

Supporting Information

Gene flow across secondary contact zones of the *Emys orbicularis* complex in the Western Mediterranean and evidence for extinction and re-introduction on Corsica and Sardinia

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Table S1. Mean $\ln P(D)$ values for different K s and their ΔK values. Maximum values indicated in bold and asterisked

K	Mean $\ln P(D)^a$	Standard deviation	ΔK
1	-15420.15	1.28	—
2	-14587.05	71.22	3.56
3	-14004.72	28.93	11.40
4	-13752.16	161.40	1.30
5	-13485.69	9.89	14.76*
6	-13363.08	29.36	2.83
7	-13275.11	47.75	1.77
8	-13150.51	17.51	3.63
9	-13071.90	42.26	1.46
10	-12972.06	21.93	2.47
11	-12912.06	18.24	2.18
12	-12843.93	21.13	2.25
13	-12793.15	20.86	2.02
14	-12723.18	18.07	3.78
15	-12716.27	40.03	1.85
16	-12668.64	25.45	2.57
17	-12659.27	27.81	2.06
18	-12642.16	26.31	2.75
19	-12647.07	48.98	1.54
20	-12642.47	48.80	1.72
21	-12575.03	27.49	2.56
22	-12573.85	41.96	1.83
23	-12552.60	33.73	2.28
24	-12529.32	44.64	1.72
25	-12519.86	18.60	1.11
26	-12510.76	38.35	1.17
27	-12485.48	53.88	1.15
28	-12484.84	67.64	1.53
29	-12448.98*	70.79	2.28
30	-12492.26	67.99	—

^aArithmetic mean of 10 independent runs for each K . Note, no ΔK value is defined for the first and the last K as ΔK indicates the rate of change in the log probability of data between successive K values (Evanno et al. 2005).

