

## **APPENDIX 2**

# **SUMMARY STATISTICS OF QUADRAT DATA FOR EACH COMMUNITY TYPE AND THE ENTIRE SITE AND HISTOGRAMS DISPLAYING 90% CONFIDENCE INTERVALS**

## **FLAMBEAU MINE SUMMER 2006**

Table 2-1. Summary statistics for percent cover of native forbs, native grasses, total native cover, and total vegetation for each plant community. Flambeau Mine, Summer 2006.

	All Transects Native Forbs	All Transects Native Grasses	All Transects Total Native Cover	All Transects Total Vegetation	Permanent Transects Native Forbs	Permanent Transects Native Grasses	Permanent Transects Total Native Cover	Permanent Transects Total Vegetation
N of cases	30	30	30	30	27	27	27	27
Minimum	0.3	0.0	0.3	90.4	0.3	0.0	0.3	90.4
Maximum	23.9	114.2	127.1	100.0	23.9	114.2	127.1	100.0
<b>Mean</b>	<b>8.750</b>	<b>26.393</b>	<b>37.660</b>	<b>98.513</b>	<b>9.437</b>	<b>26.044</b>	<b>38.278</b>	<b>98.437</b>
<b>90% CI Upper</b>	<b>10.785</b>	<b>33.686</b>	<b>45.499</b>	<b>99.231</b>	<b>11.587</b>	<b>34.146</b>	<b>46.988</b>	<b>99.225</b>
<b>90% CI Lower</b>	<b>6.715</b>	<b>19.101</b>	<b>29.821</b>	<b>97.796</b>	<b>7.287</b>	<b>17.943</b>	<b>29.567</b>	<b>97.649</b>
Standard Dev	6.558	23.508	25.269	2.313	6.549	24.681	26.536	2.400
Variance	43.012	552.611	638.522	5.350	42.892	609.154	704.157	5.759

	Temporary Transects Native Forbs	Temporary Transects Native Grasses	Temporary Transects Total Native Cover	Temporary Transects Total Vegetation	Woodland Transects Native Forbs	Woodland Transects Native Grasses	Woodland Transects Total Native Cover	Woodland Transects Total Vegetation
N of cases	3	3	3	3	7	7	7	7
Minimum	0.8	22.5	26.1	97.6	0.3	0.0	0.3	99.2
Maximum	3.6	39.4	40.2	100.0	19.8	21.4	24.1	100.0
<b>Mean</b>	<b>2.567</b>	<b>29.533</b>	<b>32.100</b>	<b>99.200</b>	<b>7.986</b>	<b>3.429</b>	<b>11.829</b>	<b>99.871</b>
<b>90% CI Upper</b>	<b>5.158</b>	<b>44.367</b>	<b>44.374</b>	<b>101.536</b>	<b>13.160</b>	<b>9.270</b>	<b>18.579</b>	<b>100.091</b>
<b>90% CI Lower</b>	<b>-0.025</b>	<b>14.699</b>	<b>19.826</b>	<b>96.864</b>	<b>2.812</b>	<b>-2.413</b>	<b>5.078</b>	<b>99.652</b>
Standard Dev	1.537	8.799	7.281	1.386	7.044	7.954	9.191	0.298
Variance	2.363	77.423	53.010	1.920	49.625	63.259	84.469	0.089

	Grassland Transects Native Forbs	Grassland Transects Native Grasses	Grassland Transects Total Native Cover	Grassland Transects Total Vegetation	Wetland Transects Native Forbs	Wetland Transects Native Grasses	Wetland Transects Total Native Cover	Wetland Transects Total Vegetation
N of cases	10	10	10	10	5	5	5	5
Minimum	1.7	17.9	24.0	96.5	0.4	9.8	10.2	91.5
Maximum	20.6	54.6	57.6	100.0	23.9	114.2	127.1	100.0
<b>Mean</b>	<b>7.450</b>	<b>37.040</b>	<b>44.730</b>	<b>98.540</b>	<b>11.940</b>	<b>38.400</b>	<b>63.700</b>	<b>98.000</b>
<b>90% CI Upper</b>	<b>10.779</b>	<b>43.489</b>	<b>50.972</b>	<b>99.259</b>	<b>20.161</b>	<b>81.112</b>	<b>104.338</b>	<b>101.519</b>
<b>90% CI Lower</b>	<b>4.121</b>	<b>30.591</b>	<b>38.488</b>	<b>97.821</b>	<b>3.719</b>	<b>-4.312</b>	<b>23.062</b>	<b>94.481</b>
Standard Dev	5.743	11.125	10.768	1.240	8.623	44.800	42.625	3.691
Variance	32.983	123.767	115.942	1.538	74.353	2007.080	1816.855	13.625

Table 2-1, continued. Summary statistics for percent cover of native forbs, native grasses, total native cover, and total vegetation for each plant community. Flambeau Mine, Summer 2006.

