

Appendices

Appendix 1. Location map of the study place.

Appendix 2. Composition of mineral supplement (Premin Slanisko).

Appendix 3. Preparation of blood plasma samples for storage and analysis.

Appendix 4. Blood biochemical analysis using VetTest Chemistry Analyzer.

Appendix 5. Reference values of blood parameters.

Appendix 6. Correlations of slaughter weight to body condition indicators.

Appendix 7. Mean (SD) of blood plasma metabolites between late autumn and late winter.

Appendix 8. Correlation of body condition score to creatinine concentration ($\mu\text{mol/L}$).

Appendix 1

Location map of the study place

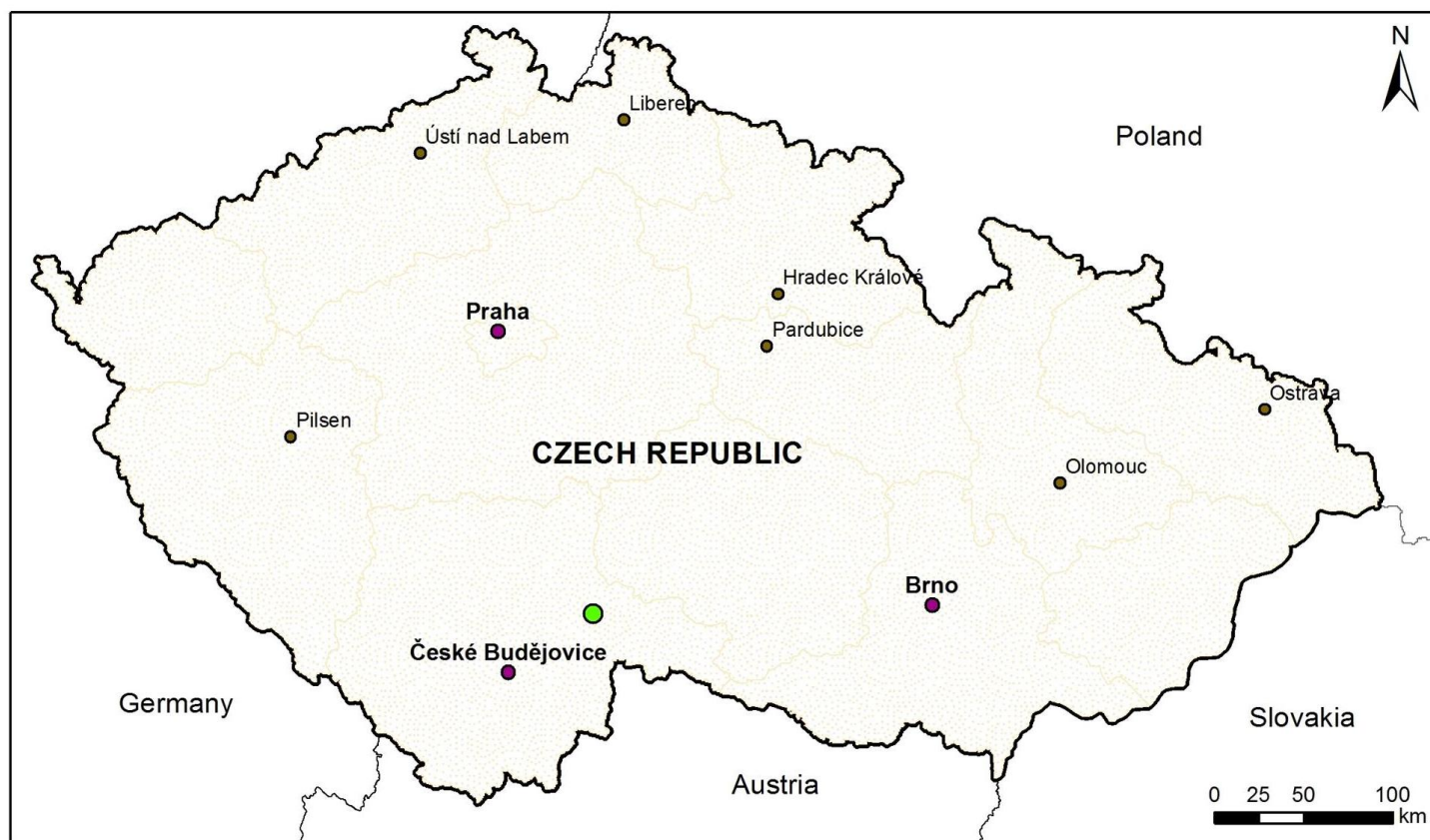


Figure A1. Mnich, South Bohemia Region, Czech Republic.

