

Projected fire change 2000 - 2099

Unvetted preliminary rush draft from developmental code

Matthew Leonawicz

January 6, 2015

1 Projected fire change tables

In each subsection below, the third table down with percentages relates to table 8.1 in the original document. This uses strictly ALFRESCO output. The tables use years 2000 - 2009 and 2090 - 2099. There is one section for each region, Alaska and the five LCCs.

1.1 Alaska

1.1.1 Historical fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	60	3092
SRES B1	95th	84	17088
SRES A1B	50th	59	3166
SRES A1B	95th	85	17688
SRES A2	50th	60	3254
SRES A2	95th	85	18117

1.1.2 Projected fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	55	4998
SRES B1	95th	83	25946
SRES A1B	50th	52	3300
SRES A1B	95th	81	23008
SRES A2	50th	52	2477
SRES A2	95th	76	12062

1.1.3 Percent change

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	-7.6	61.6
SRES B1	95th	-1.4	51.8
SRES A1B	50th	-11.9	4.2
SRES A1B	95th	-5.2	30.1
SRES A2	50th	-12.5	-23.9
SRES A2	95th	-10.5	-33.4

1.2 Arctic

1.2.1 Historical fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	1	10
SRES B1	95th	3	5801
SRES A1B	50th	1	10
SRES A1B	95th	3	5437
SRES A2	50th	1	16
SRES A2	95th	3	6568

1.2.2 Projected fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	1	218
SRES B1	95th	4	7891
SRES A1B	50th	1	56
SRES A1B	95th	3	5594
SRES A2	50th	1	35
SRES A2	95th	3	1432

1.2.3 Percent change

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	0.0	2080.0
SRES B1	95th	18.3	36.0
SRES A1B	50th	0.0	460.0
SRES A1B	95th	0.0	2.9
SRES A2	50th	0.0	118.8
SRES A2	95th	0.0	-78.2

1.3 North Pacific

1.3.1 Historical fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	0	2
SRES B1	95th	2	26
SRES A1B	50th	0	2
SRES A1B	95th	2	23
SRES A2	50th	0	2
SRES A2	95th	2	20

1.3.2 Projected fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	0	6
SRES B1	95th	3	262
SRES A1B	50th	0	4
SRES A1B	95th	3	122
SRES A2	50th	0	3
SRES A2	95th	2	32

1.3.3 Percent change

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	-	-
SRES B1	95th	64.52	907.69
SRES A1B	50th	-	-
SRES A1B	95th	27.5	430.43
SRES A2	50th	-	-
SRES A2	95th	29.03	60

1.4 Northwest Interior Forest North

1.4.1 Historical fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	42	2164
SRES B1	95th	63	10350
SRES A1B	50th	41	2186
SRES A1B	95th	63	10364
SRES A2	50th	42	2296
SRES A2	95th	62	10314

1.4.2 Projected fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	41	3097
SRES B1	95th	62	12474
SRES A1B	50th	36	2136
SRES A1B	95th	60	12716
SRES A2	50th	38	1754
SRES A2	95th	57	8006

1.4.3 Percent change

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	-1.2	43.1
SRES B1	95th	-0.6	20.5
SRES A1B	50th	-11.0	-2.3
SRES A1B	95th	-4.8	22.7
SRES A2	50th	-8.3	-23.6
SRES A2	95th	-7.6	-22.4

1.5 Northwest Interior Forest South

1.5.1 Historical fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	10	206
SRES B1	95th	20	2234
SRES A1B	50th	10	210
SRES A1B	95th	20	2364
SRES A2	50th	10	202
SRES A2	95th	20	2365

1.5.2 Projected fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	9	306
SRES B1	95th	19	8673
SRES A1B	50th	8	205
SRES A1B	95th	18	4692
SRES A2	50th	9	149
SRES A2	95th	17	1290

