Supplementary Material

Eucalypt Recruitment and Invasion Potential in Protected Areas of the Iberian Peninsula under Current and Future Climate Conditions

Ernesto Deus, Joaquim S. Silva, Joana R. Vicente and Filipe X. Catry

Supplementary Material: Figure S1

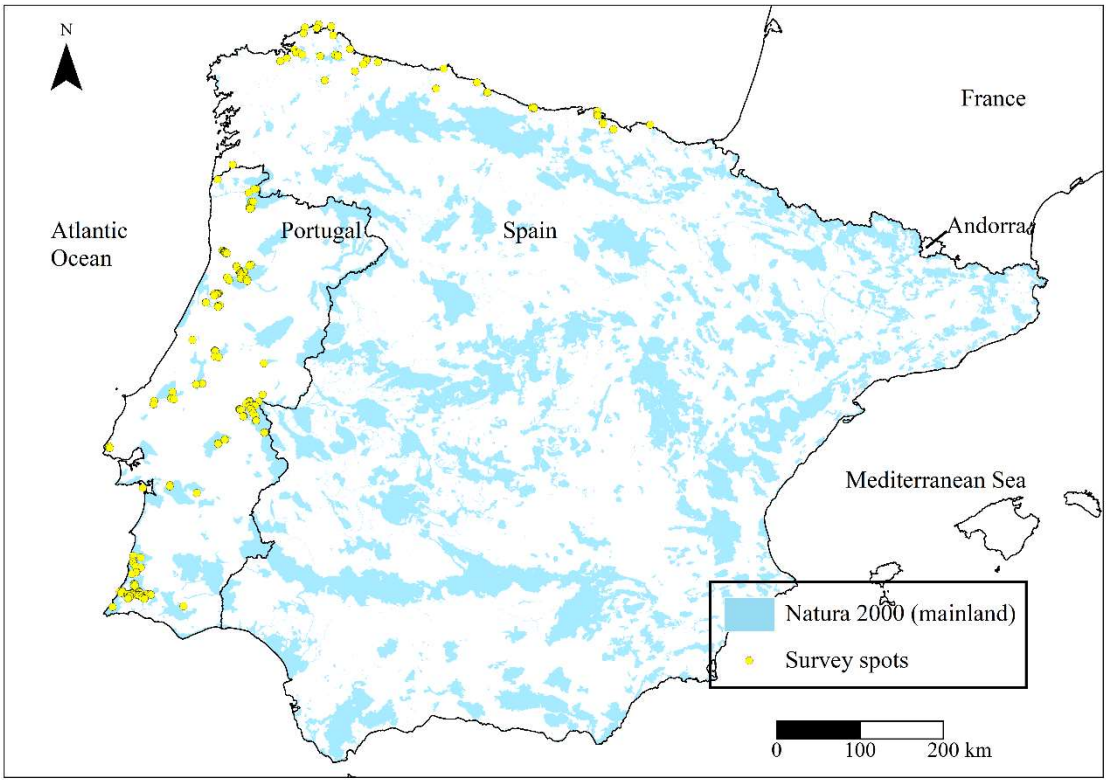


Figure S1 – Surveyed locations to test the recruitment potential classification.

