

**Appendix 4:** Similarities percentages analysis (SIMPER) of bird communities in the Athabasca Oil Sands Region comparing communities between different treatments. Diss/SD: Dissimilarity over standard deviation of dissimilarity. BRN: Burned; CLR: Cleared; COMP: Compensation Lake; LOG: Logged; MF: Mature Forest; REC: Reclaimed.

CLR & COMP						
Average Dissimilarity = 57.31%						
	CLR	COMP			Contribution	Cumulative
Species	Abundance	Abundance	Av.Diss	Diss/SD	(%)	%
CCSP	1.15	1.25	3.17	1.10	5.53	5.53
SAVS	0.84	0.62	3.10	1.10	5.40	10.93
SOSP	0.66	0.91	3.07	1.14	5.35	16.28
LCSP	0.79	1.00	3.05	1.16	5.33	21.61
COYE	0.81	1.25	2.97	1.11	5.19	26.80
LISP	0.84	1.20	2.89	1.09	5.04	31.84
REVI	0.79	0.50	2.80	1.09	4.88	36.73
TEWA	0.91	0.82	2.55	1.08	4.45	41.17
ALFL	0.91	1.13	2.41	0.94	4.21	45.38
WTSP	0.57	0.72	2.34	1.04	4.08	49.46
CHSP	0.21	0.66	2.32	1.05	4.05	53.51
SWSP	0.39	0.37	1.96	0.88	3.42	56.94
OVEN	0.39	0.28	1.96	0.79	3.42	60.35
AMRO	0.47	0.33	1.94	0.92	3.38	63.74
TRES	0.31	0.45	1.91	0.88	3.34	67.08
LEFL	0.26	0.28	1.63	0.71	2.84	69.92
YEWA	0.35	0.19	1.47	0.77	2.56	72.48
CEDW	0.19	0.32	1.40	0.73	2.45	74.93
HETH	0.22	0.07	1.10	0.50	1.93	76.86
RBGR	0.19	0.12	0.94	0.55	1.64	78.50
WIWA	0.15	0.16	0.90	0.56	1.58	80.08
VESP	0.21	0.03	0.83	0.46	1.45	81.52
NOFL	0.14	0.10	0.82	0.47	1.43	82.96
SWTH	0.07	0.16	0.79	0.46	1.37	84.33
AMRE	0.08	0.13	0.69	0.44	1.21	85.54
CAWA	0.00	0.19	0.69	0.44	1.20	86.74
CAJA	0.11	0.09	0.68	0.44	1.19	87.93
RWBL	0.08	0.15	0.61	0.45	1.07	89.00

  

COMP & LOG						
Average Dissimilarity = 72.26%						

Species	COMP	LOG	Av.Diss	Diss/SD	Contribution	Cumulative
	Abundance	Abundance			(%)	%
DEJU	0.06	1.35	4.99	2.39	6.91	6.91
COYE	1.25	0.00	4.73	3.26	6.55	13.46
VESP	0.03	1.17	4.43	2.10	6.13	19.59
LISP	1.20	0.12	4.12	2.20	5.71	25.30
AMRO	0.33	1.30	3.97	1.67	5.49	30.78
LCSP	1.00	0.00	3.77	1.69	5.22	36.00
SOSP	0.91	0.00	3.35	1.32	4.64	40.64
CHSP	0.66	1.19	2.87	1.19	3.97	44.61
TEWA	0.82	0.30	2.73	1.20	3.77	48.38
WTSP	0.72	1.29	2.67	1.09	3.70	52.08
YRWA	0.03	0.66	2.46	1.05	3.40	55.48
CCSP	1.25	1.01	2.41	0.93	3.34	58.82
SAVS	0.62	0.05	2.31	1.00	3.19	62.01
ALFL	1.13	0.83	2.25	0.98	3.12	65.13
HETH	0.07	0.54	2.07	0.89	2.86	67.99
REVI	0.50	0.32	2.02	0.95	2.79	70.78
PAWA	0.09	0.53	2.02	0.82	2.79	73.57
TRES	0.45	0.24	1.79	0.85	2.48	76.05
CEDW	0.32	0.27	1.54	0.81	2.13	78.18
LEFL	0.28	0.26	1.49	0.76	2.06	80.23
SWSP	0.37	0.00	1.23	0.63	1.70	81.93
WIWA	0.16	0.18	0.98	0.59	1.36	83.29
OVEN	0.28	0.00	0.89	0.59	1.23	84.52
WEWP	0.00	0.21	0.82	0.50	1.13	85.66