	Mixed Transects Native Forbs	Mixed Transects Native Grasses	Mixed Transects Total Native Cover	Mixed Transects Total Vegetation	Industrial Outlot Transects Native Forbs	Industrial Outlot Transects Native Grasses	Industrial Outlot Transects Total Native Cover	Industrial Outlot Transects Total Vegetation
N of cases	5	5	5	5	2	2	2	2
Minimum	7.0	4.2	12.9	90.4	3.6	5.8	20.7	88.5
Maximum	18.2	40.3	51.3	98.7	22.0	17.1	27.8	92.0
<b>Mean</b>	<b>12.940</b>	<b>23.360</b>	<b>36.980</b>	<b>96.660</b>	<b>12.800</b>	<b>11.450</b>	<b>24.250</b>	<b>90.250</b>
<b>90% CI Upper</b>	<b>17.103</b>	<b>36.218</b>	<b>51.574</b>	<b>100.018</b>	<b>70.887</b>	<b>47.123</b>	<b>46.664</b>	<b>101.299</b>
<b>90% CI Lower</b>	<b>8.777</b>	<b>10.502</b>	<b>22.386</b>	<b>93.302</b>	<b>-45.287</b>	<b>-24.223</b>	<b>1.836</b>	<b>79.201</b>
Standard Dev	4.367	13.486	15.307	3.522	13.011	7.990	5.020	2.475
Variance	19.068	181.883	234.317	12.403	169.280	63.845	25.205	6.125

Table 2-2. Flambeau - Mann Whitney Test of Means for Temporary Random Transects, Summer 2006

Community type	Transect	Native Forb % cover	Native Forb Rank	Native Grass % cover	Native Grass Rank	Total Native % cover	Total Native Rank	Total Vegetation % cover	Total Vegetation Ranks
Upland Grassland	I404	20.6	1	33.8	8	54.4	3	100.0	1
	O405	12.5	2	28.4	9	41.5	8	97.8	8
	O408	3.0	10	54.6	1	57.6	1	97.6	9
	Q410	1.7	12	42.0	4	43.7	6	99.5	6
	S398	6.1	6	17.9	13	24.0	13	96.5	13
	S407	1.8	11	48.5	2	50.3	4	97.5	12
	U416	9.7	3	44.8	3	54.5	2	97.8	10
	V408	4.9	7	25.4	11	30.3	10	100.0	2
	W406	7.1	4	36.5	7	43.6	7	99.6	5
	Y414	7.1	5	38.5	6	47.4	5	99.1	7
Temporary 2006	O408R	0.8	13	39.4	5	40.2	9	100.0	3
	S398R	3.3	9	26.7	10	30.0	11	97.6	11
	V408R	3.6	8	22.5	12	26.1	12	100.0	4
	n1=		10		10		10		10
	n2=		3		3		3		3
	R1=		61		56		59		73
	R2=		30		27		32		18

