

# Gztx Npp 2001 - Sample Protocol for Daniel's Intersite Experiment

Locations

~~Plots~~

Gztx npp - 5A, B + 7

- 1) Calculate Bogr + Buda weights
- 2) Grind Bogr + Buda + combine
- 3) Calculate all grasses weights
- 4) Grind all grasses
- 5) find ratio of Bogr/Buda to grasses  
ie -  $1/1$   $2/1$   $3/1$   $1/3$  etc. w/ the weights
- 6) combine the ratio of B/B + grasses  
together into a subsample
- 7) Keep B/B big sample in an envelope  
or bag separate
- 8) keep grasses big sample in an envelope  
or bag separate
- 9) grind all forbs - take a subsample
- 10) put rest of forb sample in a bag
- 11) grind all shrubs - take a subsample
- 12) put rest of shrub sample in a bag

## Judy Hendryx

To: Dan Milchunas (E-mail)  
Subject: biomass data for 2001 gztxnpp, sites 5A, 5B and 7

Hi, Daniel,

Here is the biomass data file for 2001 gztxnpp, sites 5A, 5B and 7. If the biomass file looks OK to you, I'll start grinding these samples, so that you will be able to send them off for analysis. Let's see if I have the grinding protocol down correctly.

For the Iter gztxnpp we'll need:

Bogr/Buda  
Other

*② put remaining ground Bogr/Buda in a separate vial*

For the gztxnpp samples to send away for analysis we'll need:

All Grasses  
All Forbs  
All Shrubs

*① combine subsamples of Bogr/Buda + All Grasses together according to ratios*  
*③ save remaining "All grasses" to use for part of "Other".*

Here are the steps I have written down:

1. Make a <sup>total</sup> rough estimate of the weights of Bogr/Buda and Other Grasses.
2. Decide what the ratio of Bogr/Buda:Other Grasses is.
3. Grind Bogr/Buda and Other Grasses separately; then subsample the ground materials of each according to the ratio determined in #2. When combined the two subsamples will form a representative subsample of "All Grasses" to send away for analysis.
4. Grind "All Forbs" together and subsample to send away for analysis.
5. Grind "All Shrubs" together and subsample to send away for analysis.
6. The remaining "Bogr/Buda" sample from #3 will be the sample for Iter gztxnpp 2001 C&N analysis.
7. The remaining "All Grasses", "All Forbs" and "All Shrubs" samples will be combined to make the "Other" sample for Iter gztxnpp 2001 C&N analysis.

If this is not the way you would like to have the grinding done, please correct me where I am wrong! I want to keep all of the samples usable for each experiment.

Thanks very much,  
Judy

2001dan\_m.xls

Loc. 5A

Samples not being sent  
(too small + other)

GZ/GZ

\* all GZ/GZ NPP

Plots 1-6

(previously ground for Rebecca McElwee  
before we knew they would be used  
for Daniel's intersite experiment)

\* Plot 2 Util

Grasses other than

BOGR (no subsample  
of BOGR/Grasses;  
just BOGR  
in sample  
to send)

GZ/UN

\* Plot 2 NPP

all shrubs (EREF)  
(unground)

UN/GZ

\* Plot 1 Util

all Forbs

UN/UN

\* Plot 4 NPP

all shrubs (unground)

\* Samples Kept \*

too small to send

\*1.) Loc. 7 GZGZ  
Plot 4 util shrubs (arfr)

\*2.) Loc. 7 GZ/UN  
Plot 2 NPP Forbs (LEDE)  
Plot 2 NPP shrub (arfr)

\*3.) Loc. 7 RO/UN  
Plot 1 NPP shrubs (atca, EBBF)  
Plot 2 NPP shrubs (atca)

\*4.) Loc. 7 UN/GZ  
Plot 2 NPP shrubs (Gusa)  
Plot 4 util. forbs (LEDE, PCO, CHLE)  
Plot 5 util. forbs (Lede)

\*5.) Loc. 7 UN/UN  
Plot 6 NPP shrubs (ARFR)



Loc. SB GZTX 2001

Samples kept (too small to send)

Loc SB

GZ/GZ

\* Plot 5 NPP  
all Forbs

\* Plot 5 Util  
all Forbs

\* Plot 6 Util  
all Forbs

UN/UN

\* Plot 1 NPP (unground)  
all Forbs

\* Plot 2 NPP (unground)  
all Forbs

UN/GZ

\* Plot 2 Util  
all Forbs

\* Plot 3 NPP  
all Forbs

\* Plot 3 NPP  
all shrubs

\* Plot 3 Util (unground)  
all shrubs

\* Plot 5 NPP  
all Forbs

\* Plot 6 Util  
all shrubs

LTER 2001 G-ztx Npp

Trace Amount = .05 gram

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Also:

	1 Date	2 Loc	3 Trtmt	4 Plot	5 X	6 Y	7 Spec.	8 Wt.	9 Util	10 Notes	11 Additional p. 1-8 (Sec. 24)
1	80701	5A	RU	6	5	4	ASOX	2.31			Additional p. 1-2 (Oppowts)
2							BOGR	5.76			
3							AGSM	3.85			
4							PACH	1.09			
5							CAHE	1.13			
6							LEDE	0.08			
7							SPCO	0.99			
8							TROC	0.27			
9							GACO	0.27			
10	80701	5A	RU	3	14	29	CELA	2.21			
11							SPCO	8.22			
12							AGSM	0.06			
13							SAIB	0.04			
14							CAHE	8.56			
15							SIHY	0.32			
16							BOGR	6.28			
17	80701	5A	RU	2	23	11	ATCA	1.02			
18							LEDE	0.30			
19							MILI	0.12			
20							SPCO	1.26			
21							BOGR	11.76			
22							SIHY	10.52			
23	80701	5A	GU	4	4	11	CHVI	15.55			
24							SIHY	0.32			
25							PACH	1.18			
26							SPCO	4.26			
27							CAHE	0.62			
28							LEDE	0.37			
29							SCPA	0.19			
30							BOGR	14.38			
31											

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	1 Date	2 Loc	3 Trt	4 Plot	5 X	6 Y	7 Spec	8 Wt	9 Util	10 notes	11	12	13
1	08-06-01	5A	UG	4	10	11	CAHE	4.37	Util				
2							SIHY	0.26	Util				
3							LEDE	0.61	Util				
4							DEPI	0.09	Util				
5							SPCO	3.27	Util				
6							BOGR	16.07	Util				
7	08-06-01	5A	VU	4	56	20	CAHE	0.89					
8							SPCO	1.11					
9							MILI	0.55					
10							AGSM	14.99					
11							BOGR	5.00					
12							ARBR	0.16					
13							LEDE	0.25					
14	08-06-01	5A	VU	3	30	25	SIHY	0.85					
15							AGSM	5.02					
16							SPCO	1.48					
17							ATCA	0.43					
18							LEDE	0.325					
19							CHLE	0.05					
20							ARFR	0.25					
21							BOGR	6.76					
22							DEPI	0.325					
23	08-07-01	5A	GV	2	35	21	AGSM	36.02					
24							SPCO	0.09					
25							BOGR	2.38					
26							EREF	0.28					
27							LEDE	0.04					
28							SAIB	0.04					
29							COCA	.23					
30							CHLE	.23					
31							OPPO						

2001 GZTX npp

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[illegible]



EFFICIENCY LINE 22-206



	<sup>1</sup> Date	<sup>2</sup> Loc	<sup>3</sup> Trt.	<sup>4</sup> Plot	<sup>5</sup> X	<sup>6</sup> Y	<sup>7</sup> Spc	<sup>8</sup> Wt.	<sup>9</sup> Util
1	8-7	5A	ROUN	4	18	28	Boqr	13.01	
2							AgSM	10.34	
3							Lede	.24	
4							SONU	1.44	
5							SiHy	.77	
6							Toqr	.15	
7							SpcO	6.02	
8	8-7	5A	ROUN	7	5	2	Lede	.33	
9							CHLE	.05	
10							CAHG	1.9	
11							SpcO	1.78	
12							PACH	2.54	
13							Boqr	13.01	
14							CoCI	.33	
15							ASOX	3.65	
16	8-7	5A	ROUN	1	23	15	CHvi	7.62	
17							Cahe	.86	
18							SpcO	3.08	
19							SONU	.91	
20							ASOX	.05	
21							SiHy	2.82	
22							Lede	.4	
23							PACH	3.72	
24							LYJN	.53	
25							Boqr	6.6	
26	8-7	5A	ROUN	3	17	25	Boqr	9.44	
27							Lede	.2	
28							SiHy	1.89	
29							CHLE	.05	
30							SpcO	3.14	
31							PACH	.09	



