Ecography

ECOG-04454

Otto, R., Fernández-Lugo, S., Blandino, C., Manganelli, G., Chiarucci, A. and Fernández-Palacios, J. M. 2020. Biotic homogenization of oceanic islands depends on taxon, spatial scale and the quantification approach. – Ecoraphy doi: 10.1111/ecog.04454

Supplementary material

Supplementary material Appendix 1

Biotic homogenization of oceanic islands depends on taxon, spatial scale

and the quantification approach.

Bibliographical sources used to build the data sets.

Biota's Checklists of the Macaronesian archipelagos:
Azores (Borges et al. 2005, 2010)
Madeira and Savage Islands (Borges et al. 2008)
Canary Islands (Arechavaleta et al. 2010)
Cape Verde (Arechavaleta et al. 2005).
Field Guide to the Birds of Macaronesia (García-del-Rey 2011) was used for birds, considering only breeding species with established populations (disregarding occasional and short-staying species).

For the Canarian islets of Alegranza, Montaña Clara and La Graciosa, close to Lanzarote, and the island of Lobos, close to Fuerteventura, additional sources were used (Kunkel 1970; Martin and Lorenzo 2001, Yanes 2003, 2005).

Taxonomic inconsistencies or synonymy among different checklists were noted (e.g. the fern reported as *Vandenboschia speciosa* for Azores and as *Trichomanes speciosum* for Madeira and Canaries). Plant names were checked using the International Plant Names Index (www.ipni.org), and taking as reference the latest Canary Islands checklist (Arechavaleta et al. 2010).

The nomenclature of the other groups was updated using the most recent taxonomic contributions: mollusks (Bank 2008, Gröh et al. 2008, Bank 2011a, b, Giusti et al. 2011, Holyoak et al. 2011, Rähle and Allgaier 2011, Raposeiro et al. 2011, Gröh 2012), removing recently extinct species (Fontaine et. al. 2007); reptiles (Arnold and Ovenden 2002, Arnold et al. 2008, Carranza el al. 2008, Sindaco and Jeremenko 2008, Vasconcelos et al. 2009, 2010, 2012, Miralles et al. 2011, Wagner et al. 2012); mammals (Palomo and Gisbert 2002, Aulagnier et al. 2009, Masseti 2010).

References:

Supplementary material Appendix 2

Biotic homogenization of oceanic islands depends on taxon, spatial scale

and the quantification approach.

Appendix 2. Results of dissimilarity analyses.

Table. A1. Results of analyses of pairwise dissimilarities of islands and archipelagos of Macaronesia for birds, mammals, reptiles, non-marine molluscs, pteridophytes and spermatophytes. Initial natives = initial biotas with native species before human impact, extant natives = biotas with extant native species after human related extinctions or extirpations, total extant species = current biotas after human related extirpations and introductions of species, sor = Sørensen dissimilarity index, sim = Simpson dissimilarity index, nest = nestedness (Sørensen index – Simpson index), azo = Azores, mas = Madeira and Selvagens, can = Canary Islands, cve = Cape Verde, mac = Macaronesia island grain, arc = Macaronesia archipelago grain.