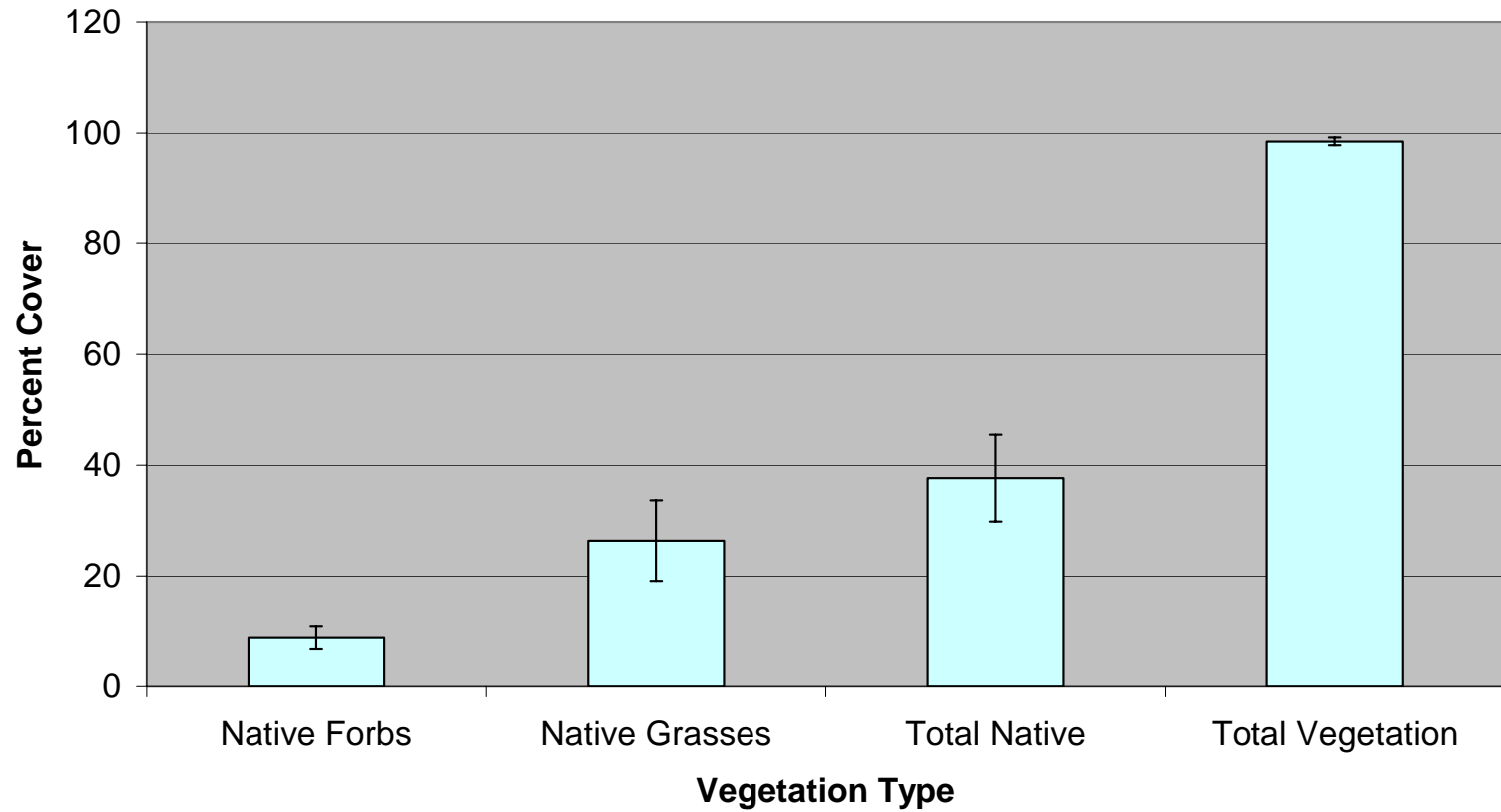
Native Forbs  
 $U=30+(110/2)-61$   
 $U=24$   
 $U^1=30-24=6$   
 $U_{0.10}(2),3,10=26$   
 $24 < 26$ ;  $H_0$  accepted ( $P > 0.20$ )  
 \*Therefore % cover of native forbs in temporary and upland transects **is the same.**

Native Grass  
 $U=30+(110/2)-56$   
 $U=29$   
 $U^1=30-29=1$   
 $U_{0.10}(2),3,10=26$   
 $29 > 26$ ;  $H_0$  rejected ( $0.01 > P > 0.005$ )  
 \*Therefore % cover of native grass in temporary and upland transects **is not the same.**