COMP & MF

Average Dissimilarity = 80.68%

Species	COMP	MF	Av.Diss	Diss/SD	Contribution	Cumulative
	Abundance	Abundance			(%)	%
CCSP	1.25	0.00	4.15	2.19	5.14	5.14
COYE	1.25	0.06	4.07	2.42	5.04	10.19
LISP	1.20	0.05	3.85	2.27	4.77	14.96
ALFL	1.13	0.11	3.49	1.91	4.33	19.29
LCSP	1.00	0.00	3.36	1.60	4.17	23.45
OVEN	0.28	1.16	3.25	1.51	4.03	27.48
SOSP	0.91	0.00	2.99	1.28	3.71	31.18
YRWA	0.03	0.84	2.76	1.28	3.43	34.61

TEWA	0.82	1.20	2.62	1.15	3.25	37.86
WETA	0.07	0.73	2.24	1.21	2.78	40.64
WTSP	0.72	1.08	2.23	1.09	2.76	43.40
SWTH	0.16	0.72	2.19	1.17	2.71	46.11
CHSP	0.66	0.82	2.13	1.08	2.64	48.75
REVI	0.50	0.58	2.07	1.03	2.56	51.31
SAVS	0.62	0.00	2.06	0.96	2.55	53.86
AMRO	0.33	0.60	2.01	0.98	2.49	56.35
CAWA	0.19	0.55	1.85	0.93	2.29	58.64
CAJA	0.09	0.54	1.74	0.90	2.15	60.79
LEFL	0.28	0.38	1.63	0.81	2.02	62.81
DEJU	0.06	0.42	1.44	0.70	1.79	64.60
HETH	0.07	0.43	1.44	0.75	1.79	66.39
TRES	0.45	0.05	1.42	0.75	1.76	68.14
MOWA	0.12	0.39	1.39	0.74	1.72	69.86
MAWA	0.12	0.37	1.28	0.75	1.59	71.45
BOCH	0.03	0.39	1.27	0.73	1.58	73.03
BCCH	0.06	0.33	1.22	0.65	1.51	74.54
CEDW	0.32	0.16	1.16	0.72	1.44	75.98
SWSP	0.37	0.03	1.14	0.64	1.41	77.40
YBSA	0.13	0.29	1.12	0.66	1.39	78.79
RBNU	0.03	0.38	1.10	0.71	1.36	80.15
BAWW	0.13	0.27	1.05	0.66	1.31	81.46
RBGR	0.12	0.27	1.00	0.64	1.24	82.70
NOFL	0.10	0.25	0.98	0.59	1.21	83.90
YEWA	0.19	0.13	0.89	0.58	1.10	85.00
AMRE	0.13	0.23	0.89	0.61	1.10	86.10
CMWA	0.00	0.24	0.81	0.48	1.01	87.11

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CLR & REC

Average Dissimilarity = 64.49%

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Species	CLR	REC	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
SAVS	0.84	1.07	4.08	1.05	6.33	6.33
CCSP	1.15	1.37	3.89	0.96	6.03	12.37
LCSP	0.79	0.56	3.59	1.02	5.57	17.93
TEWA	0.91	0.36	3.54	1.21	5.50	23.43
LISP	0.84	0.97	3.52	1.08	5.46	28.89
REVI	0.79	0.49	3.36	1.04	5.22	34.11
ALFL	0.91	0.75	3.34	1.14	5.18	39.29

COYE	0.81	0.38	3.18	1.12	4.93	44.22
WTSP	0.57	0.62	3.05	1.02	4.73	48.94
SOSP	0.66	0.57	3.04	1.06	4.72	53.66
CHSP	0.21	0.61	2.71	0.92	4.20	57.86
AMRO	0.47	0.56	2.68	0.98	4.16	62.02
OVEN	0.39	0.13	2.15	0.69	3.33	65.35
SWSP	0.39	0.08	1.79	0.73	2.77	68.12
RWBL	0.08	0.40	1.72	0.74	2.67	70.79
YEWA	0.35	0.16	1.61	0.74	2.49	73.28
CEDW	0.19	0.27	1.55	0.68	2.41	75.69
VESP	0.21	0.22	1.55	0.62	2.40	78.09
TRES	0.31	0.16	1.52	0.71	2.36	80.45
LEFL	0.26	0.10	1.41	0.57	2.19	82.64
HETH	0.22	0.01	1.19	0.44	1.84	84.48
RBGR	0.19	0.08	0.99	0.49	1.53	86.01
NOFL	0.14	0.06	0.88	0.42	1.37	87.38
BRBL	0.04	0.14	0.74	0.40	1.15	88.53
WIWA	0.15	0.05	0.69	0.45	1.07	89.60

