Supplementary Materials

Table S1. Landsat products data used in the current study over AMSV study area (2019, 2020 and 2021 summer seasons).

Date	Landsat Product Identifier	Date and GMT hour	Surface covered	Cloud cover (%)
02.06.2019	LC08_L2SP_183027_20190602_20200828_02_T1	2019-06-02 09:01:49.07 - 2019-06-02 09:02:20.84	AMSV	14.82
09.06.2019	LC08_L2SP_184027_20190609_20200828_02_T1	2019-06-09 09:08:02.93 - 2019-06-09 09:08:34.70	SV	22.14
10.06.2019	LE07_L2SP_183027_20190610_20200825_02_T1	2019-06-10 08:51:54.67-2019-06-10 08:52:21.43	AMSV	50.65
18.06.2019	LC08_L2SP_183027_20190618_20200827_02_T1	2019-06-18 09:01:55.44-2019-06-18 09:02:27.21	AMSV	50.65
26.06.2019	LE07_L2SP_183027_20190626_20200825_02_T1	2019-06-26 08:51:19.34-2019-06-26 08:51:46.10	AMSV	0.00
04.07.2019	LC08_L2SP_183027_20190704_20200827_02_T1	2019-07-04 09:01:59.79-2019-07-04 09:02:31.56	AMSV	23.30
20.07.2019	LC08_L2SP_183027_20190720_20200827_02_T1	2019-07-20 09:02:02.76 - 2019-07-20 09:02:34.53	AMSV	13.92
27.07.2019	LC08_L2SP_184027_20190727_20200827_02_T1	2019-07-27 09:08:16.80 - 2019-07-27 09:08:48.57	SV	19.88
28.07.2019	LE07_L2SP_183027_20190728_20200825_02_T1	2019-07-28 08:50:04.34-2019-07-28 08:50:31.10	AMSV	3.00
12.08.2019	LC08_L2SP_184027_20190812_20200827_02_T1	2019-08-12 09:08:22.85 - 2019-08-12 09:08:54.62	SV	2.69
13.08.2019	LE07_L2SP_183027_20190813_20200824_02_T1	2019-08-13 08:49:24.88-2019-08-13 08:49:51.63	AMSV	1.00
21.08.2019	LC08_L2SP_183027_20190821_20200827_02_T1	2019-08-21 09:02:14.58-2019-08-21 09:02:46.35	AMSV	2.68
28.08.2019	LC08_L2SP_184027_20190828_20200826_02_T1	2019-08-28 09:08:26.93 - 2019-08-28 09:08:58.70	SV	8.40
29.08.2019	LE07_L2SP_183027_20190829_20200824_02_T1	2019-08-29 08:48:44.20-2019-08-29 08:49:10.96	AMSV	3.00
11.06.2020	LC08_L2SP_184027_20200611_20200824_02_T1	2020-06-11 09:07:52.18-2020-06-11 09:08:23.95	SV	80.40
12.06.2020	LE07_L2SP_183027_20200612_20200823_02_T1	2020-06-12 08:33:57.47-2020-06-12 08:34:24.23	AMSV	16.00
27.06.2020	LC08_L2SP_184027_20200627_20200824_02_T1	2020-06-27 09:08:00.75-2020-06-27 09:08:32.52	SV	22.14
28.06.2020	LE07_L2SP_183027_20200628_20200822_02_T1	2020-06-28 08:33:00.78-2020-06-28 08:33:27.54	AMSV	19.00
06.07.2020	LC08_L2SP_183027_20200706_20200913_02_T1	2020-07-06 09:01:53.91 - 2020-07-06 09:02:25.68	AMSV	7.81
29.07.2020	LC08_L2SP_184027_20200729_20200908_02_T1	2020-07-29 09:08:11.93 - 2020-07-29 09:08:43.70	SV	21.08