	Mean									Standard deviation								
	Initial natives			Extant natives			Total extant species			Initial natives			Extant natives			Total extant species		
	sor	sim	nest	sor	sim	nest	sor	sim	nest	sor	sim	nest	sor	sim	nest	sor	sim	nest
bird azo	0.193	0.130	0.063	0.164	0.112	0.052	0.164	0.110	0.066	0.080	0.084	0.047	0.084	0.084	0.037	0.080	0.083	0.050
bird mas	0.557	0.285	0.272	0.519	0.287	0.231	0.529	0.293	0.236	0.177	0.135	0.159	0.181	0.163	0.141	0.185	0.156	0.150
bird can	0.427	0.211	0.217	0.422	0.207	0.215	0.433	0.209	0.225	0.181	0.130	0.166	0.185	0.134	0.163	0.183	0.129	0.168
bird cve	0.311	0.204	0.107	0.303	0.194	0.109	0.328	0.221	0.108	0.071	0.108	0.086	0.077	0.111	0.084	0.079	0.110	0.083
bird mac	0.629	0.504	0.125	0.620	0.500	0.120	0.633	0.511	0.122	0.214	0.259	0.126	0.224	0.268	0.121	0.222	0.266	0.122
bird arch	0.635	0.512	0.123	0.577	0.434	0.143	0.566	0.417	0.149	0.107	0.176	0.095	0.138	0.223	0.120	0.140	0.241	0.146
mam azo	0.411	0.339	0.071	-	-	-	0.199	0.100	0.099	0.394	0.432	0.139	-	-	-	0.103	0.098	0.076
mam mas	0.286	0.000	0.286	-	-	-	0.348	0.133	0.214	0.247	0.000	0.247	-	-	-	0.174	0.116	0.076
mam can	0.703	0.580	0.123	0.636	0.564	0.072	0.511	0.254	0.258	0.330	0.452	0.182	0.414	0.470	0.133	0.251	0.281	0.200
mam cve	0.867	0.800	0.067	-	-	-	0.616	0.492	0.124	0.281	0.422	0.141	-	-	-	0.127	0.149	0.076
mam mac	0.854	0.798	0.056	0.844	0.799	0.045	0.527	0.347	0.181	0.275	0.361	0.137	0.301	0.366	0.122	0.209	0.187	0.129
mam arch	0.815	0.708	0.107	0.715	0.650	0.065	0.509	0.387	0.122	0.204	0.332	0.148	0.211	0.265	0.071	0.119	0.142	0.092

rep mas	0.222	0.000	0.222	-	-	-	0.505	0.083	0.421	0.172	0.000	0.172	-	-	-	0.158	0.204	0.260
rep can	0.675	0.611	0.064	0.682	0.614	0.068	0.693	0.612	0.081	0.366	0.429	0.101	0.364	0.428	0.100	0.360	0.425	0.111
rep cve	0.612	0.548	0.064	0.779	0.728	0.051	0.708	0.647	0.061	0.204	0.231	0.064	0.237	0.289	0.076	0.235	0.279	0.059
rep mac	0.863	0.837	0.026	0.894	0.867	0.027	0.886	0.854	0.319	0.256	0.302	0.066	0.238	0.293	0.071	0.230	0.289	0.087
rep arch	0.968	0.889	0.079	0.965	0.889	0.076	0.951	0.889	0.062	0.055	0.192	0.138	0.061	0.192	0.132	0.043	0.097	0.054
mol azo	0.534	0.364	0.171	0.487	0.280	0.208	0.344	0.196	0.149	0.175	0.170	0.127	0.150	0.131	0.135	0.087	0.097	0.118
mol mas	0.919	0.818	0.092	0.916	0.830	0.086	0.906	0.789	0.117	0.103	0.261	0.163	0.111	0.261	0.154	0.106	0.286	0.192
mol can	0.806	0.582	0.224	0.825	0.547	0.278	0.813	0.456	0.357	0.171	0.242	0.162	0.162	0.255	0.222	0.144	0.267	0.296
mol cve	0.450	0.089	0.360	-	-	-	0.555	0.116	0.439	0.212	0.126	0.247	-	-	-	0.214	0.139	0.273
mol mac	0.894	0.821	0.073	0.895	0.817	0.078	0.844	0.707	0.138	0.213	0.322	0.157	0.212	0.325	0.168	0.202	0.319	0.203
mol arch	0.987	0.968	0.196	0.987	0.968	0.019	0.837	0.679	0.158	0.011	0.027	0.021	0.012	0.026	0.020	0.066	0.080	0.084
pte azo	0.194	0.050	0.144	-	-	-	0.230	0.090	0.140	0.105	0.047	0.117	-	-	-	0.074	0.069	0.100
pte mas	0.623	0.000	0.623	-	-	-	0.647	0.111	0.536	0.285	0.000	0.285	-	-	-	0.288	0.172	0.300
pte can	0.555	0.163	0.392	-	-	-	0.591	0.172	0.420	0.321	0.255	0.315	-	-	-	0.299	0.254	0.313
pte cve	0.609	0.296	0.313	-	-	-				0.331	0.372	0.315	-	-	-			
pte mac	0.687	0.447	0.243	-	-	-	0.699	0.440	0.259	0.265	0.344	0.283	-	-	-	0.255	0.332	0.279
pte arch	0.483	0.418	0.065	-	-	-	0.507	0.396	0.111	0.198	0.164	0.049	-	-	-	0.195	0.122	0.080
spe azo	0.209	0.109	0.101	-	-	-	0.288	0.152	0.137	0.070	0.048	0.080	-	-	-	0.060	0.058	0.098
spe mas	0.587	0.214	0.373	0.587	0.214	0.373	0.640	0.204	0.436	0.184	0.152	0.151	0.184	0.152	0.151	0.158	0.155	0.187
spe can	0.545	0.210	0.335	0.545	0.210	0.335	0.583	0.209	0.375	0.211	0.128	0.245	0.211	0.128	0.245	0.215	0.127	0.259
spe cve	0.447	0.258	0.188	0.448	0.261	0.187	0.516	0.245	0.271	0.140	0.111	0.131	0.139	0.110	0.130	0.169	0.101	0.178
spe mac	0.798	0.680	0.118	0.798	0.680	0.118	0.748	0.585	0.163	0.251	0.319	0.149	0.251	0.319	0.148	0.212	0.277	0.163
spe arch	0.855	0.708	0.147	0.855	0.709	0.146	0.664	0.543	0.121	0.140	0.213	0.102	0.140	0.213	0.101	0.163	0.195	0.089