EFFICIENCY LINE® 22-206



	<sup>1</sup> DATE	<sup>2</sup> LOC	<sup>3</sup> TRT.	<sup>4</sup> Plot	<sup>5</sup> X	<sup>6</sup> Y	<sup>7</sup> Spc.	<sup>8</sup> Wt.	<sup>9</sup> Util
1	8-6	5A	UN/GR	5	01	28	Spco	.68	
2							CAHE	2.6	
3							Boqr	11.99	
4							Lede	.06	
5							Agsm	.91	
6	8-6	5A	UN/UN	2	52	26	Boqr	18.41	
7							MATA	.43	
8							SONU	.34	
9							CAHE	1.62	
10							Spco	.68	
11							Depi	.1	
12							CHLE	.05	
13							Lede	.08	
14	8-6	5A	UN/UN	5	24	14	ASOX	.65	
15							CAHE	.75	
16							Chle	.05	
17							Depi	.11	
18							Agsm	3.01	
19							GACO	.97	
20							Spco	.55	
21							Lede	1.03	
22							Boqr	8.11	
23	8-6	5A	UN/UN	1	12	13	Boqr	11.44	
24							Chle	.17	
25							Lede	1.04	
26							Vuoc	.16	
27							Agsm	4.55	
28							Spco	.62	
29							ZiAr	4.85	
30							CAHE	2.03	
31							COCA	.16	

do not use  
these weightsThis is  
repeated  
information

[illegible]



	1 Clipping Date	2 Location	3 Treatment	4 Plot	5 x	6 y	7 Species	8 wt.(g)	9 NPP (unit)
1	80601	SA	GG	1	28	47	SPCO	2.00	NPP
2							BOGR	21.45	
3							CHLE	0.08	
4							CAHE	3.71	
5	080601	SA	GG	2	19	48	PACH	3.32	NPP
6							SIHY	0.28	
7							CHLE	0.05	
8							SPCO	3.63	
9							CAHE	2.85	
10							BOGR	9.66	
11	080601	SA	GG	3	35	47	CAHE	1.30	NPP
12							VUOC	0.08	
13							OPPO		
14							COCA	2.90	
15							SPCO	0.08	
16							PACH	1.97	
17							CHLE	0.05	
18							BOGR	15.03	
19	80701	SA	GG	4	16	27	CAHE	2.09	NPP
20							PACH	4.18	
21							SIHY	7.45	
22							BOGR	17.08	
23	80601	SA	GG	5	59	41	LEDE	0.22	NPP
24							CHLE	0.58	
25							SPCO	0.90	
26							CHAL	0.10	
27							SODU	1.35	
28							BOGR	13.45	
29	80701	SA	GG	6	3	17	SPCO	2.83	NPP
30							CAHE	2.12	
31							CELA	3.60	

Cont.

... Cont

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ANPAD

✓	1 Clipping Date	2 Location	3 Treatment	4 Plot	5 X	6 Y	Species	Wt.(g.)	9 NPP/utl	1
1	80701	SA	GG	6	3	17	DEPI	1.57	NPP	
2							LEDE	6.18		
3							BOGR	18.09		
4							SIHY	20.68		
5	80601	SA	GG	4	12	27	BOGR	12.87	UTIL	
6							SPCO	3.28		
7							PACH	4.93		
8							CAHE	1.51		
9	80601	SA	UG	6	34	20	ALSM	.42	UTIL	
10							SPCO	.98		
11							CHLE/CHAL	.35		
12							BOGR	9.88		
13	80601	SA	UG	1	58	26	BOGR	11.20	NPP	
14							CAHE	1.11		
15							ALSM	2.99		
16	80601	SA	GG	3	51	47	LEDE	.60	UTIL	
17							COCA	.26		
18							SPCO	3.11		
19							BOGR	9.72		
20							CAHE	1.86		
21	80601	SA	GG	1	28	47	OPPO		UTIL	
22							SPCO	3.05		
23							BOGR	13.71		
24							CAHE	1.47		
25							CHLE	0.04		
26	80701	SA	GU	1	8	32	BOGR	5.09	NPP	
27							PACH	4.01		
28							ALSM	3.08		
29							LEDE	1.78		
30							DEPI	.29		
31							ASOX	1.70		

	1 Date	2 Loc	3 Trtmt	4 Plot	5 X	6 Y	7 Spec	8 Wt.	9 Util	10 Notes	11	12	13
1							SIHY	3.40	↓				
2							SPCO	7.71					
3							CHLE	0.50	↓				
4	080701	5A	GU	6	28	46	OPPO		NPP				
5							AGSM	15.96					
6							BOGR	8.48					
7							SPCO	0.40					
8							CHAL	0.05					
9							LEDE	0.06	↓				
10	080601	5A	GG	6	1	17	CAHE	2.76	UTIL				
11							CELA	4.57	↓				
12							LEDE	0.62					
13							SPCO	5.21					
14							SIHY	8.89					
15	080701	5A	ROWN	5	7	15	BOGR	11.34	↓				
16							PACH	0.58	NPP				
17							BOGR	11.93					
18							LEDE	0.27					
19							SONU	0.16					
20							AGSM	3.83					
21							CAHE	0.73					
22	080601	5A	UG	1	54	26	SPCO	2.30	↓				
23							CHLE	0.10	UTIL				
24							AGSM	8.54	↓				
25	080601	5A	GG	5	55	41	BOGR	12.57	↓				
26							CHVI	19.01	UTIL				
27							BOGR	11.01					
28							SPCO	3.99					
29							CHLE	0.57	↓				
30													
31													



LTER 2001 GZTXNPP

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1	DATE	2	LOC	3	TRT	4	PLDT	5	X	6	Y	7	SPEC	8	WT	9	UTIL	10	NOTES	11	12	13
✓	080601	5A	GG	2	15	43							SPCO	2.11		UTIL						
2													BOGR	4.90		↓						
3													CACH	0.21		↓						
4													CHAL	0.23		↓						
✓	080601	5A	UG	2	54	13							BOGR	12.26		NPP						
6													CAHE	0.66		↓						
7													SPCO	0.89		↓						
8													CHLE	0.05		↓						
9													AGSM	7.45		↓						
✓	080601	5A	UG	3	18	25							AGSM	0.34		NPP						
11													SPCO	1.41								
12													CAHE	5.13								
13													BOGR	9.00								
14													DEPI	1.14								
15																						
16																						
17																						
18																						
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26																						
27																						
28																						
29																						
30																						



data ↑  
enteredSpecies wt  
Stco 2.70

Date	Loc	trt	Plot	x	y	Species	wt	wt%
80201	7	GU	6	28	46	Plpa	0.17	
						Boqr	1.85	
						Thtr	1.78	
						Coca	0.06	
						Arlo	6.49	
						Chvi	42.95	
Continued next page								
80201	7	GU	5	60	11	Vncc	0.84	
						Coca	3.39	
						Chle	1.12	
						Lede	0.99	
						Spco	1.49	
						Boqr	9.58	
						Arlo	0.38	
						Chal	0.34	
						Sihy	7.65	
80201	7	GU	1	8	32	Coca	0.68	
						Cahe	0.27	
						Oppo		
						Boqr	2.72	
						Arlo	3.49	
						Stco	18.41	
						Hepe	0.12	
						Pach	6.45	
						Chew	trace	
						Spco	0.26	



Date	loc	trt	plot	x	y	Species	wt.	util.
✓ 80201	7	UU	2	40	49	STCO	0.12	
						SIHY	0.06	
						OPPO		
					CHL+CHVI		0.45	
					CAHE		1.99	
					LEDE		4.91	
					SPCO		3.53	
					ARLO		0.28	
					BOGR		12.15	
✓ 80201	7	GU	4C	4	11	VUOC	0.62	NAP
					EREF		1.02	
					STCO		0.40	
					CAHE		4.28	
					BOGR		15.29	
					ARLO		1.97	
					THTR		2.95	
					SPCO		2.62	
					PALH		4.38	
✓ 80201	7	UU	3C	18	60	STCO	9.33	NAP
					OPPO			
					BUDA		15.68	
					LEDE		1.11	
					CAHE		2.63	
					CHLE		1.63	
					SPCO		2.17	
					OECO		3.49	
✓ 80201	7	UU	1	44	39	LEDE	8.76	NAP
					CHLE		2.10	
					STCO		7.42	
					SIHY		0.56	
					CAHE		1.15	
					SPCO		3.11	
					ENG		0.05	
					BOGR		6.75	