Appendix 2

Composition mineral supplement (Premin Slanisko)

Table A2.1 Nutrient composition of free choice mineral supplement.

Composition	Unit	Premin Slanisko
Calcium	%	14
Phosphorus	%	7
Sodium	%	21
Magnesium	%	2
Copper	mg	200
Manganese	mg	1000
Inorganice zinc	mg	800
Organic zinc	mg	-
Iodine	mg	50
Cobalt	mg	20
Selenium	mg	10
Vitamin A	mJ	250,000
Vitamin D3	mJ	100,000
Vitamin E	mg	450

(Source: VVS Vermerovice Ltd., Czech Republic).

Appendix 3

Preparation of blood plasma samples for storage and analysis

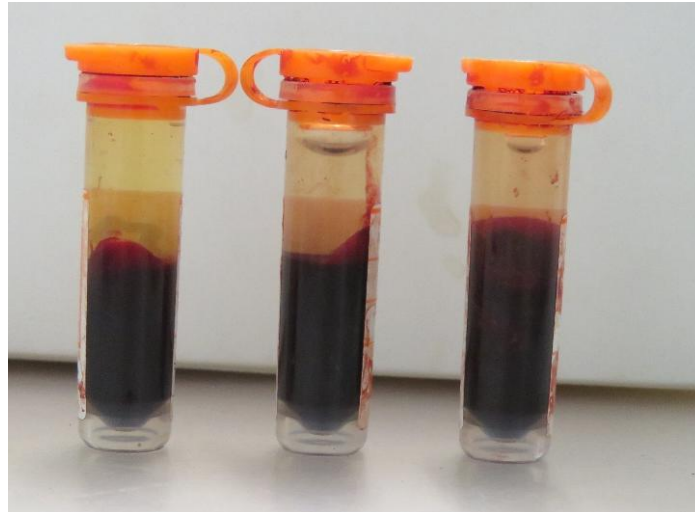


Figure A3.1 Preparing blood samples in room temperature (Photo: Author).



Figure A3.2 Centrifugation of samples at 12,000 RCF for 2 minutes (Photo: Author).



Figure A3.3 Extraction of blood plasma from centrifuged blood samples for analysis (Photo: Author).

Appendix 4

Blood biochemical analysis using VetTest Chemistry Analyzer



Figure A4.1 Plasma sample preparation (Photo: Author).



Figure A4.2 Extracted plasma for analysis (Photo: Author).



Figure A4.3 Insertion of chemistry slides to VestTest Analyzer (Photo: Author).



Figure A4.4 Aspiration of the sample to VestTest Analyzer (Photo: Author).

Appendix 5

Reference values of blood parameters

Table A5 Physiological Reference Intervals for *Dama dama*.

Parameter	Units	Reference Interval	Mean	Median	Low sample	High Sample
Creatinine	µmol/L	53-174	117	113	44	221
Blood urea nitrogen	µmol/L	3.9-16.6	8.4	8.1	3.2	18.2
Total protein	g/L	49-78	64	64	42	85
Albumin	g/L	23-48	35	35	17	59
Globulin	g/L	10-45	29	27	13	55
Triglycerides	mmol/L	0.00-0.65	0.26	0.17	0.03	1.01

(Teare, 2013).

