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Appendix 1

The history of the wildcat in the surroundings of the Bavarian Forest National Park

As in many areas of Germany, the wildcat was persecuted in Bavaria and was thought to be extinct, especially in Lower Bavaria, where the Bavarian Forest National Park is located (Scherzinger 1979, Piechocki 1990). Wagner (1846) indicates that the wildcat was already extinct in the 19th century at least in Upper Bavaria and most of Lower Bavaria. According to Piechocki (1990), the last wildcat in Lower Bavaria was shot during World War I near Klingenbrunn in the current Bavarian Forest National Park. Autochthonous populations in the adjacent Czech Republic were eradicated at the end of the 18th century and at the beginning of the 19th century (Piechocki 1990). According to a letter from an unknown author to L. Kučera, the last wildcat in Šumava was shot in 1828 (N.N. 1984).

As of the end of the 1960s, wildcats have been officially and unofficially reintroduced several times in Bavaria and the Bohemian Forest. Several wildcats were released in the Bohemian Forest near the Šumava National Park in 1969 (Weinzierl 1973, Scherzinger 1979). In 1970, three wildcat pairs were released in the Bohemian Forest near Železná Ruda (Andéra and Cervený 2014), which is adjacent to the Šumava National Park and the Bavarian Forest National Park. Due to heavy snow in the 1970s, it is likely that the wildcats did not survive there (W. Scherzinger pers. comm.). Nowadays, the wildcat is “possibly extinct” in the Czech Republic (Driscoll and Nowell 2010). Some individual cats were seen in the 1990s, but it is not sure whether these individuals were wildcats (Andéra and Cervený 2014). In 2011, a cat with a typical wildcat coat pattern was camera trapped in the Bohemian Forest (POSPÍŠKOVÁ et al. 2013).

The first wildcat seen in the Bavarian Forest National Park was from the former CSSR around 1970. However, it was killed outside the national park (Weinzierl 1973). In 1971, one wildcat pair was released unofficially near Mount Rachel in the Bavarian Forest National Park (Weinzierl 1973, Worel 1991). Furthermore, two adult wildcats escaped from the animal enclosures in the national park in 1991 (W. Kirchner pers. comm.). The first official reintroduction project in

Bavaria started in 1984, and wildcats were released in northern Bavaria in Spessart and Steigerwald and in Vorderer Bayerischer Wald (Worel 1991, 2001). The Vorderer Bayerischer Wald is the nearest site to the Bavarian Forest National Park at about 70 km distance. A total of 109 wildcats were released there between 1984 and 1991 (Bortenlänger 1994, Worel 2001). Nonetheless, there has been no unambiguous proof of wildcat presence in the Bavarian Forest National Park or in its closer surroundings until our survey.

References

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Appendix 2



Figure A1. First camera-trapped wildcat in the Bavarian Forest National Park.