1.5.3 Percent change

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	-5.3	48.5
SRES B1	95th	-2.3	288.2
SRES A1B	50th	-15.8	-2.4
SRES A1B	95th	-10.2	98.5
SRES A2	50th	-5.3	-26.2
SRES A2	95th	-15.8	-45.5

1.6 Western Alaska

1.6.1 Historical fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	8	314
SRES B1	95th	17	7529
SRES A1B	50th	8	318
SRES A1B	95th	17	7034
SRES A2	50th	8	338
SRES A2	95th	17	7954

1.6.2 Projected fire

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	8	1332
SRES B1	95th	15	10498
SRES A1B	50th	7	844
SRES A1B	95th	15	10639
SRES A2	50th	6	280
SRES A2	95th	14	5293

1.6.3 Percent change

Climate-change scenario	Percentile	Ignitions	Area burned
SRES B1	50th	-11.8	324.2
SRES B1	95th	-9.4	39.4
SRES A1B	50th	-17.6	165.4
SRES A1B	95th	-14.4	51.2
SRES A2	50th	-18.8	-17.2
SRES A2	95th	-15.4	-33.5

2 Percentile fire trends by scenario

The below graph relates to figure 8.2 in the original document. This uses strictly ALFRESCO output.

2.1 Alaska

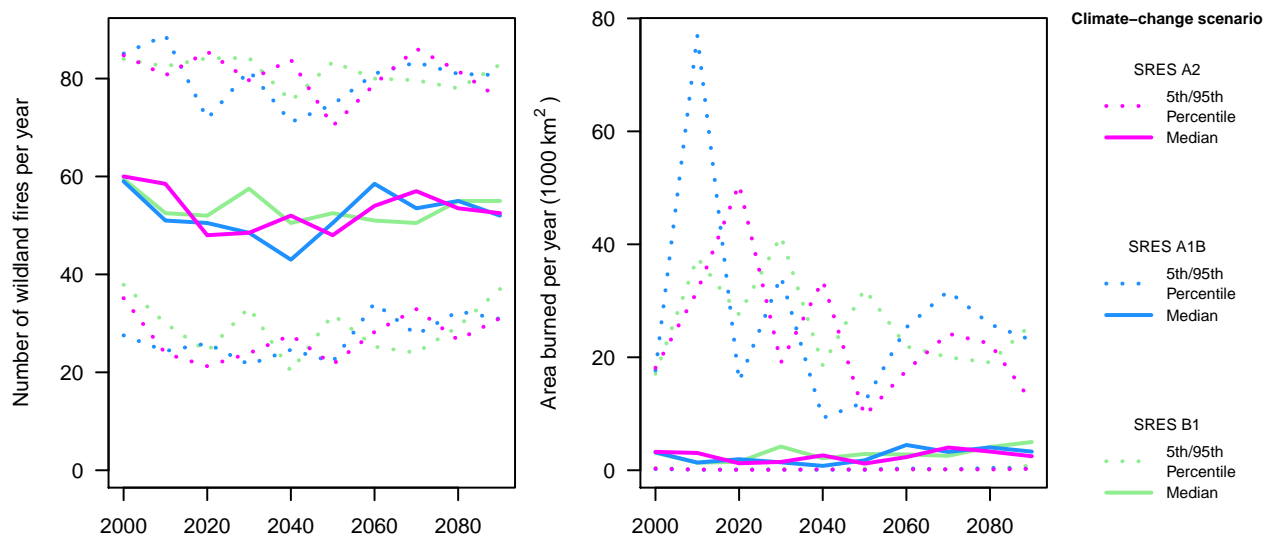


Figure 1: Alaska

All five following separate LCC graphs relate to figure 8.3 in the original document. This uses strictly ALFRESCO output.

