

Supplementary Material

Evaluation of helicopter net-gunning to capture wild fallow deer (*Dama dama*)

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Table S1. Parameter estimates for logistic regression model describing the cubic relationship between average daily proportion of seconds active and days since capture for male and female deer. The α parameter represents the expected proportion of seconds active on day 0 for each sex and the β parameters describe a curvilinear slope that can take a sigmoidal form:

$$\text{logit}(y_i) = \alpha_{sex(i)} + \beta1_{sex(i)} * \text{day}_i + \beta2_{sex(i)} * \text{day}_i^2 + \beta3_{sex(i)} * \text{day}_i^3 + \varepsilon_i$$

The function was estimated using data from day 1 to day 30. Day 0, the day of capture, was excluded because it was incomplete and because activity levels were likely to be influenced by efforts to rejoin social groups.

Parameter	Mean	2.5% Credible limit	97.5% Credible limit
female			
α	-0.81	-0.89	-0.73
$\beta1$	0.05	0.02	0.07
$\beta2$	0.00	0.00	0.00
$\beta3$	0.00	0.00	0.00
male			
α	-0.52	-0.64	-0.41
$\beta1$	0.07	0.04	0.10
$\beta2$	0.00	-0.01	0.00
$\beta3$	0.00	0.00	0.00
$\alpha_{male} - \alpha_{female}$	0.29	0.15	0.43

Table S2. Parameter estimates for regression model describing the cubic relationship between average daily distance between successive location fixes and days since capture for male and female deer. The α parameter represents the expected distance between successive hourly location fixes on day 0 for each sex and the β parameters describe a curvilinear slope that can take a sigmoidal form:

$$y_i = \alpha_{sex(i)} + \beta1_{sex(i)} * day_i + \beta2_{sex(i)} * day_i^2 + \beta3_{sex(i)} * day_i^3 + \varepsilon_i$$

The function was estimated using data from day 1 to day 30. Day 0, the day of capture, was excluded because it was incomplete and because animal movements were likely to be influenced by efforts to rejoin social groups.

Parameter	Mean	2.5% Credible limit	97.5% Credible limit
female			
α	90.42	71.81	109.06
$\beta1$	2.25	-2.93	7.38
$\beta2$	-0.13	-0.52	0.26
$\beta3$	0.00	-0.01	0.01
male			
α	134.05	106.85	160.98
$\beta1$	7.72	0.17	15.34
$\beta2$	-0.76	-1.33	-0.19
$\beta3$	0.02	0.01	0.03
$\alpha_{male} - \alpha_{female}$	43.63	11.08	76.05