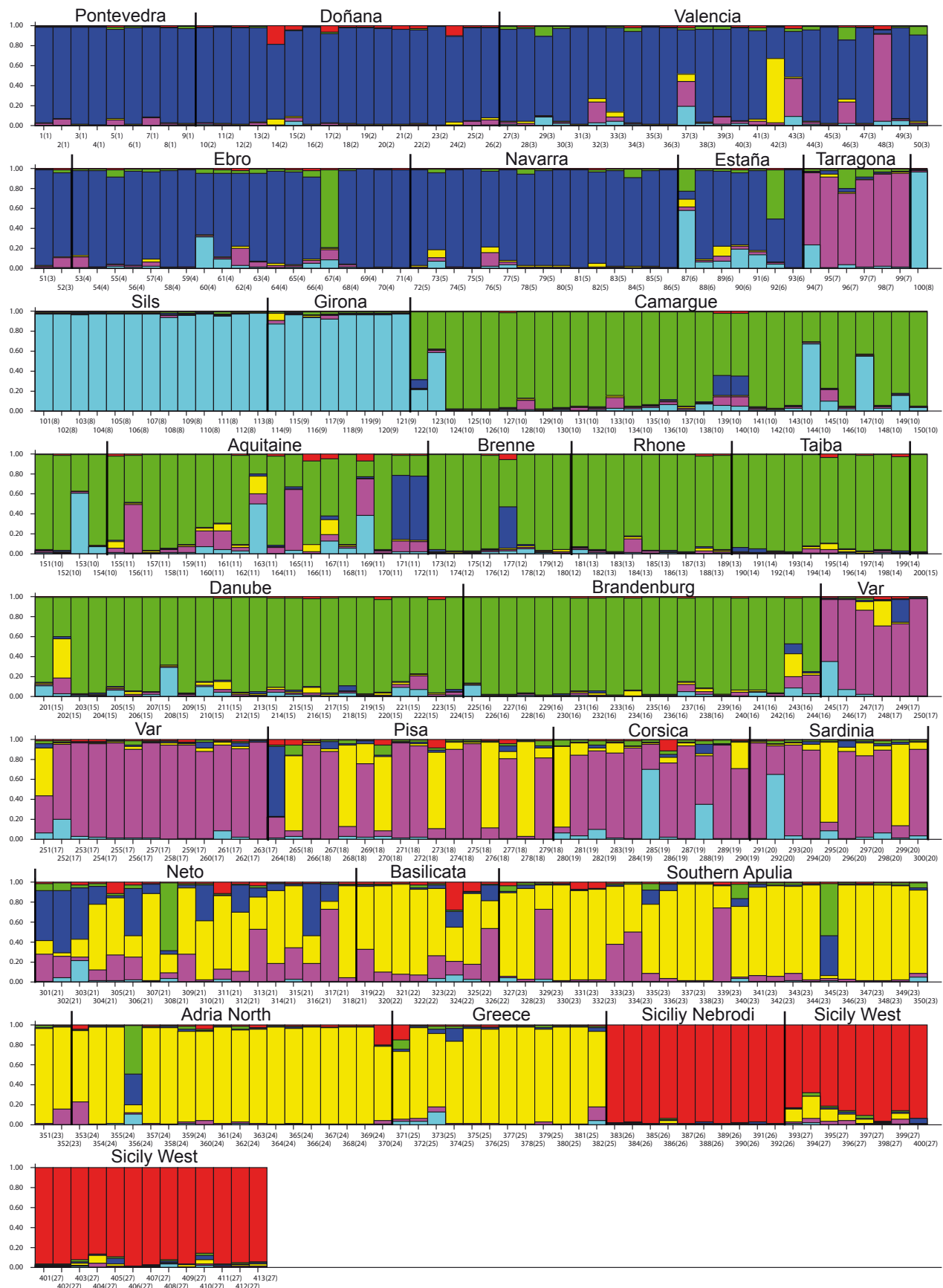


Fig. S1. Individual STRUCTURE barplots based on variation of eight unlinked microsatellite loci ($K = 6$). Colours differ from other figures. Note mixed ancestry of the populations representing the subspecies *Emys orbicularis galloitalica* (Var, Pisa), *E. o. lanzai* (Corsica), and *E. o. capolon-goi* (Sardinia). The sixth cluster is formed by two populations from the Pyrenean contact zone (Sils, Girona). Membership proportions shown from run ($n = 10$) with best likelihood value

Table S2. Pairwise F_{ST} values for microsatellite data of the 27 *a priori* defined populations of *Emys orbicularis* and *E. trinacris*. Bold numbers stand for the individual populations as outlined in Fig. 1 and Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
1	—																											
2	0.07	—																										
3	0.10	0.12	—																									
4	0.10	0.10	0.03	—																								
5	0.22	0.20	0.14	0.10	—																							
6	0.19	0.21	0.14	0.11	0.22	—																						
7	0.32	0.32	0.17	0.19	0.27	0.25	—																					
8	0.36	0.35	0.20	0.22	0.30	0.23	0.19	—																				
9	0.48	0.48	0.31	0.33	0.42	0.37	0.35	0.29	—																			
10	0.29	0.30	0.17	0.18	0.26	0.21	0.20	0.16	0.22	—																		
11	0.21	0.21	0.11	0.12	0.18	0.13	0.08	0.12	0.25	0.10	—																	
12	0.26	0.28	0.16	0.18	0.24	0.21	0.20	0.19	0.33	0.10	0.07	—																
13	0.31	0.33	0.18	0.19	0.26	0.18	0.16	0.16	0.32	0.13	0.08	0.11	—															
14	0.24	0.29	0.16	0.19	0.25	0.22	0.19	0.22	0.32	0.16	0.09	0.13	0.14	—														
15	0.21	0.22	0.14	0.13	0.18	0.14	0.13	0.13	0.22	0.09	0.04	0.07	0.09	0.09	—													
16	0.23	0.26	0.14	0.15	0.22	0.16	0.16	0.15	0.25	0.10	0.04	0.08	0.07	0.09	0.02	—												
17	0.26	0.28	0.13	0.17	0.23	0.19	0.11	0.12	0.22	0.12	0.08	0.17	0.13	0.15	0.13	0.13	—											
18	0.21	0.23	0.13	0.14	0.18	0.13	0.10	0.14	0.24	0.13	0.05	0.14	0.11	0.13	0.08	0.09	0.04	—										
19	0.28	0.29	0.13	0.16	0.23	0.17	0.08	0.11	0.27	0.14	0.06	0.16	0.12	0.14	0.10	0.09	0.05	0.03	—									
20	0.31	0.31	0.14	0.18	0.22	0.20	0.09	0.11	0.30	0.15	0.07	0.18	0.16	0.17	0.13	0.14	0.04	0.05	0.02	—								
21	0.20	0.20	0.10	0.13	0.16	0.19	0.18	0.21	0.30	0.19	0.11	0.16	0.20	0.13	0.12	0.14	0.14	0.10	0.13	0.12	—							
22	0.26	0.26	0.16	0.18	0.21	0.22	0.21	0.23	0.35	0.20	0.12	0.16	0.21	0.19	0.13	0.16	0.16	0.10	0.12	0.14	0.09	—						
23	0.21	0.22	0.13	0.15	0.17	0.18	0.15	0.18	0.24	0.15	0.08	0.12	0.15	0.11	0.08	0.08	0.09	0.05	0.09	0.10	0.06	0.07	—					
24	0.28	0.27	0.20	0.21	0.25	0.23	0.22	0.25	0.36	0.22	0.13	0.19	0.22	0.18	0.13	0.15	0.16	0.10	0.16	0.19	0.16	0.15	0.07	—				
25	0.30	0.29	0.18	0.20	0.20	0.25	0.24	0.24	0.34	0.22	0.14	0.20	0.24	0.18	0.16	0.17	0.17	0.11	0.17	0.18	0.14	0.16	0.07	0.15	—			
26	0.34	0.34	0.25	0.29	0.35	0.33	0.35	0.36	0.48	0.31	0.23	0.29	0.32	0.28	0.23	0.25	0.27	0.24	0.27	0.32	0.24	0.20	0.20	0.23	0.30	—		
27	0.25	0.25	0.19	0.20	0.27	0.24	0.25	0.27	0.36	0.23	0.15	0.20	0.24	0.20	0.16	0.18	0.19	0.16	0.20	0.22	0.17	0.16	0.14	0.15	0.22	0.07	—	

