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Appendix 1

Table A1. Ecological information for the arthropod species used in this study, including species name and associated class, mean body size, origin status, ecological guild, and level of dispersal ability. Origin status refers to whether a species is endemic to the Azores (E), introduced (I), or native but non-endemic (N). Guild: P = predator, H = herbivore, F = fungivorous, S = saprophagous. All species presented are arthropods from the Azores and were sampled in the native Laurisilva forest using a standardised pitfall trap and canopy beating methodology between 1999 and 2004.

Class	Species	Mean body size (mm)	Origin	Guild	Dispersal ability
Arachnida	<i>Acorigone acoreensis</i>	1.3	E	P	high
Arachnida	<i>Acorigone zebraneus</i>	1.33	E	P	high
Arachnida	<i>Agyneta decora</i>	2.75	I	P	high
Arachnida	<i>Agyneta rugosa</i>	1.75	E	P	high
Arachnida	<i>Agyneta</i> sp. 1	1.26	?	P	high
Arachnida	<i>Araneus</i> sp. 1	4.32	I	P	low
Arachnida	<i>Cheiracanthium erraticum</i>	6.63	I	P	low
Arachnida	<i>Cheiracanthium floresense</i>	8.15	E	P	low
Arachnida	<i>Cheiracanthium jorgeense</i>	6.25	E	P	low
Arachnida	<i>Chthonius ischnocheles</i>	2	I	P	low
Arachnida	<i>Chthonius tetrachelatus</i>	1.61	I	P	low
Arachnida	<i>Clubiona decora</i>	6	N	P	low
Arachnida	<i>Clubiona terrestris</i>	6	I	P	low
Arachnida	<i>Cryptachaea blattea</i>	3	I	P	low
Arachnida	<i>Dysdera crocata</i>	11.25	I	P	low
Arachnida	<i>Emblyna acoreensis</i>	2.4	E	P	low
Arachnida	<i>Eperigone</i> sp. 1	1.81	I	P	high

Arachnida	<i>Erigone atra</i>	2.33	I	P	high
Arachnida	<i>Erigone autumnalis</i>	2.1	I	P	high
Arachnida	<i>Erigone dentipalpis</i>	2.3	I	P	high
Arachnida	<i>Erigone</i> sp. 2	unknown	unknown	P	low
Arachnida	<i>Ero furcata</i>	2.75	I	P	low
Arachnida	Gen. sp. 1	unknown	unknown	P	low
Arachnida	Gen. sp. 2	unknown	unknown	P	high
Arachnida	<i>Gibbaranea occidentalis</i>	5.5	E	P	high
Arachnida	<i>Homalenotus coriaceus</i>	3.82	N	P	low
Arachnida	<i>Lasaeola oceanica</i>	2.75	E	P	low
Arachnida	<i>Lathys dentichelis</i>	2.13	N	P	low
Arachnida	<i>Leiobunum blackwalli</i>	6	N	P	high
Arachnida	<i>Lepthyphantes junipericola</i>	4	E	P	low
Arachnida	<i>Lepthyphantes relictus</i>	3.55	E	P	low
Arachnida	<i>Lepthyphantes coreensis</i>	2.58	E	P	high
Arachnida	<i>Lessertia dentichelis</i>	3.05	I	P	high
Arachnida	<i>Macaroeris cata</i>	5.13	N	P	low
Arachnida	<i>Mangora acalypha</i>	3.25	I	P	low
Arachnida	<i>Meioneta depigmentata</i>	1.4	E	P	high
Arachnida	<i>Meioneta fuscipalpa</i>	1.9	I	P	high
Arachnida	<i>Mermessus bryantae</i>	2.1	I	P	high
Arachnida	<i>Mermessus fradeorum</i>	2.1	I	P	high
Arachnida	<i>Mermessus trilobatus</i>	2.1	I	P	high
Arachnida	<i>Metellina merianae</i>	6.63	I	P	low
Arachnida	<i>Microlinyphia johnsoni</i>	3.75	I	P	high
Arachnida	<i>Minicia florensensis</i>	1.98	E	P	high
Arachnida	<i>Neobisium maroccanum</i>	3	N	P	low
Arachnida	<i>Neon acoreensis</i>	1.75	E	P	low
Arachnida	<i>Nerienne clathrata</i>	4.23	I	P	high
Arachnida	<i>Nigma puella</i>	2.56	I	P	low
Arachnida	<i>Oecobius navus</i>	2.25	I	P	low

