

Supplementary materials (on- line only)

Table S0. Occurrence dataset of the nine species modelled.

Species	Lon DD	Lat DD
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.37518	39.55422
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.33458	39.53078
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.60704	39.51427
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.43751	39.44389
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.89269	39.18865
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.33522	39.35472
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.19735	39.45729
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.42723	39.62615
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.33450	39.56115
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.55092	39.17841
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.20645	39.68135
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.97244	39.77478
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.18142	39.44241
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.16696	39.54161
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.30220	39.53274
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.42460	39.36023
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.29728	39.60220
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.41011	39.55045
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.54723	39.17687
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.58592	40.23871
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.44911	39.41710
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.14604	39.96021
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.19093	39.96443
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.67082	40.41013
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.17969	40.15961
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.26783	39.45713
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.15495	39.96967
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.61443	39.62534
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.53505	39.70844
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.62615	39.69071
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.55290	40.59927
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.73624	40.16081
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	9.00374	39.01925
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.49370	40.22948
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.69659	40.13797
<i>Anacamptis longicornu</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	8.24613	40.66205
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.39689	39.36116
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.08351	39.29603
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	8.82231	38.91532
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.18613	39.35423
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.39418	39.60225
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.43054	39.15239

<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.38450	39.25210
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.38590	39.54631
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.53406	39.18210
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	8.46919	39.24760
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	8.59299	39.34346
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	8.44855	39.46243
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.17637	39.94827
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.38817	39.71708
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.49080	39.59339
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.42971	39.68591
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	9.08105	39.88182
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	8.49030	40.23313
<i>Anacamptis papilionacea</i> (L.) R.M. Bateman, Pridgeon & M.W. Chase var. <i>grandiflora</i>	8.24066	40.69748
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.31349	39.70646
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.60909	39.49881
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.37480	39.55394
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.32401	39.35135
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.19391	39.44406
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.42152	39.60026
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.31226	39.54111
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.52127	39.34838
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.20529	39.44619
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.19256	39.52532
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.57546	39.37525
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.40689	39.26757
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	8.59127	39.34598
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	8.44311	39.42816
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.16798	39.97689
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.30251	40.06021
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.64442	40.43974
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.19713	39.99323
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.64601	39.61574
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.40237	39.70342
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.45237	39.73616
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	8.48462	40.22313
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.03222	39.87188
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	8.56974	39.87062
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	8.73291	40.18466
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	8.48154	40.21614
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.09204	41.10967
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	8.21738	40.65978
<i>Anacamptis papilionacea</i> (L.) R. M. Bateman, Pridgeon & M. W. Chase var. <i>papilionacea</i>	9.51610	39.43102
<i>Ophrys bombyliflora</i> Link	9.35644	39.55496
<i>Ophrys bombyliflora</i> Link	9.14797	39.20570
<i>Ophrys bombyliflora</i> Link	9.55394	39.32126
<i>Ophrys bombyliflora</i> Link	9.18199	39.34621
<i>Ophrys bombyliflora</i> Link	9.16906	39.42365

<i>Ophrys bombyliflora</i> Link	9.37926	39.59152
<i>Ophrys bombyliflora</i> Link	9.05265	39.58654
<i>Ophrys bombyliflora</i> Link	9.15067	39.51916
<i>Ophrys bombyliflora</i> Link	9.01123	39.47405
<i>Ophrys bombyliflora</i> Link	9.05353	39.35587
<i>Ophrys bombyliflora</i> Link	9.62011	39.53539
<i>Ophrys bombyliflora</i> Link	9.63496	39.60054
<i>Ophrys bombyliflora</i> Link	9.39285	39.68880
<i>Ophrys bombyliflora</i> Link	8.49941	40.22392
<i>Ophrys bombyliflora</i> Link	8.39197	40.04016
<i>Ophrys bombyliflora</i> Link	8.47592	40.21461
<i>Ophrys bombyliflora</i> Link	9.43479	39.70479
<i>Ophrys morisii</i> (Martelli) Soò	9.32025	39.61138
<i>Ophrys morisii</i> (Martelli) Soò	9.20264	39.35201
<i>Ophrys morisii</i> (Martelli) Soò	8.89129	38.94454
<i>Ophrys morisii</i> (Martelli) Soò	9.43844	39.62829
<i>Ophrys morisii</i> (Martelli) Soò	9.44436	39.19760
<i>Ophrys morisii</i> (Martelli) Soò	9.60358	39.30418
<i>Ophrys morisii</i> (Martelli) Soò	9.20934	39.44858
<i>Ophrys morisii</i> (Martelli) Soò	9.50916	39.34945
<i>Ophrys morisii</i> (Martelli) Soò	9.28859	39.28717
<i>Ophrys morisii</i> (Martelli) Soò	8.94030	39.18055
<i>Ophrys morisii</i> (Martelli) Soò	9.42077	39.55300
<i>Ophrys morisii</i> (Martelli) Soò	9.50908	39.20643
<i>Ophrys morisii</i> (Martelli) Soò	8.49197	39.26944
<i>Ophrys morisii</i> (Martelli) Soò	8.26761	39.12023
<i>Ophrys morisii</i> (Martelli) Soò	8.60336	39.62894
<i>Ophrys morisii</i> (Martelli) Soò	9.62894	39.54695
<i>Ophrys morisii</i> (Martelli) Soò	9.62641	39.56296
<i>Ophrys morisii</i> (Martelli) Soò	9.41927	39.70727
<i>Ophrys morisii</i> (Martelli) Soò	9.18596	39.88048
<i>Ophrys morisii</i> (Martelli) Soò	8.48581	40.21541
<i>Ophrys morisii</i> (Martelli) Soò	8.50106	40.22609
<i>Ophrys neglecta</i> Parl.	9.35611	39.55558
<i>Ophrys neglecta</i> Parl.	9.52765	39.37271
<i>Ophrys neglecta</i> Parl.	9.60410	39.46774
<i>Ophrys neglecta</i> Parl.	9.54264	39.61208
<i>Ophrys neglecta</i> Parl.	8.83038	38.93704
<i>Ophrys neglecta</i> Parl.	9.32720	39.34476
<i>Ophrys neglecta</i> Parl.	9.21295	39.46406
<i>Ophrys neglecta</i> Parl.	9.28583	39.51572
<i>Ophrys neglecta</i> Parl.	9.17816	39.45350
<i>Ophrys neglecta</i> Parl.	9.17617	39.50938
<i>Ophrys neglecta</i> Parl.	9.38815	39.27773
<i>Ophrys neglecta</i> Parl.	9.39619	39.51628
<i>Ophrys neglecta</i> Parl.	8.48287	39.26522
<i>Ophrys neglecta</i> Parl.	8.25209	39.13051