Table S3. Pairwise Rho_{ST} values for microsatellite data of the 27 *a priori* defined populations of *Emys orbicularis* and *E. trinacris*. Bold numbers stand for the individual populations as outlined in Fig. 1 and Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	—																										
2	0.07	—																									
3	0.07	0.20	—																								
4	0.05	0.12	0.00	—																							
5	0.41	0.30	0.39	0.30	—																						
6	0.20	0.18	0.12	0.07	0.18	—																					
7	0.57	0.62	0.33	0.35	0.65	0.37	—																				
8	0.42	0.47	0.21	0.23	0.53	0.24	0.01	—																			
9	0.48	0.58	0.17	0.25	0.70	0.32	0.44	0.17	—																		
10	0.13	0.16	0.05	0.07	0.22	0.09	0.05	0.04	0.01	—																	
11	0.46	0.53	0.22	0.27	0.59	0.29	0.08	0.07	0.19	0.03	—																
12	0.40	0.51	0.16	0.23	0.64	0.30	0.35	0.20	0.08	0.00	0.13	—															
13	0.46	0.56	0.22	0.29	0.68	0.34	0.44	0.26	0.23	0.01	0.20	0.06	—														
14	0.47	0.59	0.21	0.30	0.70	0.41	0.34	0.22	0.33	0.04	0.11	0.18	0.37	—													
15	0.44	0.55	0.21	0.28	0.67	0.35	0.41	0.25	0.16	0.01	0.13	0.03	0.10	0.21	—												
16	0.43	0.54	0.19	0.27	0.67	0.34	0.43	0.26	0.15	0.01	0.16	-0.01	0.09	0.19	0.03	—											
17	0.46	0.53	0.21	0.23	0.54	0.28	0.08	0.10	0.30	0.04	0.08	0.26	0.34	0.22	0.31	0.32	—										
18	0.41	0.48	0.17	0.20	0.52	0.24	0.14	0.09	0.19	0.04	0.13	0.24	0.29	0.27	0.27	0.30	0.05	—									
19	0.45	0.52	0.18	0.22	0.57	0.28	0.10	0.07	0.21	0.03	0.09	0.22	0.34	0.20	0.27	0.29	0.01	0.01	—								
20	0.58	0.64	0.34	0.35	0.62	0.36	0.12	0.16	0.49	0.06	0.15	0.40	0.49	0.38	0.45	0.46	0.01	0.12	0.09	—							
21	0.37	0.45	0.12	0.14	0.49	0.17	0.19	0.12	0.17	0.03	0.12	0.18	0.23	0.26	0.23	0.24	0.05	0.01	0.04	0.13	—						
22	0.48	0.53	0.23	0.24	0.55	0.26	0.22	0.15	0.30	0.04	0.19	0.32	0.37	0.40	0.34	0.39	0.10	-0.02	0.05	0.16	0.03	—					
23	0.31	0.33	0.13	0.11	0.31	0.08	0.36	0.23	0.32	0.08	0.32	0.33	0.39	0.43	0.41	0.38	0.21	0.15	0.21	0.30	0.10	0.17	—				
24	0.44	0.48	0.22	0.22	0.45	0.19	0.50	0.34	0.46	0.09	0.40	0.45	0.49	0.54	0.49	0.49	0.29	0.17	0.29	0.38	0.14	0.17	0.04	—			
25	0.57	0.54	0.45	0.40	0.29	0.30	0.52	0.44	0.65	0.20	0.52	0.61	0.64	0.66	0.65	0.65	0.41	0.39	0.46	0.43	0.39	0.38	0.27	0.32	—		
26	0.42	0.49	0.25	0.26	0.63	0.43	0.49	0.35	0.55	0.10	0.45	0.51	0.54	0.55	0.51	0.56	0.40	0.26	0.34	0.56	0.33	0.32	0.40	0.49	0.60	—	
27	0.38	0.49	0.17	0.19	0.59	0.37	0.45	0.33	0.49	0.09	0.38	0.44	0.45	0.49	0.46	0.49	0.29	0.17	0.28	0.46	0.19	0.23	0.28	0.34	0.52	0.14	—