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LOG & REC

Average Dissimilarity = 71.54%

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Species	LOG	REC	Av.Diss	Diss/SD	Contribution	Cumulative
	Abundance	Abundance			(%)	%
DEJU	1.35	0.01	5.98	2.49	8.36	8.36
SAVS	0.05	1.07	4.69	1.36	6.55	14.91
VESP	1.17	0.22	4.59	1.63	6.41	21.32
WTSP	1.29	0.62	3.88	1.26	5.42	26.74
LISP	0.12	0.97	3.85	1.37	5.38	32.12
AMRO	1.30	0.56	3.84	1.23	5.37	37.49
CHSP	1.19	0.61	3.57	1.16	4.99	42.47
CCSP	1.01	1.37	3.23	0.98	4.52	46.99
ALFL	0.83	0.75	3.19	1.14	4.46	51.45
YRWA	0.66	0.00	2.86	1.04	4.00	55.45
LCSP	0.00	0.56	2.56	0.77	3.58	59.03
HETH	0.54	0.01	2.39	0.86	3.34	62.37
PAWA	0.53	0.05	2.32	0.78	3.24	65.61
REVI	0.32	0.49	2.29	0.94	3.20	68.80
SOSP	0.00	0.57	2.25	0.88	3.14	71.94
TEWA	0.30	0.36	2.05	0.81	2.86	74.81
CEDW	0.27	0.27	1.72	0.77	2.40	77.21

RWBL	0.00	0.40	1.56	0.71	2.18	79.39
COYE	0.00	0.38	1.43	0.66	2.00	81.39
TRES	0.24	0.16	1.28	0.63	1.79	83.19
LEFL	0.26	0.10	1.26	0.65	1.76	84.95
WEWP	0.21	0.00	0.96	0.50	1.34	86.29
BRBL	0.07	0.14	0.88	0.43	1.23	87.52
WIWA	0.18	0.05	0.79	0.48	1.11	88.63

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CLR & BRN

Average Dissimilarity = 65.73%

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Species	CLR	BRN	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
WTSP	0.57	1.55	3.66	1.49	5.56	5.56
CHSP	0.21	1.10	3.43	1.52	5.22	10.78
HETH	0.22	1.11	3.42	1.64	5.20	15.98
CCSP	1.15	0.90	3.21	1.19	4.89	20.87
LISP	0.84	1.21	2.93	1.10	4.46	25.34
SAVS	0.84	0.00	2.88	0.97	4.38	29.72
AMRO	0.47	1.08	2.87	1.27	4.36	34.08
REVI	0.79	0.31	2.73	1.07	4.15	38.23
COYE	0.81	0.78	2.69	1.17	4.10	42.33
LCSP	0.79	0.23	2.68	1.04	4.08	46.40
ALFL	0.91	1.15	2.50	1.01	3.80	50.21
LEFL	0.26	0.62	2.28	0.87	3.47	53.68
TRES	0.31	0.69	2.25	1.07	3.43	57.11
TEWA	0.91	0.81	2.23	1.06	3.40	60.51
SOSP	0.66	0.13	2.15	0.96	3.27	63.78
SWSP	0.39	0.47	1.91	0.96	2.90	66.68
OVEN	0.39	0.08	1.64	0.70	2.50	69.18
PAWA	0.05	0.43	1.57	0.72	2.39	71.57
WIWA	0.15	0.48	1.55	0.84	2.35	73.93
NOFL	0.14	0.40	1.54	0.78	2.34	76.27
CAJA	0.11	0.34	1.52	0.72	2.31	78.58
DEJU	0.04	0.32	1.25	0.64	1.90	80.48
BBWO	0.00	0.40	1.25	0.74	1.90	82.38
YEWA	0.35	0.08	1.19	0.71	1.82	84.19
CEDW	0.19	0.26	1.19	0.69	1.80	86.00
WEWP	0.00	0.20	0.82	0.43	1.25	87.24
VESP	0.21	0.04	0.81	0.47	1.24	88.48
YRWA	0.00	0.17	0.70	0.43	1.07	89.55