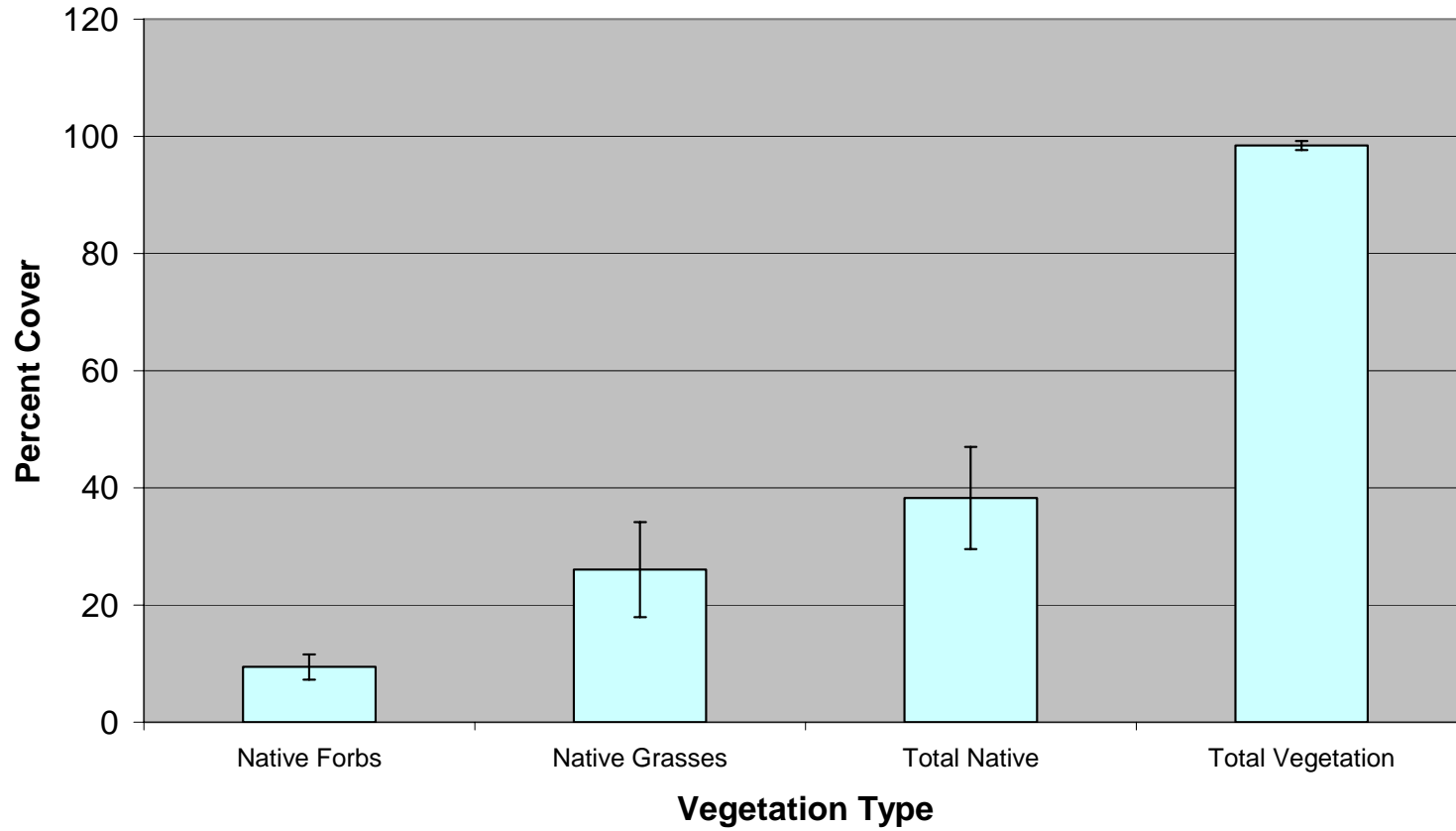
Total Native  
 $U=30+(110/2)-59$   
 $U=26$   
 $U^1=30-26=4$   
 $U_{0.10}(2),3,10=26$   
 $26 = 26$ ;  $H_0$  rejected ( $0.20 > P > 0.10$ )  
 \*Therefore % total native cover in temporary and upland transects **is not the same.**

Total Vegetation Cover  
 $U=30+(110/2)-73$   
 $U=12$   
 $U^1=30-12=18$   
 $U_{0.10}(2),3,10=26$   
 $18 < 26$ ;  $H_0$  accepted ( $P > 0.20$ )  
 \*Therefore % total vegetation cover in temporary and upland transects is the same.