Arachnida	<i>Oedothorax fuscus</i>	2.38	I	P	high
Arachnida	<i>Orchestina furcillata</i>	1	E	P	low
Arachnida	<i>Palliduphantes schmitzi</i>	1.95	N	P	high
Arachnida	<i>Pardosa acorensis</i>	5.5	E	P	high
Arachnida	<i>Pelecopsis parallela</i>	1.5	I	P	high
Arachnida	<i>Pisaura acorensis</i>	10.5	E	P	low
Arachnida	<i>Porrhomma borgesii</i>	1.88	E	P	low
Arachnida	<i>Prinerigone vagans</i>	2.1	I	P	high
Arachnida	<i>Pseudeuophrys vafra</i>	3.75	I	P	high
Arachnida	<i>Rhomphaea nasica</i>	4	I	P	low
Arachnida	<i>Rugathodes acorensis</i>	1.7	E	P	high
Arachnida	<i>Sancus acorensis</i>	3.45	E	P	high
Arachnida	<i>Savigniorrhipis acorensis</i>	1.88	E	P	high
Arachnida	<i>Savigniorrhipis topographicus</i>	1.63	E	P	low
Arachnida	<i>Steatoda grossa</i>	6.63	I	P	low
Arachnida	<i>Tenuiphantes miguelensis</i>	2.34	N	P	high
Arachnida	<i>Tenuiphantes tenuis</i>	2.48	I	P	high
Arachnida	<i>Theridion musivivum</i>	3.5	N	P	low
Arachnida	<i>Walckenaeria grandis</i>	2.1	E	P	high
Arachnida	<i>Xysticus cor</i>	6	N	P	low
Arachnida	<i>Xysticus nubilus</i>	6	I	P	low
Arachnida	<i>Zodarion atlanticum</i>	2.79	I	P	low
Chilopoda	<i>Cryptops hortensis</i>	15.39	N	P	low
Chilopoda	<i>Geophilus truncorum</i>	13.78	N	P	low
Chilopoda	<i>Lithobius pilicornis</i>	21.83	N	P	low
Chilopoda	<i>Strigamia crassipes</i>	18.19	N	P	low
Diplopoda	<i>Blaniulus guttullatus</i>	6.83	I	S	low
Diplopoda	<i>Brachydesmus superus</i>	6.62	I	S	low
Diplopoda	<i>Brachyiulus pusillus</i>	7.53	I	S	low
Diplopoda	Brachyiulus sp. 1	4.5	I	S	low
Diplopoda	<i>Choneiulus palmatus</i>	10.43	I	S	low

Diplopoda	<i>Cylindroiulus latestriatus</i>	8.88	I	S	low
Diplopoda	<i>Cylindroiulus propinquus</i>	37.44	I	S	low
Diplopoda	<i>Haplobainosoma lusitanum</i>	10.48	I	S	low
Diplopoda	<i>Nopoiulus kochii</i>	8.68	I	S	low
Diplopoda	<i>Ommatoiulus moreletii</i>	40.04	I	H	low
Diplopoda	<i>Oxidus gracilis</i>	16	I	S	low
Diplopoda	<i>Polydesmus coriaceus</i>	25.38	I	S	low
Diplopoda	<i>Proteroiulus fuscus</i>	11.28	I	S	low
Insecta	<i>Acalypta parvula</i>	1.86	N	H	high
Insecta	<i>Acizzia uncatoides</i>	1.82	I	H	high
Insecta	<i>Acrotrichis</i> sp. 1	1.32	N	S	high
Insecta	<i>Acupalpus dubius</i>	3	N	P	high
Insecta	<i>Acupalpus flavicollis</i>	2.61	N	P	high
Insecta	<i>Acyrtosiphon pisum</i>	0.63	N	H	high
Insecta	<i>Aeolothrips gloriosus</i>	1.36	N	P	high
Insecta	<i>Aeolus melliculus moreleti</i>	8	I	S	high
Insecta	<i>Agabus godmani</i>	8.62	E	P	high
Insecta	<i>Agrotis</i> sp. 1	33	N	H	low
Insecta	<i>Aleochara bipustulata</i>	3	I	P	high
Insecta	<i>Alestrus dolosus</i>	5.48	E	H	high
Insecta	<i>Aloconota sulcifrons</i>	3.45	N	P	high
Insecta	<i>Amara aenea</i>	7	I	P	high
Insecta	<i>Amischa analis</i>	3	I	P	high
Insecta	<i>Amphorophora rubi</i>	2.3	N	H	high
Insecta	<i>Anaspis proteus</i>	2	N	H	high
Insecta	<i>Anisodactylus binotatus</i>	11	I	P	high
Insecta	<i>Anoecia corni</i>	1.41	I	H	high
Insecta	<i>Anoscopus albifrons</i>	4	N	H	high
Insecta	<i>Anotylus nitidifrons</i>	2	I	P	high
Insecta	<i>Aphis craccivora</i>	1.4	N	H	high
Insecta	<i>Aphis</i> sp. 1	1.52	unknown	H	high

