

Table S1. List of the monitored municipalities in Aosta Valley in 2015–2019.

Municipality	2015			2016			2017			2018			2019		
	Village	Altitude (m asl)	No. Pheromone-baited traps	Village	Altitude (m asl)	No. Pheromone-baited traps	Village	Altitude (m asl)	No. Pheromone-baited traps	Village	Altitude (m asl)	No. Pheromone-baited traps	Village	Altitude (m asl)	No. Pheromone-baited traps
Allein				1	1310	1	1	1310	1	1	1310	1	1	1310	1
Antey - Saint - Andre				5	760 - 1340	5	5	760 - 1340	5	5	760 - 1340	5	5	760 - 1340	5
Aosta	3	878 - 1287	42	6	878 - 1535	45	7	932 - 1535	28	7	932 - 1535	28	7	932 - 1535	28
Arnad				3	495 - 1122	3	3	495 - 1122	3	3	495 - 1122	3	3	495 - 1122	3
Arvier				4	847 - 1306	4	4	847 - 1306	4	4	847 - 1306	4	4	847 - 1306	4
Avise				3	798 - 1265	3	3	798 - 1265	3	3	798 - 1265	3	3	798 - 1265	3
Aymavilles				6	753 - 1022	6	6	753 - 1022	6	6	753 - 1022	6	6	753 - 1022	6
Brusson				1	1127	1	1	1127	1	1	1127	1	1	1127	1
Challand - Saint - Anselme				5	926 - 1337	5	5	926 - 1337	5	5	926 - 1337	5	5	926 - 1337	5
Challand - Saint - Victor				4	838 - 1056	4	4	838 - 1056	4	4	838 - 1056	4	4	838 - 1056	4
Chambave				1	500	1	1	500	1	1	500	1	1	500	1
Champdepraz				5	395 - 1242	5	5	395 - 1242	5	5	395 - 1242	5	5	395 - 1242	5
Charvensod				1	690	1	1	690	1	1	690	1	1	690	1
Chatillon				6	724 - 1138	6	6	724 - 1138	6	6	724 - 1138	6	6	724 - 1138	6
Donnas				1	580	1	1	580	1	1	580	1	1	580	1
Doues				1	1125	1	1	1125	1	1	1125	1	1	1125	1
Emarese				3	911 - 1288	3	3	911 - 1288	3	4	911 - 1288	4	4	911 - 1288	4
Etroubles							1	1325	1	1	1325	1	1	1325	1
Fenis				1	1031	1	2	1031 - 1085	2	2	1031 - 1085	2	2	1031 - 1085	2
Gignod				2	840 - 1140	2	3	840 - 1140	3	3	840 - 1140	3	3	840 - 1140	3
Gressan				5	630 - 1045	5	5	630 - 1045	5	5	630 - 1045	5	5	630 - 1045	5
Introd				4	943 - 1237	5	4	943 - 1237	5	4	943 - 1237	5	4	943 - 1237	5
Jovencon				1	858	1	1	858	1	1	858	1	1	858	1
La Salle				7	870 - 1330	7	7	870 - 1330	8	7	870 - 1330	8	7	870 - 1330	8
Morgex				7	993 - 1397	7	14	993 - 1397	19	14	993 - 1397	19	14	993 - 1397	19
Nus				1	1000	1	3	1000 - 1400	3	3	1000 - 1400	3	3	1000 - 1400	3
Perloz				1	683	1	1	683	1	1	683	1	1	683	1
Pontey				1	472	1	1	472	1	1	472	1	1	472	1
Pre - Saint - Didier				4	1115 - 1320	4	4	1115 - 1250	3	4	1115 - 1250	3	4	1115 - 1250	3
Quart				8	618 - 1381	8	10	618 - 1381	12	10	618 - 1381	12	10	618 - 1381	12
Roisan				3	1147 - 1522	3	3	1147 - 1522	3	3	1147 - 1522	3	3	1147 - 1522	3
Saint - Christophe				2	870 - 875	2	2	870 - 1090	3	3	870 - 1090	3	3	870 - 1090	3
Saint - Denis				6	926 - 1382	6	5	926 - 1382	6	5	926 - 1382	6	5	926 - 1382	6
Saint - Nicolas				8	1005 - 1343	8	10	1005 - 1343	13	10	1005 - 1343	13	10	1005 - 1343	13
Saint - Pierre	2	833 - 1452	30	4	833 - 1556	31	9	845 - 1561	37	9	845 - 1561	37	9	845 - 1561	37
Saint - Vincent				6	663 - 1245	6	6	663 - 1245	6	6	663 - 1245	6	6	663 - 1245	6
Sarre	2	749 - 1260	33	8	749 - 1640	40	11	749 - 1670	36	11	749 - 1670	36	11	749 - 1670	36
Torgnon				2	1096 - 1210	2	2	1096 - 1210	2	2	1096 - 1210	2	2	1096 - 1210	2

Valpeline				3	1090 - 1254	3	7	1071 - 1254	7	7	1071 - 1254	7	7	1071 - 1254	7
Verrayes				5	963 - 1430	5	5	963 - 1430	5	6	936 - 1430	6	6	936 - 1430	6
Verres				1	460	1	1	460	1	1	460	1	1	460	1
Villeneuve	2	639 - 892	30	4	639 - 1093	32	4	639 - 1093	16	4	639 - 1093	16	4	639 - 1093	16

Table S2. Total number of male adults of *Thaumetopoea pityocampa* monitored with pheromone-baited traps in Aosta Valley in 2015–2019.