Supplementary Material: Figure S2

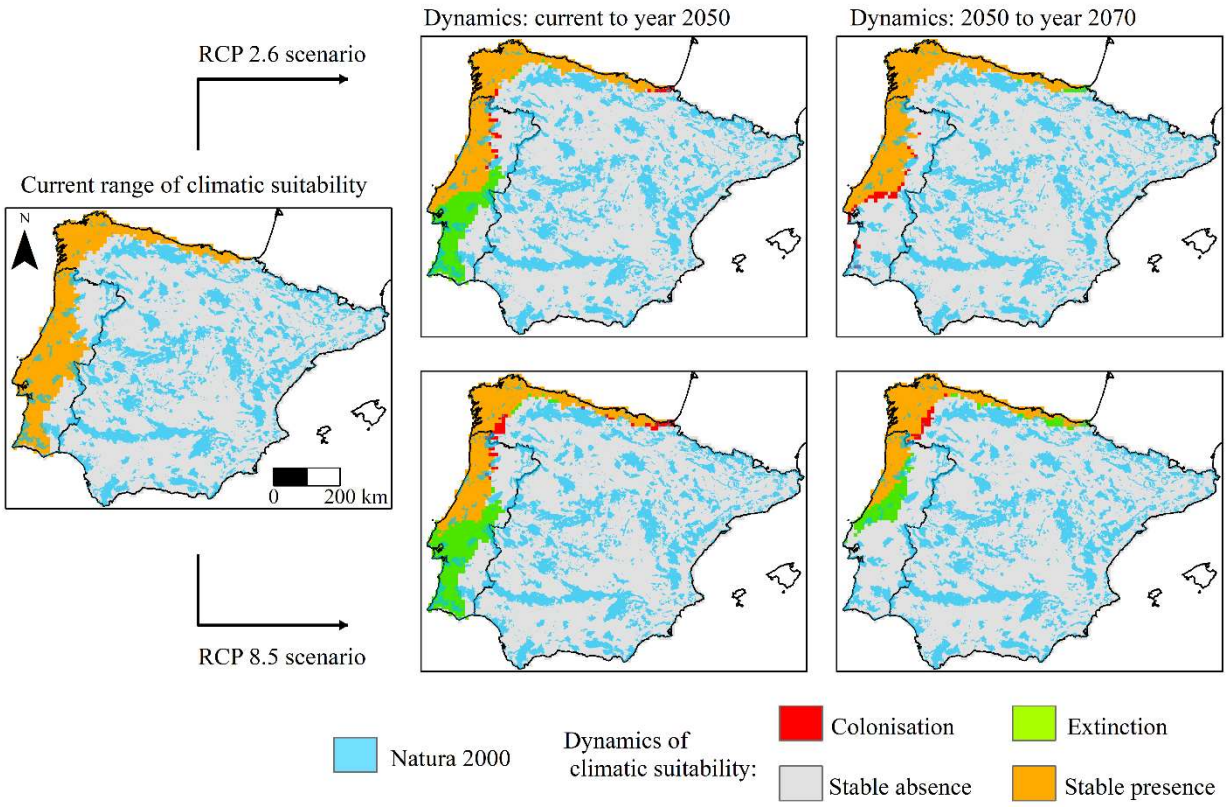


Figure S2 - Range dynamics of *E. globulus* recruitment in Iberia for the years 2050 and 2070 under climate change scenarios RCP2.6 and RCP8.5.

Supplementary Material: Table S1

Table S1. Data on the recruitment and invasion potential of 176 Natura 2000 sites from Portugal (PT) and Spain (ES). Columns 3 and 4 show the percentage of each site with recruitment and invasion potential, respectively. Columns 5 and 6 show the corresponding surface in km^2. Sites are ranked in decreasing order of the sum of columns 5 and 6. The site areas in column 2 were calculated based on GIS processing.

Site code	Site area (km^2)	Rec. pot. (%)	Inv. pot. (%)	Rec. pot. (km^2)	Inv. pot. (km^2)
PTCON0037	761.4	33.7	22	256.5	167.7
PTCON0012	990.6	10.8	8.7	107.1	86.5
PTCON0007	1150.9	5.7	6.1	65.9	70.1
PTCON0015	442.2	9.3	11.8	41.2	52.3
PTCON0047	286.4	10.5	12.3	30.2	35.2
PTCON0033	564.3	5	4.6	28.4	25.9
PTCON0059	145.3	22.4	14.5	32.5	21.0
PTCON0034	321.4	11.1	4.4	35.7	14.1
PTCON0029	483.9	4	5.8	19.6	27.8
PTZPE0042	257.7	10.2	6.5	26.2	16.6
PTCON0060	151.1	12.5	15.7	18.8	23.7
PTCON0045	316.3	4.9	8.5	15.5	26.8
PTZPE0015	473.4	3.8	4.9	18.0	23.3
PTCON0001	895.7	1.7	2.3	15.6	20.9
ES1120015	229.7	8.7	6.2	19.9	14.1
ES1110003	91.3	20.7	15.3	18.9	13.9
PTCON0044	126.7	11	8.2	13.9	10.4
PTCON0057	472.0	1.8	3.3	8.4	15.7
PTCON0024	25.5	69.9	21.6	17.8	5.5
PTCON0025	387.9	2.7	3	10.6	11.5
PTCON0061	308.0	3.7	3.1	11.4	9.6
PTCON0026	28.0	49.9	19.7	14.0	5.5
PTZPE0004	307.2	3.6	2.5	10.9	7.7
ES1140014	54.6	18.3	11.3	10.0	6.2
PTCON0048	38.3	21.8	18.1	8.3	6.9
ES1110014	66.7	11.2	11.5	7.5	7.6
ES1110002	67.8	11.4	10.2	7.7	6.9
PTCON0027	94.8	4.8	9.7	4.6	9.2
ES1110005	66.0	8.3	11.8	5.5	7.8
ES1110008	42.2	12.5	18.3	5.3	7.7
PTCON0011	197.9	3.6	2.8	7.0	5.6
PTCON0008	82.5	7.1	7.5	5.9	6.2
ES0000143	64.4	8.2	9.8	5.3	6.3