Insecta	<i>Aphrodes hamiltoni</i>	2.31	E	H	high
Insecta	<i>Apterygothrips canarius</i>	1.43	I	H	high
Insecta	<i>Apterygothrips</i> sp.	1.57	E	H	high
Insecta	<i>Aptinothrips rufus</i>	1.04	I	H	high
Insecta	<i>Argyresthia atlanticella</i>	3.44	E	H	high
Insecta	<i>Ascotis fortunata azorica</i>	9.5	E	H	low
Insecta	<i>Atheta amicula</i>	2	I	P	high
Insecta	<i>Atheta atramentaria</i>	3	I	P	high
Insecta	<i>Atheta dryochares</i>	2.2	E	P	high
Insecta	<i>Atheta fungi</i>	3	I	F	high
Insecta	<i>Atheta</i> sp. 3	2.36	E	P	high
Insecta	<i>Atheta</i> sp. 4	2.42	E	P	high
Insecta	<i>Athous pomboi</i>	9.39	E	H	high
Insecta	<i>Atlantocis gillerforsii</i>	1.65	E	F	low
Insecta	<i>Atlantopsocus adustus</i>	3.42	N	S	high
Insecta	<i>Aulacorthum solani</i>	0.92	N	H	high
Insecta	<i>Beosus maritimus</i>	6.77	N	H	high
Insecta	<i>Bertkauia lucifuga</i>	1.54	N	S	high
Insecta	<i>Blastobasis</i> sp. 1	unknown	N	H	high
Insecta	<i>Blastobasis</i> sp. 3	3.82	N	H	high
Insecta	<i>Brachmia infuscatella</i>	5.36	E	H	high
Insecta	<i>Brachysteles parvicornis</i>	2	N	P	high
Insecta	<i>Buchananiella continua</i>	2	I	P	high
Insecta	<i>Cacopsylla pulchella</i>	2.76	I	H	high
Insecta	<i>Calacalles subcarinatus</i>	2.6	E	H	high
Insecta	<i>Calathus lundbladi</i>	9	E	P	low
Insecta	<i>Caloptilia schinella</i>	4.81	I	H	high
Insecta	<i>Campyloneura virgula</i>	2.8	N	P	high
Insecta	<i>Carpelimus corticinus</i>	3	N	P	high
Insecta	<i>Carpophilus fumatus</i>	3.65	I	S	high
Insecta	<i>Carpophilus hemipterus</i>	3.22	I	S	high

Insecta	<i>Carpophilus</i> sp. 2	3.16	I	S	high
Insecta	<i>Cartodere bifasciata</i>	1.73	I	S	high
Insecta	<i>Cartodere nodifer</i>	2	I	S	high
Insecta	<i>Catops coracinus</i>	3.27	N	S	high
Insecta	<i>Caulotrumpis parvus</i>	2.3	E	H	low
Insecta	<i>Cedrorum azoricus azoricus</i>	15.98	E	P	low
Insecta	<i>Cedrorum azoricus caveirensis</i>	15.54	E	P	low
Insecta	<i>Cephennium distinctum</i>	0.89	N	S	high
Insecta	<i>Ceratothrips ericae</i>	1.14	N	H	high
Insecta	<i>Cercyon haemorrhoidalis</i>	2	I	S	high
Insecta	<i>Cerobasis</i> cf sp. 1	1.95	E	S	high
Insecta	<i>Cerobasis</i> n.sp. 4	1.83	E	S	high
Insecta	<i>Cerobasis</i> sp. 3	1.1	E	S	high
Insecta	<i>Chrysodeixis chalcites</i>	2.84	N	H	low
Insecta	<i>Cilea silphoides</i>	5	I	P	high
Insecta	<i>Cinara juniperi</i>	1.34	N	H	high
Insecta	<i>Cixius azofloresi</i>	5	E	H	high
Insecta	<i>Cixius azomariae</i>	4	E	H	high
Insecta	<i>Cixius azopifajo azofa</i>	5	E	H	high
Insecta	<i>Cixius azopifajo azojo</i>	6	E	H	high
Insecta	<i>Cixius azopifajo azopifajo</i>	4.13	E	H	high
Insecta	<i>Cixius azoricus azoricus</i>	5	E	H	high
Insecta	<i>Cixius azoricus azoropicoi</i>	5	E	H	high
Insecta	<i>Cixius azoterceirae</i>	5	E	H	high
Insecta	<i>Cixius insularis</i>	4.61	E	H	high
Insecta	<i>Closterotomus norwegicus</i>	5.95	N	H	high
Insecta	<i>Coccinella undecimpunctata</i>	4.54	I	P	high
Insecta	<i>Coccotrypes carpophagus</i>	2	I	H	high
Insecta	<i>Conocephalus chavesi</i>	15	E	H	high
Insecta	<i>Cordalia obscura</i>	2	I	P	high
Insecta	<i>Covariella aegopodii</i>	1.65	I	H	high