Clipping Date	Loc.	Treatment	Pbt	X	Y	Species (Wt.)	Wt./NPP
✓ 80201	7	UN	4	41	43	LEDE 0.73 BOGR 7.96 PLPA 0.02 CHLE 0.09 CHVI 11.56 STCO 11.44 SPCO 0.92	Wt./NPP
✓ 80301	7	ROWN	6	5	4	STCO 24.74 OPPO BOGR 3.79 VUOC 0.82 ARLO 0.08 SELY 1.02 CHLE 0.69 SPCO 0.79 BUDA 0.79	NPP
✓ 80301	7	ROWN	2	23	11	STCO 20.91 OPPO COCA 3.29 SPCR 0.68 VUOC 5.63 BOGR 4.92 LEDE/ATCA 0.35 CHLE 0.20	NPP
✓ 80301	7	ROWN	7	5	2	SAIB 0.01 OPPO CHLE 0.16 ARLO 3.71 COCA 3.53 BOGR 3.18 LEDE 0.69 LIIN 2.21 SPCR 0.54 ERCF 1.53 SPCO 1.61 VUOC 1.97 STCO 17.82	NPP

\* This  
OPPO was not  
found later  
when OPPO  
was weighed.  
Could this  
OPPO space have  
been left in  
error?

✓ Clipping Date	Loc	Treat- ment	Plot	X	Y	Species	Wt. (g.)	NPP/Util
80301	7	ROWN	1	23	15	STCO	16.76	NPP
						OPPO		
						CAHE/SPCR	0.31	
						SPCO	0.23	
						BOGR	5.61	
						ATCA/EREF	0.26	
						LEDE	0.32	
						VUOC	0.37	
						COCA	3.76	
✓ 80301	7	ROWN	46	18	28	CHLE	0.47	NPP
						SPCO	0.45	
						VUOC	0.34	
						CAHE	0.96	
						ARLO	0.40	
						CHLE	0.25	
						BOGR	11.14	
✓ 80301	7	ROWN	50	7	15	STCO	25.52	NPP
						STCO	12.03	
						CAHE	2.02	
						SPCR	3.88	
						CHLE	0.11	
						SPCO	0.69	
						BOGR	1.59	
						ARLO	2.61	
✓ 80301	7	ROWN	3	14	29	VUOC	0.15	NPP
						HEPE	6.01	
						VUOC	2.44	
						MILE	2.16	
						BOGR	5.27	
						SPCR	1.28	
						GUSA	3.25	
						ARLO	2.12	
						STCO	8.69	
						LEDE	0.05	
						CAHE	0.21	
						SPCO	1.27	
						CHLE	1.60	



Clipping Date	Location	Treatment Plot	X	Y	Species	Wt.(g)	NPP/Util NPP	Notes
✓ 80201	7	UNGZ 5	9	37	STCO	13.57	NPP	Cow Pie in Plot
					OPPO			
					CHLE	0.16		
					VUOC	0.27		
					SPCO	1.45		
					LEDE	0.58		
					BOGR	25.08		
✓ 80201	7	UNGZ 6	26	27	OPPO		NPP	Cow Pie
					BOGR	20.00		
					ATCA	1.68		
					SPCO	1.84		
					VUOC	0.05		
					SATB	0.12		
					LEDE	0.32		
					STCO	2.79		
✓ 80201	7	UNGZ 1	6	33	VUOC	1.12	NPP	
					CHLE	0.18		
					CANE	0.75		
					PLPA	0.45		
					BOGR	12.51		
					LEDE	4.97		
					STCO	3.78		
✓ 80201	7	UNGZ 4	17	19	VUOC	0.79	NPP	
					OPPO			
					LEDE	0.44		
					PSPE	8.12		
					STCO	3.89		
					BOGR	9.56		
					SPCO	0.96		
					CANE	2.49		
✓ 80201	7	UNGZ 5	42	63	SINY	14.41	NPP	
					OPPO			
					BOGR	11.45		
					SPCO	0.32		
					LEDE	0.76		
					ARIG	0.80		
					CHLE	0.65		
					SPCR	0.40		



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Clipping Date	Location	Treatment	Plot	x	y	Species	Wt.(g.)	NPP/Util
✓ 80201	7	GZGZ	1	22	51	THFI	0.66	NPP
						VUOC	1.77	
						VUOC	0.84	
						ARLO	3.50	
						STCO	1.95	
						PLPA	0.54	
						LEDE	0.27	
						SPCO	2.09	
						BOGR	6.65	
						LIIN	1.35	
✓ 80201	7	WNGZ	46	13	19	BOGR	8.11	UTIL
						SPCR	0.06	
						LEDE	0.06	
						SPCO	0.13	
						CHLE	0.04	
						ARLO	4.04	
						VUOC	0.09	
						CAHE	0.92	
						SPCO	0.58	
						ARLO	4.95	
✓ 80201	7	GZGZ	6	7	17	CAHE	1.85	UTIL
						OPPO		
						VUOC	0.06	
						BOGR	11.06	
						LEDE	0.19	
						BOGR	6.54	
						VUOC	0.42	
						CRMI	1.02	
						LEDE	4.14	
						SPCR	0.89	
✓ 80201	7	WNGZ	3	8	38	PLPA	0.07	UTIL
						SIHY	0.25	
						CAHE	4.02	
						SPCR	0.06	
						SPCO	0.05	
						STCO	1.02	
						CAHE	3.20	
						SIHY	0.18	

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Clipping Date	Location	Treatment Plot	X	Y	Species	WT (g.)	NPP/Util
					LEDE	0.18	
					AGSM	0.31	
					BOGR	7.84	
					PLPA	0.28	
✓ 80201	7	UNGZ 6	22	27	STCO	0.33	UTIL
					VUOC	0.18	
					BOGR	17.99	
					SPCO	0.53	
					LEDE	0.11	
					ERCF	0.57	
					CHLE	0.75	
✓ 80201	7	UNGZ 2	13	31	CAHE	0.53	
					SPCO	0.34	UTIL
					SIHY	3.62	
					VUOC	0.23	
					OPPO		
					CAHE	0.35	
					BOGR	6.92	
					STCO	1.94	
					LEDE	0.36	
↓ 80201	7	GZGZ 6	3	17	CAHE	0.52	NPP
					SPCO	0.21	
					VUOC	0.35	
					LEDE	0.54	
					BOGR	7.63	
					ARLO	4.22	
					ILPA	0.43	
					PLPA	0.23	
↓ 80301	7	GZGZ 5	38	63	MILI	0.13	UTIL
					VUOC	2.16	
					BOGR	10.75	
					GALO	1.01	
					SPCO	0.05	
					ARLO	7.08	
					ASOX	0.32	
					CAHE	0.05	
					SPCR	1.07	
					LEDE	0.19	

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Clipping Date	Location	Treatment	Plot	X	Y	CONT. Species	WT.(g.)	NPP/WHI/
✓ 80201	7	UNGZ	1	10	33	SIHY	1.50	
						CHLE	0.21	
						LEDE	0.61	UTIL
						SPCO	0.20	
						CAHE	1.19	
						STCO	3.68	
						SPCR	0.46	
						BOGR	9.15	
✓ 80301	7	GZGZ	3	54	56	SPCR	1.58	NPP
						VNOC	6.04	
						ARLO	0.74	
						BOGR	15.53	
						GUSA	3.38	
						PLPA	1.60	
						OPPO		
						LEDE	6.25	
✓ 80201	7	GZGZ	2	22	30	SPCO	1.16	
						STCO	0.09	UTIL
						ARLO	6.45	
						SIHY	1.13	
						VNOC	0.31	
						OPPO		
						LEDE	0.11	
						SPCR	0.20	
						PLPA	0.29	
						SPCO	0.23	
						BOGR	9.66	
						CHAL	0.01	NPA
✓ 81201	7	GZGZ	4	17	49	OPPO		
						SIHY	2.16	
						ARLO	15.46	
						PLPA	1.61	
						SPCO	1.00	
						SPCR	2.49	
						VNOC	0.40	
						BOGR	3.82	
						LEDE	0.37	