PTCON0055	204.6	1.8	3.6	3.7	7.4
ES1110001	21.5	29.6	20.1	6.4	4.3
PTZPE0010	303.0	2.1	1.3	6.3	3.9
PTZPE0002	634.3	0.5	1	3.4	6.4
PTCON0009	297.8	2	1.2	6.1	3.7
ES1110013	20.8	24	18.5	5.0	3.8
PTCON0031	239.2	1.7	1.8	4.0	4.3
ES1120009	12.5	36.3	29.7	4.5	3.7
PTCON0040	51.4	8	7.8	4.1	4.0
PTZPE0046	853.4	0.5	0.5	4.2	3.9
PTCON0028	59.3	6.4	6.5	3.8	3.9
ES1200042	10.2	38.9	34.1	4.0	3.5
ES1140013	107.1	2.6	4.3	2.8	4.6
ES1200055	37.1	9.4	8.1	3.5	3.0
ES1140007	28.4	14.4	8.2	4.1	2.3
ES1140005	7.8	52.3	19.2	4.1	1.5
PTCON0003	587.6	0.3	0.6	1.5	3.5
ES0000086	13.1	30.2	7.4	3.9	1.0
ES0000176	35.3	4.8	8.8	1.7	3.1
PTZPE0011	136.1	1.2	2.3	1.6	3.1
ES1140004	15.5	20	9.1	3.1	1.4
PTCON0010	151.8	1.1	1.8	1.7	2.8
PTCON0019	43.7	4.5	5.5	2.0	2.4
ES1300007	33.8	7.2	5.3	2.4	1.8
PTCON0039	44.8	3.7	5.4	1.7	2.4
ES2130001	30.1	4.8	8.7	1.4	2.6
ES1200043	34.5	4.3	7.4	1.5	2.5
ES0000318	21.5	8.5	9.9	1.8	2.1
ES0000258	19.1	9.6	9.5	1.8	1.8
ES1140008	10.8	16	17	1.7	1.8
ES1110007	7.6	19.6	22.7	1.5	1.7
ES1140011	7.3	20.5	22.6	1.5	1.6
ES1110006	16.1	11.5	7.3	1.9	1.2
ES4320002	226.4	0.9	0.5	2.0	1.1
ES0000368	254.2	0.8	0.4	2.0	1.1
ES1110010	7.4	20.1	19.7	1.5	1.5
ES2130006	13.3	2.7	19.4	0.4	2.6
ES1140001	14.4	2.8	17.4	0.4	2.5
ES1110016	5.8	12.5	35.2	0.7	2.1
ES0000087	11.8	14.6	7.7	1.7	0.9
PTCON0020	53.7	1.9	2.9	1.0	1.6
ES1140006	3.6	29	42.8	1.0	1.5
ES1120002	9.2	4.4	20.6	0.4	1.9

