

# ESD\_climate\_physiographic\_metrics

steppe

2022-05-11

An ecological site description is often based upon several abiotic parameters. The most common of these are:

Physiographic: 1) Elevation 2) Aspect 3) Slope

Climate: 1) Annual Air Temperature 2) Annual Total Precipitation a) Timing of Precipitation b) Driest & Wettest Months 3) Frost free period 4) Initiation and cessation of vegetative growth

## Data Analysis

### Physiographic

#### Climatic

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## Results

Table 1: Some AIM site characteristics 2022 UFO

Plot ID	Elev. (ft.)	% Slope	Aspect	Ppt. (in.)	Annual Temp. (C)	Ann. Temp. (F)	Frost Free (d)
AS-012	9022	22	219	30	5	41	128
AS-013	7892	42	322	21	6	43	109
AS-016	9926	15	112	29	4	39	91
AS-017	8318	34	310	20	7	44	109
AS-020	7429	36	287	17	7	45	141
GR-025	6043	20	102	14	10	50	157
GR-026	6192	9	215	14	10	50	160
GR-027	6630	7	80	16	10	49	162
GR-028	5182	10	216	11	11	52	173
OT-117	5590	19	224	13	11	51	158
OT-118	5968	44	234	11	9	49	161
OT-119	7022	65	143	12	9	48	149
OT-120	6096	63	160	10	10	50	172
OT-121	6395	181	197	15	10	51	153
OT-122	6123	41	142	11	9	49	161
OT-123	7080	87	175	11	9	48	161
OT-124	5819	51	145	14	11	51	144
OT-125	5706	72	192	13	11	51	158

Table 1: Some AIM site characteristics 2022 UFO (*continued*)

Plot ID	Elev. (ft.)	% Slope	Aspect	Ppt. (in.)	Annual Temp. (C)	Ann. Temp. (F)	Frost Free (d)
OT-126	6480	36	152	12	9	48	146
PJ-155	7448	23	123	16	8	46	132
PJ-158	6787	38	284	13	9	48	162
PJ-159	7326	32	229	16	8	46	126
PJ-160	5954	16	135	13	11	52	161
PJ-161	6775	30	174	15	10	49	163
PJ-162	6963	88	255	14	9	48	161
PJ-163	6463	33	291	13	10	50	154
PJ-164	6803	38	181	15	10	49	153
PJ-165	6203	33	200	14	10	50	160
PJ-166	6244	36	129	10	10	50	171
PJ-167	6559	15	233	13	9	48	152
PJ-168	6065	29	122	14	10	50	159
PJ-169	7006	39	93	15	8	46	128
PJ-170	6784	32	229	16	9	49	153
PP-176	7259	10	343	16	9	47	152
PP-177	6405	13	169	13	10	50	153
PP-178	9034	26	195	21	5	41	112
PP-179	7416	38	184	16	8	46	153
PP-180	7673	5	43	18	8	46	143
RI-205	5079	10	192	8	11	52	168
RI-209	5971	10	246	12	10	50	155
RI-210	6067	6	194	11	9	48	155
RI-211	4804	20	301	13	11	52	161
RI-212	6302	5	82	11	9	49	162
RI-213	5128	58	298	13	11	51	150
RI-214	5745	8	283	11	9	49	158
SS-294	6223	52	215	12	10	50	146
SS-295	5594	69	228	14	11	51	157
SS-296	5367	27	308	12	11	51	169
SS-297	6079	5	281	12	10	49	161
SS-298	7809	6	285	19	8	46	152
SS-299	6416	5	55	15	10	50	163
SS-300	6463	9	162	13	9	48	146
SS-305	6905	9	122	14	9	48	152
SS-306	6271	15	293	12	9	49	165
SS-307	5183	13	72	13	11	51	144
SS-308	6002	12	284	13	10	50	161
SS-309	7402	5	50	16	8	47	145
SS-310	6017	10	261	13	10	51	171
SS-311	5799	4	171	13	11	51	162
SS-312	6774	7	92	14	9	48	145
SS-313	7163	5	21	15	9	48	158
SS-314	7903	14	268	17	7	44	115
SS-315	7098	6	94	14	9	48	161
SS-316	6398	24	165	14	10	50	160
SS-317	6405	51	46	17	9	47	140