Cutting Date	Location	Treatment	Plot	X	Y	Species	Wt. (g)	NPP/Util
✓ 80301	7	GZGZ	1	26	51	BOGR	18.30	(NPP) UTIL?
						STCO	5.69	
						ARLO	22.31	
						LIIN	11.58	
						SIHY	4.21	
						SPCO	2.55	
						PLPA	0.15	
						VUOC	1.38	
						LEDE	1.14	
						SPCR	2.23	
✓ 80301	7	GZGZ	3	59	56	CAHE	1.93	UTIL
						LEDE	0.32	
						SPCR	0.68	
						PLPA	0.61	
						BOGR	6.29	
						VUOC	0.74	
✓ 80201	7	UNGZ	5	13	37	BOGR	10.92	UTIL
						LEDE	0.36	
						BUDA	0.05	
						VUOC	0.03	
						STCO	2.01	
✓ 80201	7	UNGZ	3	12	38	STCO	6.68	NPP
						VUOC	0.17	
						ARLO	0.15	
						SPCO	0.21	
						PLPA	0.07	
						SPCR	3.82	
						LEDE	0.99	
						AGSM	1.08	
						BOGR	10.01	
✓ 80201	7	GZGZ	4	13	49	ARLO	0.15	UTIL
						SPCO	0.72	
						BOGR	8.21	
						SPCR	0.88	
						SIHY	2.96	
						VUOC	0.26	
						LEDE	0.26	
						ARFR	0.12	

Clipping Date	Location	Treat ment	Plot	x	y	Species	Wt. (g.)	NPP (util)
✓ 80201	7	UNGZ	ZC	09	31	PLPA	0.11	NPP
						STCO	20.11	
						ARLO	3.11	
						BAGR	7.42	
						CAME	3.45	
						SPCO	1.59	
						GUSA	0.09	
						LEDE	2.12	2 bags



GG=GZGZ  
GU=GZUN  
UG=UNGZ  
UU=UNUN

# Biomass data for

2001 LTER GZtx NPP

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Date	Loc	Trt	Plot	X	Y	Species	Wt.	Util Notes
✓ 80301	19	UU	4C	18	49	SAIB	.07	
80301	19	UU	4C	18	49	SPCO	10.39	
80301	19	UU	4C	18	49	Sihy	2.61	
80301	19	UU	4C	18	49	SPCR	10.16	
80301	19	UU	4C	18	49	Agsm	1.33	
80301	19	UU	4C	18	49	Lede	.69	
80301	19	UU	4C	18	49	Boqr	1.01	
80301	19	UU	4C	18	49	STCO	5.39	

Date	Loc	Trt	Plot	X	Y	Species	Wt.	Util
✓ 80301	19	GU	1	8	32	Boqr	6.35	
80301	19	GU	1	8	32	Sihy	1.61	
80301	19	GU	1	8	32	Pach	0.36	
80301	19	GU	1	8	32	Vuoc	0.06	
80301	19	GU	1	8	32	Lede	0.27	
						Spco	1.44	
						Arlo	1.86	
						Alpa	0.10	
						Piop	0.66	
						SPCR	.16	
80301	19	GU	1	8	32	Stco	13.45	
✓ 80301	19	UU	3	13	17	Stco	25.48	
✓ 80301	19	GU	2	11	36	Arlo+Lede	0.85	
						Vuoc+chle	0.16	
						Boqr	2.32	
						Spco	1.68	
						Oppo		
✓ 80301	19	GU	2	11	36	Stco	16.82	



Date	Loc	trt	Plot	x	y	Species	Wt.
✓ 80301	19	UU	3	13	17	Cahe	0.28
						Bogr	0.47
						Oppo	4.51
						Spco	.90
✓ 80301	19	GU	3	17	25	Stco	11.20
						Bogr	2.24
						Spcr	0.76
					Lede+	Chle	0.12
						Spco	8.21
						Spcr	0.19
✓ 80301	19	UU	2	19	52	Chle	5.83
						Spcr	0.73
						Arlo	0.77
						AgSm	0.81
						Spco	5.79
						Bogr	0.23
						Stco	15.05
✓ 80301	19	UU	1	21	60	Spco	0.86
						Cahe	8.88
						Bogr	0.78
						Arlo	1.13
						AgSm	3.60
						Stco	11.93
✓ 80301	19	GU	4	4	11	Spco	18.52
						Spcr	0.17
						Mata	0.56
						Pach	0.29
						Vuoc	0.15
						Bogr	0.90
						Lede	0.28
					Chle + PLPA	0.16	
						Stco	25.00

Date	Loc	trt	Plot	x	y	Species	wt	util
✓ 8301	19	GU	2	35	21	SPCO	3.53	
						Chle	2.71	
						Boqr	0.61	
						Graeo	1.02	
						Liju	0.56	
						Lede	0.84	
						Stco	37.44	
						Boqr	2.51	
✓ 80301	19	GU	3	14	28	Boqr	2.51	x
		"UG"				Arlo	0.04	x
						oppo	2.17	x
						Stco	13.36	x
						Tntr	1.20	x
						SPCO	0.75	x
						Vuoc	0.05	x
						Chle	0.64	x
✓ 80301	19	UG	4	11	30	Boqr	4.74	x
						OPPO		x
						Eref	1.34	x
						Liju	2.12	x
						Mili	0.87	x
						Sihy	0.95	x
						Vuoc	0.02	x
						Arlo	0.99	x
						Stco	19.19	x
✓ 80301	19	UG	2	15	36	SPCO	1.08	x
						SPCR	0.27	x
						Lede	0.88	x
						Plpa + Chle	0.24	x
						Arlo	4.48	x
						Mata	0.16	x
						Stco	25.40	x

Date	Loc	trt	Pbt	x	y	Species	wt	util
✓ 80301	19	UG	1	15	48	ARDR	0.02	
					OPPO			
					Chle	0.02		
					Sihy	1.48		
					SpcO	1.16		
					Arlo	0.46		
					Stco	0.62		
					Boqr	17.47		
					Lede	0.11		
					Cahe	0.60		
✓ 80301	19	UG	3	10	28	Stco	12.38	
					Lede	0.04		
					SpcO	0.85		
					Boqr	3.16		
					Arfr	9.61		
					Cahe	2.85		
					Vuoc	0.65	trace sample	
					Arlo	0.72		
					OPPO			
✓ 80301	19	GG	1	12	6	Spcr	1.98	
					OPPO			
					Stco	27.47		
					SpcO	5.89		
					Eref	0.92		
					Chle	10.32		
					Coca	12.06		
✓ 80301	19	UG	1	19	48	Boqr	6.62	✓
					OPPO			✓
					Sihy	1.51		✓
					SpcO	0.99		✓
					Stco	16.89		✓

aboard data  
entered 10/24/11  
DW

date	loc	trt	plot	x	y	Species	wt	util
✓ 80301	19	GG	2	29	29	Aqsm	2.57	
						Lede	0.01	
						Spcr	0.14	
						Spcp	0.89	
						Bogr	9.28	
✓ 80301	19	GG	3	23	50	Patch	0.29	x
						Sihy	1.67	x
						oppo		x
						Spcp	0.27	x
						Lede	0.49	x
						Bogr	5.11	x
✓ 80301	19	GG	3	27	50	Sihy	0.95	
						Arlo	0.37	
						Spcr	0.31	
					Chle+Chal	0.21		
					Spcp	1.01		
					oppo			
					Lede	12.47		
✓ 80301	19	GG	1	8	6	oppo		x
					Chal	0.12		x
					Stco	9.46		x
					Said	0.76		x
					Spcr	3.09		x
					Lede	2.22		x
					Bogr	1.33		x
					Sihy	0.72		x
					Spcp	2.61		x
					Oelo	0.50		x
					Pste	0.02		x



