0.40	0.08	0.29	0.53	0.29	0.39	0.67
		mean	0.15	0.27	0.17	0.20	0.28	0.37	0.32	0.52
		interval mean		0.21			0.26		0.40	