<i>Ophrys neglecta</i> Parl.	8.59710	39.35037
<i>Ophrys neglecta</i> Parl.	8.59870	39.46992
<i>Ophrys neglecta</i> Parl.	9.62257	40.40899
<i>Ophrys neglecta</i> Parl.	9.63703	40.43678
<i>Ophrys neglecta</i> Parl.	9.62136	39.62577
<i>Ophrys neglecta</i> Parl.	9.43570	39.70471
<i>Ophrys neglecta</i> Parl.	9.63088	39.90108
<i>Ophrys neglecta</i> Parl.	9.41625	39.71241
<i>Ophrys neglecta</i> Parl.	8.50654	40.25281
<i>Ophrys neglecta</i> Parl.	9.00446	39.02836
<i>Ophrys neglecta</i> Parl.	8.55797	39.89705
<i>Ophrys neglecta</i> Parl.	8.50761	40.25902
<i>Ophrys neglecta</i> Parl.	9.09378	41.10136
<i>Ophrys speculum</i> Link	9.60723	39.49349
<i>Ophrys speculum</i> Link	9.30351	39.46922
<i>Ophrys speculum</i> Link	9.29112	39.63168
<i>Ophrys speculum</i> Link	9.14721	39.21546
<i>Ophrys speculum</i> Link	9.20027	39.34311
<i>Ophrys speculum</i> Link	8.83391	38.93682
<i>Ophrys speculum</i> Link	9.40772	39.60851
<i>Ophrys speculum</i> Link	9.52688	39.20380
<i>Ophrys speculum</i> Link	9.18971	39.38174
<i>Ophrys speculum</i> Link	9.00358	39.47676
<i>Ophrys speculum</i> Link	9.07256	39.34608
<i>Ophrys speculum</i> Link	8.59486	39.34796
<i>Ophrys speculum</i> Link	9.63511	39.55771
<i>Ophrys speculum</i> Link	9.65309	39.63604
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<i>Ophrys speculum</i> Link	8.49942	40.23619
<i>Ophrys speculum</i> Link	8.49942	40.23619
<i>Ophrys speculum</i> Link	8.51019	40.07908
<i>Ophrys speculum</i> Link	9.43589	39.71189
<i>Ophrys speculum</i> Link	8.95782	39.72048
<i>Serapias lingua</i> L.	9.52774	39.37274
<i>Serapias lingua</i> L.	9.37496	39.55421
<i>Serapias lingua</i> L.	9.54952	39.35187
<i>Serapias lingua</i> L.	9.18028	39.44948
<i>Serapias lingua</i> L.	8.93992	39.80906
<i>Serapias lingua</i> L.	9.42741	39.63900
<i>Serapias lingua</i> L.	9.30030	39.53996
<i>Serapias lingua</i> L.	9.57646	39.57561
<i>Serapias lingua</i> L.	8.46170	39.26686
<i>Serapias lingua</i> L.	8.49392	39.60472
<i>Serapias lingua</i> L.	8.72672	40.23914
<i>Serapias lingua</i> L.	9.21085	40.17693
<i>Serapias lingua</i> L.	9.76714	40.51709
<i>Serapias lingua</i> L.	9.62275	39.62141

<i>Serapias lingua</i> L.	9.44321	39.71739
<i>Serapias lingua</i> L.	9.57016	39.62844
<i>Serapias lingua</i> L.	8.50289	40.23058
<i>Serapias lingua</i> L.	9.12481	39.85871
<i>Serapias lingua</i> L.	8.51197	40.07931
<i>Serapias lingua</i> L.	8.73608	40.16576
<i>Serapias lingua</i> L.	8.50872	40.22785
<i>Serapias lingua</i> L.	9.09155	41.10762
<i>Serapias parviflora</i> Parl.	9.37489	39.55377
<i>Serapias parviflora</i> Parl.	8.46725	39.27553
<i>Serapias parviflora</i> Parl.	9.15352	39.20449
<i>Serapias parviflora</i> Parl.	8.83161	38.93901
<i>Serapias parviflora</i> Parl.	8.49396	39.45386
<i>Serapias parviflora</i> Parl.	9.29400	39.62846
<i>Serapias parviflora</i> Parl.	9.57150	39.63613
<i>Serapias parviflora</i> Parl.	8.69955	40.23948
<i>Serapias parviflora</i> Parl.	9.14499	39.99041
<i>Serapias parviflora</i> Parl.	9.61573	39.63027
<i>Serapias parviflora</i> Parl.	9.42106	39.81184
<i>Serapias parviflora</i> Parl.	9.43699	39.72611
<i>Serapias parviflora</i> Parl.	9.54900	39.63938
<i>Serapias parviflora</i> Parl.	9.12481	39.85871
<i>Serapias parviflora</i> Parl.	8.50778	40.07525
<i>Serapias parviflora</i> Parl.	8.49751	40.26398

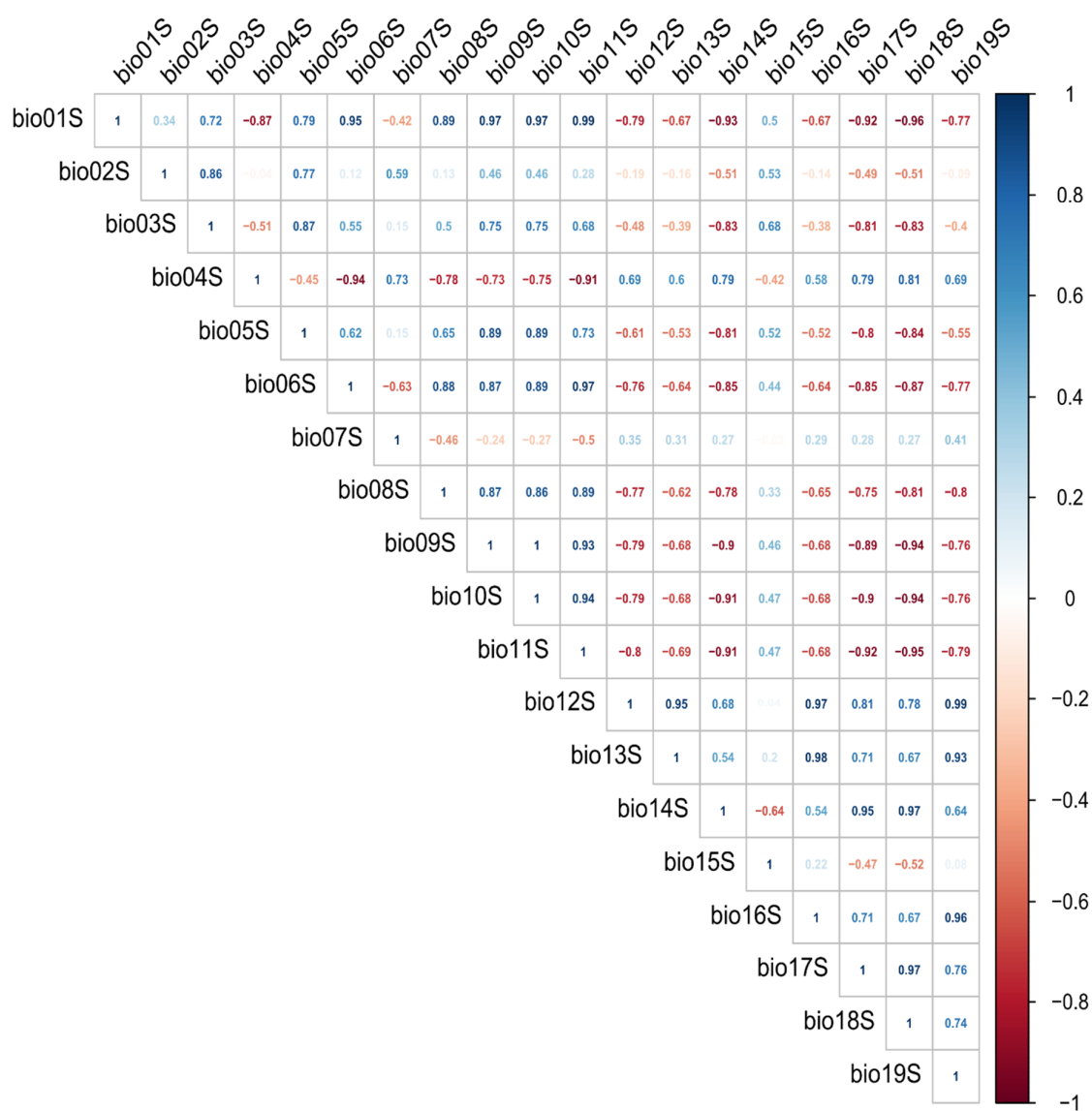
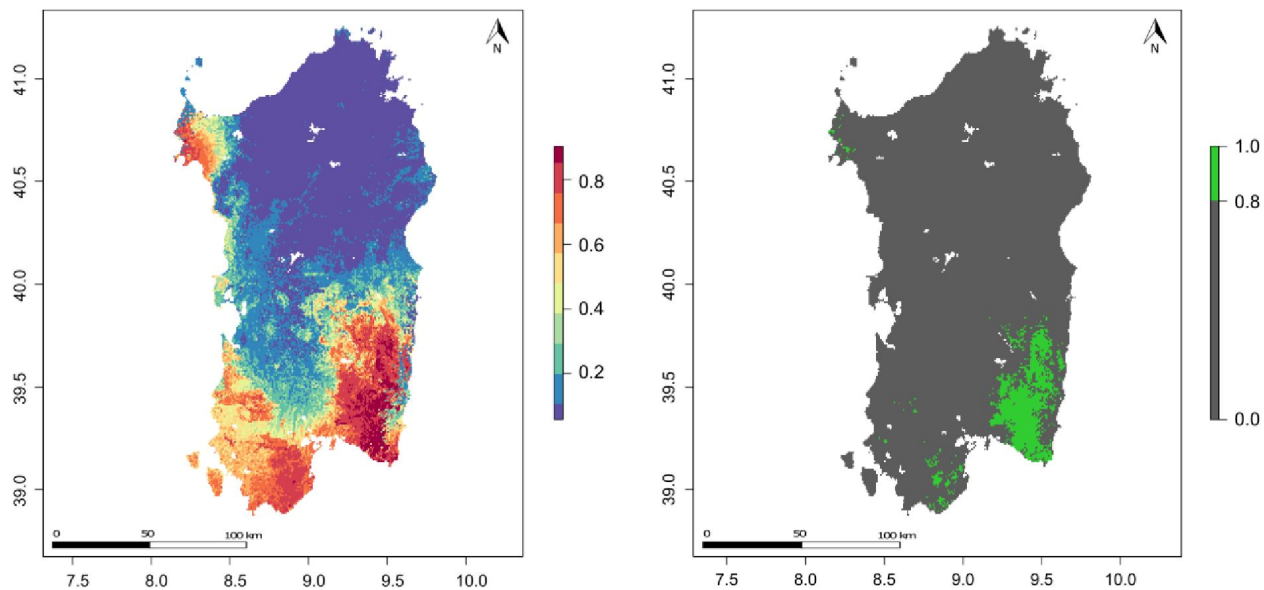