date	loc	trt	plot	x	y	species	wt.	util.
✓ 80301	19	UG	4	7	30	Boqr	4.46	
						Cahe	0.24	
						Spco	0.33	
						Lyju	0.66	
						Vuoc	0.19	
						Lede	0.08	
						Peal	0.89	
						oppo		
						Stco	9.61	
✓ 80301	19	GG	4	9	14	Spcr	2.68	x
						Boqr	11.20	x
						Stco	3.56	x
						Si hy	2.15	x
						Chv	1.13	+
						Chle	0.04	+
						Pipa	0.57	+
						ASOX	0.14	x
						Vuoc	0.10	x
						Lede	1.70	x
✓ 80301	19	GG	2	25	29	Spcr	0.92	x
						oppo		x
						Boqr	6.46	x
						Spco	0.95	x
						Saib	0.15	x
						Agsm	1.65	x
						Pipa	0.20	x
						Si hy	3.11	x
✓ 80301	19	GG	4	5	14	Coca	0.22	
						oppo		
						Spco	2.34	
						Spcr	0.56	
						Si hy	4.97	
						Boqr	6.54	
						Arlo	0.90	

continue  
→



	1 Date	2 Loc	3 Trt	4 Plot	5 X	6 Y	7 Spc	8 Wt	9 Wt1	10	11	12	13
1	080101	11	GZUN	1	8	32	AGSM	9.38	NPP				
2							SPCO	0.22					
3							TAPA	0.05					
4							BOGR	4.30					
5							PIOP	2.36					
6							CAHE	10.26					
7	080101	11	GZUN	2	35	21	AGSM	21.65	NPP				
8							BOGR	4.39					
9							SONV	0.45					
10							SPCO	0.29					
11	080101	11	GZUN	4	4	11	AGSM	25.21	NPP				
12							TAPA	20.05					
13							BOGR	1.24					
14							SONU	0.69					
15							OPPO						
16							CAHE	8.88					
17	080101	11	GZUN	3	17	25	CHVI	43.44	NPP				
18							BOGR	0.54					
19							SPCO	0.44					
20							ARFR	2.12					
21							CAHE	7.50					
22							OPPO						
23	<del>080101</del>	<del>11</del>	<del>UN72</del>	<del>3</del>	<del>16</del>	<del>19</del>	SPCO	0.36	UTEL				
24							AGSM	4.12					
25							CAHE	4.83					
26							BOGR	2.73					
27							PIOP	0.53					
28							ARLO	0.42					
29							CHVI	0.39					
30							PACH	0.16					
31													

1	2	3	4	5	6	7	8	9	10	11	12	13
DATE	TRT	LOC	ALT	X	Y	WT	UT/MP					
080101	UNUN	11	3	21	37	SPCO 1.66	NPP					
						CAHE 3.87						
						BOGR 0.20						
						ARFR 0.55						
						AGSM 29.18						
080101	UNUN	11	2	17	42	AGSM 12.42	NPP					
						OPPO						
						CAHE 6.44						
						ARFR 1.60						
						ARLO 3.54						
						BOGR 4.36						
						BUDA 2.25						
						MIIE 0.24						
080101	GZGZ	11	4	38	27	OPPO	UTL					
						AGSM 0.60						
						SPCO 0.67						
						PACH 1.13						
						BOGR 3.07						
						TAPA 0.19						
						CAHE 1.28						
						BUDA 2.29						
080101	UNGZ	11	1	50	36	ARFR 11.24	UTL					
						BOGR 7.17						
						ASOX 0.39						
						LYJU 2.07						
						AGSM 5.79						
						CAHE 9.54						
073101	UNGZ	11	3	29	41	ARFR 6.79	NPP					
						CAHE 18.57						
						BOGR 12.59						
						AGSM 8.31						
						SPCO 1.08						
						Cont...						



	1	2	3	4	5	6	Species	Wt	9	11	12	13
	DATE	LOC	TRY	PLT	X	Y			util/NPP			
1							ARLO	0.14				
2							BUDA	0.45				
3							OECO	0.84				
4	080101	11	UNGZ	2	416	31	GREF	11.55	NPP			
5							OPPO					
6							SPCO	1.02				
7							BOGA	7.26				
8							AGSM	4.09				
9							CAHE	7.62				
10	080101	11	UNUN	1	16	27	ARFR	28.40	NPP			
11							AGSM	10.80				
12							BOGR	2.69				
13							OECO	0.77				
14	080101	11	UNGZ	1	54	36	SPCO	0.32	NPP			
15							BOGR	7.38				
16							OECO	0.22				
17							CAHE	1.01				
18							CHVI	16.77				
19							AGSM	8.01				
20							ARFR	13.74				
21	080101	11	UNGZ	4	8	13	AGSM	1.32	NPP			
22							SPCO	1.38				
23							OECO	0.18				
24							ARLO	0.74				
25							BOGR	1.93				
26							CAHE	5.86				
27							LEAG	0.06				
28	080101	11	UNGZ	4	12	13	ARLO	0.36	NPP			
29							SPCO	0.97				
30							AGSM	4.60				
31							BOGR	7.48				
							MFLI	0.52	cont.			

	Clipping Date	Location	Treatment	Plot	5 X	6 Y	7 Species	8 wt	9 Util/NPP <sup>0</sup>	11	12	13
1							BUDA	0.02				
2							ARFR	1.26				
3							CAHE	11.63				
4	080101	GZGZ	11	3	52	24	ALSM	9.98	UTIL			
5							OPPO					
6							CAHE	3.42				
7							ARLO	3.78				
8							BUDA	0.47				
9							ARFR	0.54				
10							LEDE	0.06				
11							TAPA	0.04				
12							BOGR	7.21				
13							SPCO	0.16				
14	080101	GZGZ	11	2	33	45	BOGR	3.95	UTIL			
15							ARLO	3.40				
16							SCBR	0.09				
17							OPPO					
18							ALSM	1.23				
19							PACH	1.70				
20							BUDA	1.09				
21							SONU	1.42				
22							PLPA	0.06				
23	<del>080101</del>	<del>UNUN</del>	<del>11</del>	<del>4</del>	<del>21</del>	<del>41</del>	<del>SCBR</del>	<del>0.46</del>	<del>NPP</del>			
24							ARFR	6.20				
25							OPPO					
26							BOGR	0.94				
27							CHAL	0.14				
28							CHLE	3.93				
29							SPCO	0.64				
30							ALSM	18.32				
31												



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	Clipping Date	Location	Treatment	Plot	5 X	6 Y	7 SP	8 Wt	9 Ht/NPP	10	11	12	13
✓ 1	080101	UNC12	11	2	42	31	BOGR	7.73	UTIL				
2							CAHE	8.03					
3							MILI	0.34					
4							SPCO	1.24					
5							ARLO	0.07					
6							AGSM	3.06					
7							ARFR	2.45					
✓ 8	080101	GZGZ	11	2	29	45	CAHE	1.80	NPA				
9							BUDA	4.42					
10							SPCO	0.19					
11							ARFR	0.10					
12							PLPA	0.02					
13							SONU	1.90					
14							ARLO	0.29					
15							BOGR	2.91					
16							AGSM	1.63					
17							VUOC	0.08					
✓ 18							ASOX	0.74					
✓ 19	080101	GZGZ	11	1	26	49	BUDA	11.33	UTIL				
20							OPPO						
21							CHLE	0.05					
22							SPCO	0.24					
23							VUOC	0.13					
24							LEDE	0.55					
25							BOGR	1.67					
✓ 26							CAHE	6.03					
✓ 27	080101	GZGZ	11	4	36	27	BUDA	5.28	NPP				
28							TAPA	0.14					
29							CAHE	0.72					
30							PTOP	2.08					
31							BOGR	1.66					
							AGSM	11.31					

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clipping Date		Loc.	Treatment	Plot	x	y	Species	Weight(g)	35 of 42 NPP/Util	
✓	6/21/8	80801	SB	UNGZ	2	42	15	BUDA	3.40	NPP
								ARFR	9.36	
								CAHE	5.97	
								BOGR	8.81	
								SPCO	0.63	
								AGSM	1.29	
✓		80801	SB	UNGZ	6	3	17	ARFR	10.51	NPP
								AGSM	6.88	
								CAHE	4.27	
								BOGR	12.02	
								BUDA	0.67	
								OPPO		
✓		80801	SB	UNGZ	3	25	30	OPPO		NPP
								AGSM	12.75	
								BOGR	11.62	
								ARFR	0.09	
								CHLE	0.05	
								CAHE	0.74	
✓		80801	SB	UNGZ	4	2	16	SIAB	0.16	NPP
								ARFR	21.32	
								BOGR	10.37	
								CAHE	0.24	
								SPCO	0.48	
								AGSM	3.54	
✓		80801	SB	UNGZ	5	49	17	PACH	0.34	NPP
								LEDE	0.02	
								ARFR	6.68	
								CAHE	4.51	
								SPCO	0.30	
								BUDA	0.01	
✓		80801	SB	UNGZ	1	58	26	BOGR	5.66	NPP
								AGSM	5.00	
								SPCO	0.01	
								AGSM	4.81	
								PTOP	0.66	
								ARFR	11.39	
								BOGR	10.30	
								BUDA	0.27	
								CAHE	0.81	