ES0000313	9.6	14.3	9.5	1.4	0.9
ES0000317	8.6	10	16	0.9	1.4
PTCON0004	793.6	0.1	0.1	1.2	1.1
PTCON0005	6.5	20.6	13	1.3	0.8
ES0000319	11.9	7.7	10.5	0.9	1.2
ES1200016	15.4	11.7	1.6	1.8	0.3
ES1110011	5.0	30.6	9.7	1.5	0.5
ES1110009	3.2	39.8	20.5	1.3	0.7
ES1200029	7.2	4.2	22.1	0.3	1.6
ES1120003	49.4	1.4	2.3	0.7	1.1
ES1140015	11.2	7.8	8.4	0.9	0.9
PTZPE0001	31.1	2.7	3	0.8	0.9
ES1140010	3.5	21.1	27.2	0.7	1.0
ES1120017	3.4	17.3	31.9	0.6	1.1
ES1300003	11.7	6.8	6.9	0.8	0.8
PTZPE0005	4.8	19.4	13.7	0.9	0.7
ES1300019	1.8	58.2	29	1.0	0.5
ES0000375	16.6	6.8	2.2	1.1	0.4
ES1300009	5.7	4.1	22.1	0.2	1.3
ES1120011	4.2	16.3	17.8	0.7	0.8
ES1300006	4.0	20	14.2	0.8	0.6
ES1140002	1.5	28.2	63.9	0.4	1.0
ES1300010	9.6	2.5	10.6	0.2	1.0
ES1110004	5.3	11.9	11.2	0.6	0.6
ES0000144	21.0	2.1	3.6	0.4	0.7
ES1300011	5.3	0.6	21.7	0.0	1.2
PTCON0052	21.1	2	3.5	0.4	0.7
ES1110015	1.6	11.7	59.6	0.2	1.0
ES1110012	6.1	7.6	11.1	0.5	0.7
ES0000372	2.9	8.8	28.7	0.3	0.8
PTCON0054	43.2	1	1.5	0.4	0.6
ES2130002	43.5	0.8	1.5	0.4	0.6
ES1200047	5.4	3.8	14.8	0.2	0.8
ES0000373	3.4	18.1	9.7	0.6	0.3
ES1120006	48.3	0.5	1.5	0.2	0.7
ES1300002	217.1	0.1	0.3	0.3	0.7
ES1300012	2.1	9.7	33.1	0.2	0.7
ES1300015	4.0	4.4	18.1	0.2	0.7
ES1200030	4.3	2.9	17.7	0.1	0.8
ES1200027	2.0	3.7	38.8	0.1	0.8
ES2130008	15.8	0.7	4.6	0.1	0.7
ES1140009	1.7	15.8	30.8	0.3	0.5
ES1200023	1.1	6.4	61.3	0.1	0.7

ES1300017	1.1	27.6	33.8	0.3	0.4
PTCON0056	27.7	1	1.2	0.3	0.3
PTCON0014	885.3	0	0.1	0.1	0.5
ES1200024	0.6	49.6	44.1	0.3	0.3
ES0000320	2.6	8.6	12.4	0.2	0.3
ES0000085	5.4	4.8	4.6	0.3	0.2
ES1120012	1.3	5.7	33	0.1	0.4
PTCON0046	1.4	10.1	24.5	0.1	0.3
ES1120013	1.1	7.5	36	0.1	0.4
ES1200025	0.9	18.7	33.4	0.2	0.3
ES1200006	9.9	4	0.6	0.4	0.1
PTZPE0006	0.9	17.5	29.7	0.2	0.3
ES0000376	313.1	0.1	0.1	0.2	0.2
ES1130001	339.4	0.1	0.1	0.2	0.2
ES1140016	1.4	18.9	9.3	0.3	0.1
ES1200026	0.5	6.1	55	0.0	0.3
ES1300020	3.2	0.3	9.4	0.0	0.3
ES1200035	3.3	0.4	8	0.0	0.3
PTCON0013	168.7	0	0.1	0.1	0.2
ES1200007	1.3	7.4	13.6	0.1	0.2
PTCON0051	13.6	0.3	1.6	0.0	0.2
PTCON0017	18.5	0.5	0.9	0.1	0.2
ES1300022	7.9	0.5	2.5	0.0	0.2
PTZPE0040	2.2	4.8	3.5	0.1	0.1
ES1200045	0.3	17.1	52.5	0.0	0.1
ES1300005	0.9	5.4	14.4	0.0	0.1
ES0000407	210.0	0	0.1	0.0	0.2
PTCON0036	380.2	0	0	0.0	0.1
ES1200033	0.5	0.8	34.9	0.0	0.2
ES1200032	5.8	0.1	2.6	0.0	0.2
ES1200034	0.3	30.9	17.5	0.1	0.1
ES1200039	131.5	0	0.1	0.0	0.1
PTCON0016	0.2	11.2	43.3	0.0	0.1
ES1300008	4.1	0.1	2.9	0.0	0.1
ES1200022	0.3	29.1	10.4	0.1	0.0
ES1200028	0.2	32.5	33	0.1	0.1
ES2120017	23.8	0.1	0.3	0.0	0.1
ES1140012	0.1	0	49.2	0.0	0.1
ES2130010	1.1	0	3.5	0.0	0.0
ES1200031	0.5	0	6.6	0.0	0.0
ES4120049	64.9	0	0.1	0.0	0.0
ES2130011	1.4	0	2.3	0.0	0.0
ES1200036	0.5	0	5.6	0.0	0.0