Table S4. Pairwise F_{ST} values for mtDNA data of the 27 *a priori* defined populations of *Emys orbicularis* and *E. trinacris*. Bold numbers stand for the individual populations as outlined in Fig. 1 and Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	—																										
2	0.01	—																									
3	0.44	0.48	—																								
4	0.51	0.55	-0.01	—																							
5	0.85	0.83	0.73	0.74	—																						
6	0.66	0.68	0.60	0.58	0.12	—																					
7	0.77	0.77	0.13	0.03	1.00	0.85	—																				
8	0.76	0.76	0.66	0.65	0.01	-0.03	0.89	—																			
9	0.79	0.79	0.69	0.69	0.00	0.02	1.00	-0.05	—																		
10	0.53	0.56	0.28	0.21	0.38	0.23	0.33	0.27	0.32	—																	
11	0.52	0.56	0.53	0.51	0.12	-0.02	0.67	0.05	0.06	0.21	—																
12	0.79	0.79	0.69	0.69	0.00	0.02	1.00	-0.05	0.00	0.32	0.06	—															
13	0.69	0.71	0.63	0.62	0.06	-0.06	0.87	-0.04	-0.01	0.26	0.00	0.00	—														
14	0.82	0.80	0.70	0.70	0.00	0.05	1.00	-0.03	0.00	0.34	0.08	0.00	0.01	—													
15	0.73	0.74	0.67	0.66	0.05	-0.02	0.83	0.00	0.00	0.31	0.05	0.00	0.00	0.02	—												
16	0.88	0.85	0.76	0.78	1.00	0.93	1.00	0.94	1.00	0.70	0.77	1.00	0.93	1.00	0.88	—											
17	0.87	0.85	0.24	0.14	1.00	0.92	0.00	0.93	1.00	0.43	0.77	1.00	0.93	1.00	0.88	1.00	—										
18	0.86	0.83	0.23	0.13	1.00	0.91	0.00	0.93	1.00	0.42	0.75	1.00	0.92	1.00	0.87	1.00	0.00	—									
19	0.82	0.81	0.19	0.09	1.00	0.89	0.00	0.91	1.00	0.38	0.71	1.00	0.90	1.00	0.85	1.00	0.00	0.00	—								
20	0.82	0.80	0.18	0.08	1.00	0.88	0.00	0.91	1.00	0.37	0.71	1.00	0.89	1.00	0.85	1.00	0.00	0.00	0.00	—							
21	0.38	0.44	0.35	0.33	0.58	0.40	0.42	0.50	0.51	0.33	0.37	0.51	0.44	0.53	0.52	0.62	0.56	0.54	0.49	0.48	—						
22	0.68	0.70	0.09	-0.01	0.91	0.73	-0.04	0.80	0.88	0.28	0.60	0.88	0.76	0.89	0.77	0.93	0.12	0.09	0.04	0.03	0.34	—					
23	0.45	0.50	0.44	0.43	0.62	0.47	0.53	0.56	0.56	0.41	0.43	0.56	0.50	0.58	0.56	0.65	0.63	0.61	0.57	0.57	0.26	0.47	—				
24	0.87	0.84	0.75	0.77	1.00	0.92	1.00	0.94	1.00	0.69	0.76	1.00	0.93	1.00	0.87	1.00	1.00	1.00	1.00	1.00	1.00	0.60	0.92	0.46	—		
25	0.41	0.48	0.43	0.41	0.65	0.44	0.53	0.57	0.57	0.39	0.40	0.57	0.49	0.60	0.57	0.70	0.69	0.66	0.61	0.60	0.22	0.46	0.24	0.56	—		
26	0.82	0.80	0.70	0.72	1.00	0.88	1.00	0.92	1.00	0.64	0.71	1.00	0.89	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	0.53	0.89	0.58	1.00	0.60	—
27	0.81	0.80	0.72	0.73	0.94	0.85	0.93	0.89	0.93	0.66	0.73	0.93	0.87	0.94	0.84	0.95	0.95	0.95	0.94	0.94	0.57	0.86	0.61	0.95	0.64	0.94	—

Appendix S1. List of samples, their mitochondrial haplotypes and coordinates of *a priori* defined populations. IPMB = collection number, Institute of Pharmacy and Molecular Biotechnology, Heidelberg University. GenBank accession numbers of haplotypes are IIa: AJ131411, IIb: AJ131412, IIc: AJ131413, IIg: AY652870, IIh: AY652888, Iii: AY652882, IIIa: AJ131415, IIIc: AY652890, IIIe: AM230633, IVa: AJ131417, IVb: AJ131418, IVc: AJ131419, IVd: AY652871, IVg: AY652873, IVh: AY652874, IVi: AY652885, Va: AJ131420, Vb: AY652875, Vc: AY652876, Vd: AM269887, VIa: AJ131421, VIb: AJ131422, VIc: AJ131424, VIe: AY652877 (Lenk et al. 1999; Fritz et al. 2005b, 2006a, 2007)