Figure S0. Correlation plot of climatic predictor variables, colour intensity indicates high rho values.

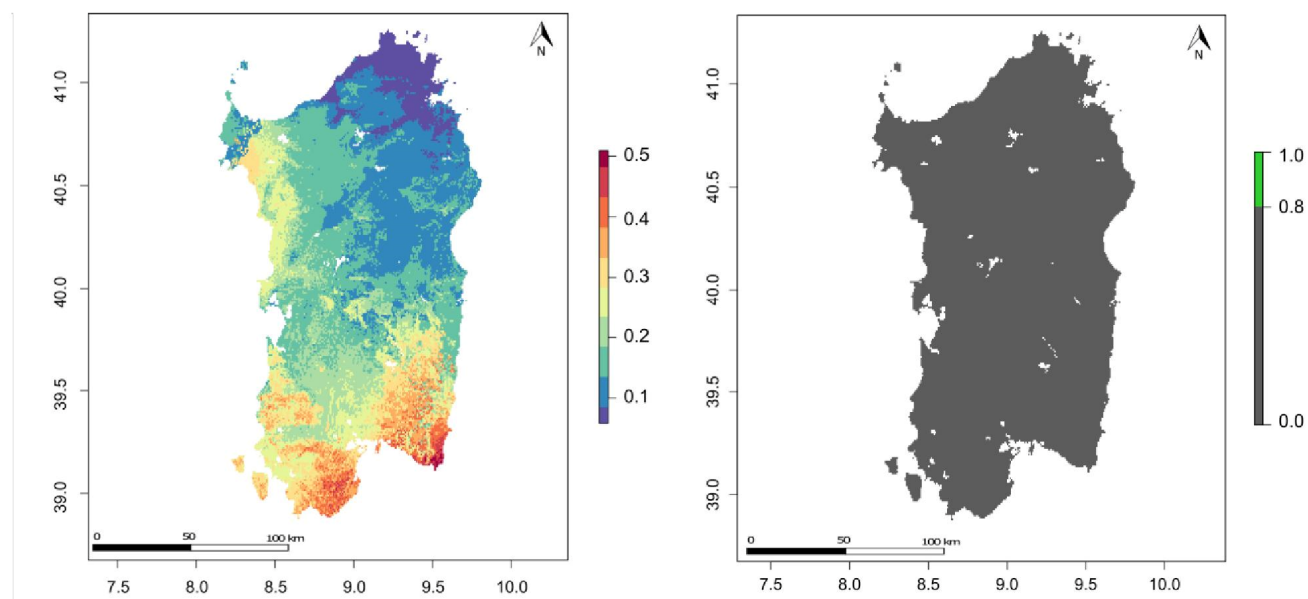
a)