RBGR	0.19	0.04	0.70	0.48	1.07	90.62
SWTH	0.07	0.15	0.68	0.45	1.03	91.65

LOG & BRN

Average Dissimilarity = 57.15%

Species	LOG	BRN	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
VESP	1.17	0.04	4.11	2.07	7.20	7.20
LISP	0.12	1.21	3.94	1.79	6.89	14.09
DEJU	1.35	0.32	3.84	1.67	6.71	20.81
HETH	0.54	1.11	2.64	1.25	4.62	25.43
CCSP	1.01	0.90	2.60	1.08	4.54	29.97
TEWA	0.30	0.81	2.53	1.23	4.43	34.40
COYE	0.00	0.78	2.44	1.15	4.28	38.68
ALFL	0.83	1.15	2.38	1.07	4.17	42.85
TRES	0.24	0.69	2.27	1.14	3.97	46.82
YRWA	0.66	0.17	2.24	1.06	3.92	50.74
PAWA	0.53	0.43	2.18	0.96	3.82	54.56
LEFL	0.26	0.62	2.17	0.92	3.80	58.36
CHSP	1.19	1.10	1.74	0.85	3.04	61.40
AMRO	1.30	1.08	1.61	0.86	2.83	64.23
WIWA	0.18	0.48	1.58	0.85	2.76	66.99
REVI	0.32	0.31	1.48	0.85	2.58	69.57
CAJA	0.11	0.34	1.47	0.73	2.58	72.15
SWSP	0.00	0.47	1.46	0.82	2.55	74.70
NOFL	0.11	0.40	1.43	0.79	2.51	77.21
WTSP	1.29	1.55	1.36	0.93	2.37	79.58
CEDW	0.27	0.26	1.35	0.77	2.36	81.94
WEWP	0.21	0.20	1.28	0.65	2.24	84.19
BBWO	0.00	0.40	1.23	0.75	2.14	86.33
LCSP	0.00	0.23	0.66	0.50	1.15	87.48
SWTH	0.05	0.15	0.58	0.44	1.01	88.49

REC & BRN

Average Dissimilarity = 68.45%

Species	REC	BRN	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
SAVS	1.07	0.00	4.21	1.34	6.15	6.15
HETH	0.01	1.11	4.12	1.98	6.02	12.17
WTSP	0.62	1.55	3.95	1.31	5.78	17.95

CCSP	1.37	0.90	3.24	1.07	4.73	22.68
ALFL	0.75	1.15	3.12	1.16	4.56	27.24
AMRO	0.56	1.08	3.01	1.23	4.39	31.63
CHSP	0.61	1.10	2.96	1.14	4.33	35.96
LISP	0.97	1.21	2.77	1.03	4.05	40.01
TEWA	0.36	0.81	2.75	1.19	4.01	44.02
COYE	0.38	0.78	2.64	1.13	3.85	47.87
TRES	0.16	0.69	2.51	1.13	3.66	51.53
LCSP	0.56	0.23	2.36	0.84	3.45	54.98
LEFL	0.10	0.62	2.23	0.81	3.25	58.24
SOSP	0.57	0.13	2.06	0.90	3.01	61.25
REVI	0.49	0.31	1.97	0.89	2.88	64.13
PAWA	0.05	0.43	1.67	0.72	2.44	66.57
SWSP	0.08	0.47	1.64	0.84	2.40	68.96
CAJA	0.05	0.34	1.57	0.69	2.29	71.25
RWBL	0.40	0.13	1.55	0.77	2.27	73.52
NOFL	0.06	0.40	1.50	0.75	2.20	75.72
WIWA	0.05	0.48	1.49	0.78	2.18	77.90
CEDW	0.27	0.26	1.41	0.75	2.06	79.96
BBWO	0.00	0.40	1.31	0.73	1.92	81.88
DEJU	0.01	0.32	1.28	0.62	1.87	83.75
WEWP	0.00	0.20	0.88	0.43	1.28	85.03
VESP	0.22	0.04	0.87	0.50	1.27	86.31
YRWA	0.00	0.17	0.76	0.43	1.10	87.41

