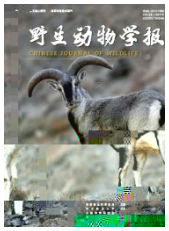

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2 2 3 1*

1. 150040

2. 154200

Sika deer ( ) is an important ungulate animal in temperate forests, and also one of the main prey for the Amur tiger ( ). The wild sika deer population of Heilongjiang Taipinggou National Nature Reserve, which serves as a cross-border corridor for the Amur tiger was extinct in the 1980s. It has been planned to promote the rapid recovery of the wild population of sika deer through the domestication of captive sika deer behavior within the reserve. However, the instantaneous scanning sampling method has been widely used in behavioral research, but there is relatively little scientific research on the specific sampling interval of instantaneous scanning. Therefore, the different behavioral durations of sika deer were obtained at different sampling intervals of 5 min and 10, 15, 20, 30, 60 min. The linear regression method was used to compare the different behavioral durations in pairs. The three criteria, $^2 \geq 0.9$, intercept no significant difference from 0 (> 0.05), and slope no significant difference from 1 (> 0.05), were used to measure whether the sampling interval can accurately estimate the duration of the behavior, and then determine the optimal sampling interval. The results indicated that the optimal sampling interval for locomotive behavior was 5 min, the o pling interval for

[14]

[15] [16-17]

3 1 1 0.2 1

Period	/d Days	/ g · -1 Total amount of feed per day for each	/ d-1 Frequency of feed per day
Epidemic quarantine period	14	1 000	2

0~14

Rewilding training period

3 24 h 18

1 5 4 d

2 d

192 h 5 040 h 00:00 23:59 5

min

5 min

5 min 10 15 20 30 60 min 5

Microsoft Excel 2021 IBM SPSS Statistics 25.0

(x)

( ) — — —

( ) h

min

5

3

IBM SPSS Statistics 25.0 5

5 min 10 15 20 30 60 min

^{2} ^{2} 1

$^2 \geq 0.9$ 0 > 0.05 1 > 0.05

3 5 min [23,30-31]

3

Behavior	Sample size /d	/h Duration of behavior					
		5 min	10 min	15 min	20 min	30 min	60 min
		5	1	1	2	3	6
Resting	20	9.28 ± 2.49	9.27 ± 2.50	9.26 ± 2.33	9.32 ± 2.59	9.28 ± 2.24	9.27 ± 2.43
Ingestive	20	7.58 ± 3.42	7.61 ± 3.48	7.56 ± 3.33	7.49 ± 3.53	7.63 ±3.33	7.52 ± 3.48

Ruminating	20	1.81 ± 0.85	1.79 ± 0.84	1.89 ± 0.81	1.81 ± 0.84	1.75 ± 0.68	1.88 ± 0.68
Locomotive	20	1.61 ±					

7 7 7

[32]

7 10 min 15 min [33]

10 min

15 min

5 min 2

0.9

[34]

5 min 5 min

[7,35-37]

10 min

5 min 15 min

[1] , , . 1 [M]. :
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