Municipality	2015			2016			2017			2018			2019		
	Total catch (No. male moths)	Mean catch per week per trap	Total catch per week (Mean ±SE)	Total catch (No. male moths)	Mean catch per week per trap	Total catch per week (Mean ±SE)	Total catch (No. male moths)	Mean catch per week per trap	Total catch per week (Mean ±SE)	Total catch (No. male moths)	Mean catch per week per trap	Total catch per week (Mean ±SE)	Total catch (No. male moths)	Mean catch per week per trap	Total catch per week (Mean ±SE)
Allein				733.0	66.6	66.6 ± 0.0	548.0	49.8	49.8 ± 0.0	971.0	88.3	88.2 ± 0.0	473.0	43.0	43.0 ± 0.0
Antey - Saint - Andre				1,193.0	21.7	108.4 ± 0.8	2,091.0	38.0	190.0 ± 3.9	1,411.0	25.7	128.2 ± 2.6	735.0	13.4	66.8 ± 1.3
Aosta	23,503.0	50.9	2136.6 ± 0.87	19,907.0	40.2	1809.7 ± 1.1	22,419.0	72.8	2038.0 ± 2.7	18,448.0	59.9	1677.0 ± 2.2	5,016.0	16.3	456.0 ± 0.5
Arnad				1,991.0	60.3	180.9 ± 5.8	368.0	11.2	33.4 ± 1.0	1,380.0	41.8	125.4 ± 2.9	750.0	22.7	68.1 ± 3.5
Arvier				3,308.0	75.2	300.7 ± 6.2	3,110.0	70.7	282.7 ± 6.4	2,993.0	68.0	272.0 ± 14.9	774.0	17.6	70.3 ± 3.7
Avise				2,815.0	85.3	255.8 ± 7.8	3,088.0	93.6	280.7 ± 7.8	3,154.0	95.6	286.7 ± 19.8	394.0	11.9	35.8 ± 0.7
Aymavilles				4,770.0	72.3	433.6 ± 2.7	4,401.0	66.7	400.0 ± 3.7	2,848.0	43.2	258.9 ± 2.5	1,258.0	19.1	114.3 ± 1.6
Brusson				92.0	8.4	8.3 ± 0.0	21.0	1.9	1.9 ± 0.0	81.0	7.4	7.3 ± 0.0	95.0	8.6	8.6 ± 0.0
Challand - Saint - Anselme				3,580.0	65.1	325.4 ± 4.8	1,232.0	22.4	112.0 ± 2.2	2,758.0	50.1	250.7 ± 4.1	1,773.0	32.2	161.1 ± 4.9
Challand - Saint - Victor				1,990.0	45.2	180.8 ± 3.6	1,482.0	33.7	134.7 ± 6.2	2,033.0	46.2	184.8 ± 6.2	1,518.0	34.5	138 ± 12.2
Chambave				224.0	20.4	20.3 ± 0.0	176.0	16.0	16.0 ± 0.0	112.0	10.2	10.1 ± 0.0	59.0	5.4	5.3 ± 0.0
Champdepraz				2,849.0	51.8	258.9 ± 3.2	1,126.0	20.5	102.3 ± 2.5	1,191.0	21.7	108.2 ± 2.1	1,053.0	19.1	95.7 ± 4.4
Charvensod				299.0	27.2	27.1 ± 0.0	152.0	13.8	13.8 ± 0.0	74.0	6.7	6.7 ± 0.0	104.0	9.5	9.4 ± 0.0
Chatillon				2,927.0	44.3	266.0 ± 3.4	3,049.0	46.2	277.1 ± 3.3	3,060.0	46.4	278.1 ± 5.1	1,881.0	28.5	171 ± 2.8
Donnas				540.0	49.1	49.0 ± 0.0	436.0	39.6	39.6 ± 0.0	377.0	34.3	34.2 ± 0.0	201.0	18.3	18.2 ± 0.0
Doues				596.0	54.2	54.1 ± 0.0	182.0	16.5	16.5 ± 0.0	748.0	68.0	68 ± 0.0	248.0	22.5	22.5 ± 0.0
Emarese				941.0	28.5	85.5 ± 5.6	1,206.0	36.5	109.6 ± 4.2	758.0	17.2	42.2 ± 1.8	730.0	16.6	50.4 ± 2.0
Etroubles							458.0	41.6	41.6 ± 0.0	322.0	29.3	29.2 ± 0.0	233.0	21.2	21.1 ± 0.0
Fenis				310.0	28.2	28.1 ± 0.0	236.0	10.7	21.4 ± 2.2	299.0	13.6	27.1 ± 2.9	385.0	17.5	35.0 ± 4.5