Insecta	<i>Cryptamorpha desjardinsii</i>	4	I	P	high
Insecta	<i>Cryptophagus</i> sp. 1	1.44	I	S	high
Insecta	<i>Cryptophagus</i> sp. 3	1.37	I	S	high
Insecta	<i>Cryptophagus</i> sp. 4	1.55	I	S	high
Insecta	<i>Cryptophagus</i> sp. 5	1.47	I	S	high
Insecta	<i>Cryptophagus</i> sp. 6	1.6	I	S	high
Insecta	<i>Cryptophagus</i> sp. 7	1.82	I	S	high
Insecta	<i>Cyclophora azorensis</i>	18	E	H	low
Insecta	<i>Cyclophora pupillaria granti</i>	20.68	E	H	low
Insecta	<i>Cyphopterus adcondens</i>	5	N	H	high
Insecta	<i>Dilta saxicola</i>	12	N	S	low
Insecta	<i>Drouetius borgesii borgesii</i>	10.37	E	H	low
Insecta	<i>Drouetius borgesii centralis</i>	8.31	E	H	low
Insecta	<i>Drouetius borgesii sanctmichaelis</i>	8.2	E	H	low
Insecta	<i>Dryops algericus</i>	5.16	N	H	high
Insecta	<i>Dryops luridus</i>	4.6	N	H	high
Insecta	<i>Dysaphis plantaginea</i>	1.35	I	H	high
Insecta	<i>Ectopsocus briggsii</i>	2	I	S	high
Insecta	<i>Ectopsocus strauschi</i>	1.44	N	S	high
Insecta	<i>Elipsocus azoricus</i>	2	E	S	high
Insecta	<i>Elipsocus brincki</i>	2.48	E	S	high
Insecta	<i>Empicoris rubromaculatus</i>	7	I	P	high
Insecta	<i>Epuraea biguttata</i>	2.98	I	S	high
Insecta	<i>Euborellia annulipes</i>	14.64	I	P	low
Insecta	<i>Eudonia luteusalis</i>	7.62	E	H	high
Insecta	<i>Eupteryx azorica</i>	2	E	H	high
Insecta	<i>Eurythrips tristis</i>	1.81	I	H	high
Insecta	<i>Forficula auricularia</i>	16	I	P	low
Insecta	<i>Frankliniella</i> sp. 1	0.77	N	H	high
Insecta	<i>Gabrius nigrifolius</i>	5.61	I	P	high
Insecta	Gen. sp.1	16	I	H	low

Insecta	Gen. sp. 2	1.2	N	H	high
Insecta	Gen. sp. 3	1.54	unknown	H	low
Insecta	Gen. sp. 4	1.64	I	H	low
Insecta	Gen. sp. 5	1.57	unknown	S	high
Insecta	Gen. sp. 6	8.43	E	H	low
Insecta	Gen. sp. 7	1.51	N	H	low
Insecta	Gen. sp. 8	2.91	N	H	high
Insecta	Gen. sp. 9	9	unknown	P	low
Insecta	Gen. sp. 10	5.17	unknown	S/H?	high
Insecta	Gen. sp. 11	4.25	N	P	high
Insecta	Gen. sp. 12	1.98	I	H	high
Insecta	Gen. sp. 13	2.3	E	H	high
Insecta	Gen. sp. 14	2.56	I	H	high
Insecta	Gen. sp. 15	1.32	I	H	high
Insecta	Gen. sp. 16	2.56	I	S	high
Insecta	Gen. sp. 17	unknown	unknown	H	high
Insecta	Gen. sp. 18	3	unknown	S	high
Insecta	Gen. sp. 19	3.42	I	P	high
Insecta	Gen. sp. 20	6.94	I	H	low
Insecta	Gen. sp. 21	5.78	N	H	low
Insecta	Gen. sp. 22	0.93	E	H	high
Insecta	Gen. sp. 23	11.48	E	H	low
Insecta	Gen. sp. 24	20.87	N	H	low
Insecta	Gen. sp. 25	4.12	N	H	low
Insecta	Gen. sp. 26	3.93	unknown	H	high
Insecta	Gen. sp. 27	1.14	E	H	high
Insecta	Gen. sp. 28	22	I	H	low
Insecta	Gen. sp. 29	10	E	H	low
Insecta	Gen. sp. 30	12.15	N	H	low
Insecta	Gen. sp. 31	7.23	N	H	low
Insecta	Gen. sp. 32	0.48	I	H	low