36/42  
NPP/Util

Clipping Date	Treatment	Loc.	Plot	x	y	Species	Weight (g.)	
✓ 80801	GZGZ	SB	6	7	17	ARFR	8.51	UTIL
						BOGR	8.03	
						OPPO		
						SPCO	0.18	
						CAHE	1.78	
						PACH	0.27	
						AGSM	1.37	
✓ 80701	GZGZ	SB	4	43	52	BOGR	4.54	UTIL
						LEDE	0.17	
						SPCO	8.48	
						MILI	0.19	
						BUDA	2.66	
						CAHE	4.57	
✓ 80801	WNGZ	SB	3	21	30	CAHE	0.73	UTIL
						OPPO		
						SPCO	1.11	
						AGSM	2.21	
						VUOC	0.15	
						CHLE	0.15	
						ARFR	0.16	
						BOGR	12.10	
✓ 80701	GZGZ	SB	1	15	50	BOGR	10.31	UTIL
						AGSM	2.74	
						SPCO	1.06	
						CAHE	2.57	
✓ 80801	GZGZ	SB	5	27	35	BOGR	12.76	NPP
						CAHE	0.37	
						VUOC	>0.05	
						LEDE	0.16	
						ARLO	1.23	
						PLPA	0.14	
✓ 80701	GZGZ	SB	1	19	50	ARLO	0.67	NPP
						AGSM	6.09	
						CAHE	7.84	
						BOGR	10.08	

37/42

Clipping Date	Loc.	Treatment	Plot	x	y	Species	Wt. (g.)	NPP/Util
✓ 80801	SB	GZGZ	6	3	17	OPPO		NPP
						AGSM	2.15	
						ARFR	5.17	
						CAHE	0.34	
						PALH	0.78	
						SPCO	1.75	
						BOGR	5.89	
✓ (80701)	SB	ROWN	5	5	4	AGSM	14.15	NPP
						OPPO		
						BOGR	8.86	
						SPCO	0.69	
						ARFR	0.61	
						CHLE	0.27	
						MATA	0.30	
						PALH	0.86	
						ASGR	1.05	
						TRDU	1.75	
✓ (80701)	SB	GZUN	6	28	46	BOGR	13.06	NPP
						CAHE	0.37	
						ARFR	3.72	
						LEDE	0.21	
						SPCO	0.64	
						VUCC	0.08	
✓ (80701)	SB	UNUN	6	61	26	OPPO		NPP
						ARFR	4.38	
						CAHE	4.06	
						STCO	0.83	
						BOGR	8.45	
✓ (80701)	SB	UNUN	4	29	41	ARFR	6.51	NPP
						SIHY	1.91	
						CAHE	1.45	
						SPCO	3.05	
						BOGR	7.29	
✓ 80801	SB	GZGZ	5	23	35	CAHE	0.53	UTIL
						BOGR	8.54	
						LEDE	0.02	
						AGSM	0.69	



38/42

✓ Clipping Date	Loc.	Treatment	Plot	x	y	Species	wt.(g)	NPP/Util
880801	SB	UNGZ	6	7	17	CAHE	1.54	UTIL
						AGSM	4.00	
						SPCO	0.69	
						PACH	0.41	
						BOGR	12.61	
						CHLE	0.02	
						ARFR	0.27	
						LEDE	0.02	
✓ 80801	SB	UNGZ	5	45	17	ARLO	4.65	UTIL 70% Bare ground
						SCBR	0.22	
						GUSA	8.42	
						BOGR	3.16	
						ARFR	10.29	
						SPCO	0.94	
						CAHE	1.35	
						AGSM	3.09	
✓ 80801	SB	UNGZ	2	38	15	LEDE	0.04	UTIL
						CAHE	4.92	
						AGSM	3.38	
						BOGR	12.42	
✓ 80801	SB	UNGZ	1	54	26	ARFR	4.47	UTIL
						AGSM	2.92	
						BOGR	7.65	
						SCBR	0.40	
						PACH	0.16	
						SPCO	0.07	
						PIOP	0.53	
✓ 80701	SB	GZGZ	2	25	54	CAHE	3.36	UTIL
						BOGR	9.33	
						SPCO	2.54	
						CAHC	3.95	
✓ 80801	SB	UNGZ	4	4	16	ARFR	9.21	UTIL
						AGSM	2.28	
						CAHC	0.86	
						BOGR	9.56	

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Clipping  
Date

80701

Loc.

Treatment

Plot

X

Y

Species

Wt. (g)

NPP/Util

SB

GZGZ

3

48

55

ARFR

12.94

UTIL

BOGR

3.75

AGSM

2.64

PIOP

0.14

OPPO

CAHE

0.69

BUOA

3.74

SPCO

2.27

80701

SB ROUN

1

23

11

CHLE

0.57

NPP

BOGR

6.09

SPCO

8.91

PIOP

0.48

TOGR

0.21

EREF

0.09

TRDU

2.10

LEDE

1.87

CAHE

0.73

ARFR

0.63

80701

SB GZGZ

3

52

55

ARFR

3.20

NPP

OPPO

BUOA

3.24

PIOP

0.52

SPCO

0.81

PALH

1.00

BOGR

4.58

CAHE

5.56

LEDE

0.03

80701

SB UNUN

1

16

27

CAHE

3.23

NPP

OPPO

SPCO

0.05

AGSM

1.20

ARFR

2.25

CHLE

0.15

BOGR

6.14

40/42

Clipping Date	Loc.	Treatment	Plot	X	Y	Species	Wt. (g.)	NPP/Wt. l
✓ 80701	5B	RAIN	7	23	15	CHLE	1.02	NAP
						TROC	0.38	
						BOGR	14.60	
						AGSM	0.74	
						PEAL	1.32	
						CAHE	0.34	
						LEDE	0.82	
						SPCO	0.76	
✓ 80701	5B	GZ/GZ	4	47	52	SPCO	0.07	NAP
						CAHE	0.96	
						PIOP	1.49	
						BOGR	8.65	
						LEDE	0.04	
						ASOX	3.57	
✓ 80701	5B	GZ/GZ	2	29	54	BOGR	12.16	NAP
						OPPO		
						BUDA	0.18	
						CAHE	10.23	
						SPCO	0.55	
✓ 80701	5B	UNAN	5	31	46	AGSM	0.23	NAP
						CAHE	2.97	
						SPCO	1.00	
						BOGR	15.37	
						ARFR	9.76	
✓ 80701	5B	RAIN	6	65	02	ATER	27.43	NAP
						AGSM	11.78	
						CHLE	0.19	
						ARFR	0.05	
						VUOL	0.03	
						LEDE	0.02	
						TRDN	0.48	
						SPCO	1.79	
						BOGR	7.88	
✓ 80701	5B	UNAN	2	17	13	AGSM	10.63	NAP
						ARFR	23.09	
						CAHE	8.42	
						BOGR	2.19	
						SPCO	0.19	

41/42

✓ Clipping Date 80701 Location 5B Treatment GZUN Plot 2 x 35 y 21 Species Wt. (g.) NPP/Uthl

ARFR 9.31  
BOGR 16.55  
SPCO 0.84  
ASGR 2.16  
AGSM 6.34  
PIOP 0.48  
OECO 0.14

NPP

✓ 80701 5B ROUN 41 7 15 AGSM 1.49 NPP

SPCO 1.51  
PIOP 0.95

NPP

Add in for  
5B ROUN:  
ARFR 6.84  
BOGR 6.77

✓ Quad 10-10-82

I do not know where these two wts. came from (AGSM Pop 6.86) thru plot bags. I checked 6.95 E. I did not find this to match species recorded of BOGR.

