

Appendix S4

Species-focused assessment of PAs' efficiency, regarding their limits and target achievement: species included in the assessment of protected areas network; their final conservation targets; total predicted area and predicted occurrence area covered by INP limits (ncells: number of cells).

	Final target (%)	Total predicted occurrence area (ncells)	Predicted occurrence area inside PAs (ncells)		Difference between predicted occurrence area in PAs and target (%)	Target achievement
			(ncells)	(%)		
Bryophytes						
<i>Acanthocoleus aberrans</i>	55.0	210	180	85.7	+31	Yes
<i>Acrobolbus wilsonii</i>	33.5	244	195	79.9	+46	Yes
<i>Alophosia azorica</i>	41.0	53	44	83.0	+42	Yes
<i>Andoa berthelotiana</i>	34.0	401	290	72.3	+38	Yes
<i>Anthoceros caucasicus</i>	34.0	305	168	55.1	+21	Yes
<i>Aphanolejeunea azorica</i>	51.0	601	350	58.2	+7	Yes
<i>A. madeirensis</i>	86.5	139	113	81.3	-5	No
<i>A. sintenisii</i>	51.0	244	137	56.1	+5	Yes
<i>Asterella africana</i>	23.0	73	8	11.0	-12	No
<i>Bazzania azorica</i>	44.5	414	277	66.9	+22	Yes
<i>Breutelia azorica</i>	44.5	259	185	71.4	+27	Yes
<i>Bryoerythrophyllum inaequalifolium</i>	58.5	155	69	44.5	-14	No
<i>Calypogeia azorica</i>	44.5	253	145	57.3	+13	Yes
<i>Campylopus shawii</i>	44.5	228	156	68.4	+24	Yes
<i>Cephalozia crassifolia</i>	26.5	345	223	64.6	+38	Yes
<i>Cheilolejeunea cedercreutzii</i>	68.5	226	168	74.3	+6	Yes
<i>Colura calyptrifolia</i>	60.5	233	148	63.5	+3	Yes
<i>Cyclodictyon laetevirens</i>	86.5	139	94	67.6	-19	No
<i>Daltonia stenophylla</i>	30.0	157	124	79.0	+49	Yes
<i>Dumortiera hirsuta</i>	37.5	470	254	54.0	+17	Yes
<i>Echinodium renaudii</i>	58.0	161	109	67.7	+10	Yes
<i>Fissidens asplenioides</i>	34.0	270	107	39.6	+6	Yes
<i>F. sublineaeifolius</i>	44.5	4	4	100.0	+56	Yes
<i>Grimmia lisae</i>	34.0	119	29	24.4	-10	No
<i>Herbertus sendtneri</i>	41.0	438	322	73.5	+33	Yes
<i>Heteroscyphus denticulatus</i>	37.5	397	83	20.9	-17	No
<i>Hypnum uncinulatum</i>	25.5	300	209	69.7	+44	Yes
<i>Isopterygium tenerum</i>	54.5	110	22	20.0	-35	No
<i>Isothecium prolixum</i>	34.0	511	383	75.0	+41	Yes
<i>Lejeunea eckloniana</i>	34.0	284	155	54.6	+21	Yes
<i>L. flava</i> subsp. <i>moorei</i>	37.5	464	192	41.4	+4	Yes
<i>L. hibernica</i>	51.5	23	16	69.6	+18	Yes
<i>Leptoscyphus azoricus</i>	30.0	244	171	70.1	+40	Yes
<i>Mnioloma fuscum</i>	44.5	130	91	70.0	+26	Yes
<i>Neckera intermedia</i>	22.0	296	170	57.4	+35	Yes
<i>Pallavicinia lyellii</i>	37.0	449	327	72.8	+36	Yes
<i>Plagiochila longispina</i>	19.5	197	146	74.1	+55	Yes
<i>Porella canariensis</i>	28.0	292	148	50.7	+23	Yes