IPMB	mtDNA haplotype	Population	Latitude	Longitude
12538	VIa	Pontevedra	42.166	-8.616
12539	VIa	Pontevedra	42.166	-8.616
12542	VIa	Pontevedra	42.166	-8.616
12543	VIa	Pontevedra	42.166	-8.616
12544	VIa	Pontevedra	42.166	-8.616
12545	VIa	Pontevedra	42.166	-8.616
12540	VIe	Pontevedra	42.166	-8.616
12541	VIe	Pontevedra	42.166	-8.616
44373	VIa	Pontevedra	42.166	-8.616
4777	VIb	Doñana	37.03	-6.385
4778	VIc	Doñana	37.03	-6.385
4779	VIc	Doñana	37.03	-6.385
4798	VIa	Doñana	37.03	-6.385
4799	VIa	Doñana	37.03	-6.385
4800	VIa	Doñana	37.03	-6.385
4801	VIa	Doñana	37.03	-6.385
4802	VIa	Doñana	37.03	-6.385
4803	VIa	Doñana	37.03	-6.385
4804	VIa	Doñana	37.03	-6.385
4805	VIa	Doñana	37.03	-6.385
4806	VIa	Doñana	37.03	-6.385
4807	VIa	Doñana	37.03	-6.385
4808	VIa	Doñana	37.03	-6.385
4809	VIa	Doñana	37.03	-6.385
4810	VIa	Doñana	37.03	-6.385
4811	VIa	Doñana	37.03	-6.385
4878	VIa	Valencia	39.334	-0.36
4893	Va	Valencia	39.334	-0.36
4894	Va	Valencia	39.334	-0.36
4895	Va	Valencia	39.334	-0.36
4896	Va	Valencia	39.334	-0.36
4897	Va	Valencia	39.334	-0.36
4898	Va	Valencia	39.334	-0.36
4899	Va	Valencia	39.334	-0.36
4900	Va	Valencia	39.334	-0.36

4901	Va	Valencia	39.334	-0.36
4902	Va	Valencia	39.334	-0.36
4903	Va	Valencia	39.334	-0.36
4904	Va	Valencia	39.334	-0.36
4905	Va	Valencia	39.334	-0.36
4906	Va	Valencia	39.334	-0.36
4907	Va	Valencia	39.334	-0.36
4908	Va	Valencia	39.334	-0.36
4909	Va	Valencia	39.334	-0.36
4910	VIa	Valencia	39.334	-0.36
4911	VIa	Valencia	39.334	-0.36
4912	VIa	Valencia	39.334	-0.36
4913	VIa	Valencia	39.334	-0.36
4914	VIa	Valencia	39.334	-0.36
4915	VIa	Valencia	39.334	-0.36
4916	VIa	Valencia	39.334	-0.36
4917	Va	Valencia	39.334	-0.36
4812	IIa	Ebro	40.705	0.774
4813	Va	Ebro	40.705	0.774
4814	Va	Ebro	40.705	0.774
4815	Va	Ebro	40.705	0.774
4816	Va	Ebro	40.705	0.774
4817	Va	Ebro	40.705	0.774
4818	Va	Ebro	40.705	0.774
4819	Va	Ebro	40.705	0.774
4820	Va	Ebro	40.705	0.774
4821	Va	Ebro	40.705	0.774
4822	Va	Ebro	40.705	0.774
4823	Va	Ebro	40.705	0.774
4824	Va	Ebro	40.705	0.774
4825	Va	Ebro	40.705	0.774
4826	Va	Ebro	40.705	0.774
4828	VIa	Ebro	40.705	0.774
4829	VIa	Ebro	40.705	0.774
4830	VIa	Ebro	40.705	0.774
4831	VIId	Ebro	40.705	0.774
44358	IIa	Navarra	42.283	-1.75
44359	IIa	Navarra	42.283	-1.75
44360	IIa	Navarra	42.283	-1.75
44361	IIa	Navarra	42.283	-1.75
44362	IIa	Navarra	42.283	-1.75
44363	IIa	Navarra	42.283	-1.75
44364	IIa	Navarra	42.283	-1.75
44365	IIa	Navarra	42.283	-1.75
44366	IIa	Navarra	42.283	-1.75
44367	IIa	Navarra	42.283	-1.75
44368	IIa	Navarra	42.283	-1.75
44369	IIa	Navarra	42.283	-1.75
44370	IIa	Navarra	42.283	-1.75
44371	IIa	Navarra	42.283	-1.75
44372	IIa	Navarra	42.283	-1.75

4832	Ila	Estaña	42.058	0.551
4833	Ila	Estaña	42.058	0.551
4834	Ila	Estaña	42.058	0.551
4835	Ila	Estaña	42.058	0.551
4836	Ila	Estaña	42.058	0.551
4837	Ila	Estaña	42.058	0.551
4838	VIId	Estaña	42.058	0.551
4887	Va	Tarragona	41.12	1.243
4888	Va	Tarragona	41.12	1.243
4889	Va	Tarragona	41.12	1.243
4890	Va	Tarragona	41.12	1.243
4891	Va	Tarragona	41.12	1.243
4892	Va	Tarragona	41.12	1.243
4784	Ila	Sils	41.8	2.75
4785	Ila	Sils	41.8	2.75
4786	Ila	Sils	41.8	2.75
4787	Ila	Sils	41.8	2.75
4788	Ila	Sils	41.8	2.75
4789	Ila	Sils	41.8	2.75
4790	Ila	Sils	41.8	2.75
4791	Ila	Sils	41.8	2.75
4792	Ila	Sils	41.8	2.75
4793	Va	Sils	41.8	2.75
4794	Ila	Sils	41.8	2.75
4795	Ila	Sils	41.8	2.75
4796	Ila	Sils	41.8	2.75
4797	Ila	Sils	41.8	2.75
4879	Ila	Girona	41.983	2.81
4880	Ila	Girona	41.983	2.81
4881	Ila	Girona	41.983	2.81
4882	Ila	Girona	41.983	2.81
4883	Ila	Girona	41.983	2.81
4884	Ila	Girona	41.983	2.81
4885	Ila	Girona	41.983	2.81
4886	Ila	Girona	41.983	2.81
4608	Ila	Camargue	43.555	4.52
8305	Va	Camargue	43.555	4.52
8306	Va	Camargue	43.555	4.52
12439	Ila	Camargue	43.555	4.52
12440	Ila	Camargue	43.555	4.52
12441	Ila	Camargue	43.555	4.52
12442	Ila	Camargue	43.555	4.52
12443	Va	Camargue	43.555	4.52
12444	Va	Camargue	43.555	4.52
12445	Ila	Camargue	43.555	4.52
12446	Va	Camargue	43.555	4.52
12447	Va	Camargue	43.555	4.52
12448	Va	Camargue	43.555	4.52
12449	Ila	Camargue	43.555	4.52
12450	Va	Camargue	43.555	4.52
12451	Ila	Camargue	43.555	4.52