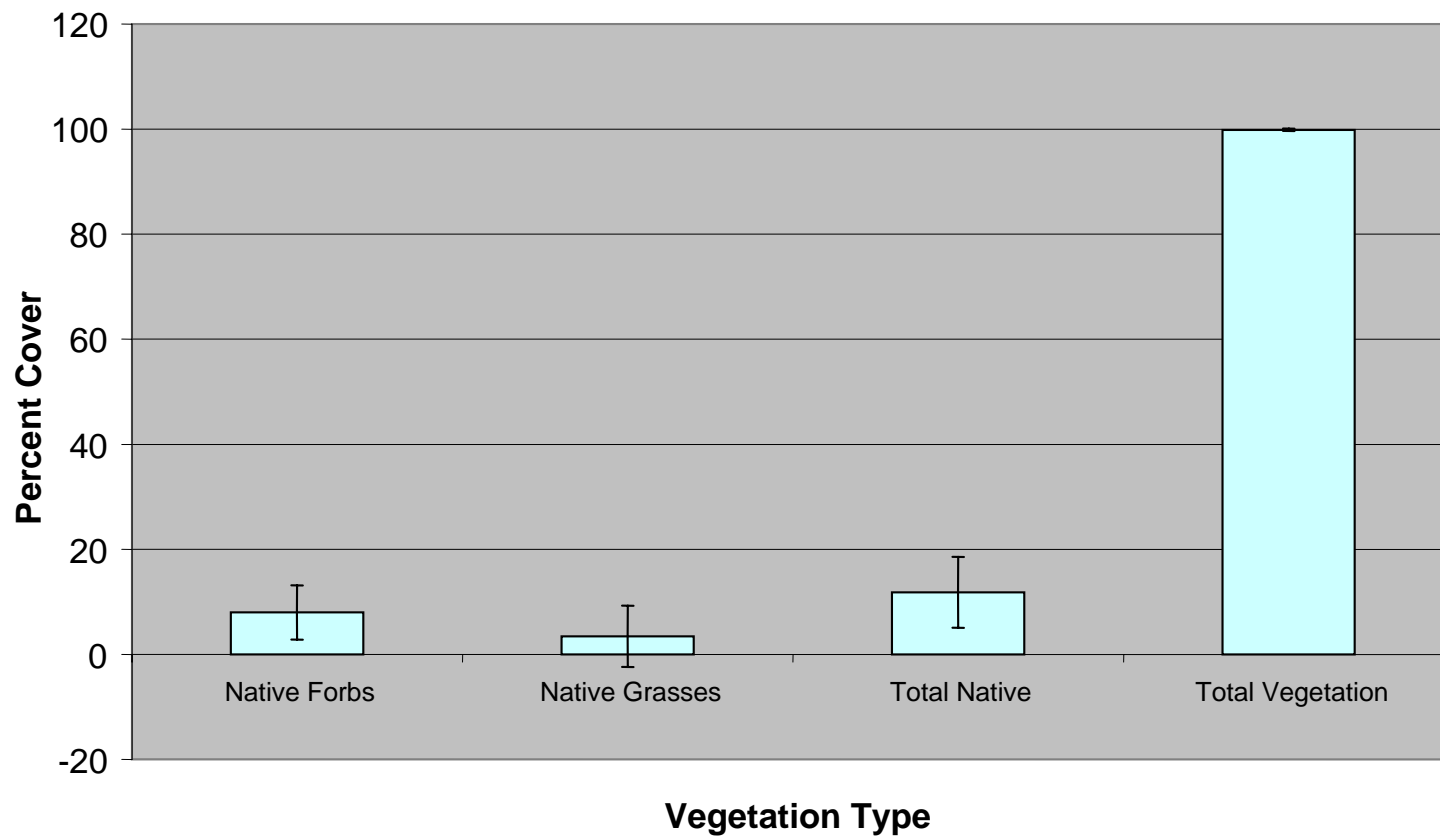
**Figure 2-1. Average Percent Cover of All Transects, except IO (with 90% CI),  
Flambeau Mine, Summer 2006.**



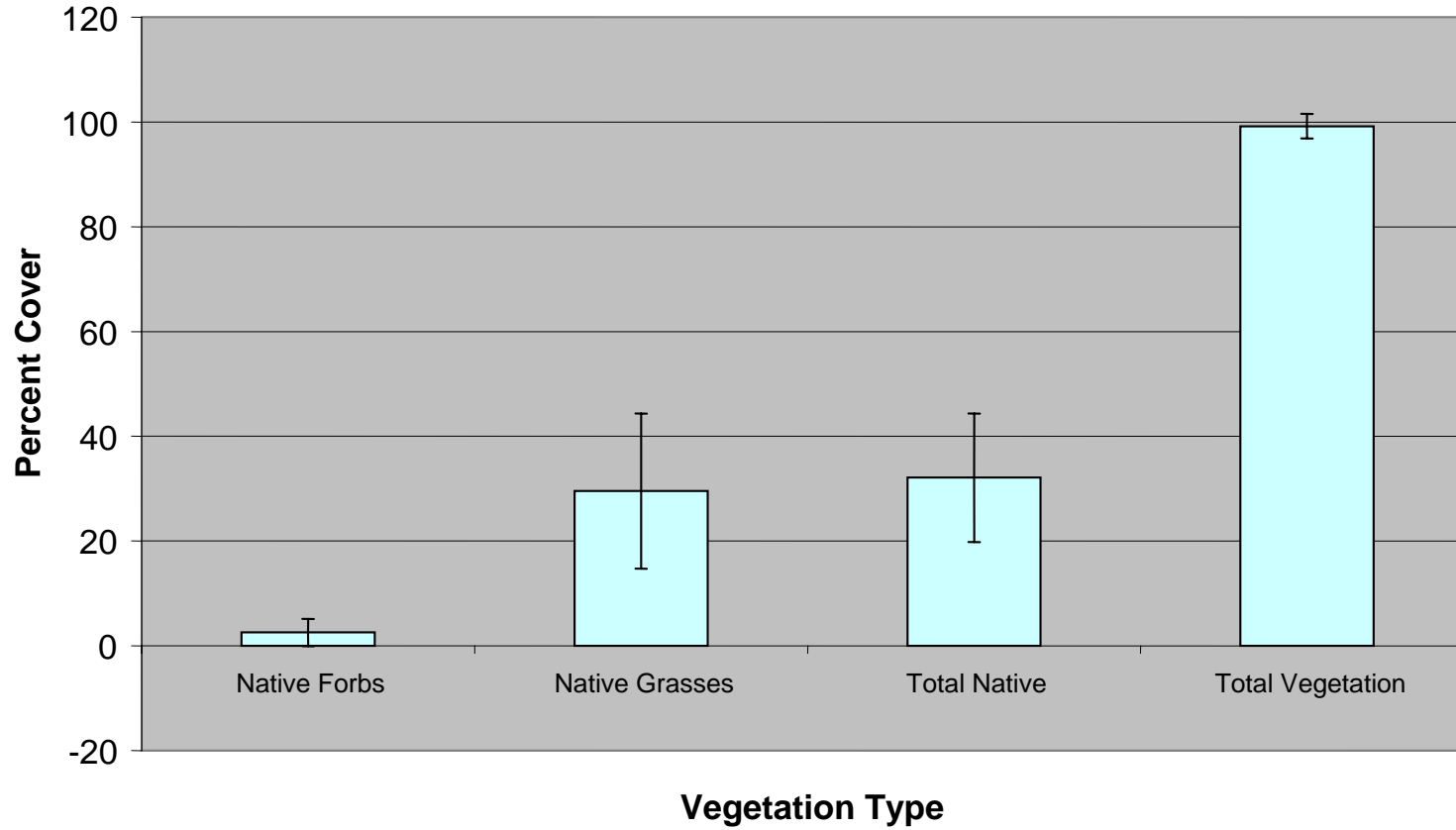
**Figure 2-2. Average Percent Cover of All Permanent Transects (with 90% CI),  
Flambeau Mine, Summer 2006.**