A. grandiflora

Present



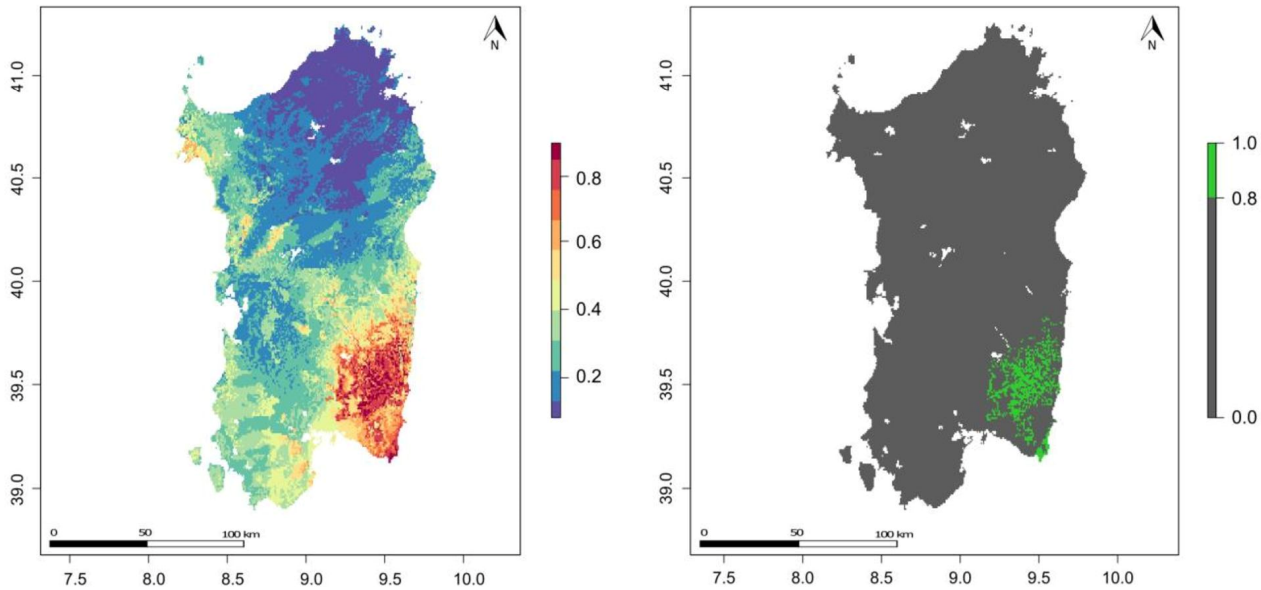
Future



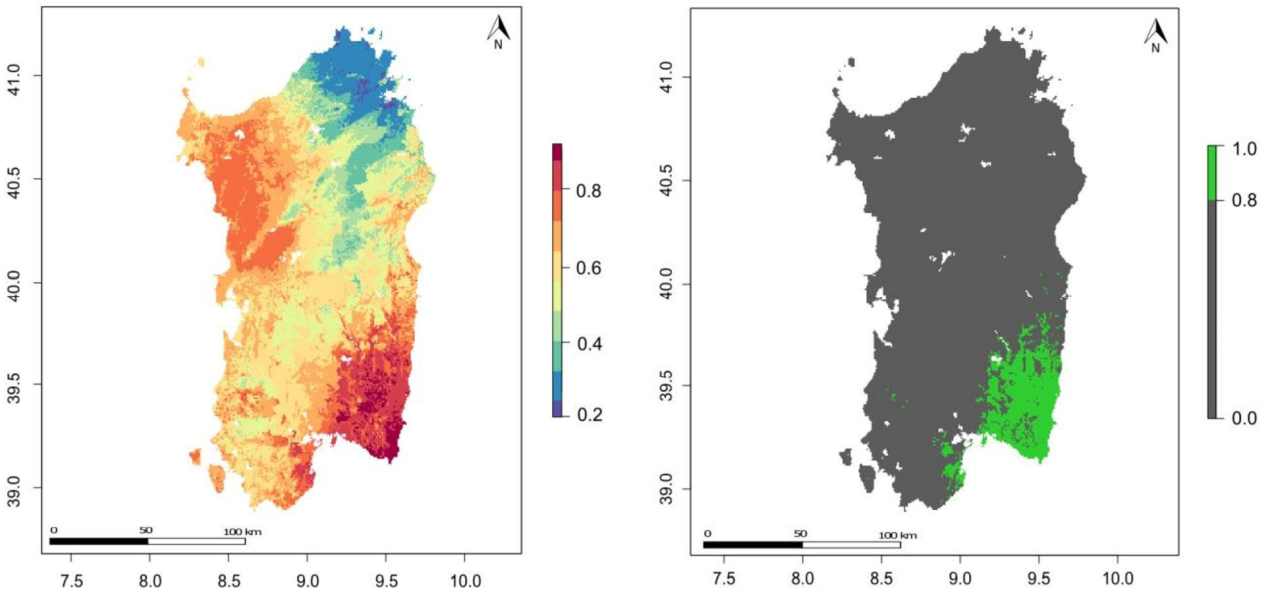
b)

A. longicornu

Present



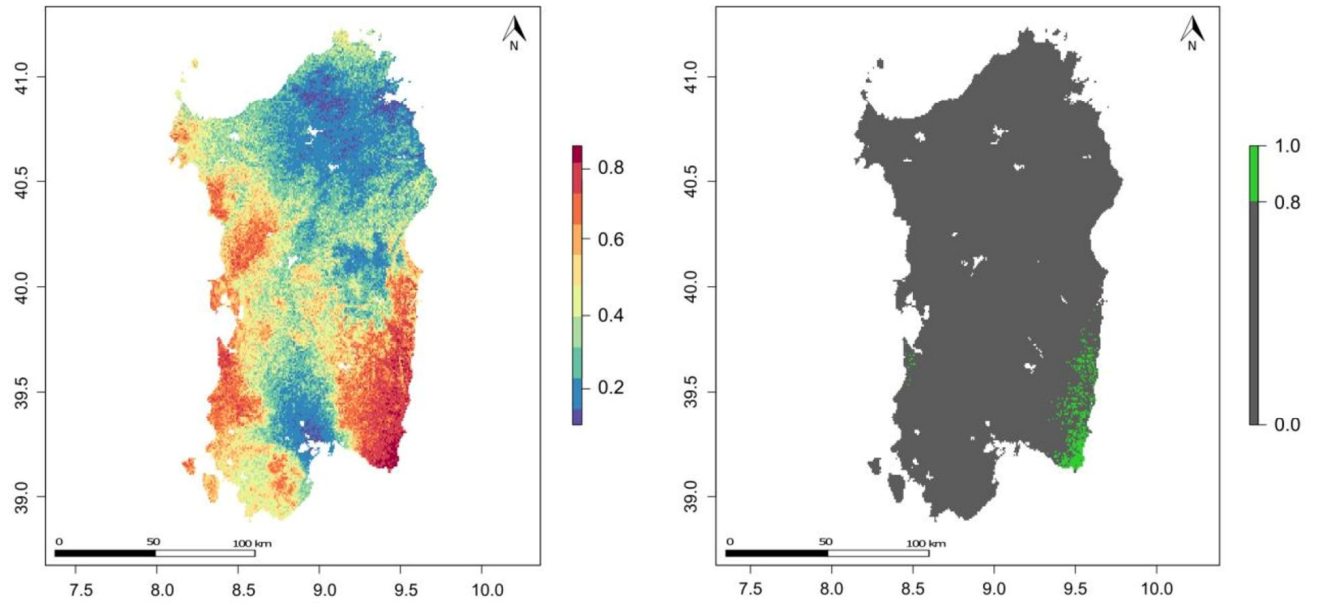
Future



c)

S. lingua

Present



Future

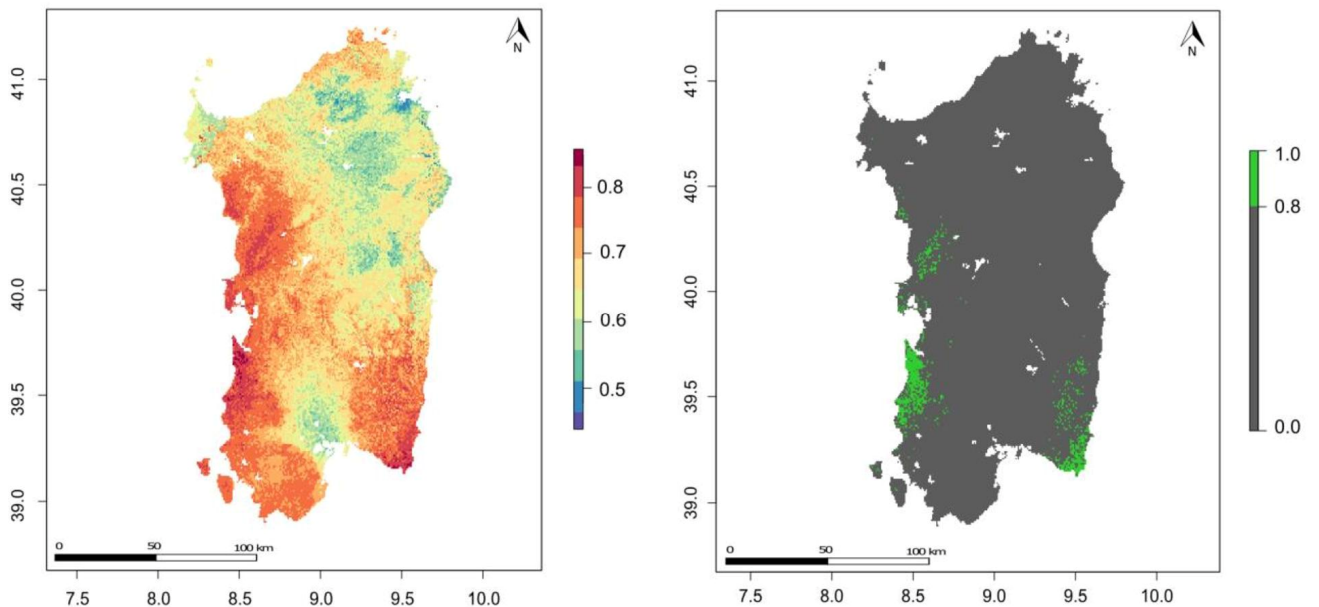
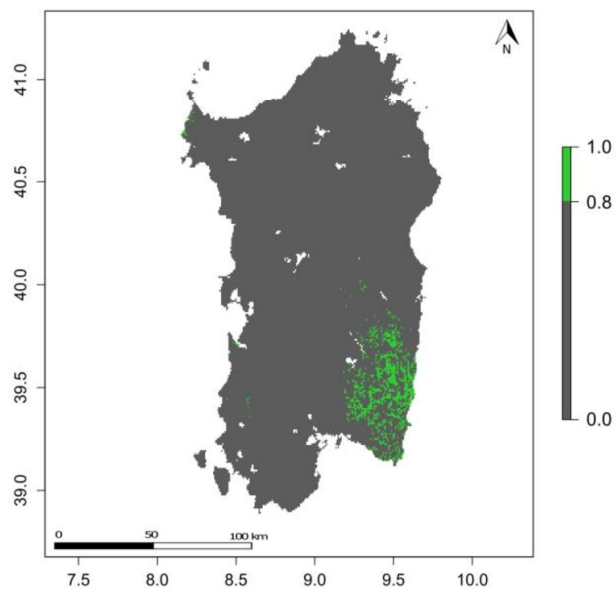
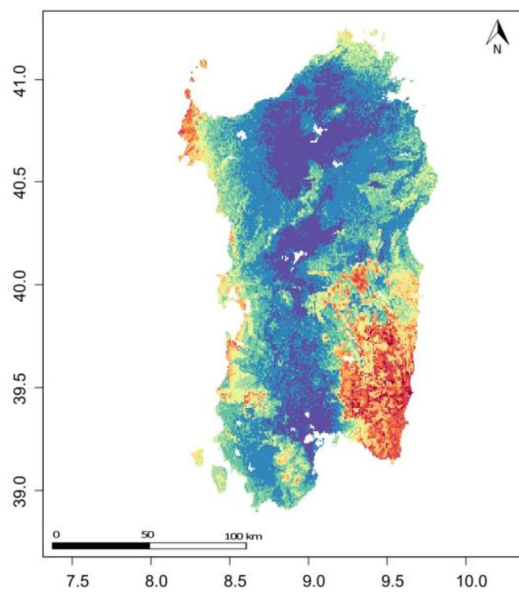