Appendix 6

Correlation of slaughter weight to body condition indicators

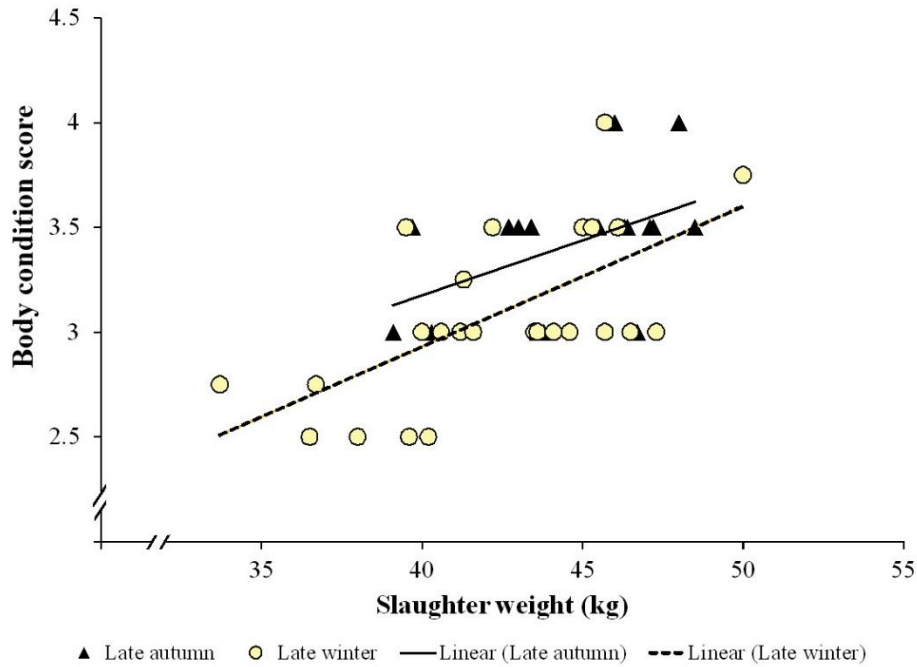


Figure A6.1 Correlation and regression of slaughter weight between body condition score of fallow deer (*Dama dama*).

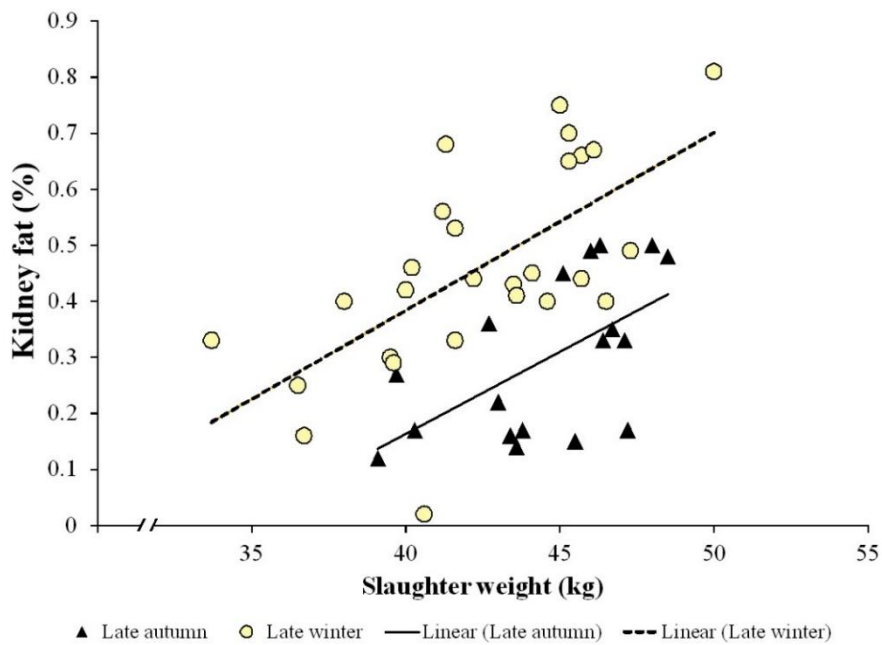


Figure A6.2 Correlation and regression of slaughter weight between kidney fat of fallow deer (*Dama dama*).