12452	Va	Camargue	43.555	4.52
12453	Ila	Camargue	43.555	4.52
12454	Va	Camargue	43.555	4.52
12455	Ila	Camargue	43.555	4.52
12456	Va	Camargue	43.555	4.52
12457	Va	Camargue	43.555	4.52
12458	Ila	Camargue	43.555	4.52
12459	Va	Camargue	43.555	4.52
12460	Va	Camargue	43.555	4.52
12461	Ila	Camargue	43.555	4.52
12462	Ila	Camargue	43.555	4.52
12463	Ila	Camargue	43.555	4.52
12464	Ila	Camargue	43.555	4.52
12465	Va	Camargue	43.555	4.52
12466	Ila	Camargue	43.555	4.52
12467	Va	Camargue	43.555	4.52
12468	Ila	Camargue	43.555	4.52
25187	Ila	Aquitaine	43.383	-0.35
25193	Ila	Aquitaine	43.383	-0.35
25194	Iih	Aquitaine	43.383	-0.35
25752	Ila	Aquitaine	43.383	-0.35
25758	Ila	Aquitaine	43.383	-0.35
25759	Ila	Aquitaine	43.383	-0.35
25760	Ila	Aquitaine	43.383	-0.35
25891	Ila	Aquitaine	43.383	-0.35
25892	Ila	Aquitaine	43.383	-0.35
25893	Ila	Aquitaine	43.383	-0.35
25894	Ila	Aquitaine	43.383	-0.35
25895	VIa	Aquitaine	43.383	-0.35
25896	Ila	Aquitaine	43.383	-0.35
25897	Ila	Aquitaine	43.383	-0.35
25920	Iih	Aquitaine	43.383	-0.35
25921	Ili	Aquitaine	43.383	-0.35
25922	Ila	Aquitaine	43.383	-0.35
44406	VIa	Aquitaine	43.383	-0.35
4600	Ila	Brenne	46.73	1.3
4601	Ila	Brenne	46.73	1.3
4602	Ila	Brenne	46.73	1.3
4603	Ila	Brenne	46.73	1.3
4604	Ila	Brenne	46.73	1.3
4605	Ila	Brenne	46.73	1.3
4606	Ila	Brenne	46.73	1.3
4607	Ila	Brenne	46.73	1.3
4612	Ila	Rhone	45.723	5.251
4613	Ila	Rhone	45.723	5.251
4614	Ila	Rhone	45.723	5.251
4615	Ila	Rhone	45.723	5.251
12331	Ila	Rhone	45.723	5.251
12332	Ila	Rhone	45.723	5.251
12333	Ila	Rhone	45.723	5.251
25881	Ila	Rhone	45.723	5.251

25882	Ilg	Rhone	45.723	5.251
12369	Ila	Tajba	48.505	21.931
12370	Ila	Tajba	48.505	21.931
12373	Ila	Tajba	48.505	21.931
12381	Ila	Tajba	48.505	21.931
12382	Ila	Tajba	48.505	21.931
12383	Ila	Tajba	48.505	21.931
12409	Ila	Tajba	48.505	21.931
12501	Ila	Tajba	48.505	21.931
12502	Ila	Tajba	48.505	21.931
12503	Ila	Tajba	48.505	21.931
4936	Ila	Danube	47.1	19.329
4937	Ila	Danube	47.1	19.329
4938	Ila	Danube	47.1	19.329
4939	Ila	Danube	47.1	19.329
4940	Ila	Danube	47.1	19.329
4941	Ila	Danube	47.1	19.329
4942	Ila	Danube	47.1	19.329
4943	Ila	Danube	47.1	19.329
4944	Ila	Danube	47.1	19.329
4945	Ila	Danube	47.1	19.329
4946	Ila	Danube	47.1	19.329
4947	Ilc	Danube	47.1	19.329
4948	Ila	Danube	47.1	19.329
8281	Ila	Danube	47.1	19.329
8282	Ilc	Danube	47.1	19.329
8283	Ila	Danube	47.1	19.329
8284	Ila	Danube	47.1	19.329
8285	Ilc	Danube	47.1	19.329
12356	Ila	Danube	47.1	19.329
12415	Ila	Danube	47.1	19.329
12416	Ila	Danube	47.1	19.329
12417	Ila	Danube	47.1	19.329
12418	Ila	Danube	47.1	19.329
12419	Ila	Danube	47.1	19.329
12420	Ila	Danube	47.1	19.329
4524	Ilb	Brandenburg	52.925	13.717
4526	Ilb	Brandenburg	52.925	13.717
4528	Ilb	Brandenburg	52.925	13.717
4529	Ilb	Brandenburg	52.925	13.717
4530	Ilb	Brandenburg	52.925	13.717
4539	Ilb	Brandenburg	52.925	13.717
4541	Ilb	Brandenburg	52.925	13.717
4542	Ilb	Brandenburg	52.925	13.717
4543	Ilb	Brandenburg	52.925	13.717
4544	Ilb	Brandenburg	52.925	13.717
4553	Ilb	Brandenburg	52.925	13.717
4554	Ilb	Brandenburg	52.925	13.717
4574	Ilb	Brandenburg	52.925	13.717
4577	Ilb	Brandenburg	52.925	13.717
4765	Ilb	Brandenburg	52.925	13.717