Insecta	Gen. sp. 33	1.16	N	H	high
Insecta	Gen. sp. 34	4.82	unknown	H	high
Insecta	Gen. sp. 35	1.1	unknown	H	low
Insecta	Gen. sp. 36	1.34	I	S	high
Insecta	Gen. sp. 37	2.2	I	H	low
Insecta	Gen. sp. 38	2	I	H	high
Insecta	Gen. sp. 39	0.97	unknown	P	high
Insecta	Gen. sp. 40	8.57	N	H	low
Insecta	Gen. sp. 41	6.94	N	H	low
Insecta	Gen. sp. 42	0.29	I	H	low
Insecta	Gen. sp. 43	8.23	unknown	H	high
Insecta	Gen. sp. 44	17.48	unknown	H	high
Insecta	Gen. sp. 45	1.18	unknown	H	high
Insecta	Gen. sp. 46	1.7	unknown	H	low
Insecta	Gen. sp. 47	9.41	I	H	low
Insecta	Gen. sp. 48	10.73	unknown	H	low
Insecta	Gen. sp. 49	0.53	I	H	low
Insecta	Gen. sp. 50	1.18	unknown	H	high
Insecta	Gen. sp. 51	3.94	unknown	H	high
Insecta	Gen. sp. 52	2.2	unknown	H	high
Insecta	Gen. sp. 53	0.81	I	H	low
Insecta	Gen. sp. 54	0.85	unknown	H	high
Insecta	Gen. sp. 55	1.91	unknown	S	high
Insecta	Gen. sp. 56	3.33	N	H	high
Insecta	Gen. sp. 57	11.61	I	H	low
Insecta	Gen. sp. 58	1.08	E	H	high
Insecta	Gen. sp. 59	14.24	I	H	low
Insecta	Gen. sp. 60	23.84	N	H	low
Insecta	Gen. sp. 61	0.64	E	H	high
Insecta	Gen. sp. 62	0.39	I	H	low
Insecta	Gen. sp. 63	36	N	H	low

Insecta	Gen. sp. 64	10.11	N	H	low
Insecta	Gen. sp. 65	1.13	E	H	high
Insecta	Gen. sp. 66	1.98	E	P	high
Insecta	Gen. sp. 67	3.71	unknown	H	low
Insecta	Gen. sp. 68	16.12	N	H	low
Insecta	Gen. sp. 69	0.75	E	H	high
Insecta	Gen. sp. 70	2.45	?	P	high
Insecta	<i>Geotomus punctulatus</i>	4.61	N	H	high
Insecta	<i>Gryllus bimaculatus</i>	32.69	I	S	high
Insecta	<i>Gymnetron pascuorum</i>	2.44	I	H	high
Insecta	<i>Habrocerus capillaricornis</i>	3.89	N	P	high
Insecta	<i>Heliothrips haemorrhoidalis</i>	1.54	I	H	high
Insecta	<i>Hemerobius azoricus</i>	6	E	P	high
Insecta	<i>Hercinothrips bicinctus</i>	1.27	I	H	high
Insecta	<i>Heterotoma planicornis</i>	4.19	N	P	high
Insecta	<i>Hipparchia azorina occidentalis</i>	19.12	E	H	high
Insecta	<i>Hipparchia miguelensis</i>	15.29	E	H	high
Insecta	<i>Hoplandrothrips consobrinus</i>	1.95	I	H	high
Insecta	<i>Hoplothrips corticis</i>	2.76	N	F	high
Insecta	<i>Hoplothrips ulmi</i>	2.28	I	F	high
Insecta	<i>Hydroporus guernei</i>	4.25	E	P	high
Insecta	<i>Isoneurothrips australis</i>	1.29	I	H	high
Insecta	<i>Kleidocerys ericae</i>	5.28	N	H	high
Insecta	<i>Lachesilla greeni</i>	0.93	I	S	high
Insecta	<i>Laemosthenes complanatus</i>	13	I	P	low
Insecta	<i>Limnophilus atlanticus</i>	9.14	E	P	high
Insecta	<i>Lindorus lophanthae</i>	2.84	I	P	high
Insecta	<i>Longiunguis luzulella</i>	1.78	I	H	high
Insecta	<i>Loricula coleoprata</i>	2.03	N	P	high
Insecta	<i>Loricula elegantula</i>	1.94	N	P	high
Insecta	<i>Megamelodes</i>	3	N	H	high

