

Appendix A

Table 1A Occupancy model selection. The list of 119 models is reported until the null model in position 68. Here follows the formulas for the 5 best models according to AIC

Legend for variables: slope is expressed in degrees; aspect: 8 classes North, West, East, South, NE, NW, SE, SW; viabilita=trail type: SE (hiking trails), SFA forestry roads of type A (used for logging), veicoli_tr: trap rate for motor vehicles, uomo_tr: trap rate for people., d_viapri distance from main roads, d_case distance from houses,

Model : [m45](#)

occu(formula = ~d_case + d_viapri + viabilita + uomo_tr + veicoli_tr ~ 1, data = occu)

Model : [m43](#)

occu(formula = ~d_case + d_viapri + viabilita + uomo_tr ~ 1, data = occu)

Model : [m44](#)

occu(formula = ~d_case + d_viapri + viabilita + veicoli_tr ~ 1, data = occu)

Model : [m51](#)

occu(formula = ~d_viapri + viabilita + veicoli_tr ~ 1, data = occu)

Model : [m52](#)

occu(formula = ~d_viapri + viabilita + uomo_tr + veicoli_tr ~ 1, data = occu)

Null model ranked 68, AIC was 879.5 with Delta AIC 32.8 from the best model

Model ID	nPars	AIC	delta	AICwt	cumltvWt	Rsq
m45	8	846.25	0	2.30E-001	0.23	8.50E-001
m43	7	846.73	0.47	1.90E-001	0.42	8.30E-001
m44	7	847.82	1.57	1.10E-001	0.53	8.20E-001
m51	6	848.54	2.29	7.50E-002	0.6	8.00E-001
m52	7	849.25	3	5.20E-002	0.8	8.10E-001
m66	7	849.25	3	5.20E-002	0.85	8.10E-001
m80	7	849.25	3	5.20E-002	0.91	8.10E-001
m50	6	851.01	4.76	2.20E-002	0.93	7.80E-001
m64	6	851.01	4.76	2.20E-002	0.95	7.80E-001
m78	6	851.01	4.76	2.20E-002	0.97	7.80E-001
m39	6	854.3	8.04	4.20E-003	0.98	7.50E-001
m42	6	854.3	8.04	4.20E-003	0.98	7.50E-001
m47	5	854.77	8.51	3.30E-003	0.98	7.20E-001
m61	5	854.77	8.51	3.30E-003	0.99	7.20E-001
m74	5	854.77	8.51	3.30E-003	0.99	7.20E-001
m77	5	854.77	8.51	3.30E-003	0.99	7.20E-001
m55	5	857.4	11.15	8.90E-004	0.99	6.90E-001
m69	5	857.4	11.15	8.90E-004	1	6.90E-001

m82	5	857.4	11.15	8.90E-004	1	6.90E-001
m56	6	858.6	12.35	4.90E-004	1	7.00E-001
m70	6	858.6	12.35	4.90E-004	1	7.00E-001
m83	6	858.6	12.35	4.90E-004	1	7.00E-001
m54	5	859.38	13.13	3.30E-004	1	6.60E-001
m68	5	859.38	13.13	3.30E-004	1	6.60E-001
m81	5	859.38	13.13	3.30E-004	1	6.60E-001
m31	4	861.46	15.2	1.20E-004	1	6.00E-001
m53	4	861.46	15.2	1.20E-004	1	6.00E-001
m67	4	861.46	15.2	1.20E-004	1	6.00E-001
m36	5	863.39	17.14	4.50E-005	1	6.00E-001
m98	5	863.47	17.22	4.30E-005	1	6.00E-001
m97	5	863.47	17.22	4.30E-005	1	6.00E-001
m102	5	863.47	17.22	4.30E-005	1	6.00E-001
m101	5	863.47	17.22	4.30E-005	1	6.00E-001
m104	5	863.47	17.22	4.30E-005	1	6.00E-001
m106	5	863.47	17.22	4.30E-005	1	6.00E-001
m99	5	863.47	17.22	4.30E-005	1	6.00E-001
m100	6	865.45	19.2	1.60E-005	1	6.00E-001
m103	6	865.45	19.2	1.60E-005	1	6.00E-001
m105	6	865.45	19.2	1.60E-005	1	6.00E-001
m93	6	865.45	19.2	1.60E-005	1	6.00E-001
m92	7	867.45	21.2	5.80E-006	1	6.00E-001
m96	7	867.45	21.2	5.80E-006	1	6.00E-001
m41	5	867.49	21.24	5.70E-006	1	5.30E-001
m28	3	868.31	22.06	3.80E-006	1	4.20E-001
m49	4	868.52	22.27	3.40E-006	1	4.70E-001
m63	4	868.52	22.27	3.40E-006	1	4.70E-001
m76	4	868.52	22.27	3.40E-006	1	4.70E-001
m40	5	869.19	22.94	2.40E-006	1	4.90E-001
m35	4	869.31	23.06	2.30E-006	1	4.50E-001
m95	8	869.45	23.2	2.20E-006	1	6.00E-001
m29	3	870.67	24.42	1.20E-006	1	3.60E-001
m46	3	870.67	24.42	1.20E-006	1	3.60E-001
m60	3	870.67	24.42	1.20E-006	1	3.60E-001
m48	4	872.26	26.01	5.30E-007	1	3.80E-001
m62	4	872.26	26.01	5.30E-007	1	3.80E-001