2.2 Arctic

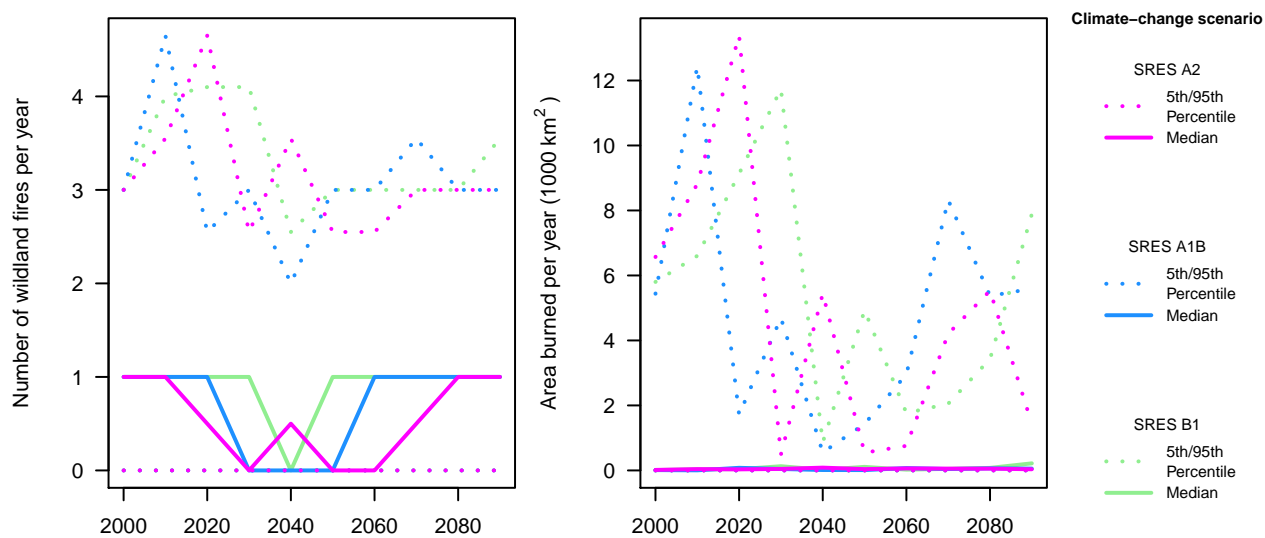


Figure 2: Arctic

2.3 North Pacific

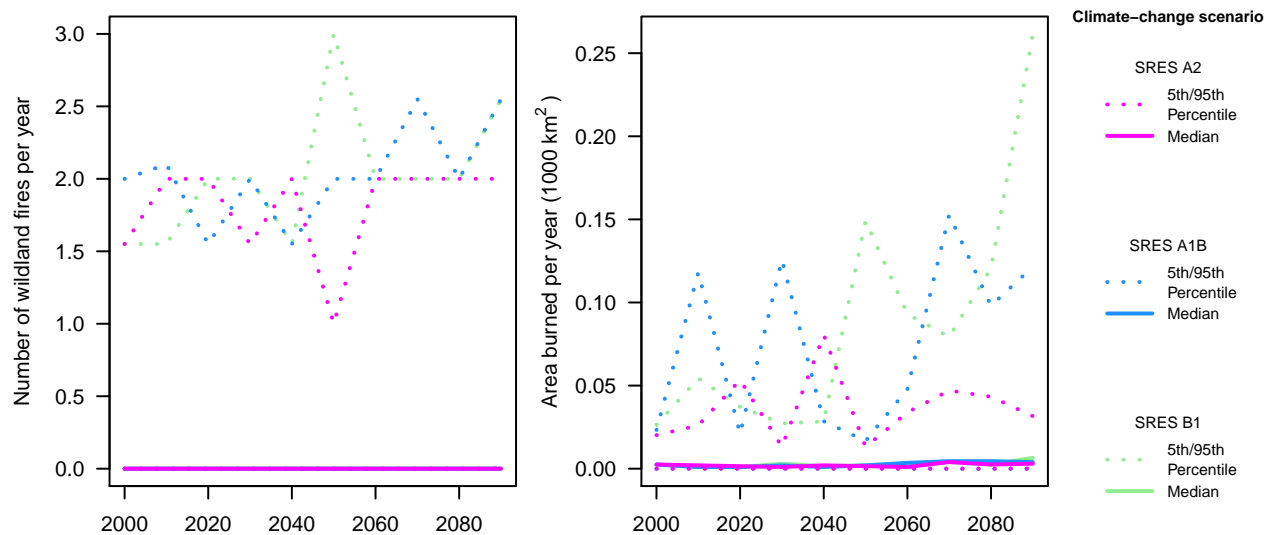


Figure 3: North Pacific