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CLR & LOG

Average Dissimilarity = 74.06%

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Species	CLR	LOG	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
DEJU	0.04	1.35	5.48	2.35	7.40	7.40
VESP	0.21	1.17	4.35	1.66	5.87	13.27
CHSP	0.21	1.19	4.25	1.69	5.74	19.02
AMRO	0.47	1.30	3.76	1.36	5.07	24.09
CCSP	1.15	1.01	3.52	1.14	4.75	28.84
WTSP	0.57	1.29	3.42	1.30	4.61	33.45
SAVS	0.84	0.05	3.24	1.01	4.37	37.82
TEWA	0.91	0.30	3.21	1.33	4.33	42.15
LISP	0.84	0.12	3.04	1.19	4.10	46.26
LCSP	0.79	0.00	3.00	1.01	4.05	50.31
REVI	0.79	0.32	2.97	1.12	4.01	54.32

COYE	0.81	0.00	2.93	1.17	3.95	58.27
ALFL	0.91	0.83	2.68	1.03	3.62	61.89
YRWA	0.00	0.66	2.67	1.04	3.61	65.50
HETH	0.22	0.54	2.40	0.93	3.24	68.74
SOSP	0.66	0.00	2.35	0.95	3.17	71.90
PAWA	0.05	0.53	2.17	0.78	2.93	74.83
OVEN	0.39	0.00	1.76	0.66	2.38	77.21
LEFL	0.26	0.26	1.67	0.74	2.25	79.46
TRES	0.31	0.24	1.57	0.77	2.12	81.58
SWSP	0.39	0.00	1.53	0.72	2.06	83.64
CEDW	0.19	0.27	1.46	0.71	1.98	85.62
YEWA	0.35	0.00	1.22	0.67	1.65	87.27
WIWA	0.15	0.18	1.01	0.58	1.36	88.63
NOFL	0.14	0.11	0.92	0.50	1.24	89.87
WEWP	0.00	0.21	0.89	0.50	1.20	91.07
CAJA	0.11	0.11	0.79	0.46	1.06	92.13

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CLR & MF

Average Dissimilarity = 80.86%

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Species	CLR	MF	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
CCSP	1.15	0.00	3.88	1.28	4.80	4.80
OVEN	0.39	1.16	3.20	1.40	3.96	8.76
YRWA	0.00	0.84	3.01	1.28	3.72	12.48
SAVS	0.84	0.00	2.88	0.95	3.56	16.03
ALFL	0.91	0.11	2.87	1.37	3.54	19.58
LISP	0.84	0.05	2.72	1.15	3.37	22.95
WTSP	0.57	1.08	2.71	1.21	3.35	26.30
LCSP	0.79	0.00	2.67	0.98	3.31	29.61
COYE	0.81	0.06	2.61	1.13	3.23	32.84
CHSP	0.21	0.82	2.58	1.21	3.19	36.03
REVI	0.79	0.58	2.58	1.06	3.19	39.21
TEWA	0.91	1.20	2.54	1.09	3.13	42.35
WETA	0.00	0.73	2.42	1.22	3.00	45.34
SWTH	0.07	0.72	2.38	1.19	2.94	48.29
AMRO	0.47	0.60	2.23	1.00	2.76	51.05
SOSP	0.66	0.00	2.10	0.92	2.60	53.65
CAWA	0.00	0.55	1.92	0.87	2.38	56.03
CAJA	0.11	0.54	1.88	0.89	2.32	58.35
HETH	0.22	0.43	1.82	0.80	2.25	60.60



LEFL	0.26	0.38	1.78	0.78	2.20	62.81
DEJU	0.04	0.42	1.54	0.68	1.91	64.71
SWSP	0.39	0.03	1.39	0.72	1.71	66.43
BCCH	0.07	0.33	1.34	0.64	1.66	68.09
YEWA	0.35	0.13	1.33	0.73	1.64	69.73
BOCH	0.00	0.39	1.31	0.72	1.62	71.35
MOWA	0.00	0.39	1.30	0.68	1.61	72.95
RBGR	0.19	0.27	1.23	0.68	1.52	74.47
MAWA	0.00	0.37	1.21	0.68	1.50	75.97
NOFL	0.14	0.25	1.20	0.62	1.49	77.45
RBNU	0.00	0.38	1.14	0.69	1.42	78.87
TRES	0.31	0.05	1.10	0.64	1.36	80.23
BAWW	0.07	0.27	1.04	0.62	1.29	81.52
CEDW	0.19	0.16	0.99	0.59	1.23	82.75
YBSA	0.00	0.29	0.98	0.57	1.21	83.96
AMRE	0.08	0.23	0.90	0.55	1.11	85.07
CMWA	0.00	0.24	0.88	0.48	1.08	86.15
RCKI	0.00	0.26	0.84	0.53	1.03	87.18
HAWO	0.04	0.24	0.81	0.55	1.00	88.19