<i>Pseudotaxiphyllum laetevirens</i>	37.5	116	85	73.3	+36	Yes
<i>Ptychomitrium nigrescens</i>	22.0	311	152	48.9	+27	Yes
<i>Radula carringtonii</i>	34.0	283	186	65.7	+32	Yes
<i>R. holtii</i>	37.5	447	273	61.1	+24	Yes

	Final target (%)	Total predicted occurrence area (ncells)	Predicted occurrence area inside PAs (ncells)		Difference between predicted occurrence area in PAs and target (%)	Target achievement
			(ncells)	(%)		
<i>R. nudicaulis</i>	48.0	195	151	77.4	+29	Yes
<i>R. wichurae</i>	16.0	276	150	54.3	+38	Yes
<i>Rhamphidium purpuratum</i>	23.0	186	118	63.4	+40	Yes
<i>Telaranea azorica</i>	26.5	309	208	67.3	+41	Yes
<i>T. europaea</i>	34.0	181	112	61.9	+28	Yes
<i>Tetrastichium fontanum</i>	69.0	326	183	56.1	-13	No
<i>T. virens</i>	69.0	82	48	58.5	-10	No
<i>Thamnobryum alopecurum</i>	44.5	423	243	57.4	+13	Yes
<i>Tylimanthus laxus</i>	26.5	296	226	76.4	+50	Yes
Vascular plants						
<i>Agrostis azorica</i>	28.0	33	33	100.0	+72	Yes
<i>A. congestiflora</i> subsp. <i>oreophila</i>	24.5	14	5	35.7	+11	Yes
<i>A. gracililaxa</i>	43.8	95	85	89.5	+46	Yes
<i>Ammi trifoliatum</i>	40.3	224	146	65.2	+25	Yes
<i>Angelica lignescens</i>	56.0	130	97	74.6	+19	Yes
<i>Arceuthobium azoricum</i>	56.0	48	48	100.0	+44	Yes
<i>Azorina vidalii</i>	72.0	360	173	48.1	-24	No
<i>Bellis azorica</i>	52.5	451	278	61.6	+9	Yes
<i>Cardamine caldeirarum</i>	10.5	514	305	59.3	+49	Yes
<i>Carex hochstetteriana</i>	10.5	192	38	19.8	+9	Yes
<i>C. pilulifera</i> subsp. <i>azorica</i>	17.5	4	4	100.0	+83	Yes
<i>C. vulcani</i>	14.0	364	220	60.4	+46	Yes
<i>Chaerophyllum azoricum</i>	63.0	54	34	63.0	0	Yes
<i>Corema album azoricum</i>	65.0	139	96	69.1	+4	Yes
<i>Daboecia azorica</i>	52.5	442	324	73.3	+21	Yes
<i>Daucus carota azoricus</i>	7.0	659	279	42.3	+35	Yes
<i>Deschampsia foliosa</i>	14.0	361	183	50.7	+37	Yes
<i>Dryopteris azorica</i>	7.0	340	217	63.8	+57	Yes
<i>D. crispifolia</i>	17.5	459	271	59.0	+42	Yes
<i>Erica azorica</i>	33.3	197	144	73.1	+40	Yes
<i>Euphorbia azorica</i>	7.0	485	242	49.9	+43	Yes
<i>E. stygiana stygiana</i>	14.0	318	222	69.8	+56	Yes
<i>Euphrasia grandiflora</i>	63.0	5	5	100.0	+37	Yes
<i>Festuca francoi</i>	7.0	333	214	64.3	+57	Yes
<i>F. petraea</i>	7.0	509	250	49.1	+42	Yes
<i>Frangula azorica</i>	55.5	560	278	49.6	-6	No
<i>Gaudinia coarctata</i>	7.0	21	3	14.3	+7	Yes
<i>Hedera azorica</i>	7.0	557	207	37.2	+30	Yes
<i>Holcus azoricus</i>	10.5	160	51	31.9	+21	Yes
<i>H. rigidus</i>	7.0	616	321	52.1	+45	Yes
<i>Hypericum foliosum</i>	7.0	676	277	41.0	+34	Yes
<i>Ilex perado azorica</i>	42.0	685	367	53.6	+12	Yes