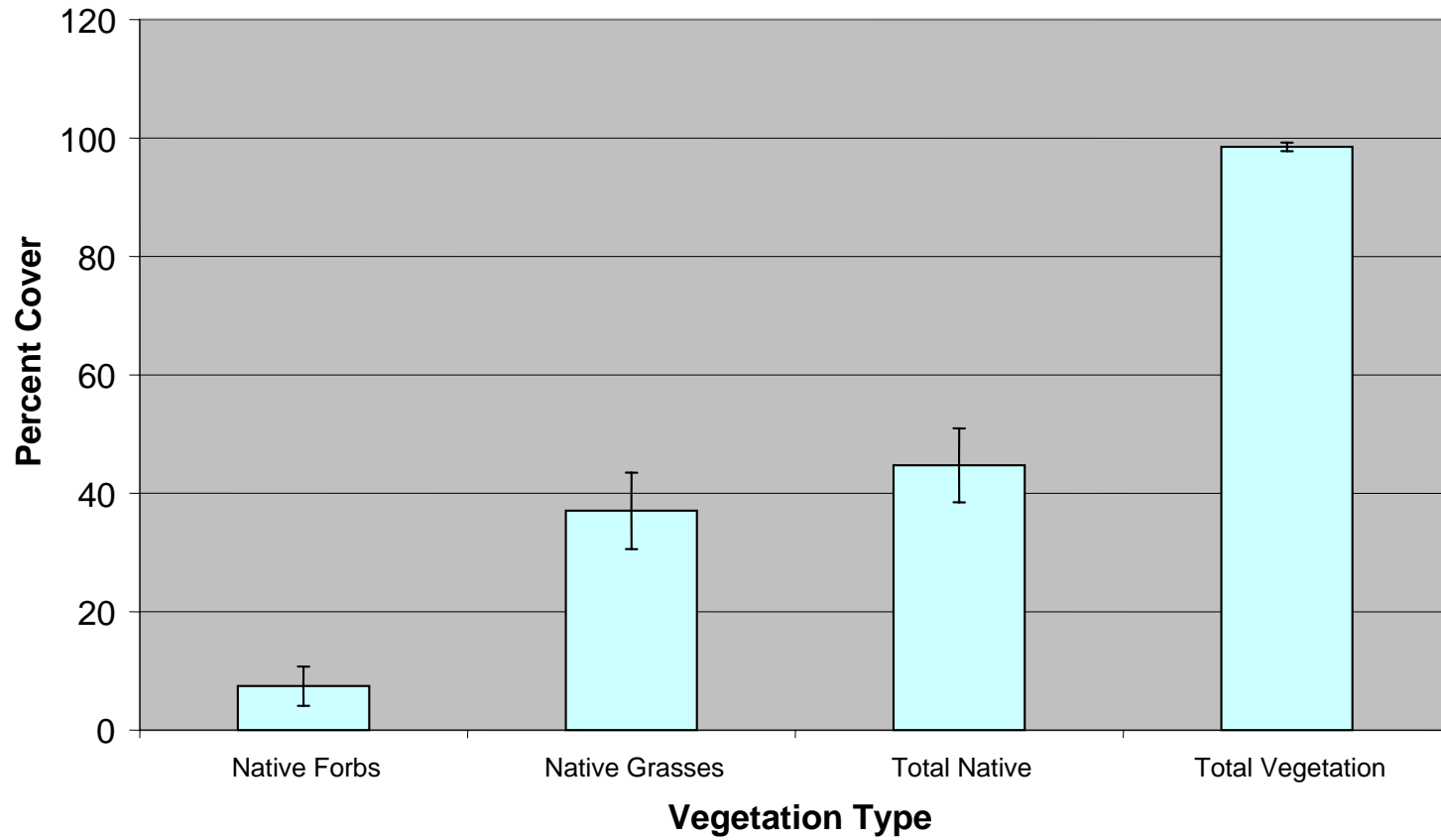
**Figure 2-3. Average Percent Cover of Woodland Transects (with 90% CI),  
Flambeau Mine, Summer 2006.**