Appendix 6

Correlation of slaughter weight to body condition indicators (*Cont.*)

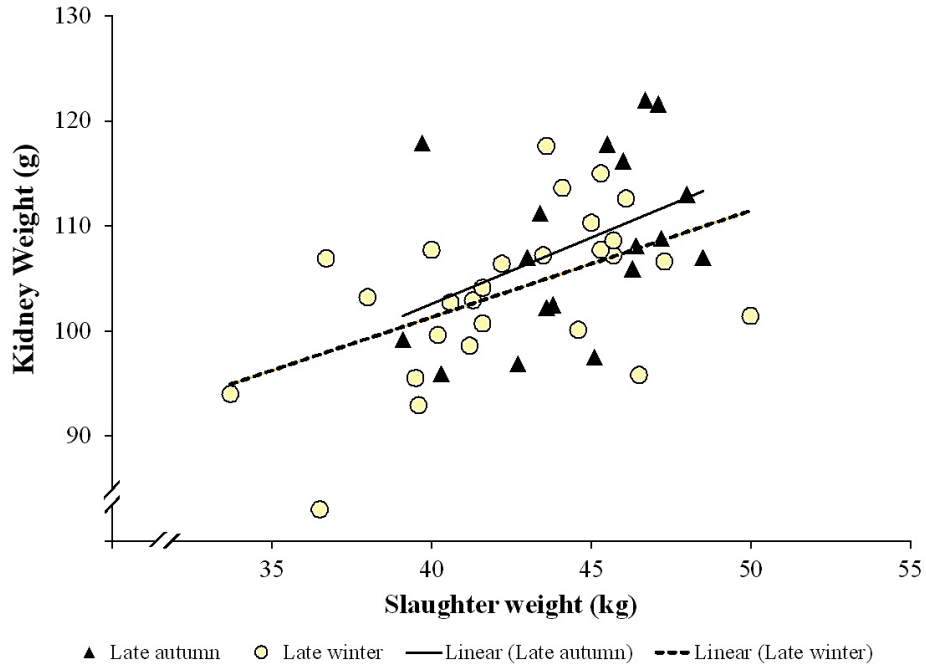


Figure A6.3 Correlation and regression of slaughter weight between kidney mass of fallow deer (*Dama dama*).

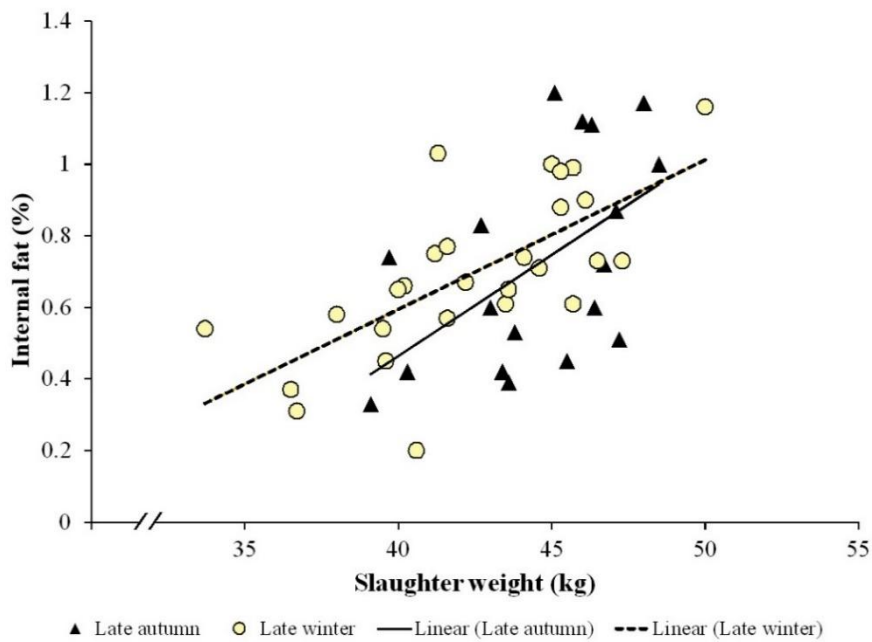


Figure A6.4 Correlation and regression of slaughter weight between percent internal fat of fallow deer (*Dama dama*).