<i>Juniperus brevifolia</i>	54.5	367	255	69.5	+15	Yes
<i>Lactuca watsoniana</i>	86.0	148	110	74.3	-12	No
<i>Laurus azorica</i>	45.0	581	264	45.4	0	Yes
<i>Leontodon filii</i>	56.0	241	190	78.8	+23	Yes
<i>L. rigens</i>	28.0	189	129	68.3	+40	Yes
<i>Lotus azoricus</i>	56.0	70	22	31.4	-25	No
<i>Luzula purpureosplendens</i>	14.0	669	427	63.8	+50	Yes
<i>Lysimachia azorica</i>	7.0	742	418	56.3	+49	Yes

	Final target (%)	Total predicted occurrence area (ncells)	Predicted occurrence area inside PAs (ncells)		Difference between predicted occurrence area in PAs and target (%)	Target achievement
			(ncells)	(%)		
<i>Myosotis maritima</i>	45.5	233	139	59.7	+14	Yes
<i>Pericallis malvifolia malvifolia</i>	52.5	196	55	28.1	-24	No
<i>Picconia azorica</i>	75.5	207	49	23.7	-52	No
<i>Platanthera azorica</i>	52.5	5	0	0.0	-53	No
<i>P. micrantha</i>	10.5	26	25	96.2	+86	Yes
<i>Polypodium azoricum</i>	7.0	279	108	38.7	+32	Yes
<i>Prunus azorica</i>	61.5	145	53	36.6	-25	No
<i>Rubus hochstetterorum</i>	28.0	307	159	51.8	+24	Yes
<i>Sanicula azorica</i>	56.0	265	118	44.5	-11	No
<i>Scabiosa nitens</i>	36.8	257	110	42.8	+6	Yes
<i>Silene uniflora cratericola</i>	79.0	10	10	100.0	+21	Yes
<i>Smilax azorica</i>	14.0	178	43	24.2	+10	Yes
<i>Spergularia azorica</i>	33.3	443	231	52.1	+19	Yes
<i>Taxus baccata</i>	52.5	12	0	0.0	-53	No
<i>Tolpis azorica</i>	31.5	382	233	61.0	+29	Yes
<i>Vaccinium cylindraceum</i>	45.5	777	422	54.3	+9	Yes
<i>Viburnum treleasei</i>	28.0	150	81	54.0	+26	Yes
Molluscs						
<i>Acanthinula azorica</i>	10.5	428	155	36.2	+26	Yes
<i>Azorivitrina brumalis</i>	21.0	376	118	31.4	+10	Yes
<i>Lauria fasciolata</i>	7.0	385	91	23.6	+17	Yes
<i>Leiostyla fuscidula</i>	7.0	557	188	33.8	+27	Yes
<i>L. rugulosa</i>	24.5	364	60	16.5	-8	No
<i>Leptaxis drouetiana</i>	66.5	368	197	53.5	-13	No
<i>Moreletina vespertina</i>	24.5	290	83	28.6	+4	Yes
<i>Napaeus delibutus</i>	21.0	109	22	20.2	-1	No
<i>N. forbesianus</i>	24.5	6	6	100.0	+76	Yes
<i>Oxychilus minor</i>	31.5	164	91	55.5	+24	Yes
<i>Plutonia atlantica</i>	21.0	170	57	33.5	+13	Yes
<i>Punctum azoricum</i>	7.0	283	79	27.9	+21	Yes
<i>Spermodea monas</i>	10.5	261	44	16.9	+6	Yes
Arthropods						
<i>Acorigone acorensis</i>	14.0	124	108	87.1	+73	Yes
<i>Alestrus dolosus</i>	17.5	136	122	89.7	+72	Yes
<i>Aphrodes hamiltoni</i>	10.5	112	100	89.3	+79	Yes
<i>Argyresthia atlanticella</i>	7.0	86	76	88.4	+81	Yes
<i>Ascotis fortunata azorica</i>	7.0	176	99	56.3	+49	Yes
<i>Atlantocis gillerforsi</i>	21.0	1	0	0.0	-21	No
<i>Bembidion schmidti mequignoni</i>	24.5	5	5	100.0	+76	Yes
<i>Brachmia infuscatella</i>	21.0	445	185	41.6	+21	Yes
