

Electronic Supplementary Material

Table S.1. GLM analyses model comparison results for presence-absence data. Lowest AIC value is indicated in bold.

Model	AIC	R^2	Δ Deviance (%)
M1: pre ~ 1	8721.5	0	0
M2: pre ~ Month	8700.9	0.003	0.30
M3: pre ~ Hour	8714.9	0.004	0.14
M4: pre ~ Receiver	8609.0	0.013	1.36
M5: pre ~ Month + Hour	8692.2	0.007	0.45
M6: pre ~ Month + Receiver	8586.5	0.016	1.66
M7: pre ~ Hour + Receiver	8600.5	0.017	1.50
M8: pre ~ Month + Hour + Receiver	8578.1	0.021	1.80
M9: pre ~ Month + Hour*Receiver	8554.4	0.021	2.16

The table shows the dependent variable (pres = Presence) and the covariates for each model. The Akaike's information criterion (AIC) and the % change in deviance (Δ Deviance) from the designated null model are shown.

Table S.2. GLM for model with best fit based on AIC rankings.

	$\beta \pm SE$	Z	P
(Intercept)	-4.823 ± 0.081	-59.240	$2e^{-16}$
$\text{Sin}(2 \times \pi/12 \times \text{Month})$	0.036 ± 0.049	0.734	0.462
$\text{Cos}(2 \times \pi/12 \times \text{Month})$	-0.254 ± 0.050	-5.050	$4.42e^{-07}$
$\text{Sin}(2 \times \pi/24 \times \text{Hour})$	-0.126 ± 0.108	-1.159	0.246
$\text{Cos}(2 \times \pi/24 \times \text{Hour})$	-0.563 ± 0.112	-5.008	$5.49e^{-07}$
ReceiverHome	0.924 ± 0.095	9.687	$2e^{-16}$
ReceiverLP	0.265 ± 0.106	2.494	0.012
$\text{Sin}(2 \times \pi/24 \times \text{Hour}) * \text{ReceiverHome}$	0.091 ± 0.129	0.706	0.480
$\text{Sin}(2 \times \pi/24 \times \text{Hour}) * \text{ReceiverLP}$	0.112 ± 0.145	0.771	0.440
$\text{ReceiverHome} * \text{Cos}(2 \times \pi/24 \times \text{Hour})$	0.301 ± 0.132	2.273	0.023
$\text{ReceiverLP} * \text{Cos}(2 \times \pi/24 \times \text{Hour})$	0.429 ± 0.148	2.889	0.003

Presence of the acoustically tagged grouper is the dependent variable. Significant P values (<0.05) are in bold. The fixed effects include the time series interpolation of factors "Month" and "Hour" and Receiver.