Mitigating the impact of forest management for conservation of an endangered forest mammal species: drey surveys and nest boxes for red squirrels (*Sciurus vulgaris*)
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Model Selection

We built two separate generalized linear mixed models with Model 1 testing for a potential increase of nest box use after forest operations and Model 2 testing for a potential increase of nest box use over time. The full models for Model 1 and Model 2 (those with all variables and interactions included before model selection) are shown below in Table S1 and Table S2 and the results of the model selection process for Model 1 and Model 2 are shown in Table S3 and Table S4.

Table S1: Full Model 1 (AIC 365.3, BIC 392.7, LogLik -169.6) includes fixed effects (1) local drey density; (2) forest operations; (3) nest box height; (4) tree species; (5) nest box type; and the interactions (6) forest operations:nest box height; (7) forest operations:nest box type; (8) nest box height:tree species; (9) nest box height:nest box type; (10) nest box type:tree species; and (11) forest operations:tree species. Boldface indicates significant predictors for nest box use under the full model.

Variables	Estimate	SE	z-value	*p*-value
(Intercept)	1.192	0.3745	3.182	0.001
Local drey density	0.119	0.0749	1.589	0.112
Forest operations	**-0.769**	**0.2336**	**-3.293**	**0.001**
Nest box height	**0.764**	**0.3817**	**2.001**	**0.045**
Tree species	1.126	0.5905	1.907	0.057
Nest box type	0.313	0.4508	0.693	0.488
Forest operations : Nest box height	0.066	0.2621	0.250	0.803
Forest operations : Nest box type	**-0.582**	**0.2711**	**-2.145**	**0.032**
Nest box height : Tree species	0.915	0.5808	1.575	0.115
Nest box height : Nest box type	-0.291	0.5477	-0.532	0.595
Nest box type : Tree species	1.126	0.5905	1.907	0.057
Forest operations : Tree species	0.269	0.2800	0.961	0.337

Table S2: Full Model 2 (AIC 260.7, BIC 286.0, LogLik -117.3) includes fixed effects (1) local drey density; (2) year; (3) nest box height; (4) tree species; (5) nest box type; and the interactions (6) year:nest box height; (7) year:nest box type; (8) nest box height:tree species; (9) nest box height:nest box type; (10) nest box type:tree species; and (11) year:tree species. Boldface indicates significant predictors for nest box use under the full model.

Variables	Estimate	SE	z-value	*p*-value
(Intercept)	0.554	0.508	1.091	0.275
Local drey density	-0.028	0.094	-0.300	0.764
Year	0.052	0.350	0.150	0.881
Nest box height	**1.186**	**0.487**	**2.436**	**0.015**
Tree species	-1.566	0.932	-1.679	0.093
Nest box type	0.213	0.589	0.362	0.718
Year : Nest box height	0.085	0.348	0.245	0.807
Year : Nest box type	**0.674**	**0.340**	**1.980**	**0.048**
Nest box height : Tree species	0.896	0.754	1.188	0.235
Nest box height : Nest box type	-1.154	0.693	-1.666	0.096
Nest box type : Tree species	**1.645**	**0.788**	**2.088**	**0.037**
Year : Tree species	-0.218	0.368	-0.592	0.554

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Table S3: Model selection process (showing those models with ΔAICc<4.00) for Model 1 with model components including fixed effects (1) local drey density; (2) forest operations; (3) nest box height; (4) tree species; (5) nest box type; and the interactions (6) forest operations:nest box height; (7) forest operations:nest box type; (8) nest box height:tree species; (9) nest box height:nest box type; (10) nest box type:tree species; and (11) forest operations:tree species.

Model components	df	logLik	AICc	ΔAICc	weight
2/3	4	-176.04	360.79	0.00	0.14
1/2/3	5	-174.97	361.04	0.25	0.12
1/2/3/5/7	7	-172.77	361.65	0.86	0.09
2/3/5/7	6	-174.11	361.77	0.99	0.08
1/2/3/5	6	-174.37	362.30	1.51	0.06
2/3/5	5	-175.92	362.93	2.14	0.05
1/2/3/4	6	-174.76	363.07	2.29	0.04
2/3/6	5	-176.01	363.11	2.32	0.04
2/3/4	5	-176.04	363.16	2.38	0.04
1/2/3/6	6	-174.95	363.46	2.67	0.04
2/3/4/5/7/10	8	-172.66	364.09	3.30	0.03
2/3/5/6/7	7	-174.00	364.12	3.33	0.03
1/2/3/5/6/7	8	-172.67	364.12	3.33	0.03
2/3/5/7/9	7	-174.01	364.13	3.34	0.03
1/2/3/4/5/7	8	-172.69	364.14	3.35	0.03
2/3/4/8	6	-175.33	364.22	3.44	0.02
1/2/3/5/7/9	8	-172.74	364.25	3.46	0.02
2/3/4/5/7	7	-174.10	364.31	3.53	0.02
1/2/3/4/5/7/10	9	-171.40	364.33	3.55	0.02
2/3/4/5/7/8/10	9	-171.42	364.38	3.59	0.02
1/2/3/4/8	7	-174.19	364.50	3.72	0.02
1/2/3/4/5	7	-174.30	364.71	3.92	0.02

Table S4: Model selection process (showing those models with ΔAICc<4.00) for Model 2 with model components including fixed effects (1) local drey density; (2) year; (3) nest box height; (4) tree species; (5) nest box type; and the interactions (6) year:nest box height; (7) year:nest box type; (8) nest box height:tree species; (9) nest box height:nest box type; (10) nest box type:tree species; and (11) year:tree species.

Model components	df	logLik	AICc	ΔAICc	weight
2/3	4	-122.81	254.47	0.00	0.19
2/3/5/7	6	-120.66	255.19	0.71	0.14
2/3/5	5	-122.34	255.98	1.51	0.09
2/3/5/7/9	7	-120.12	256.78	2.31	0.06
1/2/3	5	-122.75	256.81	2.33	0.06
3	3	-125.16	256.82	2.34	0.06
2/3/6	5	-122.76	256.83	2.35	0.06
2/3/4	5	-122.76	256.83	2.36	0.06
2/3/5/9	6	-121.65	257.17	2.70	0.05
2/3/4/5/7/10	8	-119.07	257.48	3.01	0.04
1/2/3/4/7	7	-120.65	257.84	3.36	0.04
2/3/4/5/7	7	-120.66	257.86	3.38	0.04
2/3/5/6/7	7	-120.66	257.86	3.39	0.04
3/5	4	-124.77	258.38	3.91	0.03
2/3/5/6	6	-122.29	258.44	3.97	0.03
2	3	-125.99	258.47	4.00	0.03