	sor	sim	nest
mean bird	0.372	0.207	0.165
mean mam	0.567	0.430	0.137
mean rep	0.503	0.386	0.117
mean mol	0.677	0.463	0.212
mean pte	0.495	0.127	0.368
mean spe	0.447	0.198	0.249
mean azo	1.541	0.991	0.550
mean mas	3.194	1.317	1.867
mean can	3.711	2.357	1.354
mean cve	3.294	2.195	1.099

Table A2. Mean and standard deviation (sd) for changes in pairwise dissimilarity of island and archipelago biotas in Macaronesia. Taxonomic groups include birds, mammals, reptiles, non-marine molluscs, pteridophytes and spermatophytes. βsor = change in pairwise Sørensen dissimilarity index, βsim = change in pairwise Simpson dissimilarity index, βnest = change in nestedness (Sørensen index – Simpson index). Positive mean values indicate homogenization (decrease in dissimilarity), negative mean values indicate heterogenization (increase in dissimilarity). P values of hypothesis test of bootstrapped distribution of mean values for single samples (βsor, βsim, βnest) and pairwise samples (comparing βsor and βsim) are shown. azo = Azores Island, mas = Madeira and Selvagens Islands, can = Canary Islands, cve = Cape Verde Islands, mac = Macaronesia, island grain, arc = Macaronesia, archipelago grain. Groups azo, mas, can and cve represent the local extent, mac and arc the regional extent.
A) Total change in dissimilarity of biotas comparing the initial stage (before human impact) with the current stage (after human related extinctions or extirpations and after introductions of alien species);
B) Change in dissimilarity of biotas only due to human related extinctions or extirpations comparing the initial biotas with those after human related extinctions or extirpations;
C) Change in dissimilarity of biotas only due to human related introductions of alien species comparing biotas after extinctions/extirpations with those after introduction of alien species.
There were no native reptiles on Azores, no extinctions/extirpations of mammals on Azores, Madeiras and Cap Verde, of reptiles on Madeiras, of molluscs on Cape Verde, of pteridophytes in all archipelagos and of spermatophytes on Azores. There were no introductions of ferns to Cape Verde.