<i>Calacalles droueti</i>	72.0	5	5	100.0	+28	Yes
<i>C. subcarinatus</i>	7.0	216	69	31.9	+25	Yes
<i>Canariphantes acorensis</i>	24.5	45	45	100.0	+76	Yes
<i>Cedrurum azoricus caveirensis</i>	70.0	2	2	100.0	+30	Yes
<i>Chaetophiloscia guernei</i>	10.5	1	1	100.0	+90	Yes
<i>Chironomus annularius</i>	24.5	200	173	86.5	+62	Yes
<i>Cixius azopicavus</i>	35.0	8	4	50.0	+15	Yes
<i>C. azopifajo azopifajo</i>	35.0	1	1	100.0	+65	Yes
<i>C. azoricus azoropicoi</i>	35.0	183	147	80.3	+45	Yes
<i>Conocephalus chavesi</i>	28.0	115	42	36.5	+9	Yes

	Final target (%)	Total predicted occurrence area (ncells)	Predicted occurrence area inside PAs (ncells)		Difference between predicted occurrence area in PAs and target (%)	Target achievement
			(ncells)	(%)		
<i>Crotchiella brachyptera</i>	28.0	2	1	50.0	+22	Yes
<i>Cyclophora azorensis</i>	7.0	258	147	57.0	+50	Yes
<i>Drouetius borgesii centralis</i>	24.5	3	2	66.7	+42	Yes
<i>Elipsocus azoricus</i>	7.0	243	146	60.1	+53	Yes
<i>E. brincki</i>	7.0	147	91	61.9	+55	Yes
<i>Emblyna acorensis</i>	14.0	102	34	33.3	+19	Yes
<i>Encarsia estrellae</i>	31.5	19	8	42.1	+11	Yes
<i>Eudonia interlinealis</i>	7.0	386	175	45.3	+38	Yes
<i>E. luteusalis</i>	14.0	170	115	67.6	+54	Yes
<i>E. melanographa</i>	21.0	91	69	75.8	+55	Yes
<i>Eupteryx azorica</i>	14.0	199	37	18.6	+5	Yes
<i>Gibbaranea occidentalis</i>	10.5	112	101	90.2	+80	Yes
<i>Graphania granti</i>	28.0	109	42	38.5	+11	Yes
<i>Hemerobius azoricus</i>	10.5	175	73	41.7	+31	Yes
<i>Hipparchia azorina azorina</i>	24.5	242	185	76.4	+52	Yes
<i>Homoeosoma picoensis</i>	35.0	1	0	0.0	-35	No
<i>Hydroporus guernei</i>	10.5	155	128	82.6	+72	Yes
<i>Lasaeola oceanica</i>	7.0	82	69	84.1	+77	Yes
<i>Liacarus angustatus</i>	21.0	110	97	88.2	+67	Yes
<i>Limnephilus atlanticus</i>	14.0	238	134	56.3	+42	Yes
<i>Lithobius melanops borgei</i>	28.0	141	113	80.1	+52	Yes
<i>L. obscurus azoreae</i>	24.5	5	1	20.0	-5	No
<i>Megaselia leptofemur</i>	28.0	5	4	80.0	+52	Yes
<i>Mesapamea storai</i>	10.5	204	121	59.3	+49	Yes
<i>Minicia floresensis</i>	21.0	193	175	90.7	+70	Yes
<i>Neomariania oecophorella</i>	21.0	254	101	39.8	+19	Yes
<i>N. scriptella</i>	28.0	81	29	35.8	+8	Yes
<i>Neon acorensis</i>	14.0	298	157	52.7	+39	Yes
<i>Noctua atlantica</i>	10.5	312	140	44.9	+34	Yes
<i>N. carvalhoi</i>	21.0	337	191	56.7	+36	Yes
<i>Orchestia chevreuxi</i>	10.5	48	42	87.5	+77	Yes
<i>Pardosa acorensis</i>	7.0	118	94	79.7	+73	Yes
<i>Phloeosinus gillerforsii</i>	24.5	27	4	14.8	-10	No
<i>Phloeostiba azorica</i>	24.5	17	6	35.3	+11	Yes
<i>Phlogophora cabrali</i>	24.5	202	27	13.4	-11	No