2.4 Northwest Interior Forest North

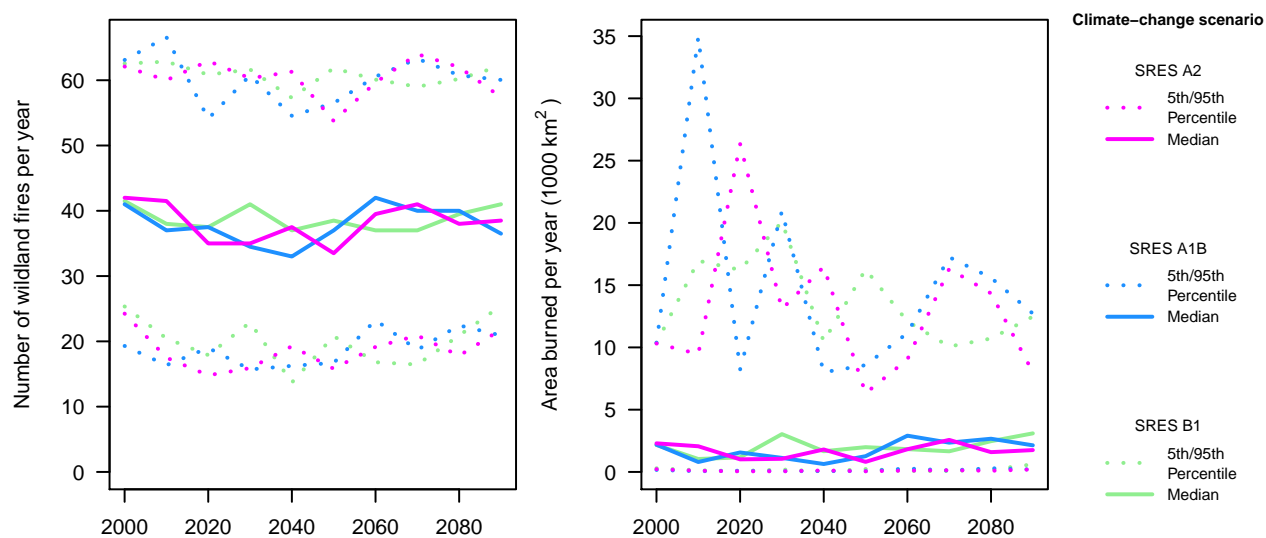


Figure 4: Northwest Interior Forest North

2.5 Northwest Interior Forest South