Figure S1. Suitability maps for *Anacamptis papilionacea* var. *grandiflora* (a), *A. longicornu* (b) and *Serapias lingua* (c). Left: continuous probability maps, ranging from 0- blue, minimum probability- to 1- red, maximum probability. Right: same probability maps have been catted to obtain presence- absence binary maps: probability above 0.8 is considered as potential presence (green) and under as potential absence (grey).

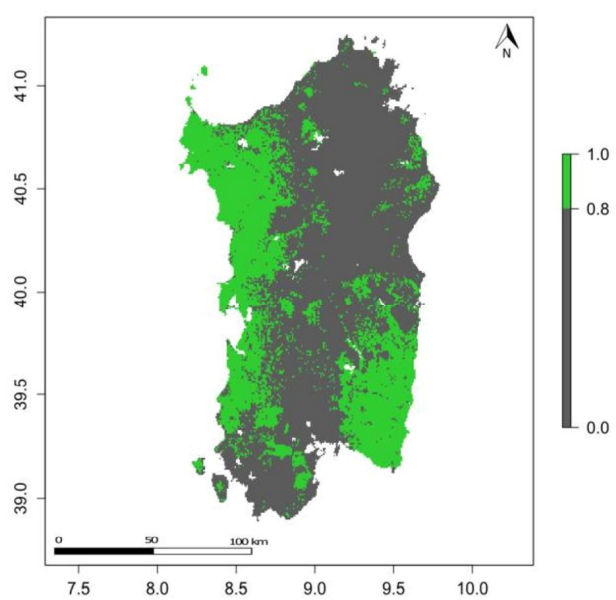
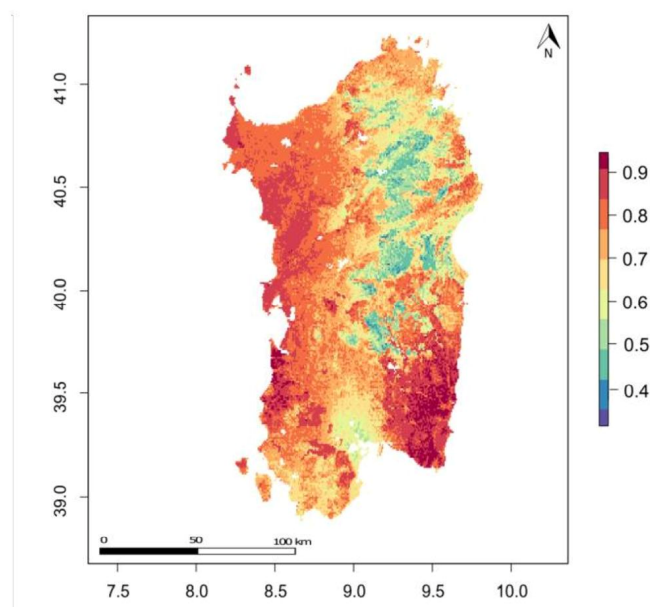
a)

