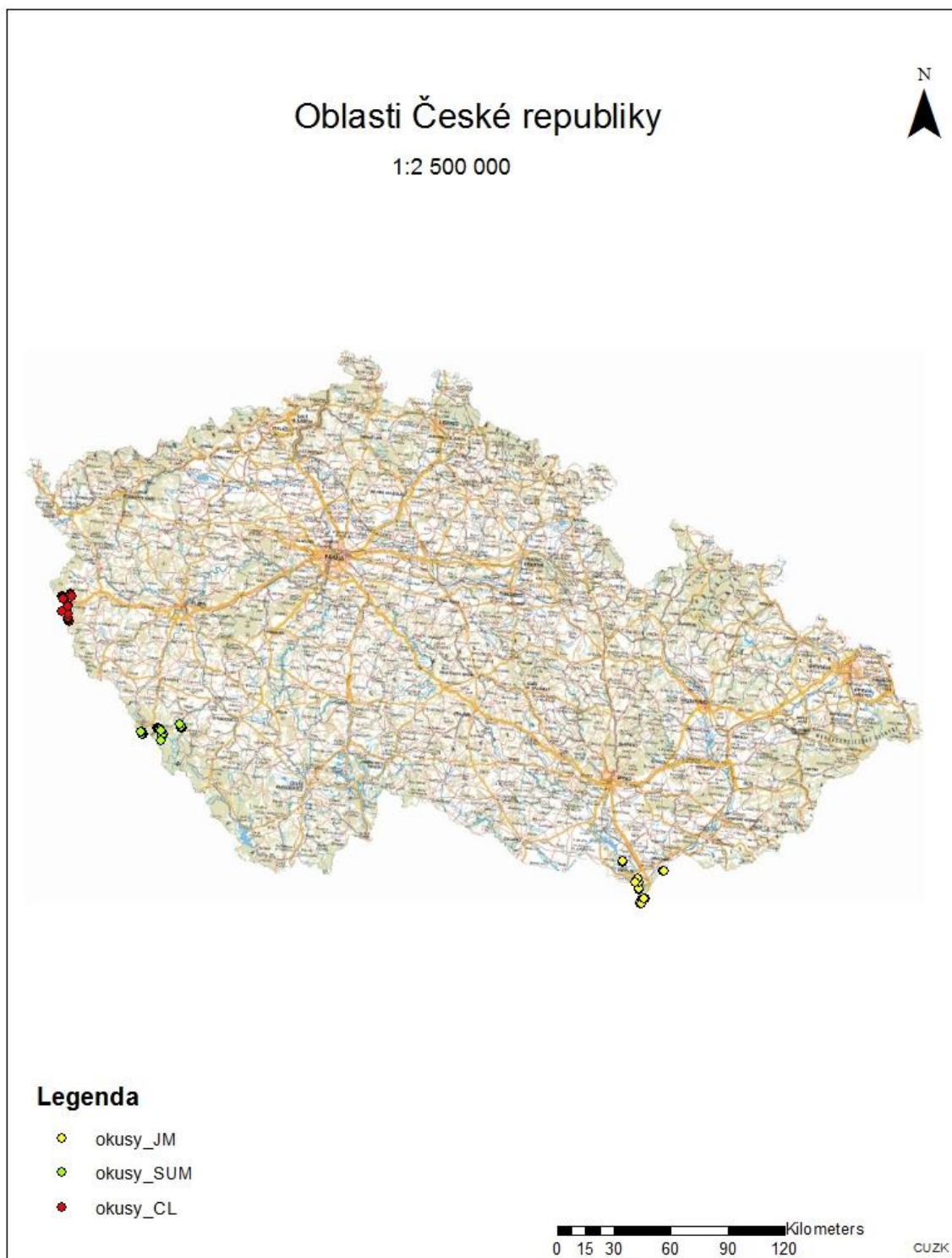


## Přílohy

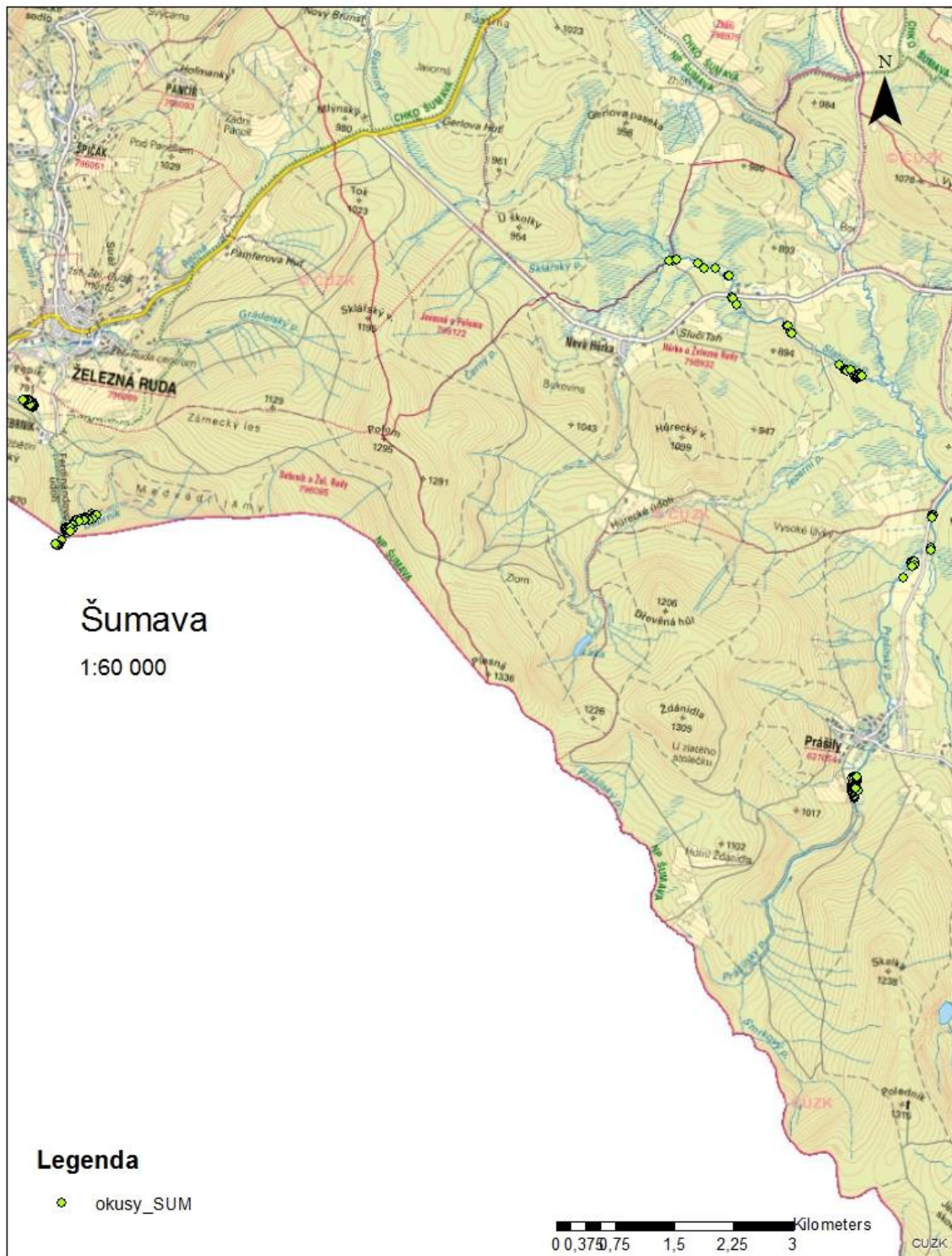
Příloha č. 1

Mapa zkoumaných oblastí ČR - okusy