A) Total change	mean			sd			Bootstrap p value			Bootstrap p value
	βsor	βsim	βnest	βsor	βsim	βnest	βsor	βsim	βnest	pairwise βsor-βsim
bird azo	0.0157	0.0192	-0.0035	0.0266	0.0256	0.0229	<0.05	ns	ns	ns
bird mas	0.028	-0.0081	0.0361	0.0289	0.0229	0.0126	<0.01	ns	<0.001	<0.001
bird can	-0.0061	0.002	-0.0081	0.0278	0.0386	0.0262	ns	ns	<0.05	<0.01
bird cve	-0.0177	-0.0168	-0.0008	0.036	0.0523	0.0474	<0.001	<0.01	ns	ns
bird mac	-0.004	-0.0076	0.0036	0.0376	0.0463	0.0318	<0.01	<0.001	<0.01	<0.01
bird arch	0.0689	0.0953	-0.0264	0.0479	0.0896	0.0706	<0.001	<0.001	ns	ns
mam azo	0.2118	0.2396	-0.0278	0.321	0.3649	0.1772	<0.001	<0.001	ns	ns
mam mas	-0.0618	-0.1333	0.0715	0.3278	0.1155	0.2329	ns	ns	ns	ns
mam can	0.1917	0.3267	-0.135	0.2577	0.3193	0.2052	<0.001	<0.001	<0.001	<0.001
mam cve	0.2507	0.3083	-0.0576	0.2417	0.3601	0.1427	<0.01	<0.05	ns	ns
mam mac	0.3263	0.4511	-0.1244	0.2292	0.2749	0.1549	<0.001	<0.001	<0.001	<0.001
mam arch	0.3062	0.3212	-0.0149	0.213	0.256	0.105	<0.001	<0.001	ns	ns

rep mas	-0.2824	-0.0833	-0.1991	0.196	0.2041	0.3213	<0.001	ns	ns	ns
rep can	-0.0058	0.0082	-0.0168	0.0471	0.0512	0.0394	<0.01	<0.01	<0.001	<0.001
rep cve	-0.0959	-0.099	0.0305	0.1203	0.13	0.0499	<0.001	<0.001	ns	ns
rep mac	-0.0229	-0.0169	-0.0059	0.0827	0.0803	0.0537	<0.05	<0.001	<0.05	<0.001
rep arch	0.0171	-0.0001	0.0171	0.0436	0.1666	0.1265	ns	ns	ns	ns
mol azo	0.1901	0.168	0.0221	0.111	0.1282	0.0688	<0.001	<0.001	<0.05	<0.05
mol mas	0.0131	0.0383	-0.0251	0.0322	0.0535	0.0362	ns	ns	ns	ns
mol can	-0.0065	0.1269	-0.1334	0.1027	0.1769	0.191	ns	<0.001	<0.001	<0.001
mol cve	-0.1053	-0.0263	-0.0793	0.0597	0.0589	0.077	<0.001	<0.001	<0.001	<0.001
mol mac	0.0501	0.1143	-0.0642	0.1035	0.1463	0.1088	<0.001	<0.001	<0.001	<0.001
mol arch	0.1505	0.2893	-0.1388	0.0628	0.0854	0.0788	<0.001	<0.001	<0.001	<0.001
pte azo	-0.0354	-0.0391	0.0039	0.0487	0.0482	0.0697	<0.001	<0.001	ns	ns
pte mas	-0.0243	-0.1111	0.0868	0.0305	0.1722	0.1786	<0.05	ns	ns	ns
pte can	-0.0369	-0.0088	-0.0281	0.0381	0.0199	0.0371	<0.001	<0.001	<0.001	<0.001
pte cve	-	-	-	-	-	-	-	-	-	-
pte mac	-0.0112	0.0047	-0.0159	0.0323	0.056	0.055	<0.001	ns	<0.001	<0.001
pte arch	-0.0245	0.0215	-0.056	0.0238	0.0525	0.0396	<0.01	ns	<0.001	<0.001
spe azo	-0.079	-0.0433	-0.0356	0.0527	0.0513	0.0885	<0.001	<0.001	<0.001	<0.05
spe mas	-0.0533	0.01	-0.0633	0.0532	0.0247	0.0549	<0.001	ns	<0.001	<0.001
spe can	-0.038	0.0012	-0.0392	0.0203	0.0157	0.0238	<0.001	ns	<0.001	<0.001
spe cve	-0.0691	0.0133	-0.0824	0.054	0.039	0.0678	<0.001	<0.01	<0.001	<0.001
spe mac	0.0497	0.0949	-0.0453	0.1015	0.094	0.0672	<0.001	<0.001	<0.001	<0.001
spe arch	0.1912	0.1651	0.0261	0.1018	0.0603	0.0997	<0.001	<0.001	ns	ns