<i>quadrimaculatus</i>					
Insecta	<i>Meligethes</i> sp. 2	2.29	I	H	high
Insecta	<i>Meligethes</i> sp. 3	2.23	I	H	high
Insecta	<i>Mesapamea storai</i>	11.8	E	H	high
Insecta	<i>Metophthalmus occidentalis</i>	1.4	E	S	high
Insecta	<i>Microplax plagiata</i>	2.45	N	H	high
Insecta	<i>Micrurapteryx bistrigella</i>	2.53	E	H	high
Insecta	<i>Monalocoris filicis</i>	2.22	N	H	high
Insecta	<i>Muellerianella</i> sp. 1	3.02	N	H	high
Insecta	<i>Muellerianella</i> sp. 2	2	N	H	high
Insecta	<i>Muellerianella</i> sp. 3	2.38	N	H	high
Insecta	<i>Mythimna unipuncta</i>	21.01	N	H	high
Insecta	<i>Myzus cerasi</i>	0.77	I	H	high
Insecta	<i>Nabis pseudoferus ibericus</i>	9	N	P	high
Insecta	<i>Neomariania</i> sp. 1	4.74	I	H	high
Insecta	<i>Neomyzus circumflexus</i>	1.12	I	H	high
Insecta	<i>Nesothrips propinquus</i>	0.76	I	H	high
Insecta	<i>Nezara viridula</i>	15.51	I	H	high
Insecta	<i>Nycterosea obstipata</i>	19	N	H	low
Insecta	<i>Nysius atlantidum</i>	3.34	E	H	high
Insecta	<i>Ocypus aethiops</i>	9	N	P	high
Insecta	<i>Ocypus olens</i>	17	N	P	high
Insecta	<i>Ocys harpaloides</i>	6	N	P	high
Insecta	<i>Oinophila cf.flava</i>	3.19	I	H	high
Insecta	<i>Oligota parva</i>	1	I	P	high
Insecta	<i>Opogona sacchari</i>	6.23	I	H	high
Insecta	<i>Opogona</i> sp. 1	6.7	I	H	high
Insecta	<i>Orius laevigatus laevigatus</i>	2.3	N	P	high
Insecta	<i>Orthochaetes insignis</i>	2.95	N	H	high
Insecta	<i>Otiorhynchus rugosostriatus</i>	11.62	I	H	low
Insecta	<i>Paranchus albipes</i>	10	I	P	high

Insecta	<i>Peripsocus milleri</i>	2.18	N	S	high
Insecta	<i>Peripsocus phaeopterus</i>	2.23	N	S	high
Insecta	<i>Peripsocus subfasciatus</i>	2.7	N	S	high
Insecta	<i>Philaenus spumarius</i>	5.23	I	H	high
Insecta	<i>Phloeonomus</i> n.sp. 6	3.73	E	P	high
Insecta	<i>Phloeonomus</i> sp. 4	2.33	unknown	P	high
Insecta	<i>Phloeonomus</i> sp. 1	2.3	N	P	high
Insecta	<i>Phloeonomus</i> sp. 3	2.12	I	P	high
Insecta	<i>Phloeopora</i> sp. 1	3.4	N	P	high
Insecta	<i>Phloeosinus gillerforsi</i>	3.24	E	H	high
Insecta	<i>Phloeostiba azorica</i>	3.02	E	P	high
Insecta	<i>Phlogophora interrupta</i>	40	E	H	low
Insecta	<i>Pinalitus oromii</i>	4	E	H	high
Insecta	<i>Placonotus</i> sp. 1	2.37	N	P	high
Insecta	<i>Plinthisus brevipennis</i>	2.56	N	H	high
Insecta	<i>Plinthisus minutissimus</i>	1.44	N	H	high
Insecta	<i>Polymerus cognatus</i>	5	N	H	high
Insecta	<i>Proteinus atomarius</i>	1	N	P	high
Insecta	<i>Pseudacaudella rubida</i>	0.99	N	H	high
Insecta	<i>Pseudanchomenes aptinoides</i>	12	E	P	low
Insecta	<i>Pseudechinosoma nodosum</i>	2.5	E	H	low
Insecta	<i>Pseudophloeophagus tenax</i>	4	N	H	high
Insecta	<i>Pseudophonus rufipes</i>	13	I	P/H	high
Insecta	<i>Ptenidium pusillum</i>	1	I	S	high
Insecta	<i>Pterostichus aterrimus</i> <i>aterrimus</i>	9	N	P	high
Insecta	<i>Pterostichus vernalis</i>	7	I	P	high
Insecta	<i>Quedius curtipennis</i>	11	N	P	high
Insecta	<i>Rhopalosiphonimus</i> <i>latysiphon</i>	1.18	I	H	high
Insecta	<i>Rhopalosiphum oxyacanthae</i>	1.7	I	H	high
Insecta	<i>Rhopalosiphum</i> <i>rufiabdominalis</i>	0.88	I	H	high