LOG & MF

Average Dissimilarity = 72.64%

Species	LOG	MF	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
VESP	1.17	0.00	4.20	2.13	5.79	5.79
OVEN	0.00	1.16	3.98	2.13	5.47	11.26
DEJU	1.35	0.42	3.64	1.48	5.01	16.27
CCSP	1.01	0.00	3.51	1.44	4.83	21.11
TEWA	0.30	1.20	3.45	1.53	4.75	25.86
AMRO	1.30	0.60	2.86	1.20	3.94	29.79
ALFL	0.83	0.11	2.74	1.28	3.78	33.57
SWTH	0.05	0.72	2.34	1.24	3.22	36.79
CHSP	1.19	0.82	2.32	1.02	3.19	39.99
WETA	0.11	0.73	2.32	1.21	3.19	43.18
YRWA	0.66	0.84	2.30	1.05	3.17	46.34
HETH	0.54	0.43	2.11	0.98	2.91	49.25
REVI	0.32	0.58	1.99	1.00	2.74	51.99
PAWA	0.53	0.13	1.94	0.82	2.67	54.66
WTSP	1.29	1.08	1.90	0.88	2.61	57.27
CAWA	0.00	0.55	1.88	0.90	2.59	59.86

CAJA	0.11	0.54	1.83	0.92	2.52	62.38
LEFL	0.26	0.38	1.67	0.83	2.29	64.68
BOCH	0.00	0.39	1.28	0.74	1.77	66.44
BCCH	0.05	0.33	1.28	0.65	1.76	68.20
MOWA	0.00	0.39	1.27	0.69	1.75	69.96
CEDW	0.27	0.16	1.20	0.69	1.65	71.61
MAWA	0.00	0.37	1.19	0.69	1.63	73.24
RBNU	0.00	0.38	1.13	0.70	1.55	74.79
NOFL	0.11	0.25	1.06	0.61	1.45	76.24
YBSA	0.00	0.29	0.96	0.58	1.32	77.56
BAWW	0.00	0.27	0.93	0.58	1.28	78.84
TRES	0.24	0.05	0.88	0.54	1.22	80.06
CMWA	0.00	0.24	0.86	0.49	1.18	81.24
HAWO	0.05	0.24	0.85	0.57	1.17	82.41
RBGR	0.00	0.27	0.83	0.55	1.14	83.55
RCKI	0.00	0.26	0.82	0.54	1.13	84.68
WEWP	0.21	0.03	0.81	0.52	1.11	85.79
WWCR	0.00	0.22	0.78	0.48	1.07	86.86

COMP & REC

Average Dissimilarity = 59.30%

Species	COMP	REC	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
COYE	1.25	0.38	4.08	1.48	6.89	6.89
SAVS	0.62	1.07	3.53	1.11	5.95	12.83
LCSP	1.00	0.56	3.32	1.18	5.59	18.43
ALFL	1.13	0.75	3.19	1.16	5.38	23.81
SOSP	0.91	0.57	3.19	1.09	5.38	29.19
TEWA	0.82	0.36	2.97	1.17	5.01	34.20
WTSP	0.72	0.62	2.80	1.13	4.73	38.92
CHSP	0.66	0.61	2.72	1.06	4.58	43.51
LISP	1.20	0.97	2.62	0.96	4.41	47.92
CCSP	1.25	1.37	2.53	0.87	4.26	52.18
REVI	0.50	0.49	2.48	0.98	4.18	56.36
AMRO	0.33	0.56	2.30	0.96	3.87	60.23
TRES	0.45	0.16	1.83	0.79	3.08	63.31
RWBL	0.15	0.40	1.65	0.77	2.79	66.10
CEDW	0.32	0.27	1.63	0.79	2.75	68.85
SWSP	0.37	0.08	1.46	0.67	2.47	71.32
LEFL	0.28	0.10	1.27	0.60	2.14	73.45