Table 1: Some AIM site characteristics 2022 UFO (*continued*)

Plot ID	Elev. (ft.)	% Slope	Aspect	Ppt. (in.)	Annual Temp. (C)	Ann. Temp. (F)	Frost Free (d)
SS-318	6770	59	133	14	9	48	147
SS-319	5421	6	161	13	11	51	164
SS-320	7051	6	301	14	8	46	136
SD-392	5928	16	115	11	9	49	155
SD-393	6240	11	213	14	10	50	160
SD-394	5586	30	248	11	10	50	168
SD-395	5566	23	96	10	11	52	173
SD-399	5189	28	102	9	11	52	161
SD-400	5451	42	108	9	10	50	169
SD-401	5108	27	214	12	11	52	151
SD-402	5789	22	226	10	10	49	161
SD-403	5493	14	129	13	11	51	162
SD-404	5917	22	177	11	9	49	161
SD-405	5099	13	104	8	11	52	169
SD-406	5454	18	38	10	11	51	167
SD-407	5252	41	246	9	11	52	166
SD-408	5396	9	68	9	10	51	171
SD-409	5109	12	177	8	11	52	162
SD-410	5243	3	181	8	11	51	167
SD-411	5095	2	191	8	11	52	163
SD-412	6346	31	124	12	9	48	146
SD-413	5787	12	112	10	9	49	164
SD-414	6716	26	306	18	9	48	157
MMS-095	7475	9	132	19	8	46	141
MMS-096	6951	8	84	15	8	47	142
MMS-097	7819	41	236	20	6	43	112
MMS-098	7762	22	267	18	7	45	145
MMS-099	7899	22	113	16	7	44	118
MMS-100	7530	5	197	15	7	45	130
MMS-101	7586	5	98	18	8	47	155
MMS-102	5915	5	20	14	9	49	156
MMS-103	5401	48	107	10	11	51	161
MMS-104	6021	45	148	12	10	50	165
MMS-105	8311	13	102	24	6	44	137