30.07.2020	LE07_L2SP_183027_20200730_20200910_02_T1	2020-07-30 08:31:03.36-2020-07-30 08:31:30.11	AMSV	6.00
07.08.2020	LC08_L2SP_183027_20200807_20200916_02_T1	2020-08-07 09:02:02.84 - 2020-08-07 09:02:34.61	AMSV	3.27
14.08.2020	LC08_L2SP_184027_20200814_20200920_02_T1	2020-08-14 09:08:15.77 - 2020-08-14 09:08:47.54	SV	11.23
15.08.2020	LE07_L2SP_183027_20200815_20200917_02_T1	2020-08-15 08:30:02.62-2020-08-15 08:30:29.37	AMSV	28.00
23.08.2020	LC08_L2SP_183027_20200823_20200905_02_T1	2020-08-23 09:02:09.94 - 2020-08-23 09:02:41.71	AMSV	2.55
30.08.2020	LC08_L2SP_184027_20200830_20200906_02_T1	2020-08-30 09:08:24.15 - 2020-08-30 09:08:55.92	SV	0.22
31.08.2020	LE07_L2SP_183027_20200831_20200926_02_T1	2020-08-31 08:29:00.59-2020-08-31 08:29:27.34	AMSV	2.00
07.06.2021	LC08_L2SP_183027_20210607_20210615_02_T1	2021-06-07 09:01:52.21 - 2021-06-07 09:02:23.9	AMSV	24.47
23.06.2021	LC08_L2SP_183027_20210623_20210630_02_T1	2021-06-23 09:01:57.20-2021-06-23 09:02:28.97	AMSV	10.52
30.06.2021	LC08_L2SP_184027_20210630_20210708_02_T1	2021-06-30 09:08:09.29 - 2021-06-30 09:08:41.06	SV	28.43
09.07.2021	LC08_L2SP_183027_20210709_20210713_02_T1	2021-07-09 09:01:59.32 - 2021-07-09 09:02:31.09	AMSV	4.4
17.07.2021	LE07_L2SP_183027_20210717_20210812_02_T1	2021-07-17 08:04:49.26-2021-07-17 08:05:16.02	AMSV	9.00
25.07.2021	LC08_L2SP_183027_20210725_20210803_02_T1	2021-07-25 09:02:04.97 - 2021-07-25 09:02:36.74	AMSV	11.65
01.08.2021	LC08_L2SP_184027_20210801_20210810_02_T1	2021-08-01 09:08:19.15 - 2021-08-01 09:08:50.92	SV	0.55
17.08.2021	LC08_L2SP_184027_20210817_20210827_02_T1	2021-08-17 09:08:25.02-2021-08-17 09:08:56.79	SV	33.17

Table S2. The weather stations and posts used to collect Tair2m observations from January 1, 2019 to December 31, 2021 within the AMSv territory.

Weather station (Ws) / Weather post (Wp)	Index	Latitude	Longitude	Altitude (m)
1 Wp Adancata	ADN	47° 44' 30.593"N	26° 17' 57.936"E	347
2 Wp Patrauti	PAT	47° 42' 29.964"N	26° 11' 16.310"E	312
3 Wp Ocolul silvic	SIL	47° 42' 11.116"N	26° 17' 50.521"E	440
4 Wp Burdujeni sat	BUS	47° 41' 15.346"N	26° 17' 31.034"E	366
5 Wp Itcani	ITC	47° 40' 44.374"N	26° 13' 45.614"E	279
6 Wp Burdujeni oras	BUO	47° 40' 17.842"N	26° 16' 42.660"E	306
7 Wp Turn	TRN	47° 40' 1.093"N	26° 14' 57.145"E	274
8 Wp Ambro	AMB	47° 39' 41.895"N	26° 16' 17.619"E	289
9 Wp Zamca	ZAM	47° 39' 4.512"N	26° 15' 2.978"E	368
10 Wp Salcea	SAL	47° 39' 15.140"N	26° 22' 8.038"E	338
11 Wp ACET	ACT	47° 39' 11.662"N	26° 17' 10.538"E	270

12 Wp 6 Noiembrie	NOV	47° 38' 44.595"N	26° 15' 14.804"E	363
13 Wp Scoala nr.4	SCO	47° 38' 29.155"N	26° 14' 23.413"E	360
14 Wp SGA garaj	SGA	47° 38' 14.871"N	26° 15' 3.871"E	333
15 Wp Sfantul Ilie	SFI	47° 38' 12.501"N	26° 12' 3.706"E	356
16 Wp Ipotesti 1	IPT	47° 38' 1.447"N	26° 16' 13.029"E	358
17 Ws Suceava	SMS	47° 37' 57.087"N	26° 14' 32.243"E	360
18 Wp Ipotesti 2	IPR	47° 37' 36.189"N	26° 16' 25.490"E	364
19 Wp Moara	MOA	47° 36' 33.764"N	26° 12' 42.778"E	387
20 Wp Padurea Zamca	ZPA	47° 39' 17.309"N	26° 14' 34.916"E	342
21 Wp Clubul Copiilor	CCO	47° 38' 51.036"N	26° 15' 20.868"E	350
22 Wp Bosanci	BOS	47° 35' 21.596"N	26° 18' 43.789"E	361
23 Wp Adancata Padure	APD	47° 41' 54.076"N	26° 18' 0.226"E	455
24 Wp Varatec	VRT	47° 38' 26.024"N	26° 24' 3.183"E	312
25 Wp Mitocul Dragomirnei	MID	47° 45' 50.006"N	26° 13' 28.158"E	378
26 Wp Mitocul Dragomirnei - padure	MDP	47° 46' 47.898"N	26° 13' 3.043"E	476
27 Ws Salcea Aeroport	SAE	47° 40' 57.591"N	26° 21' 12.378"E	403
28 Ws Suceava 2	SV2	47° 40' 9.395"N	26° 16' 56.976"E	294
29 Ws Mihai Eminescu	SV1	47° 38' 57.907"N	26° 15' 2.501"E	384
30 Wp Padurea Adancata	PDA	47° 43' 5.017"N	26° 17' 59.105"E	431
31 Wp Scheia	SCH	47° 38' 54.549"N	26° 12' 4.736"E	331