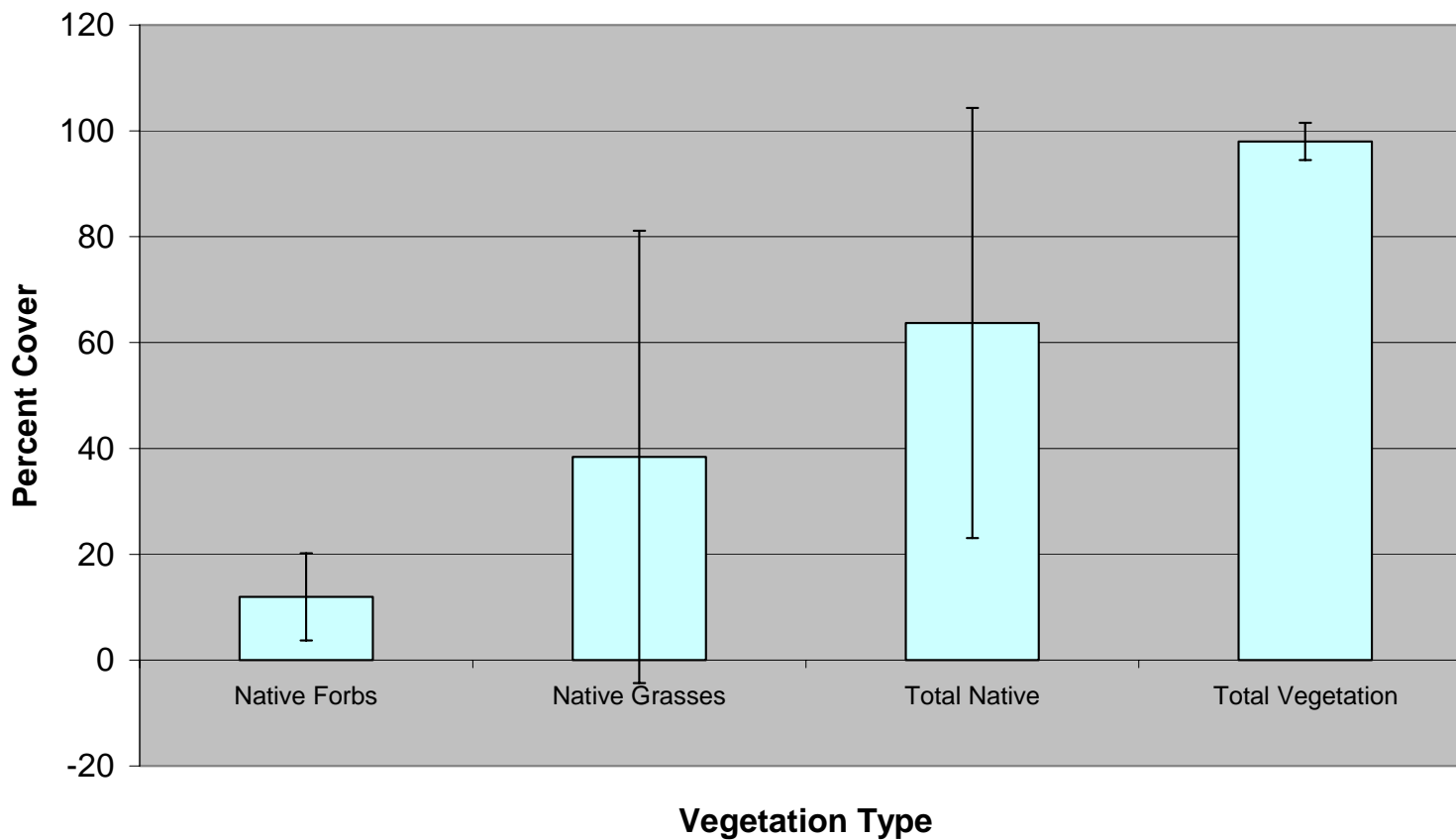
**Figure 2-4. Average Percent Cover of Temporary Upland Grassland Transects with (90% CI)  
Flambeau Mine, Summer 2006**