A. papilionacea

Present



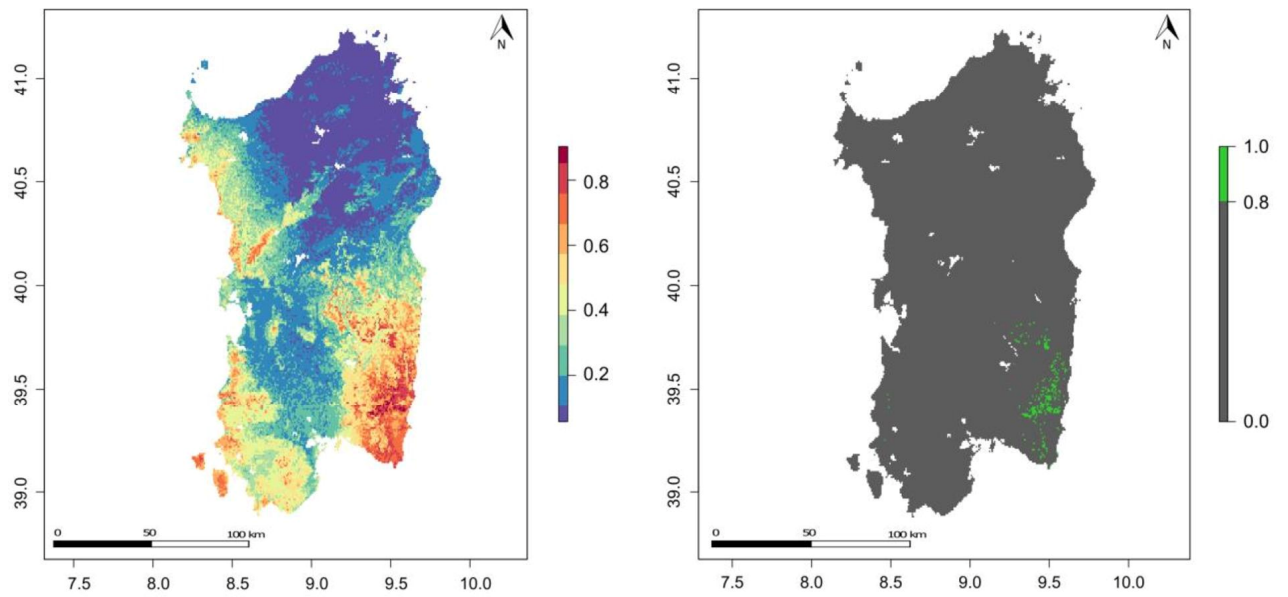
Future



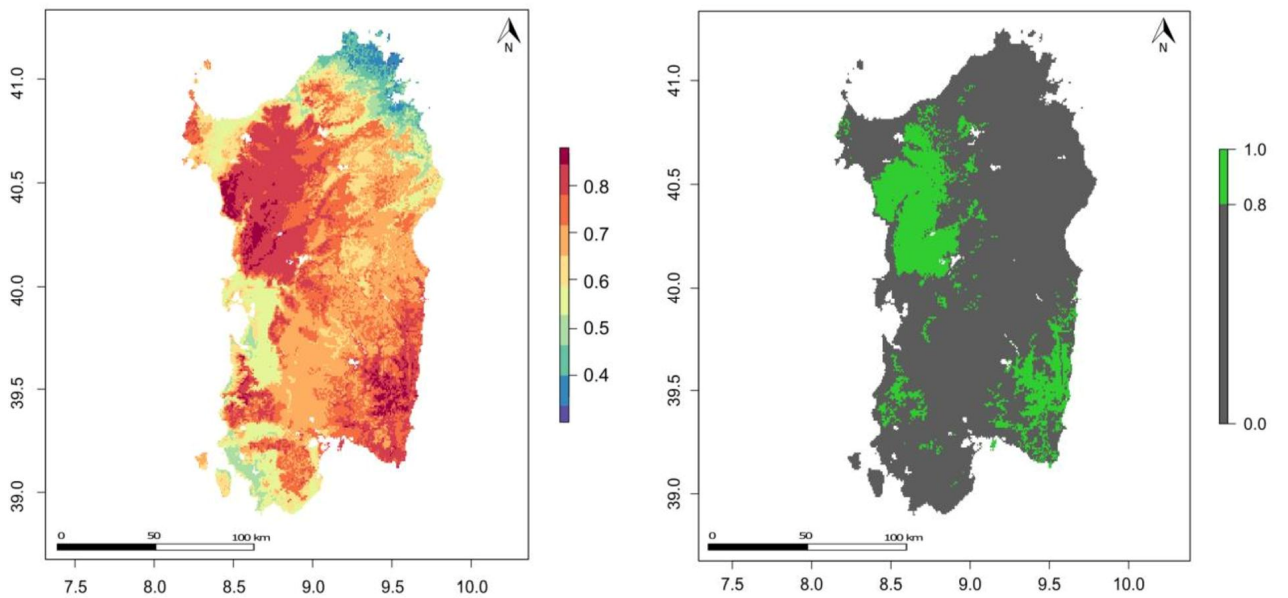
b)

S. parviflora

Present



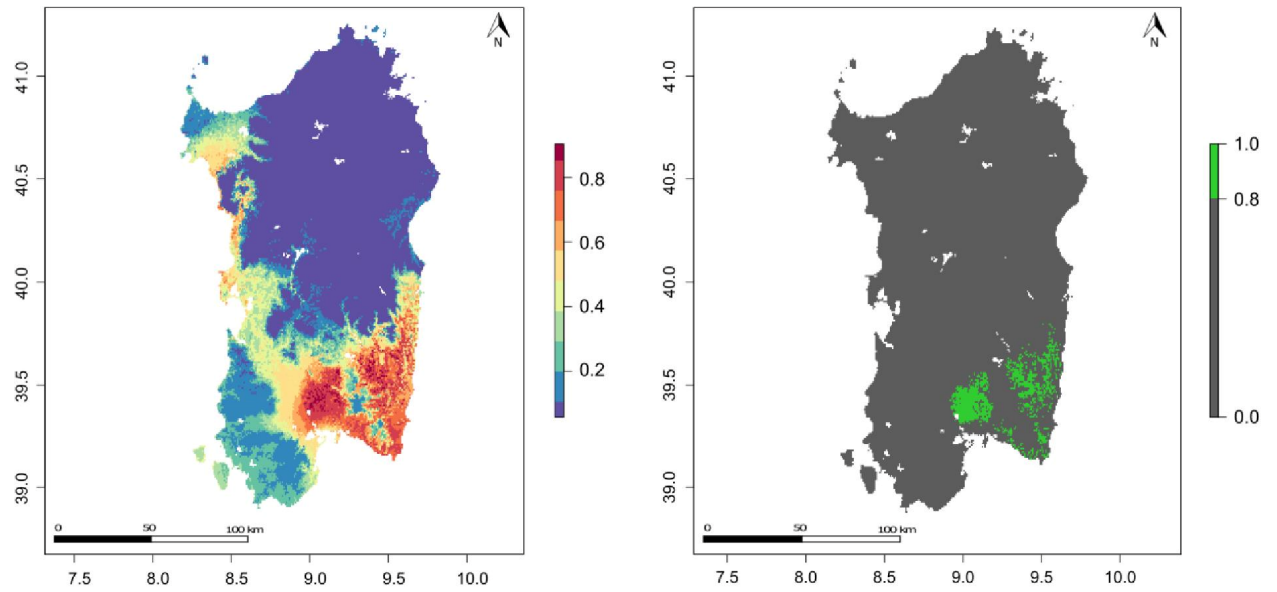
Future



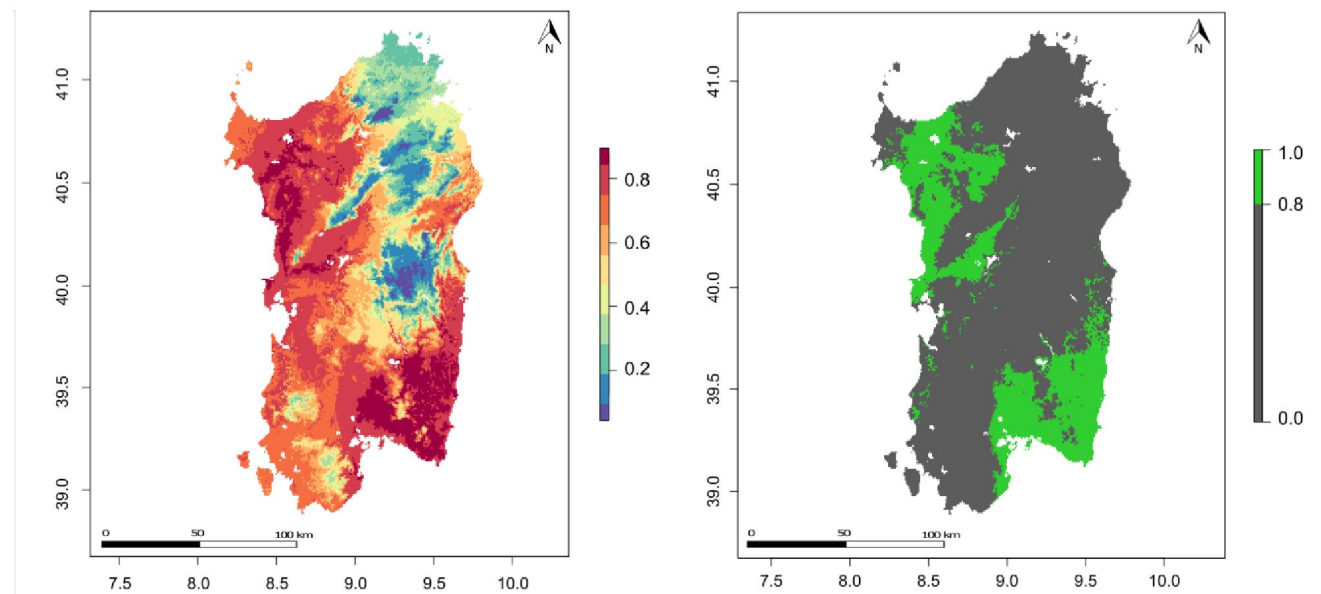
c)