6.95 + 6.86 = 13.81  
I checked 6.95 E. I did not find this to match species recorded of BOGR.

CANE 0.59  
PIOP 6.86  
LEDE 0.09

NPP

✓ 80701 5B ROUN 14 29 TRDU 0.40 NPP

VAOC 0.26  
CANE 3.26  
LEDE 0.12  
BOGR 22.03

NPP

✓ 80701 5B GZUN 3 17 35 ARFR 22.99 NPP

BOGR 9.54  
SPCO 3.60  
AGSM 1.05  
CHAL 0.49  
CHLE 3.12  
SONU 1.19  
HEPE 1.09

NPP

✗ 80701 5B GZUN 4 4 11 BOGR 32.58 NPP

CANE 1.11  
CHAL 0.75  
LTIN/CHLE 0.67

NPP

✓ 80701 5B UNUN 3 21 37 BOGR 9.34 NPP

PIOP 1.63  
CANE 0.76  
LEDE 0.18  
ARFR 7.52  
AGSM 1.50

NPP

SPCO 0.04

Clipping Date	Location	Treatment	Plot	x	y	Species	Weight(g.)	NPP/WHI
✓ 80701	SB	CZUN	5	60	11	CAHE	0.40	NPP
						SPCO	0.72	
						ARFR	7.54	
						BOGR	8.09	
✓ 80701	SB	ROWN	3	18	28	CAHE	1.21	NPP
						LEDE	0.52	
						BOGR	16.64	
✓ 80701	SB	GREEN	1	8	32	BOGR	7.63	NPP
						CAHE	0.45	
						ARFR	7.39	
						SPCO	0.27	
						LEDE	0.14	
						PTOP	0.33	



2001 GZTX

Bromass.

Util or

	1 Date	2 Loc	3 Trtm.	4 Plot	5 X	6 Y	7 NPP	8 Species	9 wt (g)	10 Notes	11	12	13
1	73001	24	UG	2	28	35	Util	ARFR	6.76				
2								Aqsm	.42				
3								Bogr	4.62				
4								Spc	.08				
5								Arlo	1.69				
6								Oppo	0.09	✓			
7								SiHy	.24				
8								CAHE	3.49				
9	073001	24	UG	3	15	4	Util	Bogr.	11.91				
10								Arlo	.52				
11								Cahe	3.12				
12								Vuoc	1.01				
13								Oppo	5.34	✓			
14								Arfr	5.74				
15								Spc	.53				
16	73001	24	UG	1	22	29	Util	ScBR	.12				
17								Cahe	.60				
18								Arfr	6.06				
19								Lede	.01	Trace			
20								Gusa	1.63				
21								Tapa	.08				
22								Buda	1.29				
23								Aqsm	1.89				
24								Asox	.23				
25								Arlo	4.56				
26								Bogr	1.10				
27	73001	24	UG	4	2	17	Util	stco		Note: Contents Blew Away			
28								Cahe	1.07				
29								Vuoc	.04				
30								Pipa	.08				
31								Spcr	.54				
											Cont.		

Util

	1 Date	2 Loc	3 trtm	4 Plot	5 X	6 Y	7 NPP	8 Species	9 wt(g)	10 Notes	11	12	13
1	73001	24	UG	4	2	17	Util	LEDE	.16				
2								CHVI	.05	C. villosa			
3								Aqsm	.82				
4								Arlo	.94				
5								Bogr	8.61				
6								Arfr	.01				
7	73101	24	GG	3	0	53	Util	Buda	4.75				
8								Bogr	1.89				
9								Pach	1.18				
10								Arfr	.06				
11								Spco	.26				
12								Arlo	.43				
13								Vuoc	.07				
14								Asox	.09				
15								Cahe	4.36				
16	73101	24	GG	4	12	40	Util	oppo	3.22	+✓			
17								Bogr	8.93				
18								Spco	.90				
19								Cahe	7.14				
20								Arlo	6.60				
21								Vuoc	.10				
22								Lede	.03				
23	73001	24	GU	2	35	21	NPP	Bogr	8.85				
24								Vuoc	.72				
25								Aqsm	.83				
26								Arlo	.64				
27								Cahe	1.46				
28								Sihy	.72				
29								Lede	.06				
30								Gaco	.12				
31								Oeco	.04				

Util

	1 Date	2 Loc	3 trtmt	4 Plot	5 X	6 Y	7 NPP	8 Species	9 Wt(g)	10 Notes	11	12	13
1	73001	24	GU	2	35	21	NPP	Arfr	11.87				
2	73101	24	GG	1	8	58	Util	Arlo	3.70				
3								Pach	2.91				
4								Boqr	1.09				
5								Buda	4.20				
6								Cahe	6.92				
7								Spco	1.08				
8								Si hy	.31				
9								oppo	0.67	✓			
10								PLPA	.01	trace			
11								Lede	.03				
12								Mili	.04				
13	73101	24	GG	2	27	40	Util	Cahe	1.78				
14								LEDE	.06				
15								Vuoc	.15				
16								Spco	.65				
17								Boqr	4.18				
18								Buda	9.82				
19	73001	24	GU	4	4	11	NPP	Arlo	8.12				
20								Vuoc	.10				
21								Stco	1.13				
22								Plpa	.20				
23								Arfr	2.57				
24								Si hy	.27				
25								Lede	.19				
26								Boqr	11.92				
27	73101	24	GG	3	4	53	NPP	Arfr	17.56	Note: Under cage			
28								Spco	1.69				
29								oppo	3.31	✓			
30								Cahe	1.25				
31								plpa	.01	trace			

# GZTX 2001 Data

Utilor

pg  
40A8

	Date	Loc.	trtm.	Plot	X	Y	NPP	Species	Wt.	Name			
1	73101	24	GG	3	4	53	NPP	Vuoc	.06				
2								Lede	.46				
3								SPCR	.63				
4								Buda	1.25				
5								Bogr	7.58				
6	73001	24	VU	1	16	27	NPP	Arfr	10.99				
7								Arlo	1.12				
8								Lich	.09				
9								Cahe	1.71				
10								Speco	.17				
11								Arlo	1.30				
12								Buda	2.40				
13								Bogr	2.87				
14								Piop	.56				
15	73001	24	GU	1	8	32	Npp	Arfr	9.50				
16								Arlo	3.73				
17								SPCR	.33				
18								Speco	5.24				
19								Speco	.39				
20								Bogr	.33				
21								Agsm	.72				
22								Chvi	7.41				
23	73001	24	GV	3	17	25	NPP	oppo	1.05	C. villosa			
24								Arb	6.63				
25								Bogr	12.80				
26								Speco	.23				
27								Chle	.01	trace			
28								Lede	.02				
29								Cahe	.05				
30								Sihy	.13				
31								Vuoc	.39				

GZTX

util

2001

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	1 Date	2 Loc	3 Trtmt.	4 Plot	5 X	6 Y	7 NPP	8 Species	9 WT.	10 Note	11	12	13
1	73001	24	GU	3	17	25	NPP	Arfr.	2.02				
2	73001	24	UU	2	17	25	NPP	Arlo	2.20				
3								Boor	6.26				
4								Cahe	1.53				
5								Spco	.36				
6								Gusa	9.38				
7								Prop	.50				
8								Pach	1.38				
9								Sihy	2.66				
10								Buda	1.44				
11	073001	24	UU	4	29	41	NPP	ASOX	.23				
12								Vuoc	.03				
13								Cahe	.94				
14								Buda	.30				
15								Arlo	.29				
16								Arfr.	.10				
17								Lede	.45				
18								Spco	.71				
19								OPPO	6.71	✓			
20								Boor.	17.71				
21	7/30/01	24	UU	3C	21	37	NPP	Sihy	.74				
22								ARLO	1.58				
23								Buda	9.13				
24								SPCO	1.85				
25								OPPO	2.51	✓			
26								BOOR	1.75				
27								CAHE	5.21				
28								CHLE	.06				
29	7/31/01	24	UG	2	32	35	NPP	Arfr	60.65				
30								Aggrm	.33				
31								Buda	8.74				