OVEN	0.28	0.13	1.21	0.67	2.04	75.49
YEWA	0.19	0.16	1.06	0.59	1.78	77.27
VESP	0.03	0.22	0.90	0.49	1.51	78.79
SWTH	0.16	0.07	0.79	0.46	1.33	80.12
CAWA	0.19	0.02	0.78	0.46	1.31	81.43
WIWA	0.16	0.05	0.70	0.45	1.18	82.61
AMRE	0.13	0.06	0.64	0.42	1.08	83.69
RBGR	0.12	0.08	0.64	0.43	1.08	84.77
MOWA	0.12	0.01	0.59	0.35	1.00	85.77

MF & REC

Average Dissimilarity = 86.27%

Species	MF	REC	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
CCSP	0.00	1.37	5.24	1.86	6.08	6.08
SAVS	0.00	1.07	4.22	1.30	4.89	10.97
OVEN	1.16	0.13	4.08	1.70	4.73	15.70
TEWA	1.20	0.36	3.68	1.42	4.26	19.96
LISP	0.05	0.97	3.48	1.33	4.03	23.99
YRWA	0.84	0.00	3.20	1.26	3.71	27.70
WTSP	1.08	0.62	3.07	1.18	3.56	31.26
CHSP	0.82	0.61	2.64	1.08	3.06	34.32
ALFL	0.11	0.75	2.57	1.03	2.98	37.30
WETA	0.73	0.02	2.56	1.21	2.96	40.26
SWTH	0.72	0.07	2.53	1.20	2.93	43.20
AMRO	0.60	0.56	2.49	1.02	2.88	46.08
REVI	0.58	0.49	2.38	1.00	2.76	48.83
LCSP	0.00	0.56	2.25	0.75	2.60	51.44
CAWA	0.55	0.02	2.05	0.87	2.37	53.81
SOSP	0.00	0.57	2.00	0.86	2.31	56.12
CAJA	0.54	0.05	1.97	0.87	2.28	58.40
DEJU	0.42	0.01	1.60	0.66	1.86	60.26
HETH	0.43	0.01	1.58	0.71	1.84	62.09
LEFL	0.38	0.10	1.58	0.69	1.83	63.92
RWBL	0.03	0.40	1.42	0.71	1.64	65.56
MOWA	0.39	0.01	1.39	0.68	1.61	67.18
BOCH	0.39	0.00	1.39	0.72	1.61	68.79
COYE	0.06	0.38	1.37	0.68	1.59	70.37
BCCH	0.33	0.03	1.36	0.60	1.58	71.95
MAWA	0.37	0.00	1.28	0.68	1.48	73.44

CEDW	0.16	0.27	1.24	0.67	1.44	74.88
RBNU	0.38	0.01	1.23	0.70	1.42	76.30
BAWW	0.27	0.03	1.06	0.59	1.23	77.53
NOFL	0.25	0.06	1.06	0.54	1.23	78.76
YBSA	0.29	0.01	1.04	0.57	1.21	79.97
RBGR	0.27	0.08	1.04	0.60	1.21	81.17
CMWA	0.24	0.01	0.95	0.48	1.11	82.28
YEWA	0.13	0.16	0.90	0.53	1.05	83.33
RCKI	0.26	0.00	0.88	0.53	1.02	84.35
AMRE	0.23	0.06	0.87	0.54	1.01	85.36