Table 2: Monthly Precipitation 2022 UFO AIM

Plot	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AS-012	8.5	9.7	10.1	9.9	8.3	4.0	7.5	9.0	8.3	8.8	7.7	8.2
AS-013	7.4	7.3	8.5	8.4	7.1	3.8	13.0	11.3	11.1	7.7	7.3	7.2
AS-016	8.6	9.3	10.4	9.7	6.6	3.4	8.4	9.9	9.3	7.9	8.3	8.2
AS-017	7.1	6.9	8.3	8.5	7.1	3.9	13.8	11.2	11.6	7.8	7.3	6.7
AS-020	8.2	7.9	6.9	7.6	9.0	4.2	10.0	8.3	12.3	10.9	6.5	8.2
GR-025	6.9	7.4	8.3	7.7	6.9	4.0	8.0	11.5	13.2	11.3	7.3	7.5
GR-026	6.4	7.7	7.7	7.9	7.4	4.2	9.1	10.7	13.2	10.0	7.9	7.8
GR-027	8.7	8.7	7.1	6.7	6.9	4.7	10.0	8.6	12.3	9.6	5.7	11.0
GR-028	6.2	6.1	8.0	10.2	10.2	4.6	8.5	8.6	12.6	11.9	7.6	5.5
OT-117	7.4	7.9	7.1	7.5	7.8	4.5	10.4	10.2	12.6	9.9	6.9	7.8
OT-118	6.5	7.6	7.2	9.4	8.3	4.5	9.4	10.4	13.0	10.1	6.6	6.7
OT-119	6.1	5.8	6.1	9.2	8.1	3.9	10.8	11.7	12.6	11.8	5.7	8.2
OT-120	5.4	6.8	6.8	8.5	9.4	4.8	11.6	12.2	11.8	11.1	5.7	6.1
OT-121	7.1	7.2	6.9	7.6	8.0	5.3	11.0	9.3	11.9	9.2	6.7	9.8
OT-122	6.6	7.6	7.4	9.3	8.2	4.4	9.2	10.3	13.0	10.2	6.9	7.0
OT-123	5.6	6.8	6.6	7.8	9.8	4.3	9.4	12.7	10.7	12.4	5.7	8.2
OT-124	7.2	8.4	6.4	7.7	7.6	4.3	11.3	10.8	12.6	9.9	6.8	6.9
OT-125	8.1	8.1	7.0	7.2	8.0	4.6	11.3	9.8	11.2	9.9	6.3	8.7
OT-126	6.5	7.3	7.7	9.5	8.2	4.1	9.5	10.4	12.7	9.9	7.0	7.2
PJ-155	7.3	8.3	7.2	7.3	10.3	4.1	8.3	8.6	13.4	11.1	7.1	7.1
PJ-158	7.2	7.5	6.0	8.6	8.8	3.8	12.5	9.9	10.4	9.2	7.2	8.8
PJ-159	6.8	7.7	8.3	9.1	8.0	4.0	9.0	10.6	11.7	9.4	7.5	7.8
PJ-160	7.5	8.0	7.4	7.6	7.6	4.4	9.6	10.5	12.3	10.4	6.9	7.8
PJ-161	7.5	8.0	7.4	7.2	7.1	4.5	9.6	10.2	13.6	8.6	6.6	9.9
PJ-162	6.7	7.2	7.0	9.2	8.4	4.2	13.3	9.7	10.7	8.8	6.8	8.2
PJ-163	7.9	7.7	7.3	8.4	9.0	4.5	9.0	9.6	12.2	10.5	6.1	7.9
PJ-164	6.9	7.3	6.9	7.6	8.0	5.6	10.7	9.2	11.8	9.5	6.7	9.9
PJ-165	6.4	7.7	7.7	8.0	7.5	4.2	9.2	10.4	13.2	9.8	8.0	7.8
PJ-166	5.5	7.0	6.2	8.8	8.8	4.6	11.7	11.6	12.3	11.5	5.9	6.1
PJ-167	6.2	6.3	6.5	8.5	10.3	4.0	11.9	12.0	10.8	9.3	6.7	7.4
PJ-168	7.6	8.2	7.4	7.1	7.5	4.8	10.2	10.4	13.1	9.8	6.2	7.7
PJ-169	5.8	6.5	6.6	7.8	8.4	3.9	10.1	14.0	13.6	7.9	8.0	7.4
PJ-170	8.6	8.1	6.1	6.7	6.9	5.3	10.0	11.2	10.7	11.0	5.9	9.4
PP-176	6.7	6.5	7.6	8.8	9.3	4.2	11.7	11.4	10.3	8.8	6.9	7.9
PP-177	8.0	7.8	7.7	8.2	9.0	4.7	8.0	9.8	12.2	9.7	6.5	8.3
PP-178	7.2	6.6	8.2	8.2	7.2	4.2	14.3	12.3	10.6	7.4	6.8	7.0
PP-179	8.3	7.6	8.4	8.3	8.5	4.8	8.1	9.4	11.5	9.1	6.8	9.2
PP-180	6.7	6.9	7.7	8.5	9.8	4.1	10.8	12.1	9.8	8.5	7.0	8.0
RI-205	5.9	7.2	6.1	7.1	9.6	4.7	10.2	10.2	14.4	12.1	7.0	5.3
RI-209	6.0	7.3	6.5	7.8	8.1	4.1	8.5	12.7	13.9	9.3	8.0	7.7
RI-210	6.5	7.8	7.5	9.5	8.2	4.5	9.4	9.9	13.0	9.8	6.8	7.0
RI-211	7.0	7.6	7.7	7.5	7.6	4.2	9.4	10.4	13.2	10.6	7.1	7.7
RI-212	5.8	6.7	6.0	9.1	8.9	3.7	14.3	10.8	11.6	10.2	6.2	6.7
RI-213	7.6	8.0	7.1	7.0	7.9	4.5	10.5	10.6	12.4	9.9	6.5	8.0
RI-214	5.5	6.5	6.0	8.9	8.7	3.9	15.2	11.1	11.8	10.6	5.9	6.1
SS-294	7.7	7.8	7.1	8.2	9.3	4.5	8.0	9.8	12.7	10.4	6.7	7.7