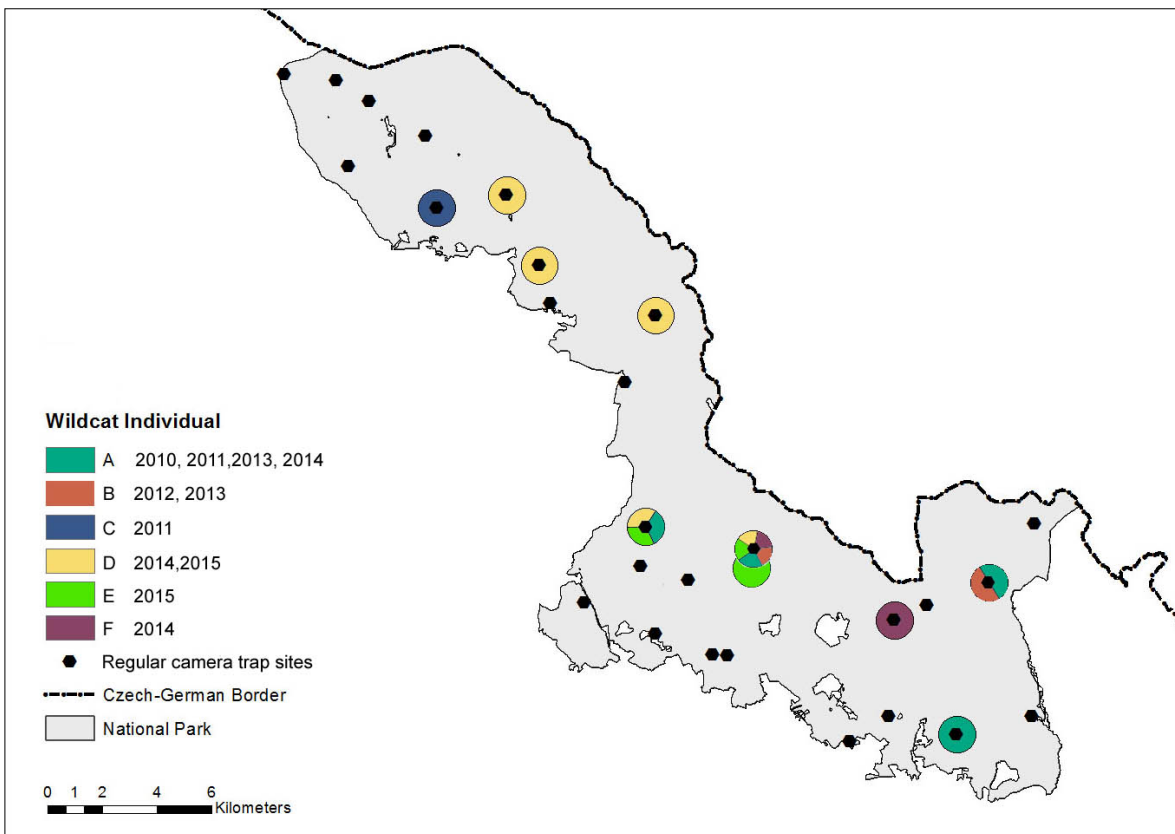


Figure A2. Locations and years in which wildcat individuals were identified. Between November 2008 and March 2015, at least six different wildcats were identified from camera-trap photographs in the national park.

Table A1. Raw data table of all 44 wildcat events between November 2008 and March 2015. Camera trapping: Regular = regular Lynx monitoring, Additional = additional traps; Wildcat individual: u = unidentified; -- = no data

Wildcat event no.	Date	Camera trap site	Camera trapping	Camera model	snow cover on photograph	Snow depth [cm]		Altitude of the trap site [m a.s.l.]	Distance to residential areas [m]	Distance to winter enclosures [m]	Distance to forest edge [m]	Shrub cover [%]	Wildcat individual
						Waldhäuser (945 m a.s.l.)	Taferlruck (772 m a.s.l.)						
1	19-May-10	4	regular	Cuddeback Capture	no	0	--	874	1099	2507	1045	5	A
2	15-May-11	4	regular	Cuddeback Capture	no	0	--	874	1099	2507	1045	5	A
3	05-Jul-11	20	regular	Cuddeback Capture	no	--	--	768	1015	1403	1144	5	C
4	09-Jul-11	13	regular	Cuddeback Capture	no	--	--	952	2927	2416	2256	7	A
5	17-Oct-11	1	regular	Cuddeback Capture	no	0	--	922	1380	4156	938	36	A
6	01-Apr-12	9	regular	Cuddeback Capture	snow patches	7	0	750	1563	2722	250	29	u
7	25-Apr-12	13	regular	Cuddeback Capture	no	0	0	952	2927	2416	2256	7	u
8	09-Sep-12	1	regular	Cuddeback Capture	no	--	--	922	1380	4156	938	36	B
9	09-Sep-12	1	regular	Cuddeback Capture	no	--	--	922	1380	4156	938	36	B
10	17-Mar-13	1	additional	Cuddeback Capture	closed snow cover	22	14	922	1380	4156	938	36	B
11	21-Mar-13	30	additional	Reconyx RC 55	not visible	26	17	818	2683	-- *	-- *	-- *	u
12	03-Oct-13	13	regular	Cuddeback Capture	no	0	--	952	2927	2416	2256	7	A
13	11-Oct-13	10	regular	Cuddeback Capture	no	0	--	856	2582	1954	1806	10	B
14	11-Oct-13	10	regular	Cuddeback Capture	no	0	--	856	2582	1954	1806	10	B
15	03-Feb-14	10	additional	Cuddeback Capture	snow patches	6	10	856	2582	1954	1806	10	D
16	08-Mar-14	10	additional	Cuddeback Capture	no	0	--	856	2582	1954	1806	10	D
17	08-Mar-14	6	additional	Cuddeback Capture	closed snow cover	0	--	1101	1728	5183	1691	29	F
18	09-Mar-14	10	additional	Cuddeback Capture	no	0	--	856	2582	1954	1806	10	D
19	10-Mar-14	13	additional	Cuddeback Capture	no	0	--	952	2927	2416	2256	7	D
20	18-Mar-14	10	additional	Cuddeback Capture	no	0	--	856	2582	1954	1806	10	D
21	28-Mar-14	12	additional	Cuddeback Capture	no	0	--	858	2556	108	672	7	u
22	30-Mar-14	17	additional	Cuddeback Capture	no	0	--	1056	3461	3068	945	10	D
23	03-May-14	17	additional	Cuddeback Capture	no	0	--	1056	3461	3068	945	10	D