Insecta	<i>Rhopobota naevana</i>	5.57	I	H	high
Insecta	<i>Rugilus orbiculatus orbiculatus</i>	4	N	P	high
Insecta	<i>Saldula palustris</i>	3.17	N	P	high
Insecta	<i>Scolopostethus decoratus</i>	4.71	N	H	high
Insecta	<i>Scopaeus portai</i>	2.29	N	P	high
Insecta	<i>Scoparia coecimaculalis</i>	5.74	E	H	high
Insecta	<i>Scoparia semiamplalis</i>	5.48	E	H	high
Insecta	<i>Scoparia</i> sp. 3	2.08	E	H	high
Insecta	<i>Sepedophilus lusitanicus</i>	6	N	P	high
Insecta	<i>Sericoderus lateralis</i>	0.5	I	P	high
Insecta	<i>Sitona discoideus</i>	5.79	I	H	high
Insecta	<i>Sitona</i> sp. 1	4.27	I	H	high
Insecta	<i>Sitophilus oryzae</i>	3	I	H	high
Insecta	<i>Sphenophorus abbreviatus</i>	10.45	I	H	low
Insecta	<i>Stelidota geminata</i>	2.17	I	S	high
Insecta	<i>Stenolophus teutomus</i>	7	N	P	high
Insecta	<i>Stenus guttula guttula</i>	4	N	P	high
Insecta	<i>Stilbus testaceus</i>	1.94	N	S	high
Insecta	<i>Strophingia harteni</i>	1.84	E	H	high
Insecta	<i>Tachyporus chrysomelinus</i>	3	I	P	high
Insecta	<i>Tarphius azoricus</i>	2.9	E	F	low
Insecta	<i>Tarphius depressus</i>	4.3	E	F	low
Insecta	<i>Tarphius</i> n. sp. 1	2.59	E	F	low
Insecta	<i>Tarphius pomboi</i>	3.6	E	F	low
Insecta	<i>Tarphius rufonodulosus</i>	4	E	F	low
Insecta	<i>Tarphius serranoi</i>	3.17	E	F	low
Insecta	<i>Tarphius tornvalli</i>	3.1	E	F	low
Insecta	<i>Tarphius wollastoni</i>	3.9	E	F	low
Insecta	<i>Thrips atratus</i>	3.07	N	H	high
Insecta	<i>Thrips flavus</i>	1.03	N	H	high
Insecta	<i>Toxoptera aurantii</i>	1.71	I	H	high

Insecta	<i>Trechus terrabravensis</i>	3.35	E	P	low
Insecta	<i>Trichopsocus clarus</i>	1.83	N	S	high
Insecta	<i>Trigoniophthalmus borgesii</i>	14.11	E	S	low
Insecta	<i>Trioza laurisilvae</i>	2.1	N	H	high
Insecta	<i>Typhaea stercorea</i>	2.27	I	F	high
Insecta	<i>Uroleucon erigeronense</i>	1.17	I	H	high
Insecta	<i>Valenzuela burmeisteri</i>	0.87	N	S	high
Insecta	<i>Valenzuela flavidus</i>	2.52	N	S	high
Insecta	<i>Xanthorhoe inaequata</i>	13.45	E	H	low
Insecta	<i>Xestia c-nigrum</i>	15.36	N	H	high
Insecta	<i>Xyleborinus alni</i>	3.14	I	H	high
Insecta	<i>Zetha vestita</i>	5	N	S	high

Appendix 2

Table A2. Likelihood ratio test results for the twelve fragments and five islands of arthropod data from the Azores. LRS = likelihood ratio statistic, p-value = the p-value based on a χ^2 -distribution with the degrees of freedom (DF) in parentheses for each set of model comparisons. PLN1, 2, 3 = the one, two and three mode Poisson lognormal distributions respectively. As likelihood ratio tests are only applicable when considering nested models the logseries distribution has been excluded.