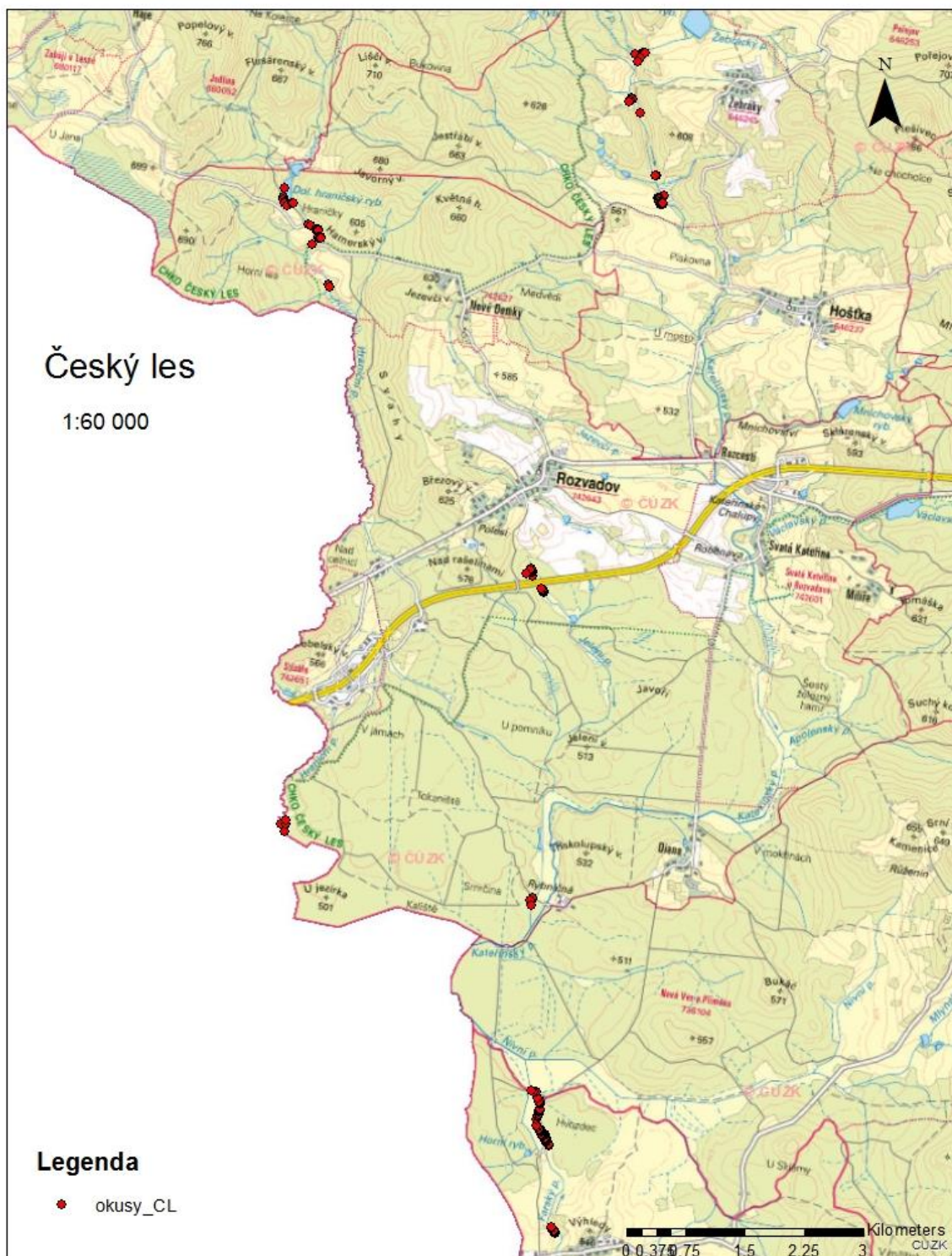


Příloha č. 2

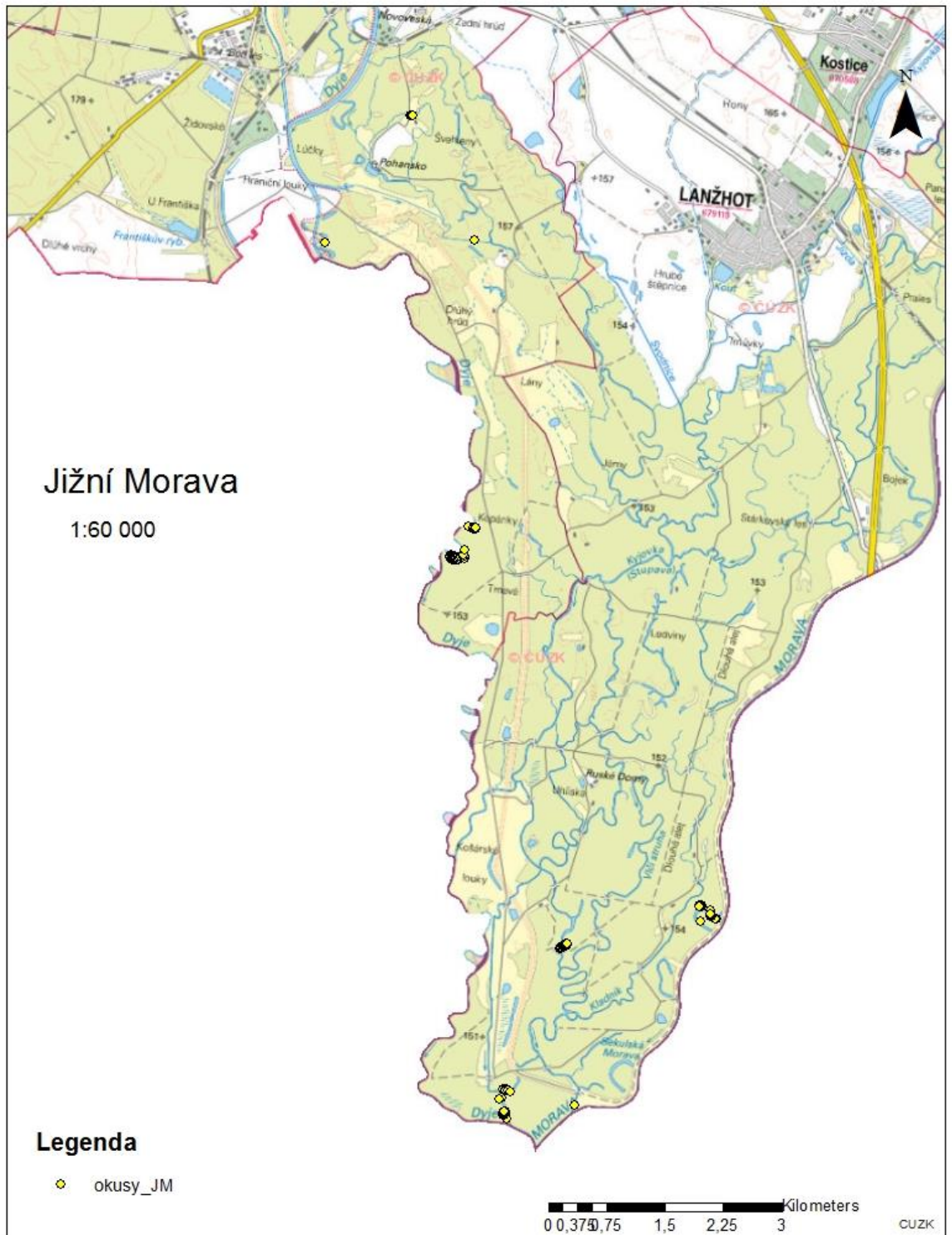
Mapa okusů – Šumava, vybrané lokality



# Mapa okusů – Český les, vybrané lokality



Mapa okusů – Jižní Morava, vybrané lokality



### Příloha č. 3

#### Výsledky analýz lineárních modelů v programu R

#### Závislost množství biomasy na vzdálenostech okusu ve vybraných oblastech ČR

##### Šumava

Residuals:

Min	1Q	Median	3Q	Max
-0.17625	-0.14715	-0.10434	-0.01983	1.06368

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
(Intercept) 0.1515788	0.0249211	6.082	4.35e-09 ***
tab\$dist 0.0006582	0.0015489	0.425	0.671

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

R

Multiple R-squared: 0.0007133, Adjusted R-squared: -0.003236  
F-statistic: 0.1806 on 1 and 253 DF, p-value: 0.6712

##### Český les

Residuals:

Min	1Q	Median	3Q	Max
-0.19048	-0.15247	-0.10627	-0.00505	0.84138

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
(Intercept) 0.1524085	0.0320680	4.753	3.99e-06 ***
tab\$dist 0.0007763	0.0009290	0.836	0.404

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.2564 on 187 degrees of freedom  
Multiple R-squared: 0.00372, Adjusted R-squared: -0.001607  
F-statistic: 0.6983 on 1 and 187 DF, p-value: 0.4044

##### Jižní Morava

Residuals:

Min	1Q	Median	3Q	Max
-0.07205	-0.05226	-0.03530	-0.00511	0.93099

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
(Intercept) 0.0739782	0.0091519	8.083	5.27e-15 ***
tab\$dist -0.0005525	0.0002038	-2.711	0.00695 **

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1134 on 475 degrees of freedom  
Multiple R-squared: 0.01524, Adjusted R-squared: 0.01317  
F-statistic: 7.35 on 1 and 475 DF, p-value: 0.006948

## ČR – celková

Residuals:

Min	1Q	Median	3Q	Max
-0.13572	-0.10278	-0.06832	0.01082	1.12946

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
(Intercept) 0.1378727	0.0102868	13.403	< 2e-16 ***
tabšvzdal -0.0010494	0.0002786	-3.767	0.000176 ***

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1985 on 917 degrees of freedom  
Multiple R-squared: 0.01524, Adjusted R-squared: 0.01417  
F-statistic: 14.19 on 1 and 917 DF, p-value: 0.0001756

## Závislost množství okusu na vzdálenosti ve vybraných oblastech ČR

### Šumava

Residuals:

Min	1Q	Median	3Q	Max
-1.2808	-0.6943	-0.5291	0.2752	10.2231

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
(Intercept) 1.42994	0.15269	9.365	<2e-16 ***
tabšdist 0.01652	0.00949	1.741	0.0829 .

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.504 on 253 degrees of freedom  
Multiple R-squared: 0.01184, Adjusted R-squared: 0.007932  
F-statistic: 3.031 on 1 and 253 DF, p-value: 0.08292

### Český les

Residuals:

Min	1Q	Median	3Q	Max
-1.0713	-0.8607	-0.7392	0.2456	18.1632

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
(Intercept) 1.708780	0.226123	7.557	1.79e-12 ***
tabšdist 0.004341	0.006551	0.663	0.508

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.808 on 187 degrees of freedom  
Multiple R-squared: 0.002343, Adjusted R-squared: -0.002992  
F-statistic: 0.4392 on 1 and 187 DF, p-value: 0.5083

## Jižní Morava

Residuals:

Min	1Q	Median	3Q	Max
-0.7250	-0.7124	-0.6955	0.2953	8.2801

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
Intercept	1.7255943	0.1116979	15.45 <2e-16 ***
tab\$dist	-0.0005729	0.0024873	-0.23 0.818

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.384 on 475 degrees of freedom  
Multiple R-squared: 0.0001117, Adjusted R-squared: -0.001993  
F-statistic: 0.05306 on 1 and 475 DF, p-value: 0.8179