PTZPE0050	8.8	0	0.3	0.0	0.0
PTZPE0008	4.3	0	0.6	0.0	0.0
ES2130007	9.7	0	0.3	0.0	0.0
ES1200040	0.7	0.8	2.4	0.0	0.0
ES4310022	28.2	0	0.1	0.0	0.0
ES2120001	11.2	0	0.1	0.0	0.0
PTZPE0017	150.4	0	0	0.0	0.0
ES1200052	0.7	0	1.8	0.0	0.0
ES1300004	4.7	0	0.1	0.0	0.0
ES1120005	2.6	0	0.1	0.0	0.0
PTZPE0049	0.7	0	0.2	0.0	0.0
PTZPE0014	2.2	0	0	0.0	0.0
ES2130003	0.5	0	0.1	0.0	0.0
PTCON0018	3.4	0	0	0.0	0.0

Supplementary Material: Table S2

Table S2. Data on the recruitment and invasion potential of 87 Natura 2000 habitats from Portugal and Spain. Column 4 shows the sum of recruitment and invasion potential areas, in km^2. Column 5 shows the corresponding percentage of the habitat area. Column 6 shows the number of sites with recruitment and invasion potential, for each habitat. Habitats are ranked in decreasing order of column 4. Priority habitats are marked with an asterisk, according to the EU Habitats Directive. Spatial data on habitat distribution were retrieved from the latest national reports from Portugal and Spain (2013-2018), mapping habitats in a 10x10 km grid covering Iberia.

Habitat	Habitat name	Habitat area (km^2)	Rec+Inv (km^2)	Rec+Inv (%)	Number of sites
4030	European dry heaths	2418752	1663.9	6.9%	161
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*	1556361	1463.8	9.4%	159
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	1045925	1432.9	13.7%	117
6420	Mediterranean tall humid grasslands of the Molinio-Holoschoenion	1336417	1253.0	9.4%	74
5330	Thermo-Mediterranean and pre-desert scrub	3384384	1192.1	3.5%	47
92A0	Salix alba and Populus alba galleries	832768	1178.4	14.1%	53
8220	Siliceous rocky slopes with chasmophytic vegetation	3007933	1133.0	3.8%	100
6220	Pseudo-steppe with grasses and annuals of the Thero-Brachypodietea*	1429216	1120.6	7.8%	93
9330	Quercus suber forests	2424505	1078.9	4.5%	46
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix*	813172	1072.7	13.2%	125
6310	Dehesas with evergreen Quercus spp.	1702549	997.8	5.9%	26
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	1327074	982.2	7.4%	92
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	883588	826.7	9.4%	101
9340	Quercus ilex and Quercus rotundifolia forests	1306886	823.4	6.3%	78
9230	Galicio-Portuguese oak woods with Quercus robur and Quercus pyrenaica	766665	778.9	10.2%	116
5230	Arborescent matorral with Laurus nobilis*	399829	666.4	16.7%	91
3290	Intermittently flowing Mediterranean rivers of the Paspalo-Agrostidion	718232	648.2	9.0%	24