Table 2: Monthly Precipitation 2022 UFO AIM (*continued*)

Plot	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SS-295	7.7	7.8	6.9	7.5	8.0	4.9	11.0	9.0	11.8	9.5	6.7	9.1
SS-296	6.9	7.6	7.5	7.6	7.8	4.4	9.5	10.7	13.2	10.2	7.0	7.7
SS-297	6.7	7.8	7.7	9.2	8.2	4.3	9.0	9.9	13.0	10.1	6.9	7.2
SS-298	6.5	8.5	9.5	9.7	8.0	3.9	8.3	9.2	11.8	9.3	7.7	7.7
SS-299	8.0	8.6	7.3	6.7	6.8	4.3	9.8	10.1	13.1	9.2	6.0	10.1
SS-300	5.7	6.8	7.0	7.7	8.2	4.0	9.9	12.8	13.6	8.9	7.9	7.5
SS-305	6.3	6.3	6.8	8.6	10.1	4.1	11.8	12.0	10.5	9.1	6.8	7.6
SS-306	6.0	6.9	6.2	9.1	8.6	4.3	13.5	10.6	11.5	10.0	6.4	7.1
SS-307	7.9	8.0	7.1	7.4	7.5	4.2	11.4	10.9	12.8	9.5	6.5	7.0
SS-308	5.8	7.3	7.2	7.5	7.8	4.1	9.6	12.5	13.6	9.3	7.8	7.4
SS-309	6.8	6.6	7.1	8.3	10.0	4.0	11.1	12.2	9.9	8.8	7.1	8.2
SS-310	7.0	7.3	8.2	8.1	10.8	4.4	8.4	8.9	12.3	11.5	8.1	5.2
SS-311	6.8	7.9	7.8	7.5	7.3	4.2	8.2	10.8	13.6	10.8	7.3	8.0
SS-312	5.8	6.7	6.9	7.9	8.2	4.0	10.5	12.9	13.5	8.5	7.8	7.2
SS-313	6.6	6.4	7.3	8.8	9.5	4.1	12.0	11.5	10.3	8.9	6.8	7.8
SS-314	7.3	8.9	8.4	6.9	10.9	3.7	9.7	7.8	12.5	10.5	6.6	6.8
SS-315	6.9	7.3	6.7	9.1	8.5	4.0	13.0	9.5	10.6	8.8	7.0	8.6
SS-316	6.4	7.6	7.6	8.0	7.6	4.2	9.5	10.5	13.1	9.6	8.1	7.9
SS-317	8.9	8.8	8.3	10.0	8.6	3.8	7.4	8.0	11.3	9.5	6.7	8.6
SS-318	7.2	7.9	7.0	7.7	9.1	4.8	10.5	9.4	12.4	9.6	6.2	8.2
SS-319	7.0	7.8	7.6	7.8	7.7	4.0	9.0	10.7	12.9	10.5	7.4	7.4
SS-320	6.2	6.9	6.5	7.3	8.3	3.6	10.4	13.5	13.5	8.5	8.0	7.4
SD-392	6.5	7.7	7.3	9.4	8.3	4.6	9.5	10.3	13.0	10.0	6.6	6.8
SD-393	6.4	7.7	7.7	7.9	7.4	4.2	9.0	10.8	13.3	10.0	7.8	7.8
SD-394	7.0	7.5	7.2	8.9	8.7	4.3	9.3	10.3	12.6	10.8	7.0	6.3
SD-395	5.5	5.7	7.5	10.9	9.4	4.9	10.2	10.2	11.9	11.6	6.8	5.4
SD-399	6.5	7.9	5.7	8.1	9.8	4.3	9.4	10.6	14.1	11.9	6.4	5.5