m75	4	872.26	26.01	5.30E-007	1	3.80E-001
m33	3	876.05	29.8	7.90E-008	1	2.00E-001
m59	3	876.05	29.8	7.90E-008	1	2.00E-001
m73	3	876.05	29.8	7.90E-008	1	2.00E-001
m58	4	877.45	31.2	3.90E-008	1	2.20E-001
m72	4	877.45	31.2	3.90E-008	1	2.20E-001
m38	4	878	31.75	3.00E-008	1	2.10E-001
m109	5	879.45	33.2	1.50E-008	1	2.20E-001
m112	5	879.45	33.2	1.50E-008	1	2.20E-001
m114	5	879.45	33.2	1.50E-008	1	2.20E-001
m107	5	879.45	33.2	1.50E-008	1	2.20E-001
m110	5	879.45	33.2	1.50E-008	1	2.20E-001
Null	2	879.56	33.3	1.40E-008	1	0.00E+000
m108	6	881.46	35.21	5.30E-009	1	2.20E-001
m111	6	881.46	35.21	5.30E-009	1	2.20E-001
m113	6	881.46	35.21	5.30E-009	1	2.20E-001
m118	6	881.46	35.21	5.30E-009	1	2.20E-001
m115	6	881.46	35.21	5.30E-009	1	2.20E-001
m117	6	881.46	35.21	5.30E-009	1	2.20E-001
m30	3	881.49	35.24	5.20E-009	1	2.60E-003
m34	3	881.49	35.24	5.20E-009	1	2.60E-003
m19	3	881.56	35.3	5.10E-009	1	1.40E-014
m23	3	881.56	35.3	5.10E-009	1	9.40E-015
m1	3	881.56	35.3	5.10E-009	1	0.00E+000
m32	3	881.56	35.31	5.00E-009	1	-2.40E-004
m57	3	881.56	35.31	5.00E-009	1	-2.40E-004
m71	3	881.56	35.31	5.00E-009	1	-2.40E-004
m119	7	883.45	37.2	2.00E-009	1	2.20E-001
m116	7	883.45	37.2	2.00E-009	1	2.20E-001
m91	4	883.48	37.23	1.90E-009	1	3.10E-003
m37	4	883.49	37.23	1.90E-009	1	2.90E-003
m86	4	883.55	37.3	1.90E-009	1	1.10E-004
m89	4	883.55	37.3	1.90E-009	1	1.10E-004
m84	4	883.55	37.3	1.90E-009	1	1.10E-004
m87	4	883.55	37.3	1.90E-009	1	1.10E-004
m25	4	883.56	37.3	1.90E-009	1	6.60E-006
m20	4	883.56	37.3	1.90E-009	1	1.90E-014

m2	4	883.56	37.3	1.90E-009	1	9.40E-015
m4	4	883.56	37.3	1.90E-009	1	9.40E-015
m16	4	883.56	37.3	1.90E-009	1	9.40E-015
m3	4	883.56	37.3	1.90E-009	1	4.80E-015
m12	4	883.56	37.3	1.90E-009	1	4.80E-015
m90	5	885.48	39.23	7.10E-010	1	3.10E-003
m85	5	885.55	39.3	6.90E-010	1	1.30E-004
m88	5	885.55	39.3	6.90E-010	1	1.30E-004
m11	5	885.56	39.3	6.80E-010	1	6.60E-006
m24	5	885.56	39.3	6.80E-010	1	6.60E-006
m26	5	885.56	39.3	6.80E-010	1	6.60E-006
m27	5	885.56	39.3	6.80E-010	1	6.60E-006
m18	5	885.56	39.3	6.80E-010	1	6.60E-006
m21	5	885.56	39.3	6.80E-010	1	6.60E-006
m5	5	885.56	39.3	6.80E-010	1	9.40E-015
m7	5	885.56	39.3	6.80E-010	1	4.80E-015
m13	5	885.56	39.3	6.80E-010	1	4.80E-015
m10	6	887.56	41.3	2.50E-010	1	6.70E-006
m9	6	887.56	41.3	2.50E-010	1	6.60E-006
m17	6	887.56	41.3	2.50E-010	1	6.60E-006
m22	6	887.56	41.3	2.50E-010	1	6.60E-006
m14	6	887.56	41.3	2.50E-010	1	6.60E-006
m6	6	887.56	41.3	2.50E-010	1	9.40E-015
m8	7	889.56	43.3	9.30E-011	1	6.70E-006
m15	7	889.56	43.3	9.30E-011	1	6.60E-006