B) Change due to extinctions/extirpations	mean			sd			Bootstrap p value			Bootstrap p value pairwise sor-sim
	βsor	βsim	βnest	βsor	βsim	βnest	βsor	βsim	βnest	
bird azo	0.0282	0.0173	0.0109	0.0212	0.0210	0.0217	<0.001	<0.001	<0.01	<0.01
bird mas	0.0384	-0.0028	0.0412	0.0283	0.0326	0.0209	<0.001	ns	<0.001	<0.01
bird can	0.0055	0.0037	0.0018	0.0202	0.0363	0.0235	<0.05	ns	ns	ns
bird cve	0.0080	0.0096	-0.0016	0.0321	0.0448	0.0439	<0.05	ns	ns	ns
bird mac	0.0088	0.0034	0.0055	0.0304	0.0410	0.0266	<0.001	<0.05	<0.001	<0.001
bird arch	0.0581	0.0783	-0.0202	0.0348	0.0652	0.0426	<0.001	<0.001	ns	ns
mam azo	-	-	-	-	-	-	-	-	-	-
mam mas	-	-	-	-	-	-	-	-	-	-
mam can	0.0674	0.0167	0.0507	0.1719	0.1057	0.1699	<0.01	ns	<0.05	<0.05
mam cve	-	-	-	-	-	-	-	-	-	-
mam mac	0.0095	-0.0012	0.0107	0.0819	0.0631	0.0723	<0.05	ns	<0.01	ns
mam arch	0.1006	0.0583	0.0423	0.1224	0.1594	0.0988	<0.05	ns	ns	ns
rep mas	-	-	-	-	-	-	-	-	-	-
rep can	0.0052	0.0118	-0.0013	0.0187	0.0285	0.0138	<0.05	<0.05	ns	ns
rep cve	-0.1677	-0.1804	0.0127	0.0617	0.0948	0.0338	<0.001	<0.001	<0.05	<0.05
rep mac	-0.0312	-0.0302	-0.0050	0.0692	0.0823	0.0331	<0.001	<0.001	ns	ns
rep arch	0.0033	0.0000	0.0033	0.0058	0.0000	0.0058	ns	ns	ns	ns
mol azo	0.0469	0.0841	-0.0371	0.0820	0.1865	0.1448	<0.001	<0.001	ns	ns
mol mas	0.0032	-0.0023	0.0056	0.0101	0.0057	0.0089	ns	ns	ns	ns
mol can	-0.0183	0.0357	-0.0545	0.0450	0.0994	0.1024	<0.001	<0.001	<0.001	<0.001
mol cve	-	-	-	-	-	-	-	-	-	-
mol mac	-0.0012	0.0036	-0.0048	0.0147	0.0311	0.0339	ns	<0.01	<0.001	<0.001
mol arch	0.0002	0.0000	0.0020	0.0037	0.0112	0.0110	ns	ns	ns	ns