COMP & BRN

Average Dissimilarity = 60.15%

Species	COMP	BRN	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
HETH	0.07	1.11	3.50	1.89	5.81	5.81
LCSP	1.00	0.23	3.04	1.40	5.06	10.87
WTSP	0.72	1.55	2.93	1.26	4.87	15.74
AMRO	0.33	1.08	2.92	1.42	4.85	20.59
SOSP	0.91	0.13	2.86	1.24	4.76	25.35
COYE	1.25	0.78	2.53	1.09	4.20	29.55
CCSP	1.25	0.90	2.45	1.05	4.08	33.62
CHSP	0.66	1.10	2.38	1.12	3.96	37.59
TEWA	0.82	0.81	2.30	1.16	3.82	41.40
TRES	0.45	0.69	2.17	1.11	3.62	45.02
LEFL	0.28	0.62	2.10	0.91	3.50	48.52
SAVS	0.62	0.00	2.06	0.97	3.43	51.94
REVI	0.50	0.31	1.81	0.92	3.01	54.95
ALFL	1.13	1.15	1.80	0.95	2.99	57.95
SWSP	0.37	0.47	1.78	0.94	2.95	60.90
LISP	1.20	1.21	1.76	0.94	2.92	63.82
PAWA	0.09	0.43	1.49	0.75	2.47	66.29
WIWA	0.16	0.48	1.48	0.84	2.46	68.75
CAJA	0.09	0.34	1.38	0.71	2.29	71.05
NOFL	0.10	0.40	1.35	0.77	2.25	73.30
CEDW	0.32	0.26	1.30	0.80	2.16	75.46
DEJU	0.06	0.32	1.18	0.65	1.96	77.41
BBWO	0.00	0.40	1.17	0.74	1.95	79.36
OVEN	0.28	0.08	0.96	0.64	1.59	80.95
SWTH	0.16	0.15	0.82	0.54	1.37	82.32

WEWP	0.00	0.20	0.75	0.43	1.25	83.58
YEWA	0.19	0.08	0.72	0.54	1.19	84.77
YRWA	0.03	0.17	0.69	0.46	1.15	85.91
RWBL	0.15	0.13	0.68	0.52	1.12	87.04
CAWA	0.19	0.00	0.60	0.45	1.00	88.04

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MF & BRN

Average Dissimilarity = 73.03%

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Species	MF	BRN	Av.Diss	Diss/SD	Contribution (%)	Cumulative %
	Abundance	Abundance				
LISP	0.05	1.21	3.66	1.80	5.01	5.01
OVEN	1.16	0.08	3.40	1.86	4.66	9.67
ALFL	0.11	1.15	3.34	1.71	4.57	14.24
HETH	0.43	1.11	2.64	1.33	3.61	17.85
CCSP	0.00	0.90	2.63	1.31	3.60	21.45
TEWA	1.20	0.81	2.43	1.19	3.33	24.78
YRWA	0.84	0.17	2.40	1.23	3.29	28.07
AMRO	0.60	1.08	2.37	1.20	3.25	31.32
COYE	0.06	0.78	2.21	1.12	3.02	34.34
WETA	0.73	0.04	2.13	1.22	2.92	37.26
SWTH	0.72	0.15	2.11	1.20	2.88	40.14
LEFL	0.38	0.62	2.08	0.94	2.85	42.99
TRES	0.05	0.69	2.08	1.16	2.84	45.83
CHSP	0.82	1.10	1.97	0.99	2.70	48.54
WTSP	1.08	1.55	1.86	0.90	2.55	51.09
REVI	0.58	0.31	1.83	0.99	2.51	53.60
CAJA	0.54	0.34	1.77	0.96	2.43	56.03
CAWA	0.55	0.00	1.69	0.89	2.31	58.34
DEJU	0.42	0.32	1.68	0.85	2.30	60.63
PAWA	0.13	0.43	1.46	0.76	2.00	62.64
NOFL	0.25	0.40	1.45	0.84	1.98	64.62
SWSP	0.03	0.47	1.34	0.82	1.83	66.45
WIWA	0.06	0.48	1.30	0.78	1.77	68.23
BBWO	0.11	0.40	1.21	0.79	1.66	69.89
BCCH	0.33	0.08	1.17	0.67	1.60	71.48
BOCH	0.39	0.00	1.16	0.73	1.59	73.07
MOWA	0.39	0.00	1.15	0.68	1.58	74.65
MAWA	0.37	0.04	1.11	0.71	1.52	76.16
RBNU	0.38	0.00	1.03	0.70	1.40	77.57
CEDW	0.16	0.26	0.98	0.68	1.34	78.91

BAWW	0.27	0.04	0.92	0.60	1.26	80.17
HAWO	0.24	0.13	0.89	0.63	1.21	81.38
YBSA	0.29	0.00	0.87	0.57	1.19	82.56
RBGR	0.27	0.04	0.81	0.58	1.11	83.67
WWCR	0.22	0.04	0.78	0.52	1.07	84.75
CMWA	0.24	0.00	0.77	0.48	1.05	85.80
WEWP	0.03	0.20	0.75	0.45	1.02	86.82
RCKI	0.26	0.00	0.74	0.54	1.02	87.84

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