Fragments						
Code	PLN1/PLN2 (DF = 3)		PLN2/PLN3 (DF = 3)		PLN1/PLN3 (DF = 8)	
	LRS	p	LRS	p	LRS	p
1	15.00	0.002	4.97	0.174	19.97	0.003
2	16.91	0.001	2.49	0.477	19.40	0.004
3	6.15	0.104	7.29	0.063	13.44	0.037
4	5.69	0.128	24.47	0.000	30.17	0.000
5	17.52	0.001	1.86	0.603	19.38	0.004
6	20.96	0.000	2.96	0.397	23.93	0.001
7	18.65	0.000	2.53	0.471	21.18	0.002
8	21.15	0.000	42.36	0.000	63.50	0.000
9	16.30	0.001	96.33	0.000	112.63	0.000
10	19.04	0.000	4.35	0.226	23.38	0.001
11	28.00	0.000	5.31	0.151	33.31	0.000
12	22.90	0.000	4.40	0.221	27.30	0.000
Islands						
Faial	22.90	0.000	2.40	0.494	25.30	0.000
Flores	15.90	0.001	18.90	0.000	34.79	0.000
São Jorge	17.92	0.000	10.67	0.014	28.59	0.000
São Miguel	19.33	0.000	4.08	0.253	23.41	0.001
Terceira	18.11	0.000	3.31	0.347	21.42	0.002

Appendix 3.

Table A3. The model selection results for the core (a) and satellite (b) species subsets at both the fragment and island scale. Data are for arthropod species from the Azores. Both BIC and AIC_c are presented. NA represents a situation in which we were unable to get the model to converge irrespective of the different starting values used in the parameter search. Due to convergence issues the PLN2 was not fit to the satellite subsets at either scale.

(a) Core species

Code	Fragments					
	PLN		Logseries		PLN2	
	BIC	AIC_c	BIC	AIC_c	BIC	AIC_c
1	500.56	493.27	493.39	488.48	500.84	486.69
2	494.09	487.14	494.47	489.79	507.26	493.85
3	602.22	594.14	596.33	590.91	613.16	597.35
4	457.32	450.14	452.05	447.21	472.31	458.40
5	645.34	637.90	654.10	649.10	661.02	646.58
6	529.52	522.27	528.84	523.95	533.33	519.27
7	531.65	523.66	525.34	519.98	533.67	518.03
8	611.62	603.83	602.32	597.09	NA	NA
9	549.21	541.58	544.70	539.57	546.75	537.39
10	645.44	637.03	640.64	635.00	654.98	638.46
11	332.56	325.56	319.23	314.52	364.59	351.10
12	607.55	599.45	597.95	592.52	627.82	611.96
Islands						
Faial	706.03	697.72	712.35	706.78	718.33	702.01
Flores	713.34	704.64	722.62	716.79	726.66	709.55
São Jorge	758.22	749.44	770.44	764.55	771.37	754.07
São Miguel	826.49	816.82	833.41	826.93	836.52	817.36
Terceira	879.88	870.61	899.14	892.94	891.71	873.42

(b)Satellite species

Fragments				
Code	PLN		Logseries	
	BIC	AIC _c	BIC	AIC _c
1	214.21	206.91	212.51	207.60
2	125.06	118.11	135.93	131.25
3	279.98	271.91	288.05	282.63
4	216.71	209.53	226.56	221.72
5	158.95	151.52	193.01	188.02
6	207.02	199.76	231.54	226.66
7	398.95	390.96	415.88	410.52
8	304.28	296.49	327.57	322.34
9	126.94	119.31	137.36	132.23
10	175.54	167.13	192.02	186.38
11	67.21	60.22	74.35	69.64
12	177.20	169.10	218.13	212.69
Islands				
Faial	331.37	323.06	337.47	331.90
Flores	415.09	406.39	434.17	428.35
São Jorge	314.47	305.69	362.65	356.76
São Miguel	697.50	687.83	759.44	752.96
Terceira	399.91	390.64	469.79	463.59