spe azo	-	-	-	-	-	-	-	-	-	-
spe mas	0.0002	0.0000	0.0002	0.0003	0.0000	0.0003	ns	ns	ns	ns
spe can	0.0002	0.0002	0.0002	0.0006	0.0000	0.0006	<0.05	ns	<0.05	<0.05
spe cve	-0.0111	-0.0012	0.0011	0.0039	0.0057	0.0043	ns	<0.01	<0.05	ns
spe mac	-0.0001	-0.0002	0.0001	0.0014	0.0021	0.0015	ns	<0.01	<0.05	<0.05
spe arch	0.0004	-0.0001	0.0005	0.0008	0.0015	0.0009	ns	ns	ns	ns

C) Change due to introductions	mean			sd			Bootstrap p value			Bootstrap p value pairwise sor-sim
	βsor	βsim	βnest	βsor	βsim	βnest	βsor	βsim	βnest	
bird azo	-0.0125	0.0018	-0.0143	0.0232	0.0190	0.0263	<0.001	ns	<0.001	<0.01
bird mas	-0.0114	-0.0052	0.0052	0.0075	0.0127	0.0179	<0.001	ns	ns	ns
bird can	-0.0117	-0.0018	-0.0099	0.0187	0.0188	0.0118	<0.001	ns	<0.001	<0.001
bird cve	-0.0257	-0.0264	0.0007	0.0274	0.0415	0.0272	<0.001	<0.001	ns	ns
bird mac	-0.0128	-0.0109	-0.0019	0.0208	0.0276	0.0196	<0.001	<0.001	<0.05	<0.05
bird arch	0.0108	0.0170	-0.0062	0.0273	0.0350	0.0326	ns	ns	ns	ns
mam azo	0.2118	0.2396	-0.0278	0.3210	0.3649	0.1772	<0.001	<0.001	ns	ns
mam mas	-0.0618	-0.1333	0.0715	0.3278	0.1155	0.2329	ns	ns	ns	ns
mam can	0.1243	0.3100	-0.1857	0.3397	0.3404	0.2255	<0.01	<0.001	<0.001	<0.001
mam cve	0.2507	0.3083	-0.0576	0.2417	0.3601	0.1427	<0.01	<0.05	ns	ns
mam mac	0.3169	0.4523	-0.1354	0.2488	0.2764	0.1565	<0.001	<0.001	<0.001	<0.001
mam arch	0.2056	0.2628	-0.0572	0.1586	0.1376	0.0538	<0.001	<0.001	<0.01	<0.01
rep mas	-0.2824	-0.0833	-0.1991	0.196	0.2041	0.3213	<0.001	ns	ns	ns
rep can	-0.0110	0.0028	-0.0138	0.5072	0.0414	0.0323	ns	ns	<0.001	<0.001
rep cve	-0.0714	-0.08139	-0.0096	0.1049	0.1158	0.0555	<0.001	<0.001	ns	ns
rep mac	-0.0259	-0.0250	-0.0009	0.0875	0.0932	0.0570	<0.05	<0.001	ns	ns
rep arch	0.0138	0.0000	0.0138	0.0475	0.0000	0.0475	ns	ns	ns	ns
mol azo	0.1432	0.0840	0.0592	0.0950	0.1673	0.1404	<0.001	<0.01	<0.01	ns

