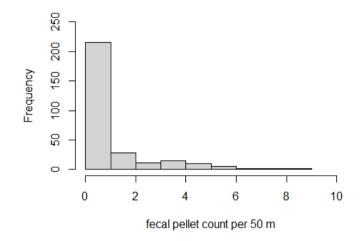
Supplement S3. The zero inflated distribution of a response variable (fecal pellet counts per 50 m).

In the fecal pellet count, 57.6% of the sample has a zero count (Supplement S3 a). Two null models with Poisson and zero-inflated Poisson (ZIP) distribution were compared with the predicted numbers of zero, log-likelihood and the corrected Akaike information criterion (AICc; Supplement S3 b).



Supplement S3 a. Histogram of the fecal pellet counts per 50 m.

Supplement S3 b. Summary of null models with Poisson and ZIP distribution explaining the fecal pellet counts with excess zeros.

| | | Poisson model | | ZIP model | |
|--------------------------|-------------|---------------|------|--------------|------|
| Part | Invariable | β | SE | β | SE |
| Count | (Intercept) | 0.05 | 0.06 | 0.80^{***} | 0.07 |
| Zero-inflated | (Intercept) | | - | 0.11 | 0.14 |
| df | | 1 | | 2 | |
| logLik | | -486.11 | | -408.74 | |
| AICc | | 974.23 | | 821.53 | |
| Observed number of zeros | | 166 | | 166 | |
| Expected number of zeros | | 100 | | 166 | |
| **** <i>p</i> < 0.001 | | | | | |