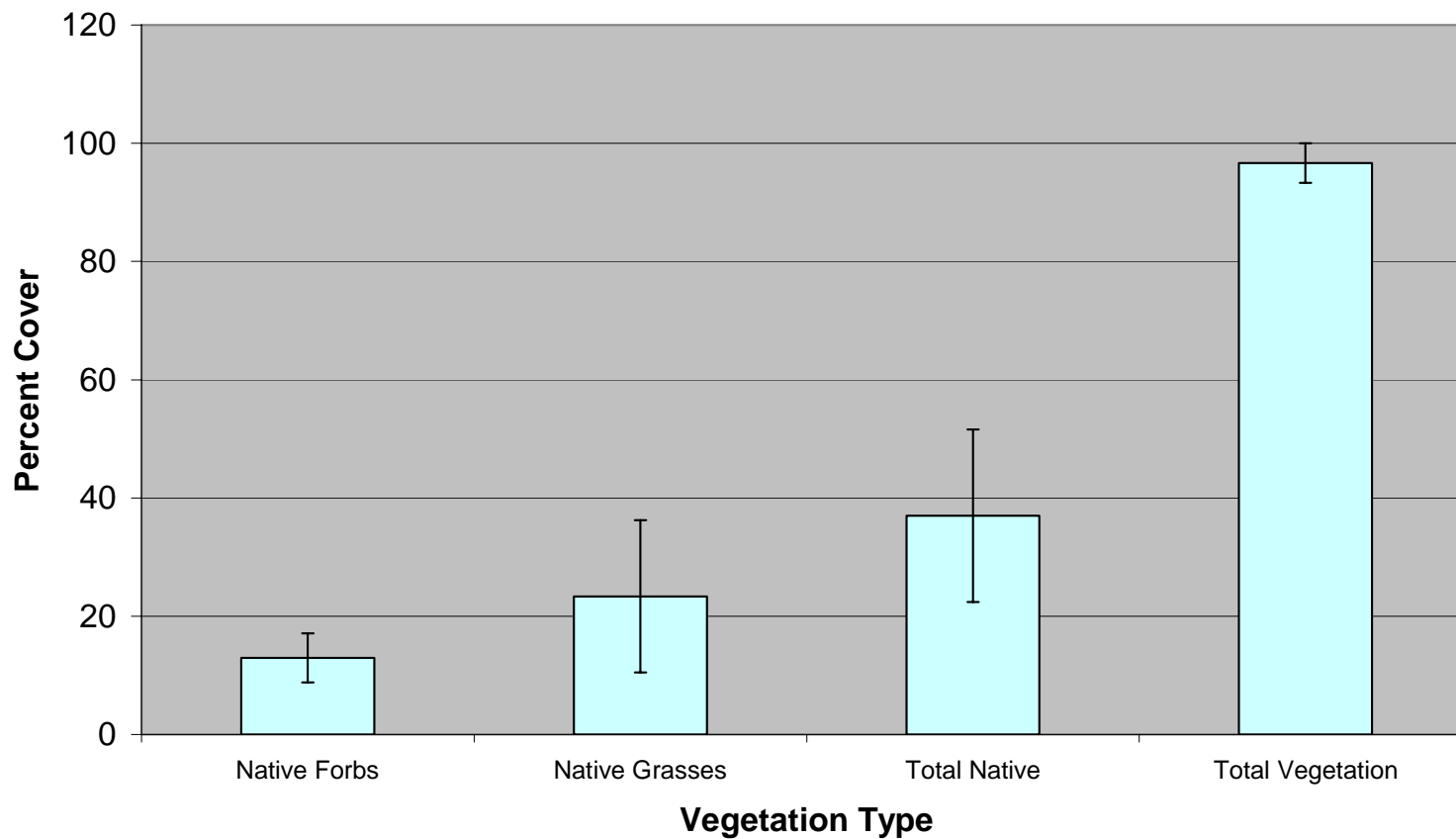
**Figure 2-5. Average Percent Cover of Permanent Upland Grassland Transects (with 90% CI), Flambeau Mine, Summer 2006.**



**Figure 2-6. Average Percent Cover of Wetland Transects (with 90% CI), Flambeau Mine, Summer 2006.**



**Figure 2-7. Average Percent Cover of Mixed Transects (with 90% CI),  
Flambeau Mine, Summer 2006.**



**Figure 2-8. Average Percent Cover of Industrial Outlot Transects (with 90% CI),  
Flambeau Mine, Summer 2006.**