O. bombyliflora

Present



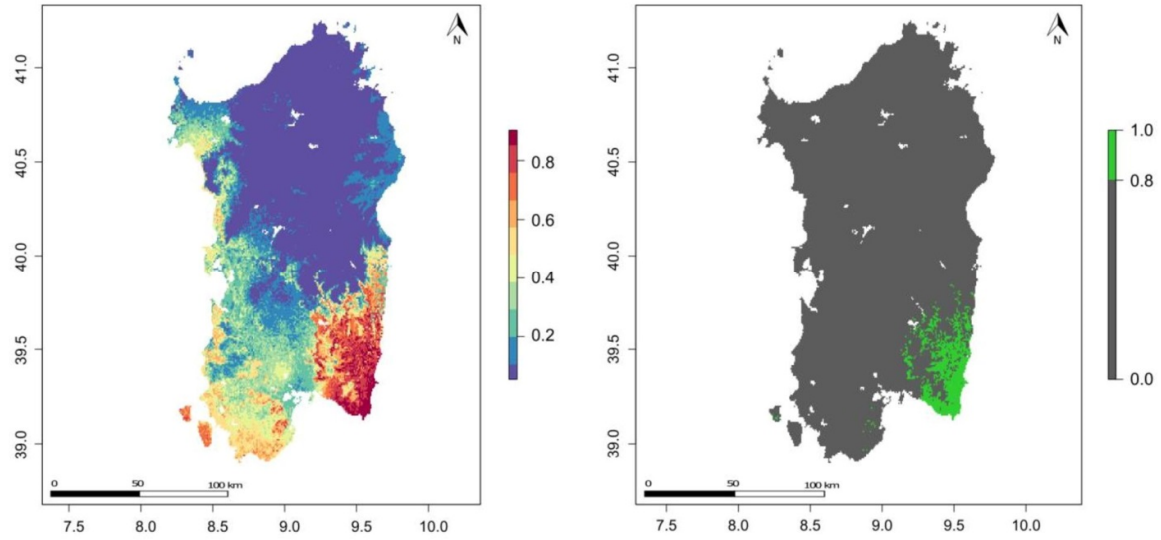
Future



d)

O. morisii

Present



Future

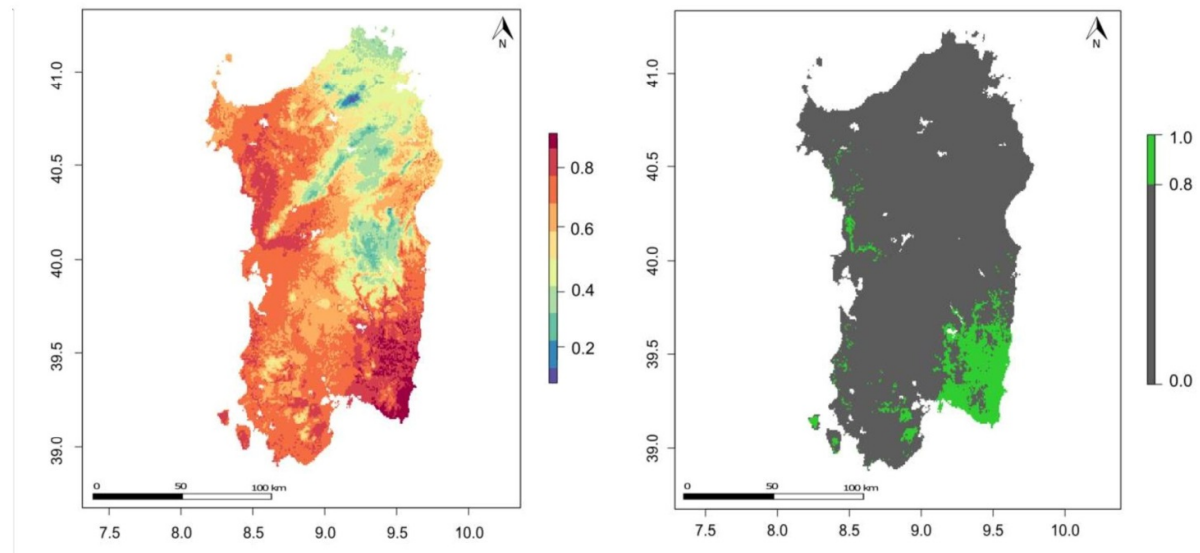
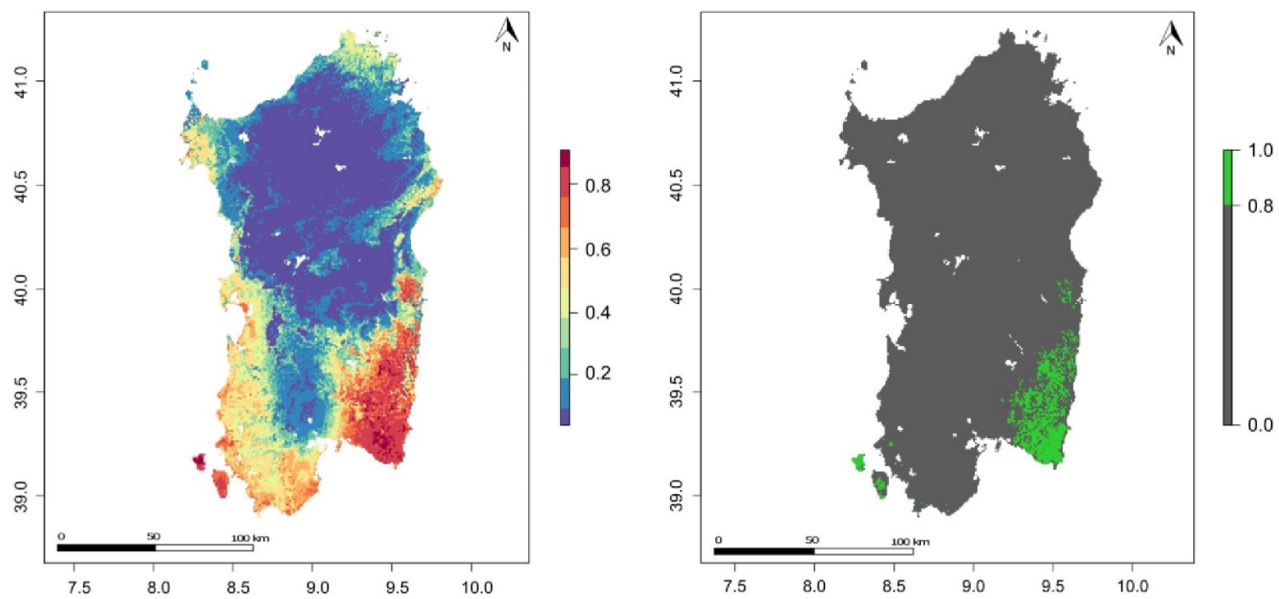


Figure S2. Suitability maps for *Anacamptis papilionacea* var. *papilionacea* (a), *Serapias parviflora* (b), *Ophrys bombyliflora* (c) and *O. morisii* (d). Left: continuous probability maps, ranging from 0- blue, minimum probability- to 1- red, maximum probability. Right: same probability maps have been catted to obtain presence- absence binary maps: probability above 0.8 is considered as potential presence (green) and under as potential absence (grey).