## Celková - ČR

Residuals:

Min	1Q	Median	3Q	Max
-0.8654	-0.7010	-0.6675	0.2949	18.2939

Coefficients:

Estimate	Std. Error	t value	Pr(> t )
(Intercept)	1.64621	0.07719	21.326 <2e-16 ***
tab\$vzdal	0.00203	0.00209	0.971 0.332

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.489 on 917 degrees of freedom  
Multiple R-squared: 0.001027, Adjusted R-squared: -6.229e-05  
F-statistic: 0.9428 on 1 and 917 DF, p-value: 0.3318

## Závislost vzdálenosti okusu na rodu dřeviny

### Šumava

ANOVA:  $F(6,248)=5,027$ ;  $p < .000$

Residuals:

Min	1Q	Median	3Q	Max
-18.927	-6.775	-1.927	5.431	6 0.688

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	15.8115	1.3174	12.002	< 2e-16 ***
tab\$specbuk	0.4385	6.8452	0.064	0.948979
tab\$specdub	4.1151	2.7842	1.478	0.140663
tab\$specol	-7.5728	2.1556	-3.513	0.000526 ***
tab\$specsm	-6.1708	2.2534	-2.738	0.006620 **
tab\$spectop	-0.9138	1.9341	-0.472	0.637025
tab\$specvr	-5.0843	1.6801	-3.026	0.002737 **

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 9.5 on 248 degrees of freedom  
Multiple R-squared: 0.1084, Adjusted R-squared: 0.08686

F-statistic: 5.027 on 6 and 248 DF, p-value: 6.962e-05

## Český les

Residuals:

Min	1Q	Median	3Q	Max
-30.65	16.65	-2.52	11.48	51.85

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	31.649	2.245	14.095	< 2e-16 ***
tab\$specjav	-28.649	14.112	-2.030	0.04380 *
tab\$specol	-13.524	4.348	-3.110	0.00217 **
tab\$specsm	4.851	19.831	0.245	0.80704
tab\$spectop	-2.783	4.241	-0.656	0.51253
tab\$specvrv	-3.130	3.557	-0.880	0.38012

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 19.7 on 183 degrees of freedom

Multiple R-squared: 0.06714, Adjusted R-squared: 0.04165

F-statistic: 2.634 on 5 and 183 DF, p-value: 0.02511

## Jižní Morava

Residuals:

Min	1Q	Median	3Q	Max
-34.75	-13.75	-0.50	12.75	49.75

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	58.254	1.481	39.336	< 2e-16 ***
tab\$specjas	-16.236	4.031	-4.028	7.39e-05 ***
tab\$specjav	-45.447	5.602	-8.113	1.97e-14 ***
tab\$specol	-46.254	19.535	-2.368	0.018629 *
tab\$specsip	-49.754	13.853	-3.592	0.000393 ***
tab\$spectop	-49.254	6.335	-7.775	1.77e-13 ***
tab\$specvrv	-39.754	3.383	-11.750	< 2e-16 ***

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 19.48 on 260 degrees of freedom

Multiple R-squared: 0.4754, Adjusted R-squared: 0.4633

F-statistic: 39.27 on 6 and 260 DF, p-value: < 2.2e-16

## Celková – ČR

Residuals:

Min	1Q	Median	3Q	Max
-54.196	-11.474	-2.196	9.535	61.267

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	31.649	2.063	15.342	< 2e-16 ***
tab\$specbri	-15.838	3.249	-4.875	1.35e-06 ***
tab\$specbuk	-15.399	12.965	-1.188	0.2353
tab\$specdub	23.547	2.449	9.614	< 2e-16 ***
tab\$specjas	10.369	4.049	2.561	0.0106 *
tab\$specjav	-20.149	5.109	-3.944	8.82e-05 ***



```

tab$specol -18.734      3.117      -6.010      2.98e-09 ***
tab$specsip -23.149     12.965     -1.786     0.0746 .
tab$specsm -21.049      3.995     -5.269     1.83e-07 ***
tab$spectop -12.515      2.848     -4.395     1.28e-05 ***
tab$specvr -13.916      2.475     -5.622     2.73e-08 ***