4767	I Ib	Brandenburg	52.925	13.717
4768	I Ib	Brandenburg	52.925	13.717
4769	I Ib	Brandenburg	52.925	13.717
8299	I Ib	Brandenburg	52.925	13.717
8302	I Ib	Brandenburg	52.925	13.717
4584	Va	Var	43.246	6.163
4585	Va	Var	43.246	6.163
4586	Va	Var	43.246	6.163
4587	Va	Var	43.246	6.163
4588	Va	Var	43.246	6.163
4590	Va	Var	43.246	6.163
4591	Va	Var	43.246	6.163
4592	Va	Var	43.246	6.163
4593	Va	Var	43.246	6.163
4594	Va	Var	43.246	6.163
4595	Va	Var	43.246	6.163
4596	Va	Var	43.246	6.163
4597	Va	Var	43.246	6.163
4598	Va	Var	43.246	6.163
4616	Va	Var	43.246	6.163
4617	Va	Var	43.246	6.163
4618	Va	Var	43.246	6.163
16514	Va	Var	43.246	6.163
16515	Va	Var	43.246	6.163
4643	Va	Pisa	43.643	10.355
4655	Va	Pisa	43.643	10.355
4656	Va	Pisa	43.643	10.355
4657	Va	Pisa	43.643	10.355
4658	Va	Pisa	43.643	10.355
4659	Va	Pisa	43.643	10.355
4660	Va	Pisa	43.643	10.355
4661	Va	Pisa	43.643	10.355
4662	Va	Pisa	43.643	10.355
4663	Va	Pisa	43.643	10.355
4664	Va	Pisa	43.643	10.355
4665	Va	Pisa	43.643	10.355
4666	Va	Pisa	43.643	10.355
4667	Va	Pisa	43.643	10.355
4669	Va	Pisa	43.643	10.355
4670	Va	Pisa	43.643	10.355
4610	Va	Corsica	42.621	9.472
4611	Va	Corsica	42.621	9.472
16505	Va	Corsica	42.621	9.472
16506	Va	Corsica	42.621	9.472
44332	Va	Corsica	42.621	9.472
44333	Va	Corsica	42.621	9.472
44334	Va	Corsica	42.621	9.472
44335	Va	Corsica	42.621	9.472
44336	Va	Corsica	42.621	9.472
44337	Va	Corsica	42.621	9.472
44338	Va	Corsica	42.621	9.472

4696	Va	Sardinia	40.897	9.53
4697	Va	Sardinia	40.897	9.53
4698	Va	Sardinia	40.897	9.53
4699	Va	Sardinia	40.897	9.53
4700	Va	Sardinia	40.897	9.53
4701	Va	Sardinia	40.897	9.53
4702	Va	Sardinia	40.897	9.53
4703	Va	Sardinia	40.897	9.53
4704	Va	Sardinia	40.897	9.53
4705	Va	Sardinia	40.897	9.53
25254	IVi	Neto	39.214	17.139
25256	Vd	Neto	39.214	17.139
25257	Va	Neto	39.214	17.139
44343	IVh	Neto	39.214	17.139
44344	IVh	Neto	39.214	17.139
44345	Vd	Neto	39.214	17.139
44346	Vd	Neto	39.214	17.139
44347	IVh	Neto	39.214	17.139
44348	Va	Neto	39.214	17.139
44349	Vc	Neto	39.214	17.139
44350	Vc	Neto	39.214	17.139
44351	Vc	Neto	39.214	17.139
44352	IVh	Neto	39.214	17.139
44353	Vc	Neto	39.214	17.139
44354	Vc	Neto	39.214	17.139
44355	IVh	Neto	39.214	17.139
44356	Vd	Neto	39.214	17.139
44357	IVh	Neto	39.214	17.139
4644	Va	Basilicata	38.864	16.717
4645	Va	Basilicata	38.864	16.717
4646	Va	Basilicata	38.864	16.717
4647	Va	Basilicata	38.864	16.717
4648	Va	Basilicata	38.864	16.717
24085	Va	Basilicata	38.864	16.717
24086	Va	Basilicata	38.864	16.717
25890	Vc	Basilicata	38.864	16.717
24078	IVd	Southern Apulia	40.355	18.34
24079	IVd	Southern Apulia	40.355	18.34
24080	IVd	Southern Apulia	40.355	18.34
24081	Va	Southern Apulia	40.355	18.34
24082	IVd	Southern Apulia	40.355	18.34
24083	IVd	Southern Apulia	40.355	18.34
24084	IVd	Southern Apulia	40.355	18.34
24087	IVd	Southern Apulia	40.355	18.34
24089	IVa	Southern Apulia	40.355	18.34
24090	IVd	Southern Apulia	40.355	18.34
25862	Vb	Southern Apulia	40.355	18.34
25863	IVa	Southern Apulia	40.355	18.34
25864	IVd	Southern Apulia	40.355	18.34
25865	IVd	Southern Apulia	40.355	18.34
25883	IVd	Southern Apulia	40.355	18.34