Gignod				2,524.0	114.7	229.4 ± 29.3	1,184.0	35.9	107.6 ± 7.5	1,407.0	42.6	127.9 ± 9.8	513.0	15.5	46.6 ± 1.4
Gressan				1,818.0	33.1	165.2 ± 3.7	1,648.0	30.0	149.8 ± 2.0	1,124.0	20.4	102.1 ± 2.0	797.0	14.5	72.4 ± 2.1
Introd				1,162.0	21.1	105.6 ± 4.2	2,092.0	38.0	190.1 ± 2.3	781.0	14.2	71 ± 1.6	776.0	14.1	70.5 ± 1.4
Jovencan				976.0	88.7	88.7 ± 0.0	1,052.0	95.6	95.6 ± 0.0	720.0	65.5	65.4 ± 0.0	219.0	19.9	19.9 ± 0.0
La Salle				4,677.0	60.7	425.1 ± 4.5	5,553.0	63.1	504.8 ± 3.7	3,080.0	35.0	280 ± 5.3	1,034.0	11.8	94 ± 1.2
Morgex				10,630.0	138.1	966.3 ± 6.1	14,834.0	71.0	1348.5 ± 3.9	13,024.0	62.3	1184 ± 2.7	5,390.0	25.8	490 ± 0.9
Nus				884.0	80.4	80.3 ± 0.0	326.0	9.9	29.6 ± 2.8	1,107.0	33.5	100.6 ± 5.3	408.0	12.4	37 ± 2.0
Perloz				54.0	4.9	4.8 ± 0.0	132.0	12.0	12.0 ± 0.0	110.0	10.0	10.0 ± 0.0	106.0	9.6	9.6 ± 0.0
Pontey				33.0	3.0	2.9 ± 0.0	54.0	4.9	4.9 ± 0.0	174.0	15.8	15.8 ± 0.0	44.0	4.0	4.0 ± 0.0
Pre - Saint - Didier				796.0	18.1	72.3 ± 2.5	1,331.0	40.3	121.0 ± 10.4	850.0	25.8	77.2 ± 5.6	297.0	9.0	27.0 ± 1.7
Quart				7,399.0	84.1	672.6 ± 5	2,695.0	20.4	245.0 ± 1.5	9,657.0	73.2	877.9 ± 4.5	2,313.0	17.5	210.2 ± 1.0
Roisan				897.0	27.2	81.5 ± 4.5	700.0	21.2	63.6 ± 2.7	871.0	26.4	79.1 ± 10.1	380.0	11.5	34.5 ± 1.5
Saint - Christophe				1,058.0	48.1	96.1 ± 6.1	1,086.0	32.9	98.7 ± 2.6	901.0	27.3	81.9 ± 9.8	213.0	6.5	19.3 ± 0.7
Saint - Denis				3,002.0	45.5	272.8 ± 2.8	1,814.0	27.5	164.9 ± 1.9	1,723.0	26.1	156.6 ± 3.7	1,254.0	19.0	114 ± 1.2
Saint - Nicolas				6,849.0	77.8	622.6 ± 4	13,181.0	92.2	1198.2 ± 4.2	11,549.0	80.8	1049.9 ± 7.5	2,381.0	16.7	216.4 ± 1.5
Saint - Pierre	27,404.0	83.0	2491.2 ± 3.8	17,527.0	51.4	1593.3 ± 1.9	20,575.0	50.6	1870.4 ± 1.3	31,024.0	76.2	2820.3 ± 2.7	10,666.0	26.2	969.6 ± 1.0
Saint - Vincent				1,149.0	17.4	104.4 ± 1.6	885.0	13.4	80.4 ± 1.1	1,033.0	15.7	93.9 ± 1.9	788.0	11.9	71.6 ± 2.0
Sarre	22,327.0	61.5	2029.7 ± 2.1	25,793.0	58.6	2344.8 ± 1.4	28,775.0	72.7	2615.9 ± 1.5	20,427.0	51.6	1857 ± 1.8	10,288.0	26.0	935.2 ± 1.0
Torgnon				1,129.0	51.3	102.6 ± 9.6	1,372.0	62.4	124.7 ± 16.5	1,246.0	56.6	113.2 ± 16.9	1,085.0	49.3	98.6 ± 15.7

Valpeline				1,307.0	39.6	118.8 ± 3.7	2,459.0	31.9	223.5 ± 1.9	1,857.0	24.1	168.8 ± 2.0	1,507.0	19.6	137.0 ± 1.6
Verrayes				3,875.0	70.5	352.2 ± 4.2	1,834.0	33.3	166.7 ± 2.1	2,015.0	30.4	142.4 ± 2.8	2,374.0	36.0	196.0 ± 5.5
Verres				433.0	39.4	39.3 ± 0.0	312.0	28.4	28.3 ± 0.0	419.0	38.1	38.0 ± 0.0	152.0	13.8	13.8 ± 0.0
Villeneuve	13,304.0	40.3	1209.4 ± 2.1	6,801.0	19.3	618.2 ± 0.7	7,625.0	43.3	693.1 ± 1.8	3,754.0	21.3	341.2 ± 1.0	937.0	5.3	85.1 ± 0.5