<i>P. interrupta</i>	10.5	349	173	49.6	+39	Yes
<i>Pieris brassicae azorensis</i>	7.0	149	40	26.8	+20	Yes
<i>Pinalitus oromii</i>	10.5	133	126	94.7	+84	Yes
<i>Pisaura acorensis</i>	10.5	163	112	68.7	+58	Yes
<i>Porrhomma borgesii</i>	28.0	38	17	44.7	+17	Yes
<i>Pseudanchomenus aptinoides</i>	31.5	7	7	100.0	+69	Yes
<i>Pseudechinosoma nodosum</i>	14.0	239	178	74.5	+60	Yes
<i>Pseudoblothrus vulcanus</i>	66.5	2	0	0.0	-67	No
<i>Pseudosinella ashmoleorum</i>	28.0	346	154	44.5	+17	Yes
<i>P. azorica</i>	24.5	4	2	50.0	+26	Yes
<i>Rugathodes acorensis</i>	10.5	134	117	87.3	+77	Yes
<i>R. pico</i>	31.5	8	3	37.5	+6	Yes
<i>Sancus acorensis</i>	14.0	86	79	91.9	+78	Yes
<i>Savigniorhipis acorensis</i>	14.0	95	86	90.5	+77	Yes
<i>Scoparia aequipennalis</i>	7.0	468	162	34.6	+28	Yes
<i>S. carvalhoi</i>	24.5	68	15	22.1	-2	No

	Final target (%)	Total predicted occurrence area (ncells)	Predicted occurrence area inside PAs (ncells)		Difference between predicted occurrence area in PAs and target (%)	Target achievement
			(ncells)	(%)		
<i>S. coecimaculalis</i>	10.5	186	73	39.2	+29	Yes
<i>S. semiampalis</i>	14.0	242	119	49.2	+35	Yes
<i>Strophia harteni</i>	7.0	62	60	96.8	+90	Yes
<i>Tarphius acuminatus</i>	35.0	4	4	100.0	+65	Yes
<i>T. gabriellae</i> n. sp.	35.0	2	2	100.0	+65	Yes
<i>T. picoensis</i> n. sp.	35.0	30	30	100.0	+65	Yes
<i>Trechus montanheiorum</i>	70.0	3	1	33.3	-37	No
<i>T. pereirai</i>	70.0	3	0	0.0	-70	No
<i>T. picoensis</i>	35.0	11	4	36.4	+1	Yes
<i>Trigoniophthalmus borgesii</i>	17.5	2	1	50.0	+33	Yes
<i>Udea azorensis</i>	21.0	290	33	11.4	-10	No
<i>Walckenaeria grandis</i>	21.0	59	58	98.3	+77	Yes
<i>Xanthorhoe inaequata</i>	7.0	263	155	58.9	+52	Yes
Vertebrates						
<i>Buteo buteo rothschildi</i>	52.0	8	8	100.0	+48	Yes
<i>Calonectris diomedea borealis</i>	45.0	80	44	55.0	+10	Yes
<i>Columba livia atlantis</i>	36.3	1007	409	40.6	+4	Yes
<i>C. palumbus azorica</i>	33.3	61	19	31.1	-2	No
<i>Fringilla coelebs moreletti</i>	36.3	624	299	47.9	+12	Yes
<i>Larus michahellis atlantis</i>	33.3	11	3	27.3	-6	No
<i>L. michahellis michahellis</i>	10.5	356	146	41.0	+31	Yes
<i>Motacilla cinerea patriciae</i>	36.3	1798	809	45.0	+9	Yes
<i>Nyctalus azoreum</i>	63.3	11	3	27.3	-36	No
<i>Puffinus baroli baroli</i>	54.5	463	197	42.5	-12	No
<i>Regulus regulus inermis</i>	43.3	16	13	81.3	+38	Yes
<i>Sterna dougallii dougallii</i>	51.0	236	109	46.2	-5	No
<i>S. hirundo hirundo</i>	51.0	994	410	41.2	-10	No
<i>Sturnus vulgaris granti</i>	36.3	238	91	38.2	+2	Yes
<i>Sylvia atricapilla gularis</i>	10.0	530	219	41.3	+31	Yes
<i>Turdus merula azorensis</i>	36.3	17	14	82.4	+46	Yes