Appendix 6

Correlation of slaughter weight to body condition indicators (*Cont.*)

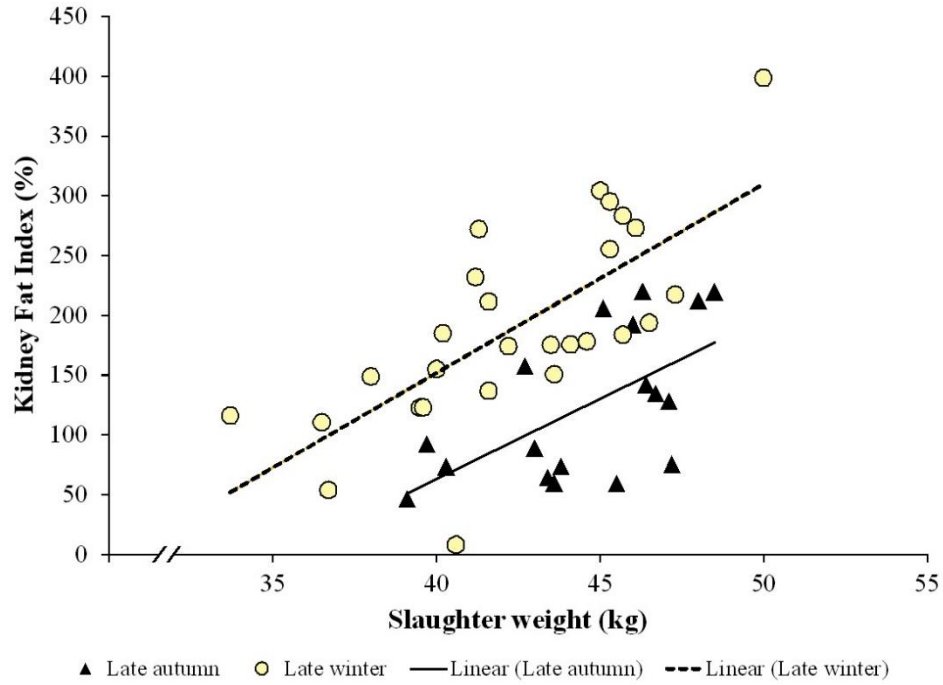


Figure A6.5 Correlation and regression of slaughter weight between kidney fat index of fallow deer (*Dama dama*).

Appendix 7

Mean (SD) of blood plasma metabolites between late autumn and late winter

Table A7.1 Comparison of mean (SD) values between the initial and late autumn ($n=18$) blood metabolites concentration of fallow deer (*Dama dama*).

Blood plasma metabolites	Initial	Late autumn	p-value
CREA (umol/L) ^A	95.1 (11.0)	109.3 (12.3)	0.004**
ALB (g/L) ^B	27.9 (1.3)	26.3 (1.5)	0.004**
BUN (mmol/L) ^A	7.61 (0.69)	7.45 (1.21)	0.527
TP (g/L) ^A	65.8 (2.4)	64.2 (3.5)	0.081 [†]
GLB (g/L) ^A	37.9 (2.8)	37.8 (3.3)	0.870
TRIG (mmol/L) ^B	0.0194 (0.0568)	0.0917 (0.0792)	0.006**

CREA=creatinine; BUN=blood urea nitrogen; TP=total protein; ALB=albumin; GLB=globulin;

TRIG=triglycerides

p-value is significantly different at [†] ≤ 0.1 , ** $p < 0.01$

^A Parametric test (Paired- Sample T-Test)

^B Non-parametric test (Wilcoxon Signed Rank Test)

Table A7.2 Comparison of mean (SD) values between the initial and late winter ($n=27$) blood metabolites concentration of fallow deer (*Dama dama*).