25884	IVa	Southern Apulia	40.355	18.34
25885	IVa	Southern Apulia	40.355	18.34
25886	IVa	Southern Apulia	40.355	18.34
25887	IVa	Southern Apulia	40.355	18.34
25888	IVa	Southern Apulia	40.355	18.34
25889	IVa	Southern Apulia	40.355	18.34
25933	IVa	Southern Apulia	40.355	18.34
25934	IVd	Southern Apulia	40.355	18.34
25935	IVd	Southern Apulia	40.355	18.34
25936	IVh	Southern Apulia	40.355	18.34
25937	IVh	Southern Apulia	40.355	18.34
4718	IVa	Adria North	45.6	12.88
4719	IVa	Adria North	45.6	12.88
4720	IVa	Adria North	45.6	12.88
4722	IVa	Adria North	45.6	12.88
4724	IVa	Adria North	45.6	12.88
4725	IVa	Adria North	45.6	12.88
4726	IVa	Adria North	45.6	12.88
4728	IVa	Adria North	45.6	12.88
4729	IVa	Adria North	45.6	12.88
4730	IVa	Adria North	45.6	12.88
4731	IVa	Adria North	45.6	12.88
4732	IVa	Adria North	45.6	12.88
4733	IVa	Adria North	45.6	12.88
4734	IVa	Adria North	45.6	12.88
12359	IVa	Adria North	45.6	12.88
12360	IVa	Adria North	45.6	12.88
12365	IVa	Adria North	45.6	12.88
12366	IVa	Adria North	45.6	12.88
4622	IVb	Greece	37.622	22.336
4623	IVb	Greece	37.622	22.336
4624	IVb	Greece	37.622	22.336
4625	IVa	Greece	37.622	22.336
4626	IVa	Greece	37.622	22.336
4627	IVa	Greece	37.622	22.336
4631	IVc	Greece	37.622	22.336
4632	IVc	Greece	37.622	22.336
4633	IVc	Greece	37.622	22.336
4634	IVc	Greece	37.622	22.336
4635	IVc	Greece	37.622	22.336
16504	IVg	Greece	37.622	22.336
4706	IIIa	Sicily Nebrodi	37.872	14.364
4707	IIIa	Sicily Nebrodi	37.872	14.364
4708	IIIa	Sicily Nebrodi	37.872	14.364
4709	IIIa	Sicily Nebrodi	37.872	14.364
4710	IIIa	Sicily Nebrodi	37.872	14.364
4711	IIIa	Sicily Nebrodi	37.872	14.364
4712	IIIa	Sicily Nebrodi	37.872	14.364
4713	IIIa	Sicily Nebrodi	37.872	14.364
4714	IIIa	Sicily Nebrodi	37.872	14.364
4715	IIIa	Sicily Nebrodi	37.872	14.364

25038	IIIc	Sicily West	37.433	13.254
25039	IIIc	Sicily West	37.433	13.254
25040	IIIc	Sicily West	37.433	13.254
44314	IIIc	Sicily West	37.433	13.254
44315	IIIc	Sicily West	37.433	13.254
44316	IIIc	Sicily West	37.433	13.254
44317	IIIc	Sicily West	37.433	13.254
44318	IIIc	Sicily West	37.433	13.254
44319	IIIc	Sicily West	37.433	13.254
44320	IIIc	Sicily West	37.433	13.254
44321	IIIc	Sicily West	37.433	13.254
44322	IIIc	Sicily West	37.433	13.254
44323	IIIc	Sicily West	37.433	13.254
44324	IIIc	Sicily West	37.433	13.254
44325	IIIc	Sicily West	37.433	13.254
44326	IIIc	Sicily West	37.433	13.254
44327	IIIc	Sicily West	37.433	13.254
44328	IIIc	Sicily West	37.433	13.254
44329	IIIc	Sicily West	37.433	13.254
44330	IIIc	Sicily West	37.433	13.254
44331	IIIc	Sicily West	37.433	13.254