8230	Siliceous rock with pioneer vegetation of the Sedo-Scleranthion or of the Sedo albi-Veronicion dillenii	1145011	637.1	5.6%	92
9240	Quercus faginea and Quercus canariensis Iberian woods	1254720	564.5	4.5%	19
92D0	Southern riparian galleries and thickets (Nerio-Tamaricetea and Securinegion tinctoriae)	2904465	534.5	1.8%	22
9260	Castanea sativa woods	781859	522.0	6.7%	70
2230	Malcolmietalia dune grasslands	586197	520.1	8.9%	46
2260	Cisto-Lavenduletalia dune sclerophyllous scrubs	640655	500.9	7.8%	40
91B0	Thermophilous Fraxinus angustifolia woods	1228593	494.8	4.0%	22
2330	Inland dunes with open Corynephorus and Agrostis grasslands	362931	476.3	13.1%	31
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	901928	467.9	5.2%	108
3170	Mediterranean temporary ponds*	2058247	450.5	2.2%	24
5210	Arborescent matorral with Juniperus spp.	1349882	450.1	3.3%	11
8130	Western Mediterranean and thermophilous scree	1454665	426.5	2.9%	66
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)*	408057	395.9	9.7%	27
3120	Oligotrophic waters containing very few minerals generally on sandy soils of the West Mediterranean, with Isoetes spp.	392799	374.0	9.5%	16
92B0	Riparian formations on intermittent Mediterranean water courses with Rhododendron ponticum, Salix and others	287719	370.8	12.9%	7
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	293053	360.1	12.3%	62
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	1134017	346.7	3.1%	51
3280	Constantly flowing Mediterranean rivers with Paspalo-Agrostidion species and hanging curtains of Salix and Populus alba	1227069	346.5	2.8%	29
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	585942	342.7	5.8%	50
1210	Annual vegetation of drift lines	416770	339.6	8.1%	92
7140	Transition mires and quaking bogs	511444	312.9	6.1%	60
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")*	267236	303.3	11.4%	81
2110	Embryonic shifting dunes	306708	296.1	9.7%	82
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	927934	286.7	3.1%	82
1310	Salicornia and other annuals colonizing mud and sand	1083784	284.9	2.6%	79

2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	316774	283.3	8.9%	71
2270	Wooded dunes with Pinus pinea and/or Pinus pinaster*	321517	272.0	8.5%	22
2190	Humid dune slacks	225112	246.5	11.0%	42
8210	Calcareous rocky slopes with chasmophytic vegetation	484720	237.5	4.9%	54
2250	Coastal dunes with Juniperus spp.*	266160	234.8	8.8%	16
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	935507	228.9	2.4%	23
3270	Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation	155521	218.3	14.0%	63
1510	Mediterranean salt steppes (Limonietalia)*	1062778	204.5	1.9%	13
1430	Halo-nitrophilous scrubs (Pegano-Salsoletea)	1386604	203.7	1.5%	16
1410	Mediterranean salt meadows (Juncetalia maritimi)	1155117	197.5	1.7%	19
7150	Depressions on peat substrates of the Rhynchosporion	594489	195.5	3.3%	42
1320	Spartina swards (Spartinion maritimae)	247836	194.2	7.8%	62
6110	Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi*	36901	175.0	47.4%	8
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)*	346407	174.8	5.0%	41
5140	Cistus palhinhae formations on maritime wet heaths*	72818	168.4	23.1%	3
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	89507	165.2	18.5%	85
7110	Active raised bogs*	894979	149.8	1.7%	29
8240	Limestone pavements*	84703	144.0	17.0%	6
4090	Endemic oro-Mediterranean heaths with gorse	1608123	128.9	0.8%	72
3160	Natural dystrophic lakes and ponds	760939	125.7	1.7%	26
9380	Forests of Ilex aquifolium	1308693	120.8	0.9%	21
1150	Coastal lagoons*	253336	117.3	4.6%	42
9180	Tilio-Acerion forests of slopes, screes and ravines*	1449593	94.4	0.7%	28
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	1531731	94.2	0.6%	11
4010	Northern Atlantic wet heaths with Erica tetralix	127838	86.7	6.8%	9
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	592286	85.9	1.4%	38
9320	Olea and Ceratonia forests	772601	78.7	1.0%	11
7130	Blanket bogs (* if active bog)	237104	62.8	2.6%	40
4040	Dry Atlantic coastal heaths with Erica vagans*	24035	58.3	24.2%	36