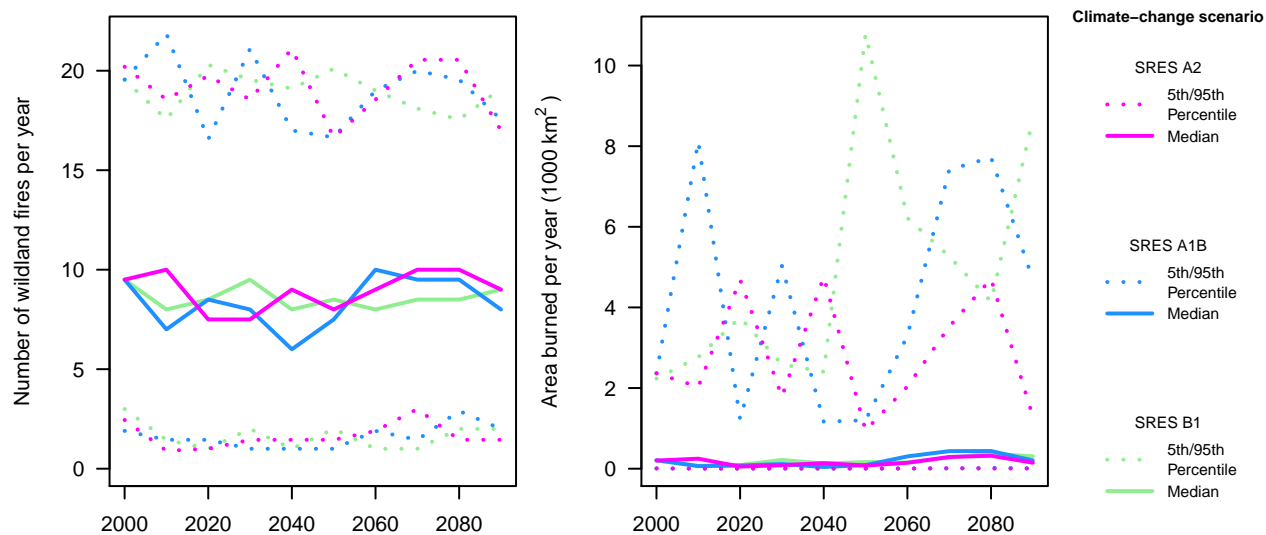


Figure 5: Northwest Interior Forest South

2.6 Western Alaska

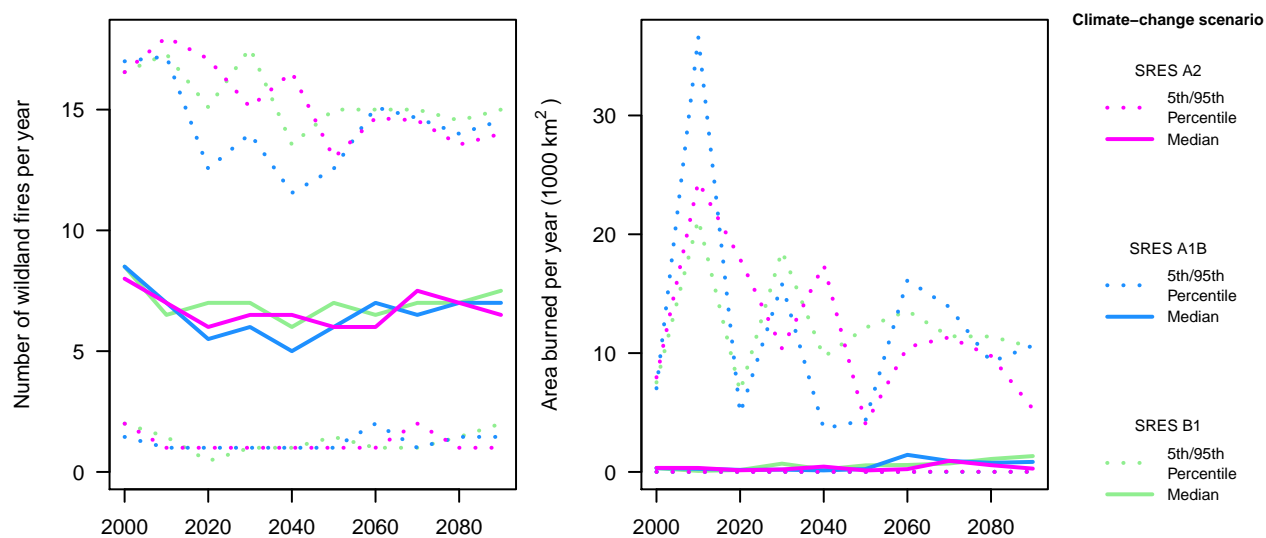


Figure 6: Western Alaska