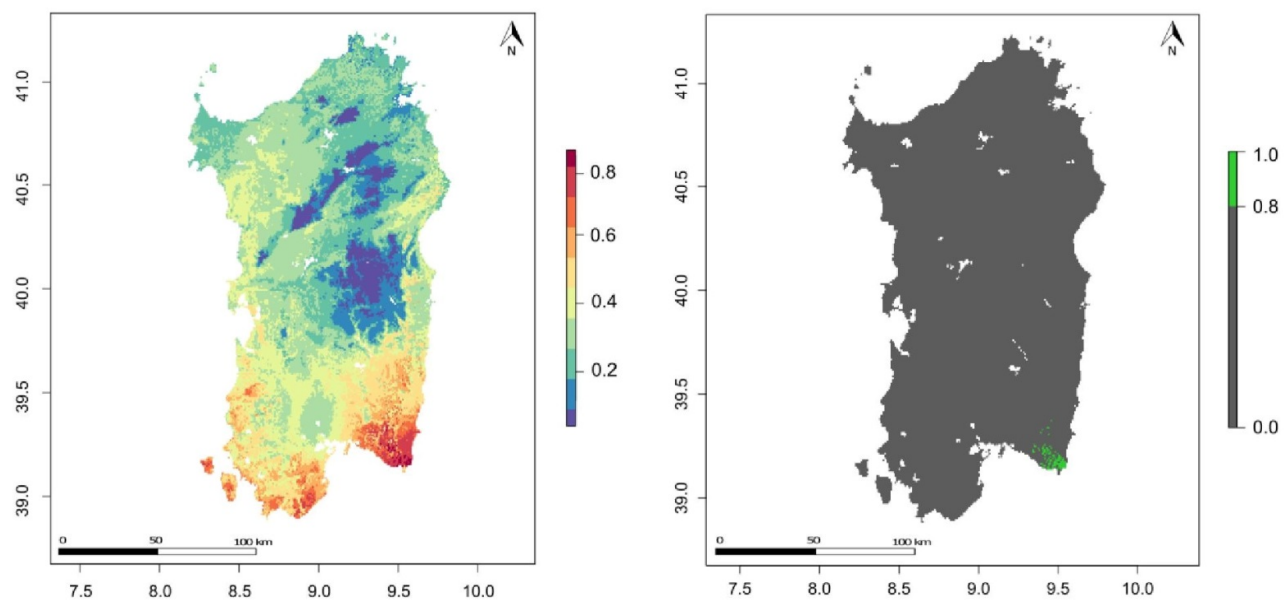
a)

O. tenthredinifera

Present



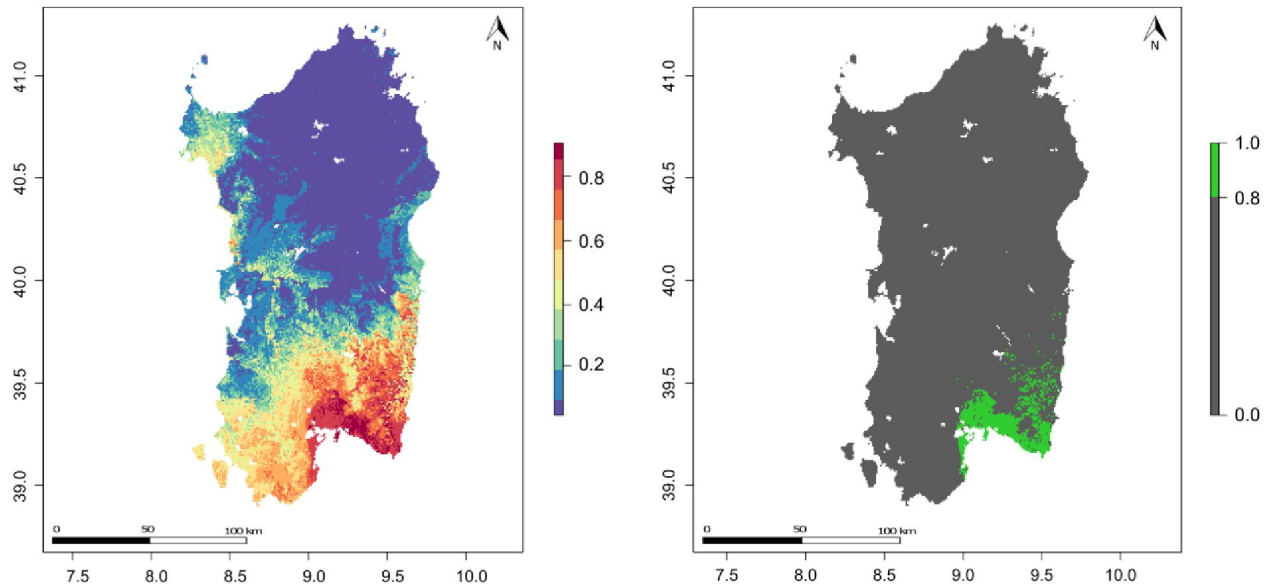
Future



b)

O. speculum

Present



Future

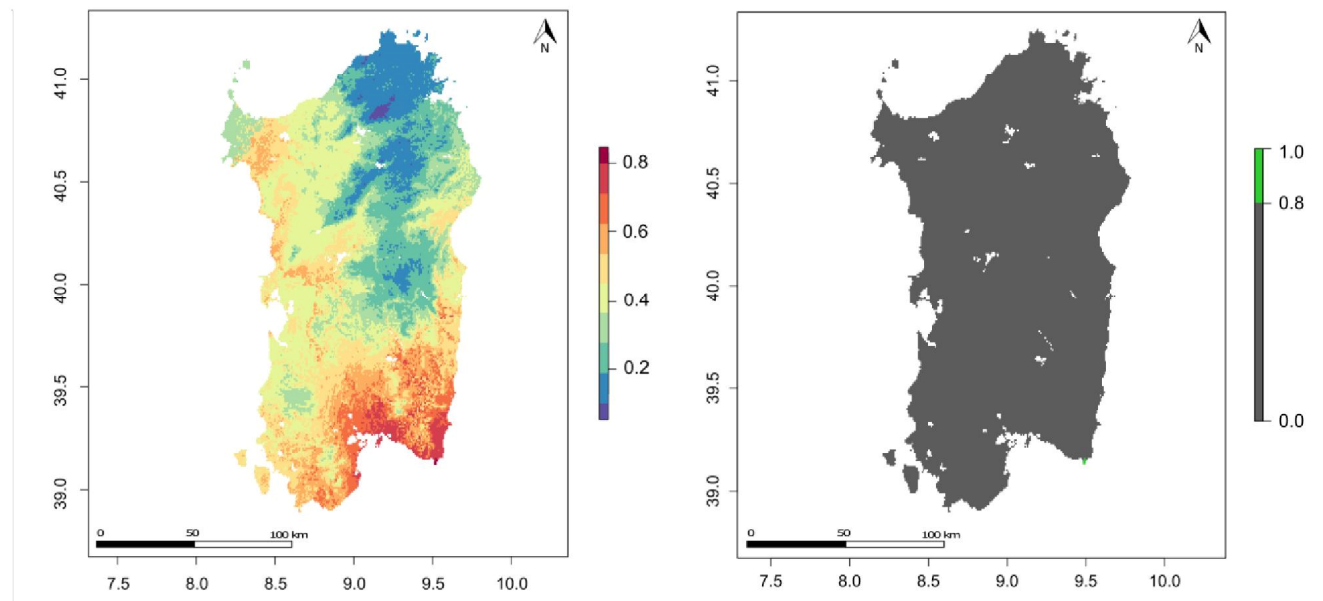


Figure S3. Suitability maps for *Ophrys tenthredinifera* (a) and *O. speculum* (b). Left: continuous probability maps, ranging from 0- blue, minimum probability- to 1- red, maximum probability. Right: same probability maps have been catted to obtain presence- absence binary maps: probability above 0.8 is considered as potential presence (green) and under as potential absence (grey).