7220	Petrifying springs with tufa formation (Cratoneurion)*	1708018	57.8	0.3%	23
6160	Oro-Iberian Festuca indigesta grasslands	1957740	53.9	0.3%	13
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae*	467820	43.6	0.9%	19
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	44135	26.6	6.0%	4
9580	Mediterranean Taxus baccata woods*	767972	24.6	0.3%	3
91F0	Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia, along the great rivers (Ulmenion minoris)	20951	22.4	10.7%	6
5410	West Mediterranean clifftop phryganas (Astragalo-Plantaginetum subulatae)	29220	11.2	3.8%	2
9560	Endemic forests with Juniperus spp.*	2037750	8.2	0.0%	2
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	1608646	7.4	0.0%	13
7230	Alkaline fens	915153	5.2	0.1%	8
6170	Alpine and subalpine calcareous grasslands	734270	4.7	0.1%	5
3240	Alpine rivers and their ligneous vegetation with Salix elaeagnos	1304532	4.6	0.0%	9
2180	Wooded dunes of the Atlantic, Continental and Boreal region	6339	4.4	6.9%	6
5320	Low formations of Euphorbia close to cliffs	9903	2.9	3.0%	2
4060	Alpine and Boreal heaths	2079559	0.5	0.0%	1
5120	Mountain Cytisus purgans formations	1703803	0.1	0.0%	1

Supplementary Material: Table S3

Table S3 - Examples of probable cases of invasion and unmapped eucalypt stands inside Natura 2000. These examples were found after a random survey across some of the sites most heavily affected by recruitment and invasion potential, within areas classified with invasion potential of any level, near roads with available Google Street View imagery (GSV). A link to GSV in Google Maps is provided, allowing to travel virtually along the road.

Site (code)	Coordinates	Invasion potential level	Notes	Link Google Street View
Monchique (PTCON0037)	37°20'51.83"N; 8°32'48.33"W	High	Possible invasion: eucalypt recruitment occurs along several hundreds of meters in the southern side of the road (to the west side from the linked location), where large seed-trees are also found. All those eucalypts are not mapped.	https://www.google.pt/maps/@37.3476378,-8.5468586,3a,75y,101.94h,94.21t/data=!3m6!1e1!3m4!1s3UZnQJWAiRIreoCIv-oVIg!2e0!7i13312!8i6656?hl=pt-PT
Monchique (PTCON0037)	37°21'56.20"N; 8°31'17.95"W	High	Unmapped eucalypt stands: all visible eucalypt stands are not mapped. The stands seem abandoned eucalypt plantations, even though recruitment is visible on both sides of the road.	https://www.google.pt/maps/@37.3658146,-8.5215763,3a,75y,180.33h,94.95t/data=!3m6!1e1!3m4!1s9nvStbMsx_w4ZRZO__DBuQ!2e0!7i13312!8i6656?hl=pt-PT
Rio Paiva (PTCON0059)	40°56'0.59"N; 8° 7'3.99"W	High	Possible invasion: eucalypts seem expanding towards river Paiva from a nearby plantation. These eucalypts are not mapped.	https://www.google.pt/maps/@40.9346536,-8.1174798,3a,34.6y,185.38h,90.76t/data=!3m6!1e1!3m4!1szg4sdUPeVnPGWuHc0oFlFQ!2e0!7i13312!8i6656?hl=pt-PT
Fragas do Eume (ES1110003)	43°24'17.24"N; 8° 3'0.10"W	High	Possible invasion: eucalypts seem expanding towards river Eume. Eucalypt plantations upwards are mapped.	https://www.google.pt/maps/@43.4049258,-8.0497087,3a,75y,218.13h,104.09t/data=!3m6!1e1!3m4!1scqOK3z27g_GRP7VccwQrLg!2e0!7i13312!8i6656?hl=pt-PT
Serras da Freita e Arada (PTCON0047)	40°51'4.32"N; 8°18'22.57"W	High	Unmapped eucalypt stand. Several similar cases along the road. Eucalypt stands of unknown origin but there is a wide range of plant sizes.	https://www.google.pt/maps/@40.8518457,-8.3060305,3a,75y,312.71h,90.3t/data=!3m6!1e1!3m4!1sFs23e0o-YTInWJ2AawU5dg!2e0!7i16384!8i8192?hl=pt-PT