```

```

---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Residual standard error: 18.1 on 700 degrees of freedom
Multiple R-squared:  0.4712,    Adjusted R-squared:  0.4636
F-statistic: 62.38 on 10 and 700 DF,  p-value: < 2.2e-16

```

### Jednotlivé dřeviny – testování - Vrba, Topol, Dub, ostatní

Coefficients:

```

      (Intercept) tab$drVrba tab$drDub tab$drOstatní
19.344      -1.611      35.662      2.215

```

Residuals:

```

      Min      1Q      Median      3Q      Max
-54.005 -14.432  -4.844   13.718  61.941

```

Coefficients:

```

Estimate  Std. Error  t value  Pr(>|t|)
(Intercept)  19.344    2.098    9.221    <2e-16 ***
tab$drVrba   -1.611    2.552   -0.634    0.528
tab$drDub    35.661    2.521   14.144    <2e-16 ***
tab$drOstatní 2.215    2.410    0.919    0.358

```

```

---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Residual standard error: 19.23 on 707 degrees of freedom
Multiple R-squared:  0.3974,    Adjusted R-squared:  0.3949
F-statistic: 155.4 on 3 and 707 DF,  p-value: < 2.2e-16

```

```

> anova(m1)
Analysis of Variance Table

```

Response: tab\$dist

```

Df  Sum Sq  Mean Sq  F value  Pr(>F)
tab$dr    3  172377  57459    155.42  < 2.2e-16 ***
Residuals 707  261371   370

```

```

---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

### Závislost biomasy na délce osídlení a vzdálenosti

#### Šumava

Residuals:

```

      Min      1Q      Median      3Q      Max
-14.707 -7.662  -0.859   6.214  64.838

```

Coefficients:

```

      Estimate  Std. Error  t value  Pr(>|t|)
(Intercept) 10.9884    0.9389   11.704    <2e-16 ***
tab$doaba   0.6741    0.2842    2.372    0.0184 *

```

```

---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

Residual standard error: 9.852 on 253 degrees of freedom  
Multiple R-squared: 0.02175, Adjusted R-squared: 0.01789  
F-statistic: 5.626 on 1 and 253 DF, p-value: 0.01845

## Český les

Residuals:

Min	1Q	Median	3Q	Max
-28.662	-18.713	-1.825	13.338	55.634

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	37.3558	4.4793	8.340	1.6e-14 ***
tab\$doba	-0.9490	0.4337	-2.188	0.0299 *

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 19.93 on 187 degrees of freedom  
Multiple R-squared: 0.02496, Adjusted R-squared: 0.01975  
F-statistic: 4.788 on 1 and 187 DF, p-value: 0.0299

## Jižní Morava

Residuals:

Min	1Q	Median	3Q	Max
-50.229	-14.371	-1.371	13.771	58.129

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	108.5642	4.4124	24.61	<2e-16 ***
tab\$doba	-7.6193	0.4591	-16.59	<2e-16 ***

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 20.31 on 475 degrees of freedom  
Multiple R-squared: 0.367, Adjusted R-squared: 0.3657  
F-statistic: 275.4 on 1 and 475 DF, p-value: < 2.2e-16

## Celková – ČR

Residuals:

Min	1Q	Median	3Q	Max
-33.590	-17.701	-5.991	9.969	79.969

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	22.2918	1.6588	13.439	< 2e-16 ***
tab\$doba	0.8199	0.1946	4.214	2.76e-05 ***

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 23.3 on 917 degrees of freedom  
Multiple R-squared: 0.019, Adjusted R-squared: 0.01793  
F-statistic: 17.76 on 1 and 917 DF, p-value: 2.759e-05