24	14-May-14	10	additional	Cuddeback Capture	no	0	--	856	2582	1954	1806	10	u
25	15-Jun-14	10	additional	Cuddeback Capture	no	--	--	856	2582	1954	1806	10	u
26	01-Sep-14	10	additional	Cuddeback Capture	no	--	--	856	2582	1954	1806	10	A
27	12-Sep-14	10	regular	Cuddeback Capture	no	--	--	856	2582	1954	1806	10	D
28	27-Sep-14	13	regular	Cuddeback Capture	no	--	--	952	2927	2416	2256	7	D
29	29-Sep-14	10	regular	Cuddeback Capture	no	--	--	856	2582	1954	1806	10	D
30	02-Oct-14	10	regular	Cuddeback Capture	no	0	--	856	2582	1954	1806	10	D
31	19-Oct-14	15	regular	Cuddeback Capture	no	0	--	778	2791	2265	96	4	u
32	19-Oct-14	18	regular	Cuddeback Capture	no	0	--	914	1030	2375	961	6	D
33	24-Dec-14	13	regular	Cuddeback Capture	no	0	0	952	2927	2416	2256	7	D
34	15-Jan-15	13	additional	Cuddeback Capture	closed snow cover	7	10	952	2927	2416	2256	7	D
35	24-Jan-15	13	additional	Cuddeback Capture	closed snow cover	5	13	952	2927	2416	2256	7	D
36	15-Feb-15	13	additional	Cuddeback Capture	closed snow cover	30	40	952	2927	2416	2256	7	D
37	16-Feb-15	10	additional	Cuddeback Capture	closed snow cover	27	39	856	2582	1954	1806	10	D
38	26-Feb-15	19	additional	Cuddeback Capture	closed snow cover	23	34	815	748	862	856	6	D
39	27-Feb-15	10	additional	Cuddeback Capture	closed snow cover	23	34	856	2582	1954	1806	10	E
40	27-Feb-15	13	additional	Cuddeback Capture	closed snow cover	23	34	952	2927	2416	2256	7	u
41	28-Feb-15	13	additional	Cuddeback Capture	closed snow cover	23	34	952	2927	2416	2256	7	D
42	28-Feb-15	29	additional	Reconyx HC 500	closed snow cover	23	34	810	2015	-- *	-- *	-- *	E
43	09-Mar-15	13	additional	Cuddeback Capture	closed snow cover	--	33	952	2927	2416	2256	7	E
44	17-Mar-15	28	additional	Reconyx HC 600	not clearly visible	--	28	870	1077	-- *	-- *	-- *	u

* No data for these sites because we used only data from the regular lynx monitoring for the statistical habitat analysis

Table A2. Microsatellite genotypes of 14 markers as consensus of three replicates.

Sample ID	FCA571	FCA571	FCA8	FCA8	FCA171	FCA171	FCA124	FCA124	FCA149	FCA149	FCA275	FCA275	FCA170	FCA170
K150055	115	115	133	133	0	0	123	129	127	127	112	137	97	109
K150052	115	115	115	123	103	107	127	129	129	129	135	137	107	114
K150053	115	117	139	139	103	108	129	129	125	127	112	137	97	109

sample ID	FCA88	FCA88	FCA364	FCA364	FCA576	FCA576	FCA132	FCA132	FCA567	FCA567	FCA232	FCA232	FCA347	FCA347
K150055	115	117	122	122	133	147	0	0	104	104	104	108	162	162
K150052	117	117	118	122	147	147	152	156	98	104	106	108	164	164
K150053	115	115	122	122	147	147	156	156	96	104	108	108	158	164

Table A3. Genotyping accuracy.

Sample ID	% positive PCR reactions	Allelic drop-out rate
K150055	64	0.6
K150052	91	0
K150053	100	0

Table A4. Mitochondrial haplotype and GenBank accession numbers.

Sample ID	Mitochondrial haplotype	Accession number
K150055	SNG-HP-FS22	KR076411
K150052	SNG-HP-FS04	KR076401
K150053	SNG-HP-FS03	KR076400

Appendix 3. Diagrams of the snow cover at the weather station Waldhäuser (945 m a.s.l.) between winter 2003/2004 and winter 2014/2015