Blood plasma metabolites	Initial	Late winter	p-value
CREA (umol/L) ^A	96.3 (10.8)	115.7 (12.0)	<0.001***
ALB (g/L) ^B	28.2 (1.1)	27.6 (1.6)	0.056 [†]
BUN (mmol/L) ^A	7.67 (0.74)	5.92 (0.80)	<0.001***
TP (g/L) ^A	66.7 (2.7)	64.4 (3.5)	0.004**
GLB (g/L) ^A	38.4 (2.2)	37.0 (2.9)	0.028*
TRIG (mmol/L) ^B	0.0126 (0.0346)	0.0678 (0.1193)	0.035*

CREA=creatinine; BUN=blood urea nitrogen; TP=total protein; ALB=albumin; GLB=globulin;

TRIG=triglycerides

p-value is significantly different at [†] ≤ 0.1 , * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^A Parametric test (Paired- Sample T-Test)

^B Non-parametric test (Wilcoxon Signed Rank Test)

Appendix 8

Correlation of body condition score to creatinine concentration ($\mu\text{mol/L}$)

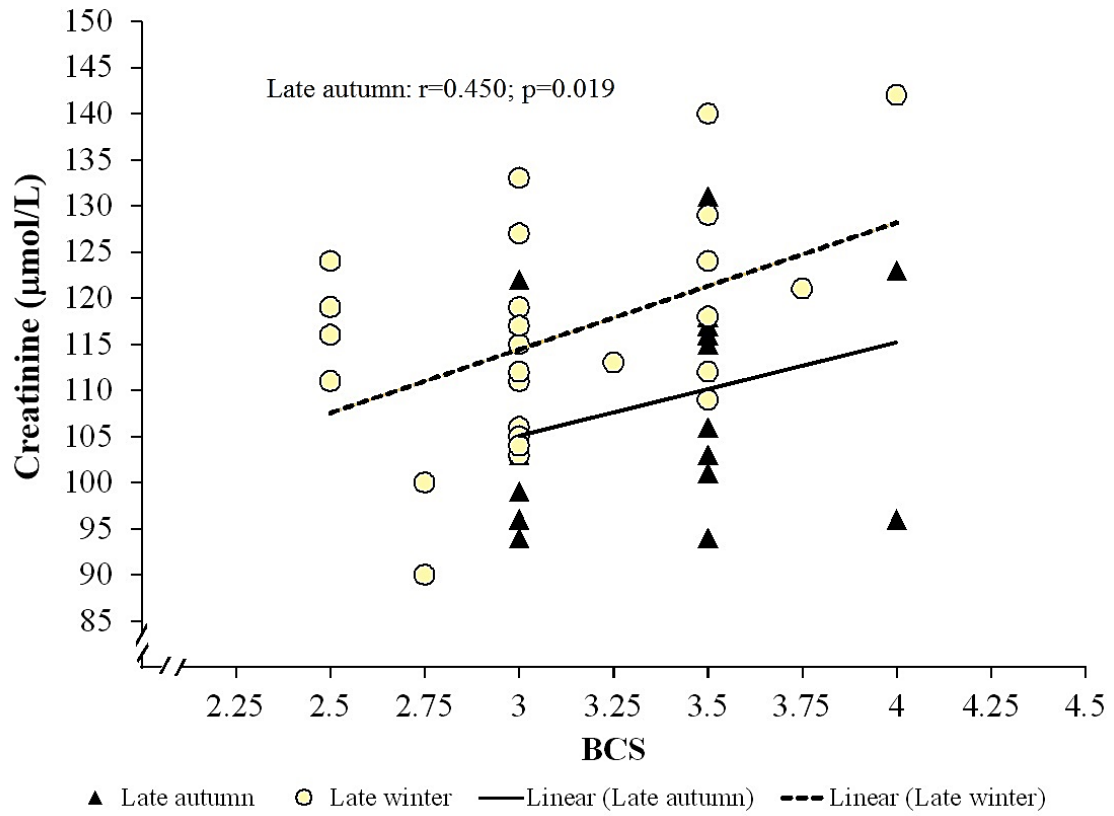


Figure A8. Relationship between BCS and creatinine ($\mu\text{mol/L}$).