	1 Date	2 Loc	3 Item	4 Plot	5 X	6 Y	7 NPP	8 Species	9 Wt.	10 Notes	11	12	13
1								SPLO	.97				
2								Cake	10.06				
3								Boyr	3.76				
4								ARLO	.54				
5								Lede	.04				
6	7/31/01	24	GG	1	12	58	NPP	ARLO	6.44				
7								ARFR	7.55				
8								AGSM	.36				
9								SPCR	2.68				
10								DOGR	12.81				
11								SPLO	.25				
12								Deda	4.44				
13								Cake	3.10				
14								VUOC	.11				
15								SIHY	.64				
16								GAPO	.30				
17								GUZA	6.92				
18								TOGR	1.09				
19	7/31/01	24	UG	3	19	04	NPP	VUOC	.66				
20								ARLO	4.22				
21								ARFR	20.63				
22								SPLO	.32				
23								Boyr	3.95				
24								Cake	3.67				
25								Lede	.48				
26								OPPO	3.74	✓			
27	7/31/01	24	UG	1	26	29	NPP	BOGR	5.97				
28								ARFR	17.95				
29								AGSM	5.03				
30								Cake	2.01				
31								SPCR	.94				

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	1 Date	2 LOC	3 trim	4 Plot	5 X	6 Y	7 NPP	8 Species	9 wt.	10 notes	11	12	13
1								ARLO	2.96				
2								TAPA	.25				
3								SIHY	.27				
4								SCPA	.25				
5								CHVE	4.15				
6	7/31/01	24	GG	4	16	40	NPP	Vuoc	.42				
7								Arlo	1.16				
8								Pach	3.13				
9								Gaco	.12				
10								oppo	2.46	✓			
11								PLPA	.04				
12								SPCO	.11				
13								BOGR	7.73				
14								SIHY	1.23				
15								Lede	.06				
16								Cahe	2.03				
17	7/31/01	24	GG	2	31	40	NPP	ARLO	28.57				
18								AGSM	.05				
19								Pach	.45				
20								ARFR	.85				
21								Cahe	3.97				
22								Lede	.23				
23								SIHY	2.35				
24								BOGR	2.09				
25								VUOC	.40				
26								PLPA		Empty bag			
27								Buda	1.61				
28								SPCO	.43				
29	7/31/01	24	UG	4	6	17	NPP	BOGR	10.44				
30								C. villosa	3.15				
31								Gusa	trace	an out			

	1 Date	2 Loc	3 trtm	4 Pbt	5 X	6 Y	7 NPP	8 Species	9 wt.	10 notes	11	12	13
1								cate	1.01				
2								OPPO	3.46	✓			
3								UUOC	.13				
4								AGSM	2.46				
5								OECO	.21				
6								Lede	.22				
7								ARLO	3.79				
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													

GG = GZGZ = grazed/grazed  
 GU = GZUN = grazed/ungrazed

UG = UNGZ = ungrazed/grazed  
 UU = UNUN = ungrazed/ungrazed

2001 Gztxnpp Oppo Biomass only

RU = Rodent Ungrazed

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Date	Loc	Trmt	Plot	X	Y	util or Non-util	Spec	Wt.	Notes
✓ 8/8/01	5B	UG	3	25	30	Non	Oppo	5.46	
✓ 8/2/01	7	UG	5	9	37	non	Oppo	6.14	
✓ 8/2/01	7	GU	5	60	11	non	Oppo	14.10	
✓ 8/6/01	5A	GU	3	35	47	non	Oppo	2.62	
✓ 8/2/01	7	GU	6	28	46	non	Oppo	4.73	
✓ 8/3/01	19	UU	3C	13	17	non	Oppo	4.23	
✓ 8/2/01	7	UG	4	17	19	non	Oppo	5.90	
✓ 8/7/01	5B	UU	1	16	27	non	Oppo	1.54	
✓ 8/8/01	5B	GG	6	3	17	non	Oppo	2.23	
✓ 8/3/01	19	GG	4	3	14	non	Oppo	29.80	
✓ 8/7/01	5A	GU	6	28	46	non	Oppo	1.90	
✓ 8/6/01	5A	GG	1	21	47	util.	Oppo	0.67	
✓ 8/2/01	7	GG	4	17	49	non	Oppo	7.62	
✓ 8/2/01	7	UG	6	26	27	non	Oppo	7.95	
✓ 8/1/01	11	UU	2	17	42	non	Oppo	7.03	
✓ 8/1/01	11	GU	4	4	11	non	Oppo	1.03	
✓ 8/1/01	11	UG	2	46	31	non	Oppo	5.36	
✓ 8/3/01	7	GG	5	42	63	non	Oppo	6.93	
✓ 8/2/01	7	UU	3	18	60	non	Oppo	3.28	
✓ 8/1/01	11	GG	4	38	27	util	Oppo	5.55	
✓ 8/3/01	7	GG	3	54	56	non	Oppo	4.82	
✓ 8/3/01	7	RU	6	5	4	non	Oppo	1.57	
✓ 8/2/01	7	UG	2	13	31	util	Oppo	0.53	
✓ 8/3/01	19	GG	3	23	50	util	Oppo	8.55	
✓ 8/3/01	19	UG	3	14	28	util	Oppo	3.08	
✓ 8/8/01	5B	UG	3	21	30	util	Oppo	11.81	
✓ 8/3/01	7	GG	6	7	17	util	Oppo	2.64	
✓ 8/1/01	11	GG	1	26	49	util	Oppo	1.79	
✓ 8/3/01	19	UG	4C	11	30	util	Oppo	6.13	
✓ 8/1/01	11	UU	4	24	41	non	Oppo	3.90	
✓ 8/3/01	19	UG	1	19	48	util	Oppo	10.36	
✓ 8/3/01	7	RU	1	23	15	non	Oppo	6.71	
✓ 8/3/01	19	GG	3	27	50	non	Oppo	3.63	
✓ 8/2/01	7	UU	2	40	49	non	Oppo	4.33	
✓ 8/3/01	19	GG	2	25	29	util	Oppo	3.17	
✓ 8/7/01	5B	GG	3	52	55	non	Oppo	3.05	
✓ 8/7/01	5B	GG	3	48	55	util	Oppo	0.61	
✓ 8/7/01	5B	UU	6	61	26	non	Oppo	6.22	

\* This matched a space in 6

\* This matched a space in 764

5A

Date	Loc	Tmnt	Plot	X	Y	util or nonutil	Spec	Wt.	notes
• 8/3/01	19	GG	1	12	6	non	OPPO	14.32	
• 8/1/01	11	GV	3	17	25	non	OPPO	6.90	
✓ 8/2/01	7	GV	1	8	32	non	OPPO	4.63	
• 8/1/01	11	GG	3	52	24	util	OPPO	7.35	
✓ 8/7/01	5A	GV	2	35	21	non	OPPO	1.14	a little moldy
✓ 8/3/01	7	RV	2	23	11	non	OPPO	1.84	
• 8/3/01	19	UG	1	15	48	non	OPPO	5.04	
• 8/3/01	19	UG	3	10	28	non	OPPO	5.94	
• 8/3/01	19	GG	1	8	6	util	OPPO	3.99	
✓ 8/2/01	7	GG	2	22	30	util	OPPO	2.12	
✓ 8/7/01	5B	GG	2	29	54	non	OPPO	2.95	← this matches a space in 5B, but did not match the (X,Y) for 7GG where no line space was left for OPP. So, the data was placed in 5B, plot 2, nonutil.
✓ 8/2/01	7	GV	3	17	25	non	OPPO	1.95	
• 8/3/01	19	UG	2	11	36	non	OPPO	1.83	
✓ 8/8/01	5B	GG	6	7	17	util	OPPO	2.08	
{ ✓ 8/7/01	5A	RV	1	23	15	non	OPPO	1.37	}
✓ 8/7/01	5A	GV	5	60	11	non	OPPO	0.21	
• 8/3/01	19	UG	4	7	30	non	OPPO	2.42	
✓ 8/6/01	5A	UG	2	50	13	util	OPPO	0.18	
• 8/1/01	11	GG	2	33	45	util	OPPO	0.53	
✓ 8/6/01	5A	UV	6	17	22	non	OPPO	0.09	
✓ 8/7/01	5B	RV	5	5	4	non	OPPO	0.06	

Did not find matches for these spaces left for OPP in file for 5A, 5B and 7:

80301 7 RU 7 5 2 Non OPP

• Check main sample bag + cactus sample bag to try and locate this one!

7UG plot 4 (17, 19)

~~7UG plot 1 (8, 32)~~