SD-400	5.3	6.2	6.2	8.3	9.4	4.8	11.3	12.2	13.0	12.0	5.9	5.5
SD-401	7.1	7.4	7.4	7.1	8.2	4.4	10.7	11.3	13.2	10.0	6.5	6.6
SD-402	6.7	7.4	7.1	9.0	8.4	4.4	9.6	10.4	13.0	10.7	6.7	6.6
SD-403	6.8	7.5	7.5	7.6	7.8	4.1	9.5	10.7	13.5	10.3	7.0	7.6
SD-404	6.6	7.5	7.2	9.3	8.3	4.4	9.3	10.5	13.0	10.4	6.7	6.7
SD-405	5.6	6.2	6.7	8.2	9.2	5.0	9.6	11.3	14.5	12.3	6.1	5.3
SD-406	5.4	8.3	5.2	8.0	10.7	4.1	7.3	9.8	14.8	13.2	7.8	5.4
SD-407	6.5	6.9	6.3	8.0	9.8	4.6	8.8	10.5	14.4	11.9	6.7	5.6
SD-408	5.3	6.3	6.2	8.4	9.2	4.9	11.1	12.2	13.0	12.1	5.9	5.4
SD-409	6.4	7.7	5.2	8.5	9.6	4.2	9.9	10.2	14.3	12.4	6.3	5.4
SD-410	5.7	6.6	6.4	7.1	9.2	5.0	10.7	10.4	15.2	11.4	7.4	5.0
SD-411	5.9	6.4	6.3	8.2	9.3	4.8	9.1	10.6	15.0	12.2	6.6	5.5
SD-412	6.7	6.1	6.3	8.6	9.7	3.8	10.7	14.0	11.4	9.5	6.4	6.7
SD-413	5.2	6.5	6.2	8.8	8.8	4.1	13.8	11.3	12.5	11.4	5.9	5.6
SD-414	10.0	8.9	8.4	10.6	8.4	3.6	7.1	8.0	10.8	9.0	6.5	8.7
MMS-095	9.2	9.5	9.9	8.5	8.3	3.2	7.8	8.8	8.3	8.6	7.6	10.4
MMS-096	7.2	7.5	6.3	7.9	9.9	3.7	11.0	12.3	9.7	8.7	7.3	8.5
MMS-097	6.3	5.7	8.7	8.1	6.8	4.1	14.9	12.4	11.5	7.8	7.4	6.2
MMS-098	6.6	7.7	8.6	9.1	8.4	3.6	9.2	10.1	11.7	9.2	7.8	8.0
MMS-099	7.0	7.1	7.0	7.1	9.9	5.0	10.7	9.1	10.3	11.1	6.9	8.9

Table 2: Monthly Precipitation 2022 UFO AIM (*continued*)

Plot	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MMS-100	5.8	6.5	6.8	8.0	8.1	3.9	10.8	13.6	13.5	8.0	7.8	7.2
MMS-101	6.7	8.3	9.1	9.5	8.2	4.0	8.5	9.6	11.8	9.4	7.4	7.5
MMS-102	8.4	8.0	7.9	8.9	8.9	4.0	8.1	9.1	11.8	9.7	7.3	7.9
MMS-103	7.1	8.5	5.2	8.1	10.1	4.0	8.4	10.4	14.3	11.7	6.6	5.7
MMS-104	7.1	7.7	7.4	9.2	8.3	4.2	9.3	10.0	12.5	10.3	7.0	7.1
MMS-105	6.5	8.7	9.9	9.6	8.4	4.0	8.4	10.1	10.9	9.2	7.2	7.1