mol mas	0.0099	0.0406	-0.0307	0.0396	0.0586	0.0444	ns	ns	ns	ns
mol can	0.0122	0.0912	-0.0790	0.0805	0.1228	0.1159	ns	<0.001	<0.001	<0.001
mol cve	-0.1053	-0.0263	-0.0793	0.0597	0.0589	0.0770	<0.001	<0.001	<0.001	<0.001
mol mac	0.0513	0.1107	-0.0595	0.1002	0.1411	0.0969	<0.001	<0.001	<0.001	<0.001
mol arch	0.1503	0.2893	-0.1390	0.0626	0.0860	0.0791	<0.001	<0.001	<0.001	<0.001
pte azo	-0,0354	-0,0391	0,0039	0,0487	0,0482	0,0697	<0.001	<0.001	ns	ns
pte mas	-0,0243	-0,1111	0,0868	0,0305	0,1722	0,1786	<0.05	ns	ns	ns
pte can	-0,0369	-0,0088	-0,0281	0,0381	0,0199	0,0371	<0.001	<0.001	<0.001	<0.001
pte cve	-	-	-	-	-	-	-	-	-	-
pte mac	-0,0112	0,0047	-0,0159	0,0323	0,0560	0,0550	<0.001	ns	<0.001	<0.001
pte arch	-0,0245	0,0215	-0,0560	0,0238	0,0525	0,0396	<0.01	ns	<0.001	<0.001
spe azo	-0,0790	-0,0433	-0,0356	0,0527	0,0513	0,0885	<0.001	<0.001	<0.001	<0.05
spe mas	-0,0533	0,0100	-0,0633	0,0532	0,0247	0,0549	<0.01	ns	<0.05	<0.05
spe can	-0,0383	0,0012	-0,0395	0,0204	0,0157	0,0238	<0.001	ns	<0.001	<0.001
spe cve	-0,0680	0,0154	-0,0836	0,0535	0,0374	0,0671	<0.001	<0.001	<0.001	<0.001
spe mac	0,0498	0,0951	-0,0454	0,1014	0,0938	0,0672	<0.001	<0.001	<0.001	<0.001
spe arch	0,1908	0,1652	0,2562	0,1012	0,0610	0,1000	<0.001	<0.001	ns	ns

Table A3. Results of mantel tests comparing inter-island distance with initial dissimilarity (a) and inter-island distance with dissimilarity change (b).

(a)

Mantel tests for matrices of inter-island distance and initial dissimilarity for of all island pairs of the Macaronesian region

	Simpson Index		Soerensen Index		Nestedness	
Taxonomic group	mantel r	singnificance	mantel r	singnificance	mantel r	singnificance
Birds	**0.8397**	< 0.001	**0.8222**	< 0.001	**-0.3279**	n.s.
Mammals	**0.5062**	< 0.001	**0.5311**	< 0.001	**-0.2312**	n.s.
Reptiles	**0.6308**	< 0.001	**0.6291**	< 0.001	**-0.4529**	n.s.
Molluscs	**0.7209**	< 0.001	**0.6588**	< 0.001	**-0.5804**	n.s.
Pteridophytes	**0.6662**	< 0.001	**0.5524**	< 0.001	**-0.2943**	n.s.
Spermatophytes	**0.9209**	< 0.001	**0.8344**	< 0.001	**-0.5712**	n.s.

(b)

Mantel tests for matrices of inter-island distance and change in dissimilarity after extirpations and introductions for all island pairs of the Macaronesian region

	Simpson Index		Soerensen Index		Nestedness	
Taxonomic group	mantel r	singnificance	mantel r	singnificance	mantel r	singnificance
Birds	**-0.0854**	n.s.	**-0.0537**	n.s.	**-0.3279**	n.s.
Mammals	**0.2374**	< 0.01	**0.1287**	< 0.05	**-0.2312**	n.s.
Reptiles	**0.2652**	< 0.001	**0.3379**	< 0.001	**0.1194**	< 0.01
Molluscs	**0.0954**	< 0.01	**0.2068**	< 0.001	**0.0835**	< 0.05
Pteridophytes	**0.4104**	< 0.001	**0.3651**	< 0.001	**-0.2034**	n.s.
Spermatophytes	**0.5028**	< 0.001	**0.5124**	< 0.001	**-0.0745**	< 0.05

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